Rules and Institutions for Sound Fiscal Policy after the Crisis

Seminari e convegni
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BANCA D'ITALIA
EUROSISTEMA

Rules and Institutions
for Sound Fiscal Policy after the Crisis

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Workshops and Conferences

PUBLIC FINANCE WORKSHOP

Papers presented at the Banca d'Italia workshop
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Previous Public Finance workshops have addressed the following topics:

"Indicators of Structural Budget Balances" (1998)

"Fiscal Sustainability" (2000)

"Fiscal Rules" (2001)

"The Impact of Fiscal Policy" (2002)

"Tax Policy" (2003)

"Public Debt" (2004)

"Public Expenditure" (2005)

"Fiscal Indicators" (2006)

"Fiscal Policy: Current Issues and Challenges" (2007)

"Fiscal Sustainability: Analytical Developments and Emerging Policy Issues" (2008)

"Pension Reform, Fiscal Policy and Economic Performance" (2009)

"Fiscal Policy: Lessons from the Crisis" (2010)

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FOREWORD

Daniele Franco[*]

This volume brings together the papers presented at the 13th Banca d'Italia Public Finance Workshop, held in Perugia from 31 March to 2 April 2011.

The economic crisis has induced governments to take unprecedented action to support the economy. Deficits have increased in most advanced countries, leading to large rises in public debt ratios. In the coming years, many governments will have to achieve sizeable improvements in their structural budget balances. They will also have to cope with the further ageing of societies. The capacity to keep public expenditure under control will be crucial. The need for changes in fiscal policy is particularly pressing for those countries that entered the crisis with high deficit and debt ratios.

The design of adequate fiscal rules and institutions will be crucial in sustaining the fiscal consolidation effort and coping with the budget challenges of the future. The workshop aimed at providing an overview of the recent theoretical and empirical work in this field. It examined some relevant experiences with national fiscal frameworks, the evolving role of European Union fiscal rules and institutions, the policy debate on public expenditure rules and independent fiscal control, and the reforms envisaged in some countries.

Banca d'Italia is grateful to the institutions that contributed to the success of the initiative, to the experts who provided research papers and to all who came to Perugia to take part in the discussion.

This volume extends the analysis of fiscal policy issues carried out in the previous workshops, which were devoted to *Indicators of Structural Budget Balances* (1998), *Fiscal Sustainability* (2000), *Fiscal Rules* (2001), *The Impact of Fiscal Policy* (2002), *Tax Policy* (2003), *Public Debt* (2004), *Public Expenditure* (2005), *Fiscal Indicators* (2006), *Fiscal Policy: Current Issues and Challenges* (2007), *Fiscal Sustainability: Analytical Developments and Emerging Policy Issues* (2008), *Pension Reform, Fiscal Policy and Economic Performance* (2009) and *Fiscal Policy: Lessons from the Crisis* (2010).

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[*] Banca d'Italia, Economic Research and International Relations Area.

INTRODUCTION

Marika Cioffi,[*] Daniele Franco[*] and Maria Rosaria Marino[*]

The importance of fiscal rules and institutions in shaping budgetary outcomes has long been recognized, but national experiences have been very different. In some countries rules and institutions contributed to improving fiscal outcomes. In others, results were less positive. The European Union's fiscal framework has also shown some problematic aspects.

These issues will be particularly relevant in the coming years, when many countries will have to cope with the consequences of the economic and financial crisis that began in 2008, which has led to massive increases in debt ratios. Effective fiscal rules and institutions will be essential in ensuring rapid consolidation and the efficient allocation of resources, in a context in which demographic change will exert additional pressures on budgets.

It is important to identify the features of fiscal frameworks that are most supportive of sound policymaking. The recent national experiences with fiscal rules and procedures can be particularly relevant in this regard. Some frameworks were more effective than others in ensuring safer budgetary positions in the pre-crisis years. The debate focuses on the role of medium-term budget orientation, constitutional rules, top-down budgeting, automatic correction mechanisms and independent forecasts and policy assessment.

Several countries have moved in two new directions: the introduction of formal rules and procedures concerning the control of public expenditure and the creation of independent fiscal institutions. Expenditure rules, which usually complement balanced-budget rules, are designed to tackle the deficit bias directly and avoid pro-cyclical policies. Independent institutions, which can have very different structures and tasks, aim at making fiscal policy more consistent with medium-term targets and increasing transparency.

In the European context, there is an extensive debate on the performance of the common fiscal framework before and during the crisis. Wide-ranging reforms of EU governance have been introduced, strengthening and broadening the monitoring of national policies and developments and enhancing fiscal coordination. Some changes pose new technical and policy challenges.

Several of these issues were already examined in the 2001 workshop, which was devoted to the theme of *Fiscal Rules*. What is new is the urgency triggered by the crisis: procedures and institutions guiding the fiscal consolidation process and ensuring an effective allocation of resources are even more necessary now than they were ten years ago. This is particularly true at the EU level, where the sovereign debt crisis has posed the toughest challenge to the euro area.

The papers presented at the workshop, like this volume, were organized in four sessions. Section 1 examines the recent experience with national fiscal frameworks. Section 2 is devoted to the European context, considering both the evolution of EU rules and how some countries adapted their rules and institutions to the evolving common framework. Section 3 considers the role of expenditure rules and independent fiscal institutions. Section 4 examines how some countries are moving ahead, either enhancing existing procedures and institutions or introducing more radical innovations.

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[*]   Banca d'Italia, Economic Research and International Relations Area.

1   National fiscal frameworks: the experience

Section 1 focuses on the effectiveness of national fiscal frameworks. It includes papers on Brazil, India, Slovenia and the United States, plus two papers that examine G7 countries and seven countries that have introduced fiscal responsibility laws.

The paper by Byron Lutz and Glenn Follette examines the effectiveness of budgetary rules in the United States and how they map into budget outcomes. The federal government has no restrictions from constitutional provisions and few from statutory legislation; by contrast, nearly every state government faces constitutional and statutory limitations on the power to run budget deficits as well as other fiscal restrictions. The authors find little evidence that statutory budget rules affect budget decisions. At times they are correlated with better budget outcomes because changes in rules and in policy both reflect a change in the preferences of policymakers. By contrast, rules that are constitutionally based appear to be more effective, leading to lower levels of debt, smaller deficits, and more pro-cyclical budget outcomes at the state level than at the federal level.

Ana Teresa Holanda de Albuquerque's paper provides an overview of Brazilian fiscal policy after the launching of the Real stabilization plan in July 1994. In particular, the paper analyses the main fiscal measures undertaken in the aftermath of the Plano Real and their impact on net debt. It also examines the effects of the Fiscal Responsibility Law on sub-national goverments' fiscal accounts, the management of fiscal policy from 2003 to 2008 and the countercyclical measures taken after October 2008. Finally, the paper considers the main challenges to be tackled in the future. The author estimates that in the near future the ratio of public sector net debt to GDP will fall as a consequence of high primary surplus targets, lower interest rates and economic growth. However, the government has to take measures to strengthen the control of current expenditure, in order to allow more room for public investment, and to make a step forward in the announced reform. In particular, the author claims that it is necessary to face the growing gap between pension obligations and contributions, to reduce the tax burden on labour, which compromises employment and competitiveness, and to simplify the tax system.

The paper by Brajamohan Misra focuses on the linkage between fiscal consolidation and macro-economic developments in India. Following the expansionary fiscal policy of the eighties, the nineties were mostly a phase of fiscal consolidation. The efforts to restore the fiscal balance through tax reforms, expenditure management, institutional reforms and financial sector reforms led a reduction of fiscal deficits both at the federal and the state level. The fiscal deterioration in the late nineties and in the first years of the new century sparked a debate on the necessity for rule-based fiscal consolidation. The Fiscal Responsibility and Budgetary Management (FRBM) Act, which came into force in 2004, contains targets for debt, deficit and guarantees, ameliorates fiscal transparency and envisages democratic control over fiscal policy via better-informed public opinion. The early results were rewarding in terms of low deficits and rapid economic growth. This process continued smoothly until 2007-08, but the fiscal consolidation came to a halt during the following global financial crisis, and fiscal stimulus measures resulted in a rise in deficits. The national government resumed fiscal consolidation in 2010-11. The states will begin the fiscal consolidation process in 2011-12.

The paper by Paolo Mauro summarizes the findings of a research project on fiscal consolidation policies in G7 countries. The author claims that a systematic and comprehensive analysis of past adjustment plans and their outcomes provides useful insights for fiscal consolidation in the future. In the paper, fiscal adjustment plans are identified on the basis of large envisaged reductions in debts and deficits. That is, the analysis goes beyond past successes to examine attempts that eventually failed. It tracks ex post outcomes compared with ex ante plans, looking at deviations from targets in revenues or expenditures and the factors underlying such deviations. The analysis provides indications for the design and implementation of current

adjustment plans along three dimensions: the rationale and design of fiscal adjustment programmes; the implementation of the programmes and the underlying macroeconomic factors; and the political and institutional determinants of the implementation record.

Lili Liu and Steven B. Webb analyse the characteristics and effects of fiscal responsibility laws in seven countries – Argentina, Australia, Brazil, Canada, Colombia, India and Peru. Fiscal responsibility laws are designed to address the short time horizons of policymakers, free-riding among government units, and principal-agent problems between national and sub-national governments. The paper describes how the laws differ in terms of quantitative targets, the strength of sanctions, the methods used to increase transparency, and the level of government that enacts the legislation. The evidence shows that fiscal responsibility laws can help coordinate and sustain commitments to fiscal prudence, but they are no substitute for commitment and should not be viewed as an end in themselves. The authors argue that a common trait of successful fiscal responsibility laws at the sub-national level is the commitment of central government to its own fiscal prudence, which is usually reinforced by the application of the law at the national as well as the sub-national level.

Slaven Mićković focuses on public finance developments in Slovenia. The significant slowdown in economic activity in 2009 due to the international financial crisis and the collapse of external demand resulted in a fall in government revenue that is not expected to be reversed in the coming years. Mićković stresses that the success of crisis prevention and crisis resolution strategies depends heavily on adequate domestic fiscal frameworks. The key elements of the new Slovenian fiscal framework are medium-term budgetary objectives and expenditure ceilings. The latter would operate independently of revenues, which are affected by the economic cycle. Targeting deficit and debt at the same time allows for the reconciliation of multiple policy targets, such as safety, speed and quality of convergence.

In his discussion, Andrew Haughwout identifies three reasons why the public sector requires tighter regulation than the private sector. The first is time-inconsistency. Public sector decision makers may be tempted by the incentives to reap the benefits of high spending today and leave the bills to future generations of taxpayers, whereas in the private sector the value of a firm incorporates the decisions made by today's decision makers. The second reason concerns objectives: while in the private sector the maximization of profits is the main goal and term of reference, in the public sector objectives are numerous. The third reason is the sheer complexity of public budgets, which makes monitoring very difficult. All three of these features creates problems in ensuring that budgets remain consistent with a country's long-term economic needs. Commenting on Mićković's paper, Haughwout argues that while the feedbacks between fiscal decisions and private macro-economic outcomes (the so-called concept of budgeting with impact) are extremely important and constitute the fundamental driver of fiscal rules, formalizing them is complex and involves many subjective elements. Referring to Liu and Webb's paper, he claims that most of the rules in place require less information than budgeting with impact and may be thought of as shorthand, readily implementable versions of that concept. Haughwout stresses that rules should encourage fiscal policies that foster good outcomes in the private economy. He argues that a more complete analysis of these rules would be needed to determine whether they improve economic outcomes, reduce the variability of tax rates and make bailouts less likely. He concludes that the two papers provide insight into the difficulty of designing welfare-enhancing fiscal rules.

Commenting on the papers by Mauro and Misra, David Heald considers whether the 2008 global fiscal crisis has changed views concerning discretionary fiscal policy. While previously there was a broad consensus that automatic stabilizers were preferable to discretionary policy actions, it is not clear whether that position has actually changed, or whether it is only the extreme severity of the crisis that has created a special case. Concerning the paper by Mauro, Heald argues that crucial factors in the analysis are the criteria chosen for "success" and the timescale for judging

whether a fiscal consolidation has been successful. It matters whether one looks only at the period to which the consolidation applies or at the longer period. Furthermore, he argues that there is no point in talking about fiscal transparency without good data and that substantive transparency is more important than communication. Commenting on the paper by Misra, Heald suggests that aggregate data are informative but it would be very interesting to know more about variation between the state governments and about the size of local government in India, for which there are no consistent data. Moreover, it would be helpful to have more description of the policy actions undertaken and their impact on the public accounts. Finally, Heald stresses the importance of the discussion of off-budget and one-off items, in particular pay arrears, which sounds alarming, and capital receipts from auctions.

Ernesto Rezk discusses the papers of Lutz and Follette and of Holanda de Albuquerque. As to the first paper, Rezk agrees with the authors that states' constitutional budget rules are binding, impose restrictions on the fiscal conduct of state governments and, in turn, increase pro-cyclicality, but he wonders about the role of creative accounting and overly optimistic projections in sidestepping the rules. He also points to the importance of ascertaining whether surpluses stemmed from budget rules or from executive and congressional decisions. In the discussion of the paper by Holanda de Albuquerque, Rezk recognizes that fiscal rules have been effective in improving the budgetary outlook in Brazil but, in his opinion, it is not clear whether this new condition will be lasting. He notes that the main challenges in the near future are the reduction of the debt-to-GDP ratio, better allocation of expenditure via higher public savings, narrowing the growing gap between pension benefits and contributions, overcoming the inflexibility of the central government budget due to the fact that a good part of revenues is earmarked to specific programmes and mandatory expenditure, and simplifying the tax system and reducing the tax burden.

2   Fiscal rules and institutions in the European Union

Section 2 discusses the recent reforms of European fiscal and economic governance and some relevant developments at the national level. In particular, the first three papers examine the effects of the crisis on public finances and the design of the new European fiscal rules. The fourth focuses on the relationship between fiscal institutions and the credibility of sovereign borrowers. Two papers analyse in detail the experiences of two countries. The last shifts the focus to sub-national public finances.

Martin Larch, Lucio Pench and Christine Frayne examine the reform package proposed at the EU level to strengthen European economic governance and address the weaknesses of the previous framework highlighted by the financial crisis. The package includes provisions for stronger economic policy coordination and crisis resolution mechanisms. The legislative package (the "six-pack") aims to strengthen fiscal surveillance, as embodied in the Stability and Growth Pact. In particular, the rules preventing fiscal imbalances and those designed to correct excessive deficits are made more stringent and sanctions are made more automatic, thus narrowing the scope for national government discretion in the conduct of budgetary policy. Furthermore, the legislative package extends multilateral surveillance to the detection and correction of macroeconomic imbalances, which worsened financial tensions during the crisis, and introduces the Excessive Imbalance Procedure, flanked by a specific enforcement mechanism.

Sebastian Barnes notes that while the origins of the financial crisis were not mainly fiscal, pre-existing fiscal problems complicated its management. Even before the crisis, debt-to-GDP ratios displayed an upward trend in many OECD countries, mainly attributable to insufficient fiscal tightening in good times. There was also an increase in off-balance-sheet pension liabilities, mainly due to population ageing. Against this background, there was very little room for stabilization

policies during the crisis in several countries. The experience of the crisis demonstrates, according to Barnes, that European countries have to engage in sweeping fiscal reforms. In particular, he advocates strict conditionality for EFSF and ESM loans and greater symmetry of financial regulators' treatment of sovereign bonds and other assets. Excessive risk concentration, particularly in bonds of home governments, should be avoided. Moreover, while recognizing the usefulness of the recently approved changes to the EMU fiscal framework, Barnes advocates tighter monitoring of national fiscal positions by means of more complete and accurate Stability Programmes, more sophisticated methodologies to assess structural budgetary positions, and more transparent information concerning off-balance-sheet liabilities and debt management strategies. National frameworks need to be strengthened as well, by means of fiscal rules (in particular medium-term expenditure rules) and independent fiscal councils.

Christian Kastrop and Werner Ebert discuss the evolution and the present state of the Stability and Growth Pact (SGP). In their view, when the first version of the SGP was approved policymakers were excessively confident that markets would discipline fiscal profligacy in the euro area by means of higher sovereign risk premia. Moreover, they were not concerned by possible macroeconomic imbalances, which were deemed quite unlikely. Finally, the SGP did not consider the importance of national fiscal institutions, as it relied entirely on the effectiveness of "peer pressure" among member States. The second version did not fill those gaps. What is worse, its credibility was hampered by the "original sin" of the 2003 Franco-German case. Concerning the latest institutional developments, the authors welcome the approval of the "six-pack", the fiscal compact and a European crisis resolution mechanism. However, they stress that the latter should be completed and strengthened in at least two directions. First, a new ad hoc independent agency should be created to assess whether a country's position is unsustainable or illiquid. Second, in the case of insolvency, the European Stability Mechanism should play the role of a mediator between markets, crisis countries and the rest of the euro area countries.

Anna Iara and Guntram B. Wolff present a unique data set on national fiscal rules, built by the European Commission, covering eleven euro area countries from 1999 to 2010. They use the information to construct an index of the strength of national fiscal frameworks based on five dimensions: (1) the legal basis of the rule (which may vary from party-coalition agreements to the Constitution), (2) the possibility of revising the fiscal targets, (3) the mechanisms for monitoring compliance and enforcement, (4) the existence of pre-defined enforcement mechanisms and (5) media visibility. They subsequently study to what extent their index impacts on the 10-year sovereign yield spreads against the German Bund. They show that, after controlling for country-fixed effects and other standard covariates (such as global risk aversion and fiscal fundamentals), stronger fiscal rules significantly reduce the spread, especially in periods of high risk aversion. This remains true when instead of the fiscal rule index, its components are used one by one. However, the legal base turns out to be the most important dimension. Results are robust, among other things, to the exclusion of the last years of the sample, and to the use of quarterly data. The results support the emphasis given by the recent European governance reform to national fiscal rules.

Jürgen Hamker presents an overview of the 2009 German constitutional reform introducing a public debt brake and discusses how and to what extent this reform addresses the weaknesses of the previous "golden rule", which proved unable to limit the increase in the debt-to-GDP ratio. The reform relies on a clear-cut concept of balanced budget, refers to stricter definitions of exceptions and mandatory redemptions and contains a reference to the Stability and Growth Pact. However, whether the debt brake will be able to safeguard sustainable public finances in Germany ultimately depends on the clarification of some issues underlying the implementation of the new rules. Among them: the exclusion of financial transactions from the borrowing limit; the methodology used for cyclical adjustment; the adjustment path to be laid down for the transitional period, and the likely insufficient safety margin inherently associated with a binding constitutional limit. According to

Hamker, for the debt brake to work properly it is necessary to define a clear and simple rule while taking into account all the issues listed, in order to attain a clear interpretation and avoid dangerous loopholes.

Robert Boije and Albin Kainelainen hold that the national Medium Term Budgetary Framework (MTBF) played a pivotal role in assuring relatively favourable development of the Swedish public finances both before and after the 2008-09 financial crisis. Sweden, in fact, was able to keep its deficit and debt ratios below the SGP threshold even though it enacted significant fiscal stimuli. The MTBF includes: a surplus target over the business cycle; an expenditure ceiling covering primary expenditure and old-age pension system spending; a rigorous budgeting process which adopts a top-down perspective where different expenditure proposals are set against each other and spending has to be accommodated within the expenditure ceiling. In 2011 the Swedish government published the "Swedish Fiscal Policy Framework", a document meant to serve as a code of conduct for fiscal policy. The Code, covering a number of aspects of fiscal policy (role of fiscal frameworks, medium-term budgetary framework, external evaluation, stabilization policy, governmental interventions on financial markets, openness and transparency) aims at increasing transparency and strengthening the confidence in the sustainability of the public finances.

Julio Escolano, Luc Eyraud, Marialuz Moreno Badia, Juliane Sarnes and Anita Tuladhar study the relationship between the cyclically adjusted general government primary balance and fiscal decentralization. In particular, considering EU countries over the years 1995-2008, they show that the balance improves with spending decentralization but worsens with revenue decentralization (defined as local own revenues as a share of general government revenues) and with transfer dependency (defined as transfers to local government as a share of total local government revenues). This result is robust to different econometric specifications as well as to different definitions of the dependent variable (*i.e.*, change in the debt instead of the cyclically adjusted primary balance). The fact that different dimensions of fiscal decentralization have opposite effects on fiscal outcomes can be explained, according to the authors, by local governments' tendency to overspend, which can be countered by resource rationing from the centre. They also find that the role of fiscal rules seems rather minor and argue that this may be due to a lack of implementation and/or to frequent changes in the rules themselves.

Carlo Cottarelli, in his discussion, highlights the similarities between the papers of Larch et al. and Barnes. The papers agree that the EMU fiscal framework, even after the recent reforms, is imperfect and needs to be improved. Cottarelli concurs, even if he appreciates the European reform efforts, as do the authors of the two papers. He lists his own concerns. First, the expenditure rule embodied in the reformed preventive arm of the pact is based on real-time estimates of potential growth, which may prove inaccurate. Second, the new debt criterion may be problematic, mainly because it does not take cyclical factors into account. Third, it is not clear how pension reforms will be evaluated by the Commission. Fourth, the enforcement of the new rules is still subject to political capture by the Council. Finally, the crisis resolution mechanism appears incomplete.

In the discussion of the paper by Iara and Wollf, Vítor Gaspar's main point is the possibility of omitted variables. Indeed, it may be the case that the adoption of strict budgetary rules reflects a strong commitment to budgetary virtue (which is in turn difficult to observe and measure). More generally, many other relevant variables may be in the information set of the investors, and it is very hard to control for all of them in the regression analysis. Concerning the paper by Ebert and Kastrop, Gaspar warns that no crisis resolution mechanism, no matter how well designed, can avoid significant pain in case of sovereign restructuring. He argues that the design of an adequate crisis resolution mechanism has to be approached with the tools of contract theory, taking into account the differences between sovereign and private borrowers. Gaspar thinks that the features of the European stability mechanism by and large comply with the requirements of the theory, striking a correct balance between ex ante moral hazard and ex post insurance. However, there are a couple

of problematic points. First, as it starts from 2013, private sector involvement makes access to new finance difficult for the distressed sovereign. Second, a case-by-case approach to debt restructuring could be more appropriate than a "one size fits all" set of rules.

Concerning the papers by Bojie and Kainelainen, Philip Rother agrees that fiscal rules are important to ensure prudent policies in good times, but he is more sceptical about the effectiveness of fiscal rules in reducing debts and deficits in bad times. He also stresses the importance of transparency in the implementation of the rules, especially in countries which do not have a transparent policy process. In commenting on the paper by Hamker, Rother notes that it may serve as a reminder of the risk represented by loopholes, which can be exploited even in a context in which there is widespread consensus on the need for sound public finances. To allay this problem, fiscal rules need to be simple, so that compliance (or lack thereof) can be clearly observed by the public. Another lesson from the German case is that setting up an effective framework may be more difficult in a context in which fiscal responsibilities are decentralized to lower levels of government. Concerning the paper by Escolano et al., Rother points to some technical issues, such as possible reverse causality in the regression. In other words, it is possible that it is the strength of the fiscal position that drives the amount of expenditure decentralization and not the other way around. Moreover, he notes that the results support the old strategy of "divide and rule": with expenditure devolution, a strong central finance minister faces a potentially wide range of spending ministers who are relatively weak. In such an environment, rules at the sub-national level may indeed be unnecessary, while revenue devolution combined with encouragement to tax competition at the sub-national level can bring further economic benefits.

3   New developments: independent authorities and expenditure rules

The papers included in Section 3 discuss two issues that have recently become prominent in the policy debate. First, the role that can be assigned to independent fiscal agencies. Overall, there is a consensus that such institutions can be helpful in providing credible projections and independent policy evaluations, if endowed with adequate resources and if granted full independence from the political process. The second issue is the possible role of expenditure rules, as a complement to deficit rules. Again, there is a consensus that they can be helpful, even if further reflection is warranted concerning their optimal scope, the variables involved, their degree of flexibility, and other implementation details.

George Kopits reviews some pre-crisis trends in public finances and discusses how governments reacted to the crisis by introducing new institutions or reforming old ones. The first important feature of the pre-crisis period is the change in the patterns of sovereign financing: the relative weight of foreign investors decreased vis-à-vis domestic investors and, in emerging markets, bond financing replaced official loans and bank loans. A second feature is represented by the difficulties encountered by important international institutions. In particular, the IMF found it increasingly difficult to rein in private lenders to support an adjustment programme. EMU rules were repeatedly broken and suffered a loss of credibility. The third feature is the markedly different fiscal stances across countries: fiscal policy was very prudent in most Asian and Latin American countries and lax in some EU countries. As a reaction to the crisis, an increasing number of countries adopted national fiscal rules and/or created independent fiscal agencies. The author signals in particular the institutional changes made by the UK (an ambitious balanced-budget rule and a new independent fiscal agency) and contrasts them with the choices in the opposite direction made in Hungary. He notes that the UK was rewarded by the market with a decrease in risk premia, Hungary penalized by an increase.

Mostafa Askari, Kevin Page and Stephen Tapp describe the developments in Canadian

public finances since the mid-nineties, when the federal debt-to-GDP ratio had reached about 70 per cent, from 18 per cent in 1974. This explosive growth prompted a fiscal consolidation effort, with a series of budget surpluses that brought the debt down to about 30 per cent in 2008. This result was also due to improvements in the fiscal institutions: fiscal rules at the local and at the federal level were introduced, setting explicit objectives for deficits, expenditures and other budgetary variables both at the national and at the provincial level (some of these rules were abandoned later on); budgetary projections were based on independent forecasts and incorporated prudent assumptions. In 2006, a new body, the Parliamentary Budget Office, was created, with the mandate to provide independent analysis to Parliament on public finance issues. Canada is now confronting the new short- and medium-term fiscal challenges posed by the global financial crisis, as well as the long-term challenges posed by population ageing. The authors conclude with some policy suggestions to improve Canadian fiscal institutions.

In the Netherlands, before the national elections, at the request of the political parties, the Bureau for Economic Policy (CPB) publishes an economic evaluation of their electoral platform. The paper by Frits Bos and Coen Teulings discusses the merits and limitations of this process. The evaluation of election platforms can serve as a disciplining device against unrealistic electoral promises. More in general, it can help political parties to credibly inform voters about their platforms and to design more efficient policies. The first exercise took place in 1986 and over time the number of parties involved, the detail of their policy proposals, and the scope of the analysis have increased markedly. In particular, nowadays the evaluation not only concerns the direct budgetary effects of the platforms for the next political cycle, but also the indirect effects due to general equilibrium and behavioural feedbacks, longer-term effects and distributional effects. According to the authors, even if the broader scope of the evaluation exercises might be problematic, the rules of the Dutch evaluation are designed with the goal of making the whole process independent from politics, allowing good communication between parties and the evaluator, and guaranteeing the quality and objectivity of the evaluation.

Roel Beetsma, Benjamin Bluhm, Massimo Giuliodori and Peter Wierts explore the determinants of the difference between *ex post* budget outcomes and first-release outcomes published towards the end of the year of budget implementation (so-called revision error). The measurement of revision error is important because if the first releases are accurate, they can be taken as a useful signal that a tightening of fiscal policy may be needed and, given that first-release data are closest to the information set available to policymakers when they implement their policies, they might be useful in understanding policymakers' behaviour. Using information from the EU Stability and Convergence Programmes for the period 1998-2008, the authors find that first-release figures are systematically over-optimistic compared with the final, *ex post* figures, and that the revision error depends mainly on over-optimism about revenues. Furthermore, a substantial part of the over-optimism arises from the revision of the estimate of the previous period's balance (base effect); the remainder reflects the growth effect (the difference between the growth in nominal revenues and that in nominal expenditures). Regression analysis indicates that economic and political factors play only a limited role in explaining the revision bias and its components. However, some institutional characteristics – such as the characteristics of fiscal rules, the existence of a medium-term budgetary framework and the degree of transparency – significantly reduce the revision error.

The topic of Marc Robinson's paper is the appropriate design of expenditure ceilings. He defines an expenditure ceiling as a quantitative limit to the amount of spending of the State or of a ministry, which applies to a single year or to a limited number of years (therefore, contrary to expenditure rules, ceilings are not meant to last indefinitely). Robinson points out that neither the cabinet nor the minister of finance should impose an expenditure ceiling on a ministry without a previous round of formal resource requests from the spending ministries, which have information

on policy priorities and available projects. Robinson proposes a budget process in which strict expenditure ceilings are imposed on each ministry only for existing programmes, while for new projects only a government-wide ceiling is set. New projects are allocated to ministries taking their proposals into account, therefore adopting a bottom-up approach. Robinson proposes that this process should be complemented by a spending review which could lower the initial resource ceilings for the existing projects of each ministry. Taken together, such rules maximize allocative efficiency and guarantee aggregate expenditure control. Another issue is whether the ceilings should be multi-annual. Robinson points out that this would have important drawbacks: first, estimates of future spending needs under current policies are rarely accurate; second, new priorities often emerge which require a change in the allocation of funds.

Sebastian Hauptmeier, Jesus Sánchez-Fuentes and Ludger Schuknecht discuss the role of expenditure policies in explaining fiscal developments in EMU. Starting from 1999, they compare actual primary expenditure trends with those that would have prevailed if countries had followed "neutral policies", *i.e.*, policies based on mechanical expenditure rules. In particular, they contrast actual expenditure dynamics with those implied by rules that anchor expenditure growth to potential (or long-run) GDP growth. It turns out that although on average the gap is relatively small, the expenditure "stance" differs significantly across countries. All sample countries except Germany pursued expansionary expenditure policies before the crisis; on the contrary, Germany's stance was very restrictive. This implies that in several countries debt levels under neutral expenditure policies would have been much lower than they actually were. Rule-based expenditure policies could have led to much safer fiscal positions, and would have helped EU countries to comply with the Stability and Growth Pact. Furthermore, an empirical analysis of the determinants of the expenditure stance confirms the role played by budgetary institutions, the political business cycle and government stability. An obvious policy implication of these findings is the recommendation to introduce rigorous public expenditure rules.

Fabrizio Balassone, Daniele Franco and Stefania Zotteri argue that the introduction of formal multi-annual expenditure ceilings can help Italy attain a balanced budget. The authors show that Italy has a poor record with respect to the gap between medium-term fiscal targets and results and that the gap is mainly due to slippages in nominal primary expenditures. The recent introduction of an explicit role for expenditure dynamics in the European fiscal framework (the Stability Pact has been modified so that, normally, the growth rate of expenditures should be equal to or less than the growth rate of potential output) strengthens the argument for introducing an expenditure rule in Italy. Moreover, other European countries have effectively implemented similar mechanisms to control public spending. Finally, the authors discuss the desirable features of an expenditure rule (such as the expenditure items that should be considered, the degree of flexibility, and so on) both in general and in the Italian context.

In their discussion of Kopits' paper, Armela Mançellari, Gerti Shijaku and Jonel Kristo advance the hypothesis that the wrong policy choices that led to the crisis could be due to rationality failure. Concerning possible institutional solutions to such failures, they suggest that for developing countries like Albania, fiscal guidance from outside is often needed and welcome. They also advocate forms of mutual debt underwriting and mutual guarantees on bond issues among the members of an economic and/or political union. In their discussion of the paper by Beetsma, Bluhm, Giuliodori and Wierts, they stress that in order to improve the quality of early fiscal data releases, rules are important and their enforcement should be rigorous.

Ranjana Madhusudhan, discussing the papers by Askari, Page and Tapp and by Bos and Teulings, notes that the institutional solutions devised in Canada and the Netherlands are remarkably similar. In both countries it is considered necessary to endow the fiscal councils with adequate resources and independence from politics. One difference is that in Canada the uncertainty surrounding the policy evaluation is explicitly acknowledged (for example, via the use

of fan charts). Moreover, in Canada the effects of policies are also monitored in the implementation phase, while in the Netherlands the focus is on *ex ante* evaluation. However, Madhusudhan praises the role of the Dutch council as a well-respected political watchdog. She notes that evaluating an electoral platform is a fairly difficult task, as party proposals are often complex and multifaceted, while there are a number of social values that are worth pursuing, often not mutually compatible. These inherent difficulties of platform evaluations add to the purely technical difficulties of macro and fiscal projections. She agrees with both papers that it is important to use structural balances in evaluation exercises and stresses the importance of transparent assumptions, comprehensiveness (with particular regard to off-balance-sheet items), full dissemination of the evaluation results and an explicit analysis of local government activities.

While praising the budgetary procedure proposed by Robinson, Javier J. Pérez warns that the distinction between current policies and new projects might not be clear-cut in practice. Moreover, it is not obvious that keeping such a distinction is advisable (this is the idea behind the zero-base budgeting approach). Pérez also points out that, in order to judge the relative merits of different expenditure rules, one needs to spell out plausible behavioural assumptions about the motivations of ministers. Concerning the contribution by Hauptmeier, Sánchez-Fuentes and Schuknecht, Pérez considers possible extensions of their simple expenditure rules. For example, expenditure growth could be linked not only to GDP growth but also to revenue volatility, as well as to the need to build fiscal room for manoeuvre for bad times. Moreover, he warns that the crucial question of the optimal amount of public expenditure for a country remains to be addressed. In the case of Italy, which is the focus of the paper by Balassone, Franco and Zotteri, Pérez suggests more sophisticated expenditure rules, which might take into account the debt level or interest expenditure, at least transitorily. Finally, Pérez asks what the legal status of expenditure rules should be.

4   National fiscal frameworks: the way forward

Section 4 examines how some countries are moving ahead, either enhancing existing procedures and institutions or introducing more radical innovations. The papers focus on four countries (Iceland, Israel, New Zealand, Russia) and two areas – Central Europe and Latin America.

Teresa Ter-Minassian discusses the role that structural-balance-based fiscal rules could play in moderating pro-cyclicality and ensuring longer-term debt sustainability in Latin America. She notes that among the prerequisites for the effective adoption and implementation of structural-balance-based fiscal rules are a strong political commitment, a stable macro-economic environment, a minimum set of public financial management requirements, reliable fiscal statistics, adequate external scrutiny and appropriate enforcement mechanisms. In some countries these conditions are rather demanding, suggesting a gradualist approach. These countries could begin with systematic calculation and dissemination by the authorities of structural indicators to assess the fiscal stance and inform budgetary policy. At a later stage the indicators could be enshrined in a fiscal rule. The paper examines the role of structural-balance-based fiscal rules at the sub-national level and reviews the experiences of Chile, Colombia and Brazil.

Luis Carranza, Christian Daude and Ángel Melguizo analyse trends in public and total infrastructure investment in six large Latin American economies since the early eighties. They note that low and volatile public investment in infrastructure is one of the causes of slow long-term output growth in many Latin American countries. High financing costs due to weak fiscal sustainability seem to have contributed to low levels of infrastructure investment. This suggests that fiscal consolidation and public infrastructure investment could be complements, rather than substitutes. Accordingly, the paper discusses how fiscal frameworks in the region can be reformed

to create fiscal space for more public infrastructure investment. The authors assess the implementation of fiscal rules which take into account public investment in several countries and pay special attention to some recent developments in Peru, where fiscal rules have created space for public investment.

Sergey Vlasov examines the Russian public finance system and the main fiscal reforms that were carried out after the dissolution of the USSR. The paper considers the issues of macroeconomic stability and fiscal sustainability and focuses on the role of revenues from non-renewable resources, which are likely to decline in the long run. He notes that the budget balance and the fiscal impulse largely reflect the structural components as well as the cyclical oil (and gas) component, while the non-oil cyclical component has a relatively minor impact. Vlasov advocates switching from actual budget balancing to structural budget balancing for the purpose of managing the non-oil part of the budget. This would allow the government to respond automatically to the business cycle and to better control the value of government net worth. Managing the oil part of the budget via the mechanism of the oil-and-gas transfer is more efficient, as it contributes more strongly to the equal distribution of the revenues from non-renewable resources.

Adi Brender examines the development of the public expenditure rule that was introduced in Israel after the successful fiscal consolidation programme launched in 2003. The new rule was to set a ceiling to public spending that would increase at the same rate as the long-term growth rate of the economy. There would be a provision reducing the rate of increase of expenditure on the basis of the distance of the debt–to-GDP ratio from the 60 per cent level. The ceiling would also be adjusted on the basis of statutory tax rate changes. The proposed rule aimed at combining consistency with a long-term specified target, a-cyclicality and transparency. The rule that was eventually adopted deviates from these targets in several ways, raising problems in terms of pro-cyclicality, transparency and consistency. Some loopholes may allow pro-cyclical expenditure expansions. Taxes were excluded from the rule while maintaining the existing annual deficit ceilings. Brender notes that fiscal rules are predominantly a matter of national consensus on the need to reach common goals. Well designed rules can emerge when the surrounding conditions are appropriate for consolidation, but under such circumstances their specific design may be less critical.

Gunnar Gunnarsson examines the conduct of fiscal policy in Iceland in the period before the financial crisis of 2008 and identifies the weaknesses of the fiscal framework. He points out that revenue growth masked a deficit bias. The rule that was supposed to set a limit to the growth of public consumption did not work properly. Significant problems also emerged at the local government level. The fiscal impact of the crisis was very severe and the fiscal consolidation effort accordingly great. In this context, Iceland introduced an extensive reform of its fiscal framework, supported by the IMF. The reform was centred on medium-term budget planning, top-down formulation and approval of the budget, tighter budget execution and controls, a budget-balance rule for local governments, and tighter coordination between central and local governments. Gunnarsson examines these changes, highlights the advances made and finally discusses what is missing from the reform agenda. He notices that there is room for improving the statutory basis of the new framework and that there is no independent fiscal council monitoring and assessing fiscal policy.

Anne-Marie Brook draws lessons for New Zealand from the last economic cycle and surveys the options for strengthening the stabilization role of fiscal policy in future economic upturns. She notices that making fiscal policy less pro-cyclical in upturns is very difficult, especially for reasons of political economy. She emphasises that one should actively seek to avoid offsetting the automatic fiscal stabilizers, by putting in place institutional structures that promote greater transparency and accountability and build public support for the need for large fiscal surpluses during upturns. After reviewing the economic literature on the stabilization role of fiscal policy, she

argues that fiscal stabilization is particularly important for New Zealand and considers several possible improvements in the fiscal framework. Among the options that she examines are the use of *ex ante* spending plans (de-linking expenditure from revenue outcomes), the introduction of a stabilization fund to safeguard revenue windfalls and the creation of an independent fiscal council.

L'udovit Ódor focuses on the fiscal policy frameworks which should be introduced in Central European countries. He examines both the fiscal conditions of these countries (usually characterized by a relatively low level of debt, chronic deficits, problematic long-term fiscal prospects and fiscal transparency problems) and their current fiscal frameworks. He argues that in this environment the focus of fiscal rules should shift from flow variables to the concept of net worth. The balance-sheet approach would make the public more aware about unsustainable public finances and would not hamper structural reforms. He also supports the introduction of multi-year nominal expenditure ceilings together with independent fiscal institutions and suggests that all these aspects should be included in a single Fiscal Responsibility Act together with basic requirements for transparency and procedural rules. Ódor concludes that fiscal frameworks are not magic solutions. There is a need for broad political consensus.

Sergio Clavijo comments on the papers by Ter-Minassian and by Carranza, Daude and Melguizo. He notes that both support the implementation of structural fiscal rules and emphasise the need to develop sophisticated institutional arrangements and comprehensive fiscal information. He appreciates Ter-Minassian's stress on the use of flexible and realistic rather than hard-and-fast rules that would later have to be modified or would be eluded. In particular, he notes that she correctly argues in favour of introducing fiscal watchdogs, distinguishing temporary from permanent shocks and having fiscal-range instead of point targets. As to the paper by Carranza, Daude and Melguizo, Clavijo agrees on the role that fiscal rules can play in making room for public investment, which is lagging in many Latin American countries, and on the need to increase the contribution of capital markets to infrastructure development.

Philippe Frouté comments on the papers by Brender, Vlasov and Gunnarsson. He notes that the three countries examined in the papers share some patterns: the 2008 crisis hit them in a favourable fiscal context, revealed structural problems and called into question their fiscal sustainability. The countries reacted, inter alia, by revising their approach to fiscal rules. While the fiscal reforms underway in Russia were postponed, new fiscal rules were introduced in Iceland and Israel. Frouté points to some possible weaknesses in the fiscal framework of the three countries. Iceland has not introduced measures to tackle the excessive expansion of credit. In the Israeli rule the higher the debt ratio the lower the convergence speed; this can postpone the fiscal adjustment. In the case of Russia, the postponement of the rules envisaged for the use of non-renewable resources highlights the lack of guidelines to deal with exceptional circumstances.

Walpurga Köhler-Töglhofer comments on the papers by Brook and Ódor. She notes that while the New Zealand paper focuses on the question of how to enhance the stabilization function of fiscal policy, the paper on Slovakia aims primarily at improving the long-term sustainability of public finances. On Brook's paper, she notes that one of the most promising options for making fiscal policy more effective in stabilization is the introduction of a fund for this purpose, which would receive revenue windfalls in good times, while money would be drawn out in periods of negative output gap. The effectiveness of the fund would depend on accurate assessments of the economic cycle. Köhler-Töglhofer points to the positive aspects of Ódor's proposal, such as the fact that the government would have more generous expenditure ceilings if it implemented reforms that improve the long-term sustainability of the public finances. She also observes that the measurement of net worth is not straightforward. The rule would be rather complex. Moreover, one would still need a methodology to calculate cyclical and structural revenues and expenditures and to deal with the problems connected with the calculation of the change in net worth, since this is based on the assessment of such assets as state-owned companies.

Session 1

NATIONAL FISCAL FRAMEWORKS: THE EXPERIENCE

FISCAL RULES, WHAT DOES THE AMERICAN EXPERIENCE TELL US?

Byron Lutz[*] and Glenn Follette[*]

1   Introduction

Large budget deficits and rising public debt levels have led to renewed interest in budget rules and the means of financing public expenditures. The United States with its federal system offers an interesting environment to study the effects of budget rules. In the U.S. setting there are two very different systems. The federal government has no restrictions from constitutional provisions and few emanating from statutory legislation. By contrast, nearly every state government faces constitutional and statutory limitations on their ability to run budget deficits as well as other constitutional or statutory restrictions on budget actions. Our paper endeavors to review and add to the literature on the effectiveness of these rules.

Budget rules can affect budget outcomes in a variety of dimensions. Balanced-budget rules and limits on debt issuance can affect the size of budget surpluses and deficits and the conduct of policy both in a persistent way and over the business cycle. Other budget rules, such as requirements of super majorities for tax provisions, constitutional restrictions on revenues, minimum funding requirements for programs, citizen rights for equal access to education and health, etc., may affect the size and composition of government programs.[1] Here we focus on first type of restrictions, those on borrowing and budget deficits.

A review of debt and deficit data clearly show that "trend" budget outcomes are different at the federal government and state and local government levels and that conduct over the business cycle is different. Figure 1 displays the evolution of federal and state and local debt over the past 50 years. Two features of the data are readily apparent: Federal debt is much higher and is much more variable than state and local debt. Figure 2 shows debt levels across states.[2] The top panel shows that the level of total debt varies significantly across states, but also that there is considerable variability in the composition of debt between state and local and between public debt for private purposes (e.g., industrial development bonds, low income multi-family housing bonds and student loan bonds) and other debt (largely general obligation bonds). Our work will focus on the state budgets and thus state debt. Our results suggest that budget rules are correlated with state debt levels, but that some of the restriction may be offset by behavior at local level.[3] Of course, given its higher debt level, the federal government has run much larger deficits, on average, than at the state and local level (Figure 3).

The smaller deficits at the state and local level are likely the outcome of balanced budget rules. These balanced budget rules typically bind on general fund budgets which are similar to

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[1]   Some of these may make deficits more likely – such as supermajority restrictions on raising taxes, or restrictions on the kinds of taxes.

[2]   State and local governments use debt chiefly for funding capital projects. Their operating budgets face the balanced budget restrictions while their capital budgets do not.

[3]   If budget restrictions are just a reflection of the (dis)taste for debt financing, then one would expect to find that state budget restrictions are associated with lower state debt and lower local debt. However, we find that the local debt offsets a portion of the state level effect. (The correlation of state debt to local debt is –.493). This provides some evidence that the rules affect behavior and do not just reflect tastes.

operating budgets, thereby excluding capital budgets and other accounts.[4] These operating accounts most closely correspond to the current account in the national accounts. In Figure 3 the current account surplus of state and local governments is displayed as net saving, which hovers around zero. Balanced budget rules may affect the conduct of fiscal policy over the business cycle in two dimensions. First, it can make policy pro-cyclical if governments react to

Figure 1

Government Debt
(percent of GDP)
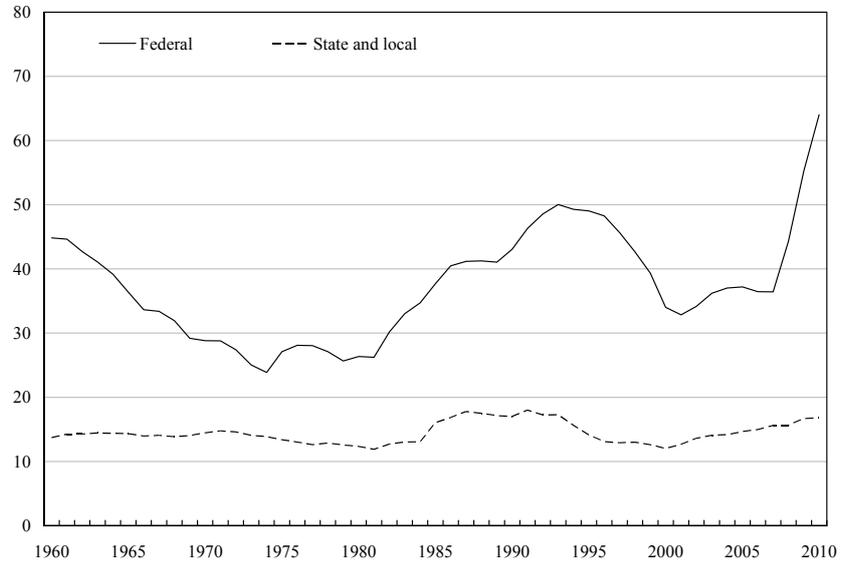
Figure 2

Ratio of State and Local Debt to State GDP

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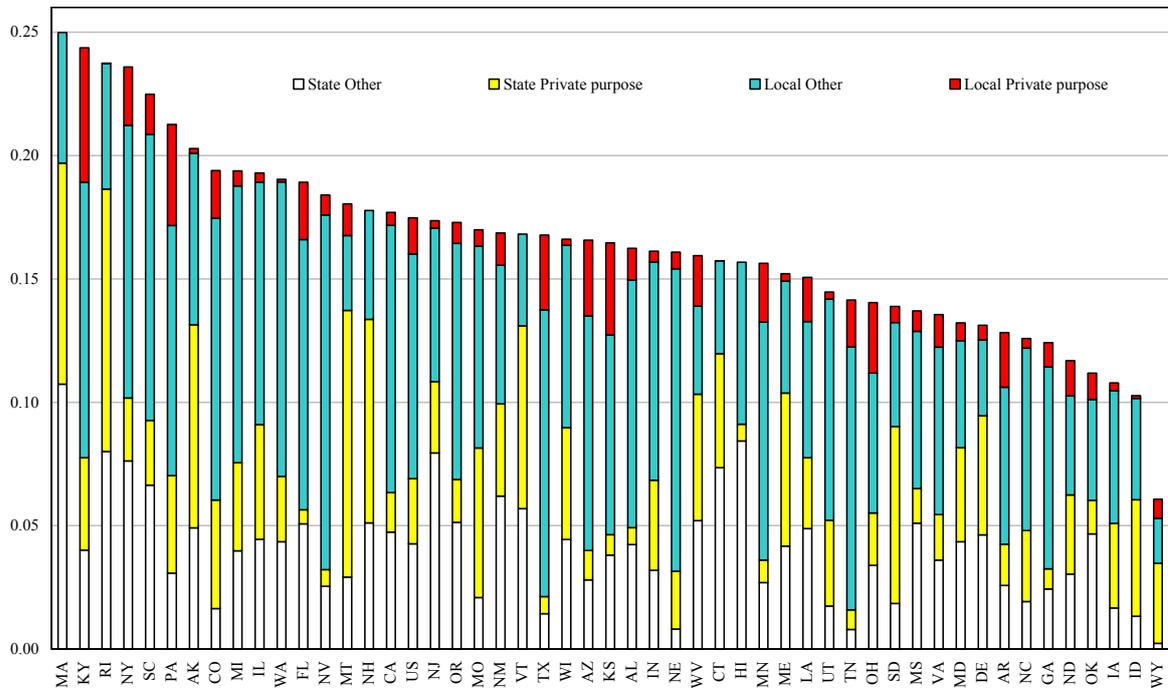
[4]   Other accounts that are excluded from the general fund include bond fund accounts, sinking fund accounts, insurance funds and employee pensions fund accounts.

Figure 3

Government Net Saving and Net Lending
(percent of GDP)
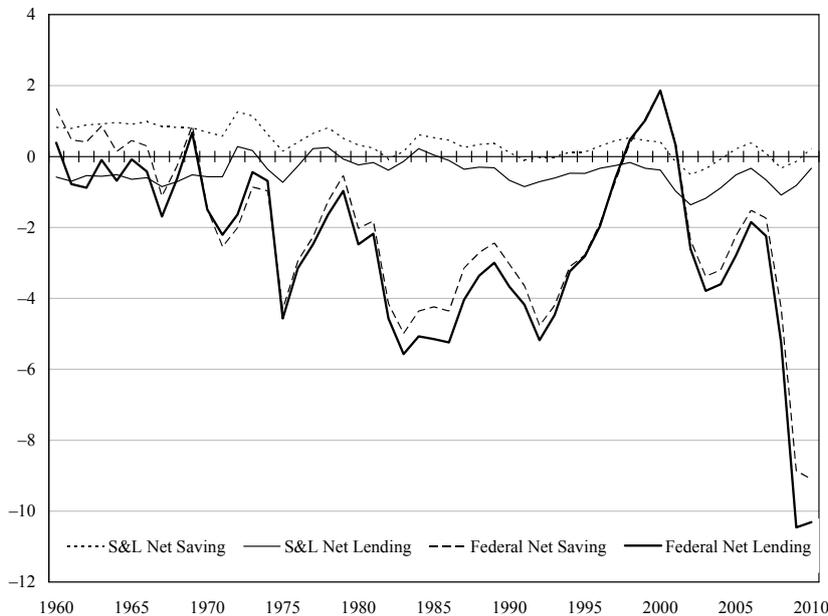
falling tax revenues by cutting back on spending or boosting tax rates. Second, these rules will create incentives for governments to seek revenue sources that are less cyclical. Governments can also create a less cyclical policy regime by using rainy day funds. Moreover, states have incentives to create fiscal space to allow counter-cyclical policy. This is true even at the state level, where one might fear that potential leakages would reduce the power of state and local multipliers.[5] A recent body of research on state fiscal multipliers by Clemens and Miron (2009), Shoag (2010), and Suárez Serrato and Wingender (2010) suggest that the multiplier on state and local spending may be in the 1-1/2 to 2 range. Nevertheless, Follette and Lutz (2010) demonstrate that at the aggregate level state and local spending has been pro-cyclical while federal government policy has been counter-cyclical. Those results are updated and shown in Table 1. If state fiscal policy can be an effective counter-cyclical policy tool, but state governments behave pro-cyclically, this probably reflects the restrictions that budget rules place on them that they have not been able to relax through the use of rainy day funds. Follette and Lutz (2010) also show that state and local cyclical budgets are less cyclical than those of the federal government, even after controlling for the size of the sector.[6] This would be a natural reaction to balanced budget requirements.

The remainder of this paper will detail the budget rules at first the federal and then the state level and examine how the rules map into budget outcomes. We conclude that statutory rules at the federal level have not had an effect. Their imposition in the 1980s and 1990s were reflections of policy decisions and did not drive policy in general. Importantly, the shift to a "pro"-deficit policy after 1998 was not hampered by the rules. By contrast, we find that state budget rules are generally binding. The key difference is probably that state rules are typically constitutionally imposed and thus cannot be adjusted easily by the legislature.

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[5] State government actions would have similar effects to small open economies under fixed exchange rates. With fixed monetary policy and exchange rates, fiscal policy would be particularly powerful. But, states have much higher import penetration than the United States as on the whole, and this leakage reduces the multiplier.

[6] For example, in mid-2000s federal revenues were 1-1/2 to 1-3/4 larger than those of the state and local sector (excluding intergovernmental transfers), while the cyclical response of the budget was three times larger (0.35 percentage point change in deficit as a share of GDP to a 1 per cent change in cyclical GDP compared to a 0.1 percentage point change at the state and local level).

Fiscal Impetus Around Business Cycles
(percent of GDP)

Peak Year	1969	1973	1980	1990	2000	2007	Average
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Federal Government							
Year before peak	0.02	0.55	0.19	–0.23	0.30	0.31	0.19
Peak	–0.77	–0.16	–0.04	–0.27	0.07	0.23	–0.16
1 year after	–0.01	0.00	–0.31	–0.47	0.48	1.07	0.13
2 years after	–0.20	0.58	0.76	–0.31	0.95	1.20	0.50
3 years after	0.55	0.36	0.95	–0.56	0.90	0.63	0.47
Before	–0.38	0.20	0.07	–0.25	0.19	0.27	0.02
After	0.11	0.31	0.47	–0.44	0.78	0.97	0.37
State and Local Government							
Year before peak	0.89	–0.04	0.31	0.47	0.53	0.06	0.37
Peak	0.50	–0.04	0.17	0.52	0.38	0.27	0.30
1 year after	0.21	0.55	–0.21	0.24	0.55	0.04	0.23
2 years after	0.34	0.48	0.16	0.17	0.35	–0.61	0.15
3 years after	–0.04	–0.05	0.22	0.34	–0.19	–0.47	–0.03
Before	0.69	–0.04	0.24	0.50	0.46	0.16	0.33
After	0.17	0.33	0.06	0.25	0.24	–0.35	0.12
General Government							
Before	0.31	0.16	0.31	0.25	0.65	0.43	0.35
After	0.29	0.64	0.52	–0.19	1.01	0.62	0.48

Fiscal impetus measures discretionary budget actions and is the sum of changes in spending and tax policies weighted by their MPCs. It excludes the effects of automatic stabilizers. See Follette and Lutz (2010).

2 Federal government budgeting

2.1 Background

Rules covering federal budgets have evolved significantly over time. Importantly the constitution provides little restriction on the size or structure of government or limits on borrowing.[7] The current budget process was established by the Budget Control and Impoundment

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[7]   See Congressional Quarterly (1977). For example, there are no constitutional limits on debt, although there is a statutory limit. The commerce and necessary and proper clauses have been interpreted to allow a fairly expansive role for the federal government. Since the passage of the 16th amendment there has been considerable freedom for tax policy. From the establishment of the republic until
(continues)

Act of 1974. The annual budget process begins in February with the release of the Administration's five-year budget plan. Each house of Congress has a budget committee whose responsibility is to craft a budget resolution in the spring that provides the framework for the overall budget by: outlining the path for policy for the next five years and setting targets for the two types of implementing legislation – appropriations bills and reconciliation bills. The two budget resolutions are melded into one which then controls debate of the implementing legislation. The twelve appropriations bills cover the annual spending needs of the agencies for discretionary programs and must be within the limits set by the joint budget resolution.[8] The reconciliation bills cover spending and tax legislation used to implement the portion of the budget resolution that is not covered by the annual appropriations bills – taxes and most transfers and subsidies (called mandatory spending).[9] Other tax and spending bills may also be considered on an *ad hoc* basis during the year, but if they are inconsistent with the budget resolution then they are subject to parliamentary rules which create additional hurdles, particularly in the Senate.

2.2   *Gramm-Rudman-Hollings: 1985-90*

The 1974 Budget Act had been enacted owing to a growing unease about budget deficits, as well as owing to conflicts between the executive and legislative branches. In 1985, the budget process was changed radically in an attempt to rein in persistently large deficits that the Budget Act had failed to stem. The Balanced Budget and Emergency Deficit Control Act of 1985, commonly known as Gramm-Rudman-Hollings (GRH), made two changes to the budget process. First, it instituted annual deficit targets that could only be exceeded by a small margin. Second, it created a sequestration mechanism to meet the targets. The Administration would estimate the deficit in mid-October for the fiscal year that had just begun based on enacted legislation and economic and technical assumptions made earlier in the year.[10] If the projected deficit exceeded the target by more than $10 billion (about 0.2 per cent of GDP), then expected outlays of discretionary programs – half from defense and half from nondefense – would be cut so as to meet the target.[11] Notably, compared to many state budget rules, only the projected deficit needed to meet the target. Among the nondefense expenditures, the cuts would be uniform across all programs.

Did GRH work? Clearly, the Gramm-Rudman-Hollings approach did not achieve its stated goal of balancing the budget. Indeed, lack of progress during the first two years led the government to enact revised targets in 1987 in the Balanced Budget and Emergency Deficit Control Reaffirmation Act when the target for fiscal 1988 appeared to be unreachable. In 1989, the automatic sequester was triggered for the first time. (GRH applied to the *ex ante* budget, hence the deviation between the GRH target deficit and actual deficit in the Table 2 reflects overly optimistic budget assumptions). Then in 1990, the initial Congressional Budget Office (CBO) projections

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1921 budgeting was largely a piecemeal affair of appropriations and tax bills that were considered individually and dominated by Congress. The Budget and Accounting Act of 1921 established more systematic budgeting by requiring the President to submit a consolidated budget proposal for congressional consideration each year.

[8]   Typically all the individual appropriations bills are not completed by the beginning of the fiscal year and a combination of short-term funding bills, known as continuing resolutions and omnibus appropriations bills, are enacted to keep the government running.

[9]   Government expenditures can be divided into discretionary and mandatory. In general, mandatory spending is for programs such as entitlements and interest, where the outlays are not controllable because they are a function of eligibility requirements (e.g., social security) or market forces such as agricultural subsidies. Discretionary outlays are controlled by annual appropriations, which limit the obligations that agencies can incur. Many obligations have multiyear aspects and thus the outlays from the Treasury may occur in more than one fiscal year. Therefore, the appropriations process does not have a fine control over annual expenditures

[10]   Thus, changes in economic conditions would not initially force budget changes. There are several preliminary snapshots of the deficit that are provided before the sequestration order to allow Congress to pass legislation to correct any impending excess deficit. This paragraph relies on Congressional Quarterly (1989).

[11]   There were some annually appropriated transfer programs that were shielded from cuts. In addition, a small portion of the sequester applied to mandatory transfer programs, particularly payments to health care providers (Medicare program).

Table 2

Federal Unified Budget Deficit Targets and Results Under GRH
(billions of dollars, fiscal years)

	1986	1987	1988	1989	1990	1991	1992	1993
GRH target,1985	172	144	108	72	36	0		
GRH target, 1987			144	136	100	64	28	0
Actual deficit	221	150	155	153	221	269	290	255
Memo: Deficit *(percent of GDP)*	5.0	3.2	3.1	2.8	3.9	4.5	4.6	3.9

showed the deficits for 1990 and 1991 coming in well above the GRH targets. But, while the Administration's fiscal 1991 budget showed the fiscal 1990 deficit coming in well above the target, its proposed fiscal 1991 deficit was just under the limit, largely owing to overly optimistic economic and technical assumptions. By June, the fiscal situation had deteriorated enough so that the overly optimistic scenario had to be abandoned and President Bush was forced to go back on his "Read my lips, no new taxes" pledge.[12] At that point the GRH framework was abandoned in favor of an alternative framework (see below).

While the GRH rules did not lead to a balanced budget, did these rules restrain policy more than would have been the case without the targets? This we may be able to answer by looking at tax policy, changes to entitlement programs, and discretionary spending. While the sequestration process was directed at discretionary spending, the targets were expected to be met through fiscal consolidation using all budget levers. With respect to taxes, after GRH was passed several small tax bills were enacted, but they were smaller than the ones earlier in the decade (excluding the 1981 Reagan Tax cuts). Thus, these tax policy changes appear, at best, to be a continuation of prior policy of addressing outsized deficits partially through taxes (Figure 4a).

During the 1980s there were some major changes to reduce entitlement spending, including changes to Social Security, Medicare, unemployment benefits, and grants to state and local governments.[13] Some of these cuts were enacted during the GRH period – in particular a reduction in mandatory grants to S&L for general revenue sharing and small cuts to Medicare – but these appear to be a continuation of the prior policy and were no more stringent than those enacted immediately prior to GRH.[14]

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[12] Given the evolution of the business cycle, the tax increases and spending cuts failed to bring the budget into balance. Recall that June 1990 was eventually declared a business cycle peak. The ensuing recession ended in April 1991. 1990 also saw a spike in oil prices following the Iraqi invasion of Kuwait.

[13] Some grants are mandatory and some are discretionary. At that time the key mandatory grants were for state-administered transfer programs such as Medicaid and welfare and for a small revenue sharing program.

[14] Medicare HI cuts were included in TEFRA (1982, 0.5 per cent of payroll on average over 25 years) and DEFRA (1984, 0.3 per cent of payroll) before GRH. The 1983 Social Security Act reduced some benefits and rules regarding unemployment benefits and disability insurance were also tightened in the early 1980s. The GRH law (1985) included cuts of 0.1 per cent of payroll. After GRH passed, Medicare was cut by 0.4 per cent of payroll in 1987 (the GRH2 law and OBRA 1987), but increased by 0.8 per cent of payroll in 1988 and 1989.

Figure 4

a) Revenue Effect of Major Tax Legislation
(four year average, percent of GDP)

year of enactment

Source: Tempalksi, 2006.

b) Discretionary Spending
(percent of potential GDP)
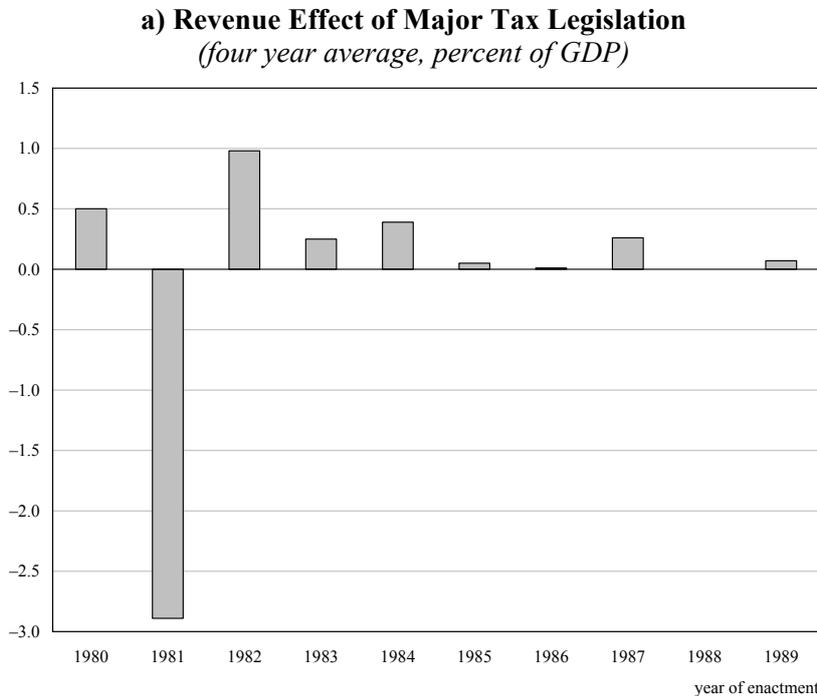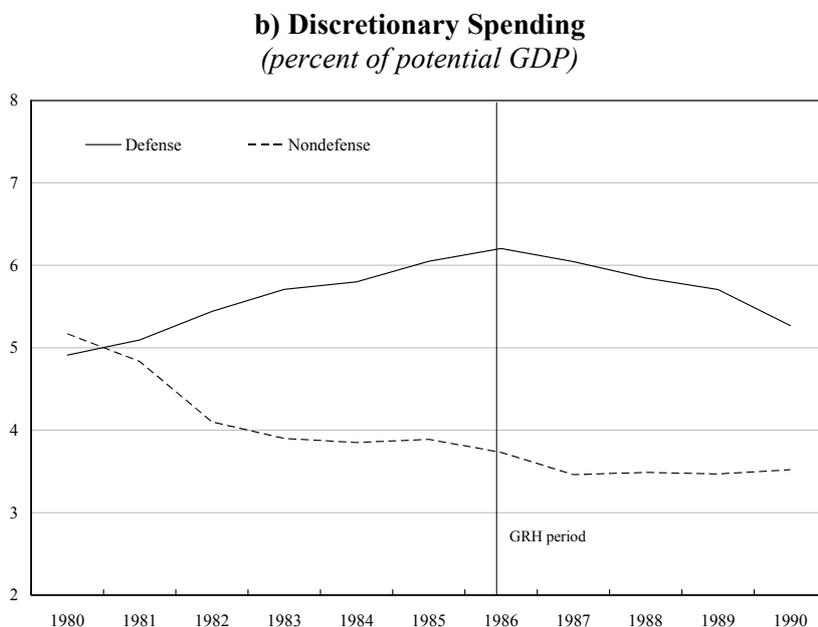
Source: Tempalksi, 2006.

Discretionary spending during the second half of the 1980s slowed relative to the first half of the decade. During the first half of the decade discretionary spending was relatively constant as a share of potential GDP as increases in defense were offset by declines in nondefense (Figure 4b).[15] During the second half of the decade (after GRH was put in place) discretionary spending fell by 1 per cent of potential GDP, mostly in the defense category. While the decline in defense may reflect the additional pressures from GRH, arguably it may reflect the changing circumstances in foreign affairs. Turning to non-defense, this category of spending fell sharply in 1986 and 1987 and then rose at the pace of potential GDP during the following three years, when the screws from GRH should have been tightening. The initial decline probably owes to the cuts implemented when GRH was insti-tuted and in the following year, but this time pattern gives little support that GRH induced additional cuts over time.

In sum, our reading of the record is

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[15] Discretionary spending was 10 per cent of potential GDP in both 1980 and 1985. In 1980 both were 5 per cent of GDP, while by 1985 defense had increased to 6 per cent of potential GDP and nondefense had fallen to 4 per cent. Nondefense spending also fell in real terms over the period, at a 3 per cent annual rate on average.

that there is little clear evidence that GRH resulted in additional budget consolidation efforts. The first time the GRH targets bound significantly in 1988, the targets were revised. When they again bound in 1990, they were abandoned. There is no evidence that policy actions were more restrictive than they had been prior to GRH. Perhaps, the failure to hit the targets in 1990 led to the 1990 budget summit (see below), and those budget cutting actions could be credited to the GRH targets. Alternatively, a change in policy preferences concerning deficits may have led to both the enactment of GRH and the 1990 summit.

Analysis by others is mixed. Reischauer (1990) and Gramlich (1990) find little support for the effectiveness of GRH, while Hahm (1992) and Auerbach (2008) are more supportive. Regression analysis by Hahm and Auerbach show more fiscal consolidation during the GRH period than prior.[16] But, those results probably reflect the changing desires of Congress rather than the change in the rules. Importantly, as stated above, when the targets became binding, Congress relaxed the targets.

2.3   The Budget Enforcement Act (BEA): PAYGO and discretionary caps

Following the recognition that GRH had failed, a new budget regime, the Budget Enforcement Act (BEA), was put in place in 1990 as a part of the Omnibus Budget and Reconciliation Act (OBRA 1990). Under the new structure budget decisions, rather than budget forecasts or budget outcomes, were constrained. OBRA 1990 put in place policies that were expected (but not required) to achieve budget balance by 1995 through a set of tax increases and mandatory spending cuts that were implemented as part of the legislation, as well as restrictions on discretionary spending that would have to be implemented through annual appropriations bills over the following five years. Annual limits for discretionary spending were put in place for the 1991 to 1995 period.[17] A PAYGO rule was established so that the set of tax and mandatory spending laws enacted in a session would not increase the deficit. Enforcement had several components. First, bills that violated the spending caps and PAYGO rules were subject to parliamentary hurdles. Second, excesses in budget authority or projected outlays for discretionary spending would trigger across-the-board sequesters of discretionary spending, similar to the GRH rule. Third, if the changes to taxes and mandatory spending resulted in an increase in the deficit, thereby violating PAYGO, a sequester of mandatory spending was triggered. These restrictions had a relief valve in that spending for "emergency" purposes would be exempt.

The BEA rules proved more durable than the explicit deficit targets used by GRH and were in place when the budget moved from deficit to surplus. But, it is still difficult to discern how much of an independent factor they played, versus being a reflection of the policy environment. After they were put in place 1990, the deficit widened owing to the recession, Gulf War, and the savings and loan bailout (Table 3, lines 3 and 6 show the deterioration). Interestingly, while temporary expansion of unemployment benefits were enacted and not offset (using the emergency designation available to avoid PAYGO), there were no other countercyclical policies (unlike a typical recession, see Follette and Lutz, 2010). Outside of the Gulf War the discretionary caps were maintained. Thus, a case can be made that they worked initially by preventing the typical

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[16] For example, Hahm *et al.* use as their counterfactual the evolution of taxes and spending over the previous 23 years, which was a time period of rising deficits in general. They credit the shift from deficit increasing to deficit-reducing policies to GRH. We argue that the prior policy was no longer sustainable and that the shift in policy preferences occurred before GRH was enacted as evidenced by the deficit reducing efforts before GRH. Auerbach (2008) does not test directly whether the rules had effects; he tests whether the coefficients on budget surplus and GDP gap terms are different during the different budget regimes which also cannot separate changes in regimes from other factors particularly when regimes are for a short duration. The question is not whether policy outcomes were different, but did the change in rules *cause* the outcomes to differ.

[17] Initially, there were separate caps for defense and nondefense spending, later the caps were combined.

Table 3

Evolution of the Deficit, 1990-93

(fiscal years, unified budget basis, percent of GDP)

		1990	1991	1992	1993	1994	1995
1	July 1990	3.4	3.9	3.8	3.0	2.1	1.9
2	OBRA 1990	0.0	−0.6	−1.1	−1.4	−1.9	−2.2
3	Other	0.4	1.7	1.8	1.7	2.1	1.1
4	January 1991	3.8	5.0	4.5	3.3	2.3	0.8
5	Policy	0.0	0.1	0.4	0.1	0.1	0.1
6	Other	0.0	−0.5	−0.3	1.3	1.8	3.0
7	January 1993	3.9	4.6	4.6	4.7	4.2	3.9

Evolution of the Deficit, 1993-98

(fiscal years, unified budget basis, percent of GDP)

		1993	1994	1995	1996	1997	1998
8	January 1993	4.7	4.2	3.9	3.7	3.9	4.1
9	OBRA 1993	0.0	−0.5	−0.7	−1.1	−1.4	−1.7
10	Other	−0.7	−0.1	−0.4	−0.2	0.0	−0.2
11	August 1993	4.0	3.6	2.7	2.5	2.4	2.3
12	Policy	0.0	0.1	0.1	−0.1	−0.1	0.0
13	Other	−0.2	−0.8	−0.5	−1.0	−0.9	−0.9
14	January 1997	3.9	2.9	2.2	1.4	1.4	1.4

Evolution of the Deficit, 1993-98

(fiscal years, unified budget basis, percent of GDP)

		1997	1998	1999	2000	2001	2002	2003
15	January 1997	1.4	1.4	1.6	1.8	1.6	1.8	1.8
16	Balanced Budget and Tax Relief Act	0.0	0.2	0.0	−0.2	−0.2	−0.9	−0.7
17	Other	−1.0	−1.0	−1.0	−1.1	−1.1	−1.2	−1.5
18	September 1997	0.4	0.7	0.6	0.5	0.4	−0.3	−0.3
19	Policy	0.0	0.0	0.2	0.6	1.0	1.5	1.6
20	Other	−0.1	−1.5	−2.2	−3.5	−4.1	−4.2	−4.5
21	January 2001	0.3	−0.8	−1.4	−2.4	−2.7	−3.0	−3.3
22	Policy					0.8	1.4	3.3
23	Other					0.7	3.0	3.4
24	January 2004	0.3	−0.8	−1.4	−2.4	−1.2	1.5	3.4

counter-cyclical policy reaction. However, immediately following enactment and over the following two years, economic and "technical" developments greatly worsened the budget outlook, so that by 1993 the budget was in worse shape than it had been before OBRA 1990 and no policies were enacted to offset these poor outcomes (see lines lines 5 and 6 of Table 3).[18] The failure of BEA to require a response to deficits arising from incorrect technical and economic assumptions (as opposed to policy decisions) rendered it ineffective as an anti-deficit device in this period. It is possible that having met the BEA requirements, Congress did not feel the need to react further. It is therefore possible that the BEA actually worsened the deficit position by "turning off" this natural reaction function. In any case, it clearly did not restrain the deficit during the early years.

Following the 1992 elections, President Clinton put forth a new budget plan that called for balancing the budget in five years, with tax increases and mandatory spending cuts – particularly to Medicare, and continued adherence to slightly revised and extended discretionary caps (Omnibus Budget and Reconciliation Act of 1993, Table 3, middle panel, line 9). At the time, the 1990 rules were seen as effective, but insufficient, because deficits had not fallen, rather they had remained near 4 per cent of GDP (line 8). The Clinton plan was not projected to bring balance, but to cut the deficit as a share of GDP in half, to a level where it would lead to a small decline in the debt-to-GDP ratio. Importantly, this budget plan was not required by the 1990 rules and thus cannot be credited to the success of BEA. As with the 1990 caps and PAYGO, these restrictions held through the President's term. No other material policy actions were taken during the remaining years of the first term. That said, the 1995-96 government shutdown (instigated when the new Republican majority tried to cut discretionary spending significantly) and the 1996 welfare reform reduced the deficit a smidgeon. These actions were not required by OBRA 1993 and provide some confirmation of the view that the government – Congress and the administration – was looking for ways to cut the deficit beyond what was required by OBRA. Thus the OBRA rules were not binding during this period.

At the beginning of Clinton's second term the Tax Reduction and Balanced Budget Act was passed in the summer of 1997. The Act extended the discretionary caps through 2002, provided small tax cuts, and made important reductions to Medicare and other entitlements (line 16 of lower panel of Table 3). The Act was projected to balance the budget by 2002 if the discretionary caps held. However, many analysts thought this unlikely because they viewed the caps as too onerous. That spring (line 17) and over the following four years (line 20), though, economic and technical factors pushed the budget far into surplus.

The 1998-2002 period is the key period for judging the efficacy of the BEA framework. The 1990, 1993 and 1997 policy actions were not necessitated by the BEA and consequently the budget restraint provided by them was not due to the caps. Over the 1998-2002 period, budget surpluses became the norm. Initially, it appears that the BEA framework worked to encourage saving the surpluses. Some argue that the surpluses were the result of the surprising pickup in productivity and economic growth over the second half of the 1990s. But budget policy was clearly the reason for the surpluses, because the extra revenues could have been spent with tax cuts and spending increases, like they were in the 1960s and they would be in the 2000s. The question is whether the tight fiscal policy was a result of the rules or of the decisions of the Clinton Administration and Congress. We think that is was the split in control between a Democratic president and a Republican Congress that led to the stalemate on what to do with the surpluses. The BEA edifice began to crumble as the discretionary spending caps were breeched in 1999 and 2000 using emergency designations by the first Congress that was working with a cap that it had not enacted.

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[18] The Congressional Budget Office provides estimates of changes in budget outcomes owing to economic and technical factors. Technical factors include such things as cost overruns in health care, changes in the income distribution that change effective tax rates, and swings in capital gains realizations.

Previously, the caps had been usually set by the same Congress – the exception being the 1995-96 Congress. When President Bush was inaugurated in 2001, control of both branches of government shifted to the Republicans and the budget stalemate ended, and neither the President nor Congress had been a party to enacting the controlling budget framework. The existing budget framework was quickly discarded and an exceptionally large tax cut enacted despite the PAYGO rules. The tax cut was then accompanied by increases in discretionary and mandatory spending. Moreover, there were no efforts to offset the rapid deterioration in the budget.

For us, the 1998-2002 period clearly shows that when the BEA framework of discretionary spending caps and PAYGO restrictions were inconsistent with desired policy, the budget rules were ignored or changed. By contrast, Auerbach (2008) claims some modest success for the BEA framework because he explicitly excludes these years as being part of BEA and he credits the BEA process for the deficit reducing actions (1993 and 1997) that were not required by it. We think this is a mis-reading of the evidence. Recently, PAYGO was reinstated in 2010 and has met the same fate. Although the health reform met the criteria, the tax cuts enacted in the fall did not, despite the shift in budget climate to austerity. Thus, statutory PAYGO has not been able to prevent a majority from enacting significant deficit increasing legislation.

3   State balanced budget rules

3.1   Background

All U.S. states except Vermont have a legal balanced budget requirement.[19] These requirements are sometimes contained in the state constitution, while in other cases they are statutory (*i.e.*, they have been enacted into law by the state's legislature). In some instances, they are based on court rulings pertaining to constitutional-based debt limits.[20]

Although there is considerable variation in how the balanced budget rules are implemented across the states, there are three general types. The first requires that the governor's proposed budget be balanced; the second requires that the budget passed by the legislature be balanced; and the third requires that that the budget be balanced at the end of the fiscal year, often referred to as a no-carryover provision.[21] Regardless of the type, the rules refer only to operating budgets and explicitly exclude capital budgets.

There are several ways in which states can address a deficit to satisfy its balanced budget requirement. In all states the legislature may reduce expenditures (although the legislature will not always be in session when the deficit, or projected deficit, arises). In many states the Governor or an appointed board may reduce outlays if a budget shortfall has emerged. In almost all cases, state legislatures may increase revenues. They can also draw down general fund and rainy day fund balances accrued in previous fiscal years. Some states may engage in short-term borrowing to cover a budget gap, although this must generally be paid back in the following fiscal year. It is quite rare for states to explicitly engage in long-term borrowing to cover an operating deficit, although it does occasionally occur: California borrowed $11 billion in 2004 to address a shortfall

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[19]   This section draws heavily on National Conference of State Legislatures (1999).

[20]   Hou and Smith (2006, 2009) present a political-technical categorization of balanced budget rules as an alternative to the constitutional-statutory categorization used in most of the literature.

[21]   State general fund budget accounting is a mixture of flows and stocks. Budget resources for a fiscal year include the flow of taxes plus the general fund balance of the previous year. Accordingly, states carry over budget surpluses (or deficits) by augmenting (or decreasing) the following year's general fund balance. States with a no-carryover rule cannot let the general fund balance fall below zero, while states without such a rule, but with a requirement that the proposed budget be balanced are required to make up any shortfall in the general fund balance in the proposed fiscal year.

in its operating budget.[22] It remains an open question, though, if states engage in long-term borrowing ostensibly for capital expenditures and then use accounting tricks to move the funds into the operating budget. (For example, a state could borrow to finance highway construction and then divert motor fuel tax revenues (that were intended to finance capital spending) from its highway trust fund to the general fund. Many states require a referendum for new long-term debt issuance which may inhibit this type of behavior. Finally, there are a host of short-term maneuvers which may be used to satisfy balanced budget requirements in letter, but not spirit. For instance, states may defer spending scheduled for the end of the fiscal year to the start of the following fiscal year, defer payments owed to vendors, to employees, and to local governments, take a "holiday" from making pension fund contributions, or change the timing of tax payments.

The literature to date has generally concluded that the stringency of balanced budget requirements has a significant effect on state fiscal behavior, with the no-carryover provision being particularly important. Bohn and Inman (1996) conclude that the no-carryover rule is associated with larger state general fund balances. These larger balances accrue due to relatively lower spending, not higher taxes. Similarly, Poterba (1994) finds that more stringent rules, primarily the no-carryover provision, are associated with more rapid adjustment to budget deficits. The margin of adjustment to these shocks is found to be spending, not taxes. Clemens and Miran (2010) and Clemens (2009) extend Poterba's results to a more recent period. (Poterba used data from 1988-1992 and they extend the sample to 2004). These authors confirm Poterba's basic result and also conclude that state spending has a large fiscal multiplier of around 1.7 (Clemens and Miran, 2010) and that public sector union strength predicts which areas of the budget are cut (Clemens, 2009).

3.2   Balanced budget rules and the level of fiscal outcomes

We now turn to examining the relationship between balanced budget rule stringency and various fiscal outcomes. In this section we examine the relationship between balanced budget rules and the *level* of various fiscal outcomes, namely year-end balances, deficits and debt levels. In the next section we examine how balanced budget rules influence the reaction to *shocks* to fiscal conditions. Although the level relationship is likely more important, the evidence we produce is mostly suggestive in nature. In contrast, while the fiscal shock question is narrower in scope, we are able to provide more formal evidence. In both cases, our goal is to establish whether rule stringency is associated with differences in state fiscal behavior.

We quantify budget rule stringency using the index developed in ACIR (1987). The index runs from 0 to 10, with 10 denoting the most stringent balanced budget rules and 0 denoting no rules. The presence of a no-carryover provision is the most important predictor of receiving a high index value.[23] We follow Clemens (2009) and categorize states with an index of 7 or higher as *strong* budget rule states and the remainder as *weak* budget rule states.

State governments typically spend and tax out of many accounts. However, only the general fund – a state's largest account and the one used to fund most broad-based services – is directly constrained by balanced budget rules (Bohn and Inman, 1996). We therefore focus our attention on

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[22] California voters approved issuance of up to $15 billion (relative to an annual budget of around $100 billion) of deficit financing bonds as a mechanism to stretch out the adjustment to the operating budget deficits that had accumulated following the 2000 recession and electricity bail-outs. Only $11 billion were issued at that time. These were designed as self-liquidating bonds with proceeds from an increase in the sales tax.

[23] The index first gives a score of 1 through 8 based on a state's strictest rule. Higher scores are awarded for rules based on realization as opposed to enactment. The highest score of 8 is awarded for the no-carryover provision. An additional point is added to the index for states with statutory rules and an additional 2 points are added for constitutional rules. When we divide the states into strong and weak rules all of the strong states have no carryover rules and none of the weak states have them.

general fund expenditures, revenues and year-end balances as measured annually in the National Association of State Budget Officer's (NASBO) *Fiscal Survey of the States*.

Finally, we also examine total debt levels. As noted earlier, while debt is largely taken on for capital expenditures, and also applies to accounts other than the general fund, resources may be fungible across accounts (e.g., the general fund, capital, and pension accounts) and uses (e.g., capital outlays and operating outlays). Additionally, one of the ultimate aims of balanced budget rules is to prevent the accumulation of debt and debt is therefore an important outcome measure in assessing the efficacy of the rules.

3.2.1 Year-end balances and deficits

Total year-end balances, the sum of the year-end balance in a state's general fund and rainy day fund, provide a signal of a state's fiscal position. Large year-end balances indicate the state has adequate resources to buffer negative shocks, while low balances may force difficult choices over taxes and spending in the event of an adverse shock. Although balances in excess of 5 per cent have traditionally been considered adequate, this judgment likely needs to be revised. Record high balances at the end of fiscal 2006 proved woefully insufficient to buffer the subsequent economic downturn.[24]

Panel A of Figure 5 displays average total year-end balances as a per cent of general fund expenditures. Balances are quite cyclical, rising during good economic times and falling as the economy turns downward. At all times, though, strong rule states maintain larger balances than weak rule states. Thus, strong budget rules states persistently maintain a stronger fiscal position than weak rule states.

Panel B examines deficits – years in which the sum of balances in the general fund and rainy day accounts are negative.[25] Deficits are somewhat cyclical, as they are most prevalent in the years immediately following recessions. Over most of the period, weak rule states were substantially more likely to run deficits. Interestingly, though, during the period of severe fiscal stress in 2009 and 2010, strong rules states were slightly more likely to end the year in deficit than weak rule states.

3.2.2 Debt

Simple correlations of the ACIR rating and debt levels suggest that tighter budget restrictions are associated with lower debt levels for the state general obligation bonds (–.357) or total state debt (–.374). The correlations for broader aggregates, such as for total state and local government bonds (which include debt by governments not subject to the rules measured by the ACIR ratings), are somewhat weaker. This suggests that these covenants may be binding and that states do not *fully* circumvent the covenants by shifting borrowing to the local level. There may be some shifting, as there is a negative correlation between state and local debt levels. The positive correlation between local debt and ACIR rating (which only applies to state debt) suggests that the negative relation between state debt and ACIR rating is not solely reflective of a taste for debt whereby areas with a higher tolerance for debt would have looser restrictions and higher debt at both levels of government. If that were the case then it is likely that the local debt levels would also be negatively correlated with the ACIR rating. Finally, the bottom rows of Table 4 indicate that

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[24] Indeed, state governments have traditionally run somewhat pro-cyclical policies despite having year-end balances in excess of 5 per cent at business cycle peaks.

[25] Recall, falling balances indicate that the state is running a deficit on a purely flow basis. The definition of a deficit used here is based on the rules governing state budgets that include general fund balances as part of the resources.

states with tighter restrictions experienced less debt growth over the 2000s, a period of strain for state budgets because of the two recessions.

3.3   Budget rules and fiscal shocks

In this section we examine how balanced budget rules influence the response of state governments to adverse fiscal shocks. In particular, we focus on the extent to which states adjust to shocks by making changes to taxes and spending, versus drawing down reserve funds and engaging in various accounting maneuvers.

3.3.1 Measuring fiscal shocks

Like Clemens and Miran (2010) and Clemens (2009), we utilize the budget shock framework pioneered by Poterba (1994). The budget shock framework utilizes general fund data collected by NASBO on both realized expenditures and revenues and the projections of expenditures and revenues upon which the budget for the fiscal year was based. In a state which requires that the passed budget be balanced, projected expenditures may not exceed projected revenues (including any

Figure 5

a) Year-End Balance
(percent of expenditures)
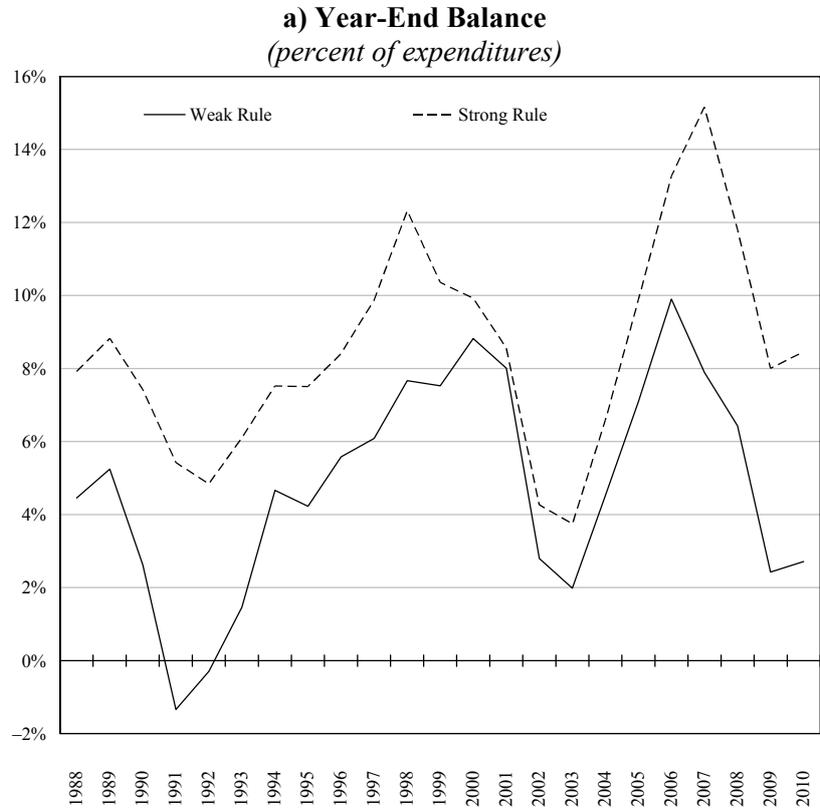
b) Negative Budget Balances
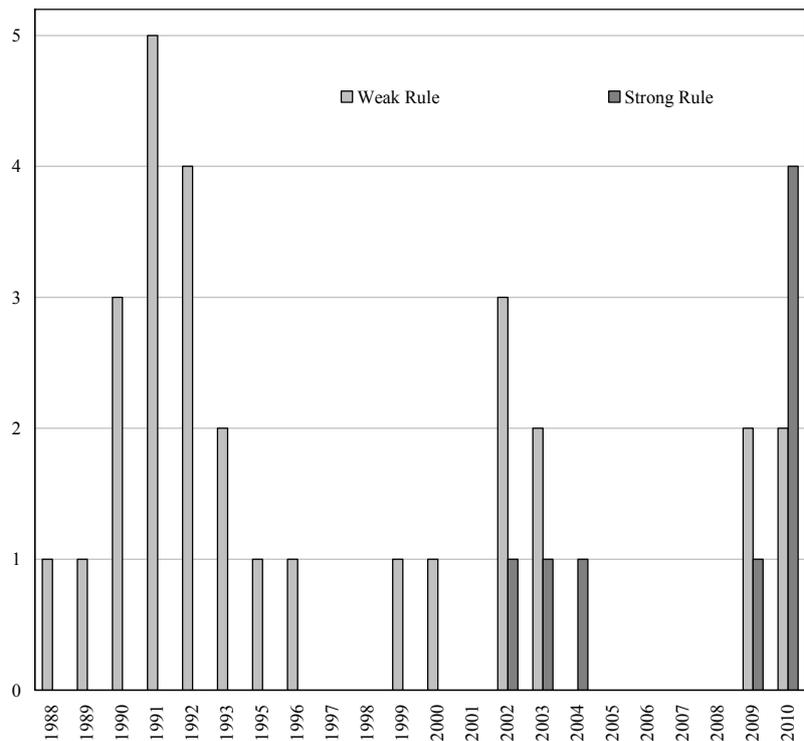
Table 4

Correlation of Debt with Budget Restrictions

Type of Debt	State and Local	State	Local	Memo: Correlation of State Debt with Local Debt
	Level of Debt in 2008			
Total debt	−.311	−.374	.062	−.480
GO debt	−.223	−.357	−.005	−.140
	Change in Debt, 2000-08			
Total debt	.033	−.077	.122	.339
GO debt	.055	−.226	.217	.086

Debt is the ratio of debt to state GDP. Budget restrictions are measure by ACIR rating where a higher number is more restrictive.
Source. Census of Governments. GO debt is total debt less public debt for private purposes.

year-end balances from the previous fiscal which are to be used in the current fiscal year). The NASBO data also contains information on expenditure and revenue changes enacted *after* the budget was passed, referred to as mid-year changes, such as spending reductions made to address a deficit. The data is currently available from the 1988 to 2010 fiscal year.

The revenue shock experienced by a state in a given year is the difference between actual revenues and the amount of revenues forecasted at the time the budget was passed, net of any mid-year policy changes:

$$Revshock_{it} = actual\ revenues_{it} - \Delta Tax_{it} - forecast\ revenues_{it} \qquad (1)$$

where ΔTax_{it} is the policy induced mid-year change in tax revenues in state i in year t (*i.e.*, changes in tax revenue enacted into law after the budget was passed). Netting out ΔTax_{it} is of crucial importance. In the absence of the ΔTax_{it} term in equation (1), a state which closed an emerging budget shortfall solely through a tax increase would have a measured revenue shock of 0 instead of the shock actual experienced and addressed through the tax increase. Thus, the revenue shock is the difference between what actual revenues would have been in the absence of any change to the state's tax code and the revenues projected at the start of the fiscal year. A negative revenue shock typically arises when tax receipts come in below expectation because economic activity was weaker than forecast by budget officials.

Similarly, the expenditure shock is defined as:

$$Expshock_{it} = actual\ expendture_{it} - \Delta Spend_{it} - forecast\ expenditures \qquad (2)$$

where $\Delta Spend_{it}$ is the mid-year policy change in expenditures (*i.e.*, changes in spending enacted into law after the budget was passed). Positive expenditure shocks occur for a number of different reasons, including when an economic downturn increases demand for transfer programs such as Medicaid.

The deficit shock experienced by a state in a given year is the difference between its expenditure shock and its revenue shock:

$$Defshock_{it} = Expshock_{it} - Revshock_{it} \qquad (3)$$

Figure 6

Positive Deficit Shocks
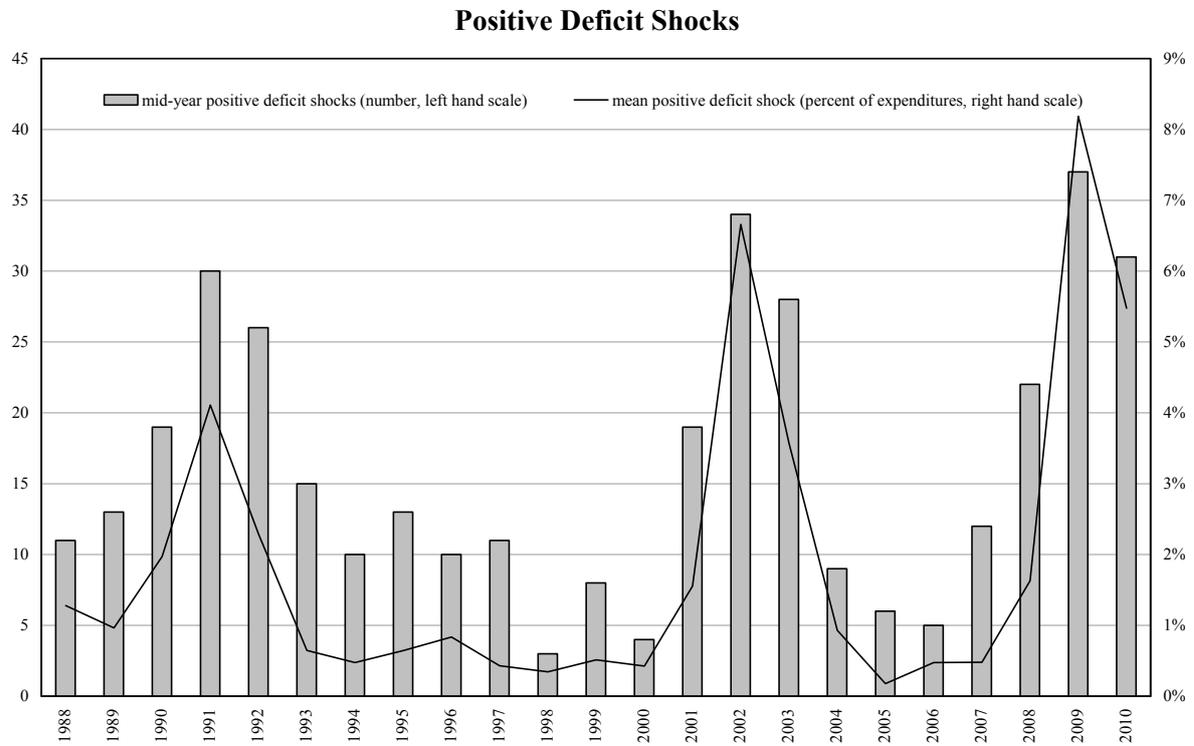
Defshock$_{it}$ quantifies the budget deficit (or suplus) which opens up over the course of a fiscal year. The deficit shock is the sum of the deviation of revenues and expenditures from the level forecasted by state policy makers at the time the budget was being set. It can therefore be thought of as a forecasting error.

The analysis focuses on positive deficit shocks which tend to arise during periods of fiscal stress. (For completeness, we display the results for negative shocks on the tables, but do not discuss them). Figure 6 displays the average positive deficit shock (the average deficit shock conditional on the shock being positive) in all years of our sample. The shocks are highly cyclical, consistent with the notion that they are driven by unexpected fluctuations in economic activity. The magnitude of these shocks, and the number of states experiencing them, are only a bit larger following the recent 2007-09 recession than during much milder 2001 downturn, in part because of relief provided by federal grants.

3.3.2 Outcomes

States have three primary methods for balancing their budget in the face of an adverse deficit shock: mid-year spending cuts, $\Delta Spend_{it}$, mid-year tax changes, ΔTax_{it}, and mid-year drawdown of reserve funds, $\Delta Reserve_{it}$. As already discussed, $\Delta Spend_{it}$ and ΔTax_{it} are changes made to spending and taxes after the budget has been passed, but before the end of the fiscal year.[26] These outcomes are considered in Poterba (1994).

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[26]   The NASBO data records all mid-year tax changes, but only records mid-year spending *decreases*. Mid-year spending *increases* are unobserved in the data. The mid-year spending change measure can therefore be thought of as a measure of spending recessions. This quirk in the structure of the NASBO data is one reason for the focus on periods of fiscal distress, as mid-year spending

(continues)

One of the contributions of this paper is to examine a third outcome, the drawdown of reserve funds, as this is one of the chief mechanisms by which states respond to shocks. $\Delta Reserve_{it}$ quantifies the unanticipated change in a state's reserve funds. It is defined as:

$$\Delta Reserve_{it} = actualbalance_{it} - projectedbalance_{it} - \Delta actualbalance_{i,t-1} - deficit_{it} \qquad (4)$$

where $\Delta actualbalance_{i,t-1}$ measures the unexpected change in the year t starting total balance.[27] A state typically passes the budget for fiscal year t during the course of fiscal year $t-1$. In most cases, the ending balance for year $t-1$, which then becomes the starting balance for year t, is not known with certainty when the year t budget is passed. As a result, the difference between actual, $actualbalance_{it}$, and projected, $projectedbalance_{it}$, year-end balances often partially reflects an adjustment in the resources with which the state starts the year. This adjustment, $\Delta actualbalance_{i,t-1}$, does not represent a drawdown of reserve funds in fiscal year t and is therefore netted out. $deficit_{it}$ measures the extent to which the difference between actual and projected balances, net of change in starting resources, reflects deficit financing. Moving the total balance into negative territory does not drawdown reserve funds; it is in essence a loan against future years' budgets. It therefore must also be netted out.[28]

3.3.3 Empirical model

We estimate the influence of deficits on spending and taxes with the following specification:

$$\Delta Spend_{it} = \alpha + \beta_s\, Defshock_{it} + \varepsilon_{it} \qquad (5)$$

$$\Delta Tax_{it} = \alpha + \beta_T\, Defshock_{it} + \varepsilon_{it} \qquad (6)$$

$$\Delta Reserve_{it} = \alpha + \beta_R\, Defshock_{it} + \varepsilon_{it} \qquad (7)$$

The hypothesis that states must annually balance their budgets yields the prediction that $\beta_s - \beta_T + \beta_R = -1$. The difference between the sum of the coefficients and -1 captures the extent to which states address budget imbalances by approaches such as deficit financing and accounting maneuvers such as transferring funds from outside the general account into the general account. The relative magnitudes of the coefficients shed light on which of the margins of adjustment, taxation, spending or reserves, is most important in closing deficits.[29]

In order to assess how the stringency of balanced budget rules affects the spending response to a deficit we estimate the following (and an analogous equation is used for the other outcomes):

$$\Delta Spend_{it} = \alpha + \beta_s\, Defshock_{it} + \beta_{sw}\, Defshock_{it} * Weak_{it} + \varepsilon_{it} \qquad (8)$$

where $Weak_{it}$ is an indicator variable for states with weak budget rules (*i.e.*, an ACIR index below 7). The hypothesis that the stringency of balanced budget rules influences the magnitude of deficit reduction measures corresponds to $\beta_{sw} > 0$. A crucial assumption underlying the budget shock framework is that deficit shocks represent unbiased forecast error.

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increases as relatively unlikely during these periods.

[27] Total balances at time t are equal to the ending balance in the general fund at time $t-1$ plus the state's budget stabilization fund (*i.e.*, rainy day account) at time t. A state's reserve fund equals the state's total balance, unless the total balance is negative in which case the reserve fund is empty and therefore equals 0.

[28] Assume a state starts the year with a total balance of \$50 million and has no change in its starting balance (*i.e.*, $\Delta actualbalance_{i,t-1} = 0$). It then addresses a deficit shock equal to \$75 million by adjusting its total year-end balance to $-\$25$ million. The difference between the actual and projected year-end balance is \$75 million. However, only \$50 million of this sum represents a drawdown of funds on-hand at the start of the fiscal year. The \$25 million of deficit financing must be netted out for $\Delta Reserve_{it}$ to capture only the drawdown of reserve funds.

[29] Equations (5) and (6) may appear to suffer from a simultaneity problem. For example, $\Delta Spend$ appears on both the right and left-hand sides of equation (5). As discussed in Poterba 1994 (p. 809), however, this problem is "apparent rather than real". In actuality, failing to subtract out the Δspend term (see equation 2) would introduce a simultaneity problem because the actual expenditureit term already includes $\Delta Spend$.

3.3.4 Sample

We restrict our sample to those states with either an annual budgeting cycle or an annual legislative cycle. States in which the legislative and budgeting cycles are both biennial are excluded as their response to fiscal shocks is likely to play out over a two-year period instead of the one-year framework assumed by the budget shock methodology. Following Clemens (2009), Alaska, Wyoming and Vermont are also excluded from the sample. Vermont is excluded because it has no balanced budget rules. Alaska and Wyoming are excluded because they exhibit very atypical fiscal flows, largely as a result of heavy reliance on the taxation of natural resource extraction (primarily oil). The estimation sample includes 39 states. Figure 7 displays these states and identifies the stringency of their budget rules. Finally, the NASBO data is available from 1988 through 2010. The estimation sample is limited to years of relative fiscal stress: 1988-1994, 2001-04, and 1998-2010, although results are general similar if all years 1988-2010 are included.

Table 5 presents summary statistics for the sample. The mean positive fiscal shock is a bit over $45 per-capita (expressed in 2004 dollars). Importantly, the magnitude and variance of positive deficit shocks (*Defshock* > 0) is nearly equal between weak and strong budget rule states (columns 2 and 3). The budget shock framework relies on the assumption that deficit shocks are true forecasting errors. Alternatively, the shocks could contain systematic bias. For instance, forecasts may be influenced by political pressure – e.g., intentionally optimistic forecasts intended to facilitate spending increases. This scenario becomes particularly problematic if the extent of bias is associated with the stringency of the rules – e.g., states with strong budget rules tend to produce less optimistic forecasts because the costs of overly optimistic forecast errors are increased by the stringency of the rules. In this case, divergence in fiscal behavior between weak and strong rule states might reflect endogenous forecast bias, not the efficacy of the rules. It is therefore encouraging that deficit shocks appear similar in both weak and string rule states. Although negative deficit shocks appear to be somewhat larger in weak rule states, the analysis does not focus on these shocks.

The remainder of the table displays the means for the three outcome variables. These mid-year budget adjustments are all quite cyclical, as can be seen in the three panels of Figure 8. $\Delta Spend_{it}$ (Panel A) only reflects spending cuts (see footnote 26). In order to make the panels comparable, ΔTax_{it} (Panel B) and $\Delta Reserve_{it}$ (Panel C) are plotted conditional on being positive and negative, respectively. Thus, the panels display the evolution over time of mid-year spending cuts, tax increases and reserve drawdowns.

3.3.5 Results

Table 6 displays the results of estimating the budget shock equations. Each dollar of positive deficit shock causes state policy makers to reduce spending by around 50 cents (column 1), with the estimate falling to about 40 cents with the inclusion of year and state fixed-effect terms (column 2). Tax policy plays only a minor role in addressing mid-year deficits, as each dollar of shock induces only 5 cents of tax increases within the fiscal year (columns 3 and 4). Note, though, that tax changes often take time to implement and such frictions may limit the utility of this policy lever for addressing with-in fiscal year budget shortfalls.[30] Reserve funds are used to plug roughly 20 cents of each dollar of deficit shock and thus occupy a middle ground between spending and

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[30] Poterba (1994) found tax changes for the following year to be an important lever. Our data currently does not permit us to investigate this.

Figure 7

Strong and Weak Budget Rule States in the Sample
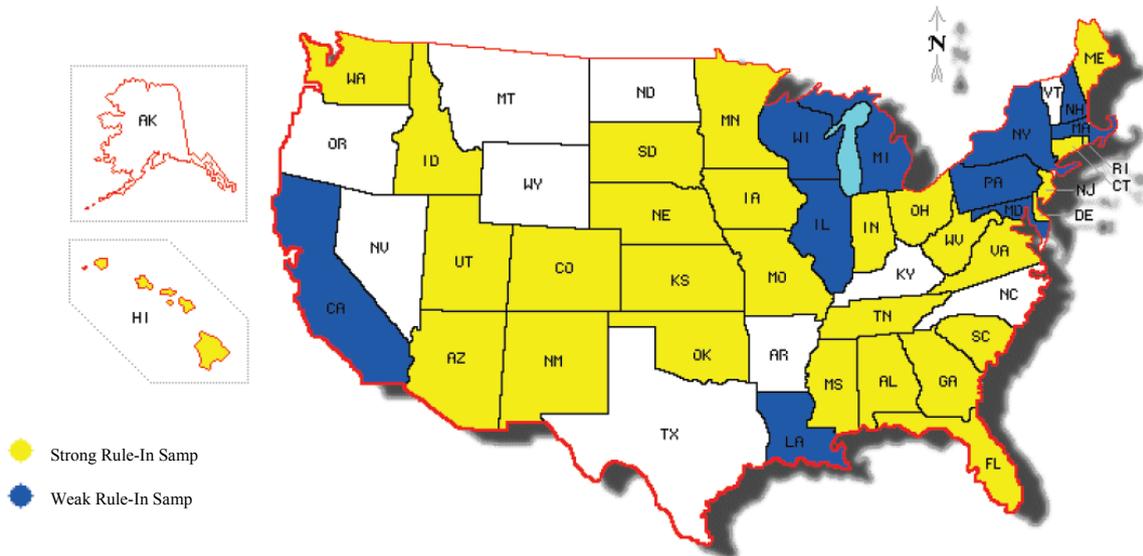
Note: White states are not in the sample (see the text). The blue states (dark) are weak budget rule states in the sample. The yellow states (light) are strong budget rule states in the sample.

Table 5

Summary Statistics for NASBO State Government General Fund Data

	Means			*p*-value for Test of Equality of Weak Rule and Strong Rule Means
	All States	**Weak Budget Rule States**	**Strong Budget Rule States**	
	(1)	(2)	(3)	(4)
Defshock > 0	47.42	45.92	51.38	0.53
	(90.08)	(87.05)	(97.86)	
Defshock < 0	−18.42	−20.53	−12.85	0.06
	(41.98)	(45.80)	(29.00)	
Δ*Spend*	−26.96	−28.93	−21.78	0.17
	(53.83)	(57.23)	(43.43)	
Δ*Tax*	2.35	1.49	4.51	0.01
	(12.57)	(8.74)	(19.00)	
Δ*Reserves*	8.66	13.33	−3.22	0.01
	(66.03)	(57.41)	(83.12)	
Number of Observations	539	391	148	

Note: Columns (1)-(3) contains means with standard deviations in paraentheses. Column (4) contains *p*-values from the hypothesis test that the mean in column (2) equals the mean in column (3). The unit of observation is state-year. The sample contains 39 states and the years 1988-94, 2001-04, and 2008-10.

Figure 8

a) Mid-year Budget Cuts
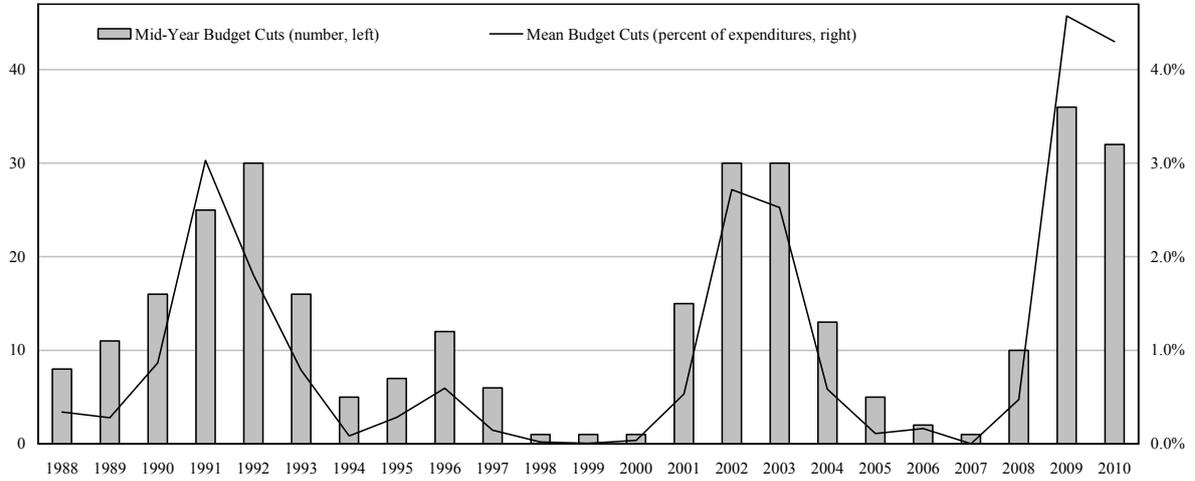
b) Mid-year Tax Increases
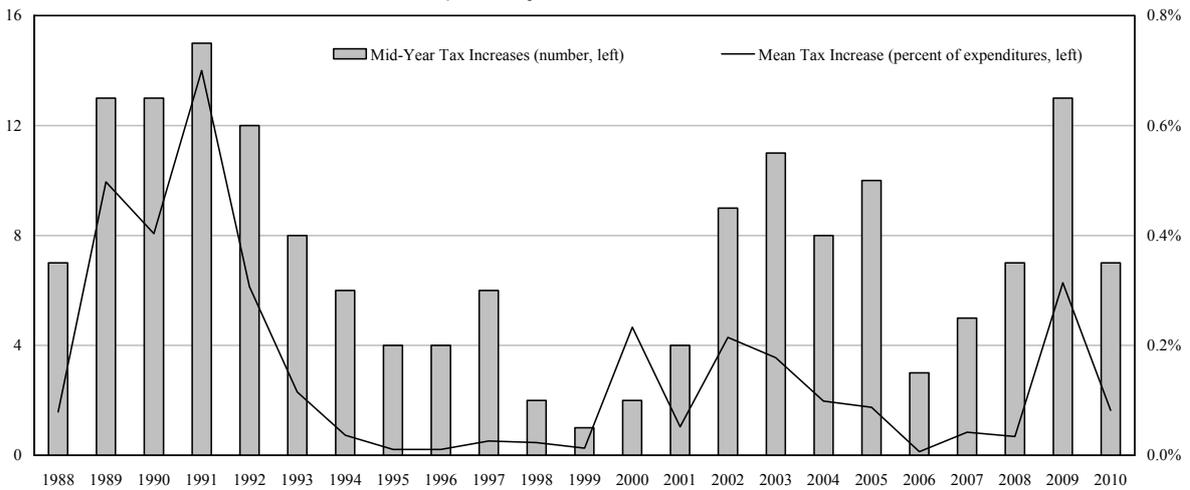
c) Mid-year Reserve Fund Drawdowns
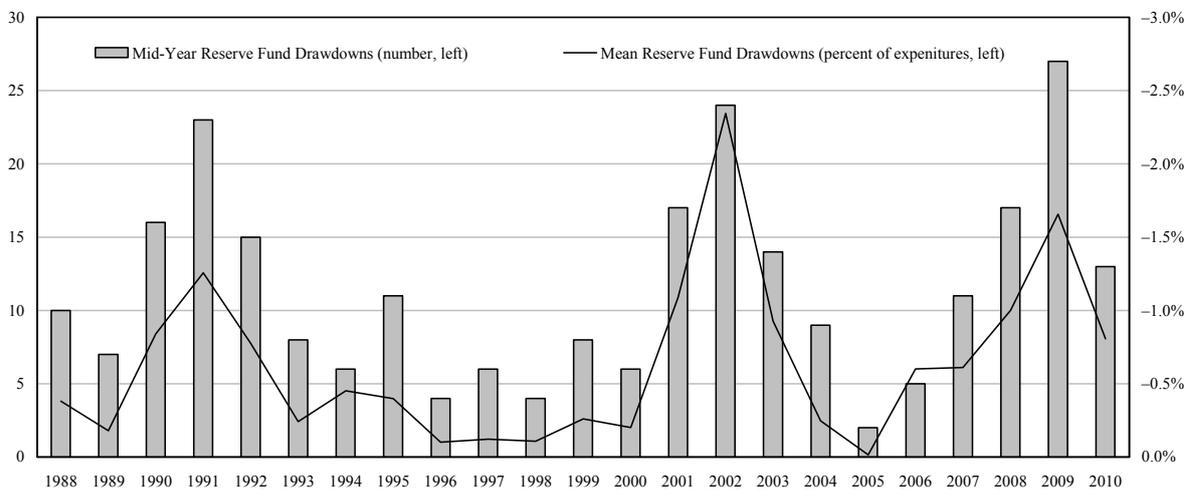
Table 6

State Reaction to Fiscal Shocks

	ΔSpend		ΔTax		ΔReserves		ΔSpend – ΔTax + ΔReserves	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Defshock > 0	–0.47	–0.38	0.05	0.05	–0.21	–0.21	–0.73	–0.64
	(0.04)***	(0.05)***	(0.02)**	(0.02)**	(0.07)***	(0.07)***		
Defshock < 0	0.01	–0.06	0.02	0.03	–0.78	–0.73	–0.79	–0.82
	–(0.02)	–(0.04)	–(0.02)	–(0.02)	(0.10)***	(0.16)***		
Number of observations	539		539		536		N/A	
Year fixed-effects		X		X		X		X
State fixed-effects		X		X		X		X

Note: Standard errors clustered by state in parentheses. The unit of observation is state-year. The sample includes the years 1988-94, 2001-04, and 2008-10. The dependent variable is given in the colum header.

taxes (columns 5 and 6).[31] In total, the three outcomes are used to clear from around 75 cents to 65 cents of each dollar of shock (columns 7 and 8). The residual 25 cents to 35 cents is dealt with through deficit financing or accounting techniques such as transfers from other governmental accounts.

Panel A of Table 7 considers the possibility that the response to deficits may have differed during the 2008-10 period (as compared to the other periods of fiscal stress in the sample, 1988-94 and 2001-04). Examining this period is another contribution of our analysis. Not only were the magnitude of deficits larger in this period (Figure 6), but states also received a large infusion of *temporary* grants from the federal government beginning in fiscal 2009.[32] The infusion of aid, which is reflected in the NASBO data, significantly reduced the magnitude of the mid-year deficit shocks (at least in 2009). However, states were aware that the downturn was likely to be unusually protracted and that the fiscal assistance was temporary. As a result, they may have been reluctant to use all of the fiscal stimulus grants to plug current year budget shortfalls, but instead may have decided to use these funds over several years. Using the funds over a period of several years would

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[31] The NASBO data is inconsistent across states in how transfers from the rainy day account to the general fund (and vice versa) are handled. In many cases, these transfers are handled as "adjustments". This is the preferred data construction for the methodology used in this paper. In other cases, the transfers are included in revenues and/or expenditures and cannot be distinguished from other changes in revenues and expenditures. The inconsistency results from the fact that the states choose how to handle the issue when they report to NASBO. When mid-year rainy day fund transfers are *not* handled through adjustments, the magnitude of the deficit shock will be understated by the amount of the transfer (e.g., a positive transfer from the rainy day account into the general fund will increase revenues and therefore decrease the size of a deficit shock). The inconsistency is a clear drawback of the NASBO data. However, when the data is restricted to only state-years in which "adjustments" were made, the results are essentially unchanged. Furthermore, the number of weak and strong budget rule states reporting adjustments is nearly equal and cannot be statistically distinguished.

[32] In the previous episodes the federal government provided relatively little temporary assistance. In 1990-92 the federal government stood by while states gamed the Medicaid rules to boost state aid and in 2003 a small amount of Medicaid grants were issued to states in response to their budget problems.

Table 7

Balanced Budget Rules and State Reaction to Fiscal Shocks

	ΔSpend		ΔTax		ΔReserves		ΔSpend − ΔTax + ΔReserves	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A) Parameters Permitted to Differ in 2008-2010 Fiscal Downturn								
Defshock > 0	−0.32	−0.30	0.06	0.06	−0.35	−0.31	−0.73	−0.67
	(0.05)***	(0.05)***	(0.02)***	(0.02)**	(0.07)***	(0.08)***		
Defshock < 0	−0.04	−0.08	0.02	0.04	−0.67	−0.61	−0.73	−0.73
	−(0.02)	(0.02)***	−(0.02)	(0.02)*	(0.13)***	(0.20)***		
Defshock > 0 * Current Downturn	−0.18	−0.11	−0.02	−0.01	0.16	0.15	0.00	0.05
	(0.06)***	−(0.07)	−(0.02)	−(0.04)	(0.07)**	−(0.14)		
Defshock < 0 * Current Downturn	0.09	0.02	−0.02	−0.03	−0.27	−0.33	−0.16	−0.28
	−(0.05)	−(0.07)	−(0.02)	−(0.02)	−(0.17)	(0.19)*		
B) Parameters Permitted to Differ by Strength of Budget Rules								
Defshock > 0	−0.53	−0.43	0.02	0.03	−0.15	−0.17	−0.70	−0.63
	(0.05)***	(0.05)***	−(0.02)	−(0.02)	(0.03)***	(0.05)***		
Defshock < 0	0.02	−0.06	0.01	0.03	−0.75	−0.67	−0.74	−0.76
	−(0.02)	−(0.04)	−(0.01)	(0.02)**	(0.10)***	(0.14)***		
Defshock > 0 * Weak Rules	0.19	0.15	0.07	0.08	−0.18	−0.11	−0.06	−0.04
	(0.07)**	(0.09)*	(0.03)**	(0.04)**	−(0.16)	−(0.18)		
Defshock < 0 * Weak Rules	−0.02	0.01	0.05	0.00	−0.26	−0.53	−0.33	−0.52
	−(0.03)	−(0.08)	−(0.04)	−(0.06)	−(0.20)	−(0.37)		
Number of observations	539		539		536		N/A	
Year Fixed-effects		X		X		X		X
State Fixed-effects		X		X		X		X

Note: Standard errors clustered by state in parentheses. The unit of observation is state-year. The sample includes the years 1988-94, 2001-04, and 2008-10. The dependent variable is given in the colum header.

require a more intense response to the mid-year deficits of 2008-10 than occurred in response to the deficits of earlier periods.

Panel A fails to support the hypothesis of a more intense fiscal response in the 2008-10 period. Although spending and reserves appear to experience a larger adjustment (columns 1 and 5), these results are not robust to the inclusion of year and state fixed-effects (columns 2 and 6). The overall adjustment per dollar of deficit shock achieved through the three fiscal margins appears to have been the same in 2008-10 as in earlier periods (columns 7 and 8). That said, because the shocks ware larger the adjustments were greater.

The ultimate aim of the analysis, assessing the efficacy of balanced budget rules, is addressed in Panel B. The response to deficits is permitted to differ by strong and weak budget rule states (equation 7). The estimates suggest that strong rule states reduce spending mid-year by about 50 cents for every dollar of shock, while weak rule states cut spending by only 30 cents (column 1). However, the result is only weakly precise when the year and state terms are included (column 2). In contrast, the budget rule effect on budget recessions is remarkably robust in Clemens (2009). Turning to taxes, the results are somewhat puzzling as weak rule states increase taxes more in response to deficit shocks than do strong rule states. However, the primary conclusion from Table 6 remains: in both weak and strong rule states only a small fraction of a deficit shock is addressed though mid-year tax increases. Finally, there is no evidence that budget rules influence reserve fund drawdowns (columns 5 and 6).

Table 8 explores the possibility that the efficacy of balanced budget rules changed in the 2008-10 period. The estimating equation interacts the deficit shock measure with both $Weak_{it}$ and $Current_{it}$, where $Current_{it}$ is an indicator for fiscal years 2008-10. A triple interaction of the deficit shock and $Weak_{it}$ and $Current_{it}$ is also included. To ease the interpretation, the marginal effects of a positive deficit shock for differing groups of states, as well as the results of hypothesis testing based on these marginal effects, are presented in the bottom portion of the table.

In contrast with the results on Panel B of Table 7, there is strong evidence of budget rule efficacy on the spending margin (columns 1 and 2; hypothesis test ii). Strong rule states engage in 41 cents of mid-year spending cuts when a budget shortfall opens (marginal effect a), whereas weak rule states make only 18 cents of cuts (marginal effect c). These results are nearly identical to those in Clemens (2009) (unsurprisingly given that these marginal effects are identified from the exact same set of years as used in Clemens). There is some indication, though, that the difference between weak and strong rule states has been reduced in the current period. While there is a fairly large difference in the magnitude of the current period spending response, 39 cents for weak rule states (marginal effect d) versus 55 cents for strong rule states (marginal effect b), the difference is not precise (hypothesis test iv). Furthermore, the estimates suggest that the behavior of weak rule states on the spending margin has changed in the current period relative to the earlier period. Previously these states reduced spending by 18 cents (marginal effect c), but in the current period they cut spending by 39 cents (marginal effect d); the difference is statistically meaningful (hypothesis test iii). Although strong rule states also appear to have increased the intensity of their response (marginal effects a and b), the difference is not precise (hypothesis test i).

The evidence is thus somewhat mixed as to how much the spending response to deficit shocks differs in the current period and the role of budget rules in this difference. Taking a step back, one possibility is that the lack of statistical precision for some of the hypothesis tests may disappear when more data is available from the current crisis. Overall, the point estimates suggest that both weak and strong budget rule states increased the magnitude of their spending response.

On the tax margin there appears to be insufficient power to draw many precise conclusions (columns 3 and 4). However, there is evidence that the more aggressive weak rule state response on

Table 8

Balanced Budget Rules and State Reaction to Fiscal Shocks

	ΔSpend		ΔTax		ΔReserves	
	(1)	(2)	(3)	(4)	(5)	(6)
Defshock > 0	−0.41	−0.39	0.05	0.05	−0.32	−0.33
	(0.04)***	(0.05)***	(0.03)*	(0.03)	(0.07)***	(0.10)***
Defshock > 0 * Current Downturn	−0.14	−0.07	−0.03	−0.03	0.20	0.23
	(0.07)*	(0.09)	(0.02)*	(0.02)	(0.06)***	(0.11)**
Defshock > 0 * Weak Rules	0.23	0.24	0.03	0.04	−0.07	0.09
	(0.04)***	(0.06)***	(0.03)	(0.04)	(0.13)	(0.11)
Defshock > 0 * Weak Rules * Current Downturn	−0.07	−0.10	0.06	0.05	−0.14	−0.25
	(0.10)	(0.10)	(0.05)	(0.05)	(0.21)	(0.21)
Marginal Effects						
(a) Positive Shock	−0.41	−0.39	0.05	0.05	−0.32	−0.33
(b) Positive Shock during Current Crisis	−0.55	−0.46	0.02	0.02	−0.12	−0.11
(c) Positive Shock with Weak Rules	−0.18	−0.15	0.08	0.09	−0.38	−0.24
(d) Positive Shock during Current Crisis with Weak Rules	−0.39	−0.32	0.10	0.11	−0.32	−0.26
Hypothesis Testing (p-values)						
(i) Current Crisis Differs from Prior Episodes						
H_0: (a) − (b) = 0	0.07	0.43	0.09	0.18	0.00	0.05
(ii) Weak Rules Differs From Strong Rules						
H_0: (a) − (c) = 0	0.00	0.00	0.40	0.31	0.62	0.38
(iii) Weak Rules in Current Crisis Differ from Weak Rules in Prior Episodes						
H_0: (d) − (c) = 0	0.00	0.03	0.55	0.71	0.76	0.94
(iv) Weak Rules in Current Crisis Differ from Strong Rules in Current Crisis						
H_0: (d) − (b) = 0	0.09	0.18	0.03	0.03	0.33	0.47
Number of observations	539		539		536	
Year and State Fixed-effects		X		X		X

Note: Standard errors clustered by state in parentheses. The unit of observation is state-year. The sample includes the years 1988-94, 2001-04, and 2008-10. The dependent variable is given in the column header. Negative deficit shock main term and interactions are included, but not displayed.

the tax margin, as compared to strong rule states, seen on Table 7 is produced by behavior in the current period (hypothesis test iv). Again, though, the overall size of the tax response is small.

It appears that states have been relatively hesitant to drawdown reserve funds in the current period relatively to their prior behavior (columns 5 and 6; hypothesis test i). States reduced their reserves by around 35 cents in prior episodes (marginal effect a), but reduced reserves by only about 10 cents in 2008-10 (marginal effect b). There is no evidence that budget rules influence the magnitude of this response in any period.

4   Conclusion

Reviewing the American experience we find little evidence that statutory budget rules affect budget decisions. At times they are correlated with better budget outcomes because the change in rules and the change in policy both reflect a change in preferences of policymakers. By contrast, rules that are constitutionally based appear to have teeth. This leads to lower levels of debt, smaller deficits, and more pro-cyclical budget outcomes at the state level than at the federal level. We see this behavior in the aggregate time series data as well as in the cross-section data.

REFERENCES

Advisory Commission on Intergovernmental Relations (1987), "Fiscal Discipline in the Federal System: National Reform and the Experience of the States".

Auerbach, A. (1994), "The U.S. Fiscal Problem: Where We Are, How We Got Here, and Where We're Going", in *NBER Macroeconomics Annual*, MIT Press, Cambridge.

—————(2008), "Federal Budget Rules: The U.S. Experience", *Swedish Economic Policy Review*, Vol. 15.

Bohn, H. and R. Inman (1996), "Balanced-budget Rules and Public Deficits: Evidence from the U.S. States", Carnegie-Rochester Conference Series on Public Policy.

Congressional Budget Office, *The Budget and Economic Outlook*, various years.

Clemens, J. (2009), "State Fiscal Adjustment During Times of Stress: Composition and Its Possible Causes", mimeo.

Clemens, J. and S. Miran (2010), "The Effects of State Budget Cuts on Employment and Income", mimeo.

Congressional Quarterly (1977), *Congress and the Nation, Volume IV, 1973-1976*, CQ Press, Washington (D.C.).

—————(1989), *Congress and the Nation, Volume VII, 1985-1988*, CQ Press, Washington (D.C.).

Follette, G. and B. Lutz (2010), "Fiscal Policy in the United States: Automatic Stabilizers, Discretionary Fiscal Policy Actions, and the Economy", in Banca d'Italia (ed.), *Fiscal Policy: Lessons from the Crisis*, acts of the 12th Public Finance Workshop held in Perugia, 25-27 March.

Gramlich, E. (1990), "U.S. Federal Budget Deficits and Gramm-Rudman-Hollings", *American Economic Review*, Papers and Proceedings, May.

Hahm, S.D., M.S. Kamlet, D.C. Mowery and T.-T. Su(1992), "The Influence of the Gramm-Rudman-Hollings Act on Federal Budgetary Outcomes, 1986-1989", *Journal of Policy Analysis and Management*, Vol. 11, No. 2.

Hou, Y. and D. Smith (2010), "Do State Balanced Budget Requirements Matter? Testing Two Explanatory Frameworks", *Public Choice*.

—————(2006), "A Framework for Understanding State Balanced Budget Requirement Systems; Re-examining Distinctive Features and an Operational Definition", *Public Budgeting and Finance*, Vol. 26, No. 3.

National Association of State Budget Officers (2010-1988), *Fiscal Survey of the States*, Washington (D.C.).

National Conference of State Legislatures (1999), "State Balanced Budget Requirements", April 12, available at: http://www.ncsl.org/default.aspx?tabid=12660

Poterba, J. (1994), "State Responses to Fiscal Crises: The Effects of Budgetary Institutions and Politics", *Journal of Political Economy*, Vol. 102, No. 4.

Reischauer, R. (1990), "Taxes and Spending Under Gramm-Rudman-Hollings", *National Tax Journal*, Vol. 43, No. 3, September.

Shoag, D. (2010), "The Impact of Government Spending Shocks: Evidence on the Multiplier from State Pension Plan Returns".

Suárez Serrato, J.C. and P. Wingender (2010), "Estimating Local Fiscal Multipliers".

FISCAL RULES AND FISCAL POLICY IN BRAZIL

Ana Teresa Holanda de Albuquerque[*]

The Brazilian fiscal framework, set from 1997 to 2001, played an important role in the macroeconomic consolidation and allowed the Government to adopt countercyclical measures to tame the financial crisis of 2008. The fiscal framework can be summarized in five steps: i) a large-scale privatization program; ii) recognition of extrabudgetary unrecorded liabilities; ii) subnational debt restructuring program; iv) achievement of public sector high primary surplus targets, in order to redeem net debt in the long term; and v) the institution of fiscal rules by the Fiscal Responsibility Law, which comprises general targets and limits for selected fiscal indicators. In 2003, the central government decided to raise the primary surplus, and therefore when the crisis arrived at the end of 2008, the public sector net debt had already fallen from 60.6 per cent of GDP to 38.4 per cent of GDP. During that time, the decision to expand the allocation in allowances provided to low-income families proved an important cushion when the crisis came. In 2009, the net debt shifted to 42.8 per cent of GDP due to loss of revenues, tax deductions and subsidies to companies through low interest rates loans provided by the national banks. Moreover, mandatory expenditures kept increasing, contributing to boost government dissavings. In the near term, the primary surplus is due to increase again, offsetting the net debt recent rebound. However, important fiscal policy challenges still remain.

1   Introduction

The paper provides an overview of the Brazilian fiscal policy undertaken during the past 16 years, since the launching of the Real stabilization plan in July,1994. It also discusses the active fiscal policy and recent outcomes after the financial crisis in 2008 and the main challenges to be tackled in the near term.

The fiscal framework built throughout the mid-'90s, as a response to the impact of the Real stabilization plan aftermath on fiscal accounts and to the international economic turmoil, provided the background for the favorable fiscal stance after 2003 and was an important means to supporting the fiscal policy undertaken in 2009, aimed to offset the impact of the recent financial crisis. It can be summarized in four steps: i) a large-scale privatization program, aimed to transfer to the private sector the activities unduly undertaken by the public sector, to reduce the public debt and to finance a major part of the external unbalance; ii) recognition of quasi-fiscal or extrabudgetary unrecorded liabilities; iii) subnational debt restructuring program conditioned to fiscal adjustment programs, intended to stop recurrent intra governmental bail-outs; and iv) the institution of fiscal rules by the Fiscal Responsibility Law in 2001, which sets a fiscal framework, ceilings for selected indicators and rules towards governance and transparency. Moreover, other efforts towards administrative, social security and civil servants' pension reforms were gradually addressed. From 1996 to 2002, the net debt soared from 30.7 per cent of GDP to 60.6 per cent GDP, respectively, due to the impact of international crises, high interest rates and the amount of liabilities recognized in the net debt during the period of fiscal adjustment. In 2003, the central government decided to increase the primary surplus, so as when the 2008 financial crisis erupted, shrinking the external credit and putting downward pressure to exchange rate depreciation, the public sector net debt had already

fallen to 38.4 per cent of GDP. During that time, the decision to increase the allowances provided to low-income families was an important cushion to the economic impact of the recent financial crisis.

Going forward, the paper estimates that the public sector net debt to GDP rate tends to fall in the near term, due to: high primary surplus targets, lower level of interest rates than in the past years and expected economic growth in the following years. High primary surplus will still be necessary to contribute to foster domestic savings and to reduce long term real interest rates. Besides, the government will have to take measures towards the control of current expenditures, in order to allow an increase of the public investment share on total expenditure, and to make a step forward in the fiscal reform agenda.

The paper is divided in four sections: the first presents the main fiscal measures undertaken in the Plano Real aftermath and their impact on net debt; the second addresses the impact of the Fiscal Responsibility Law (FRL) on sub-national goverments' fiscal accounts; the third refers to the management of fiscal policy from 2003 to 2008 and the recent countercyclical measures taken after October, 2008; the last section addresses the near-term challenges. The FRL main features are treated in a specific Annex.

2   Fiscal consolidation background

In spite of the Real Plan success in controlling inflation, the public finances were still to be tackled in 1994. After the price stabilization, the governments were not able to adjust their finances by inflation as before, mainly by adjusting expenditures below the inflation rate. Besides, the public sector had lost the ability to invest, and the SOEs were running high deficits or were inefficient, with mismanagements and political interference.[1]

From 1994 to 1998 the fiscal stance was also affected by the policies aimed to tame inflation and to defend the currency under an exchange rate-based stabilization plan, through the sterilization of liquidity caused by foreign inflows and the increase of the Selic target interest rate, which indexed most part of government's bonds. During this time, the government decided to enhance the privatization process in place since 1990. While the privatization proceeds were meant to redeem public debt, the foreign inflows also helped to delay the Real devaluation until 1999.

The currencies devaluation in Asian developing countries during the financial turmoil in 1997 led to a huge loss of international reserves, putting downward pressure on the Real domestic currency in 1998. The major setback of global credit, particularly into the emerging markets, urged the government to an acceleration of the fiscal adjustment. As a response to the crisis, the government made an US$ 41 billion preventive agreement with the IMF and other multilateral agencies to regain credibility in the international financial markets, which among other measures, settled a fiscal adjustment beginning at the end of that year. Therefore, the government created the Fiscal Stabilization Plan, which set increasing primary surplus targets along with structural measures, with the intention to build a definitive fiscal consolidation.

The Plan encompassed 2 initiatives: i) a Plan of Action 1999-2001, to be tackled in the near term: setlement of fiscal adjustment agreements with the states, sanitation and privatization of state banks and the control of sub-national and SOEs borrowings, along with public sector primary suplus targets of 2.6 per cent of GDP in 1999, 2.8 per cent of GDP in 2000 and 3.0 per cent of GDP in 2000; and ii) a working agenda towards administrative, social security, civil servants' pensions, tax and labor reforms, along with the institution of a fiscal responsibility law.

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[1]   SOEs: state-owned enterprises.

Public Sector Net Debt and Primary Surplus
(percent of GDP)
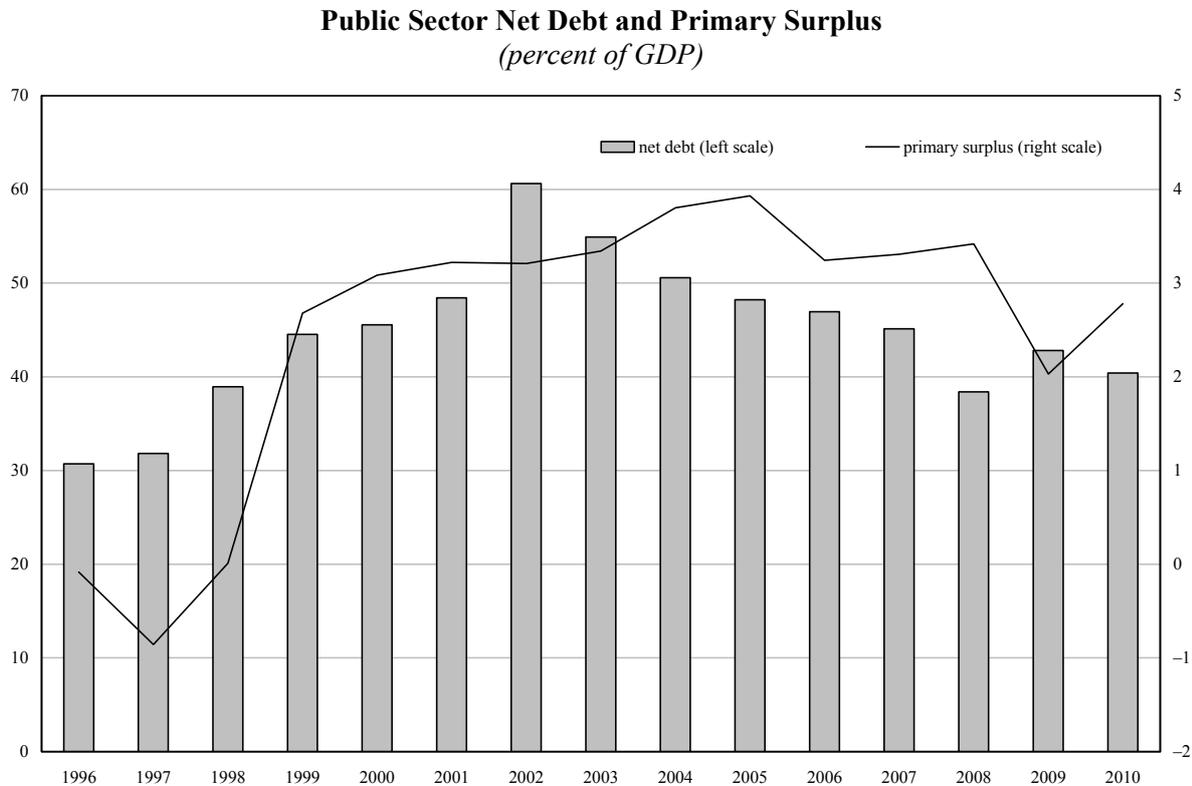
Source: Central Bank.

In January 1999, the real was devaluated and the government changed its policy from fixed exchange rate regime to inflation targeting with flexible exchange rate. Hitherto, the large-scale devaluation and continuously high interest rates contributed to boost the net debt, which kept increasing until the electoral year of 2002, after the impact of another crisis of confidence related to Lula's new administration (Figure 1).

Those factors were determinant to slower economic growth throughout the years until 2003. A new stand-by agreement was made in 2002, which included another primary surplus target increase, from 3.35 to 3.75 per cent of GDP, and structural reforms, as the creation of a pension fund for civil servants and a tax reform proposal. Therefore, although the primary surplus contributed to lower the PSBR from 6.8 per cent of GDP in 1998 to 4.4 per cent of GDP in 2002, the net debt rose from 38.9 per cent of GDP to 60.6 per cent of GDP in 2002 in the same period, mainly due to the impact of broad exchange rate devaluations. After 2003, the primary surplus target was raised again to 4.25 per cent of GDP.

The macroeconomic policy, based on inflation targeting with flexible exchange rate regime and fiscal adjustment, was determinant to restablish stability and regain confidence, which allowed the country to benefit from the favorable international environment after 2003, fostering economic growth with lower inflation. As a consequence, the annual target interest rate fell from 19 per cent to 13.75 per cent and the net debt fell from 60.6 per cent of GDP to 38.4 per cent of GDP between 2002 and 2008. It also allowed a more favorable Treasury bonds' maturity and composition, with the gradual decrease of issues linked to overnight interest rates and to exchange rates.

Figure 2

Net Debt Main Factors
(percent of GDP)
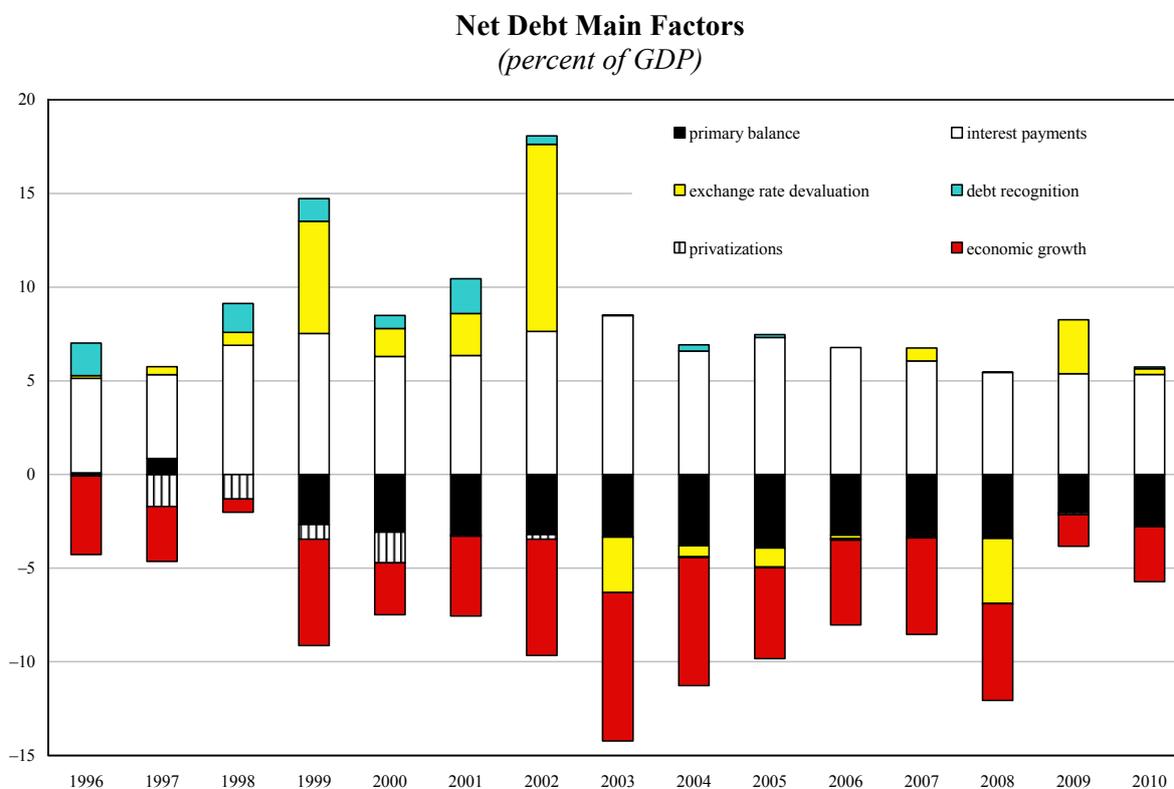
In the external sector, all solvency indicators showed a great improvement, led by the international reserves accumulation policy, increasing commodity prices and boosting foreign investment. The government's external net debt became negative and reached 2.1 per cent of GDP in 2005 from a positive 15.7 to GDP rate in 2002, due to joint measures of international reserves accumulation and Treasury repurchases of its external debt. The reversal from current account deficits to surpluses after June, 2003 and the improvement in the other macroeconomic fundamentals resulted in the country risk to reach its lowest level in the international markets and in a virtual cycle of an average economic growth, from 1.9 per cent between 1999 and 2003, to 4.8 per cent between 2004 and 2008.

Although the Fiscal Stabilization Program underlines all the period of policies adjustment towards economic stabilization, from 1994 to 2003, they were not sufficient to overcome the resulting impact of currency devaluations, high interest rates and slower economic growth in the fiscal stance during most of the adjustment period (Figure 2). The impact of the Program may only be seen after 2003 and in a long-term perspective, in terms of the provision of efficiency gains to the fiscal and monetary policies.

2.1 *The privatization program*

The privatization program undertaken in the 90s was one of the largest in the world: from 1991 to 2002, it transferred the control of 119 firms – being 84 held by the central government – and minority stakes in a number of companies to the private owners. The auctions produced US$ 87.8 billion in revenues, plus the transfer of US$ 18 billion in debt (Table 1). This amount

Brazilian Privatization Program
(US$ billion)

Program	Revenues	Debt Transferred	Total Proceeds
Federal level	59.8	11.3	71.1
telecommunication	*29.0*	*2.1*	*31.1*
others	*30.8*	*9.2*	*40.0*
State level	28.0	6.7	34.7
Total	87.8	18.0	105.8

Source: BNDES – National Social and Economic Development Bank.

encompasses US$ 6 billion shares of firms that remained SOEs, US$ 10 billion from new concessions of public services to the private sector, and US$ 1.1 billion in minority stakes in various private companies owned by the National Social and Economic Development Bank – BNDES.

The privatization program had three components: i) the National Program of Privatization (PND) at the central government level, which started in 1991 with the privatization of several industrial companies, ports, railroads, the Vale mining corporation in 1997 and public concessions in the energy and telecommunication sectors; ii) similar programs at the state level, launched in 1996, which had it picks in 2000 with the privatization of Banespa bank, owned by the state of Sao Paulo; and iii) the privatization of the telecom industry, in 1997, which accounted for 30 per cent of the total proceeds.

In spite of its positive impact of 6.1 per cent of GDP on fiscal accounts, the Program was not sufficient to compensate the sharp public net debt boost during the period, even when the Program reached its highest levels in 1997 and in 2000 (Figure 3). In fact, it was more effective in attracting foreign direct investment, which helped to maintain the foreign imbalance and to delay devaluation, which came only in early 1999, after the privatization program had slowed down. Therefore, because the program was developed in a context of macroeconomic policies aimed to tackle the inflation and to defend the currency under an exchange rate-based regime, the intended goals of reducing debt in order to open room to lower interest rates in the economy could not be seen hitherto. Other goals, such as stopping SOEs' deficits once and for all and improving economic efficiency were much clearly perceived.

Macedo *et al.* (2003 and 2005) examined the changes in performance of those companies after the privatization, comparing their annual financial statements (balance sheets, income statements and cash flows) years before and after privatization. They found that the results indicate an improvement in profitability and in efficiency.

In the case of the companies owned by the states, 40 were privatized and 15 had their minority stakes sold to the market, in the context of the states' debt restructuring with the federal government. Among them, state banks were privatized with the objective of not only addressing their chronic public debt problems, but reducing the participation of local governments in banking activity. In fact, the two problems were related: state banks were the main purchasers of the local governments' bonds. Debt restructuring packages were offered for those who agreed to applying their banks to the following purposes: a) to liquidate it; ii) to privatize it; c) to transfer it to the

central government for future privatization; or iv) to transform it in a development agency.[2] In 1998, the state banks represented over 17.4 per cent of total domestic banking credit and 10.1 per cent of total deposits. The state financial system encompassed 25 commercial and multiple banks, 2 saving banks, 5 development banks and 32 other financial institutions. By 2002, 14 financial institutions had been liquidated, 20 had been privatized by the states, 11 had being transferred to the central

Figure 3

Privatization of SOEs
(impact on net debt to GDP)

government, being 7 privatized, and 10 development agencies had been created. The 4 remaining banks held by the central government were privatized between 2003 and 2005. Nakane and Weintraub (2003) found that in the case of the banking sector the program has had a positive impact on productivity.

2.2   Recognition of quasi-fiscal or extrabudgetary unrecorded liabilities

From 1996 to 2001, several off-budget liabilities were registered in the net debt, mainly as a consequence of SOEs' debt transfers to the central government due to the privatization program – most of them related to employees' legal claims – or through the transfer of bad performance loans as part of a large-scale capitalization of state-owned financial institutions. The liabilities also encompass the net fiscal impact of the private banking system restructuring from 1995 to 1997.[3]

From the total of 8 per cent of GDP of liabilities recognized, 51.7 per cent was due to capitalization of state-owned banks at the central government level in 2001. Moreover, the process of sanitation and privatization of state banks and SOEs resulted in the recognition of several asset losses or assumption of debts, which represented 20.9 per cent of the total debt recognition. Finally, 16.9 per cent were interest rates subsidies on housing loans registered in the banks' balance sheets as credit against the central government. Those assets are still being audited by the National Savings Bank (Caixa Economica Federal – CEF), as part of the process of debt recognition, and being exchanged by long-term market tradable government bonds, called Certificate of Wages Variations – CVS. In December, 2010, over R$ 56.1 billion of CVS (1.7 per cent of GDP) were registered in the net debt, from the total liabilities of R$ 150 billion (4.8 per cent of GDP).[4] The

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[2]   Those measures were set by the "program of incentives for the reduction of the public sector presence in the financial activity", called PROES, launched in 1996.

[3]   PROER – Program of incentives for the restructuring of the national financial system, launched in 1995.

[4]   The housing subsidy created in 1967 called Fundo de Compensação de Variações Salariais (FCVS) aimed to guarantee remaining families' debts to the financial system, brought up by government subsidies throughout the years, mainly by adjusting the debt service payment to the wage rate of growth. Those credits were registered in the banks' balance sheets for future payment by the central government.

Figure 4

Liabilities Recognized by the Central Government
(impact on net debt to GDP)

remainder is still being recognized, in a slow average yearly pace of 0.02 per cent of GDP. Other liabilities include the net impact of Central Bank loans to private banks under the Proer restructuring program (Table 2).

2.3 Sub-national debt restructuring program

Since the 1988 Constitution, Brazil has gone through a period of remarkable decentralization in both fiscal and political terms. State and local governments have become responsible for the execution of a larger portion of the budget, with correspondingly greater autonomy with respect to fiscal decisions.

Table 2

Liabilities Recognized by the Treasury from 1996 to 2001

Liabilities	Percent of Total
Privatization and liquidation of public enterprises	20.9
Housing subsidies	16.9
Capitalization of federal financial institutions	51.7
Others	10.4

Source: Ministry of Finance.

Before the debt restructuring program that took place in 1997, the deterioration of the states fiscal performance was the major factor behind the decline of the public sector primary balance after the introduction of the Real Plan in the mid-1994.

The difficulties faced by the local governments in 1995 can be traced back to the states' sluggishness in adjusting to the new low-inflation environment and to the fact that their finances were severely hit by the very high interest rates maintained in most 1995. From 1994 to November 1997, the subnational governments' net debt increased from 9.9 to 11.1 per cent of GDP. As a result, many of them started to have cash flow problems and had to rely more heavily on short term loans at market interest rates. Throughout 1995, arrears were incurred to suppliers and public employees and on loans to their own banks. At the end of that year, short-term loans were falling due and as salary payments had to be disbursed, a severe fiscal crisis emerged in the states (Figure 5).

In 1996, as a response to the states' financial crisis, the central government undertook debt restructuring plans, in conjunction with fiscal adjustment programs which were eventually consolidated in 1997. In parallel to that, state banks started to have serious difficulties and many of them were put on federal intervention. The central government was forced to refinance the state of Sao Paulo debt to its state bank Banespa to prevent major financial crises. Therefore, while debt negotiations were taking place, the central government decided to create a program to reduce states involvement with banking activities.

Figure 5

Sub-national Governments' Primary Surplus
(percent of GDP)

The debt restructuring plans involved a comprehensive restructuring of the local governments' net debt, with both up-front subsidy and interest rate subsidy. In November 1997, the net debt amounted to 12.1 per cent of GDP, 34 per cent of which belonging to the State of São Paulo. Even after the restructuring, the net debt continued to increase until April 2003, when it reached 19.7 per cent of GDP, due to assumptions of SOEs' debt under the privatization program and to the gap between the interest charged and the amount paid off, considering the cap of 13 to 15 of net revenues in debt service payments (Figure 6).

The restructured debt was divided in two parts: i) 20 per cent of it had to be redeemed with the proceeds from the privatization of state assets; and ii) the remaining 80 per cent had maturity up to 30 years and an annual interest rate of 6 per cent, plus monetary correction. Since the 6 per cent real interest rate was lower than the real interest rates at which the federal government was likely to finance its debt during the contract period, the agreements involved a subsidy to the restructured debt. A cap of 13 to 15 per cent of net revenues was established for the annual debt-service ratio and all debt service exceeding this cap was automatically capitalized under the contract. And, finally, as a guarantee to the federal government for the service of the restructured debt, the state government pledged their federal transfers and their own revenues, which could be withheld in the event of non-compliance.

The 1997 bail-out was conceived to be a once and for all measure, in order to stop the fiscal inertia brought by recurrent bail-outs. Therefore, in order to achieve that, the agreements between the central government and the states included: i) fiscal adjustment programs, with primary surplus targets and spending ceilings; ii) payment of services warranted by their current revenues; iii) prohibition to apply for new borrowings until their debt to net revenue equaled one to one; and iv) prohibition of bail-outs among levels of governments, set by the Fiscal Responsibility Law (FRL). Later, the government issued general rules for restructuring also the municipalities' debt on similar conditions as for the states program.

Figure 6
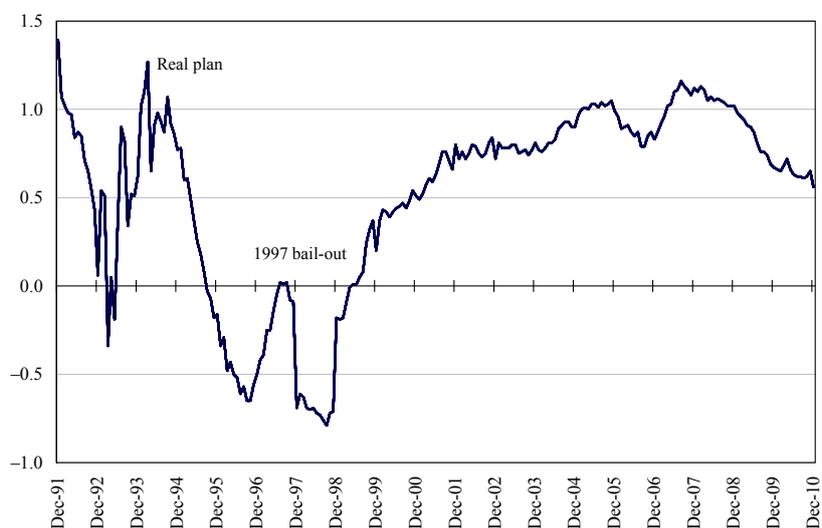
Sub-national Governments' Net Debt
(percent of GDP)
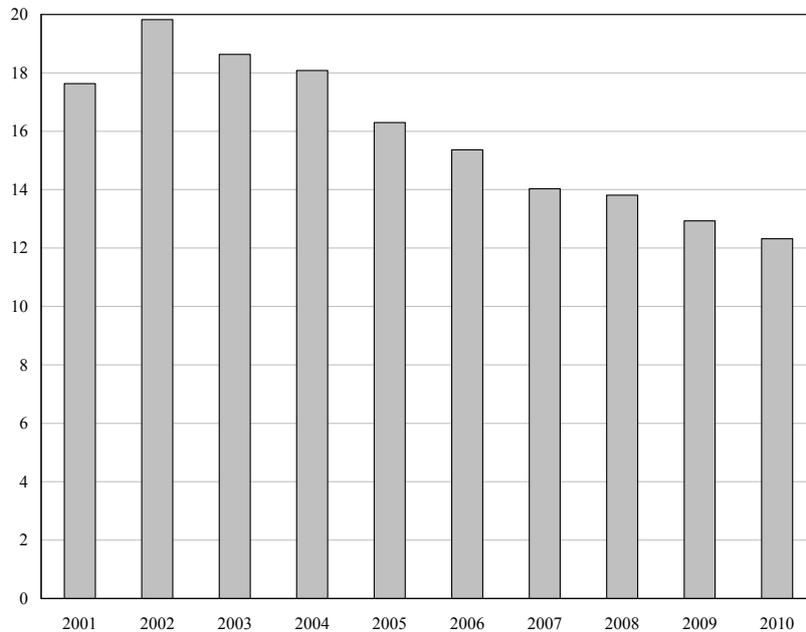
2.4 The Fiscal Responsibility Law (FRL)

In 2000, the government enacted the FRL, which comprises the fiscal management framework aiming at the consolidation and the maintenance of macroeconomic stability. It is considered as the final and definitive part of a broader initiative of the Fiscal Stabilization Plan started in the '90s. Instead of fixing fiscal targets, the Law provides the mechanisms that allow the compliance of the fiscal targets proposed by the executive to the legislative, the control of fiscal aggregates, transparency and the stimulus towards fiscal consolidation, in all levels of government.

The Law defines ceilings for payroll and debt to net curret revenue (NCR) ratio for each level of government. Figures 7 and 8 show that, in the case of the state governments, those indicators have declined along the years. The fiscal ajustment programs undertaken by the states under the restructuring plans have paved the way for the law compliance.

Figure 7

State Governments' Payroll-to-NCR Ratio
(percent)
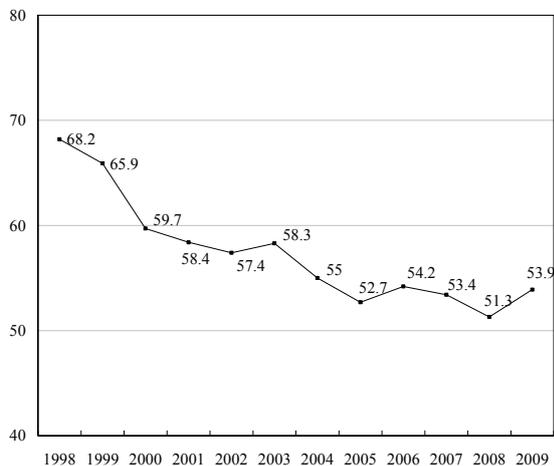
Figure 8

State Governments' Debt-to-NCR Ratio
(percent)
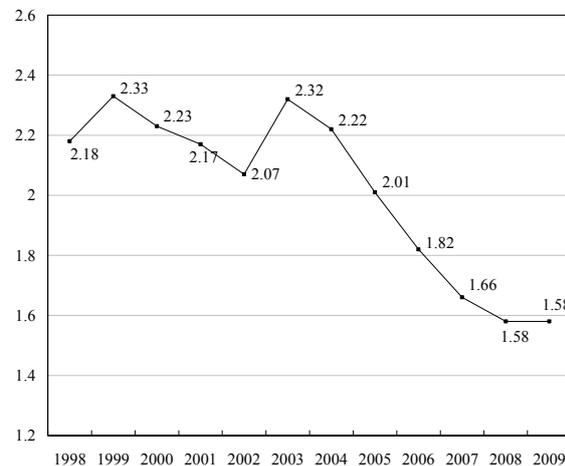
One of the most important drivers of fiscal governance brought by the Law is the prohibition of intra-governmental financing. Before the privatization of state banks and the 1997 bail-out, the states borrowed extensively from their banks and from domestic capital markets through the issue of bonds. Besides, because of the perception of the increased risk, the states used to pay interest rates higher than the ones paid by the federal government, which ended up reflecting higher returns in the context of a low risk investment. The repeated crises and bail-outs before 1997 suggest, at first glance, that the federal government was simply providing a soft-budget constraint to states that increased moral hazard problems and led them repeatedly to fail, and the central government was unwilling to change the incentives. In this sense, the fact that the government had been able to keep this rule unchanged for 10 years helped to build a better perception of the soundness of the states' finances and to lower the political pressures to change the Law.

3   High primary surpluses policy and the response to 2008 crisis

Since 1999, primary balance targets have been raised in response to several crises, aimed to reduce medium term net debt but also as a way to regain market confidence. From 2004 to 2008, primary surpluses have stayed above 3 per cent of GDP, leading the net debt to a persistent fall.[5] The favorable economic environment, which contributed to boost GDP medium real growth rate in 2003 onwards, helped to move the tax burden to a shift of 34.4 per cent of GDP in 2008, from 28.7 per cent in 1999. The central government provided the greatest contribution of 24.1 per cent of GDP in 2008 from 19.9 per cent of GDP in 1999. Therefore, primary surpluses were driven mainly by revenues growth, since spendings increased as well (Figure 9).

In 2008, current expenditures reached 20.9 per cent of GDP, being 10.7 per cent transfers to families, and continued increasing in 2009. Table 3 shows that the government has promoted an active policy of fostering those transfers throughout the years. The policy of adjusting the minimum wage above inflation explains most of the increase on social security and social assistance benefits, which totaled 8.5 per cent of GDP in 2009.[6] The government also expanded the Bolsa Família program – allowances to low-income families, conditioned to their children's vaccination and attendance at school – from 2.6 million families in 2002 to 13,1 million families in 2010.[7] Moreover, it promoted a large-scale restructuring of civil servants' wages by adjusting them above inflation, along with a policy of hiring teachers, doctors, regulatory affairs specialists, engineers and workers as an exchange for the ones hired through temporary contracts. The high pace of retirement flow (one per cent of total civil servants per year), the relatively low average age to qualify for retirement (60 years men and 55 years women) and the adjustment of civil servants' pensions at the same rate of civil servants' wages, as demanded by law, explains the pace of retirement payments throughout the years.

The social indicators released by the Brazilian Institute of Geography and Statistics (IBGE) show that the Bolsa Familia program might have produced an important social cushion to the impact of 2008 crisis, by helping to keep the demand growth in a positive pace. The indicators show that, from 2004 to 2009, real earnings have grown faster in the northeast region, where

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[5]   After the GDP methodological review by IBGE in 2006, the primary surplus target of 4.25 of GDP set in 2004 was recalculated to 3.8 per cent of GDP.

[6]   The bottom limit for social security and assistance benefits is the minimum wage, defined annually by the congress, after an executive proposal. For several years, the executive had proposed a minimum wage adjusted by previous year's inflation plus per capita GDP growth. From 2010 onwards, the adjustment proposed has changed for previous year's inflation plus GDP real growth from 2 years before that.

[7]   The amount transferred by Bolsa Família depends on the family income (maximum by US$ 70 a month), and the quantity and age of the children. The benefit varies from US$ 10 to US$ 100 a month per family. In 2008, the children's top age to qualify for the benefit was raised from 15 to 17 years old.

Figure 9

Central Government Primary Balance
(percent of GDP)
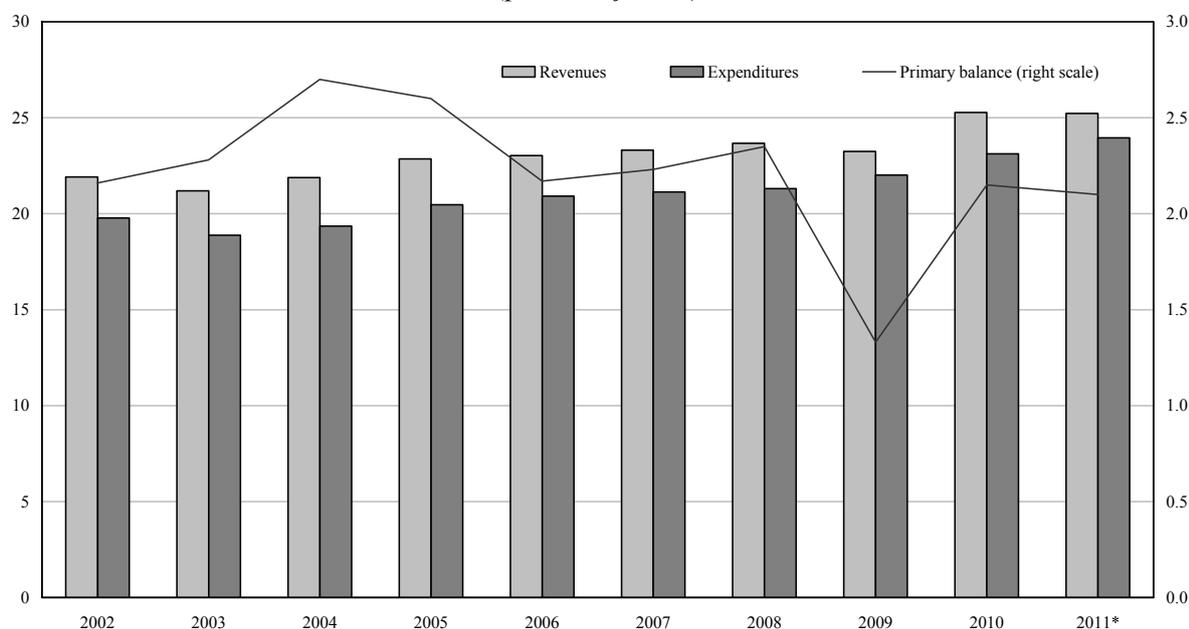
* Budget.
Source: Ministry of Planning.

Table 3

Central Government Current Expenditures-to-GDP Ratio

Expenditures Except Interest Payments	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Transfers to other levels of government	**4.6**	**4.9**	**5.3**	**5.0**	**5.0**	**5.7**	**5.6**	**5.7**	**6.1**	**5.9**
Transfers to families	**8.8**	**9.3**	**9.6**	**10.0**	**10.1**	**10.6**	**11.1**	**11.0**	**10.7**	**11.8**
Social security benefits	5.5	5.8	5.9	6.3	6.5	6.8	7.0	6.9	6.6	7.1
Social assistance benefits	0.7	0.8	0.8	0.9	0.9	1.0	1.1	1.2	1.2	1.4
Unemployment insurance	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.9
Civil servants' and military pensions	2.1	2.3	2.2	2.1	2.0	2.0	1.9	1.9	1.9	2.0
Bolsa família and others	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
Transfers to companies	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**0.3**	**0.3**	**0.3**	**0.3**	**0.2**
Consumption	**4.3**	**4.3**	**4.2**	**3.7**	**3.6**	**3.5**	**3.6**	**3.7**	**3.6**	**4.1**
Payroll	2.4	2.4	2.5	2.2	2.2	2.1	2.2	2.1	2.2	2.4
Others by Executive	1.8	1.8	1.6	1.3	1.3	1.3	1.2	1.4	1.2	1.5
Others by other branches	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Other current expenditures	**0.2**	**0.2**	**0.3**	**0.2**	**0.2**	**0.3**	**0.3**	**0.2**	**0.2**	**0.3**
Total current expenditures	**18.2**	**18.9**	**19.6**	**19.2**	**19.3**	**20.5**	**20.9**	**20.9**	**20.9**	**22.3**

Source: Ministry of Planning.

<div align="right">**Table 4**</div>

Impact of Growth and Policy Measures on Central Government Fiscal Accounts
(revenues and expenditures increase, percent of GDP)

Contents		2009/2008	2010/2009
I	**Revenues**	**−0.41**	**0.60**
	I.1 Taxes	−1.06	0.65
	I.2 Social security contribution	0.33	0.26
	I.3 Others	0.32	−0.31
	I.4 Incentives (−)	0.00	0.00
II	**Expenditures**	**1.15**	**0.43**
	II.1 Wages and civil servants' benefits	0.45	−0.12
	II.2 Social security benefits	0.48	0.12
	II.3 Other mandatory expenditures	0.28	−0.01
	II.3.1 Unemployment insurance	*0.17*	*−0.01*
	II.3.2 Social assistance benefits	*0.07*	*0.03*
	II.3.3 Subsidies to banking loans	*−0.05*	*0.05*
	II.3.4 Others	*0.09*	*−0.08*
	II.4 Discretionary expenditures	−0.06	0.44
III	**Net proceeds from oil field sale to Petrobras**		**0.97**

Source: Budget Office, Ministry of Planning.

85 per cent of Bolsa Familia allowances are allocated. There is also an improvement in child labor in the northeast region – concentrated within households with per capita income up to around US$ 175 a month – which has dropped deeper than in the rest of the Country.[8]

The restrictive monetary policy in place a few months before the eruption of the financial crisis of September 2008 allowed the monetary policy to be more effective at lowering interest rates and easing in reserve requirements to stimulate the acquisition of assets by big banks from small ones. Also, the public sector net debt had fallen to 38.4 per cent of GDP in 2008, opening fiscal space to ease fiscal policy.

The effect of automatic stabilizers in the 2009 budget is estimated in 0.27 percentage points of GDP in tax loss from the manufacturing production and 0.17 percentage points of GDP in unemployment insurance payments. Moreover, the central government undertook fiscal stimulus of 0.8 percentage points of GDP in tax deductions on production of cars, appliances and building materials. However, wages, social security benefits and other permanent mandatory expenditures were also raised by 1.21 percentage points of GDP in 2009, intensifying the procyclical nature of the 2010 budget. In 2010, the revenues were not able to fund all the expenditures growth, since they didn't follow the economic rebound at its same pace due to tax compensations from companies' losses in 2008 and to the one-year lag collection of corporate income tax. The

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[8]   2009 National Household Sample Survey – PNAD/IBGE.

Figure 10

National Treasury-subsidized Long-term Loans to State Banks
(percent of GDP)
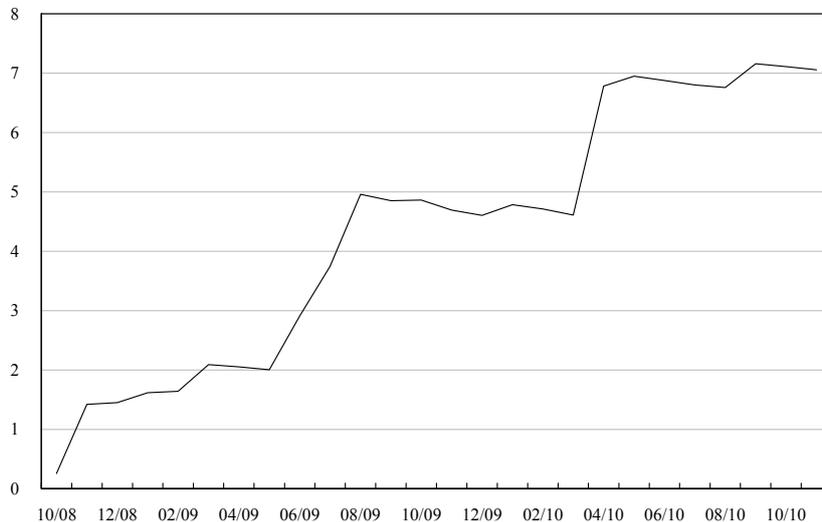
extraordinary net revenue raised by the sale of the amount equivalent to 5 billion barrels from sub-sal oil fields to Petrobras helped the central government achieve a primary surplus of 2.16 per cent of GDP in 2010.[9]

In order to offset the shortage of short term credit to medium and small companies, the government decided to shift the amount of long term subsidized loans to the National Development Bank (BNDES) to expand its lending capacity to the industry (Figure 10). The National Treasury loans to the financial institutions reached 7.1 per cent of GDP in 2010, from 0.3 per cent of GDP in October 2008, leading the budget subsidies to an increase of 0.1 percentage points of GDP.

During the crisis, the federal banks took part of the private banks' share of total loans. Although the policy was efficient in terms of providing liquidity to the productive sector, its continuity in 2010 has caused a distortion in the financial markets, as banks could borrow from BNDES at a much lower long term interest rate, favouring specific sectors against the rest of the economy. The government has recently launched some measures aimed to stimulate the creation of long term financial assets by the private banks and the development of a secondary market of long term private securities, with the intention of gradually reducing the state bank share of total long term domestic loans.

4   Near-term challenges

Considering an economic growth at its potential of 4.5 per cent and a primary surplus target of 3.1 per cent of GDP over the next four years, the baseline scenario to the public sector net debt is a fall from 40.4 per cent of GDP in 2010 to 30.1 per cent of GDP in 2015, over 10 percentage points in 5 years.[10] Figure 11 shows the public sector net debt to GDP projections.

A great part of this tendency is explained by the fall of the Selic target interest rate over the years, along with a declining share of the Treasury bonds indexed by this floating rate. In 1999,

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[9]   In 2010, although the central government's primary balance was in line with its target, the public sector achieved 2.79 per cent of GDP, below its target of 3.1 per cent of GDP.

[10]   In 2009, Petrobras, an oil company, was excluded from the fiscal statistics, raising the net debt by 2 per cent of GDP and reducing the primary surplus target by its contribution of 0.5 per cent of GDP. In 2010, Eletrobras, an electricity company, was also excluded from the target, which represented an additional exclusion of 0.2 per cent of GDP from the primary surplus. Therefore, from 2011 onwards, the estimated primary surplus was reviewed from 3.8 to 3.1 per cent of GDP.

70.8 per cent of the domestic public debt was indexed by the Selic rate; in 2010, it fell to 33 per cent. It is expected that the Selic rate will continue to decrease in the medium term, although at a slower pace.

Even though the fiscal stance shows a favorable scenario in terms of net debt growth pace, issues related to expenditures allocation have also to be taken into account, mainly by allowing a larger share of investment on total expenditure. In this sense, the government launched a large-scale investment program (Growth Acceleration Program – PAC) aimed to foster public investment in logistics (central government's budget and SOEs' budget), energy (SOEs' budget), housing (through CEF savings bank and government subsidies to low and medium income families), and sewerage (budget subsidies and subsidized financing to SOEs). The PAC Program also includes private investments raised through concessions to the private sector: from 2007 to 2010, the government has auctioned two large hydroelectric power plans, several electric transmissions, highways and one Public-Private partnership in the irrigation sector. Although the

Figure 11

Public Sector Primary Surplus and Net Debt
(percent of GDP)
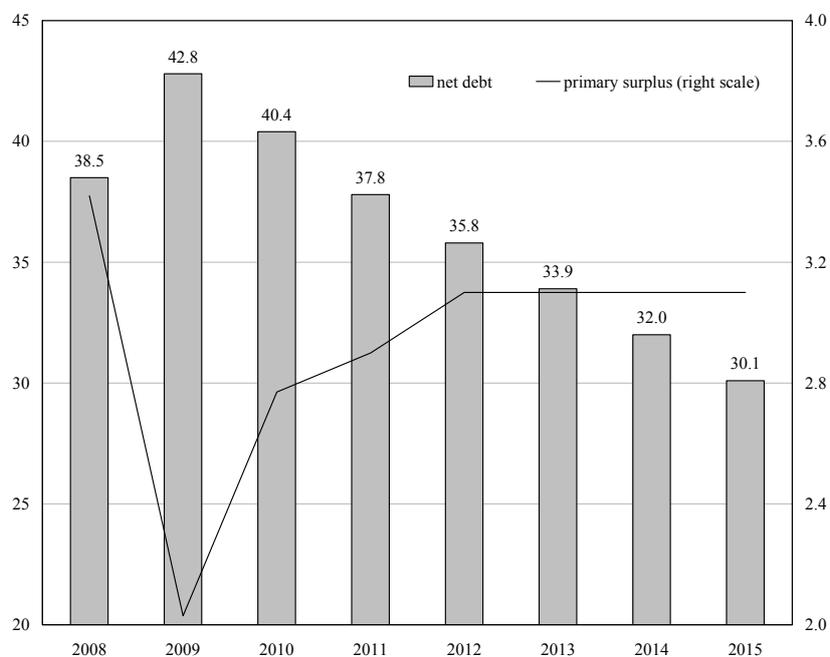
Figure 12

Selic Target Interest Rate
(percent per year)

Figure 13

Federal Government Investment
(percent of GDP)
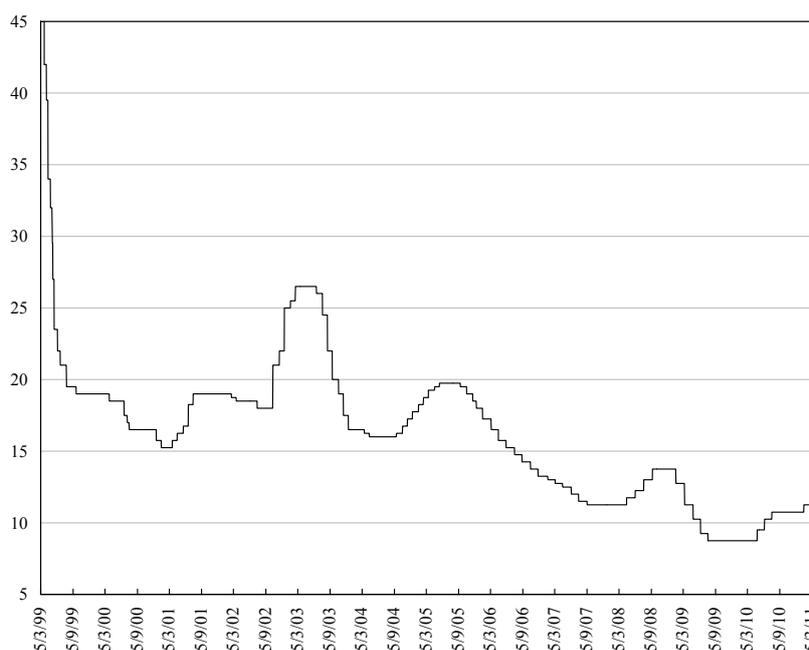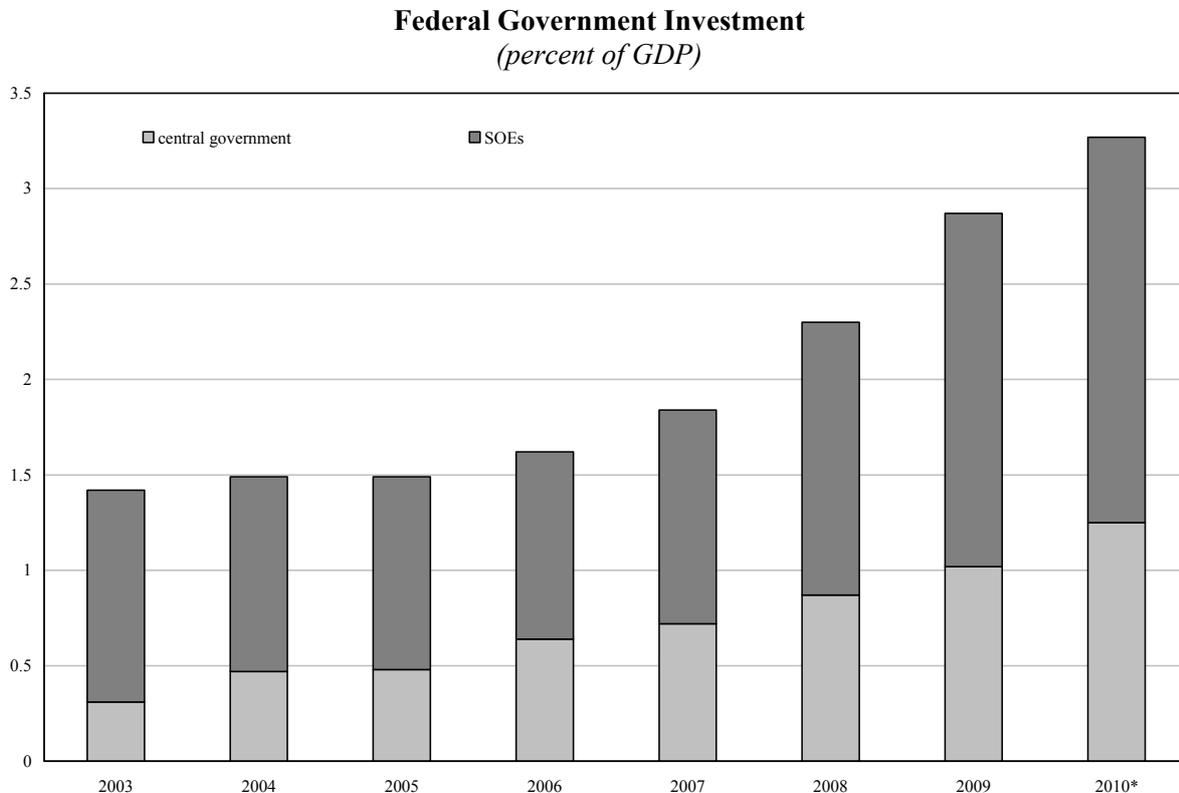
* 2010: 12 months accumulated until August.
Source: PAC Report 2010.

program represented an important effort in terms of increasing the share of public investment on total expenditure, it also exposed the existing red tape to run investments in Brazil by the public sector, related to restrict procurement laws and budget execution bureaucracy (Figure 13).

In 2010, the Brazilian economy faced a great rebound, reaching a real growth of 7.5 per cent, driven by household consumption and by the investment recovery in the first semester. However, the increase of domestic consumption in contrast with the slower growth in the developed economies led to a current account deterioration. The current account deficit, along with a high amount of inflows to the country – due to growth expectations and to interest rates differentials –, is putting up pressure on the Real currency to a huge appreciation, compromising a few manufacturing sectors, while it is also allowing the acquisition of capital goods by the industries. In 2010, the current account deficit reached 2.3 per cent of GDP, from 1.52 per cent of GDP in 2009, and may shoot up to 2.8 per cent of GDP in 2011. Moreover, the investment agenda already set – oil exploration in the sub-salt fields, public investment in logistics, World Cup, Olympics – will demand additional foreign savings and investments, considering that the low domestic savings will not be sufficient to fund the agenda. Since the private sector can do little in a period when it is increasing its own investment, the task of providing domestic savings falls to the public sector, through larger primary surplus, along with a greater share of investment on total expenditure.

Therefore, in the near-term, the fiscal policy is to be calibrated in order to enhance public savings, by conciliating primary surplus targets – which will allow interest rates to fall in the long term, providing room to foster private investment – with a larger share of investment on total

expenditure in the following years. In order to provide fiscal space to increase the share of investment on total expenditures, the central government will have to make an effort towards the control of the growth pace of current expenditures, mainly those related to civil servants' wages, private sector social security and public sector pensions.

Finally, there is also a fiscal reform agenda left to be tackled in the near-term. In relation to the private sector social security system, although the recent increase in the formal labor sector has brought new revenues to the system, the gap between pension obligations and contributions tends to grow in the long run, from 1.18 per cent of GDP in 2010 to 1.67 per cent of GDP in 2030, due to fast demographic changes. People over 60 are projected to increase from 10 per cent of the population in 2010 to 18.7 per cent by 2030, as birth rates are lowering and life expectancy increasing.[11] Besides, the tax burden on formal labor – contributions to the pension system and to the unemployment insurance fund – amounts to over 40 per cent of the salaries, compromising employment and industrial competitiveness.[12] In regard to the civil servants' pension system, the shift from the actual system to the one similar to the private sector's – a basic defined-benefit system and a complementary defined-contribution funded system - is still to be implemented by the central government. Other challenges are related to the inflexibility of the central government budget: because a large amount of revenues is earmarked to specific programs and some mandatory expenditures are automatically adjusted, as in the case of health care and the benefits linked to the minimum wage, less than 15 per cent of the budget apply to spending cuts. Finally, the biggest fiscal challenges are how to aleviate the economy from the tax burden of 35 per cent of GDP and how to simplify the tax system. Over the past eight years, the government has pursued a consensus over a proposal that unifies municipalities', states' and several central government's taxes into a single value-added one. Recently, it took a new approach towards a more simplified version of that.

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[11]   IBGE estimates.

[12]   The total burden is 70 per cent of the salary, if considered 13rd salary and vacation pay.

ANNEX
FISCAL RESPONSIBILITY LAW

The Law can be decomposed in three main dimensions: general fiscal framework, ceilings on personnel and debt; and governance and transparency.

1   General fiscal framework

According to the Brazilian Constitution, the budgetary system is comprised by three important laws proposed by the executive branch to legislative approval: the Multi-Year Budget Framework Law (PPA), which encompasses the main strategies and all the programs related to them, to be tackled over the next four years; the annual Budget Guidelines Law (BGL), which selects the programs out of PPA to be considered as priorities for the fiscal year, and the annual Budget law.

Most part of the LRF general framework was defined through the inclusion of fiscal rules to be complied by those budgetary laws. The main changes are:

a) the inclusion of a Fiscal Policy Annex to the PPA with multi-year fiscal targets, along with the inclusion of Fiscal Targets Annex to the BGL. The fiscal Target Annex reports the fiscal compliance in the previous year and sets the fiscal target for the following 3 years, to be complied with during the budget execution. The governments are to indicate targets for the primary balance, the PSBR and the net debt;

b) the inclusion of a Fiscal Risks Annex in BGL describing the fiscal risks with an assessment of contingent fiscal liabilities, including the likelihood of adverse outcomes in legal dispute and the impact on fiscal aggregates of changes in macroeconomic indicators under which the annual budget is formulated.

During the fiscal year, the law defines that the revenues have to be reestimated every 2 months and, if they are not sufficient to comply with the fiscal targets, the government is to reduce its annual expenditures. Also, the executive is due to attend hearings at Congress on fiscal compliance every 4 months.

Moreover, the law requires that permanent spending mandates not be created without corresponding increases in permanent revenues or cuts in other permanent spending and contains a golden rule provision for capital spending (*i.e.*, annual credit disbursements cannot exceed capital spending).

2   Ceilings on fiscal aggregates

The Law considers that the concept of government comprises not only the executive, but also the legislative and judiciary branches, along with state-owned enterprises which depend on taxes to run their business. This very comprehensive concept creates a coo-responsibility among those entities over the compliance with fiscal targets and the aggregate ceilings.

A concept of Net Current Revenues (NCR) was created, which represents a proxy to the disposable revenue belonging to each level of government. Based on that, the law sets the following limits:

1) as demanded by the FRL, the Senate approved a resolution setting ceilings for sub-national government's debt to their NCR ratio, being 200 per cent for the states and 120 per cent for the

municipalities. In fact, since all the states also have debt targets under their debt restructuring agreements with the National Treasury, both debt targets have to be met;

2) on personnel management, the FRL establishes separate ceilings at each level of government, equivalent to 50 per cent of NCR for the central government and 60 per cent of NCR for the states and municipalities, as well as subceilings for the executive, legislative and judiciary branches.

If those limits are not met, the gaps are to be eliminated within the following eight months. Meanwhile, the state governments are not allowed to engage in new borrowings and sub-national governments are not allowed to receive discretionary transfers or credit guarantees from the central government.

The LRF limits are additional to those defined by the Senate Resolutions related to new domestic and external borrowings at the sub-national government levels and their SOEs, to be approved based on their creditworthiness evaluation.

3   Governance and transparency

In relation to governance, one of the most important rules is the prohibition of intra-govermental financing, which hinders the pressure for recurrent bail-outs by the states.

Parallel to the FRL, penalties for public officials that failed to obey fiscal responsibility by a Fiscal Crimes Law were stablished. Those penalties included administrative, financial, and political penalties and even prison time for violators of fiscal responsibility. Although it seems that the criminal component of the law may hit only municipal or minor officials, it sends a clear message of the seriousness of fiscal control.

Finally, in terms of transparency, the law defines that the each level of government is to release two reports: i) a bi-monthly budget execution; and ii) a comprehensive four-month report on compliance with the various LRF parameters, and on corrective measures if the ceilings are exceeded. Moreover, municipalities are to report to the National Treasury their fiscal balances of the previous year by end-April and the states, by end-May. The National Treasury is to publish a consolidation of the public finances of the previous year by end-June. Also, the Law requires that financial and actuarial assessment reports on the social security regimes of the public and private sectors, managed by the government be sent to congress along with the annual BGL.

REFERENCES

Anuatti-Neto, F., M. Barossi-Filho, A. Gledson de Carvalho and R. Macedo (2003), "Cost and Benefits of Privatization: Evidence from Brazil", Inter-American Development Bank, Research Network Working Paper, No. E-455.

—————— (2005), "Os efeitos da privatização sobre o desempenho econômico e financeiro das empresas privatizadas", *Revista Brasileira de Economia*, Vol. 59, No. 2, pp. 151-75.

Bevilaqua, A.S. (2002), "State Government Bailouts in Brazil", Inter-American Development Bank, Research Network Working Paper, No. E-441.

De Mello, L. (2002), "Brazil's Fiscal Adjustment: An Overview of the 'Fiscal Resposibility' Reforms and Legislation", IMF.

Giambiagi, F. and M. Ronci (2006), "The Brazilian Fiscal Adjustment: Structural Change and Policy Continuity, 1995-2004", in OECD (ed.), *Challenges to Fiscal Adjustment in Latin America*, Chapter 4, ISBN 9264022074.

Goldfajn, I. (2002), "Are There Reasons to Doubt Fiscal Sustainability in Brazil?", BIS Paper, No. 20.

Goldfajn, I. and E.R. Guardia (2003), "Fiscal Rules and Debt Sustainability in Brazil", Banco Central do Brasil, Technical Note, No. 39.

Macedo, R. (2000), "Privatization and the Distribution of Assets and Income in Brazil", Carnegie Endowment, Working Paper, No. 14.

Nakane, M.I. and D.B. Weintraub (2003), "Bank Privatization and Productivity: Evidence for Brazil", University of São Paulo.

Relatório PAC 11º (2010), available at: http://www.brasil.gov.br/pac/relatorios/nacionais/11o-balanco-4-anos/

Rodden, J. (2002), "The Dilemma of Fiscal Federalism: Grants and Fiscal Performance Around the World", MIT, *American Journal of Political Science*, Vol. 46, No. 3, pp. 670-87.

Schneider, A. (2004), "Wholesale Versus Within Institution Change: Pacting Governance Reform in Brazil for Fiscal Responsibility and Tax", The World Bank.

TCE/SP (Tribunal de Contas do Estado de São Paulo) (2010), "Dez anos da lei de responsabilidade fiscal: balanço da gestão fiscal do governo estadual e dos municípios jurisdicionados ao Tribunal de contas do estado de São Paulo", Relatório, May.

FISCAL CONSOLIDATION AND MACRO ECONOMY: INDIA'S EXPERIENCE WITH RULE-BASED FISCAL POLICY AND POST-CRISIS CHALLENGES

Brajamohan Misra[*]

1   Introduction

Fiscal policy in India has evolved over time. Broadly, during the first 30 years of independence, between 1950 and 1980, the fiscal deficits of both the central and the state governments were not excessive. This was a period of revenue surplus in general. A major black spot in India's fiscal development was 1980s, when Indian public finances were in a state of disarray resulting in persistently large fiscal deficits. There was a structural change in government budgets during the 1980s with emergence of revenue deficit in Centre's budget in 1979-80. Revenue deficit and fiscal deficit continued to enlarge during 1980s raising concerns over rising public debt and interest payments and the consequent constraints on the availability of resources for meeting developmental needs. The large fiscal imbalances of the 1980s spilled over to the external sector resulting in the macroeconomic crisis of India in 1991.

In the aftermath of the macro-economic crisis of 1991, a comprehensive reform programme was launched in India, of which fiscal consolidation constituted a major plank. The fiscal performance during the reform period, however, was characterized by a clear divide in the mid-1990s in the attainment of fiscal targets. There was evidence of the successful fiscal correction during 1991-92 to 1996-97 (except for 1993-94) in terms of a significant reduction in the fiscal deficit indicators. Since then, there was a significant reversal of the trend mostly up to 2002-03. In an effort to renew the process of fiscal consolidation and provide for long-term macroeconomic stability, the Central government enacted the Fiscal Responsibility and Budget Management (FRBM) Legislation in August 2003. At the State level, several State governments enacted a similar legislation on fiscal responsibility.

Recognizing that any deviation from the self imposed targets prescribed in the fiscal legislations would exacerbate the fiscal stress, both Central and State governments responsibly adhered to the legislations up to 2007-08. With global financial crisis of 2008 affecting India's macro-economy, the adherence to rule based policy was paused during the subsequent two years as the governments provided fiscal stimulus to compensate for the fall in private demand. Roll back of expansionary fiscal stance, however, commenced in 2010-11.

Against this backdrop, this paper aims at examining the linkage between fiscal consolidation and macro-economic developments in India with specific emphasis on the rule based fiscal regime. A discussion on thematic theoretical and empirical literature on is provided in Section 2 after the introduction. Section 3 presents stylized facts about the fiscal policy regime in India. Section 4 sets out some analytics and empirical findings based a small structural model on fiscal consolidation and macro-economy in Indian context. The future challenges with regard to fiscal consolidation are deliberated upon in Section 5 followed by colluding observations.

2   Fiscal consolidation and macroeconomic performance: survey of literature

There is a strong body of theoretical literature regarding impact of fiscal consolidation on

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The views expressed in this paper are those of the author and do not reflect those of the organisation he is working for.

macroeconomic performance. In the empirical literature, a host of issues relating to fiscal consolidation have been debated and discussed. The issue became a lively subject of discussion following the recent global financial crisis, which necessitated coordinated monetary-fiscal policy actions by the national authorities with a view to pulling their economies out of recession. The theoretical perspectives and major relevant empirical works in this regard are reviewed in this Section.

2.1   Theoretical perspectives

There is no agreement among economists either on analytical grounds or on the basis of empirical results whether financing government expenditure by incurring a fiscal deficit is good, bad or neutral in terms of its real effects, particularly on investment and growth. There are three main theoretical perspectives with regard to fiscal policy and its impact on macroeconomic conditions namely Neo-classical, Keynesian and Ricardian Equivalence. Depending upon circumstances and the relevant theoretical perspectives, fiscal deficit may be bad, indifferent or good. In the Neo-classical perspective, fiscal deficit will have a detrimental effect on investment and growth owing to lower savings (revenue deficit) and pressure on interest rate resulting in crowding out of private investment. The Neo-classical economists assume that markets clear so that full employment of resources is attained. In contrast the Keynesian view argues, when there are unemployed resources, autonomous increase in government expenditure, whether through investment or consumption, financed through borrowings would cause output to expand through a multiplier process. In terms of Ricardian Equivalence, fiscal deficits are treated as neutral in terms of their impact on growth as deficit in any current period equals the present value of future taxation that is required to pay off the incremental debt resulting from the deficit. While the Neo-classical and Ricardian schools focus on the long run, the Keynesian view emphasises the short run effects.

For the "rational expectations" school or for the "real business school", the implementation of an expansionary fiscal policy, aiming at strengthening growth rates and reducing unemployment, would not achieve objectives. On the contrary, budget deficits, either by money printing or by public borrowing, will increase public debt and interest rates, crowd out private investments, fuel inflation and damage medium-term growth. These cause, in turn, an upward adjustment of nominal wages to the new increased levels of prices, squeezing profits and postponing further corporate investments. Feldstein (1987), an eminent scholar of economic orthodoxy, also insists on arguing against expansionary fiscal policies, especially those resorting to deficit spending. Barro (1974) too, rejecting the idea that monetary and fiscal policies can be complementary policy tools, considers discretionary fiscal policies as particularly ineffective, since economic agents facing or expecting fiscal laxity save their money for future increased tax payments instead of increasing private spending and stimulating demand. Indeed, the idea is that in a situation of easier fiscal policy, monetary policy will have to be tightened later and higher taxes should be imposed for the accumulated government debt to be repaid ("Ricardian equivalence"). In this case, the fiscal multiplier is zero as consumption finally does not change. As far as Barro's assumption is concerned, it should be emphasized that it has never been confirmed by empirical evidence in the real economy, as household savings have sharply fallen over the past two and half decades in most OECD countries, despite fiscal laxity. As empirical support in favour of the Ricardian view is rather weak (Elmendorf and Mankiw, 1998), the two major competing theories are the Neo-classical and Keynesian approaches.

There is another view which emphasised supply-side effects of fiscal policy under the name of New-classical models. The distinctive feature of full-fledged new classical models is that prices clear markets, so that fluctuations in output are the result of supply-side shocks and not of changes in aggregate demand. One implication of New-classical models, first highlighted by Lucas (1975)

and Sargent and Wallace (1981), is that fully anticipated policies affecting aggregate demand (but not aggregate supply) have no effect on growth either in the short term or the longer term. Only unanticipated policies – which reflect either surprises by the government or imperfect information – have an effect, which emerges entirely through the supply side. This does not mean that these models are silent on fiscal policy. However, they focus on the design of optimal fiscal policy, as distinct from the impact of fiscal policy on economic activity (see Lucas and Stokey, 1983; and Chari and Kehoe, 1998).

2.2 Empirical literature

There is a divide in empirical literature on whether fiscal consolidation is positively associated with positive macroeconomic performance or otherwise.

2.3 Fiscal deficits and growth

The link between fiscal deficits and economic growth is one of the most widely debated relationships in the macroeconomic literature.

2.3.1 Negative association of fiscal deficit and growth

Fiscal deficits received much of the blame for the assorted economic ills that beset developing countries in the 1980s, over-indebtedness and the debt crisis, high inflation and poor investment performance and growth (Easterly and Schmidt-Hebbel, 1993). The authors argue that fiscal deficits financed by money creation leads to inflation while debt financing leads to higher real interest rates or increased repression of financial markets, with fiscal gains coming at increasingly unfavourable terms. Fiscal deficit tends to reduce national savings and private sector credit significantly affecting private investment. According to the authors the virtuous circle of growth and good fiscal management is one of the strongest arguments for a policy of low and stable fiscal deficit.

Large fiscal consolidation has been associated with a positive macroeconomic development (Daniel *et al.*, 2006). High quality fiscal adjustment can help mobilize domestic savings, increase the efficiency of resource allocation and boost confidence and expectations. The possibility of expansionary fiscal contraction is confirmed by Gupta *et al.* (2002) for a panel of low-income countries. In a study of transitional countries, Segura-Ubiergo *et al.* (2006) find that fiscal adjustment has been associated with higher growth primarily through two channels: (i) reduced government borrowing requirements, which curtailed the need to monetize budget deficits; and (ii) a credibility effect that signalled a political commitment to long-term fiscal sustainability and macro-economic stability. Further, Baldacci *et al.* (2003) state that the most important transmission mechanism through which fiscal adjustment stimulates growth in low-income countries is factor productivity.

Rangarajan and Subbarao (2007) stated, in a paper, that the fiscal deficits are *per se* not bad. In fact, they may be necessary, even desirable in some situations. The issue, therefore, is not whether or not there should be a fiscal deficit, but its appropriate level. The answer depends on a number of variables, particularly the level of savings and the ratio of revenues to GDP. It is also a function of the existing stock of debt and debt servicing burden, the rate of interest, the external payments situation, the degree of capital controls and importantly the use to which the borrowed resources are put. The advisable fiscal deficit level, therefore, is very contextual and varies from country to country. The authors mentioned the following reasons as to why continued high fiscal deficits are a concern. First, they disempowered the government's fiscal stance by pre-empting a

larger share of public resources for debt servicing thereby leaving that much less for desirable expenditures such as physical infrastructure (e.g., roads, power) and social infrastructure (e.g., education, health). This leads to a declining ratio of capital expenditure in total expenditure. Second, "if we incur fiscal deficits together with revenue deficits, it means we are using up borrowed resources for current consumption which may raise growth in the short term, but of the spurious variety. For sustainable growth, we need to balance our books on the revenue account and use borrowed funds only for investment". Third, to the extent the government pre-empts the available investible resources, it crowds out the private sector. A balance needs to be struck in apportioning the investible resources between the government and the private sector. The crowding out argument has even greater force in an economy with capital controls. Fourth, continued fiscal deficits impact on interest and inflation rates depending on how the deficits are financed. If the government borrows in the domestic market, it puts pressure on the interest rate. If the government finances the deficit by creating high power money, it fuels inflation. In India, since deficits are financed by open market borrowing, *albeit* through a preferential Statutory Liquidity Ratio (SLR) window, the risk is largely of government borrowings leading to higher interest rates. Finally, fiscal deficits are also bad for another little realised, but powerful reason. Fiscal deficits, especially in the face of revenue deficits, exacerbate inter-temporal equity concerns as they give the pleasure of spending to the current generation while passing on the pain of debt servicing to the later generation.

There is overwhelming empirical evidence that low fiscal deficits and growth are self-reinforcing; good fiscal management preserves access to foreign lending and avoids the crowding out of private investment, while growth stabilizes the budget and improves the fiscal position. But there are many dimensions to this issue, including whether government borrowing is financing government consumption or investment in infrastructure, whether the deficit is sustainable and how it is financed.

2.3.2 The contrary view

There are also arguments advocating higher deficit for promoting growth. Evdoridis (2000) on the positive impact of public deficits on economic growth indicates precisely the mechanism of dynamic equilibrium and the potentially positive impact of budget deficits in economic growth. The most interesting aspect of Evdoridis's work is the demonstration that this positive outcome for growth rates is valid not only in recession periods. He argues that for a sustainable high growth rate, an imbalanced budget in favour of expenditures is a necessary prerequisite for growth, along with some combination of monetary easing.

2.3.3 Situation-specific view

According to Perotti (1999) the initial conditions of some key variables can explain why fiscal expansions have a positive effect in "good times" but a negative one in "bad times", where fiscal consolidation are required. Hemming *et al.* (2002) summarised the empirical findings with regard to effectiveness of fiscal policy and size of fiscal multiplier as below:

Fiscal Multiplier will tend to be positive and possibly quite large when:

- there is excess capacity, the economy is either closed or it is open and the exchange rate is fixed and households have limited time horizons or are liquidity constrained;
- increased government spending does not substitute for private spending, it enhances the productivity of labor and capital and lower taxes increase labor supply and/or investment;
- government debt is low and the government does not face financing constraints;

- there is an accompanying monetary expansion with limited inflationary consequences.

Fiscal multipliers are likely to be smaller, and could turn negative, when:

- there is crowding out either directly as government provision substitutes for private provision and through imports, or as interest rates rise and a flexible exchange rate appreciates in response to a fiscal expansion;
- households are Ricardian, in which case a permanent fiscal expansion can reduce consumption;
- there is a debt sustainability problem and risk premium on interest rates are large, in which case a credible fiscal contraction can result in a large fall in interest rates;
- expansionary fiscal policy increases uncertainty which leads to more cautious savings and investment decisions by households and firms.

Researchers have pointed out that the role of fiscal policy appears most clearly when, for one reason rather the other, monetary policy cannot be used (Allsopp, 2005). There is a potential role of the fiscal instruments to be used so as to ensure medium-term price stability and subject to that, to deliver as much stabilization as possible. There are two cases which are of great policy significance. The first is where the nominal interest rate approaches its lower bound of zero – the "liquidity trap case". The second is the case of monetary unions such as EMU, where interest rates cannot be used to offset country-specific shocks (often called asymmetric shocks, to distinguish them from common shocks).

2.3.4 Short-term and long-term effects

There is another line of research which divides the effects of expansionary fiscal policy in the short run and long run (Andrés and Doménech, 2004). According to some research studies, there is a significant and positive short run effects on output of fiscal expansions. These results are in clear contrast with the other stream of literature in which contractionary policies have expansionary effects on output. As regards long run effect of fiscal expansion, the empirical evidence for the United States and EMU indicates that the deterioration of public savings, which is the main cause of larger government deficits, was not compensated by private savings, resulting in lower national saving and investment rate. If private saving compensates for only a fraction of public deficits, then fiscal expansions financed with public debt should increase real interest rates. If deficit spending implies higher interest rates and lower private investment, most growth theories (for example, Mankiw, Romer and Weil, 1992) predicts a lower per capita income or long run growth. Therefore, fiscal deficits have an indirect effect upon growth through capital accumulation. However, a negative direct effect has been directly confirmed empirically by some authors, even after controlling by the investment rates (Fischer and William, 1990; Andrés *et al.*, 1996).

2.3.5 Quality of public expenditure

Following the above research findings, there is a debate about quality of public expenditure. The reform of public expenditure is typically undertaken to reduce government spending. But even when public spending need not shrink, expenditure reform can still improve the productivity of existing spending, free resources to help meet new needs, and improve governance and transparency (Gupta *et al.*, 2005). Reducing expenditure while improving their composition need not undermine growth of social indicators. While the capital expenditure is perceived to be growth inducing, public expenditure also plays a great role, necessarily when targeted at the poor. Thus, public spending should be judged on its impact on growth and investment, as well as on poverty and equity (Daniel *et al.*, 2006).

2.4   Fiscal rules and fiscal consolidation

The experiences on fiscal consolidation process in the 1990s have another noteworthy feature, which was the introduction of a sound fiscal framework supported by institutional reforms (OECD, 2007). Recognising the difficulties associated with discretionary fiscal policies, several advanced countries enacted fiscal responsibility legislations (FRLs) during the 1990s as permanent institutional devices aiming to promote fiscal discipline in a credible, predictable and transparent manner. New Zealand was at the forefront of these reforms, adopting FRL in 1994 followed by Australia, United Kingdom and the European Union. In emerging market economies, adoption of fiscal responsibility has been more recent and limited mainly to Latin America (Argentina, Brazil, Chile and Peru) and Asia (India, Indonesia, Pakistan and Sri Lanka).

In practice, fiscal rules have been adopted for a wide variety of reasons such as: (a) to ensure macroeconomic stability, as in post-war Japan; (b) to enhance the credibility of the Government's fiscal policy and aid in deficit elimination, as in some Canadian provinces; (c) to ensure long-term sustainability of fiscal policy, especially in light of population ageing, as in New Zealand; or (d) to minimize negative externalities within a federation or international arrangement, as in the European Economic and Monetary Union (Kennedy and Robbins, 2001). In the emerging countries, the immediate motivation has been to reverse the building of public debt, to restore fiscal sustainability and more generally, to enhance the credibility of macroeconomic management (Kopits, 2004).

Present fiscal policy rules are fairly diverse in both design and implementation. While Anglo-Saxon countries (Australia, New Zealand, United Kingdom) emphasise procedural rules aiming to enhance transparency, accountability and fiscal management, continental Europe (EMU Stability and Growth Pact) and emerging market economies (Argentina, Brazil, Columbia, India, Pakistan, Peru and Sri Lanka) rely far more on a set of numerical reference values (targets, limits) on performance indicators. There are four main types of numerical fiscal rules: deficit rules (e.g., balanced budget); debt rules (e.g., debt ceilings); borrowings rules (e.g., prohibition of central bank financing) and expenditure rules (e.g., ceilings on some types of public expenditure or public expenditure growth).

It has been documented that countries with fiscal rules achieved better results. Fiscal rules with embedded expenditure targets tended to be associated with larger and longer fiscal adjustments and higher success rates. Furthermore, adoption of a spending rule on top of a budget balance rule helped in the achievement and maintenance of a primary balance that was sufficient to stabilize the debt-to-GDP ratio (OECD, 2007). Since, in most countries FRLs have not been around for more than few years, evidence on their effectiveness is still preliminary. Still, there seems to be broad agreement that the quality of fiscal institutions does matter for fiscal performance. In this sense, FRL holds the potential of improving fiscal management, if supported by strong political management to fiscal prudence and sufficiently developed fiscal institutional framework. A well designed FRL may help contain fiscal deficits and expenditure biases, address issues of time inconsistency, help reduce borrowing costs and output variability and enhance transparency and accountability (Corbacho and Schwartz, 2007).

2.5   The return of activist fiscal policy

Countries all over the world provided fiscal stimulus following the global financial crisis of 2008. The U.S. federal government enacted several rounds of activist fiscal policy. These began early in the recession with temporary tax cuts enacted in February 2008, followed by a tax credit for first-time homebuyers enacted in July 2008. They reached a crescendo in February 2009 with the American Recovery and Reinvestment Tax Act (ARRA): a combination of tax cuts, transfers to individuals and states and government purchases estimated to increase budget deficits by a

cumulative amount equal to 5.5 per cent of one year's GDP. The fiscal stimulus continued thereafter with more targeted measures. Accompanying these fiscal efforts were the Troubled Asset Relief Program, enacted in fall 2008 to address the financial crisis and a continuing array of interventions by the Federal Reserve Board that aimed to stabilize credit markets and stimulate the economy. Around the world, other countries caught in the grip of recession also pursued a variety of active fiscal strategies, ranging from temporary consumption tax rebates (for example, in the United Kingdom) to large public works projects (notably in China). The prevalence of fiscal policy interventions in this period reflects both the severity of the recession and a revealed optimism with regard to the potential effectiveness of activist fiscal policy (Auerbach *et al.*, 2010). Thus, extending fiscal stimulus to contain the impact of the crisis as well as promote growth may be seen as return of the Keynesian doctrine.

According to the IMF Staff Position Note of June 9, 2009, the global financial crisis is having major implications for the public finances of most countries. Fiscal revenues are declining through the operation of automatic stabilizers and because of lower asset and commodity prices. Direct fiscal support is being provided to the financial sector and many countries are undertaking discretionary fiscal stimulus. This is cushioning the global economy from the effects of the crisis. But it implies a fiscal deterioration that is particularly strong for advanced countries, where the increase in both government debt and contingent liabilities is unprecedented in scale and pervasiveness since the end of the Second World War. According to the Note, the fiscal balances of G-20 advanced countries are projected to weaken by 8 percentage points of GDP on average and government debt is projected to rise by 20 percentage points of GDP in 2008-09, with most of the deterioration occurring in 2009. The fiscal balances of G-20 emerging market economies will deteriorate by 5 percentage points of GDP. For advanced economies, the increase in debt mostly reflects support to the financial sector, fiscal stimulus, and revenue losses caused by the crisis. For emerging economies, a relatively large component of the fiscal weakening reflects declining commodity and asset prices. It may mentioned that following large fiscal supports extended by many European countries like Greece, Portugal, Spain and Ireland, their fiscal conditions deteriorated very fast and they were beset with sovereign debt problems, which necessitated support of European Union and IMF.

The IMF Staff Note states that while fiscal balances are expected to improve over the medium term, they will remain weaker than before the crisis. Public debt-to-GDP ratios will continue to increase over the medium term: in 2014 the G-20 advanced country average is projected to exceed the end-2007 average by 36 percentage points of GDP. On current policies, debt ratios will continue to grow over the longer term, reflecting demographic forces. Moreover, for both advanced and emerging economies, the crisis has increased short- and medium-term fiscal risks, with key downside risks arising from the need for possible further support to the financial sector, the intensity and the persistence of the output downturn, and the return from the management and sale of assets acquired during the financial support operations. The somber fiscal outlook raises issues of fiscal solvency and could eventually trigger adverse market reactions. This must be avoided: market confidence in governments' solvency is a key source of stability and a precondition for economic recovery. Therefore, there is an urgent need for governments to clarify their exit strategy to ensure that solvency is not at risk. In formulating such a strategy, four components are particularly important: (1) fiscal stimulus packages, where these are appropriate should not have permanent effects on deficits; (2) medium-term frameworks, buttressed by clearly identified policies and supportive institutional arrangements, should provide a commitment to fiscal correction, once economic conditions improve; (3) structural reforms should be implemented to enhance growth; and (4) countries facing demographic pressures should firmly commit to clear strategies for health and pension reforms.

3   Fiscal regimes in india: some stylized facts

India has a federal fiscal structure constituting of central and 28 state governments.[1] Both the tiers of the governments have gone through cycles of fiscal comfort and stress starting with the period since its independence in 1947. The coverage of this paper will be restricted to a period starting with early 1980s, when fiscal deterioration became noticeable till the present period.

3.1   *Federal fiscal structure*

As already stated, India has a federal fiscal structure with Central Government at the Centre and 28 State governments at the provincial level. Both the levels of government could impact upon the overall fiscal correction process. As the important tax bases remain with Central government but State governments have large scale spending responsibilities with regard to social sectors such as education, health as well as maintenance of law and order, there exists a system of devolution of taxes and grants from the centre to the provincial governments.[2] While most of the discussions in this paper would be in terms of combined finances of the Centre and the States, specific references would be made to their finances individually, when warranted.

3.2   *Fiscal reform regimes*

Following unbridled fiscal expansionary phase of 1980s, there was a phase of fiscal consolidation during 1991-92 and 1996-97 as a part of the macroeconomic structural and stabilization programme. As a result of the concerted efforts to restore fiscal balance through tax reforms, expenditure management, institutional reforms and financial sector reforms in the first half of the 1990s, there was significant reduction in the fiscal deficits for both the levels of government, when compared to the earlier period of 1983-84 to 1990-91 (Figure 1 and Table 1). However, during the period 1997-98 to 2002-03, there was a reversal in the trend of fiscal consolidation and the cumulative impact of industrial slow down, fifth pay commission award and a lower than expected revenue buoyancy culminated in fiscal deterioration (Reddy, 2008). The need for a rule based fiscal consolidation, was therefore, felt and debated in India.

3.3   *Rule-based fiscal policy*

The fiscal responsibility legislation at the Centre had its root in the announcement by the Union Finance Minister in his budget speech for 2000-01 to set up a Committee. Following the submission of the Committee's Report (Chairman: E.A.S. Sarma) and the legislative procedures, the Fiscal Responsibility and Budgetary Management (FRBM) Act, 2003 and the Rules made by the Government under the Act were brought into force on July 05, 2004. The structure and content of the Act go beyond the conventional fiscal legislation, *i.e.*, setting the ceiling on the fiscal

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[1]   Through the constitutional amendments (73rd and 74th) in 1992 the rural and urban local bodies were accorded a constitutional status as third-tier of Government. However, due to lack of consistent data on these bodies, coverage of this paper is restricted to the first two tier governments (Centre and 28 State governments).

[2]   Constitution provides for setting up a Finance Commission every five years to recommend about the devolution system. The Commission makes recommendations regarding the distribution between the Union and the States of the net proceeds of the taxes, the principles which should govern the grants-in-aids out of the consolidated fund of India to the States, the measures needed to augment the consolidated fund of the State to supplement the resources of the rural and urban local bodies in the State. The Commission also reviewed the state of the finances of the Union and the States and suggest measures for maintaining a stable and sustainable fiscal environment consistent with equitable growth.

Table 1

Major Deficit Indicators of the Central, State and General Governments
(percent of GDP)

Year	1983-84 to 1990-91	1991-92 to 1996-97	1997-98 to 2002-03	2003-04 to 2007-08	2008-09	2009-10 (RE)	2010-11 (BE)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Central Government							
RD	2.3	2.8	3.9	2.3	4.5	5.0	3.5
GFD	7.4	5.6	5.9	3.6	6.0	6.3	4.8
PD	4.4	1.4	1.3	–0.2	2.6	3.0	1.7
State Governments							
RD	0.3	0.8	2.3	0.5	–0.2	0.7	0.3
GFD	3.0	2.7	4.0	2.7	2.4	3.3	2.5
PD	1.8	0.9	1.6	0.3	0.6	1.5	0.9
Combined General Governments (Centre and States)							
RD	2.6	3.5	6.2	2.7	4.3	5.7	3.8
GFD	8.7	7.0	9.0	6.3	8.5	9.5	7.3
PD	5.2	2.0	3.3	0.6	3.4	4.6	2.7

RD: Revenue Deficit; GFD: Gross Fiscal Deficit; PD: Primary Deficit; BE: Budget Estimates; RE: Revised Estimates; Minus (–) sign indicates surplus in deficit indicators.
Source: RBI, *Handbook of Statistics on Indian Economy* and various issues of RBI, *State Finances: A Study of Budgets*.

Figure 1

GFD-GDP Ratio of Centre, States and Combined
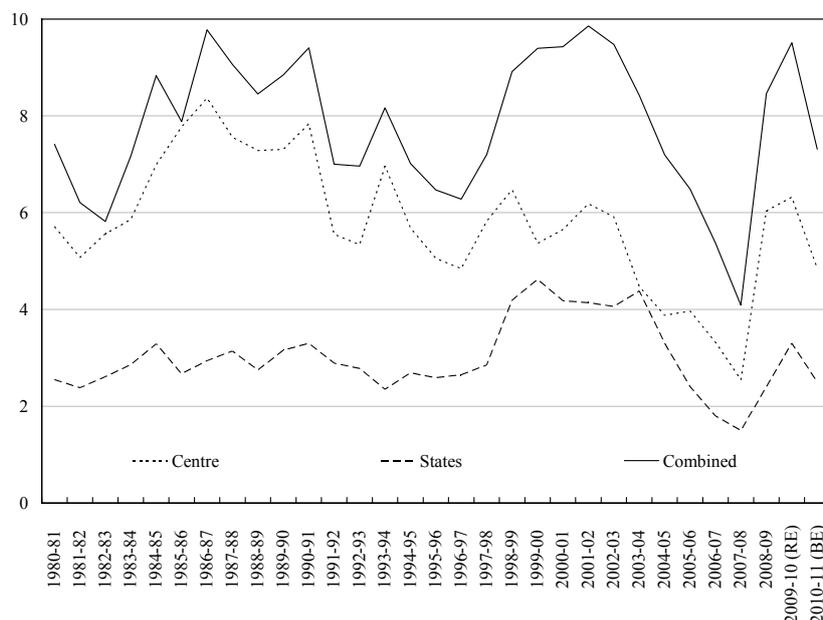
indicators. Obligations of the Government under the FRBM Act, 2003 and FRBM Rules, 2004, as amended through the Finance Act, 2004 are as follows:

- to eliminate the revenue deficit by the financial year 2008-09. The FRBM Rules prescribe a minimum annual reduction in the revenue deficit by 0.5 per cent of GDP;

- to reduce the fiscal deficit by at least 0.3 per cent of the GDP annually, so that fiscal deficit is less than 3 per cent of

GDP by the end of 2008-09;

- to limit Government guarantees to at most 0.5 per cent of the GDP in any financial year;

- to limit additional liabilities (including external debt at current exchange rate) to 9 per cent of GDP in 2004-05, 8 per cent of GDP in 2005-06, 7 per cent of GDP in 2006-07, 6 per cent of GDP in 2007-08;

- not to borrow directly from the Reserve Bank of India w.e.f. April 01, 2006.

- to present three statements before the Parliament along with the annual budget: Macroeconomic Framework Statement, Fiscal Policy Strategy Statement and Medium-term Fiscal Policy Statement incorporating three year rolling targets for prescribed fiscal indicators and underlying assumptions;

- to move towards greater fiscal transparency and start disclosing specified information such as arrears of unrealized revenue, guarantees and assets latest by 2006-07;

- furthermore, the FRBM Act requires that the Finance Minister conduct quarterly review of receipts and expenditure and place the outcome of these reviews before the Parliament. He is obliged to take remedial measures to check deterioration in fiscal position, which may not only include measures to increase revenues but also to curtail expenditures. The Finance Minister is also obliged to make a statement in the Parliament explaining the reasons for any deviations from the obligations cast on the Government under the FRBM Act and remedial measures that are proposed to be taken to rectify the situation.

Thus, the FRBM Act not only mandates minimum quantifiable targets for reducing the growth of debt, deficit and guarantees in a time bound manner but also embeds a series of improvements in the area of fiscal transparency and medium-term fiscal planning to improve budget management and catalyse the process of true democratic control of fiscal policy through informed public opinion on the risks inherent in unabated growth in debt and deficit.

The State Governments also adopted a rule-based framework for fiscal correction and consolidation through progressive enactment of Fiscal Responsibility Legislation (FRL). Karnataka was the first to enact the FRL in September 2002 followed by Kerala and Tamil Nadu in 2003 and Punjab in 2004. Subsequently, twenty-two more States enacted the FRLs. All State Governments barring Sikkim and West Bengal have enacted FRLs so far.[3] These two States enacted FRLs subsequently following the recommendations of the 13th Finance Commission. The enactment of FRLs has provided impetus to the process of attaining fiscal sustainability as reduction in key deficit indicators, viz., revenue deficit (RD) and gross fiscal deficit (GFD), is critical for reducing the mounting level of debts of the States. Although there are variations across States in the choice of target and the time frame for achieving the target, most of the FRLs have stipulated elimination of RD by March 31, 2009 and reduction in GFD as percent of gross State domestic product (GSDP) to 3 per cent by March 31, 2010, in line with the targets prescribed by the TFC. In addition, several States have imposed limits on guarantees and targeted to reduce their liabilities.

3.4   *Fiscal consolidation during the rule-based period (2004-05 to 2007-8)*

The experience with FRBM Act, 2003 at Centre and the corresponding Acts at State level show that statutory fiscal consolidation targets have a positive effect on macroeconomic management of the economy. Table 2 provides how both the Central and State governments (consolidated) improved their fiscal position in terms of the major deficit indicators during the post-rule based period. Incidentally, the fiscal correction process was faster by the States as

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[3]   A reference may be made to Misra and Khundrakpam (2009) for a detailed discussion on fiscal consolidation of Central and State governments.

<div align="right">**Table 2**</div>

Major Deficit Indicators of the Central, State and General Governments
(percent of GDP)

Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 RE	2010-11 BE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Central Government								
RD	3.6	2.4	2.5	1.9	1.1	4.5	5.0	3.5
GFD	4.5	3.9	4.0	3.3	2.5	6.0	6.3	4.8
PD	–0.03	–0.04	0.4	–0.2	–0.9	2.6	3.0	1.7
State Governments								
RD	2.3	1.2	0.2	–0.6	–0.9	–0.2	0.7	0.3
GFD	4.4	3.3	2.4	1.8	1.5	2.4	3.3	2.5
PD	1.5	0.7	0.2	–0.4	–0.5	0.6	1.5	0.9
Combined General Governments (Centre and States)								
RD	5.9	3.6	2.7	1.3	0.2	4.3	5.7	3.8
GFD	8.4	7.2	6.5	5.4	4.1	8.5	9.5	7.3
PD	2.0	1.3	1.0	0.0	–1.1	3.4	4.6	2.7

RE: Revised Estimates, BE: Budget Estimates, RD: Revenue Deficit, GFD: Gross Fiscal Deficit, PD: Primary Deficit; Negative (–) sign indicates surplus in deficit indicators.
Source: RBI, *Handbook of Statistics on Indian Economy* and various issues of RBI, *State Finances: A Study of Budgets*.

compared with that of the Centre with the States achieving revenue surplus starting with 2006-07. It may be mentioned that the consolidated data might not reveal the variation that existed across the States.[4]

3.5 *Fiscal consolidation: whether led by revenue enhancement or expenditure compression*

As with the Centre and States individually, collectively also a revenue buoyancy and relatively limited growth in expenditure helped in the fiscal consolidation phase in the post-FRBM period up to 2007-08. The GFD was placed at 4 per cent of GDP in 2007-08 and revenue deficit was close to zero. Of the reduction of revenue deficit by 5.7 per cent of GDP of the general government in 2007-08 compared to that of 2003-04, 46.4 per cent was contributed by increase in revenue receipts and. 50.8 per cent by decline in revenue expenditure (Table 3).

In the case of Centre, the correction in the revenue account was revenue receipts led accounting for 52.0 per cent of the correction (Table 4). As a ratio to GDP, gross tax revenue of the Centre rose from a level of 9.2 per cent in 2003-04 to reach a peak level of 11.9 per cent in 2007-08. In contrast, for the States, compression of revenue expenditure accounted for 59.4 per cent of the correction of the revenue account during the above period and of the 40.6 per cent contribution of increase in revenue receipts, a major share came from devolution from the Centre (Table 5). Thus, the own revenue base of the States expanded only by limited extent during the period, with non-tax revenue accounting for the major share.

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4   Making Stata-wise fiscal analysis is beyond the scope of this paper. It may, however, be mentioned that the Twelfth Finance Commission recommended r an uniform fiscal reform path for all the States.

Correction in Revenue Account of Central and State Governments
(percent of GDP)

	2003-04	**2007-08**	**Correction 4=(3–2)**	**Contribution**
(1)	(2)	(3)	(4)	(5)
Revenue Receipt	18.6	21.3	2.7	–47.4
Revenue Expenditure	24.4	21.5	–2.9	50.9
Revenue Deficit	5.9	0.2	–5.7	

Correction in Revenue Account of Central Governments
(percent of GDP)

	2003-04	**2007-08**	**Correction 4=(3-2)**	**Contribution**
(1)	(2)	(3)	(4)	(5)
Revenue Receipt	9.6	10.9	1.3	–52.0
Revenue Expenditure	13.1	11.9	–1.2	48.0
Revenue Deficit	3.6	1.1	–2.5	

Correction in Revenue Account of the State Governments
(percent of GDP)

	2003-04	**2007-08**	**Correction 4=(3–2)**	**Contribution**
(1)	(2)	(3)	(4)	(5)
RD	2.30	–0.86	–3.16	
Revenue Receipts	11.22	12.51	1.28	40.61
Own Revenues	6.94	7.29	0.35	11.08
OTR	5.59	5.75	0.15	4.89
ONTR	1.35	1.55	0.20	6.19
Current Transfers	4.28	5.21	0.93	29.53
SCT	2.44	3.04	0.60	19.00
GRANTS	1.85	2.18	0.33	10.52
RE	13.53	11.65	–1.88	59.39

RD: Revenue Deficit; OTR: Own Tax revenue; ONTR: Own Non-tax Revenue; SCT: Share in Central Taxes; RE: Revenue Expenditure.
Source: RBI, *State Finance Studies*, various issues.

3.6   *Global financial crisis and fiscal stimulus*

Given the exceptional circumstances of 2008-09 and 2009-10, fiscal consolidation effort was setback on account of economic slowdown following the global crisis. In line with international trend, the government responded with a number of fiscal stimulus measures encompassing both tax cuts and higher expenditure during 2008-09 and 2009-10 to counter the economic slowdown. Therefore, revenue deficit and gross fiscal deficit of the Central government widened substantially and exceeded the pre-FRBM level. In this context, it is important to recognise that unlike in most Advanced G-20 countries where the direct fiscal support to financial institutions averaged 5.7 per cent of GDP (IMF, 2009, "Staff Position Note", September), the Government did not extend any such support in India. The broad nature of the stimulus measures is set out in Table 6.

Table 6

Fiscal Stimulus Measures
(percent of GDP)

	2008-09	**2009-10**
Tax reductions	0.2	0.4
Expenditure measures	2.2	1.4
of which: Sixth Pay Commission	0.5	0.3
Total	2.4	1.8

Owing to the fiscal stimulus package which envisaged significant reduction in tax rates and rise in expenditure as a part of discretional fiscal policy by the Centre, the fiscal deficit indicators reversed during 2008-09 and 2009-10. Incidentally, the payments on account of Sixth Pay Commission of the Centre coincided with the timing of the stimulus package and acted as stimulus for the economy in view of falling private consumption and investment demand. Gross tax revenue of the Centre as a ratio to GDP declined noticeably to 10.9 per cent in 2008-09 and further to 9.6 per cent in 2009-10 on account of sharp fall in collection of indirect tax collections (customs and excise), particularly excise duties. As a result of the shortfall in revenues and substantial increase in public expenditure, the revenue deficit and fiscal deficit targets mandated under the FRBM Act and Rules were not met in 2008-09 and 2009-10.

The fiscal consolidation process of the States was also disrupted and many of them deviated from the targets stipulated under their FRLs. The State Governments provided fiscal stimulus during 2008-09 and 2009-10 through different measures although there is lack of consistent collated data on fiscal stimulus extended by the States. Roughly, the deviation of fiscal deficit of 2009-10 from 2007-08 would provide some idea about impact of the global fiscal crisis on fiscal position of the Centre and the States as indicated in Table 7. While the deviation of fiscal deficit of the general government for 2009-10 from the level achieved in 2007-08 looks high at 5.4 per cent, it is at least 3.5 per cent higher compared to the FRBM target (3 per cent) of the Centre and targets of FRLs of the States (3 per cent of GSDP for each State).

This section analyses the analytics of fiscal consolidation in Indian context. First, the major empirical analyses have been briefly touched upon. Subsequently, the empirical findings based on the small structural macro model are discussed. The basic characterisation relates to whether fiscal deficit has any impact on macroeconomic performance in terms of growth and inflation.

4   Fiscal consolidation and macroeconomic performance: Some analytics and empirical findings in the context of India

4.1   Review of literature in Indian context

Mohan (2008) observed that a high level of fiscal deficit impacts the practice of monetary policy and tends to have a negative impact on real GDP growth through "crowding out" effects and/or rise in interest rates in the economy. The high level of fiscal deficit between1997-98 and 2002-03 was associated with relatively low GDP growth. The reduction in fiscal deficit since 2003-04 has been associated with a phase of high GDP growth. Thus, fiscal correction and consolidation, which is a major ingredient of macroeconomic stability, provide a conducive environment for propelling growth of the economy. Figure 2 presents the movements of GDP growth and combined GFD-GDP ratio showing almost an inverse relationship between the two.

Kochhar (2004) indicated that the main channels through which the fiscal imbalances impact the growth performance of the economy are through the deterioration in the quality of public expenditure, limitations on the room for macroeconomic policy manoeuvre and on the scope for the structural reforms and liberalization. Together this prevents the economy from attaining a sustained high growth path. She indicated a key manifestation of negative consequences of the large fiscal imbalances relates to deterioration in the composition of public spending. In particular, public capital expenditure fails sharply and a growing proportion of revenue was used each year to service public debt. She stated that there was secular decline in the ratio of capital to current spending during the period 1990-91 and 2001-02. Rangarajan and Subbarao (2007) indicated that there was a declining ratio of capital

Table 7

Fiscal Deficit – Impact of Crisis
(percent of GDP)

Fiscal Deficit	2007-08	2009-10	Difference of (1 over 2)
(1)	(2)	(3)	(4)
Centre	2.5	6.3	3.8
States	1.5	3.3	1.8
Combined General Government	4.1	9.5	5.4

Figure 2

Growth Rate of GDP and Combined GFD-GDP Ratio

Figure 3

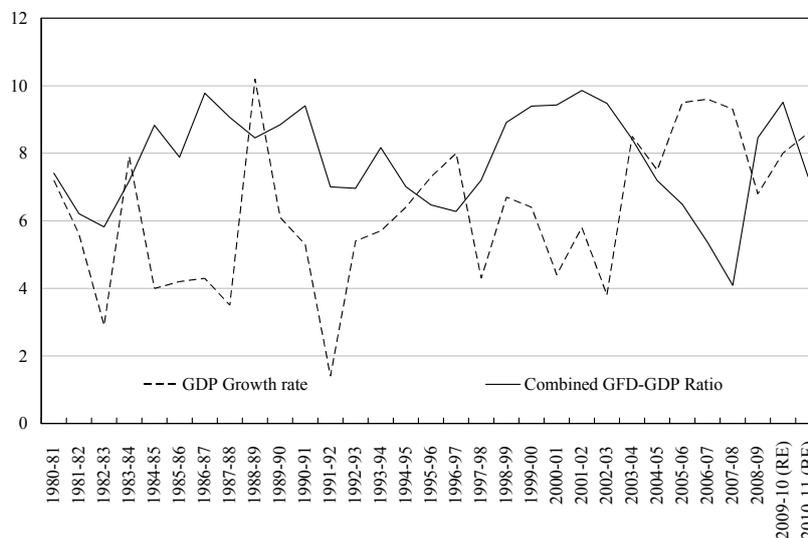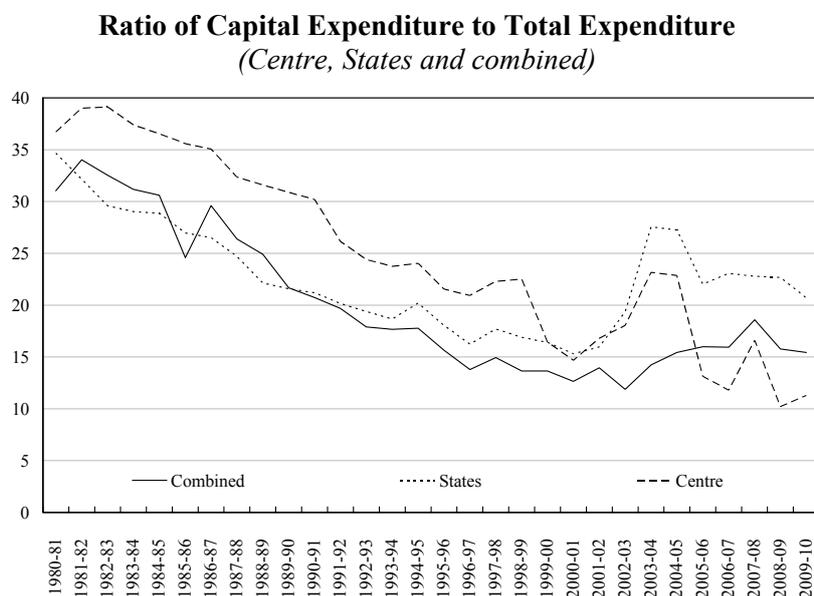**Ratio of Capital Expenditure to Total Expenditure**
(Centre, States and combined)

expenditure to total expenditure over the period 1990-91 to 2002-03 accompanied by a rising ratio of interest payments to revenue receipts. Figure 3 provides the ratio of capital expenditure to total expenditure for the Centre, States and the combined general government.

As regards fiscal deficits and its impact on crowding out and crowding in, there are few empirical findings. Chakraborty (2006) using an asymmetric vector autoregressive model analysed the real and financial crowding out in India during 1970-71 to 2002-03 and found no real crowding out between public (in particular, infrastructure) and private investment;rather complementarily was observed between the two. RBI (2002) through the analysis of the fiscal deficit and its impact observed that the response of growth to fiscal stimulus in India depended upon the type of the stimulus:

i) A sustained increase in government consumption expenditure produces demand induced expansion in output, which is however, short-lived lasting for about 3 years. Output declines thereafter with the cumulative loss in output completely offsetting the initial gain. The supply response to the stimulus is only marginal;

ii) Stimulus through government investment in infrastructure has a similar effect on aggregate demand as that of government consumption. However, there is a pronounced and persistent positive impact on aggregate supply; and

iii) Increase in government investment in infrastructure accompanied by an offsetting reduction in government consumption to maintain the level of government deficit leads to increase in aggregate supply in a sustained manner.

4.2   Empirical analysis based on a small structural macro model

For empirical analysis, a small size structural macro model as shown in the Annex was estimated for the sample period 1980-81 to 2008-09. The model basically characterizes the interaction between product and money market with implications for banking sector's balance sheet constraint. The impact of fiscal deficit in the model is captured through size, quality and financing of deficit. In the model, aggregate output or income equals aggregate demand (real GDP), which in turn equals the sum of private consumption, investment, government consumption expenditure, and exports less imports. Private consumption depends on permanent income measured as the average of current and previous year's income, real deposit interest rate, *i.e.*, nominal deposit interest rate less the threshold inflation rate, wealth effect captured by broad money supply in real terms, and dependency ratio in line with life cycle hypothesis. Private investment on incremental basis depends upon changes in the real measure of income, government capital expenditure, bank credit,

and interest rate on loans and the change in trade openness. Export demand is characterized with quantum index of exports explained by two variables, the scale variable for external demand measured world exports in real terms and the trade competitiveness captured through real effective exchange rate. Import demand in volume terms depends upon real domestic income. For the government sector, fiscal deficit is exogenous while income and revenue are treated endogenous, depending upon nominal GDP. The budget constraint is thus characterized as government's total expenditure equals to revenue receipts and fiscal deficit. Government's capital expenditure is defined as total expenditure less revenue expenditure. The financing of fiscal deficit is linked to monetary sector. In the monetary sector, banks mobilise deposits which is determined by real income and real interest rate. Given the deposit resources, the level of funds available for lending and investment purposes is derived as deposits less cash reserve requirement by the central bank. From available funds, banks invest government securities as much required by the government through bond financing mode. Thus, supply of credit to private sector is constrained by the level of funds and financing of deficit. The nominal money demand is measured by deposits and currency with the public, the latter accounting for transaction demand for money endogenously determined by nominal GDP. Given the nominal level of broad money, the measure of aggregate price level and its inflation rate are captured through an inverted real money demand equation, which in turn depends upon real income, and money market interest rate. The money market interest rate is determined by liquidity pressure, the proportion of deficit to be financed by banks from the availability of funds. The yield on government bonds, which are liquid and risk free, is determined by money market condition. Loan interest rate is determined by money market interest rate to account for liquidity effect and the spread between the yield on government bonds and deposit interest rate.

In terms of empirical analysis, the model has 12 endogenous equations and various identities including the government budget and banking sector balance sheet. Most of the estimated equations showed reasonably high explanatory performance in terms of coefficient of determination or the adjusted R^2.

The estimated structural equations showed that permanent income has significant positive effect whereas dependency ratio has significant negative effect on private consumption. Wealth has positive effect but with a higher 10 per cent level of significance. Real deposit interest rate has significant positive effect, suggesting inverse consumption smoothing.

In the case of investment or capital formation variable, output, credit and trade openness have significant positive effect. Government's capital expenditure has positive effect with a higher 10 per cent level of significance. Real interest rate has negative but insignificant effect.

In the export demand equation, world income has significant positive effect. The real exchange rate measure of competitiveness has negative effect with a higher level of significance; implying that appreciation of exchange rate or deterioration in competitiveness could affect exports negatively. It is evident from export demand, the short-run elasticity of exports with respect to world demand is 0.58 but long-run elasticity is unity, suggesting that the shift in export share could occur due to competitiveness.

Imports show a significant positive relationship with domestic real GDP with short run and long-run elasticity at 0.96 and 1.75, respectively. On account of government's revenue, total revenue is significantly determined by real output and aggregate price level and the output effect is much stronger than the price effect.

As regards the monetary sector, the growth rate of currency demand by the public could almost move in tandem with nominal GDP Growth in the long-run. In the case of real broad money aggregate, the long-run elasticity with respect to real income is 1.5, in line with the Indian evidence. Interest rate has significant inverse relationship with money demand. As regards the

Table 8

Simulated Effects of Fiscal Deficit on Growth and Inflation

Fiscal Policy Effect	Inflation	Real GDP Growth
1 Crowding-in Effect (increased fiscal deficit due to increased capital expenditure to fuel greater private investment)	0.37	0.82
2 Crowding-out Effect (increased fiscal deficit due to revenue expenditure leading to a decline in private investment)	–0.31	–0.41
3 Qualitative Effect (Fiscal deficit remains unchanged but revenue expenditure declines with similar increase in capital expenditure)	0.28	0.45

interest rate, the liquidity effect has significant impact on money market interest rate, which in turn significantly determines the yield on government bonds and loan interest rates.

The estimated model was simulated for capturing the impact of the fiscal deficit effect on growth and inflation under three alternative scenarios over the period 1993-2008. First, fiscal deficit ratio was increased by a percentage point through an equivalent increase in government's capital expenditure and total expenditure, reflecting the crowding-in effect. In the second scenario, the crowding out effect was characterized by a percentage point increase in fiscal deficit, accompanied by an equivalent increase in revenue expenditure and the consequent decrease in private investment. The third scenario entailed a qualitative shift in government expenditure from revenue to capital expenditure while fiscal deficit did not change, *i.e.*, the decline in revenue expenditure by an amount equivalent to one percentage point fiscal deficit was offset by a similar increase in capital expenditure.

The empirical estimates showed that the crowding-in effect of fiscal deficit could be associated with 0.37 percentage point increase in the average inflation but higher 0.82 percentage point increase in real GDP growth. The crowding-out effect was associated with a decline in inflation and real GDP growth rate by 0.31 and 0.41 percentage points, respectively. On the other hand, the qualitative shift in expenditure showed an increase in inflation and real GDP growth by 0.28 and 0.45 percentage points, respectively (Table 8).

5   Fiscal consolidation in India: the medium-term framework and challenges

There are many challenges for fiscal regime in India to get back to the pre-crisis level. Efforts need to be made to put in place a fiscal reform plan to achieve sustainable level of deficit and debt in the medium term with a calibrated exit of the fiscal stimulus. The expenditure rationalisation and prioritisation needs to be emphasised.

5.1   *Exit of fiscal stimulus*

The IMF's paper on Global Economic prospects and Policy Challenges circulated at the G-20 Deputy Meeting held on February 27, 2010 at Seoul stated that the policy makers need to

Consolidated Fiscal Reform Path of Centre and States
(percent of GDP)

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Revenue Deficit – Centre	4.8	3.2	2.3	1.2	0.0	−0.5
Revenue Deficit – States						0.0*
Fiscal Deficit – Centre	6.8	5.7	4.8	4.2	3.0	3.0
Fiscal Deficit – States	2.8	2.6	2.5	2.5	2.4	2.4
Fiscal Deficit – Consolidated	9.5	8.3	7.3	6.7	5.4	5.4

*It has been indicated by the ThFC that all the States that incurred zero deficits or achieved a revenue surplus in 2007-08, may return to zero revenue deficit by 2011-12. Other States may eliminate the revenue deficit by 2014-15.
Source: Thirteenth Finance Commission 2010-15, December 2009, Government of India.

formulate and begin to implement strategies for exiting from crisis-related intervention policies. The fiscal stimulus measures extended by the governments in India during 2008-09 and 2009-10, to large extent, have achieved the objective of containing the economic slowdown in the short-term. The Indian economy has emerged with remarkable rapidity from the slowdown caused by the global financial crisis of 2007-09. With growth in 2009-10 now estimated at 8.0 per cent by the Quick Estimates released on 31 January 2011 (6.7 per cent in 2008-09) and 8.6 per cent in 2010-11 as per the Advance Estimates of the Central Statistics Office (CSO) released on 7 February 2011, the turnaround has been fast and strong (GoI, 2011).

Without putting at risk the revival process, the Central government decided to undertake measures in a gradual manner to return to the path of fiscal consolidation from 2010-11, but fell short of the FRBM deficit targets. The Central Government in its budget announced on February 28, 2011 has committed to continue with the policy of fiscal consolidation in 2011-12. However, it would still not be possible to meet deficit targets mandated under the FRBM Act and Rules. The Government has proposed to bring in an amendment to the FRBM Act, 2003 during 2011-12. States would be able to get back to their fiscal correction path by 2011-12, allowing for a year of adjustment in 2010-11. The recommendations of the Thirteenth Finance Commission (ThFC) for the period 2010-15 are presently under implementation. The higher levels of devolution of taxes and the inter-se sharing thereof together with higher levels of non-Plan grants under Article 275 of the Constitution which include specific grants like grants for elementary education, outcomes and environment related grants, maintenance grants and state-specific grants are likely to bring the combined deficit of the States down to the targeted levels faster. Thus India is one of first among the emerging market economies to have made calibrated exit of fiscal stimulus, accompanied by exit of easy monetary regime. The exit strategy of the government is so calibrated that it would not hurt the recovery process.

5.2   *Medium-term fiscal plan*

The 13th FC has given recommendations on the fiscal consolidation roadmap for the period 2010-11 to 2014-15 (Table 9).

The medium-term fiscal policy statement brings out in detail the strategy of the government

to reduce the fiscal deficit closer to the mandated level under the FRBM Act and Rules by 2013-14. The process of fiscal consolidation by the Centre, which resumed in 2010-11 will be continued during 2011-12 after the deviations experienced during 2008-09 and 2009-10. However, the revenue deficit as percentage of GDP is estimated to decline from 5.3 per cent in 2009-10 (inclusive of Securities issued in lieu of subsidies) to 3.4 per cent in RE 2010-11. This correction is largely attributed to higher non tax receipts from 3G and BWA spectrum auction. In absence of this source of revenue in the coming financial year, revenue deficit is estimated to be static at 3.4 per cent of GDP in BE 2011-12. It is further projected to decline to 2.1 per cent of GDP by 2013-14. The revenue deficit and fiscal deficit in RE 2010-2011 are higher than the targets set under the FRBM Act and Rules. The deviation from the mandate under FRBM Act and Rules may be seen in the context of developments during 2008-09 and 2009-10. With the decision of the government to revert back to the path of fiscal consolidation starting from 2010-11, it is estimated to bring down the fiscal deficit from 7.8 per cent (inclusive of oil and fertiliser bonds) in 2008-09 to 4.6 per cent in BE 2011-12. This is better than the target of 4.8 per cent recommended by the ThFC. It is further projected to be brought down to 4.1 per cent of GDP in 2012-13 and 3.5 per cent in 2013-14.

There are, however, difficulties in achieving revenue surplus. This was explained in detail in the Fiscal Policy Strategy Statement of 2010-11. Revenue expenditure of the Central Government also includes releases made to States and other implementing agencies for implementation of Government schemes and programmes. The outcomes of many of these schemes are not in the nature of the outcomes related to revenue expenditure. In most of the cases these schemes are primarily in nature of creating durable assets but these assets are not owned by the Central Government. Therefore, in technical classification of revenue and capital account, the Central Government is not able to show expenditure on these schemes as capital expenditure. Examples of such schemes are Rajiv Gandhi Grameen Vidyutikaran Yojana, Jawaharlal Nehru National Urban Renewal Mission, Pradhan Mantri Gram Sadak Yojana, Accelerated Irrigation Benefit Programme, etc. Over the years, the number of such schemes funded by the Central Government and implemented by States/autonomous bodies has increased significantly. This has resulted in significant increase in funds transfer from Centre to States/autonomous bodies have increased significantly. This has resulted in significant increase in funds transfer from Centre to State/autonomous bodies resulting in higher revenue expenditure. However, these revenue expenditures cannot be treated as unproductive in nature. On the contrary, they contribute to growth in economy. The total expenditure on such items are significant at about 1.6 per cent of GDP. This reflects that half of the government revenue deficit is attributed towards these grants and, therefore, effective revenue deficit of the government is estimated at 1.8 per cent of GDP in 2011-12. It would be the endeavour of the government to eliminate this component of revenue deficit in a time bound manner. With the projected level of expenditure for 2012-13 and 2013-14, along with the assumption that the above mentioned grant will increase in medium term at not less than 10 per cent, the effective revenue deficit is estimated to come down to 0.5 per cent of GDP in 2013-14. Policy initiatives and administrative efficiency can make the target of eliminating effective revenue deficit by 2013-14 achievable.

The fiscal consolidation in the medium term will be attained by the Centre both through rise in revenue and decline in expenditure. Gross tax revenue is estimated to increase from 10.0 per cent of GDP in RE 2010-11 to 10.4 per cent in BE 2011-12 (reflecting growth of 18.5 per cent over RE 2010-11), which is however still lower than 11.9 per cent of GDP achieved during 2007-08. With economy reverting back to the path of trend growth rate, it would be possible to get back to the achieved peak level of tax to GDP ratio. In the medium-term targets, gross tax collection as percentage of GDP is projected at 10.8 per cent in 2012-13 and 11.3 per cent in 2013-14. Introduction of Goods and Services Tax (GST) and Direct Tax Code would have significant bearing on tax mobilisation efforts of the government (Table 10).

Fiscal Indicators – Rolling Targets of the Centre
(current market prices, percent of GDP)

	Revised Estimates 2010-11	Budget Estimates 2011-12	Targets for	
			2012-13	2013-14
Revenue Deficit	3.4	3.4	2.7	2.1
	(3.2)	*(2.3)*	*(1.2)*	*(0.0)*
Fiscal Deficit	5.1	4.6	4.1	3.5
	(5.7)	*(4.8)*	*(4.2)*	*(3.0)*
Gross Tax Revenue	10.0	10.4	10.8	11.3
	(11.35)	*(11.78)*	*(12.24)*	*(12.72)*

Figures in brackets relate to those recommended by the ThFC.
Source: Medium Term Fiscal Policy Statement, 2011, Government of India.

The fiscal consolidation roadmap enumerated in the Medium-term Fiscal Statement, is designed with a conscious efforts to bring down total expenditure of the government as percentage of GDP to the pre-crisis level, *i.e.*, of 2007-08. Including issuance of securities in lieu of subsidies and securities issued to nationalised banks, total expenditure of the government during 2007-08 was 15.9 per cent of GDP. This went up to 17.3 per cent in 2008-09 (inclusive of securities issued in lieu of subsidies) and has declined to 15.4 per cent in RE 2010-11. With re-prioritization of expenditure towards developmental side and curtailing the growth in non-developmental expenditure, the total expenditure is estimated to be brought down to 14 per cent of GDP in BE 2011-12. In the medium-term projection, it is estimated to further decline to 13.5 per cent of GDP in 2012-13 and 13.0 per cent in 2013-14.

The stimulus packages of the Central Government as well as those announced by individual States coupled with the increased transfers recommended by the ThFC have implications for the financial position of the States in the medium term.

5.3   *Revised architecture of rule-based fiscal policy*

In many countries, the fiscal rules also include a debt reduction target. The FRBM Act, 2003 of India provides for deficit target, borrowing rule, and norm for contingent liabilities. As regards debt, the FRBM Rules 2004 of the Centre contain an incremental assumption rule for public debt which states that "the Central Government shall not assume additional liabilities (including external debt at current exchange rate) in excess of 9 per cent of GDP for the financial year 2004-05 and in each subsequent financial year, the limit of 9 per cent of GDP shall be progressively reduced by at least one percentage point of GDP". There is, however, no explicit rule targeting reduction in the overall level of public debt. As a proportion of the GDP, public debt could come down through limiting its growth relative to growth in nominal GDP or through lower assumption of incremental liabilities or retirement of debt. The ThFC had recommended limiting the combined debt of the Centre and States to 69 per cent of the GDP by 2014-15 (44.8 per cent for the centre and 24.3 per cent for the States). The Union Budget for 2010-11 announced the intent of bringing out a

Table 11

Roadmap for General Government Debt and Liabilities

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**
1. Central Government Debt	50.5 *(54.2)*	50.3 *(53.9)*	49.3 *(52.5)*	47.6 *(50.5)*	45.4 *(47.5)*	43.0 *(44.8)*
2. State Government Debt	24.8 *(27.1)*	24.6 *(26.6)*	24.3 *(26.1)*	23.9 *(25.5)*	23.4 *(24.8)*	23.1 *(24.3)*
3. Outstanding Central Loans to State Governments	2.3 *(2.5)*	2.0 *(2.2)*	1.8 *(2.0)*	1.6 *(1.7)*	1.4 *(1.5)*	1.2 *(1.3)*
4. General Government Debt	73.0 *(78.8)*	72.9 *(78.3)*	71.8 *(76.6)*	69.9 *(74.3)*	67.4 *(70.8)*	64.9 *(67.8)*

The figures in the brackets relate to those recommended by the ThFC.
Source: Government of India (2010), Government Debt: Status and Road Ahead, Ministry of Finance, November.

status paper giving detailed analysis of the situation and a roadmap for curtailing overall public debt within six months. The status paper on debt was presented to the Parliament on November 2010.

In the debt paper, it had been explained that while accounting for Central Government debt and liabilities, the amount not used for financing Central Government deficit should be taken out for truly depicting Government's liability. The component of NSSF which are invested as State Governments' securities has been excluded for the purpose of calculating Central Government's liabilities. Debt raised under Market Stabilisation Scheme (MSS) which are sequestered in a separate account in the Reserve Bank of India, are also not available for financing of fiscal deficit. Hence, MSS balances are adjusted while arriving at the debt and liabilities of the Government. With these adjustments from the liabilities, along with external debt at current exchange rate, the estimated debt-to-GDP ratio for Central Government would be 45.3 per cent in RE 2010-11 and 44.2 per cent in BE 2011-12, respectively. This marked improvement from the earlier reported data on debt has to be seen in the context of revision in GDP data with a new series effective from 2004-05 as well as higher than earlier estimated growth in 2009-10 and 2010-11. With the projected level of fiscal deficit of 4.1 per cent of GDP in 2012-13 and 3.5 per cent of GDP in 2013-14, the estimated debt-to-GDP ratio would be 43.1 per cent and 41.5 per cent, respectively. These estimates show that the debt-to-GDP ratio in 2011-12 itself will be lower than the 13th FC recommended level of 44.8 per cent for the terminal year 2014-15. The road map provided for debt liabilities for the Centre, States and the combined general government in the debt paper *vis-à-vis* the recommendation of the ThFC is set out in Table 11.

It may be seen from the Table 11 that the suggested roadmap shows reduction of 8.1 per cent of GDP in the consolidated debt for the General Government. It may be recalled that during the fiscal consolidation period of 2004-05 to 2007-08, the reduction in debt as percentage of GDP was 10.6 per cent. The debt paper states that in view of the past performance, thus, the suggested roadmap is achievable. In the year 2014-15, the targeted debt is 64.9 per cent of GDP, which is lower than the recommended debt of 68 per cent by the ThFC.

5.4   Expenditure reforms

With regard to expenditure, a number measures have been initiated by the Centre during the recent years. The focus on outcomes has got institutionalized with the practice of select departments being mandated to come up with their "Result Framework (RF) Document". This puts emphasis on tracking on measurable outcomes in the form of Key Performance Indicators (KPIs). Result Frameworks are so drawn up that quarterly monitoring becomes possible. During the year, the RF as well as the achievements against the KPIs are being reviewed by a Committee on Government Performance and the report of such review are being submitted to the Prime Minister through the concerned Minister for further action as deemed necessary. At the end of the year, all Ministries/Departments covered under the RF system review and prepare a report listing the achievements against the agreed goals in form of KPIs and these results are to be placed before the Cabinet for information by 1st June of each year.

Initiatives have also been taken to evenly pace the plan expenditure during the year and also to avoid rush of expenditure at the year end. The practice of restricting the expenditure in the month of March to 15 per cent of budget allocation within the fourth quarter ceiling of 33 per cent is being enforced. The quarterly exchequer control based cash and expenditure management system which inter alia involves preparing a Monthly Expenditure Plan (MEP) continues to be followed in select Demands for Grants. The emphasis is on right pacing plan expenditure by ensuring adequate resources for execution of budgeted schemes.

Central Plan Scheme Monitoring System (CPSMS) is an initiative towards establishing a suitable on-line management information and decision support system. This MIS tracks devolution of funds as well as their utilization through all tiers of implementing agencies and in some cases up to the end beneficiaries. The real time availability of information on status of fund utilization and balances in respective bank accounts will enable better cash management system with timely release of adequate funds and avoidance of parking of funds without actual requirement. While ensuring reduced cost of carrying borrowed fund, it will also bring in accountability as people can access information about a particular scheme in their respective areas.

Non-plan expenditure at 126 per cent of total revenue receipts during 2009-10 has resulted in use of borrowed resources for consumptive expenditure. This brings us back to the issue of structural problems in the composition of expenditure which, if not addressed, will further squeeze out the fiscal space for undertaking developmental works. The government has addressed these issues in right earnest while formulating the strategy for 2011-12. With focus on curtailing growth in non-plan expenditure, the above mentioned percentage is estimated to decline to 103 per cent in BE 2011-12. With further reallocation of resources towards priority sectors, it is projected to decline to 90 per cent of total revenue receipts in 2013-14.

During the period 2004-05 to 2007-08, fiscal consolidation aided with lower interest rate regime had helped the government in bringing down interest payment as percentage of net tax revenue of Central Government to 38.9 per cent in 2007-08 from the high of 56.5 per cent in 2004-05. However, higher fiscal deficit during the crisis period, resulted in higher interest outgo which coupled with moderation in net tax revenue, has increased the interest payment as proportion of net tax revenue to Centre to 47.2 per cent in 2009-10. With resumption of fiscal consolidation path by the Central government, this percentage is estimated to improve to 40.3 per cent in BE 2011-12. This indicates that any slippage on fiscal front even for one or two financial years may lead to serious crowding out of resources for developmental expenditure in future as interest payment will elbow out other expenditures from government's net tax revenue. In the medium-term outlook, this ratio is projected to further improve to 38.4 per cent and 36.1 per cent in 2012-13 and 2013-14, respectively. Interest payment as percentage of GDP is estimated to decline from 3.3 per cent in 2009-10 to 3.0 per cent in BE 2011-12 and 2.9 per cent by 2013-14. The projection

Table 12

One-off Items in the Budget

Item	2009-10 (RE)		2010-11 (BE)	
	Amount (Rs. Crore)	*(percent of GDP)*	Amount (Rs. Crore)	*(percent of GDP)*
Debt Waiver (Revenue Expenditure)	15,000	0.24	12,000	0.17
Pay Arrears (Revenue Expenditure)	16,643	0.27	-	-
Disinvestment (Non-debt Capital Receipts)	25,958	0.42	40,000	0.58
3G Auction (Non-tax Revenue)	-	-	35,000	0.5
Revenue Deficit/GDP				
i) Budgeted		5.3		4.0
ii) Adjusted		4.8		4.3
Gross Fiscal Deficit/GDP				
i) Budget		6.7		5.5
ii) Adjusted		6.6		6.3

made in the debt paper released in November 2010 indicates the interest payment as a ratio to net tax revenue will gradually brought down to the level of 2007-08 in the year 2013-14 (38.8 per cent) and would further come down to 36.5 per cent in 2014-15. This would enable the government to provide larger resources for developmental activities. It is pertinent to emphasise at this point that even though there is minimal risk for India for its refinancing requirement of existing debt, the government is taking efforts to return to the path of fiscal consolidation.

It may be recalled that the expenditure on subsidies for food, fertilisers and petroleum products increased substantially during 2008-09. After including Rs.95,942 crore of Special Securities issued to oil and fertiliser companies in lieu of cash subsidies, total expenditure on subsidies on these three items increased to Rs.2,19,582 crore amounting to about 40 per cent of revenue receipts of the Central government and about 4 per cent of GDP. This level of subsidy payment was certainly not sustainable and the government undertook certain measures like introduction of nutrient based subsidy mechanism for fertilisers, deregulation of petrol pricing, etc. These measures have helped in reducing the expenditure on major subsidies as percentage of GDP to 1.5 per cent in BE 2011-12 and it is projected to decline to 1.3 per cent by 2013-14. Government has firmly established the practice of providing petroleum and fertiliser subsidy in cash instead of securities. This is a major step towards bringing in all subsidy related liabilities into Government's fiscal accounting and overall correction in subsidy outgo may be seen in this context.

5.5   *Quality of fiscal adjustment*

It may be noted that the fiscal correction envisaged during 2010-11 placed significant reliance on one-off items of expenditures and receipts. Excluding one-off items such as arrears payments and farm debt waiver from the expenditure, and disinvestment and 3-G proceeds from the receipts, RD and GFD will show a correction of 0.5 and 0.3 percentage points of GDP over the previous year, respectively, as against 1.3 and 1.2 percentage point reduction envisaged in the Budget (Table 12).

Furthermore, substantial proportion of the budgeted fiscal correction in 2010-11 is to be realised from the savings on account of lower than expected expenditure in respect of pay and pension arrears and loan waiver scheme. While the Government may succeed in raising receipts,

both from high tax buoyancy and once-off sources, the real measure of fiscal consolidation lies in improving the quality of expenditure. If the Government is able to commit more resources to capital expenditure, it will help deal with some of the bottlenecks that contribute to supply-side inflationary pressures. Durable fiscal consolidation would require measures to augment revenue collection on a sustainable basis and rationalisation of recurring expenditure, with a focus on curtailing non-plan revenue expenditure and enhancing the proportion of capital expenditure.

5.6   *Concluding observations*

India's fiscal scenario has undergone several phases of ups and downs as discussed in the paper. With significant deterioration in early 2000s, the Central government and the State governments decided to abide by rule-based framework under statutory legislations from 2004-05 (some States even started earlier). The results of this decision was rewarding in terms of low fiscal deficit and high growth for the economy. This process continued smoothly until 2007-08. The fiscal consolidation process, however, paused following the knock-on effect of the recent global financial crisis. Fiscal stimulus measures provided by the government in terms of tax cuts and additional spending resulted in rise in fiscal deficits as a result the Centre and the States could not adhered to the deficit targets under FRBM/FRLs. The Central government has already resumed the process of fiscal consolidation since 2010-11 and has committed to carry forward the process further. The States have been given a year of adjustment during 2010-11 and will commence the fiscal consolidation process starting with 2011-12. The Thirteenth Finance Commission has laid out a medium-term fiscal restructuring plan, both for the Centre and the States. Apart from the deficit targets, the Commission has recommended a target in terms of Debt-GDP/ GSDP for the Centre and the States to be achieved in a calibrated manner by 2014-15. While the Debt Paper of the Government of India has indicated that it would be feasible to reach the targets of debt Debt-GDP/GSDP, the Central government may find it difficult to generate revenue surplus by 2014-15 as stipulated by the Commission. In this connection, the emphasis in the current phase of consolidation should be on the quality of adjustment, while also building adequate fiscal space to deal with future adverse shocks to growth and inflation.

The empirical analysis based on the small structural macro model was in terms of three scenarios. First, if fiscal deficit to be raised, it will have a positive impact on growth accompanied by some inflation when the entire amount of deficit is devoted to capital expenditure. Second, when the fiscal deficit is used for revenue expenditure accompanied by decline in private investment, may lead to lower growth and moderation of inflation. Third, with the level of fiscal deficit remaining unchanged, a qualitative shift in expenditure from revenue to capital expenditure would result in higher growth and a bit of inflation. The findings, especially, the inflation effect of deficit could be moderated with improvement in supply side through a production function in the model, which was experimented by some modelling exercises in the RBI (RCF, 2001-02). Nevertheless, the findings indicate that the government may keep the fiscal deficit under control and raise the proportion of capital expenditure in total expenditure to contribute to growth.

ANNEX
A SMALL STRUCTURAL MACRO MODEL
FOR EVALUATING THE IMPACT OF FISCAL POLICY IN INDIA

1   The model specification

Aggregate Supply=Aggregate Demand

$$Y = C + I + G + X - M$$

Aggregate Demand/Product Market

Consumption Demand

$$C = F\left[Y^P, \frac{BM}{P}, r^d, Age\right]$$

Investment Demand

$$I = F[Y, r^L, \frac{G^k}{P}, \frac{L}{P}, T^O]$$

Government Budget Constraint

$$G = F[G^{RE}]$$

$$G^K = G^T - G$$

$$G^T = G^R + F$$

Export Demand

$$X = F[X^W, E^R]$$

Import Demand

$$M = F[Y]$$

Monetary Sector/Money Market

$$M^D = \frac{BM}{P} = F[Y, R^m]$$

$$R^M = F[L^G]$$

$$R^L = F[R^M, (R^G - R^D)]$$

$$R^G = F[R^M]$$

$$BM = C^M + D$$

$$D = F[Y, r^D]$$

$$C^M = F[Y^N]$$

Banking Sector Balance Sheet Constraint

$$L = (1-\theta)D - F$$

Aggregate Price and Inflation

$$P = BM / M^D$$

$$\pi \;=\; p \;-\; p_{-1}$$

$$Y^N = Y * P$$

Real Interest

$$r = R - \pi$$

$$DFL = (1+\pi)DFL_{-1}$$

The variables are defined as follows:

Y: Real GDP; Y^N: nominal GDP; C: Consumption; I: investment; G: government consumption expenditure; X: exports; M: imports; G^K: Government capital expenditure; G^T: government total expenditure; BM: Broad money; P: Price index; C^M: currency demand; D: aggregate deposits; L: Loans to private sector; F: financing of government deficit; R^M: money market interest rate; R^L: nominal loan interest rate, and r^L: real loan interest rate; R^G and r^G: nominal and real yield on Government bonds; R^D and r^D: nominal and real deposit interest rates; L^G: Liquidity pressure due to deficit financing: $F/(1-\theta)D$; DFL: GDP Deflator.

2   Estimated equations

1   Consumption

$LnC = 11.85 + 0.46*LnY^p + 0.10*LnBM/P + 0.37*r^d - 1.29*Age$

   (7.02)   (4.89)   (1.91)   (2.34)   (5.85)

Adj. R^2: 0.999; DW = 2.18; First order residual correlation LM Test: $F(1,24) = 0.86(0.37)$

2   Investment

$D(I) = -5346.10 + 0.30*D(Y) - 362.84*r^L + 61.14*d(G^K/P) + 14.72*d(L/P) + 5679.87*T^O -$

        (-0.96)   (5.32)   (-0.44)   (1.74)   (2.25)   (6.62)

$- 83295.73D^{2008} - 38826.81*D^{2000}$

   (-10.48)   (-8.35)

Adj. R^2: 0.939; DW = 2.67; $F(1,24) = 3.25(0.10)$

3   Government revenue expenditure

$G = 4557.37 + 0.29*G^R + 0.59*G_{-1} + 24117.59*D^{1998-9}$

      (2.22)   (11.40)   (12.10)   (4.67)

Adj. R^2: 0.999; DW: 1.81; $F(1,24) = 0.01(0.93)$

4   Export demand

$LnX = 0.36 + 0.58*LnX^w - 0.18*LnE^R + 0.59*LnX_{-1}$

      (0.55)   (2.40)   (-1.83)   (3.63)

Adj. R^2: 0.994; Dw: 1.83; $F(1,20) = 0.27(0.61)$

5   Import demand

$$LnM = -11.27 + 0.96*LnY + 0.41*LnM_{-1} - 0.18D^9$$
$$\quad\quad (-4.56)\quad (4.55)\quad\quad (3.02)\quad\quad\quad (-5.35)$$

Adj. R^2: 0.992; Dw: 2.05; $F(1,24)=0.09(0.76)$

6   Real money demand

$$LnBM/P = -2.51 + 0.30*LnY - 0.34*R^M + 0.81*LnBM/P_{-1}$$
$$\quad\quad (-1.68)\quad (1.77)\quad\quad (-2.37)\quad\quad (7.44)$$

Adj. R^2: 0.999, DW: 1.56; $F(1,24)=0.21(0.65)$

7   Government revenue

$$LnG^R = -2.93 + 0.40*LnY + 0.19*LnP + 0.72*LnG^R_{-1}$$
$$\quad\quad -(3.84)\quad (4.29)\quad\quad (2.06)\quad\quad (9.68)$$

Adj. $R^2=0.999$, DW=2.07; $F(1,24)=0.0.06(0.82)$

8   Banks time deposits

$$D(TD) = -31023.7 + 0.50*D(Y) + 3923.24*r^d + 0.82*D(TD)$$
$$\quad\quad (-2.08)\quad\quad (3.10)\quad\quad\quad (1.31)\quad\quad\quad (8.43)$$

Adj. $R^2=0.948$ DW=2.17, $F(1,24)=3.36(0.10)$

9   Bank credit

$$D(L) = 235531.0 + 1.18*D(Y) - 9573.49*r^L - 321095.1*L^G - 149058.3D^o$$
$$\quad\quad (3.22)\quad\quad (7.14)\quad\quad\quad (-3.29)\quad\quad\quad (-3.68)\quad\quad\quad (-11.95)$$

Adj. R^2 0.934; DW:1.54; $F(1,24)=1.50(0.20)$

10   Banks' loan interest rate

$$R^L = 1.50 + 0.12*R^M - 0.11*(R^G-R^D) + 0.83R^L_{-1} - 1.47D^{2008}$$
$$\quad (1.62)\quad (13.01)\quad\quad (-1.82)\quad\quad\quad (12.99)\quad\quad (-11.16)$$

Adj. $R^2 = 0.940$ DW = 1.64, $F(1,24)$: 0.96(0.34)

11   Money market interest rate

$$R^M = 3.82 + 0.42R^M_{-1} + 0.19*L^{Gap} + 7.11D^{1990\text{-}91} + 9.12D^{1995}$$
$$\quad (3.70)\quad (4.11)\quad\quad (2.18)\quad\quad (4.94)\quad\quad\quad (4.92)$$

Adj. $R^2 = 0.800$; DW = 2.16; $F(1,24) = 1.41(0.25)$

12 Government bond yield

$$R^G = 1.25 \quad + 0.78*R^G_{-1} + 0.12*R^m - 1.90*D^{2002\text{-}03}$$

     (2.34)   *(13.63)*   *(3.45)*   *(−4.06)*

Adj. $R^2 = 0.94$; DW = 1.68; F(1,24) = 0.59(0.45)

REFERENCES

Allsopp, C. (2005), "The Macroeconomic Role of Fiscal Policy", *Oxford Review of Economic Policy*, Vol. 21, No. 4.

Andrés, J. and R. Doménech (2004), "Fiscal Rules and Macroeconomic Stability", Dirección General de Presupuestos, Working Paper, No. D-2009-01.

Auerbach, A.J., W.G. Gale and B.H. Harris (2010), "Activist Fiscal Policy", *Journal of Economic Perspectives*, Vol. 24, No. 4, pp. 141-64, Fall.

Baldacci, E., B. Clements and S. Gupta (2003), "Using Fiscal Policy to Spur Growth", *Finance & Development*, December, International Monetary Fund, Washington (D.C.).

Barro, R. (1974), "Are Government Bonds Net Wealth?", *Journal of Political Economy*, No. 82667, November-December.

Carbacho, A. and G. Scwartz (2007), "Fiscal Responsibility Laws", in M.S. Kumar and T. Ter-Minassian (eds.), *Promoting Fiscal Discipline*, International Monetary Fund, Washington (D.C.).

Chari, V.V. and P.J. Kehoe (1998), "Optimal Fiscal and Monetary Policy", Federal Reserve Bank of Minneapolis, Research Department, Staff Report, No. 251.

Chakraborty, L.S. (2006), "Fiscal Deficit, Capital Formation and Crowding out Evidence from India", Working Paper, No. 73, NIPFP, December.

Corbacho, A. and G. Schwartz (2007), "Fiscal Responsibility Laws", in M.S. Kumar and T. Ter-Minassian (eds.), *Promoting Fiscal Discipline*, International Monetary Fund, Washington (D.C.).

Daniel, J., J. Davis, M. Fouad and C. Van Rijckeghem (2006), "Fiscal Adjustment for Stability and Growth", Pamphlet Series, No. 55, International Monetary Fund, Washington (D.C.).

Easterly, W. and K. Schmidth-Hebbel (1993), "Fiscal Deficits and Macroeconomic Performance in Developing Countries", *The World Bank Research Observer*, Vol. 8, No. 2, July.

Elmendorf, D. and N.G. Mankiw (1998), "Fiscal Policy and Economic Growth", NBER, Working Paper, No. 4223.

Evdoridis, G. (2000), "Public Sector Deficits as the Foundation of Economic Growth", *Journal of Post Keynesian Economics*, Vol. 22, No. 4, Summer.

Feldstein, M. (1987) "Budget Deficits, Tax Rules and Real Interest Rates", NBER, Working Paper, No. 1970, Cambridge (MA).

Fischer, S. and E. William (1990), "The Economics of the Government Budget Constraint", *World Bank Research Observer*, Vol. 5, No. 2.

Government of India (2010), "Government Debt: Status and Road Ahead", Ministry of Finance, November.

———————— (2011), "Medium Term Fiscal Policy Statement and Fiscal Policy Strategy Statement", presented to the Parliament along with the Union Budget 2011-12 on February 28, 2011.

Gupta, S., B. Clements, E. Baldacci and C. Mulas-Granados (2002), "Expenditure Composition, Fiscal Adjustment and Growth in Low-Income Countries", International Monetary Fund, Working Paper, No. 02/77, IMF, Washington (D.C.).

Hemming, R., M. Kell and S. Mahfouz (2002), "The Effectiveness of Fiscal Policy in Stimulating Economic Activity: A Review of Literature" (2002), International Monetary Fund, Working Paper, No. WP/02/208, IMF, Washington (D.C.).

International Monetary Fund (2009), "Fiscal Implications of the Global Economic and Financial Crisis", International Monetary Fund, Staff Position Note, No. SPN 109/13, July, IMF, Washington (D.C.).

——————(2010), "Global Economic Prospect and Policy Challenges", prepared for the meeting of the G-20 Deputation, February 27, 2010, in Seoul, Korea.

Joseph, M., K. Singh, R.K. Dash, J. Bhattacharya and R. Tewari (2011), "Indian Economy: Selected Methodological Advances", Working Paper, No. 253, Indian Council of Research on International Economics, February.

Kennedy, S. and J. Robbins (2001), "The Role of Fiscal Rules in Determining Fiscal Performance", Government of Canada, Department of Finance, Working Paper, No. 16.

Kochhar, K. (2004), "Macroeconomic Implications of Fiscal Imbalances".

Kopits, G. (2004), "Fiscal Rules: Useful Policy Framework or Unnecessary Ornament?", in Banca d'Italia (ed.), *Fiscal Rules*.

Lucas, R.E. (1975), "An Equilibrium Model of the Business Cycle", *Journal of Political Economy*, Vol. 21.

Lucas, R.E. and N.L. Stokey (1983), "Optimal Fiscal and Monetary Policy in an Economy Without Capital", *Journal of Monetary Economics*, Vol. 12, No. 1.

Mankiw, G.N., D. Romer and D.N. Weil (1992), "A Contribution to the Empirics of Economic Growth", *The Quarterly Journal of Economics*, Vol. 107, No. 2.

Misra, B.M. and J.K. Khundrakpam (2009), "Fiscal Consolidation by Central and State Governments: The Medium Term Outlook", RBI Staff Studies, April.

Mohan, R. (2008), "The Role of Fiscal and Monetary Policies in Sustaining Growth with Stability in India", paper presented at the *6th Asian Economic Policy Review Conference*, Tokyo, April 19.

Organisation for Economic Co-operation and Development (2007), *OECD Economic Outlook*, No. 81, June.

Rangarajan, C. & D.K. Srivastava (2005), "Fiscal Deficits and Government Debt in India: Implication for Growth and Stabilization", Madras School of Economics, Working Paper, No. 35, July.

Rangarajan, C. and D. Subbarao (2007), "The Importance of Being Earnest about Fiscal Responsibility", Madras School of Economics, Monograph, No. 3.

Reddy, Y.V. (2008), "Fiscal Policy and Economic Reform", NIPFP, Working Paper, No. 3, July.

Reserve Bank of India (RBI) (2002), *Report on Currency and Finance 2000-01*.

Sargeant, T. and N. Walkie (1975), "Rational Expectations, the Optimal Monetary Instrument and the Optimum Money Supply Rule", *Journal of Political Economics*, Vol. 83.

Sargent, T.J. and N. Wallace (1981), "Some Unpleasant Monetarist Arithmetic", Federal Reserve Bank of Minneapolis, *Quarterly Review*, No. 531, Fall.

Segura-Ubiergo, A., A. Simone and S. Gupta (2006), "New Evidence on Fiscal Adjustment and Growth in Transition Economics", IMF, Working Paper, No.WP/06/244.

The World Bank (2010), "India Economic Update, Economic Policy and Poverty Trans South Asia Region", June.

WHAT FAILED AND WHAT WORKED
IN PAST ATTEMPTS AT FISCAL ADJUSTMENT

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A systematic and comprehensive analysis of past adjustment plans and their outcomes provides useful insights for fiscal consolidation going forward: although today's circumstances may be different from the past, history offers lessons in terms of pitfalls to avoid and successes to be replicated. This short paper summarizes the main findings of individual country case studies and a cross-country statistical analysis, and puts forward some implications for the design and implementation of current fiscal adjustment plans.

1   Analytical framework

Previous empirical studies have typically identified fiscal adjustment episodes on the basis of *ex post* outcomes: that is, the largest observed improvements in government debt or fiscal balance.[1] This paper identifies fiscal adjustment plans on the basis of large envisaged reductions in debts and deficits. It thus goes beyond past successes, focusing also on attempts that eventually failed. The analysis tracks *ex post* outcomes compared with *ex ante* plans, looking at deviations from targets in revenues or expenditures and the factors underlying such deviations.

Case studies focused on each of the G7 countries. Specific *ex ante* consolidation attempts in those countries were selected based on the large size of planned adjustment, formal and public commitment to adjust, detailed formulation, and medium-term perspective. Table 1 summarizes the plans analyzed and their main features. The case studies were complemented by a cross-country statistical analysis drawing on the three-year "convergence" or "stability and growth" programs produced by European Union countries during 1991-2007 (covering 66 plans that envisaged a general government balance improvement of at least 1 percent of GDP cumulatively over the three-year period).

2   Key findings

The analysis yields findings in three dimensions: rationale for and design of the envisaged fiscal adjustment; degree of implementation and underlying macroeconomic factors; and political and institutional determinants of the implementation record.

3   Rationale for and design of fiscal adjustment plans

Rationale. Adjustments in the 1970s and early 1980s focused on fiscal deficits to tackle macroeconomic imbalances, such as rising inflation and external current account deficits (e.g., France, Germany, and the United Kingdom). Since the mid-1980s, plans have usually been

Table 1

Main Features of Selected G7 Fiscal Adjustment Plans

Country	Adjustment Plan	Objectives/Design	Comments/Outcome
Canada	1985–91	Reduce overall deficit by 3½ per cent of GDP over six years. Across-the-board cuts and freezes.	Overall deficit objectives met, but not sufficiently ambitious to halt the rise in debt.
	1994–97	Reduce overall deficit by 3 per cent of GDP over three years. Major restructuring of spending, including reforms of unemployment insurance, transfers to provinces, and pensions.	Successfully met objectives and attained long-lasting reversal of debt dynamics.
France	Plan Barre, 1976–77 Virage de la Rigueur, 1982–84	Austerity packages to curb inflation and current account deficit. Not set in multiyear frameworks. Combination of tax hikes and spending curbs. Reforms in 1982–84	Effective in reducing deficits and containing aggregate demand, but impact short-lived.
	1994–97 Plan aimed at meeting the Maastricht criteria	Introduced multiyear framework. Quantitative objectives aimed at meeting Maastricht criteria.	Met Maastricht criteria, partly through last-minute revenue measures. Difficulties in controlling expenditures.
	2003 – 07 Consolidation under the Excessive Deficit Procedure	Fiscal adjustment focused on expenditure control; revenue-to-GDP ratios targeted to remain stable. Legally binding zero real growth rule for central government spending. Health and pension reforms.	Some expenditure slippages, partly offset by one-off revenues.
Germany	1976–79 Plan	Cut deficit by 2¾ per cent of GDP. Back-loaded; focus on expenditures (generalized cuts; cuts in labor market expenditures; wage restraint).	Weak economic growth led government priority to shift from fiscal adjustment to stimulus.
	1981–85 Plan	Cut deficit by 1¼ per cent of GDP. Front-loaded expenditure cuts (reduction in entitlement and wage bills).	Largely successful.
	1991–95 Plan	Cut deficit by 1½ per cent of GDP while minimizing tax increases needed to finance unification. Mainly expenditure-based (defense, social spending); revenue package from 1990 plus VAT rate hike.	Did not meet objectives.
	2003–07 Plan	Cut deficit together with "Agenda 2010" structural reforms (labor market, pensions). Back-loaded. All on expenditure side: reducing unemployment insurance, transfers to pension system, firing benefits, and subsidies.	Largely successful. Higher-than-expected costs of labor market reforms. Increase in VAT made it possible to meet objectives while reducing the tax burden on labor.
Italy	1994 Economic and Financial Program Document (EFPD) for 1994–97	Reduce the debt-to-GDP ratio beginning in 1996. Strong interest in joining EMU. Initial plan did not aim at meeting Maastricht criterion of 3 per cent deficit, but objectives made more ambitious in mid-course.	Attained lasting reduction in debt-to-GDP ratio, albeit at high levels. Maastricht criterion met through last-minute efforts.
	2002 EFPD for 2002–05	Planned limited improvement in fiscal balance (by 1 percent of GDP), together with a 2 per cent of GDP reduction in the revenue ratio, thus implying the need for a 3 per cent of GDP expenditure cut.	Revenue ratio remained unchanged. Large expenditure and fiscal balance overruns.

Japan	1997–Fiscal Structural Reform Act	Reduce deficit to 3 per cent of GDP by FY2003. No revenue-enhancing measures announced. Future policy decisions needed to achieve targets.	Immediately derailed by Asian crisis and domestic banking crisis.
	2002– Medium-Term Fiscal Adjustment Plans. (Two sub-periods: 2002– and 2006–.	Aim for primary surplus by early 2010s. Introduced five-year rolling frameworks. Three-year expenditure ceilings on initial budgets by major policy area introduced in FY2006. No revenue-enhancing measures announced. Future policy decisions needed to achieve targets.	Partially successful in the initial stages. Ultimately derailed by the global crisis.
United Kingdom	Howe's 1980 Medium-Term Financial Strategy (FY1980–83)	Curb government borrowing to rein in the money supply and inflation. Envisaged 5½ per cent of GDP cut in the deficit, through lower spending and an expected rise in oil revenues.	Expenditure overruns in social security, public wages, and support to public enterprises.
	Lawson's 1984 Budget (FY1984–88)	Rebalance the tax burden from direct to indirect taxes and reduce marginal tax rates. Shrink the state (Thatcher government agenda). Reduction in public sector manpower.	Expenditure cuts beyond what was envisaged. Privatization of large public enterprises.
	Clarke's November 1993 Budget (FY1994–98)	Eliminate the 8 per cent of GDP deficit by 1998. Increases in national insurance contribution rate and excises, broadening of the VAT base. Freezes on running costs combined with zero-based budgeting "fundamental expenditure reviews."	Delivered a steady reduction in the fiscal deficit.
	Darling's 2007 Pre-Budget Report and Comprehensive Spending Review (FY2008–12)	Planned modest reduction in the deficit, by reducing the growth of spending.	Derailed by global crisis: revenue underperformance, expenditure overruns, capital injections to banks.
United States	1985 Gramm-Rudman- Hollings (Balanced Budget and Emergency Deficit Control Act)	President to submit budgets consistent with GRH targets each year, and balanced budget by 1991. If legislated policy was projected to result in higher deficits, automatic "sequestration" with spending cuts would apply.	Did not achieve targets but deficit would have been larger in absence of GRH.
	OBRA–1990 (Omnibus Budget reconciliation Act)	Reduce deficit by cumulative US$500 billion (equivalent to 8.5 percent of 1991 GDP) in 1991–95. Introduced discretionary spending caps and pay-as-you-go (PAYGO) mechanism. Included some tax increases.	Unable to restrain the unexpected growth in spending for entitlement programs (notably, Medicare and Medicaid).
	OBRA–1993	Reduce the deficit by 1988 by 1¾ percent of GDP, relative to the no-policy-change baseline. PAYGO continued and discretionary spending caps extended, with five-year nominal spending freeze. Some tax increases and measures to close loopholes.	Deficit reduction well in excess of targets, with stronger-than-expected economic growth and revenues, but also effective spending caps.

Source: IMF staff compilations.

introduced in response to high or rising public debts. Refinancing concerns have not been a major factor in these countries, but in some cases (e.g., Canada in the 1990s, Italy in the run-up to European Monetary Union, EMU) rising interest costs and spreads relative to neighboring countries were a motivating factor. In Europe, an enhanced focus on fiscal adjustment was driven by the Maastricht criteria, the Stability and Growth Pacts, and the Excessive Deficit Procedure.

3.1 Envisaged composition of fiscal adjustment

Most plans focused on spending cuts, consistent with the relatively large initial size of government, particularly in Europe. Indeed, only 10 out of the 66 plans in the EU sample envisaged increases in the revenue-to-GDP ratio backed up by revenue measures. Furthermore, several plans envisaged a reduction in the revenue ratio, requiring expenditure cuts larger than the targeted deficit reduction.

3.2 Macroeconomic assumptions

Macroeconomic assumptions were mostly in line with those of independent observers (such as *Consensus Forecasts* and the IMF's *World Economic Outlook*). In other words, any surprises in economic growth (see below) and other macroeconomic variables were largely surprises for all observers.

4   Implementation record and underlying macroeconomic factors

Implementation record and degree of ambition. For the 66 plans in the EU sample, the average annual planned improvement in the structural fiscal balance was equivalent to 1.7 per cent of GDP (cumulative over the three years), whereas the outturn was a 0.9 per cent improvement. On

Actual versus Planned Structural Fiscal Adjustment, G7
(percent of potential GDP; means reported, except for implementation ratios, which are medians)

	ΔPLAN	ΔACTUAL	Error = ΔACTUAL *minus* ΔPLAN (0 is perfect implementation)	Median Implementation Ratio = ΔACTUAL/ΔPLAN (1 is perfect implementation)
Revenues	0.1	1.0	0.9	0.5
Cyclical	0.2	0.5	0.3	1.2
Structural	–0.1	0.5	0.6	…
Expenditures	–2.3	–1.0	1.3	0.4
Primary	–1.8	–0.3	1.5	0.2
Interest	–0.5	–0.6	–0.1	1.0
Structural Primary Balance	1.7	0.9	–0.8	0.8

Sources: "Convergence" and "Stability and Growth" programs (plans); European Commission's AMECO database (outturns).
Note: ΔPLAN and ΔACTUAL refer to the planned and actual *change* in each item, in percent of potential GDP.

a positive note, actual implementation was not weakened by greater ambition: higher planned adjustment was associated with higher actual adjustment by a factor of one (observations are scattered closely around the 45 degree line in Figure 1). This evidence suggests that it is "OK to plan big" because ambitious plans do tend to produce more adjustment than do more modest ones.

Revenue-expenditure mix in outcomes versus plans. In most of the case studies, expenditure cuts did not materialize to the extent initially envisaged; by contrast, revenues often turned out above expectations, because of favorable cyclical developments in macroeconomic or asset price conditions and/or the introduction of (temporary) revenue measures to offset difficulties in implementing expenditure cuts. The cross-country statistical evidence confirms these findings: while plans envisaged cuts in the ratio of structural primary spending to potential GDP of 1.8 per cent on average, actual cuts amounted to 0.3 per cent. In contrast, revenues overperformed, partially offsetting the expenditure overruns (Table 2).

Role of economic growth. Deviations of economic growth from initial expectations were a key factor underlying success or failure. Some adjustment plans (e.g., Germany in the 1970s, Japan) were derailed, almost immediately, by unexpected economic downturns. Lower growth had a direct negative impact on cyclical revenues (and, to a lesser extent, caused an increase in some expenditure items), thereby worsening the headline fiscal balance. In addition, it had an indirect impact by tilting the authorities' perception of the relative merits of fiscal consolidation versus fiscal stimulus. Conversely, the success of some plans (e.g., in the United States in the 1990s) was facilitated by higher-than-expected growth and asset price developments. In the cross-country analysis, a 1 percentage point improvement in growth compared with expectations resulted, on average, in a ½ per cent of GDP strengthening in the headline fiscal balance.

Structural reforms. The case studies reveal that fiscal adjustment plans were more likely to meet their objectives when they were grounded in structural reforms. This was evident in Germany in the 1980s and 2000s, with structural reforms to the social welfare system; in the United Kingdom with the "Lawson adjustment" of the 1980s, which curbed expenditures as part of Prime Minister Thatcher's redefinition of the role of the state; and in Canada in the 1990s, in the context of a repositioning of the role of the state supported by a comprehensive expenditure review. In contrast, plans in the same countries that eschewed reforms failed to meet their targets.

5   Fiscal institutions and political factors

5.1   Features of fiscal institutions

Several aspects of fiscal institutions influenced the degree of implementation of fiscal adjustment plans:

- *Monitoring of fiscal outturns and policy response to data revisions*. Shortcomings in these areas were important in Italy, where a significant portion of the deviations of outturns from plans reflected upward revisions to the initial deficit and subsequent medium-term plans did not compensate for such revisions. In the cross-country analysis, upward revisions of deficits generally resulted in larger deficits at the end of the period, whereas downward revisions in the deficit were less likely to result in changes to the end-period deficit targets or outcomes.

- *Binding medium-term limits*. Although the presence of medium-term plans was one of the criteria for choosing the case studies reviewed, the extent to which the plans included binding limits on expenditures varied. As medium-term limits were made more legally binding, actual compliance with spending targets improved. This pattern was most noticeable in the US (where constraints on discretionary expenditure allowed a more rapid improvement in the fiscal balance in the context of favorable growth and asset price developments), France, and the UK.

- *Contingency reserves*. Some plans used contingency reserves to build in space to cope with potential adverse shocks, accelerate the adjustment, or create room for reducing the tax burden in the event that no adverse shocks materialized. Contingency reserves played a role in the extent to which fiscal adjustment targets were met in the United Kingdom and, to a lesser extent, Canada.

- *Coordination across levels of government*. Although most adjustment plans were originally devised for the central government, several involved reductions in transfers to sub-national governments or other public entities. The extent to which those entities undertook parallel fiscal consolidations was an important determinant of whether the general government balance improved (as in Canada) or challenges were encountered (France and the United Kingdom).

- *Fiscal rules*. The cross-country statistical analysis found the intensity of national fiscal rules to be positively associated with the extent to which targets were met.

5.2   Political factors and public support for fiscal adjustment

The cross-country evidence yields mixed messages on the role of political factors: lower fractionalization in the legislative body (parliament, congress) and perceptions of greater political stability are to some extent associated with better implementation of plans; on the other hand, implementation of ambitious plans was not associated with more frequent changes in government. What emerges more clearly from the case studies, however, is the importance of public support. For example, opinion polls ahead of the mid-1990s consolidation in Canada showed broad public support for debt reduction. The authorities took advantage of this to put in place a communication

strategy to reinforce support for their adjustment plan. In Germany, a general shift in the economic policymaking paradigm in the 1980s (against active short-term demand management) and a reformist platform of the left-of-center party in the 2000s helped sustain fiscal adjustment.

6   Implications for planned adjustments

These findings have several implications for the design and implementation of fiscal adjustment plans in the years ahead.

Spelling out how policies will respond to shocks. Current fiscal adjustment plans do not sufficiently detail the envisaged policy response to shocks. As seen above, shocks, especially to economic growth, often derail fiscal adjustment. Plans thus need to explicitly incorporate mechanisms to deal with such shocks, permitting some flexibility while credibly preserving the medium-term consolidation objectives. Examples of helpful mechanisms include:

- *Multiyear spending limits*. To anchor the consolidation path, plans should include binding and well-defined ceilings for expenditures and their subcomponents, and would preferably be endorsed not just by the executive but also by the legislature. The ceilings could exclude items that are cyclical (e.g., unemployment benefits), non-discretionary (e.g., interest payments), or fiscally neutral (e.g., EU-funded projects). Many of the current adjustment plans have been framed with multiyear-frameworks, but only a few (e.g., Germany and the United Kingdom) include sufficiently detailed spending ceilings.

- *Cyclically adjusted targets* would let the automatic stabilizers operate in response to cyclical fluctuations. To ensure credibility, the methods used to adjust the fiscal variables for the cycle should be subject to outside scrutiny. Thus far, only the plans for Germany and the United Kingdom include cyclically adjusted targets.

- *Realistic/prudent macroeconomic assumptions* would reduce the risk of missing the fiscal targets. Using more conservative assumptions relative to independent observers could be justified in a context of high uncertainty, but should be relied on sparingly in order not to reduce credibility. In this respect, the November 2010 *Fiscal Monitor* notes that macroeconomic assumptions underlying some countries' current adjustment plans are more optimistic than other publicly-available forecasts.

Monitoring and accountability. Implementation of plans should be supported by reliable and timely information. Targets need to be based on sound information on the initial state of public finances. Any revisions to the initial position should lead to fine-tuning the adjustment path while keeping the medium-term targets unchanged, if possible. Fiscal Councils and peer-monitoring processes can enhance accountability in implementing adjustment plans.[2]

Composition of fiscal adjustment. The revenue-expenditure mix of fiscal consolidation plans needs to reflect country-specific societal preferences and structural fiscal characteristics. As reported in the November 2010 *Fiscal Monitor*, expenditure measures significantly outnumber revenue measures in current consolidation plans. This is consistent with the large size of the state in many advanced economies. Nevertheless, in light of the magnitude of needed adjustments and the implementation record of past plans, where revenue increases partly compensated for expenditure overruns, it would seem desirable to redouble monitoring efforts and enhance institutional mechanisms to ensure that expenditure ceilings are adhered to. It would likewise be prudent to

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[2]   For example, in the European Union, the recently introduced European semester (a six-month period every year during which member states' policies will be reviewed to detect any inconsistencies and emerging imbalances) is expected to reinforce coordination while major budgetary decisions are still under preparation.

prepare additional high-quality measures and reforms on the revenue side, to be deployed in the event of expenditure overruns.

Structural reforms. Structural reforms are needed to underpin successful implementation of large fiscal adjustment plans. Several current plans include measures to reduce the size of the public administration and the social welfare system, but few envisage tackling the thorniest sources of spending pressures: those from pension and, especially, health entitlements. Current plans would benefit from a greater emphasis on reforms in these areas.

Building public support. Public support for fiscal adjustment, rather than a comfortable legislative majority, was a key determinant of successful fiscal adjustments. Thus, a priority going forward will be to build public support through communication campaigns. These would aim at educating the public about the rationale and the scale of the needed fiscal challenges, and explaining what can reasonably be achieved through reforms without overburdening taxpayers or unduly curtailing necessary public services.

LAWS FOR FISCAL RESPONSIBILITY FOR SUBNATIONAL DISCIPLINE: INTERNATIONAL EXPERIENCE

Lili Liu[*] and Steven B. Webb[*]

Fiscal responsibility laws are institutions with which multiple governments in the same economy – national and subnational – can commit to help avoid irresponsible fiscal behavior that could have short-term advantages to one of them but that would be collectively damaging. Coordination failures with subnational governments in the 1990s contributed to macroeconomic instability and led several countries to adopt fiscal responsibility laws as part of the remedy. The paper analyzes the characteristics and effects of fiscal responsibility laws in seven countries – Argentina, Australia, Brazil, Canada, Colombia, India, and Peru. Fiscal responsibility laws are designed to address the short time horizons of policymakers, free riders among government units, and principal agent problems between the national and subnational governments. The paper describes how the laws differ in the specificity of quantitative targets, the strength of sanctions, the methods for increasing transparency, and the level of government passing the law.

Evidence shows that fiscal responsibility laws can help coordinate and sustain commitments to fiscal prudence, but they are not a substitute for commitment and should not be viewed as ends in themselves. They can make a positive contribution by adding to the collection of other measures to shore up a coalition of states with the central government in support of fiscal prudence. Policymakers contemplating fiscal responsibility laws may benefit from the systematic review of international practice. One common trait of successful fiscal responsibility laws for subnational governments is the commitment of the central government to its own fiscal prudence, which is usually reinforced by the application of the law at the national as well as the subnational level.

1   Introduction

As subnational governments (SNGs) in developing and developed countries have gained more fiscal autonomy – spending responsibilities, tax bases, revenue transfers from the center, and the capacity to incur debt – their fiscal behavior has become vital to the national interest. Subnational borrowing to finance social and economic infrastructure can generate positive net returns and spread the financing burden fairly across generations. When SNGs follow unsustainable fiscal policy, however, it can jeopardize the services they manage (but for which the central government may have ultimate political responsibility), the safety of the financial system, the country's international creditworthiness, and overall macroeconomic stability. Too often the central government then gets dragged in to provide bailouts, which can disrupt its own fiscal sustainability and reward the populist fiscal tactics of the recipient SNGs. The global financial

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crisis of 2008-10 has tested the effectiveness of FRLs in maintaining fiscal discipline and has shown some downsides of rigidity in the face of macroeconomic shocks.

Since the 1990s many governments have intensified the search for mechanisms to escape from fiscal populism that had been used as a strategy for winning elections and retaining public office. National governments have tried various ways to avert these problems. One way has been to pass a fiscal responsibility law (FRL) that prescribes proper fiscal behavior for SNGs, provides guidelines for parameters of SNG fiscal legislation, or sets incentives – rewards for success or sanctions for failure in following the rules. Argentina, Brazil, Colombia, India, and Peru have done so. Some SNGs, as in Argentina, Australia, Canada, and India have imposed legal constraints on their own fiscal behavior, to reduce the temptation of state administrations to leave fiscal messes and to improve their creditworthiness in the markets.[1] Although having not formally adopted subnational fiscal responsibility legislation, other countries such as Mexico, Poland, and Turkey have established fiscal rules or debt limitations for SNGs.

In this paper, we focus on FRLs that are called fiscal responsibility laws or that perform the same function. They have frameworks for making the budget process transparent and may include quantitative fiscal targets and enforcement mechanisms. They aim to restrain SNG deficits by preventing them in advance and/or by imposing extra penalties that go into effect more quickly and in addition to the inherent consequences of fiscal imprudence. These include both institutions imposed by the national government on the SNGs and institutions imposed by the SNGs on themselves. FRLs often have the additional effect of restraining the federal or central government from running unsustainable deficits and of mitigating the consequences of subnational fiscal excesses. The paper does not focus on other public finance laws, such as budget laws and debt laws, which contain elements of FRLs, although it does consider such laws when discussing the broader context of fiscal prudence.

This paper analyzes the circumstances and character of FRLs that may make a positive contribution to better SNG fiscal behavior.[2] As FRLs do not operate in isolation, the paper also considers the broader context of other laws and rules aimed at obtaining prudent fiscal behavior by SNGs. The paper includes Brazil, Colombia and Peru, where a unifying FRL applies to all levels of the government including the SNGs. In some other countries such as Argentina, Australia, and India, the FRL framework includes a national FRL, and SNGs may choose their own FRL framework. Provinces in Canada went ahead with their own FRLs within the overall national move toward fiscal consolidation. Although the paper mainly concerns FRLs that apply to SNGs, the paper will include the analysis of the national FRLs to the extent that they affect the parameters and incentives for SNGs.[3]

The structure of the paper is as follows. The next section explains the historical origins of FRLs in the context of political and fiscal decentralization. Section 3 examines the purposes, incentives, and authority behind FRLs – which level of the government passes FRL and to which level of government the FRL applies. Section 4 summarizes the content of FRLs, covering procedural and transparency rules, and fiscal targets as well as sanctions and escape clause associated with the rules. Section 5 analyzes FRLs in broader institutional context for fiscal prudence and channels for strengthening subnational fiscal discipline. Section 6 explores

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[1]   This list includes countries with FRLs that apply to SNGs. The paper does not include countries with more recent and ongoing efforts (e.g., Nigeria and Pakistan) as the evaluation of the impact of the FRLs focuses on the period prior to the global financial crisis.

[2]   This paper will not address the issue of whether subnational governments should borrow or not. This issue relates to broader questions of fiscal decentralization, political autonomy of subnational governments, and revenue base that can be used for collateralizing the debt. The paper covers a set of countries where subnational governments have the authority to borrow.

[3]   See Corbacho and Schwartz (2007) for a review of national level FRLs across countries.

preliminary assessments of the effects of FRLs. Section 7 concludes and points to areas for further research.

2   Historical origins of FRLs

Fiscal rules and legislation for SNGs are less important when a country has centralized political and fiscal institutions, as these centralized institutions can set rules and use political power to enforce discipline of SNGs. Decentralization, often associated with rise of regional powers, has reduced the central administrative control over subnational fiscal behavior.

Since the 1980s, a number of countries, including Argentina, Brazil, Colombia, India, Mexico, Nigeria, and Russia, have decentralized varying degrees of fiscal authority and resources to their SNGs. Often, in the absence of adequate *ex ante* fiscal rules, this contributed to subnational fiscal stress or debt crises; some were triggered by deteriorating macroeconomic environment. In some places that have been fiscally decentralized for a long time, like Australia and Canada, the SNGs also had experienced fiscal challenges. All of these countries have subsequently strengthened their frameworks for SNG fiscal sustainability, and several of them passed fiscal responsibility laws as part of that framework.

In each case, the features of the law, how it was passed, and its implementation reflected the particular political structure of the country and the nature of its fiscal crisis. This section summarizes those particularities, as prologue to the discussion of their FRLs – first the federal countries and then the unitary. The federal countries in our sample – Argentina, Australia, Brazil, Canada, and India – tend to be more fiscally decentralized; the key distinction, however, is that the constitutions of the federal countries give the states or provinces the right to make their own laws in many areas and restrict the range of areas for which the national government can legislate. Shifts in the allocation of taxing powers, for instance, have to be negotiated with the states; the national government cannot decide unilaterally.[4] By contrast, in the unitary countries – here, Colombia and Peru – the constitution gives the national government power to legislate in all areas and to decide unilaterally what powers and fiscal resources it will delegate to the SNGs.

Federalism in **Brazil** in the 1980s revived with the return to democracy from military rule. From 1982 to 1989 there was a sequence of electing governors, then electing mayors, electing a new congress with constitution-making authority, completing the new constitution, and finally holding the first direct election of the president. Thanks to the strong representation of SNGs in the 1986 congress, the 1988 constitution gave states significant authority and resources, including a much broader revenue base for the state-level VAT, but did not specify their spending responsibilities or set rules for fiscal prudence.

From the beginning of Brazil's political opening through mid-1990s, there were two major subnational debt crises. Each initial agreement that tried to resolve a crisis actually made the next crisis more likely, because they reinforced the perception that the federal government would provide debt relief, they provided such relief in the form of rescheduling (allowing the stock of debt to keep growing), set ceilings on debt service and thus on the effective political cost, bought out (without penalty) the foreign and private creditors to the SNGs and left the federal government holding the debt. Thus the state politicians suffered minimal consequences for their imprudence and their creditors suffered almost none, and so until 1997 the *ex ante* constraints written in the rescheduling agreements were usually quickly evaded (Dillinger, 1997; Rodden, 2003).

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[4]   The constitution of a country can also set forth the authority of taxation. For example, the India constitution places the main power of taxing the service sector with the federal government.

Then in the late 1990s, this vicious cycle of failure in discipline and cooperation came to a halt, as the deeper political and economic incentives had changed after a national macroeconomic adjustment program ended hyperinflation and stabilized the economy. In 1997-98 the federal government made debt restructuring agreements with 25 states, which was finally effective in making them cease unsustainable borrowing. Three of the four largest debtor states supported the reforms and formed the core of a critical mass of states ready to cooperate in fiscal restraint, making it worthwhile for additional states join at the margin of cooperation. Also, the large scale of the states' non-performing debt to the federal government strengthened the resolve of the federal Congress to enact the FRL. The federal government negotiated agreements with 25 states in 1997 and 1998.[5] These agreements were sanctioned by Law 9496 of September 1997 to reschedule the states' debt conditioned on states undertaking fiscal reforms and compliance with fiscal targets. The FRL in 2000 codified fiscal adjustment programs sanctioned by various resolutions (Alfonso, 2002; Dillinger, 2002). At the time, many observers doubted whether the federal government would successfully enforce the debt restructuring agreement and sustain the stabilization, and this is why the extraordinary measure of the FRL may have been necessary, to reinforce the expectations of stability.

Argentine provinces in the 1980s had no hard budget constraint, borrowed a lot, and effectively could monetize this debt, contributing to hyperinflation. The subsequent stabilization in 1991 centered on the Convertibility Plan, which fixed the Argentine exchange rate to the U.S. dollar. Through the 1990s the national government mainly followed a market-based strategy for coordinating fiscal discipline between levels of government: the central government would enforce hard budget constraints *ex post* and force the provinces to pay their debts (Dillinger and Webb, 1999). By the end of the 1990s, the absence of the *ex ante* fiscal controls had allowed a number of Argentine provinces to over-borrow, party fragmentation had narrowed the scope for fiscal compromises, and the national government had overcommitted itself by setting floors on transfers, even if national revenues fell (Gonzalez, Rosenblatt and Webb, 2004).

At the national level, faced with a deteriorating budget balance and growing debt payments, in 1999 the Congress approved a Fiscal Solvency Law – its first try at an FRL. It aimed to and did inspire a third of the provinces to pass their own FRLs. In 2001, however, the FRLs stopped working because of the extreme mismatch between the national government's fiscal and monetary policies and because the provincial FRLs lacked enforcement power and most of the economically important provinces had not passed them. Only 5 out of 11 provinces that imposed a hard budget constraint actually fulfilled their commitment (Braun and Tommasi, 2004). In 2004, Argentina tried anew with a national FRL that applied to the provinces as well as the national government and capital federal district. It passed Congress hastily (Braun and Gadano, 2007; Laudonia, 2009), and it did not come out of a consensus building process with the provinces nor reflect a solid technical consideration of how the provinces might adjust their finances to meet the legal requirements. Although many provinces complied with some of the law's procedural requirements, almost none were meeting the quantitative targets even before the onset of the global crisis in 2009. After that the quantitative targets were put on hold, which further undermined the credibility of the FRL process in Argentina.

The **Indian** Constitution forbids states from borrowing abroad and requires them to obtain central permission for domestic borrowing. The central government places limits on states' borrowing through the annual discussions with states on financing state development plans. While limiting explosive growth of state debt, the system has not prevented deterioration of fiscal trends as indicated by high levels of debt over GSDP in many states in the late 1990s. Factors contributing to the deteriorating fiscal accounts across Indian states in the 1990s include: rapid increase in

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[5]   Only two states (Tocantins and Amapá) did not have any bonded debt, and hence did not participate in the refinancing agreements.

expenditures on salaries, retirement benefits, and pensions and subsidies, increased borrowing to support the growing revenue deficit, and growth in contingent liabilities associated with fiscal support to the public sector units, cooperatives, and the statutory boards.

Since the early 2000s, the fiscal reform has focused on moving towards a more flexible, market-linked borrowing regime within sustainable overall borrowing caps imposed by the central government and self-imposed state-level deficit caps. The federal government enacted Fiscal Responsibility and Budget Management Act in 2003 which applies to the national government only, but some states had also adopted their own FRLs before the enactment of the federal FRL (e.g., Karnataka and Punjab in 2002) and many states have since 2003 adopted FRLs in line with the national law. FRL has become mandatory after the Twelfth Finance Commission (2005) and the federal government has offered a sizeable incentive to states for passing FRL.

The idea of legislating for fiscal responsibility gained considerable attention in the 1990s in **Australia**. At the federal level, the Business Council of Australia called for legislation requiring a surplus budget on average over the business cycle. It reiterated this theme during the 1996 federal election campaign. The adoption of the Charter of Budget Honesty Act in 1998 at the federal level followed years of improvement in fiscal outcomes. In fact, in the mid-1980s, Australia adopted its first set of explicit fiscal rules limiting the growth of expenditure, taxation and budget deficit. Although the recession in the 1990s saw the net debt of the country increased, never went beyond 20 per cent of GDP. The combined state and Commonwealth general government net debt had not exceeded 30 per cent of GDP in the 1990s (Simes, 2003).

Some states had adopted fiscal responsibility legislation prior to the federal government's adoption. New South Wales passed legislation in 1995 to commit itself and future governments to medium- and long-term fiscal responsible targets including the elimination of the net debt. Victoria passed the Financial Management Act in 1994, which was amended in 2000 through the Financial Management (Financial Responsibility) Act, which outlines principles of sound financial management, reporting standards and pre-election budget update. Minister must produce a pre-election budget update 10 days after the issue of a writ for an election. The Act broadly states what the update must contain and the principles upon which it must be based.

In **Canada**, in the 1990s both the federal and provincial governments needed serious fiscal corrections to reverse chronic fiscal deficits and growing debt burden after years of lax fiscal policy.[6] The drive for restoring fiscal health was viewed as means to help accelerate economic growth. The deteriorating sovereign ratings[7] increased the cost of borrowing, and private saving was not sufficient to finance both private investments and chronic fiscal deficits (Traclet, 2004). The federal government undertook legislative reforms during the 1999s: enacting the Federal Spending Control Act (1991) setting limits on spending, and adopting a new framework to meet the medium-term fiscal balance and decrease debt ratio with rolling short-term deficit targets. Such measures succeeded in significantly reducing the national debt (IMF, 2002).

In this context, many provinces in the 1990s also adopted legislation to promote balanced-budgets and debt reduction (Millar, 1997),[8] which may have helped increase the provincial finance ministers' bargaining power to promote unpopular fiscal measures (Kennedy and Robbins, 2003). These legislation set specific fiscal targets such as annual balanced budget and target year for debt elimination (Alberta), prohibited budget deficits in any year (Manitoba), set deadlines for achieving a balanced operating account (New Brunswick), and required net expenditures to decline by a

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[6] The fiscal correction was concurrent with monetary policy of inflation targeting. The attainment of announced targets has improved market and public confidence in the central bank's commitment to low and stable inflation (Traclet, 2004).

[7] Rating agencies downgraded the sovereign debt: in foreign currency in 1994 and in local currency in 1995 by Moody's and in foreign currency in 1993.

[8] Alberta, Saskatchewan, Manitoba, Quebec, New Brunswick, Nova Scotia, Northwest Territories, the Yukon from 1993-1996.

certain percentage over a four-year period (Nova Scotia). Three more provinces enacted similar acts in 2000-04.[9] For example, New Brunswick adopted Fiscal Responsibility and Balanced Budget Act in 2006 to cover the entire provincial budget, following the Balanced Budget Act in 1995. The province also enacted the Fiscal Stabilization Act in 2001 to stabilize the fiscal position from year to year and improve long-term fiscal planning and stability.

Colombia has traditionally been centralist, to offset the natural geographic fragmentation and to try to contain the centrifugal forces of strong special-interest groups. Overlying the natural geographic fragmentation, strong non-regional interests dominate the political dialogue – some operate within the legitimate political system, like teachers and producers of coffee, cattle and sugar, while others are outside and challenging it, namely two guerilla movements, the paramilitaries, and drug producers. Decentralization started in Colombia with the 1968 deconcentration of national revenues to subnational administrative units, with revenue sharing set by formula and mostly earmarked for specific sectors (Bird, 1984). The 1991 constitution (which also made the office of governor an elected post) and Law 60 of 1993 expanded the amount of revenues assigned to departments by broadening the base of the existing revenue-sharing system (the *situado fiscal*). The Constitution and Law 60 committed the national government each year to expand revenue sharing with SNGs until it would reach nearly half of all current revenues by 2002.

In the late 1980s and 1990s the trend toward political decentralization was accompanied by more freedom for subnational domestic borrowing, and hence a rise in their debt. To increase the central government's control over subnational debt, the so-called Traffic Light Law of 1997 introduced a rating system for territorial governments, based on the ratios of interest to operational savings and of debt to current revenues. Highly indebted local governments (red light) were prohibited from borrowing, and intermediate cases (yellow light) were required to obtain permission from the Ministry of Finance. The law often did not have the desired effect, however, as some governments with a red-light rating obtained new financing without permission of the Ministry of Finance, and departments often changed from yellow to red, rather than moving from yellow to green, as expected. In a new attempt to implement fiscal rules to stabilize subnational finances, Colombia passed Law 617 in 2000, which functioned in many ways as a Subnational FRL; despite the fiscal crisis at the national level in 2001-02, Law 617 had some success at the subnational level and laid the foundations for subsequent steps. In June 2003 the government passed the Fiscal Responsibility Law, which applied to the national as well as the subnational governments.

Peru is a unitary state, with even more of a centrist tradition than Colombia. Decentralization came relatively late to Peru, as part of a democratic reaction after Fujimori's exit in 2001. The 2002 decentralization law foresaw having half or more of public sector spending managed and to some extent allocated by subnational governments – districts, and municipalities – compared to the previous situation where SNGs managed less than 10 per cent of public spending. In contrast to the experiences of the other Latin American countries discussed here, the behavior of subnational public finances in Peru never deteriorated to the point where it adversely affected the country's financial sector or macroeconomic stability. As they contemplated fiscal decentralization and saw the macroeconomic problems that decentralized countries had had in the 1990s, the authorities passed the FRL and other measures to assure that fiscal decentralization did not lead to fiscal imbalances. As discussed below, the restraint measures in Peru succeeded perhaps too well, preventing effective fiscal devolution.

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[9]   British Colombia, Ontario, and Newfoundland.

3   FRLs – purpose, incentives, and authority

Before delving into the content of FRLs (Section 4), we need to understand why governments might pass such laws, how they fit in the political context, how they address the timing of borrowing-lending decisions, which level of government passes them, and to which governments the FRL applies.

3.1   *Aligning fiscal incentives*

In a normative theory of good government, voters want to avoid the effects of a fiscal crisis – inflationary finance, sudden increase of taxes, disruption of service, and increased borrowing costs – so their government would equally want to avoid the crises. In practice, governments may fail to follow sustainable fiscal policies for a variety of reasons discussed in this section (see Alesina, 1994 for a survey and Saeigh and Tommasi, 2000 for applications to federations). Multiple levels of government multiply the possible reasons for failure of fiscal responsibility. To deal with these problems, governments have adopted various institutions to try to restrain themselves, including balanced-budget rules, autonomous central banks, and congressional oversight committees. Since the late 1990s, governments have added FRLs to the potential and actual toolkit.

Governments appear to be interested in FRLs to deal with four problems: i) short time horizons of policymakers; ii) free riders among SGNs; iii) principal agent and moral hazards problems between the national and SN governments; and iv) demonstrating commitments to be creditworthy. The first and fourth problems apply to governments at any level, whereas the second and third are relevant mainly in countries with multilevel government.

Short time-horizons of policymakers. A government may wish to institutionalize its commitment to control its impulses to run excessive deficits, in order to resist temptation in more pressing times that may come in the future. Policymakers often have shorter time-horizons than citizens, because they have shorter terms of office than citizens' life spans and policymakers face the risk of being voted out of office if results are painful in the short term. Also the mobility of citizens and businesses between local jurisdictions means that excess borrowing could drive residents away and leave those remaining with more debt per person than they had anticipated. So legislators can gain voter support by passing a law (e.g., FRL) that provides extra motivation for longer term fiscal sustainability.

Free riders. A group of governments in the same country may wish to make and enforce a mutual agreement that each of them would avoid running excessive deficits. To see the free-rider problem in this context, suppose that multiple governments share the same currency, central bank, domestic credit market, and (at least to some extent) international credit reputation. Then they will share a common interest in sustainable fiscal balances for the country in the aggregate, to maintain stable prices, a healthy financial system, and good access to international credit. Individual governments' interests would diverge from the common interest, however, in that factors such as electoral pressures would motivate them to follow fiscal behavior that is risky or unsustainable. An individual government would bear only part of the cost of its misbehavior, but would still receive all of whatever perceived benefit accrued. They could benefit from this, however, only if (most of) the other governments continued to follow good fiscal behavior. So, there might be prisoners' dilemma – a situation where the equilibrium of isolated individual choices leads to suboptimal outcomes for all.[10] All the governments would, therefore, benefit from having a system of rules – an FRL – to discourage such defection and free-riding.

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[10]   Inman (2003) develops the prisoners' dilemma model formally for this situation and shows how restrictive are the conditions under
(continues)

In a country with multiple governments, the national government already exists for the purpose (among others) of protecting the common interests, has much greater fiscal weight than the others, and typically has special powers, like running the central bank and regulating the financial sector. The national government also provides transfers to the SNGs, which often are the main source of subnational revenue and give the national government additional leverage over them. But this may not be enough. Rules of revenue sharing and other rules of the system (like the constitution) may restrain the national government's power over the SNGs. Political considerations may bias the decisions of the national government away from the optimal; these could be the national political cycle or subnational ones (Braun and Tommasi, 2004). For instance when a state government of the same political party as the national government faces a close election, the national government might be inclined to condone the state's fiscal misbehavior by offering a debt bailout or rescheduling guarantee. Also, under some configurations of political institutions, the national executive might need to purchase blocks of legislative votes through provincial fiscal favors, in ways that also break the inter-temporal Wicksellian connection, by which voters demand fiscal discipline to protect their interest as taxpayers. Thus, the agreement to protect the common interest would not only need to restrain the fiscal behavior of the individual SNGs but also restrain the behavior of the federal government.

Principal-agent and moral hazard problems. When citizens or a higher level of government (the principal) entrusts a subnational government (agent) with resources and the responsibility to carry out a task, then there is the principal-agent problem in assuring that the agent government will maintain the requisite fiscal stability to carry out the task, without default or bailout. Subnational borrowers as agents have an incentive not to repay their lenders as principals because they perceive that they will be bailed-out by the central government in case of default, resulting in moral hazard. This hazard may increase when the central government is also the creditor, since rollover of the debt is often the easy way out when an SNG does not pay what it owes to the central government. The incidence of these agency problems varies considerably depending on the structure of the subnational debt market in each country. For instance, the credibility and prudence of a no-bailout commitment by the national government in the event of subnational default depends partly on whether the creditors to the defaulting SNG are foreign or domestic.

Demonstrating commitment to be creditworthy. Borrowers, including SNGs, have an incentive not to reveal negative characteristics about themselves to lenders, which results in adverse selection – lenders will therefore charge a risk premium above what is directly justified by the revealed information, even for a borrower who is not risky. So the asymmetrical information can lead to mispricing of risks. To improve its terms of borrowing, a government needs to show creditors that it is not like those other government units of lesser credit or that it has given up the fiscally irresponsible ways of its past. It can demonstrate this commitment by constraining itself with a FRL, its own or from the national level. Once one government demonstrates its commitment by passing an FRL, the pressure increases on other governments in the country to follow suit, in order not to stand out as *the* government that is not committed to fiscal responsibility. If the entire country has an FRL framework, then it will be the adherence to the fiscal targets that will become more important.

Fiscal responsibility laws have some downsides as well. Most importantly they tend to make aggregate fiscal policy more pro-cyclical. Although most FRLs have some escape clause for the eventuality of a recession and some call for stabilization funds, it has been difficult to set these up

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which the market successfully establishes SN fiscal discipline if the central government takes a hands-off no-bailout approach. The conditions include competitive suppliers of local public services, a stable central government, clear and enforceable accounting standards, a well-managed aggregate economy, and an informed and sophisticated local government bond market. No developing country has these complete conditions, and the international financial crisis of 2008-09 will test whether any advanced economy has them.

in a way that are adequately countercyclical, while still demanding rigorous fiscal responsibility (Melamud, 2010).

3.2 Incentives in the political system for fiscal prudence

The political characteristics of the countries affect both the need for subnational fiscal-control institutions and their effectiveness. Indeed, to some extent the political factors that increase the need for an FRL also make it more difficult to pass one and to enforce it successfully. Several dimensions of political system are relevant: i) a majority party of the executive in legislature versus coalition (parliamentary) or divided government (presidential); ii) strong party identities and unity, including closed-list nominations for legislature, versus weak parties and open lists; iii) autonomy of SNGs constitutionally versus national government power to intervene and otherwise control; and iv) a strong role for the national legislature and strong influence of governors over legislators, versus strong national executive authority (Dillinger and Webb, 1999). To the extent that the constitution and party system lead to more centralized power, the country will have less need for special institutions to coordinate fiscal discipline across governments over time and between states. In some countries in our sample, however, the fiscal decentralization was part of a more general decentralization of power, which was linked with the restoration or establishment of democratic rule (Garman *et al.*, 2001). The party with centralist tendencies and strong public sector dominance may be more interested in pushing a certain development path through state control, central planning and a strong public sector than fiscal management. Subsequent decentralization and market decontrol have led to increasing need for central coordination of policies.

The national and SNGs are not always autonomous agents, as the previous section presumed. For instance they can be manifestations of the same political party. Such arrangements can reduce the free-rider and principal-agent problems described above, because the party aligns the incentives of the national and subnational politicians. The Argentine Justicialista (Peronist) Party in the mid 1990s and the Indian Congress Party in its years of dominance performed similar functions of harmonizing the incentives of policymakers at national and subnational levels. When the single-party dominance in these countries ended or diminished substantially, with the increase of democracy, the absence of the extra-constitutional (but legal) channels for inter-governmental coordination created the need for FRLs or other formal mechanisms for coordination.

Even without a strong party system, a powerful president can enforce subnational fiscal discipline.[11] President Cardoso in Brazil became a strong president in the late 1990s even in a context of weak party loyalties and used his office (and reputation as an inflation fighter, from when he was Minister of Finance) to press successfully for fiscal discipline at the national and subnational levels. The institutionalization of this discipline included the FRL but had already started with some previous measures. President Uribe in Colombia also used his political popularity, without a strong party base, to pass the FRL in 2003. This was in the context since the late 1990s of much weaker loyalties to the two traditionally strong parties, which had fought over many things but had agreed on maintaining macroeconomic stability.

These examples show the importance of the particular political situation in each country – with effects both on whether the country needs an FRL and whether it can gather the consensus to pass one. An FRL seems most likely when there is an intermediate degree of political cohesion – with a high degree of cohesion an FRL may not be needed, and with a low degree one cannot pass or enforce the FRL.

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[11] Although a strong president usually creates a party of his followers, if the main unifying factor is the personality of the president, one cannot accurately call this a strong party system.

Which Government Passed FRL and To Which Levels Does It Apply?

	National FRL Applies to All Levels, Usually More Strictly to SNGs	National FRL Applies Only to National Level	SNGs with Own FRLs
Federal constitution			
Brazil	X		
India		X	X
Argentina	X 2004	X 1999	X (some in 1999)
Canada[1]			X
Australia		X	X
Unitary constitution			
Colombia	X		
Peru	X		

[1] The national government passed a law controlling federal spending.

3.3 Authority: Which government passes the FRL? To which government does it apply?

The FRLs differ in terms of which government passes it and to which government(s) it applies but the content of the two types is similar. Some FRLs are national laws that apply to all levels of government, or at least to the national and intermediate (state, provincial) levels, as in Argentina (2004), Brazil (2000), Colombia (2003), and Peru (2003). From the SNG point of view, these are top-down systems.[12] In other cases, such as Argentina (1999), Australia, and India, the federal government passes an FRL only for itself, and this sets the framework, incentive, or example for the SNGs to pass their own FRLs voluntarily. In some cases, a SNG would enact its own FRL (e.g., the Indian states of Karnataka and Tamil Nadu and some Australian states) before the enactment of the federal FRL. A few Canadian provinces have passed their own FRLs to sustain fiscal discipline and to improve their credit ratings.[13]

Table 1 summarizes how various countries have handled the issues of which government passes the law and which it applies to. With either type of law, enforcement is an issue. There is difference, however, between a government trying to discipline itself with a law that it has the power to change and a higher-level government disciplines a lower-level government that has some political independence. In the latter type of arrangement, it remains uncertain whether the national government will have the tools and political determination to enforce the law. When the national government passes an FRL law that does not directly prescribe what the SNGs must do, a key question is whether the SNGs follow the federal example and pass and obey their own laws. Given the complex variety of intergovernmental systems, there is no single optimal recipe for which level of the government can or should pass the FRL and to which level of government it should apply.

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[12] Ter-Minassian and Craig (1997) argue that such top-down control is necessary for SN fiscal discipline in developing countries. Rodden and Eskeland (2003), with more evidence to consider, see prospects for combining hierarchical control with market discipline, and gradually letting the latter take more weight.

[13] West Bengal and Sikkim are the only two states out of 28 that have not enacted an FRL.

In the US and Canada the political tradition of state and provincial autonomy and independence, along with consistent no-bail policy by the center, has existed from the 19th century and has generally instilled subnational fiscal discipline through *ex post* consequences. The explicit institutional responses have been at the state and provincial level, with their own laws or constitutional amendments to set *ex ante* constraints to keep the subnational governments out of trouble (Inman, 2003; Wallis, Sylla and Grinath, 2004). Neither federal government has an FRL pertaining to the SNGs. No US state has an FRL, although most have more or less strict limits on state borrowing and deficits, with origins back to the 19th century. The federal government does not have enough sway to force an FRL upon them.

Brazil's FRL was passed by the national government for all levels of government; it uses both *ex ante* rules and legal penalties to contribute to the consolidation of a critical mass of consensus for fiscal prudence among powerful governors who had few party loyalties but strong influence over national legislators. Colombia, a unitary country of "autonomous" departments, already had various laws constraining subnational borrowing, and to get more institutional backing for fiscal balance at the national level they passed an explicit FRL in 2003. It adds to the *ex ante* constraints on SNGs and sets up transparency and accountability procedures for encouraging fiscal prudence at the national level.

Peru has had a national-level FRL since 2000, and then in 2002-03 municipal and regional governments got elections and obtained substantial de jure fiscal autonomy, including the right to borrow. Therefore, the government revised the FRL in 2003, with provisions for the SNGs as well as tighter constraints on national fiscal behavior. Argentina has gone through several FRL arrangements without success. The 1999 national government's FRL was only directly for the national government and called for provinces to pass their own FRLs, which some did but some others did not, including the largest province. In the fiscal crisis of 2000-01 and beyond, both the federal and SNGs missed the FRL targets and the laws seemed irrelevant. In 2004, the national government passed an FRL that applied to all levels. The federal government and SNGs were missing the targets even before the 2008-09 world financial crisis, however, and in 2009 the essential provisions of the law were suspended.

4   Content of FRLs

This section analyzes the content of FRLs relating to SNGs in Argentina, Australia, Brazil, Canada, Colombia, India, and Peru. The analysis is organized along three dimensions: procedural rules for transparency and accountability, fiscal targets – quantitative or qualitative, and enforcement and escape clauses. Annex 1 presents a more detailed summary of the content of FRLs along these dimensions.[14] For Brazil, Colombia and Peru, the analysis is on the unified FRL that applies to the SNGs. For Argentina, Australia, Canada, and India, subnational FRLs are presented.

In general, there is greater convergence among countries on the procedural rules and fiscal targets, and more variability on the escape clause and enforcement. All FRLs call for the processes of budget formulation and execution that increase transparency and rationality. Many FRLs require medium-term fiscal frameworks. Almost all FRLs have explicit fiscal targets – fiscal deficit, debt, or both, or other variables such as operating budget balance. In some FRLs, additional variables are targeted, such as expenditure growth and composition.

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[14]   Argentina, Australia, Canada, and India are the countries with subnational FRLs. Most Argentine provinces have adopted the FRL, which was drafted jointly with the Federal Government, except 3 out of 24 which have their own provincial one. Canada has 13 provinces. The discussion in the paper and Annex 1 covers 9 provinces, which account for over 99 per cent of population. Australia has six states and two major mainland territories. India has 28 states. As the content of FRL is broadly similar across 26 states that have enacted FRL, Annex 1 summarizes the content of FRL in eight states.

4.1   Procedural rules for transparency and accountability

All FRLs in the countries discussed call for processes that increase the transparency and rationality of formulating and executing the budget. Typically the FRL requires annual publication and legislative discussion of a fiscal plan and budget, and often this is for multiple years on a rolling basis. The presentation may have to include full costing of any new spending programs or tax changes. Fiscal transparency includes having an audit of subnational financial accounts, making periodic public disclosures of key fiscal data, or exposing hidden liabilities. The FRLs also vary in the extent to which they control arrears and the deficits of off-budget entities, like companies owned wholly or largely by SNGs.

The requirements for a medium-term fiscal framework and a transparent budgetary process aim to ensure that fiscal accounts move within a sustainable debt path and that fiscal adjustment takes a medium-term approach to better respond to shocks and differing trajectories for key macroeconomic variables that affect subnational finance. The transparent budgetary process affords debates by executive and legislative branches on spending priorities, funding sources, and required fiscal adjustments.

To a large degree the effectiveness of these requirements depends on how diligently the legislature and the press monitor these publications and compliance with them. The discipline and sanctions from the political pressures and the access to information about commitments and subsequent compliance can help enforce FRLs. Credit markets can also help with discipline by imposing risk premiums and raising the cost of borrowing if there is fiscal misbehavior. The countries with FRLs under discussion are all democracies, but they vary in how well their institutions function to achieve accountability.

Brazil's FRL sets minimum standards for state budgeting, personnel management, and debt management. The annual budget prepared by each SNG has to be consistent with its multiyear budget plan and with the federal fiscal and monetary program. The FRL systematizes and reinforces the restrictions on personnel spending, deficits and debt that were in the state debt rescheduling agreements and other earlier measures (Law 9496 and the Senate resolutions). The accrual accounting method for all levels of the government eliminates an important source of hidden liabilities: arrears. It also contains specific limits on spending commitments by governments in their final year in office.

In Brazil, moreover, article 48 of Brazil's Fiscal Responsibility Law (2000) enshrines fiscal transparency as a key component of the new framework. Proposals, laws, and accounts are to be widely distributed, including through the use of electronic media (all reports are on the government website). Article 54 requires that all levels of governments publish a quarterly fiscal management report that contains the major fiscal variables and indicates compliance with fiscal targets. Pursuant to article 57, this report is to be certified by the audit courts.

In **Colombia**, the FRL specifies the process for setting budget targets and linking them to target ranges for debts and deficits. Regulations for the law institutionalized the practice at the national level and in some SNGs of publishing quarterly fiscal results, defining deficits on the basis of cash revenue and accrual of spending obligations, and defining debt to include floating debt. The FRL set a target to eliminate *reservas presupuestales* (pre-committed expenditures) in two years, which was done. The other part of floating debt, accounts payable, were counted as regular debt and thus controlled by the fiscal/financial plan. To help with fiscal discipline at all levels, the FRL prohibits the national government from lending to an SNG or guaranteeing its debt if it is in violation of Law 617 of 2000 or Law 357 of 1997, or if it is in arrears on any debt service to the national government. Indeed, a subnational government with those fiscal violations may not legally borrow from anyone. To discourage electoral cycles in fiscal policy, the FRL prohibits any government from committing spending in future years or increasing personnel spending in an

election year. Departmental and municipal central administrations are not allowed to make transfers to their public entities. Strict limits apply to creation of new municipalities, and municipalities proven non-viable have to merge.

In **Peru** the 2003 FRL built upon the 2000 FRL (Fiscal Prudence Law), extending it to SNGs. It required that the annual fiscal deficit of the non-financial public sector not exceed the limit in the multi-annual fiscal framework and in any case would not exceed specific targets (discussed below). Each regional government must prepare and publish an annual development plan that is consistent with the national fiscal framework (including the size of total public sector deficit). Quarterly monitoring of the fiscal performance is required and, in case of revenue shortfall, adequate remedies to revenues and/or expenditures must start in the next quarter. Although the subnational fiscal frameworks have to fit within the national one – whereas in some other countries the SNGs fiscal frameworks merely have to be internally consistent and are not directly subordinated to the national government's fiscal framework – this has not usually been a binding constraint in Peru, as the national government and the overall general government have not hit the limit and ran surpluses in 2006, 2007 and 2008.

Argentina's Fiscal Solvency Law in September 1999 called for limits in the growth of expenditures, the adoption of multi-year budgeting, creation of a Countercyclical Fiscal Fund, and various transparency measures regarding public finances – the features favored by the recent literature on fiscal rules. The new FRL in 2004 applies to the provincial as well as national levels and has similar procedural requirements – rolling 3-year budget plan with projection of revenue and spending by destination, functional and economic categories. An intergovernmental commission coordinates the definitions of budget categories and evaluates budget proposals. The multiannual fiscal plans and results need to be published on the governments' web pages (Melamud, 2010). The law does not spell out coordination on some key items, like the national government's specification of salary increases for teachers, which provinces have to pay and which set the standard of pay demands by the rest of provincial workers. These unfunded mandates effectively derailed provincial spending plans, leaving provincial governments largely unable to control their fiscal situations. Discretionary transfers from the national government have allowed them to meet their payment obligations and kept made them more politically dependent.

In **India**, FRLs passed by states typically require the state government present its medium-term fiscal plan with annual budget to the state legislature. The fiscal plan should set forth multi-year rolling targets for key fiscal indicators. Some FRLs require that the state at the time of budget presentation disclose contingent liabilities created by guarantees provided to public sector undertakings, and some FRLs require the disclosure of borrowing from the Reserve Bank of India and liabilities on the state government for any separate legal entities. Most FRLs require disclosure of significant changes in the accounting policies.

In **Australia**, the procedural rules and transparency are expressed in varied terms across FRLs of states; this is in contrast to India where FRLs enacted by states have strikingly similar content. But the over-archiving content of the FRLs across states in Australia centers on sound fiscal management, transparency in disclosing fiscal policy and accounts, and tabling of fiscal budgets to state legislature for oversight. For example, the Fiscal Responsibility Act (2005) of New South Wales lays out the fiscal principles and targets for the state. In application of fiscal principles, the government should report in annual budget papers: an assessment of past and prospective long-term average revenue growth; an assessment of the impact of budget measures in respect of expenses and revenue on long-term fiscal gaps; measures taken to reflect the fiscal principles; and the estimated impact of proposed tax policy changes. These principles are supported by the Public Finance and Audit Act 1983 that requires the treasurer to: release publicly monthly statement and half year review setting out projections and year-to-date balances for the budget;

table the annual budget in the Legislative Assembly; and present audited financial statements to the Legislative Assembly.

FRLs of provincial governments in **Canada** place responsibility and accountability with the provincial finance minister. The finance minister must present a budget plan and annual report to the legislature of the provincial government and make these available to the public, within prescribed deadlines. Variations exist about the exact nature of disclosure, for example, the public disclosure in Ontario includes mid-year review of fiscal plan, updated information about revenues and expenses, long-range assessment of fiscal environment two years after provincial election, and pre-election reports under certain regulation. In New Brunswick, each year the minister shall provide details as to how the public may participate in pre-budget consultations and shall make public a pre-budget consultation document that sets out the key fiscal issues for consideration.

4.2   *Fiscal targets*

In addition to procedural rules and transparency, most FRLs reviewed here spell out fiscal targets for SNGs with the most common target being the deficit, and there are differences in the degree of specificity about other targets such as debt stock, spending and guarantees.

Table 2 summarizes fiscal targets in the FRLs for SNGs in Argentina, Brazil, Colombia, India, and Peru. As can be seen, fiscal targets are uniform for SNGs in Brazil, Colombia and Peru; this is not surprising as these countries each has a unified FRL applied to all levels of government.

As can be seen from the table (and Annex 1), fiscal targets differ across countries, and in some countries differ across SNGs. There are two challenges in setting fiscal targets. First, how these targets relate to the threshold for fiscal and debt sustainability? To date, there are no agreed empirical thresholds for SNGs. Second, how can uniform adjustment targets be compatible with horizontal equity if SNGs are starting off from different levels of development and with a large mandate (and backlog) of expenditures? This question will need to be related to the system of fiscal transfers with the intent to reduce horizontal inequality in service delivery.

In the absence of market discipline, for national or SNGs to do this for themselves – passing a law stating what budget they have to pass – has the inherent weakness that the same legislative body that would pass an unbalanced budget (in violation of the law) could also vote to change the law. If the national FRL specifies fiscal ratios for the SNGs, however, this has more inherent strength, since it provides a legal basis for the higher level of government (and typically a source for fiscal transfers) to impose limits on the SNGs. These limits are typically about deficits, borrowing, debt stock, and/or debt service to fiscal revenue or GSDP. Revenue is likely to be a more effective basis, since it is known sooner and with more precision than GSDP.

Since the point of an FRL is to prevent the fiscal slippage from deterioration to insolvency, focus on ratios where the subnational government has more control over the denominator as well as the numerator (e.g., wage bill as a share of total spending) is more likely to have the desired effect than relying only on ratios, like debt service or debt stock to GSDP. These ratios are substantially influenced by exogenous factors (interest and exchange rate) and often go over the limit only after problems have gotten out of hand.

In **Brazil**, the debt restructuring agreements between the federal government and the states in 1997 established a comprehensive list of fiscal targets – debt-to-revenue ratio, primary balance, personnel spending as share of total spending, own-source revenue growth, and investment ceilings – as well as a list of state-owned enterprises or banks to be privatized or concessioned. The annual budget of each SNG has to be consistent with its multiyear budget plan and with the federal fiscal and monetary program. The FRL mandates Senate resolutions to set the specific targets for SNG

Table 2

Fiscal Responsibility Laws – Fiscal Targets for SNGs

Country	Fiscal Targets
Federal Constitution	
Argentina (2004)	• Primary spending growth at or below the growth rate of national GDP • Budget balances of provinces sufficient to bring debt service below 15 per cent of current revenue, net of municipal transfers
Brazil	• Personnel spending 60 per cent or less of net fiscal revenue for states and municipalities, with ceilings for each branch of government • Compliance with targets in mandatory limits set by the Senate
India (states)	• Annual reduction of revenue deficit • Elimination of revenue deficit by certain date • Annual reduction of fiscal deficit • Fiscal deficit/GSDP <= 3 per cent of GSDP • Limits on guarantees • Total liabilities <= 25-28 per cent of GSDP
Unitary Constitution	
Colombia	• Interest payment/operational savings • Debt/current revenue
Peru	• Fiscal deficit of total non-financial public sector including SNGs no more than 1 per cent of GDP • Real growth of public sector spending including SNGs no more than 3 per cent per year • Stock of debt for each SNG may not exceed 100 per cent of the current revenue, and the debt service (interest and amortization) may not exceed 25 per cent of the current revenue • The average primary balance of each SNG for the last 3 years may not be negative

Note: Revenue deficit in India is the difference between total revenue and current expenditure.
Sources: see Annex 1.

debt and fiscal balances. The FRL systematizes and reinforces the restrictions on fiscal variables such as personnel spending as a share of SNG net revenue and on borrowing (Annex A1). It also contains specific provisions for authorities in their final year in office. These restrictions on the borrowers' side were complemented by restrictions on the supply of credit from banks and international lenders.

In **Colombia**, the Fiscal Transparency and Responsibility Law (2003) in combination with a modified version of the Traffic-Light Law (Law 358 of 1997) rates SNGs according to the ratios of debt to payment capacity, and SNGs rated in the red-light zone are prohibited from borrowing, and those in the green-light zone are permitted to borrow up to limits based on debt sustainability

calculations. Departments and large municipalities must get satisfactory credit ratings from international rating agencies before they borrow (following the idea from a regulation in Mexico since 2000).

In **Peru**, the FRL limits the deficit of the total public sector 1 per cent of GDP (or the amount in the national fiscal framework, whichever is less), except in congressionally authorized cases of national emergency or international crisis, when the deficit could go to 2.5 per cent.[15] In addition, each SNG has to keep a non-negative primary balance on average for the last 3 years, and they may not have debt service over 25 per cent of current revenue or debt stock over 100 per cent. In election years, the governments may not spend more than 60 per cent of the annual spending allocation in the first 7 months and may not use more than 40 per cent of the annual limit on the deficit in the first half of fiscal year.[16] The FRL sets some *ex ante* procedural constraints for subnational borrowing, and SNGs can only borrow internationally with the guarantee of the national government. The guarantee for any loan requires compliance with the Annual Debt Law and demonstration of the capacity to pay, which provisions give the national government the authority to veto SNG borrowing.[17]

Fiscal targets adopted by **Indian** states are remarkably similar to each other with respect to fiscal and revenue deficits. Some states FRLs also place limits on guarantees. Basically, in the early 2000s, some states went ahead of the federal government in enacting Fiscal Responsibility and Financial Management Act (e.g., Karnataka in 2002). The federal act in 2003 has similar fiscal targets as those in these early reforming states. Subsequently, the 12th Finance Commission mandated fiscal responsibility legislation for all states, with revenue deficit (total revenue minus current expenditures) to be eliminated and the fiscal deficit to be reduced to 3 per cent of GSDP by fiscal year 2009. Some states issued additional legislation on fiscal targets, for example the Kerala Ceiling on Government Guarantee Act (2003) that was enacted the same year as its FRL. According to the guarantee act, the guarantee outstanding for any fiscal year shall not exceed rupees fourteen thousand crores,[18] no government guarantee shall be given to private entity, and the Guarantee Redemption Fund shall be established.

In contrast to India where fiscal targets with respect to revenue and fiscal deficits are similar across states, states in **Australia** do not have similar fiscal targets. The fiscal targets in New South Wales differ from those in Queensland. The Fiscal Responsibility Act of 2005 in New South Wales sets forth the following targets: Reduce general government net financial liabilities to <= 7.5 per cent of GSDP by June 30, 2010; and to <= 6 per cent by June 30, 2015; maintain general government net debt <= 0.8 per cent of GSDP, and eliminate total state sector unfunded superannuation liabilities by June 30, 2020. The Charter of Fiscal Responsibility of 2009 in Queensland sets forth a quite different set of fiscal targets: the General Government sector meets all operating expenses from operating revenue; growth in own-purpose expenses in the General Government sector to not exceed real per capital growth; achieve a General Government net operating surplus no later than 2015-16; stabilize net financial liabilities as a proportion of revenue

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[15]   The 2000 (pre-decentralization) version of the FRL had such a restriction on general government fiscal balances, implicitly including SNGs; the 2003 FRL made the application to SNGs explicit.

[16]   Subsequent legislation has made minor modifications to these limits, but not undermined their intent. For instance, in 2007 and 2008 (Law Nos. 29035 and 29144) the restriction on the growth of the non-financial expenditure was changed to "annual real growth of the consumption expenditure of the central government", which may not exceed 4 per cent, using the inflationary target from the central bank.

[17]   SNGs are not prohibited from getting domestic credit without the guarantee, but this must come within the overall public sector deficit constraint. Thus, the national government could use the requirements for getting credit with the guarantee and other means to force SNGs to report their non- guaranteed borrowing and to keep it within the total deficit constraint. With multiple channels of control at their disposal, the national Ministry of Economics and Finance has keep SNG borrowing under tight control.

[18]   This amounts to about US$3 billion assuming exchange rate 46.7.

in the Non-financial Public Sector; and target full funding of long-term liabilities such as superannuation in accordance with actuarial advice.

FRLs in the Australian states of Western Australia and Northern Territory have only one fiscal target stipulating that funding for current services to be provided by the current revenue generation. The states of Victoria and Tasmania do not have fiscal targets, but their FRLs have established financial management principles including: prudent management of financial risks; spending and taxing policies to be formulated to maintain a reasonable degree of stability and predictability; and ensuring that policy decisions have regard to their financial effects on future generations. These principles are also established by the states of Western Australia and Northern Territory.

Fiscal targets vary across **Canadian** provinces, as shown in Annex 2. Most provinces require a balanced budget. British Colombia requires only the balance budget rule while Quebec allows fiscal deficit but no more than the accumulated fiscal surplus in previous years. Other provinces such as Alberta, Ontario and New Brunswick also require additional fiscal targets relating to debt ratio, net assets, or contingency allowance.

In **Argentina** the FRL (2004) says that budgets for primary spending (current and capital, net of interest cost) may not grow faster than the rate of growth of the national GDP, as foreseen in the national macroeconomic framework (also called for in the FRL, as mentioned above). If GDP growth is negative, then the primary spending may not grow, but does not have to shrink. The limitation on primary spending is weakened by important exceptions: namely, any investment spending for basic social infrastructure, spending financed by international organization, and spending paid with unused revenue from previous years. Borrowing does have an aggregate limit in that debt service (projected) may not exceed 15 per cent of revenue (net of participation transfers earmarked for the municipalities). Nonetheless, the outcomes have been mixed and often less favorable than in the possibly optimistic projections, putting some provinces over the 15 per cent limit. Furthermore, as a result of the recession that accompanied the global downturn in 2009, Congress derogated key fiscal targets for 2010 and 2011; and in particular those setting ceilings on current primary spending growth, the overall primary fiscal balance, and new borrowing (Law 26,530). Such a temporary suspension reflects first the need to consider escape clauses in FRLs that would provide more flexibility to public spending when facing adverse external or domestic shocks; and second, the need to save in the counter-cyclical fund when the provincial economies are in expansion, which did not happen. This legal initiative was also accompanied by another *Programa Federal de Desendeudamiento* (Decree No.60/2010) that allows restructuring of eligible provincial debts, affected by the deterioration of their fiscal balances. Up to the end of August 2010, about eighteen provinces had benefitted from such programs.

4.3 *Enforcement and escape clause*

Rules are only as good as their enforcement, and FRLs vary in terms of the strength of enforcement called for in the law and in terms of how well the governments implement the law in practice. On the enforcement and escape clauses, there is great variability across countries, and within country in the case of Canada.

The enforcement ranges from no specific enforcement clause in the case of states FRLs in Australia and most provinces in Canada to strict enforcement in the case of Brazil, Colombia, Peru and three provinces in Canada. Indian states broadly follows the sanction clause in the national FRL that whenever there is a breaching of intra-year targets of revenues and expenditures, the state government should take appropriate measures for increasing revenues and/or reducing

expenditures, including curtailment of the sums authorized to be paid and applied from out of the Consolidated Fund of the state. However there is no specific timeframe for meeting the targets.

More strict sanctions on the SNGs can be found in Brazil, Colombia, Peru and three provinces in Canada. In **Brazil**, the FRL reiterates from earlier laws the requirement that if an SNG's debt is over the legal limit it may not borrow (except for refinancing) and would no longer receive "voluntary" transfers from the federal government (transfers not from tax-sharing participations). Debt and labor contracts in violation of the FRL are not legally valid, which would be a negative *ex post* consequence for any lender who thus would lose its money. The Fiscal Crimes Law (LCF), a companion law to the FRL specifies criminal penalties – fines and even jail – for officials who violate the rules. The LCF applies to public officials of all branches of government at all levels. Among other provisions, the LCF provides for detention of up to four years for a public official who engages in credit operations without prior legislative authorization, incurs unauthorized expenditure commitments (including any in the last two quarters in office that cannot be repaid during the present term of office), extends loan guarantees without collateral of equal or higher value, increases personnel expenditures during the final 180 days of the term of office, or issues unregistered public debt (IMF, 2001).

The **Colombia** unified FRL imposes strict sanctions on SNGs for their non-compliance with FRL. When SNGs do not comply with the limits imposed by the FRL, they will be prohibited from borrowing. They also have to adopt a fiscal-rescue program to regain viability within the next two years. The governments must make across the board spending cuts whenever actual non-earmarked current revenues are come in lower than in the budget estimates. Sanctions are also imposed on lenders. The law tightens the regulations on the supply side. It prohibits lending by the national government to a subnational entity or guaranteeing its debt if the subnational is in violation of Law 617 or Law 358 or if it has debt service arrears to the national government. Furthermore, lending to subnationals by financial institutions and territorial development institutions must meet the conditions and limits of various regulations such as law 358, law 617, and law 817. Otherwise the credit contract is invalid and borrowed funds must be restituted promptly without interest or any other charges (FRL, Art. 21).

In **Peru**, violation of the FRL targets or some other legal targets by SNGs will cause the temporary disruption of transfers from participatory funds, such as FONCOR, FONCOMUN, and FIDE, which are block grants to regional and communal governments and are set by a formula that favors localities with a higher share of low-income population.

The two **Canadian** provinces that have sanctions are British Colombia and Manitoba. In British Columbia, the members of the executive council are subject to a 20 per cent pay cut when fiscal targets are not met. The cut can be partially or fully restored when fiscal targets are met. In Manitoba, if fiscal balance at the end of year is negative, ministerial salaries are cut by 20 per cent in the first year and 40 per cent in the second year if the deficit continues. Ontario has similar sanctions of cutting the salary of Executive Council members when deficit target is missed.

In **Argentina**, the FRL (2004) does not have strong sanctions on the SNGs or their lenders. Furthermore, it allows the Federal Council of Fiscal Responsibility discretion to decide which of the possible sanctions to apply (Art. 32). If an SNG's debt service exceeds the limit, then it may not borrow except to rollover existing debt on more favorable terms and as part of a fiscal adjustment program, perhaps with a multilateral international lender. Provincial governments that miss the fiscal targets in their macro frameworks have faced little political fallout; it has been easy to shift blame to the overall macro situation and to unfunded mandates from the national government. As has been the case all along in Argentina, creditors can make a prior claim on the participation transfers to get the debt service due, which leaves them with little concern as to whether or not their provincial client is within the bounds of the FRL.

With regard to escape clauses, none of the Australian states contain it. Brazil and Peru FRLs and FRLs by Indian states have escape clause to relax fiscal targets and debt ceilings in the event of calamity and less than 1 per cent economic growth for the last four quarters (Brazil), negative growth and national emergency (Peru, Article 5), national security or natural calamity or exceptional grounds (Indian states). Escape clause differs across Canadian provinces, with some provinces do not have one, while some provinces has escape clause in the event of major disaster or extraordinary circumstances. Colombia's FRL does not have an explicit escape clause. Nor does Argentina's FRL, although the congress did suspend key provisions of the FRL during the 2008-09 global financial crisis.

Rules also need to take into account exogenous shocks – like a global recession – and allow some accommodation, without undermining the fiscal discipline. The ongoing global economic crisis has pressured sovereign and sub-sovereign finance, which has led some countries to apply the escape clause. The extent of the full response will need to be reviewed. A key question during a macroeconomic crisis, such as the 2008-09 global crisis, is whether it is more appropriate for the central government to do all of the fiscal stimulus or loosen the fiscal constraints for subnational governments. For example, the Thirteenth Finance Commission in India recommended that the central government be the one bearing the cost of the crisis and the states should receive assistance from the centre for providing the stimulus.

5 FRLs in broader institutional context for fiscal prudence

FRLs do not operate alone, nor are FRLs sufficient to enforce fiscal discipline. To understand the role of FRLs in enforcing fiscal discipline, it helps to know the range of institutional tools available for this purpose and to know what other institutions for fiscal discipline exist, including the overall incentive structure and enforcement capabilities for subnational and national governments and their creditors.

5.1 *Lender-borrower nexus and timing of controls and sanctions*

Deficits and debt arise from the joint decision of governments and their creditors (including suppliers allowing extended payments). These decisions are made in light of not only the rules governing issuance of the debt, but also the *ex ante* expectations about what will happen to the debtor and the creditors if payment difficulties arise – who will lose money or who will be forced into painful adjustment. The decisions of that lending moment become a *fait accompli* conditioning the subsequent decisions. This points to two important dimensions of control of government borrowing. First the type or timing – *ex ante* controls or *ex post* consequences; and second whether the *ex ante* controls and *ex post* consequences act on borrowers or lenders. Together these make a matrix with four cells, as in Table 3 overleaf.

Traditionally the fiscal discipline literature has focused on the first column – constraints and incentives of borrowers. *Ex ante* constraints on subnational borrowers include debt and deficit ceilings, restrictions on international borrowing, and regulation of SNGs' borrowing based on fiscal-capacity criteria. Typically an FRL includes these, but also includes more such as the public finance process and procedural rules that may lead to debt.

To complement the *ex ante* constraints and to make them credible, there need to be *ex post* consequences for failures in fiscal prudence. Practices to impose *ex post* consequences on SNGs include limits or prohibitions on central bank financing, no bailouts (from central government or from international community) or debt workouts without adequate conditionality, requirements to

**Lender-Borrower Nexus and Timing of Controls and Sanctions
Channels for Control of Deficits and Debt**

	For Borrowers (typically part of FRL)	**For Lenders**
Ex ante **Controls**	**All governments** • Debt and deficit ceilings • Restrictions on international borrowing • Publication of detailed fiscal results **SNGs only** • Regulation of SNGs' borrowing, based on fiscal-capacity criteria (regulations by central government or SNG itself, central bank, or other institution)	**All governments** • No direct central bank financing • Regulations by central bank or other financial supervision agency **SNGs only** • Cap on total borrowing by SNGs • Increased capital requirements for lending to risky SNGs
Ex post **Consequences**	**All governments** • Limits on central bank financing • No bailouts (from central government or from international community) and no debt workout without adequate conditionality • Publication of detailed fiscal results **SNGs only** • Central government does not accept SNG debt • Debt service withheld from transfers to SNGs • Insolvency system	**All governments** • Strong supervision of banks **SNGs only** • Regulations require capital write-offs for losses from SNG debt • No central bank bailouts • Well-functioning financial market can increase risk premium for uncreditworthy borrowers

publish detailed fiscal results, refusal by the central government to accept SNG debt, and withholding debt service from transfers to SNGs.

Some countries have also a formal insolvency system for SNGs (Canuto and Liu, 2010, Liu and Waibel 2009). The experience of Brazil in the 1990s shows that *ex ante* constraints, which abounded, were not sufficient by themselves. Borrowers and lenders colluded extravagantly to evade the rules as long as *ex post* bailouts were forthcoming. The 1997 debt restructuring agreement between the federal government and 25 states had the federal government took over the states' debt but requiring states carry out far-reaching fiscal reforms and in compliance with the fiscal targets. In Argentina in the 1990s, on the other hand, there were few *ex ante* constraints, and the experience with pulling provinces into line in the fiscal crisis of the mid-1990s by use of *ex post* consequences – mainly withholding debt service from transfers – seemed to validate the government's choice to focus on *ex post* rather than *ex ante* measure. By the end of the 1990s, however, many provinces built up such debts and off-budget obligations that in the 2000s the government started opting for conditional bailouts, rather than pay the political cost of imposing hard consequences (Dillinger and Webb, 1999; Rodden, 2003; Webb, 2003).

Without lenders there is no borrowing or debt, so their constraints and incentives deserve equal attention. Lenders are not always automatically prudent enough, as many episodes reveal, including the financial crisis events unfolding in 2008. Banking regulations can restrain lenders behavior, but lenders would view government borrowers as riskless if the central government or central bank ultimately guarantees the debt, and passing the risk to others – taxpayers or nominal asset holders (subject to the inflation tax). In the case of Brazil, in addition to FRL, decisive factors include the debt renegotiation contracts and the constraints to the credit supply by banks and especially by public banks to SNGs.

Regulations as listed in the top right box attempt to constrain such moral hazards *ex ante*: no direct central bank financing, restrictions on international borrowing, increased capital requirements for lending to risky SNGs, and borrowing cap for lending to SNGs. Rules and practices can also punish risky lender behavior *ex post*, such as by having strong supervision of banks, raising capital ratios for loan from entities with poor capital ratings, requiring capital write-offs for losses from SNG debt, and providing no bailouts from the national treasury or central bank. Relying on constraints only on borrowers means that lenders still have incentives to push loans and may find reckless or desperate politicians willing to borrow despite the rules. This happened in the 1990s in Colombia, when laws aimed to constrain subnational borrowing, but financial sector regulation loosened for some years, and then some departments got excessive lending. In the 2000s, the government addressed the problem by tightening both the financial sector regulation and the legal controls on the SNGs, with the 2003 FRL and other measures.

Ex ante regulation may not be purely on the borrower side. To improve fiscal transparency, Mexico introduced a credit rating system for SNGs. Although subnational participation in the credit rating is voluntary, the requirements of the capital-risk weighting of bank loans introduced in 2000 and of loss provisions introduced in 2004 aim at imposing subnational fiscal discipline through the market pricing of subnational credit. In Colombia, the Fiscal Transparency and Responsibility Law (2003) also tightened the regulations on the supply side. Lending to SNGs by financial institutions and territorial development institutions must meet the conditions and limits of various regulations, such as Law 617 and Law 817. Otherwise, the credit contract is invalid and borrowed funds must be restituted promptly without interest or any other charges.

Ideally, any lending should be subject to at least some constraints in all four quadrants. Relying only on *ex ante* constraints, without *ex post* consequences, gives irresponsible borrowers and lenders a big incentive to get around the *ex ante* rules and do transactions that will latter get bailed out, as happened in Brazil prior to the late 1990s. Relying only on *ex post* consequences allows irresponsible (and large) entities to build up such large debts that the national government will not have the political will to enforce the consequences, as it happened in Argentina in the late 1990s. *Ex ante* constraints are important in economies where banks and financial institutions are owned by governments or financial markets do not respond appropriately to indicators of risk. Under such conditions, credit-allocation decisions are driven more by considerations of political expediency than of fiscal prudence. The events of 2008 also showed the importance of *ex ante* constraints (or the cost of their absence) even with private and liberalized capital markets.

It must be emphasized that the purpose of *ex ante* and *ex post* controls is not to minimize the debt financing, instead they should be developed with the objective of promoting sustainable debt financing through a competitive and diversified subnational credit system. Such a system can help ensure the lowest cost and sustainable supply of credits. Debt financing is extremely important for infrastructure development where the maturity of assets often cannot be matched by the current terms of taxation and transfers.

5.2   Broader public finance legislation

In so far as FRL as a fiscal legislation, it is not the only legal framework that imposes fiscal discipline on SNGs. There are broader public finance laws such as a balanced budget law which various countries have adopted to the same effect.

As a federal country, each state in the United States sets limits for itself and for its local governments. Legal frameworks, laws, and regulations vary by state. Some of the common elements include: debt financing must be for a public (not private) purpose; debt limits are specified in laws/state constitutions to avoid excessive borrowing; debt limits may not apply to bonds payable from a "special fund", but the issuance of such bonds follow a separate set of regulations; governmental accounting standards (GAAP) are established by the Governmental Accounting Standards Board (www.gasb.org) with each state determining what accounting standards they and their local governments will use; and all meetings of a majority of the members of a governing body of an issuer must be open to the public.[19] In the United States, markets play a vital role in fiscal surveillance.

Another example is Poland, where the Public Finance Law (2005) specifies that: SNG debt as percentage of its total revenues no more than 60 per cent; SNG debt service as per cent of its total revenue no more than 15 per cent; if SNG debt as percent of revenue reaches 55 per cent, then the debt service as percent of revenues cannot be more than 12 per cent; and debt service needs to include guarantee payments for a given budget year even if the guarantees are not recalled.

The South African Municipal Finance Management Act, enacted in 2003, contains a new framework for municipal finance and borrowing. Chapter 13 of the Act spells out detailed criteria for interventions and recovery plans, specifies the role of national and provincial governments and courts in the insolvency mechanism, and outlines the fiscal and debt adjustment process. The act defines one set of fiscal indicators for "serious financial problems", and another for "persistent material breach of financial commitments." If the first set of triggers is met, the provincial government may intervene. Under the second set of triggers, provincial intervention is mandatory. Unsuccessful provincial intervention calls for national government intervention. Interwoven with these interventions, the municipal government can apply to the High Court to stay all legal proceedings against the municipal government, and to relieve, suspend or discharge financial obligations. Only courts can stay debt payments and discharge debt obligations.

From the experience of Australia, Brazil, Canada, and India, FRLs become an important institution as the previous existing public finance or other legislation had not been able to contain the fiscal risks including those of SNGs. FRLs become a vehicle of political debates in these countries where the broader macroeconomic environment and fiscal crises had made FRLs a more focused instrument for fiscal reforms. In the case of Colombia, various laws (e.g., 358, 617) were developed dealing with different aspects of fiscal frameworks, and later FRL (2003) became a unifying framework to include not only key elements of the previous laws but also new elements. In Peru, the beginning of the decentralization in the early 2000s incorporated the lessons in Argentina and Brazil, and the FRL was enacted with a key objective of preventing fiscal risks of decentralization. Argentina has tried to follow the South American trend in passing FRLs, but it has not developed the same national consensus in favor of fiscal sustainability.

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[19]   Haines (2009).

6   Effects from an FRL

Since countries passed FRLs (some in the mid- to late 1990s and some in the 2000s), some evidence has accumulated on their effectiveness. Although political consensus for fiscal prudence is clearly a necessary condition to launch a successful FRL, the test of its effective implementation comes when another party comes to power or when the consensus otherwise breaks down, and then one sees whether the institution works to help the remaining stabilization champions restrain the fiscal excesses that the populists might want. The evidence at most allows us to see whether there is an association of FRLs and fiscal outcome, to see the extent to which FRLs have institutionalized commitments (often pre-existing) to fiscal responsibility, and to see some patterns in the relationship between national and subnational fiscal rules. Of course the fiscal outcomes depend on many factors besides the FRL – GDP growth, international interest rates, etc. – which this analysis does not reflect. There are not enough observations and degrees of freedom to use regression analysis to take account of these factors.

6.1   *FRL and fiscal outcomes*

Given the lender-borrower nexus and various channels that would influence government fiscal deficits and indebtedness, it would be difficult to precisely separate and measure the effects of FRL. Nonetheless, to the extent that FRL intends to improve government finance and avoid over-indebtedness, it is worthwhile to ascertain if the FRL has been associated with improved fiscal outcomes.[20]

Here we choose the growth of public debt before and after the passing of subnational FRL in Australia, Brazil, Canada, Colombia, and India, as shown in Annex 3.[21] As each SNG may have passed its FRL in different year, the measurement of the fiscal improvement/deterioration needs to be normalized. *T* represents the year when the FRL is passed. *Dt* represents total subnational (state or province) gross debt outstanding over gross subnational domestic product (GSDP) in year *t*. The growth of debt/GSDP in the pre-FRL period is measured as the difference between the debt/GSDP in year *t*–1 and the debt/GSDP in year *t*–5, before the passing of the FRL in year *t*. Similarly the growth of debt/GSDP in the post-FRL period is measured as the difference between the debt/GSDP in year *t*+5 and the debt in the year *t* when the FRL is passed. To leave out the impact of the global financial crisis of 2008-09, the post-FRL data will cover up to end 2007.[22]

In **Australia**, the growth of debt/GSDP is negative for all the states in the sample in the pre-FRL five-year period as well as in the post-FRL period (Table 12). The debt/GSDP of Western Australia and Northern Territory continued to decline at faster pace and that for Victoria, Queensland and New South Wales continued to decline, although at a slower pace in the post-FRL period. The states in the table passed FRLs from 2000-05, but fiscal consolidation started in the 1990s (e.g., South Wales committing to long-term fiscal targets in 1994, and Victoria's Financial Management Act in 1994). As noted before, the combined state and Commonwealth general government net debt had not exceeded 30 per cent of GDP in the 1990s (Simes, 2003).

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[20]   Corbacho and Schwartz (2007) discuss the problems of determining the direction of causality. Their study compared national fiscal deficits in countries with and without FRLs, and found that the former had smaller deficits. Data on subnational deficits for such cross-country comparisons, however, are not readily available.

[21]   We are not evaluating the impact of FRL on Peru, as the country enacted the 2003 FRL that applies to SNGs at the same time as the decentralization. In the case of Argentina, extreme macroeconomic instability and changes in the price level make it difficult to use the debt ratio as an indicator of fiscal performance.

[22]   For a country with its fiscal year ending during the calendar year, the debt data will cover up to June 2008.

In **Brazil**, although the growth of debt/GDP for SNGs was positive for both the pre and post-FRL periods, the growth slowed down from 5.0 to 1.3 per cent (Table 13). The slowdown also happened to the federal government.

In **Canada**, all the provinces had declining debt as share of GSDP after the passing of the FRLs (Table 14). In British Colombia and Nova Scotia, this decline reversed the trend of rising debt as share of GSDP in the pre-FRL period, with British Colombia experienced the largest turnaround. The other three provinces already had declining debt share of GSDP for the FRL. The debt/GSDP of Newfoundland and Labrador continued to decline in the post-FRL period at a faster speed, and of Alberta, Ontario and New Brunswick continued the reduction but at a slower pace.

In **Colombia**, the debt/GSDP ratio rose from 2 per cent in 1996 (the year before the traffic light Law 358) to 3.5 per cent in 2001. The ratio steadily declined to 1.5 per cent by 2006 and stayed at this level since (Table 15, Figure 4).

In **Indian** states, the growth of debt /GSDP was slower in the post-FRL period than the pre-FRL period for 24 out of 26 states. Twenty one out of these 24 states had reversed the trend of increasing debt/GSDP in the pre-FRL period (Table 16).

From the above, FRL *per se* was not the pivotal moment for the turnaround of fiscal deterioration in Australia and Canada. In fact, legislating and regulating subnational debt was well underway before the enactment of various subnational FRLs. As noted before, the fiscal consolidation grew out of policy debates in Australia in the 1990s, before various states passing FRLs from 2000-06. In Canada, many SNGs adopted balanced-budget and/or debt reduction legislation in the 1990s (Millar 1997).[23] The entire country was seriously undertaking fiscal corrections after rating downgrades. In some provinces, FRLs later consolidated various prior laws (e.g., New Brunswick). In Australia, some states also enacted various public finance laws in the 1990s.

One common trait of successful FRLs for subnational governments is the commitment of the central government to its own fiscal prudence, which is usually reinforced by the application of the FRL to the national as well as subnational level. As shown in Annex 4, government debt as share of GDP declined, before the onset of the global financial crisis in 2008, for both the central and subnational governments as a whole since the early 2000 in Brazil and Colombia, since the late 1990s in Canada, and since the mid-1990s in Australia. Although important factors such as solid economic growth and prudent monetary policies contributed to the good macroeconomic performance in general, the commitment to FRLs is positively associated with the declining debt ratio. Similarly in India, the debt over GDP declined since the early 2000s to 2008, and the central government debt over GDP stabilized.

6.2   *FRL as a device to institutionalize fiscal responsibility*

As shown above, the post-FRL period has usually been marked by a positive turnaround in subnational fiscal performance (Brazil, Colombia, and India), or continuing improvement in fiscal consolidation (Australia and Canada). The FRL could serve as a device to institutionalize the commitment to fiscal reforms in order to have it persist over time and through changes of government and parties.

In Brazil, the FRL was passed in 2000 by a right-center national government with a strong commitment to fiscal stability for itself and with a need to push a similar commitment for SNGs. A key test has come and was passed when a Labor government subsequently came to power in 2002

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[23]   Alberta, Saskatchewan, Manitoba, Quebec, New Brunswick, Nova Scotia, Northwest Territories, the Yukon from 1993-96.

and maintained that commitment, both for the national government and for enforcing the FRL for SNGs. In 2009 Brazil achieved an investment-grade credit rating. The fiscal reform and consolidation in Brazilian states are embedded in both the annual Programs of Fiscal Adjustment (PAF) between the federal government and the states since 1998 and the FRL since 2000. In 2001, the debt of most major municipalities was restructured in an identical fashion to the 1997 state debt restructuring. The debt restructurings of 1997 and 2001 were successful in improving the fiscal balances of states and municipalities. Within 18 months the states' negative primary balances turned positive, averaging one per cent of GDP in recent years, thereby contributing to the improved macroeconomic conditions in Brazil. One state, Minas Gerais, challenged the FRL rules in 1999, provoking a crisis, but the national government carried out the prescribed sanctions and the state got back into line. Implementation of the PAFs and FRL played a vital role in maintaining macroeconomic stability and avoiding a systemic financial crisis in Brazil (World Bank, 2008).

In India, introducing FRLs at the state and central government levels is associated with fiscal adjustment since early to mid 2000s.[24] While institutional reforms such as the introduction of FRLs cannot substitute for the policies needed to realize fiscal adjustment, they can help catalyze and complement fiscal adjustment. The implementation of FRL at the center ushered in an era of rule-based management of public finances. The enactment of FRLs by states, through the federal incentives, brought an element of discipline into budget-making by the states. These reforms, together with higher economic growth, introduction of VAT, and increase in the states' share in net central taxes, contributed to the improvement in the finance of the center and states from 2004-05 to 2007-08 (India Thirteenth Finance Commission, 2009).

In Colombia, three periods are relevant: the period before the traffic-light law of 1997, the period with the traffic-light law but not the FRL, and the period after the passage of the FRL in 2003. The traffic-light law was passed in a moment of enthusiasm for better fiscal policy at local levels, but the enthusiasm did not last and subnational debt problems recurred, along with national level fiscal problems. The FRL in 2003 reflected a reinvigorated commitment to fiscal responsibility and institutionalized it. The president elected in 2010 is from the same party, and observers expect the new administration to continue the fiscal policy commitments of its predecessor.

In Peru a centrist government passed the FRL in 2003 in order to make sure that the new decentralization program did not lead to macro fiscal problems. The next government in 2006, headed by the president and left-leaning party that had led the country into hyper inflation in the late 1980s, but they have continued the same responsible fiscal policy that the FRL had started to institutionalize during the previous administration. Peru's sovereign foreign currency rating was upgraded to investment grade first by Fitch and Standard and Poor's in 2008 and then by Moody's in 2009, reflecting the strong growth performance, prudent fiscal and liability management, and the resulting improvement in solvency indicators.

In Argentina the 1999 FRL (and the provincial FRLs) stopped working in 2001 because of the extreme mismatch between the national government's fiscal and monetary policies in the context of a fixed exchange rate. Although the federal government's FRL lacked enforcement power, the more fundamental problem was the government's many legally inflexible spending obligations, most notably debt service and provincial transfers. The provincial FRLs also had shortcomings that would have been problematic even if the collapse at the top had not come first. They lacked enforcement power and a critical mass of states had not passed them. The 2004 FRL, while more comprehensive than its predecessor, again did not reflect a national consensus that fiscal prudence was worth political sacrifice. Compliance was incomplete from the start, sanctions

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[24]   Howes and Jha (2004) argued for FRLs with this rationale.

were weak, and the binding features of the law were suspended when an economic slowdown came in 2008-09.

Since an effective FRL is a means to institutionalize a consensus in favor of fiscal responsibility, it helps to have it grow out of a consensus-building process. Brazil did this explicitly through discussions with the states and because the President who put through the law came to office on the basis of his success in taming deficits and inflation while he was Minister of Finance. In India the Finance Commission played a key role in building consensus on the fiscal policy agenda. In Brazil, Colombia, and Peru the painful memories of past fiscal excesses gave impetus for a political mandate to assure fiscal responsibility in the future. It is unclear why this did not happen in Argentina, with its many painful macroeconomic failures, but the pro-stability consensus of the early 1990s had largely dissipated by the late 1990s and since.

The global financial crisis of 2008-09 will provide an important test on the long-term commitment to fiscal sustainability. Governments throughout the world have loosened the fiscal rules as part of counter-cyclical packages. For example, in Brazil, The three-year Programs of Fiscal Adjustments between the National Treasury and the 25 states adjusted the primary balances and indebtedness targets and broadened the fiscal space for new borrowing. Through its development bank, the federal government created a credit line for SNGs that had suffered loss of federal transfers. Given that some states were not in compliance with the requirements of fiscal responsibility legislation, this operation is considered to be exceptional and allows all states to access the line of credit. In India, the central government allowed the states to raise additional market borrowings, thus increasing the limit of gross fiscal deficit to 3.5 per cent of gross state domestic product in fiscal 2008/09, and to 4.0 per cent in fiscal 2009/10, exceeding the FRL targets.[25] The challenge will be to manage the exit from fiscal stimulus and to resume a commitment to fiscal sustainability.

Some FRLs were enacted more to guide a fiscal adjustment process than to set a framework for fiscal policy for long-term. The global financial crisis of 2008-09 brought to the fore the issues of fiscal policy over the economic cycles and the coordination of counter-cyclical fiscal policies across the different institutions of the government. It is not clear, however, the extent to which FRLs are suited to serve as the main legal basis for long-term fiscal management or are only one part of the overall institutional framework for long-term fiscal prudence.

6.3   Subnational FRL in the context of national reform

Macroeconomic developments and nationwide reforms can provide an overall impetus. Consistency with other parts of the macro-fiscal system, subnational fiscal reform often unfolds in the broader macroeconomic context. In Canada, macroeconomic deterioration in the 1980s to early 1990s led to major changes in monetary and fiscal policy. After suffering from a lack of credibility, the Bank of Canada since the early 1990s committed to low and stable inflation. The attainment of inflation targeting overtime improved market and public confidence (Perrier and Armano, 2000; Paulin, 2000; OECD, 2001). On the fiscal front, in the early 1990s, the importance of restoring sound public finances became increasingly clear at both the federal and provincial level. The fiscal framework adopted by the federal government and legislation by provinces were part of the move toward more sustainable public finances (Traclet, 2004).

Establishing an FRL or other institution to constrain SNG debt and deficits works only if the governments in question start from or are brought to a position where they do not have extreme debt overhang. In other words, if the service on existing debt is already too large to pay realistically

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[25]   Government websites and World Bank country teams.

in the political economic situation, this attenuates greatly the incentive from an FRL to behave with fiscal responsibility. Consequently, a set of SNG fiscal adjustment and debt rescheduling programs often must complement or precede the implementation of an FRL. To work, the programs must strike a balance between being sufficient to eliminate the debt overhang and being so generous as to seem to reward fiscal irresponsibility of the past (or to fiscally hamstring the national government). Brazil, Colombia, and India undertook SNG debt restructuring, separate from or preceding the FRL.

The dynamics of subnational-central government interaction provides political momentum and stimulates discussion of fiscal reforms. Given the growing share of subnational finance in the consolidated public finance and the growing influence of political forces at the subnational level, often a subnational government can lead the fiscal reform which serves as demonstration effect on the national reform. In India, following the state fiscal crisis in the late 1990s to the early 2000s, the states of Karnataka and Punjab each enacted its own fiscal responsibility law in 2002, first in the country. The federal FRL followed in 2003, and other states soon after from 2003-07. In Australia, some states went ahead with fiscal reforms and enacted legislation committing to balanced budget or debt targets, prior to the federal enactment of Charter of Budget Honesty in 1998.

A national government can pass the FRL for itself and encourage SNGs to pass their own FRLs. In India, following the recommendation of the Twelfth Finance Commission in 2004, debt relief to a state offered by the Debt Consolidation and Relief Facility was based on a condition for the state to enact the FRL. The FRL should, at the minimum, provide for elimination of revenue deficit[26] by 2008/09 and reduction of fiscal deficit to 3 per cent of GSDP. 21 states put in place FRL beginning 2005/06. Five states already had enacted FRLs even before this condition was imposed by the Twelfth Finance Commission.[27] The framework intended to promote growth-expansionary fiscal consolidation by providing fiscal incentives for SNGs to eliminate their revenue deficits, thereby ensuring that net public borrowing is directed exclusively towards growth-enhancing public investment (India Thirteenth Finance Commission, 2009).

Since fiscal responsibility with multiple players (national and subnational governments) is a coordination problem with multiple possible equilibria (Braun and Tommasi 2004), it depends on having a critical mass of states that voluntarily obey the rules and politically support the national government when it applies sanctions to enforce the rules. Thus the fiscal sanction of Minas Gerais in 2000 assured that no other states would challenge the law and thus was a critical step in the success of Brazil's FRL.

7   Conclusions

Given the difficulties of determining causality of FRLs and fiscal outcomes, it will be difficult to say whether FRLs are necessary or sufficient for achieving fiscal prudence at multiple levels of government. Country examples reviewed in this paper show that FRLs can help coordinate and sustain commitments to fiscal prudence, but they are not a substitute for commitment and should not be viewed as ends in themselves. FRLs can make a positive contribution by adding to the collection of other measures to shore up a coalition of states with the central government in support of fiscal prudence. Although political consensus for fiscal prudence

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[26]   In India, revenue deficit is current expenditure net of all revenues.

[27]   The Debt Consolidation and The Debt Consolidation and Relief Facility (DCRF) comprised consolidation of central loans contracted till March 2004 and outstanding on 31 March 2005, along with debt write-offs, linked to reduction of the revenue deficits of states and containment of fiscal deficit at the 2004-05 level. The five states are: Karnataka, Kerala, Tamil Nadu, Punjab and Uttar Pradesh. Thirteenth Finance Commission (2009), p. 49.

is clearly a necessary condition to launch a successful FRL, the test of its effective implementation comes when the consensus breaks down, and then one sees whether the institution works to help the remaining stabilization champions restrain the fiscal excesses that the populists might want.

In designing an FRL, defining fiscal targets poses a special challenge. Many factors that influence the fiscal accounts of the SNGs are exogenous to the SNGs, such as interest and exchange rates. The national governments also mandate expenditure items and the intergovernmental fiscal frameworks may limit the taxation power of SNGs. Focusing on ratios where the SNGs have control over the denominator as well as the numerator (e.g., wage bill as a share of total spending) is more likely to have the desired effect than relying on ratios that are substantially influenced by exogenous factors.

An important lesson is that a set of SNG fiscal adjustment and debt rescheduling programs often must complement or precede the implementation of an FRL. It is not realistic to expect SNGs with large debt overhang to comply with sustainable fiscal targets. On the other hand, in order for FRLs to provide credible incentives for fiscal prudence, the terms of restructuring cannot signal potential future bailouts. Therefore, there needs to be a balance between avoiding moral hazard and proving sufficient financial relief to ensure that the SNGs can realistically comply with FRLs.

Even when FRLs are effective, they cannot do the job alone. The potential contribution depends on how well it complements the rest of the institutional framework for SNG fiscal restraint – making labor and pension laws more flexible, giving subnational governments more taxing power, using rules for debt renegotiations to reduce the salary bill as a share of revenue, using financial sector regulation to restrain lending to SNGs, and commitment to hard budget constraints on SNGs. The experience shows the need to have both *ex ante* constraints on borrowing and *ex post* sanctions for over borrowing. Even beyond the network of specific fiscal rules, the deeper institutions and expectations need to motivate respect and enforcement of the rules, otherwise they do little good (Braun and Tommasi 2004).

SNG borrowing for financing social and economic infrastructure can generate positive net social returns. FRL framework is not meant to eliminate credit market access by SNGs. The challenge is to design fiscal rules and framework that will achieve the dual objectives of expanding market access by SNG for financing economic growth and containing the risks of excessive borrowing.

Future research might want to pursue the following questions: How to set subnational along with national fiscal targets, either in FRLs or other public finance laws? How these targets relate to the threshold for fiscal and debt sustainability? How to construct escape clauses that will not become convenient evasion clauses in case of severe global or regional downturns? What kind of enforcement mechanism would ensure fiscal discipline, particularly in the absence of effective market systems? Over the longer periods of business and political cycles, can the effect of fiscal legislation be more accurately measured? How can one design institutions for fiscal discipline – FRLs, etc. – so that they do not make fiscal policy excessively pro-cyclical?

ANNEX 1
FISCAL RESPONSIBILITY LAWS

<div align="right">**Table 4**</div>

Argentina

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
National FRL – "Fiscal Solvency Law" – only for national government; intended as model for provinces	1999	Multiannual budgets; prohibition of extra budgetary funds; penalties for spending units if they spend over budget	Deficit limits in 1999-2002; balance budget thereafter; primary spending growth rate no higher than real GDP growth rate	None; Law called for stabilization fund, with inflow from sale of SOEs and 1-2 per cent of tax revenues	Penalties for national spending units if they spend over budget
National – "Zero Deficit Law"	2001		Zero deficit by 2002		
National "FRL" – applying to provincial as well as national governments. 21/24 provinces and City of Buenos Aires agreed to comply	2004	3-year multiannual budgets; Debt management needs to ensure (move toward) debt service less than 15 per cent of net revenue; new borrowing or guarantees need Min of Econ approval; no non-peso domestic bonds from SNGs; SNGs publish fiscal accounts and all debt related transactions in a standard format Established a Federal Council for Fiscal Responsibility, with membership from the national and all provincial ministries of finance	Nominal growth rate of primary spending by each government must be lower than projected national GDP growth; for SNG governments with debt less than 15 per cent of current revenue the restriction applies only to current spending. The national government budget must have an overall primary fiscal balance after, excluding five categories of spending (spending with loans from International Financial Institutions, capital spending for social infrastructure, subnational spending financed by non-automatic transfers, extra spending due to Education Financial Law, and payments on court rulings). SNGs have to budget primary surpluses adequate to bring their debt service gradually below 15 per cent of current revenues (net of transfers to municipalities) and may not do new borrowing if their debt service is over the ceiling	National and provincial governments must put money into stabilization funds. In 2004-05, Mendoza and Santa Fe started funds, but no data available on performance. In 2009, key fiscal targets in the law were suspended by Congress for 2009 and 2010…	

Source: Government legislation (Ley 25,152; Ley 25,453; Ley 25,917).

Table 5

Australia

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions

New South Wales	1983 1995 2005	**Public Finance and Audit Act 1983:**
		• The treasurer is charged to publicly release monthly statement and half year review setting out projections and year-to-date budget balances. The Budget Papers for a budget year are to be tabled in the Legislative Assembly before the end of the prior financial year
		• No later than 31 October after concluding a fiscal year, the Treasurer is to present the consolidated financial statements and general government sector financial statements as audited by the Auditor-General, and the opinions of the Auditor-General on those statements, to the Legislative Assembly
		
		General Government Debt Elimination Act 1995 (repealed in 2005):
		• Within 3 months of the enactment of this act, the Treasurer is to table in Parliament a comprehensive financial management framework
		• The progress reports of budget papers should include: Measures taken to fund employer superannuation liabilities, to maintain assets of the state and prudently manage the risks; The projected growth in net cost of services and expenses for a budget year and each year of the forward estimates period; impact of proposed tax policy changes
		
		Fiscal Responsibility Act 2005:
		• The act lays out the fiscal principles and targets for the state. In application of fiscal principles, the government should report in annual budget papers:
		  - an assessment of past and prospective long-term average revenue growth
		  - an assessment of the impact of budget measures in respect of expenses and revenue on long-term fiscal gaps
		  - measures taken to reflect the fiscal principles. These measures include: measures taken to maintain or increase general government worth; measures taken to fund employer superannuation liabilities; measures taken to align physical asset management of government agencies with their service delivery priorities and strategies; measures taken to manage risks prudently
		• The estimated impact of proposed tax policy changes
			General Government Debt Elimination Act 1995 (repealed in 2005):
			• To achieve a sustainable surplus budget for the general government sector within 3 years after enactment of the Act
			• To reduce, by 30 June 2005, the level of public net debt to a sustainable level, which are defined as a level at which the budget can absorb the economic cyclical impact without need for significant corrective action on the revenue and expenditure side
			• To eliminate net debt of federal government sector by 30 June 2020 and eliminate the unfunded superannuation liabilities by 30 June 2030
			Fiscal Responsibility Act 2005:
			In the medium term:
			  - reduce the level of general government net financial liabilities to <= 7.5 per cent of gross state product by 30 June 2010
			  - maintain the level of general government net debt <= 0.8 per cent of gross state product (the level at 30 June 2005), unless an increase is required in net debt to reduce one or more components of general government net financial liabilities
			In the long term:
			  - reduce the level of general government net financial liabilities to <= 6 per cent of gross state product by 30 June 2015
			  - maintain the level of general government net debt <= 0.8 per cent of gross state product (the level at 30 June 2005), unless an increase is required in net debt to reduce one or more components of general government net financial liabilities
			  - eliminate the total state sector unfunded superannuation liabilities by 30 June 2030
				N/A	• Reputational

Table 5 (continued)

Australia

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Northern Territory	1995 2001	**Financial Management Act 1995:** • The Treasurer is to publish quarterly financial statements in the Gazette and audited annual reports which include the original estimates of budget, results in respect of the major Government Finance Statistics statements as reported by the Australian Bureau of Statistics, and explanation of significant deviations. The audited annual reports should be tabled in the Legislative Assembly **Fiscal Integrity and Transparency Act 2001:** • The Treasurer must publicly release and table the first and each subsequent fiscal strategy statements for a particular Government at or before the specific time. Changes can be made by public release of a new fiscal strategy statement. Such a statement should: (a) specify medium-term fiscal objectives (b) explain the broad strategic priorities on which the budget is or will be based (c) specify the key fiscal indicators against which fiscal policy will be set and assessed (d) specify, for the budget year and the following 3 financial years: (i) the Government's fiscal objectives and targets; and (ii) the expected outcomes for the specified key fiscal indicators; and (e) explain how the fiscal objectives and strategic priorities relate to the principles of sound fiscal management • The Treasurer must publicly release and table a fiscal outlook report at the time of each budget, mid-year outlook report and fiscal results report. The contents of these reports are specified in the Act • The Under Treasurer must publicly release a pre-election fiscal outlook report within 10 days after the issue of the writ for an election	**Fiscal Integrity and Transparency Act 2001:** No specific numerical rules and targets. The principles of sound financial management are: - To formulate and apply spending and taxing policies with consideration of the effect on employment, the economic prosperity and development of the Territory and giving rise to a reasonable degree of stability and predictability - To ensure that funding for current services is to be provided by the current generation - To manage financial risks faced by the Territory prudently (having regard to economic circumstances), and maintain Territory debt at prudent levels	N/A	• Reputational

Table 5 (continued)

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Australia

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Queensland	1999 2009	**The 1999 amendment of Financial Administration and Audit Act (repealed in 2009):** • The Treasurer should prepare a charter of social and fiscal responsibility for the State and table it in the Legislative Assembly. The charter is to state the broad social and fiscal objectives of the Government and establish a framework for assessing the Government's performance in achieving the objectives • The charter must be based on the principles of: (a) Transparency and accountability in developing, implementing and reporting on the Government's social and fiscal objectives (b) Efficient and effective allocation and use of resources (c) Equity relating to the raising of revenue, delivery of government services, and between present and future generations (d) Prudent management of risk **Financial Accountability Act 2009:** • The act lays out principles, rules and procedures for fiscal management. The government should publish regular, informative reports on the outcomes of the activities, against previously announced objectives and release annual report on the efficiency and effectiveness of its activities in meeting the Government's objectives for the community. Specifically: (a) The premier must present to the Legislative Assembly on government's community objectives as well as fiscal objectives and outcomes regularly; (b) The Premier must table each half year report and full year report of ministerial offices expenses in the Legislative Assembly within specific timelines. Full year report should be audited by auditor-general • The Act requires from time to time, the Treasurer prepare and table in the Legislative Assembly a charter of fiscal responsibility giving details of the government's fiscal objectives and fiscal principles that support those fiscal objectives. The treasurer must report regularly to the Legislative Assembly on the outcomes the government has achieved against the objectives stated in the charter	**Charter of Fiscal Responsibility 2009:** The fiscal principles are set out broadly to maintain fiscal sustainability and a competitive tax regime, and manage the State's balance sheet. The principles are: • In the General Government sector, meet all operating expenses from operating revenue • Growth in own-purpose expenses in the General Government sector to not exceed real per capital growth • Achieve a General Government net operating surplus as soon as possible, but no later than 2015-16 • Maintain a competitive tax environment for business • Stabilize net financial liabilities as a proportion of revenue in the Non-financial Public Sector • Target full funding of long-term liabilities such as superannuation in accordance with actuarial advice	N/A	• Reputational

Table 5 (continued)

Australia

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Tasmania	1990 2007	**Financial Management and Audit Act 1990:** • The Treasurer is to publish in the Gazette a report, the half-yearly report, and an audited annual report which include the original estimates of budget, results in respect of the major Government Finance Statistics statements as reported by the Australian Bureau of Statistics, and explanation of significant deviations. The annual report should be laid before each House of Parliament and copies should be available to the public **Charter of Budget Responsibility Act 2007:** • The Treasurer is to publicly announce and table the first fiscal strategy statement for a particular Government at or before the time of the Government's first budget. It may be changed at any time by announcing and tabling a new fiscal strategy statement. Such strategy should establish a benchmark for evaluating the Government's fiscal performance by specifying: (1) the long-term objectives within which budgets will be framed (2) the key fiscal measures against which fiscal policy will be set and assessed (3) the fiscal objectives and targets for the budget year and the following 3 financial years (4) How the fiscal objectives and strategic priorities relate to the principles of sound fiscal management • The Leader of an Opposition party is to publicly announce a fiscal strategy statement, and provide a copy of the statement to the Secretary, within 15 days of the issue of a writ for an election for the House of Assembly • Pre-election financial outlook report should be prepared	**Charter of Budget Responsibility Act 2007:** • No specific numerical rules and targets. The principles of sound financial management are to: (a) ensure transparency and accountability in developing, implementing and reporting on fiscal objectives (b) ensure the efficient and effective allocation and sustainable use of resources in achieving objectives (c) ensure that policy decisions have regard to their financial effects on future generations (d) formulate spending and taxation policies that ensure a reasonable degree of equity, stability and predictability (e) manage financial risks prudently	N/A	• Reputational
Victoria	2000	**Financial Management Act 1994, amended in 2000:** • The act establishes a budgeting and reporting framework for sound public financial management. It specifies the purposes and contents of each government documents including the financial policy objectives and strategies statements, quarterly financial reports, mid-year reports, audited annual financial reports and budget update and requires the documents to be transmitted to or laid before each house of the Parliament on or before pre-specified date. The financial policy objectives statement should specify the financial objectives and targets of current year as well as those of three following years	**Financial Management Act 1994, amended in 2000:** • No specific numerical rules and targets. The principles are laid out to ensure sound financial management including prudent management of financial risks faced by the State, having regard to economic circumstances; pursuing spending and taxing policies that can maintain a reasonable degree of stability and predictability in the tax burden level; maintaining the integrity of the Victorian tax system; taking into account the impact of policy decisions on future generations; and providing full, accurate and timely disclosure of financial information relating to the Government and its agencies	N/A	• Reputational

Table 5 (continued)

Australia

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Western Australia	2000	**Government Financial Responsibility Act 2000:** The act sets out a framework for public financial planning incorporating a set of principles and rules • The Treasurer must release a Government Financial Strategy Statement at least once in each calendar year which sets out government's medium term fiscal strategy. Any significant change to fiscal strategies should be released as soon as possible • The Treasurer should release a Government Financial Projections Statement which includes projection for the budget year and next 3 years when the appropriation Bills and budget papers for a budget or supplementary budget are tabled in the Legislative Assembly • The Treasurer must release a Government Mid-year Financial Projections Statement and an audited annual report on state finance within prescribed date • The Under Treasurer should release a Pre-election Financial Projections Statement within 10 days after the Legislative Assembly is dissolved or expires • The Treasurer should release a Quarterly Financial Results Report for each quarter	**Government Financial Responsibility Act 2000:** • There are no specific numerical rules and targets. However the financial management principles require current services to be funded by the current generation; spending and taxing policies to be formulated and applied so as to give rise to a reasonable degree of stability and predictability; financial risks to be managed prudently; spending and taxing policies are to be formulated and applied with consideration to the effects of these policies on employment and the economic prosperity of the State	N/A	• Reputational
Australia (National)	1997 1998	**Financial Management and Accountability Act 1997:** • Finance Minister must publish monthly financial statements. Charter of Budget Honesty Act 1998: • Annual reports must be audited by Auditor - General. The government strategy should reflect sound financial management principles. The government should release and present to the parliament the following reports regularly based on prescribed timelines: the government's fiscal strategy statement, budget and mid-year economic and fiscal outlook reports, final fiscal outcomes reports and intergenerational reports. A pre-election fiscal and economic outlook report should be released if a general election is called, as well as policy costing upon request	**Charter of Budget Honesty Act 1998:** No specific numerical rules and targets. The principles of sound financial management are set out: • prudent management of financial risks of the government by maintaining general government debt at prudent levels • to ensure that fiscal policies are to achieve adequate national saving and to moderate cyclical fluctuations in economic activity • consistent spending and taxing policies to ensure stability and predictability • the integrity of the tax system • Policy decisions to have regard to their financial effects on future generations	N/A	• Reputational

Source: Various fiscal responsibility laws from websites of Australian state legislatures.

Table 6

Brazil

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clause	Sanction
National FRL applies to all tiers of government	2000	• The law sets minimum standards for state budgeting, personnel management, and debt management • The annual budget of each SNG has to be consistent with its multiyear budget plan and with the federal fiscal and monetary program • The law explicitly prohibits debt refinancing operations between different levels of government Strengthened transparency rules for all levels of government: • Proposals, laws and accounts must be widely distributed, including through electronic media • Forecasts, objectives as well as targets and results need to be periodically published • The Executive Branch of each Municipal Government must consolidate its accounts and send to the central government. The central government complies the accounts for entire federation • A bi-monthly budget execution report should be published, containing budgetary balance sheet as well as summary of expenditures and revenues • The heads of government branches must issue a Fiscal Management Report every 4 months and make it widely available to the public	**Article 12**: The estimated revenue for credit operation must not exceed the capital expenditures in the Annual Draft Budget law **Article 19**: For states and municipalities, Wage and salary cost may not exceed 60 per cent of current revenue **Article 20:** with the following minimums for each branch of government: • State: 3 per cent Legislative, 6 per cent Judiciary, 49 per cent executive, 1 per cent state prosecutor • Municipal: 6 per cent legislative, 54 per cent executive **Article 23:** If personnel expenditures exceed these limits, the excess percentages must be reduced within the next two 4-month periods, with at least one-third of the reduction coming in the first 4-month period **Article 30:** Requires the Federal Senate to set overall limits for federal and subnational debt	• Public calamities acknowledged by both houses of national Congress, including state of defense, siege and a low growth rate, defined as less than 1 per cent in last four quarters	• If total personnel expenditures exceed 95 per cent of the ceiling, new hiring, wage increases and contracting overtime work are suspended • Officials who violate the rules will be subject to criminal penalties, fines and perhaps even jail, according to the law of Fiscal Crimes • If the debt targets are not achieved, SNGs will be prohibited from: receiving voluntary transfers, obtaining guarantees from Federal government or other states and contracting credit operations unless used as refinancing securities debt and reducing personnel expenditures

Source: Government website.

Table 7

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Canada

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Alberta	1993 1995 1999	**Government Accountability Act 1995:** • The Minister of Finance should have consolidated fiscal plans, annual reports and ministry reports laid before the Legislature and available to general public within prescribed deadlines. The consolidated fiscal plan including the government business plan and capital plan among others should be for the fiscal year and the subsequent 2 fiscal years. The Minister of Finance must report publicly to the Lieutenant Governor in Council on the accuracy of the consolidated fiscal plan with respect to the first 3, 6, and 9 months of each fiscal year within prescribed dates. The contents of each report are specified	**Deficit Elimination Act 1993 (repealed in1995):** • To achieve a deficit target of $2.5 billion in 1993-94 and a balanced budget in 1996-97 **Balanced Budget and Debt Retirement Act 1995 (repealed in1999):** • Annual balanced budgets and conservative revenue forecasts are required • Establishing a schedule to repay net debt by the end of 2012-22, or a 25 years limit **Fiscal Responsibility Act 1999:** • Deficits and opening debt are not allowed; • Actual expenses for a fiscal year must not be more than actual revenue for that year • The Capital Account is established as an account within the General Revenue Fund, net assets of this account may not be reduced to an amount less than zero • The consolidated fiscal plan must include a contingency allowance for each fiscal year set out in the plan equal to at least 1 per cent of revenue for fiscal policy purposes	**Fiscal Responsibility Act 1999:** • Alberta Sustainability Fund is established from which fund could be transferred to achieve balanced budget in the response to emergencies or special spending commitments	• Reputational
British Columbia	1991 2000 2001	**The Budget Transparency and Accountability Act 2000:** • Regular disclosure of fiscal information by finance minister • The minister must make public a budget consultation paper and present the main estimates for a fiscal year to the Legislative Assembly with the budget for that fiscal year as well as economic and fiscal forecasts and major capital investment information each year • Make public any significant change to the estimates as soon as practicable, the public accounts for the previous fiscal year and quarterly report on or before prescribed date	**Taxpayer Protection Act 1991 (repealed in 1992):** • A five-year balanced budget plan was created; a tax freeze and prevention of new taxes; limitations on expenditure growth; a Debt Reduction Plan and an annual progress report **Balanced Budget Act 2000 (repealed in 2001):** • Setting up progressively lower deficit targets between 2000-01 to 2003-04 and requiring balanced budget beginning in 2004-05 **Balanced Budget and Ministerial Accountability Act 2001:** • The main estimates must not contain a forecast of deficit for a fiscal year, but it does not apply to 2009-10 and 2010-11 fiscal year	**Balanced Budget Act 2000 (repealed in 2001):** • The maximum deficits could only be exceeded in emergency and/or unexpected circumstances or for significant revenue declines **Balanced Budget and Ministerial Accountability Act 2001:** • 2009-10 and 2010-11 fiscal year	**Balanced Budget Act 2000 (repealed in 2001):** • The members of the Executive Council were subject to a 20 per cent pay cut when targets are not met; The reduction could be partially or fully restored when certain targets are met **Balanced Budget and Ministerial Accountability Act 2001:** • 20 per cent of salary of each Executive Council member is held back. The reduction can be partially or fully restored when collective and/or individual responsibility has been achieved

Table 7 (continued)

Canada

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Manitoba	1989 1995 2008	**Fiscal Stabilization Fund Act 1989:** • To establish a fiscal stabilization fund with the purpose of stabilizing the fiscal position from year to year and improving long-term fiscal planning **Balanced Budget, Debt Repayment and Taxpayer Accountability Act 1995:** • Major tax rate increases will be decided by Province-wide referendum • A debt repayment plan is set up for general-purpose debt and unfunded pension liabilities • Public hearings must be held before the Act can be amended or repealed and the Act prevents changes in accounting policy to meet balanced budget targets **The Balanced Budget, Fiscal Management and Taxpayer Accountability Act 2008:** • At the time of tabling the budget, the minister must table in the Legislative Assembly a statement of the government's financial management strategy describing the government's objectives for measurable outcomes and containing a summary of core expenditure and revenue estimates • After each fiscal year, the minister should table in the Legislative Assembly a report comparing the results to the financial management strategy laid before the fiscal year, while tabling the public accounts	**Balanced Budget, Debt Repayment and Taxpayer Accountability Act 1995:** • Balanced budgets are required from 1995-96 and onward **The Balanced Budget, Fiscal Management and Taxpayer Accountability Act 2008:** • For each fiscal year, the budget for the government reporting entity laid before the Legislative Assembly must project a positive balance as at the end of that year. The balance as at the end of a fiscal year is determined as the average of the net results for the fiscal years within the four-year period ending at that time	**Balanced Budget, Debt Repayment and Taxpayer Accountability Act 1995:** • Deficits are permitted in the face of a natural disaster, war, or revenue reduction of 5 per cent or more that is not due to a change in tax laws **The Balanced Budget, Fiscal Management and Taxpayer Accountability Act 2008:** • The net income or loss for a fiscal year may be adjusted by excluding a revenue shortfall or increase in expenses for the fiscal year that occurred because of (a) an unanticipated natural or other disaster (b) Canada being at war or under the apprehension of war (c) unusual weather or climate conditions not anticipated in the budget; or (d) a decision of another level of government or of a regulatory body that took effect after the budget for the fiscal year was tabled in the Legislative Assembly or within 30 days before it was tabled, the fiscal impact of which was not anticipated in the budget	**Balanced Budget, Debt Repayment and Taxpayer Accountability Act 1995:** • If a deficit occurs, it must be offset in the next fiscal year; in this case, penalties will be imposed in second year. Ministerial salaries are cut by 20 per cent in the first year of a deficit and by 40 per cent in the second year **The Balanced Budget, Fiscal Management and Taxpayer Accountability Act 2008:** • If the balance as at the end of a fiscal year is negative, Ministerial salaries are cut by 20 per cent in the first year of a deficit and by 40 per cent in the second year • If after the general election the party forming the government changes, the reduction would not apply to the new minister appointed by the new government

Table 7 (continued)

Canada

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
New Brunswick	1993 2001 2003 2006	**Fiscal Stabilization Fund Act 2001:** • A fiscal stabilization fund was created with the purpose of stabilizing the fiscal position and improving long-term fiscal planning **Taxpayer Protection Act 2003:** • Referendum approval is required for new taxes or increases of tax rates for certain taxes **Fiscal Responsibility and Balanced Budget Act 2006:** • The Minister must lay before the Legislative Assembly the main estimates and capital estimates for the next fiscal year in each year. And each year the Minister shall provide details as to how the public may participate in pre-budget consultations and shall make public a pre-budget consultation document that sets out the key fiscal issues for consideration by the public	**Balanced Budget Act 1993:** • It is required that the cumulative ordinary balance for the three-year period up to 1995-96 and cumulative budgets for four-year periods thereafter be in balance **Fiscal Responsibility and Balanced Budget Act 2006:** • Balanced budget: the total amount of the expenses should not exceed the total amount of revenue for each fiscal year • Reduction in net debt ratio: the ratio of net debt to GDP at the end of each year should be less than at the end of the previous fiscal period	N/A	• Reputational
Newfound-land and Labrador	2004	**Transparency and Accountability Act 2004:** • All government entities are categorized as either category 1, 2 or 3 government entities and are required to prepare strategic plans, business plans or activity plans respectively. These plans will set out goals and objectives of the government entity and objective performance measures for the period covered by the plan. The plans should also include a statement that the responsible minister or the governing body is accountable for the preparation of the plan • A government entity shall each year prepare an annual report for the preceding fiscal year. The annual report of category 1 or 2 government entities shall compare the actual results with the projected results of its strategic plan or business plan and provide an explanation of any variance. The report of category 3 government entity shall represent information on the activities of the entity carried out during the preceding fiscal year. Annual report shall include a statement that the responsible minister or chairperson is accountable for the actual results reported • The minister of Finance shall publish a 3 year fiscal forecast and shall, semi-annually, report on the economic and fiscal position of the province • The Minister of Finance shall publish a 3 year forecast respecting the impact of government policies and economic development on the fiscal performance of the government and the performance of the province's economy • When the requirement of reports and plans set out by the Act is not meet, the responsible minister shall make public a written statement giving reasons for the non-compliance	N/A	N/A	• Reputational

Table 7 (continued)

Canada

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Nova Scotia	1993 1996 2000	**Financial Measures Act 1996, amended in 2000:** • The government should release four-year fiscal projections with major economic assumptions and their impact on government finances • Until the proportion of public debt denominated in foreign currencies is equal to or less than 20 per cent of total public debt, financial transactions that increase foreign currency exposure are prohibited and refinancing of foreign currency debt must eliminate the foreign currency exposure • New programs and services should be financed through existing budgets **Provincial Finance Act 1989, amended in 2000:** • The minister should table a consolidated fiscal plan while tabling the estimates for a fiscal year in the House of Assembly. A consolidated fiscal plan shall include fiscal projections for the four-year period and underlying economic assumptions and a summary of government business plan for the fiscal year. The annual report on outcomes against business plan for the fiscal year should be submitted to the House of Assembly within prescribed date	**Expenditure Control Act 1993:** • Reducing net operating expenditures by 10 per cent and net capital expenditures by 20 per cent from 1994-95 to 1997-98 **Expenditure Control Act 1993, amended in 1996:** • Requiring annual balanced budgets starting in 1996-97, with surpluses aimed at reducing the public debt and/or taxes • Overspending in a fiscal year should not be more than 1 per cent of the appropriated expenditures from the House **Financial Measures Act 1996, amended in 2000:** • Balanced budgets are required by 2002-03 **Provincial Finance Act 1989, amended in 2000:** • Commencing 2002-03 fiscal year, no budget deficit can be proposed. When deficit occurs, it should be recovered by the end of next fiscal year	**Financial Measures Act 1996, amended in 2000:** • Deficits must be recovered in the next fiscal year, unless a deficit results from a natural or other disaster; losses associated with a sale, dissolution, closure or other restructuring of a government service organizations; or expenditure incurred by an unforeseen increase in debt service costs **Provincial Finance Act 1989, amended in 2000:** • The deficit is not required to be recovered if it is the result of a natural or other disaster, losses associated with a sale, dissolution, closure or other restructuring of a governmental unit or government business enterprise that are not anticipated to have financial impact on future fiscal years or an expense incurred with respect to debt servicing costs that exceeds the amount budgeted for the fiscal year	• Reputational

Table 7 (continued)

Canada

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Ontario	1999 2004	**Taxpayer Protection Act 1999:** • Requirement of voter's approval for tax increases **Fiscal Transparency and Accountability Act 2004:** • The Budget Paper should be laid before the Legislation Assembly each year which addresses the fiscal plan for the fiscal year budgeted and the following two fiscal years • Among others, the minster is responsible to have the following reports released within prescribed dates: mid-year review of fiscal plan, updated information about revenues and expenses, long-range assessment of fiscal environment two years after provincial election, and pre-election reports under certain regulation	**Taxpayer Protection Act 1999:** • Requirement of balanced budgets beginning with the 2001-02 fiscal year • Expenditures must not exceed revenues in a given fiscal year plus the net accumulated surplus from the previous three fiscal years **Fiscal Transparency and Accountability Act 2004:** • Maintain a prudent ratio of provincial debt to gross domestic product; • For each fiscal year, the Executive Council should plan a balanced budget except extraordinary circumstances. If a deficit is planned, the Executive Council should also develop a recovery plan for achieving a balanced budget in the future. The recovery plan should specify the period within which a balanced budget will be achieved	**Taxpayer Protection Act 1999:** • Deficits are only permitted in very limited circumstances: such as a natural or other disasters, war or apprehension of war, or a revenue decline of at least 5 per cent for a reason other than a tax rate reduction • A deficit of less than 1 per cent of revenue is permitted, but must be offset in the following year • Voter approval is not required if the new or increased tax is 1) not designed to increase revenues, 2) a response to a change in federal tax laws or a restructuring of intergovernmental tax authority, or 3) required as a result of a reorganization or restructuring of a Crown agency **Fiscal Transparency and Accountability Act 2004:** Extraordinary circumstances which are not specified	**Taxpayer Protection Act 1999:** • If a deficit is greater than 1 per cent of revenue or if a deficit less than 1 per cent is not offset in the following year, the salary paid to the members of the Executive Council is reduced by 25 per cent. If a deficit is incurred after either one of the two previous scenarios, salaries are reduced by 50 per cent for this and subsequent deficits
Quebec	1996 2001 2002	**Balanced Budget Act 2002:** • The Minister of Finance is held responsible for the fiscal targets established in the Act. The Minister must report to the National Assembly in the Budget Speech on the fiscal objectives, on the achievement of those objectives and on the variance recorded, if any. The Minister must report annually to the National Assembly on the impact of accounting policy changes upon the financial results of the Government	**Act Respecting the Elimination of the Deficit and a Balanced Budget 1996** (It was renamed as "**Balanced Budget Act**" in 2002): • Elimination of the deficit by 1999-2000 and maintenance of a balanced budget thereafter **Balanced Budget Act 2002:** • The government may not incur a budgetary deficit. If an overrun of less than $1 billion is recorded for a fiscal year, the Government must achieve an equivalent surplus in the next fiscal year. • If the Government achieves a surplus in a fiscal year, it may incur overruns in subsequent fiscal years up to the amount of that surplus. In case that overruns are more than $1 bn under special circumstances, the overrun should be offset by the Government with a maximum of 5 years	**An Act to Establish a Budgetary Surplus Reserve Fund 2001:** • Allow the reserve fund to be used to maintain a balanced budget under the circumstances of disaster, degradation of economic conditions or a reduction of federal transfer **Balanced Budget Act 2002:** • The government may incur overruns more than $1 billion in case of a disaster having a major impact on revenue or expenditure, a significant deterioration of economic conditions or a change in federal programs of transfer payments to the provinces that would substantially reduce transfer payments to the Government. However the overruns should be offset within 5 years	• Reputational

Table 7 (continued)

Canada

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Saskatchewan	1995 2000 2008	**Balanced Budget Act 1995:** • The government must prepare a four-year financial plan and a debt management plan following each general election **Fiscal Stabilization Fund Act 2000:** • A fiscal stabilization fund was established in order to fulfill long-term objectives by stabilizing the fiscal position from year to year **The Growth and Financial Security Act 2008:** • The minister should, each year present the four-year financial plan and four-year public debt management plan to the Legislative Assembly at the same time that the minister presents the estimates for the first fiscal year • The minister should present interim report containing revised forecast of revenues and expenses and setting out difference to the Lieutenant Governor in Council. The interim report of revised forecast of revenues and expenses should be laid before the Legislative Assembly before or on specific date	**Balanced Budget Act 1995:** • The government has to achieve a balanced budget over a four-year period. The sale of a Crown corporation and a change in accounting policies cannot be used to fulfill the balanced budget objectives. Budgetary surpluses must be used to repay debt **The Growth and Financial Security Act 2008:** • Balanced budget or budget with surplus should be achieved • Actual balance of revenue and expenses or surplus of revenues over expenses each year • If a deficit results for a fiscal year from an special event described in the Act, the Government of Saskatchewan is required to achieve at least an offsetting surplus in the following fiscal year	**Balanced Budget Act 1995:** • Unanticipated and identifiable events that have a direct impact on expenses or revenues **The Growth and Financial Security Act, 2008:** • The expense or revenue reduction may be excluded if it arises from a natural or other disaster of because Canada is under war or under apprehension of war as determined by the Lieutenant Governor in Council	• Reputational
Canada (National level)	1992	**Spending Control Act 1992:** • The minister should not present a budget with the spending exceeding spending limits. If a certificate is issued to increase spending by the President of Treasury, it should be published with the main estimates or supplementary estimates for the year. The Public Accounts for each controlled fiscal year shall contain a statement by the Minister respecting compliance in that year	**Spending Control Act 1992:** • Sets the specific spending limits for each fiscal year from 1991-1992 to 1995-1996 which are subject to certain adjustments • The minister may propose the spending of a particular year exceeding the limit. The spending in excess of the limit may be allocated to the two next years and the spending limits of the next two years should be reduced by the same amount	N/A	• Reputational

Sources: 1) Various Fiscal Responsibility Laws from a) LexisNexis, www.lexisnexis.com and b) CanLII, www.canlii.org. 2) Kennedy and Robbins (2003), The Role of Fiscal Rules in Determining Fiscal Performance.

Table 8

Colombia

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clause	Sanction
National FRL applies to all tiers of government	1997 2000 2003	• The central administration and SNGs need to present a consistent 10-year macroeconomic framework each year. Both the central and decentralized budgets must also be in full compliance with the medium-term fiscal framework • Any contingent liabilities associated with concessions, sovereign debt guarantees, and legal cases are to be reported annually to Congress as part of a medium-term fiscal framework	• The governments are classified as in: 1) critically indebted (red light zone) if interest payment over operational saving more than 40 per cent of and debt stock over current revenues greater than 80 per cent, or 2) Not over-indebted (green light zone) if interest over operational savings less than 40 per cent and debt stock over current revenue is less than 80 per cent. Only SNGs in the green light are allowed to borrow • Primary surplus has to be at least 100 per cent of debt service, implying no borrowing except to repay principal • The ratio of discretionary current expenditure over non-earmarked current revenue are set by law and varies across different categories of subnational entities	N/A	• Subnational government in red light zone is prohibited from borrowing • Governments have to make across the board cuts whenever effective non-earmarked current revenue are under the budgeted amount • Subnational governments that have excess debt must adopt a fiscal-rescue program in order to regain fiscal viability in two years

Note: 1997 fiscal legislation established fiscal targets of liquidity ratio and debt payment capacity ratio, which were subsequently incorporated into FRL in 2003.
Source: Government legislation.

Table 9

India

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Goa	2006	• The Government shall lay in each financial year a medium term fiscal plan before the Legislative Assembly along with the budget. The medium term fiscal policy statement should set forth multi-year rolling targets for fiscal indicators • The government should disclose a statement at the time of budget presentation including the significant changes in accounting policies and their effects and the contingent liabilities created by guarantees • The Finance Minister should review the budget implementation and remedial measures taken to achieve the targets every half-year and explain any deviation as well as proposing remedial measures before legislature • Any measure proposed which may lead to an increase in revenue deficit should be accompanied by remedial measures, which will neutralize such increase or loss and such measures shall be clearly mentioned • In case the revenue deficit and fiscal deficit exceed because of unforeseen demands, the Government should identify the net fiscal cost arising due to natural calamity and such cost would provide ceiling for extent of non-compliance to the specified limits	• Eliminate revenue deficit by 31st March 2009; annual reduction of the ratio of revenue deficit to the total revenue receipt should be 1.5 per cent beginning on 1st day of April 2006 • Reduce the ratio of fiscal deficit to GSDP to no more than 3 per cent by 31st March, 2009; annual reduction of the ratio should be 0.5 per cent beginning on 1st day of April 2006 • Control the total outstanding guarantee within the specified limit by Goa State Guarantees Act, 1993; No fresh guarantee shall be given if outstanding risk weighted guarantees exceed the limits • Ensure that the total liabilities do not exceed 30 per cent of GSDP by 31st March 2009 • Ensure that the ratio of interest payment to total revenue receipt does not exceed 20 per cent by 31st March 2009	• On the grounds of unforeseen demand on public finance due to national security, natural calamities or other exceptional grounds specified by the government	N/A
Haryana	2005	• The government should in each year lay before the legislature Macroeconomic Framework Statement, the Medium Term Fiscal Policy Statement and the Fiscal Policy Strategy Statement. Medium Term Fiscal Plan should set forth three-year rolling targets for key fiscal indicators • The government should disclose a statement at the time of budget presentation including significant changes in accounting policies and the corresponding impact, details of borrowings from the Reserve Bank of India and liabilities on the State Government for any separate legal entity • The Minister of Finance should review the trend of revenue and expenditure half-yearly to ensure compliance and should lay results before legislature • Whenever there is a breaching of intra-year targets of revenue or expenditure, the State Government should take appropriate measures for increasing revenue and/or for reducing the expenditure	• Annual reduction of revenue deficit from 2005-06 FY, so as to bring it down to zero by 2008-09 and maintain revenue surplus thereafter • Annual reduction in fiscal deficit from 2005-06 FY, so as to bring it down to 3 per cent of GSDP by 2008-09 • Ensure within a period of five years, beginning from the financial year 2005-06 and ending on 31st March, 2010, that the outstanding total debt including contingent liabilities do not exceed 28 per cent of the estimated GSDP of that year	• On the grounds of unforeseen demand on public finance due to internal disturbance, natural calamities or other exceptional grounds	N/A

Table 9 (continued)

India

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Himachal Pradesh	2005	• The Government shall lay in every financial year before the Legislative Assembly a medium term fiscal plan along with the annual budget. The medium term fiscal policy statement should set forth four-year rolling targets for fiscal indicators and assess the sustainability • The government should disclose a statement at the time of budget presentation including significant changes in accounting policies, the contingent liabilities created by guarantees, actual liabilities and the number of employees of the public sector • The Finance Minister should review revenue and expenditure trend every 6 months and lay outcomes before legislature • Prior taking policy decision which potentially leads to breach of pre-specified fiscal targets, the State Government shall take measures to fully offset the fiscal impact for the current and future years by curtailing the sums authorized to be paid and applied from and out of the Consolidated Fund of the State	• Eliminate revenue deficit by March 2009 and maintain surplus thereafter • Progressively reduce fiscal deficit to 3 per cent of GSDP • Progressively reduce outstanding guarantees on long term debt, until it can cap outstanding risk weighted guarantees at 80 per cent of total revenue receipts in the preceding financial year	• On the grounds of the unforeseen demand of public finance due to national security, natural calamities or other exceptional grounds specified by the government	N/A
Kerala	2003	• The Government shall lay in every financial year before the Legislative Assembly along with the annual budget, a medium term fiscal policy statement and a fiscal policy strategy statement. The medium term fiscal policy statement should set forth three year rolling target for fiscal indicators and assess the sustainability • The government should make disclosure at the time of budget presentation on the contingent liabilities, significant changes in accounting policies and the corresponding impact, and matters which have potential impacts on budget • The government should specify the corrective measures to control deficit level beyond the target in annual budget. The Finance Minister should make a statement in the legislative Assembly explaining any deviation from the Act, assessing the potential impact and stating the remedial measures • Whenever there is either shortfall in revenue or excess of expenditure over specified levels during the course of the year, the Government shall take steps either to make proportionate reduction in the voted expenditure or to increase the revenue	• Reduce the ratio of fiscal deficit to 2 per cent of GSDP within a four-year period commencing from 1st April, 2003 and ending on 31st March 2007	N/A	N/A

Table 9 (continued)

India

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Maharashtra	2005	• In each financial year, State Government should lay before both houses of the legislature the Medium-term Fiscal Statement and the Fiscal Policy Strategy Statement. Medium-term Fiscal Plan should set forth three year rolling targets for key fiscal indicators • The Finance Minister should make quarterly review of compliance and lay the outcomes before both houses of the state legislature • Whenever there is a breach of pre-specified level of expenditure or revenue during any period in a year, the government should take appropriate measures to offset the impacts, including curtailing the sum authorized to be paid or applied from and out of the Consolidated Fund of State	• Eliminate the revenue deficit by 31st March 2009 and maintain revenue surplus thereafter at the end of each year • The State Government shall by rules specify the targets for reduction of fiscal deficit (which are not specified in this act)	• On the grounds of natural ca-lamities or such other exceptional grounds the State Gov-ernment may specify	N/A
Tamil Nadu	2003	• The Government shall lay a medium term fiscal plan before the Legislative Assembly along with the budget. The medium term fiscal policy statement should set forth multi-year rolling target for fiscal indicators • The government should disclose a statement at the time of budget presentation including significant changes in accounting policies and their effects and the contingent liabilities created by guarantees • The Finance Minister should review the budget implementation and remedial measures taken to achieve the targets every half-year and explain any deviation as well as proposing remedial measures before legislature • Any measure proposed in the course of the financial year, which may lead to an increase in revenue deficit should be accompanied by remedial measures, which will neutralize such increase	• Reduce the ratio of revenue deficit to revenue receipt every year by 3 to 5 per cent, depending on the economic situation, so as to bring it down to below 5 per cent by 31st March 2008; adhere to it thereafter • Reduce the ratio of fiscal deficit to GSDP beginning from 2002-03 financial year to not more than 3 per cent by 31st March, 2008 • Cap the total outstanding guarantees to 100 per cent of the total revenue receipt in the preceding year, or at 10 per cent of GSDP; Cap the risk weighted guarantees to 75 per cent of the total revenue receipt in the preceding year, or at 7.5 per cent of GSDP	• On the grounds of the unfore-seen de-mand of public fi-nance due to national security, natural calamities or other exceptional grounds specified by the govern-ment	N/A

India

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
Tripura	2005	• The government should in each financial year lay before the legislature Macroeconomic Framework Statement, the Medium Term Fiscal Policy Statement and the Fiscal Policy Strategy Statement along with budget. Medium Term Fiscal Plan should set forth three-year rolling targets for key fiscal indicators and underlying assumptions • The government should disclose a statement at the time of budget presentation including the contingent liabilities created by guarantees, significant changes in accounting policies and the corresponding impact • The Minister of Finance should review the trend of revenue and expenditure every quarter to ensure compliance and should lay outcomes before legislature. Any deviation from the targets should be disclosed • Whenever there is a breaching of intra-year targets of revenue or expenditure, the State Government should take measures for increasing revenue and/or reducing the expenditure • Any proposed measure which leads to increase of revenue deficit should be offset by remedial measures. Such statement should seek approval for Revised estimates from the legislature	• Strive to remain revenue surplus • Strive to reduce the fiscal deficit to 3 per cent by March 2010 • Within a 5-years period, from 1st April 2005 to 31st March 2010, the total debt stock do not exceed 40 per cent of the estimated GSDP for that year • Limit annual incremental risk weighted guarantees to 1 per cent of the GSDP of that year	• On the grounds of the unforeseen demand of public finance due to internal disturbance, natural calamities or the exceptional grounds the State Government may specify	N/A
India (National FRL)	2003	• The government should in each year lay before the legislature Macroeconomic Framework Statement, the Medium Term Fiscal Policy Statement and the Fiscal Policy Strategy Statement and report quarterly on fiscal development. Medium Term Fiscal Plan should set forth there-year rolling targets for key fiscal parameters • Whenever there is a breaching of intra-year targets of revenue or expenditure, the State Government should take appropriate measures for increasing revenue and/or for reducing the expenditure	• To eliminate revenue deficit by March 2009; the annual reduction in revenue deficit must be at least 0.5 per cent of GDP and in the fiscal deficit at least 0.3 per cent of GDP • Caps on the level of guarantees and total liabilities • Prohibit the government from borrowing from the Reserve Bank after 2006	• On the grounds of the unforeseen demand of public finance due to national security or natural calamities	N/A

Source: Various Fiscal Responsibility Laws from internet.

Table 10

Peru

Political Units	Date	Procedural Rules and Transparency Requirements	Numerical Targets	Escape Clauses	Sanctions
National FRL applies to all tiers of government	1999 2003	• It is not allowed to enact legal or administrative rules interfering with fiscal rules • The MEF should produce and publish Multiannual Macroeconomic Framework (MMF) every year, and approved by the council of ministers and the Congress. Regional development plan must be consistent with the MMF at national level • All external debt operation by regional governments should be approved by the national government, and the proceeds should be used only for infrastructure • A Fiscal Stabilization Fund was established from the NFPS fiscal surplus, privatizations and concession proceeds, and royalty of exploitation of national natural resources • If the quarterly revenue is below the projected figure more than 1.5 per cent, expenditures of following quarters should be reduced by the same amount	**For governments at all levels:** • Fiscal deficit of the NFPS including SNGs cannot exceed 1 per cent of GDP • Real growth of NFPS spending including SNGs no more than 3 per cent per year • The total debt of the NFPS cannot exceed its fiscal deficit • In electoral years, the non-financial expenditure executed in the first seven months of a year cannot exceed 60 per cent of the budgeted amount for the year; and, the fiscal deficit of the NFPS in the first half of the fiscal year cannot exceed 40 per cent of the projected deficit for the whole year **For each SNG:** • The stock of debt may not exceed 100 per cent of the current revenue, and the debt service (interest and amortization) may not exceed 25 per cent of the current revenue • The average primary balance for the last 3 years cannot be negative	• In the case of national emergency and international crisis with substantial impact, upon request of the executive, the Congress can suspend the application of fiscal rules • If GDP is declining, the ceiling for NFPS deficit could (with proper authorization) rise to 2.5 per cent of GDP for a maximum of 3 years	• Violation of the targets by SNG will cause the disruption of transfers from participatory funds such as FONCOR, FONCOMUN and FIDE • The national government may intervene in the operations of a regional government in the case of a breach of the fiscal targets set in the national MMF or any fiscal rule of the fiscal responsibility law

MEF: Ministry of Economy and Finance; NFPS: Non-Financial Public Sector.
Source: Government legislation.

ANNEX 2

**PROVINCIAL FISCAL RESPONSIBILITY LAWS IN CANADA:
FISCAL TARGETS**

Table 11

Provinces	Key Fiscal Targets
British Colombia	• Main budget estimates must not contain a forecast of deficit
Alberta	• Deficits and opening debt are not allowed • Net assets of Sustainability Fund may not be reduced to less than zero • Net assets of Capital Account is may not be reduced to less than zero • Contingency allowance => 1 per cent of revenue p.a. for fiscal policy purposes
Quebec	• No budgetary deficit. For an overrun of less than $1 billion, an equivalent surplus must be achieved in the next fiscal year • If surplus is achieved in a fiscal year, overruns can occur in subsequent fiscal years up to the amount of that surplus • With overruns more than $1 bn, it should be offset with a maximum of 5 years
Ontario	• Maintain a prudent ratio of provincial debt to gross domestic product • Plan a balanced budget except extraordinary circumstances • If a deficit is planned, the Executive Council should also develop a recovery plan for achieving a balanced budget within specified period
New Brunswick	• Balanced budget: the total amount of the expenses should not exceed the total amount of revenue for that fiscal year • Reduction of debt: Ratio of net debt to GSDP at the end of each year should be less than at the end of the previous fiscal period
Nova Scotia	• No budget deficit (from FY2002/03 onward) • When deficit occurs, it should be recovered by the end of next fiscal year
Saskatchewan	• Balanced budget or budget with surplus with 4-year financial plan • Actual balance of revenue and expenses or surplus of revenues over expenses each year • If a deficit results for a fiscal year, an offsetting surplus must be achieved the following fiscal year
Manitoba	• Presented budget must project a positive balance as at the end of that year • The balance as at the end of a fiscal year is determined as the average of the net results for the fiscal years within the four-year period ending at that time

Sources: 1) Various Fiscal Responsibility Laws from LexisNexis, www.lexisnexis.com and CanLII, www.canlii.org. 2) Kennedy and Robbins (2003).

ANNEX 3

GROWTH OF GROSS DEBT AS SHARE OF GSDP/ GDP IN THE PRE- AND POST-FRL PERIODS

Table 12

Australia

State	Date	Pre-FRL $(Dt–1)/GSDP – (Dt–5)/GSDP$	Post-FRL $(Dt+5)/GSDP – (Dt)/GSDP$
Western Australia	2000	–2.20%	–2.48%
Victoria	2000	–9.93%	–0.87%
Queensland	1999	–2.50%	–1.40%
Northern Territory	2001	–4.69%	–5.39%
New South Wales	2005	–1.69%	–0.32%

Note: To eliminate the impact of the recent financial crisis on our data set, our data stop at the first half of 2008.
Source: Australia Bureau of Statistics.

Table 13

Brazil

	Date	Pre-FRL $(Dt–1)/GDP – (Dt–5)/GDP$	Post-FRL $(Dt+5)/GDP – (Dt)/GDP$
Sovereign Debt	2000	15.13%	2.39%
Subsovereign Debt		4.99%	1.31%

Source: Instituto de Pesquisa Econômica Aplicada (IPEA).

Table 14

Canada

Provinces	Date	Pre-FRL $(Dt–1)/GSDP – (Dt–5)/GSDP$	Post-FRL $(Dt+5)/GDP – (Dt)/GSDP$
Alberta	1999	–13.16%	–10.65%
British Columbia	2000	12.82%	–5.04%
Nova Scotia	2000	2.41%	–12.48%
Ontario	2004	–3.97%	–2.74%
Newfoundland and Labrador	2004	–23.81%	–26.54%
New Brunswick	2006	–6.04%	–0.26%

Notes: 1) Pre-FRL data of Alberta only date back 4 years before the enactment of FRL. 2) To eliminate the impact of the recent financial crisis on our data set, our data stop at first half of 2008.
Source: Statistics Canada.

<div align="right">**Table 15**</div>

<div align="center">**Colombia**</div>

	Date	Pre-FRL *(Dt–1)/GDP – (Dt–5)/GDP*	Post-FRL *(Dt+5)/GDP – (Dt)/GDP*
Subsovereign Debt	2003	0.58%	−1.07%

Source: Ministry of Finance and Public Credit.

<div align="right">**Table 16**</div>

<div align="center">**India**</div>

State	Date	Pre-FRL *(Dt–1)/GSDP – (Dt–5)/GSDP*	Post-FRL *(Dt+5)/GSDP – (Dt)/GSDP*
Karnataka	2002	3.80%	1.10%
Kerala	2003	8.70%	−3.50%
Punjab	2003	8.10%	−8.50%
Tamil Nadu	2003	7.40%	−3.90%
Uttar Pradesh	2004	12.90%	−3.90%
Andhra Pradesh	2005	7.30%	−4.50%
Chhattisgarh	2005	0.90%	−7.30%
Gujarat	2005	6.00%	−8.00%
Haryana	2005	0.20%	−7.70%
Madhya Pradesh	2005	4.50%	−2.70%
Maharashtra	2005	7.70%	−6.20%
Orissa	2005	7.10%	−15.90%
Rajasthan	2005	9.30%	−8.00%
Assam	2005	8.30%	−3.00%
Himachal Pradesh	2005	13.80%	−17.30%
Manipur	2005	11.90%	4.90%
Nagaland	2005	−2.20%	1.30%
Tripura	2005	12.70%	−20.90%
Uttarakhand	2005	12.20%	−2.90%
Bihar	2006	6.30%	−12.60%
Goa	2006	−3.30%	−2.80%
Arunachal Pradesh	2006	31.10%	−9.60%
Jammu and Kashmir	2006	10.90%	−0.60%
Meghalaya	2006	6.50%	0.50%
Mizoram	2006	39.80%	−2.80%
Jharkhand	2007	2.30%	0.00%

Notes: 1) 2009 data are budget estimates and 2010 data are revised estimates; 2) Due to limited data, Pre-FRL data of Chhattisgarh and Uttarakhand only date back 4 years before enactment of FRLs.
Source: Reserve Bank of India.

ANNEX 4

GOVERNMENT DEBT AS SHARE OF GDP

Figure 1

Australia – Gross Government Debt
(percent of GDP)
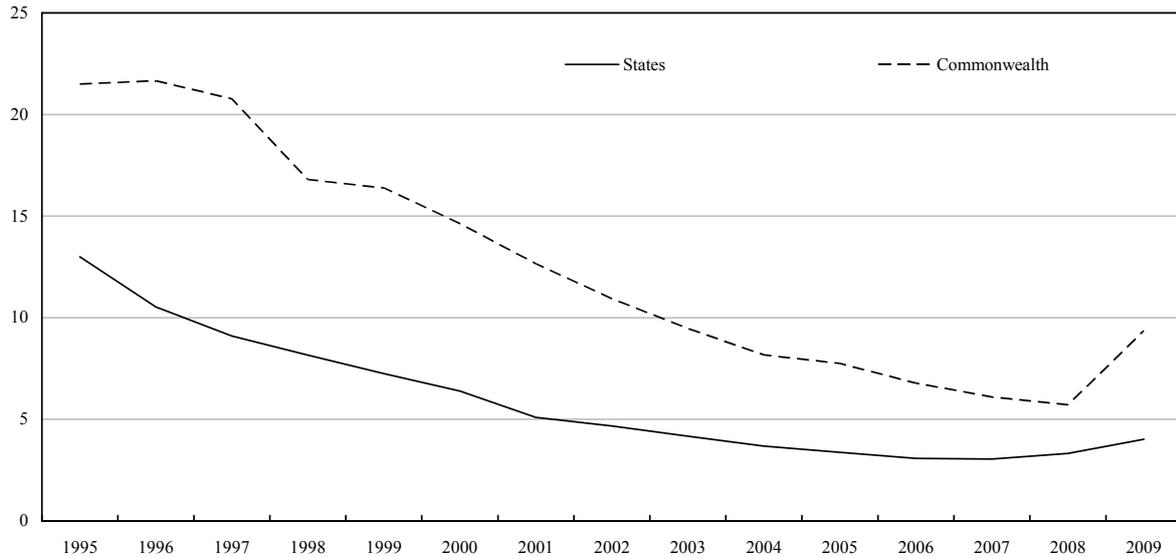
Source: Australian Bureau of Statistics.

Figure 2

Brazil – Net Government Debt
(percent of GDP)
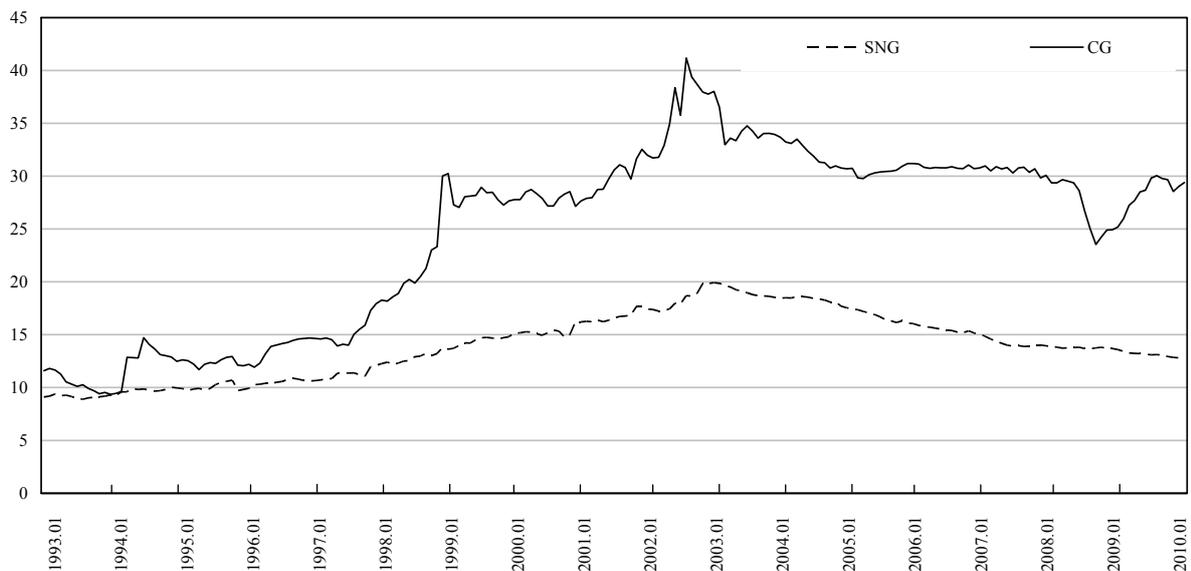
Note: SNG=Subnational Government, CG=Central Government.
Source: Instituto de Pesquisa Econômica Aplicada (IPEA).

Canada – Net Government Debt
(percent of GDP)
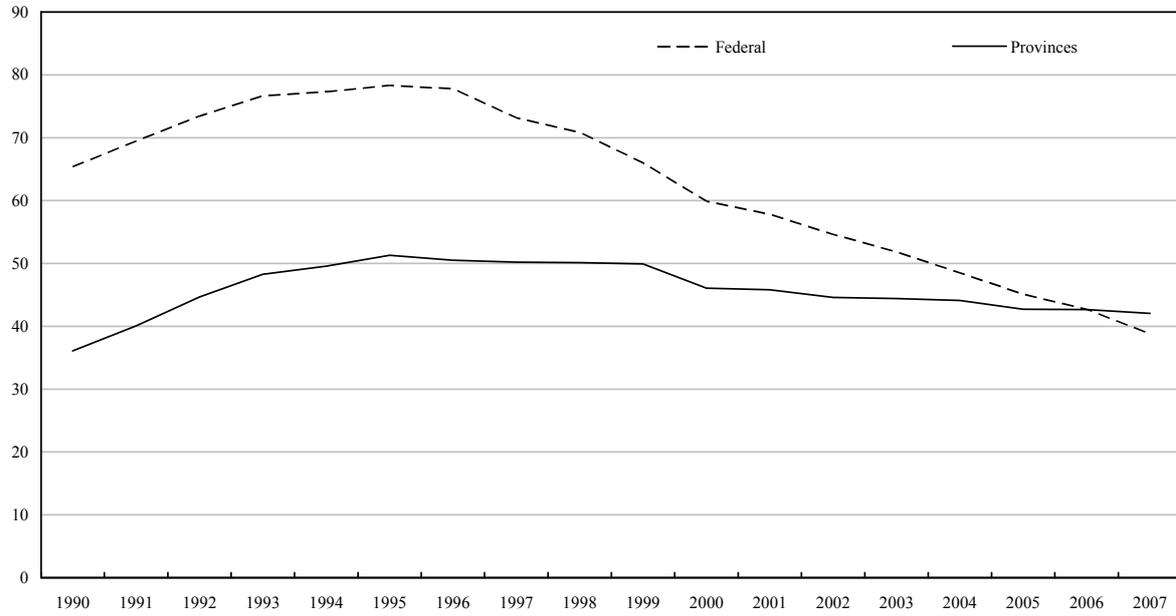
Sources: Statistics Canada and IMF GFS.

Colombia – Gross Government Debt
(percent of GDP)
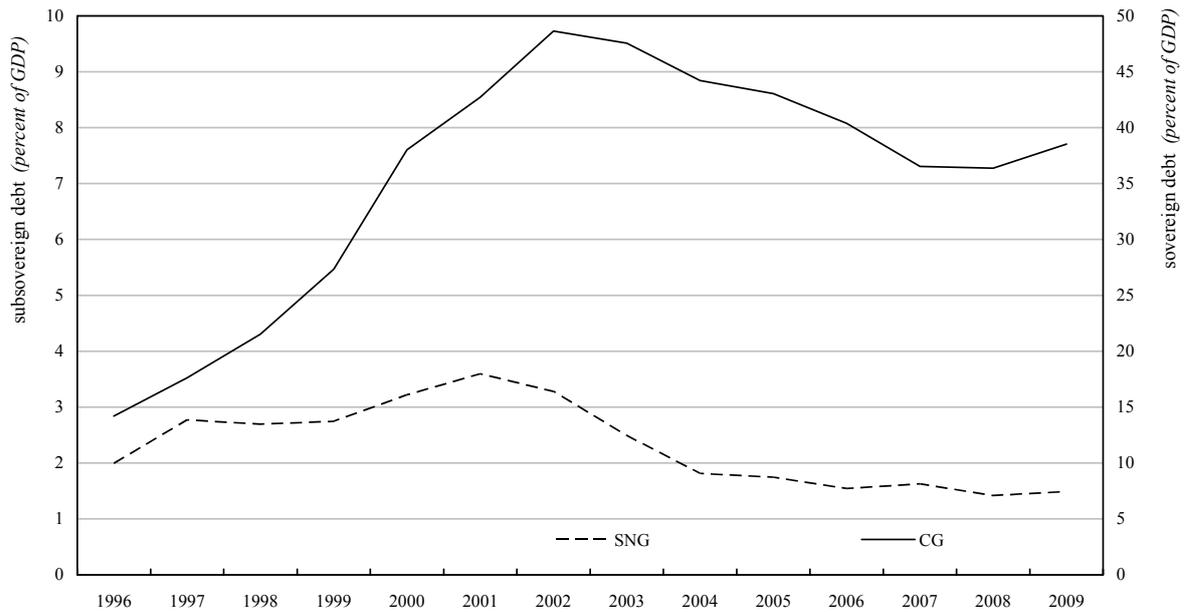
Note: SNG=Subnational Government, CG=Central Government.
Source: Ministry of Finance and Public Credit.

Figure 5

India – Gross Government Debt
(percent of GDP)
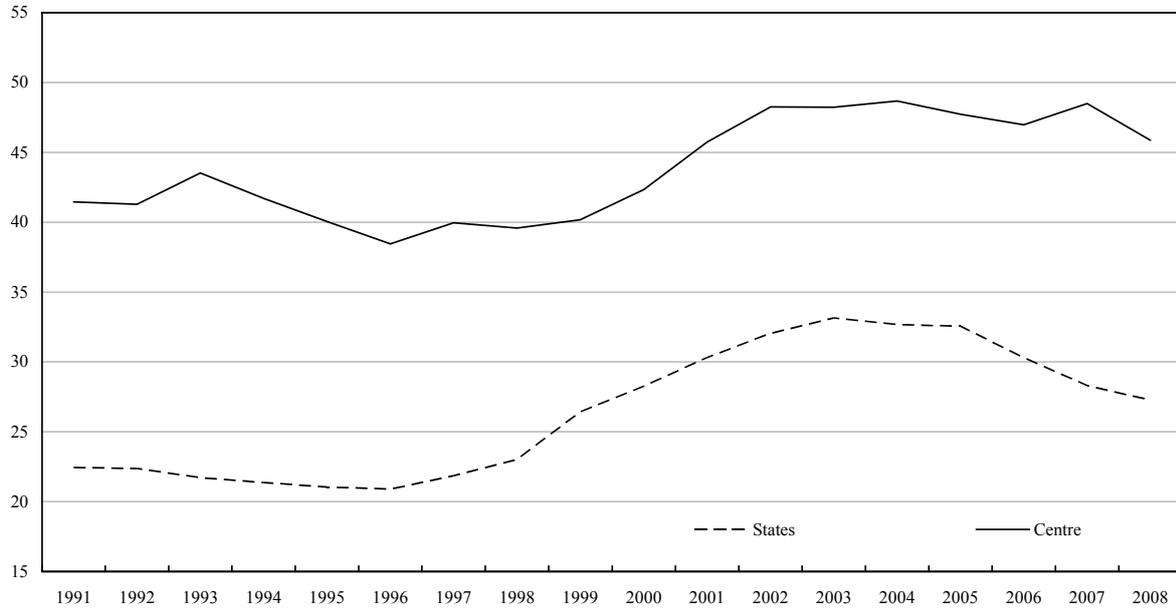
Note: The amount of onlending from centre to states is netted out from the data of centre.
Source: Reserve Bank of India.

REFERENCES

Alesina, A. (1994), "Political Models of Macroeconomic Policy and Fiscal Reforms", in S. Haggard and S.B. Webb (eds.), *Voting for Reform; Democracy, Political Liberalization, and Economic Adjustment*, New York, Oxford University Press.

Alfonso, J.R. (2002), "Fiscal Affairs in Brazil", BNDES presentation, March.

Bird, R.M. (1984), *Intergovernmental Finance in Colombia: Final Report of the Mission on Intergovernmental Finance*, Cambridge (MA), Harvard Law School International Tax Program.

Braun, M. and N. Gadano (2007), "What Are Fiscal Rules For? A Critical Analysis of the Argentine Experience", *CEPAL Review*, No. 91, April.

Braun, M. and M. Tommasi (2004), "Fiscal Rules for Subnational Governments. Some Organizing Principles and Latin American Experiences", in G. Kopits (ed.), *Rules and Practice in Intergovernmental Fiscal Relations*, Washington (D.C.), International Monetary Fund and World Bank.

Canuto, O. and L. Liu (2010), "Subnational Debt Finance: Make It Sustainable", in O. Canuto and M. Giugale (eds.), *The Day After Tomorrow: A Handbook on the Future of Economic Policy in the Developing World*, Washington (D.C.), World Bank.

Corbacho, A. and G. Schwartz (2007), "Fiscal Responsibility Laws", in M. Kumar and T. Ter-Minassian (eds.), *Promoting Fiscal Discipline*, pp. 58-106, Washington (D.C.), International Monetary Fund.

Dillinger, W. (1997), "The Brazilian Debt Crisis", Washington (D.C.), World Bank.

———————— (2002), "Brazil: Issues in Fiscal Federalism", World Bank Report, No. 22523-BR, Washington (D.C.), World Bank.

Dillinger, W. and S.B. Webb (1999), "Fiscal Management in Federal Democracies: Argentina and Brazil", Policy Research, Working Paper, No. 2121, Washington (D.C.), World Bank.

Garman, C., S. Haggard and E. Willis (2001), "Fiscal Decentralization: A Political Theory with Latin American Cases", *World Politics*, Vol. 53, No. 2, pp. 205-36, January.

Gonzalez, C.Y., D. Rosenblatt and S.B. Webb (2004), "Stabilizing Intergovernmental Transfers in Latin America: A Complement to National/Subnational Fiscal Rules?", in G. Kopits (ed.), *Rules and Practice in Intergovernmental Fiscal Relations*, Washington (D.C.), International Monetary Fund and World Bank.

Haines, M. (2009), "Regulation of the Subnational Securities Market in the USA", presentation to the *International Forum on Subnational Debt Management*, Zhuhai (China), September 25.

Howes, S. and S. Jha (2004), "State Finances in India: Toward Fiscal Responsibility", in E.M. Favaro and A.K. Lahiri (eds.), *Fiscal Policies and Sustainable Growth in India*, Oxford University Press.

International Monetary Fund (2002), *Article IV. Consultation with Canada*, November 15.

———————— (2001), *Brazil: Report on Observance of Standards and Codes (ROSC) – Fiscal Transparency Module*, Country Report, No. 01/127.

India (2005), *Twelfth Finance Commission Report*, Delhi.

———————— (2009), *Thirteenth Finance Commission Report*, Delhi.

Inman, R.P. (2003), "Transfers and Bailouts: Lessons from US Federalism", in J. Rodden, G. Eskeland and J. Litvack (eds.), *Fiscal Decentralization and the Challenge of Hard-budget Constraints*, Cambridge (MA) and London, MIT Press.

Kennedy, S. and J. Robbins (2003), "The Role of Fiscal Rules in Determining Fiscal Performance", Bank of Canada, Working Paper, May.

Laudonia, M. (2009), "Responsabilidad fiscal, una ley bajo la lupa del Fondo", *Economía*, September 23.

Liu, L. and M. Waibel (2009), "Subnational Insolvency and Governance: Cross-country Experiences and Lessons", in E. Ahmad and G. Brosio (eds.), *Does Decentralization Enhance Service Delivery and Poverty Reduction?*, Edward Elgar, Cheltenham (UK) and Northampton (MA).

——————(2008), "Subnational Borrowing, Insolvency and Regulations", in A. Shah, *Macro Federalism and Local Finance*, Washington (D.C.), World Bank.

Melamud, A. (2010), *Reglas fiscales en Argentina: El caso de la ley de responsabilidad fiscal y los programas de asistencia financiera*, CEPAL, Serie Gestión Pública, No. 71, Santiago de Chile, Instituto Latinoamericano y del Caribe de Planificación Económica y Social.

Millar, J. (1997), "The Effects of Budget Rules on Fiscal Performance and Macroeconomic Stabilization", Bank of Canada, Working Paper, No. 97-15, June.

OECD (2001), OECD Economic Surveys, *Canada*, Paris, OECD, November.

Paulin, G. (2000), "The Changing Face of Central Banking in the 1990s", *Bank of Canada Review*, pp. 3-13, Summer.

Perrier, P. and R. Amano (2000), "Credibility and Monetary Policy", *Bank of Canada Review*, pp. 13-20, Spring.

Rodden, J. (2003), "Federalism and Bailouts in Brazil", in J. Rodden, G. Eskeland and J. Litvack (eds.), *Fiscal Decentralization and the Challenge of Hard-budget Constraints*, Cambridge (MA) and London, MIT Press.

Rodden, J. and G. Eskeland (2003), "Lessons and Conclusions", in J. Rodden, G. Eskeland and J. Litvack (eds.), *Fiscal Decentralization and the Challenge of Hard-budget Constraints*, Cambridge (MA) and London, MIT Press.

Saeigh, S. and M. Tommasi (2000), "An 'Incomplete-Contracts' Approach to Intergovernmental Transfer Systems in Latin America", in S.J. Burki and G.E. Perry (eds.), *Decentralization and Accountability of the Public Sector*, Washington (D.C.), World Bank.

Simes, R. (2003), "Fiscal Policy Rules in Australia", prepared for the Chifley Research Center (Australia), September.

Ter-Minassian, T. and J. Craig (1997), "Control of Subnational Government Borrowing", in T. Ter-Minassian (ed.), *Fiscal Federalism: Theory and Practice*, Washington (D.C.), International Monetary Fund.

Traclet, V. (2004), "Monetary and Fiscal Policies in Canada: Some Interesting Principles for EMU?", Bank of Canada, Working Paper, No. 2004-28.

Wallis, J., R. Sylla and A. Grinath (2004), "Sovereign Default and Repudiation: The Emerging-market Debt Crisis in the United States, 1839-1843", NBER, Working Paper, No. 10753.

Webb, S.B. (2003), "Argentina: Hardening the Provincial Budget Constraints", in J. Rodden, G. Eskeland and J. Litvack (eds.), *Fiscal Decentralization and the Challenge of Hard-budget Constraints*, Cambridge (MA) and London, MIT Press.

World Bank (2008), "Brazil: The Consolidation of Fiscal Federalism", The Brazil Country Management Unit and Poverty Reduction and Economic Management Unit, Washington (D.C.), World Bank.

TOWARDS (MORE) APPROPRIATE FISCAL POLICY IN SLOVENIA

Slaven Mićković [*]

1   Introduction (Challenges of the fiscal policy in the wake of the financial and economic crisis)

If the fiscal policy in Slovenia was trying to strike a balance between achieving macroeconomic stability and supporting long-term growth in 2009, there is no longer such a dilemma in 2010: the current fiscal situation requires immediate consolidation of public finance! The key issue faced by fiscal policy is whether debt will be stabilised on the level it reached at the end of 2010 or whether debt should be decreased to a lower ("more manageable") level.

Slovenian economy has been hit hard by the international financial crisis and the collapse of external demand. The economy is estimated to have shrunk by 8.1 per cent in 2009, one of the highest negative real GDP growth rates in the euro area. Going forward (2011-13), a modest economic recovery is envisaged associated with a weak and uncertain international environment and the pace of normalization of financial conditions.

Such a sharp decrease in economic activity has long-term consequences for the fiscal capacity of revenues which is determined by the potential economic growth. The latest estimates of potential economic growth or production gaps (according to the latest estimates, potential growth in the following period will be between 1.3 and 2 per cent) show that a positive balance at the end of 2007 was not the result of an appropriate fiscal policy but a consequence of the expansion of the economy (cyclically adjusted or structural government deficit amounted to approximately 2.3 per cent of GDP in 2007). Slovenia thus reported a cyclically adjusted deficit in all previous years, irrespective of which part of the cycle the economy was in. An especially worrying fact is that, according to the latest estimates, the contribution of the total factor productivity to potential economic growth has been decreasing since 2005. Figures 1 and 2 show the inadequacy of the fiscal situation in Slovenia.

The latest crisis has put anti-cyclical fiscal policy back in the foreground and boosted the positive attitude towards discretionary measures. In the past, Slovenia had a relatively low government debt, which enabled the fiscal policy to introduce fiscal incentives for mitigating the consequences of the crisis. The result of such a policy was a rapid growth of the general government debt, which increased from 21.9 per cent of GDP at the end of 2008 to 38 per cent of GDP at the end of 2010. This is why the fiscal exit strategy must set a relative amount of debt as its central target, whereby the required adjustment must be based on suitable economic/structural policies. The key to ensuring sustainability of the general government debt is decreasing the primary budgetary deficit, while the burden of consolidation will be primarily on the expenditure side of the budget.

It is recognized that success of public finance consolidation strategies heavily depends on adequate domestic fiscal framework. The key elements of new Slovenian fiscal framework are: a) expenditure/policy reaction rule supplemented by budget-balance rule, b) medium-term expenditure framework constructed by various government programs and upgraded with General Equilibrium Analysis, and c) Fiscal Council established recently with the purpose of *ex post* assessment of fiscal policy.

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[*]   Ministry of Finance, Slovenia.

Figure 1

General Government Balance
Following the Spontaneous (No Reform) Scenario, 2011-15
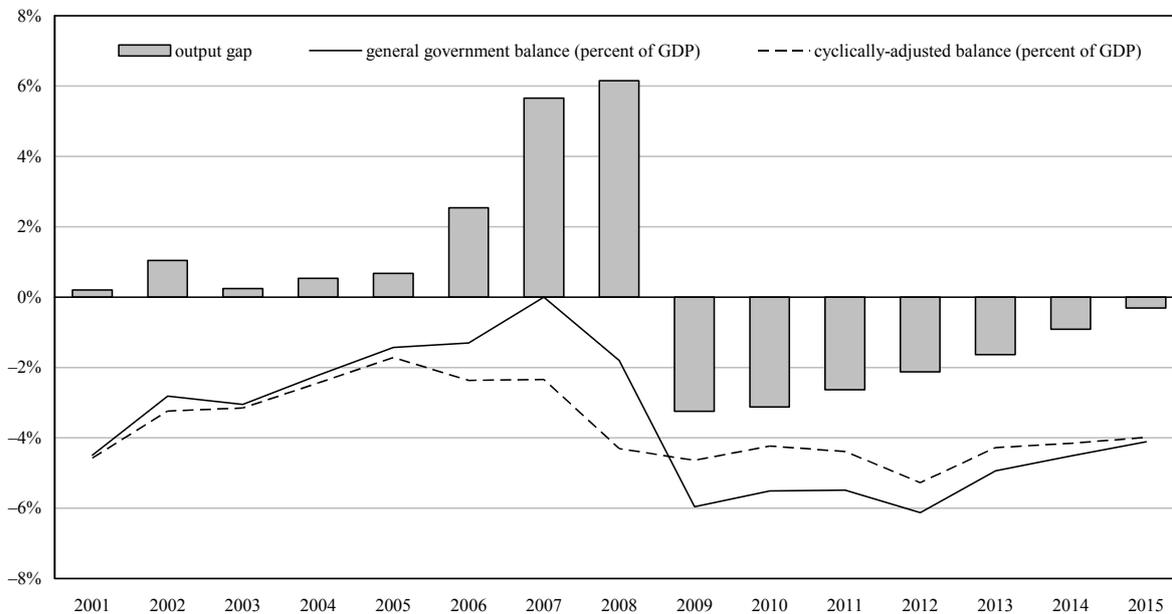
Source: Ministry of Finance; Evaluation methodology: ESA95.

Figure 2

General Government Debt and Interest Payments
Following the Spontaneous Scenario, 2011-15
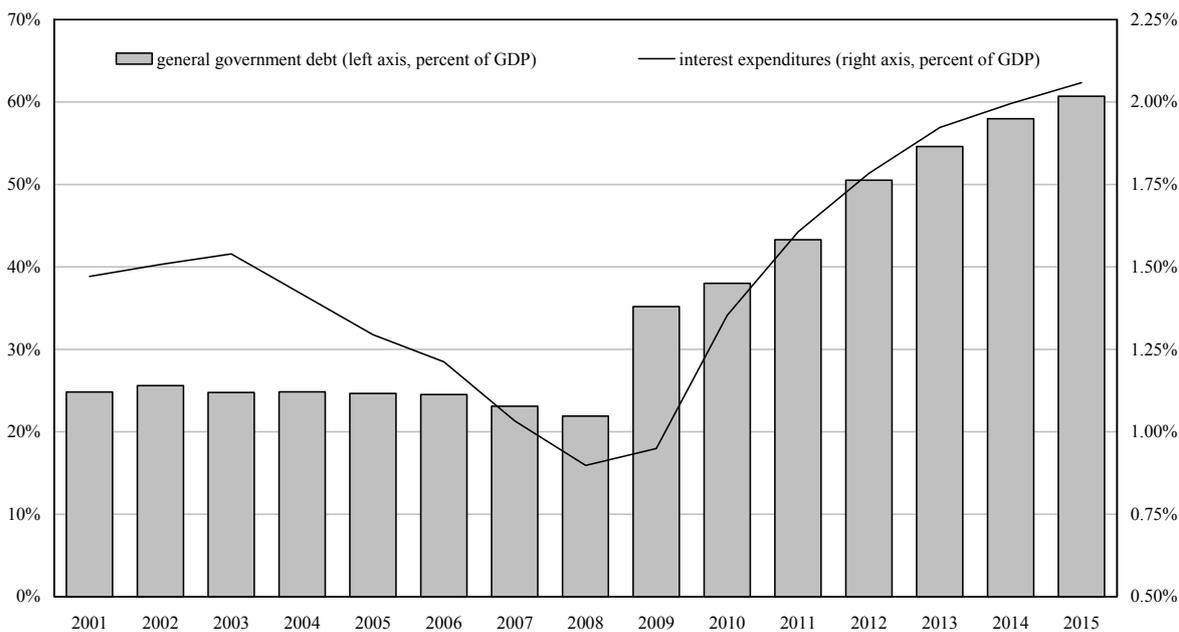
Source: Ministry of Finance; Evaluation methodology: ESA95.

Special attention was devoted to the limits of convergence of fiscal consolidation (MTO – medium-term objective). Besides general government primary balance, a part of MTO is also general government debt (both expressed as a share of GDP). In addition to ageing costs, in designing MTO we took into consideration also budgetary restrictions and economic reality in Slovenia.

To derive expenditure limits we use Medium-term Fiscal Sustainability model (MtFS model) designed on the idea of Hiebert and Rostagno model but restructured so that primary influence of cyclical economic activity is transferred on revenue side, while fiscal consolidation and restructuring is reflected on the expenditure side.

Our expenditure reaction rule consists of a preventive and a corrective part. According to the preventive part, expenditures are supposed to follow trend growth of economy. Crisis resolution requires expenditure corrections: growth of expenditures is adjusted by a given percentage (u) of the difference between the debt ratio recorded one period ago and the steady state debt target, and a given percentage (v) of the difference between the primary surplus ratio one period ago and its target ratio in the long run. Actually the number of expenditure equations in MtFS model corresponds to the number of government programs. In such a way control parameters [u, v] are introduced for each category/program of expenditures for which the measures of fiscal adjustment are carried out.

The above described disaggregation of expenditure side enables actual (re)prioritization of government programs. Medium-term expenditure framework supported with General Equilibrium Analysis helps us identify and also incorporate the transmission channels through which fiscal policy influences long-term growth. We call this "budgeting with impact".

Section 2 provides assessment of fiscal policy in Slovenia. The impact of business cycle on fiscal stance and long-term sustainability is especially elaborated upon. Section 3 presents recently adopted fiscal framework with emphasize on medium-term budgetary framework including design of our expenditure reaction rule and the process of MTO determination. The following Section 4 presents the fiscal consolidation strategy. Finally, Section 5 concludes.

2   Assessment of fiscal policy in Slovenia

2.1   *General government sector deficit and debt developments*

Over the period 2004-07, the Slovenian economy exhibited a strong economic performance. Such a development facilitated fiscal consolidation on the one hand and enabled the government to carry out and finance important changes in the tax structure. Over that period Slovenia kept running fiscal deficit with the exception of 2007 when it recorded marginal surplus (Figure 4). Between 2004 and 2007 relatively expressed government balance was decreasing permanently due to decreasing share of expenditures till 2007. This decrease was slowed down in 2006 and 2007 by lower tax rates and introduced tax allowances. This development took place also on the back of conservative fiscal planning with budget outlays planned based on GDP forecast figures that were lower than actual (see Figure 3).

The debt dynamics was driven primarily by the central government (Figure 5). The indebtedness capacity of local government is constrained by the Law on Municipalities financing which limits the total amount of borrowing in a given year to a maximum of 20 per cent of realized revenues in previous year. The debt service (interest and principal) is also subject to a maximum of 5 per cent of realized revenues in the previous year. Before described deficit developments over the period 2004-07 lead to a decreasing general government consolidated debt: from 24.9 per cent of GDP in 2004 debt decreased to 21.3 per cent of GDP in 2007.

Figure 3

Real GDP Growth Rates Used in Budget Formulation and Outturn

Figure 4

General Government Revenues, Expenditures and Balance, 2004-11
(percent of GDP)
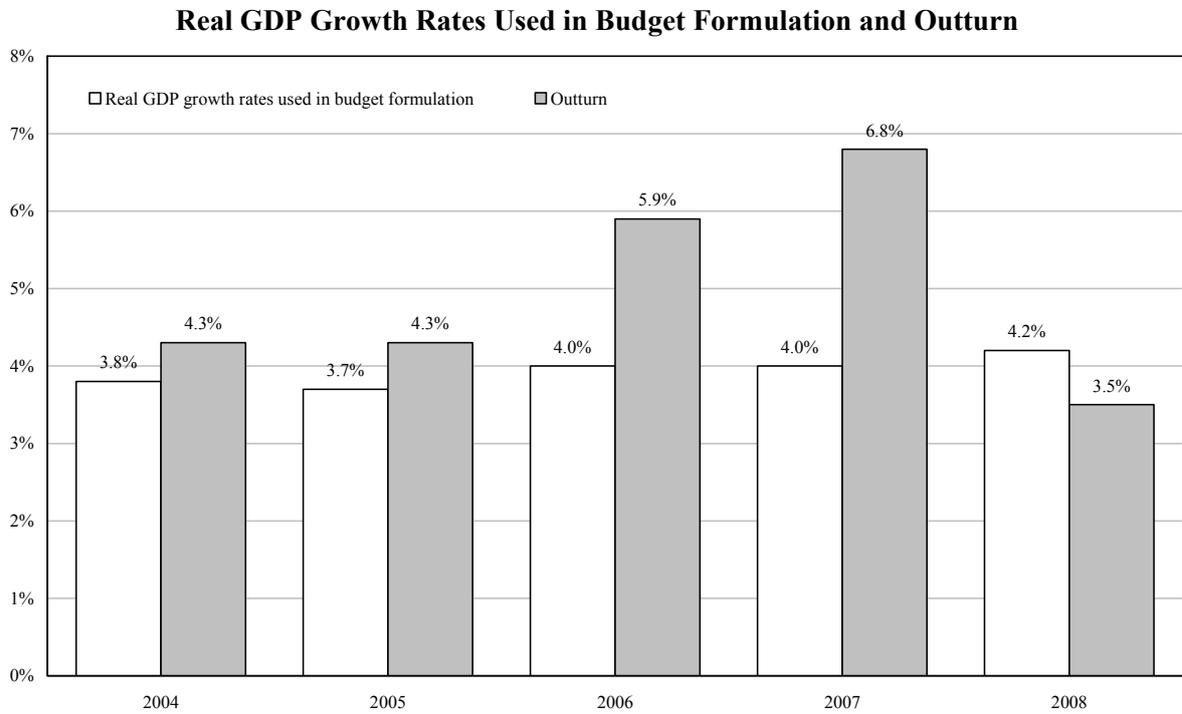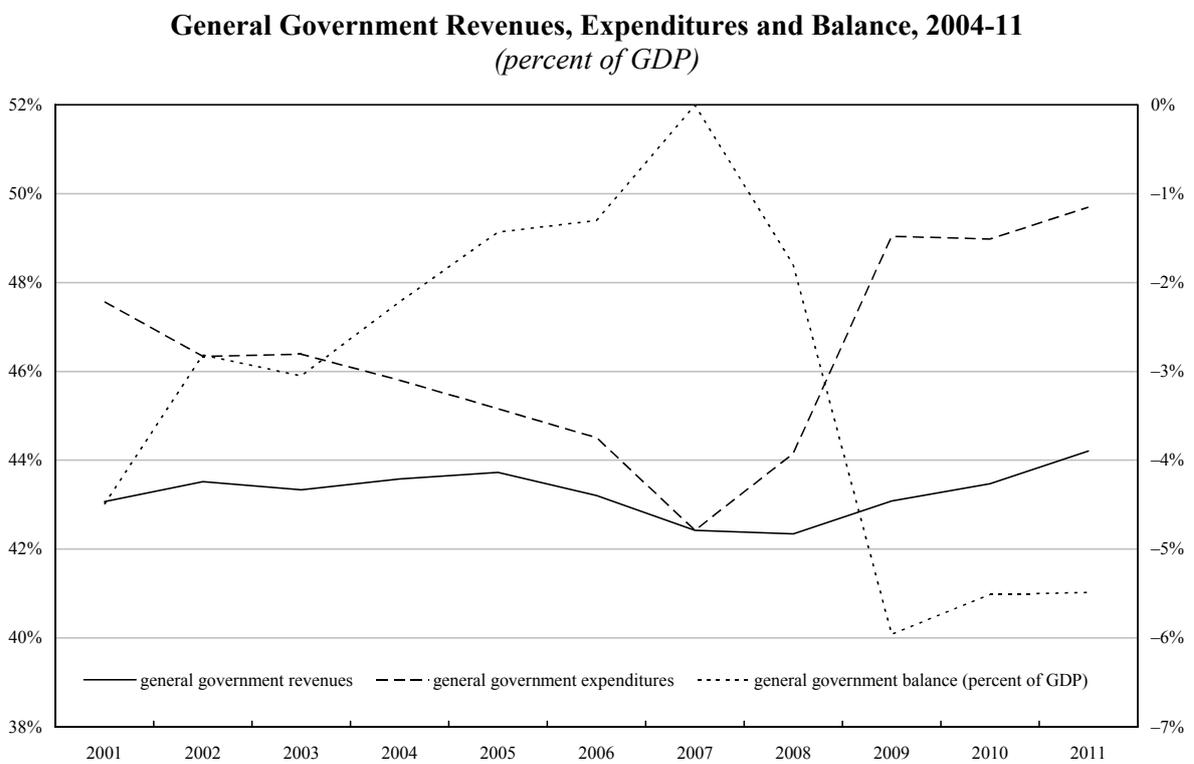
Source: Ministry of Finance; Evaluation methodology: ESA95.

Figure 5

General Government Consolidated Debt and Interest Payments, 2004-11
(percent of GDP)
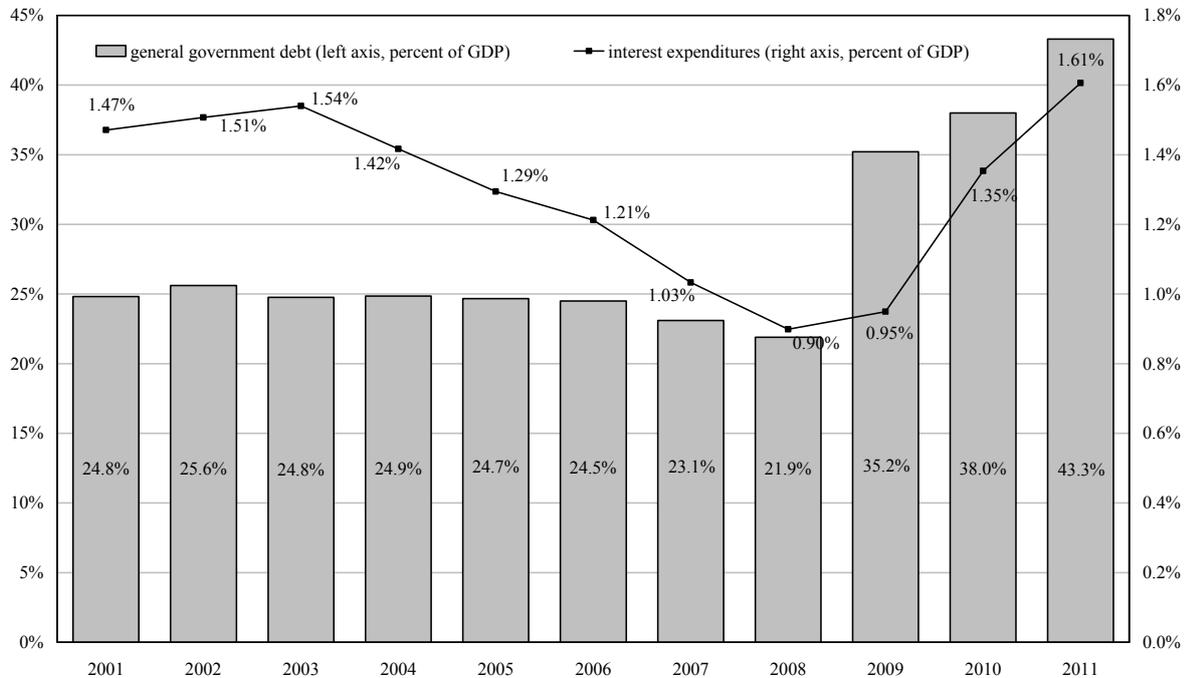
Source: Ministry of Finance; Evaluation methodology: ESA95.

In 2008 the economy stared to deteriorate and the government balance changed to a deficit of 1.8 per cent of GDP. This was mainly due to: a) delayed implementation of the Law that corrected wage disparities in the public sector and b) granting of additional social transfers in the dawn of the upcoming 2008 elections.

Coping with the crisis has required a policy response targeted to the financial system and to the real sector taking into account the degree of financial integration to the Economic and Monetary Union, the effectiveness of policy response in a small open economy and the relative low level of government debt at the end of 2008 (21.9 per cent of GDP). As a result of the crisis and policy response the government deficit widened in 2009 to almost 6 per cent of GDP. Due to heavily decreased GDP (–8.1 per cent in real terms) the relatively expressed government revenues increased in 2009 by 0.7 per cent of GDP, while the general government expenditures increased by 4.9 percentage points of GDP. Government expenditure policy in 2009 and 2010 followed broader economic policy guidelines agreed among EU Member States to alleviate the impact of the crisis on employment and potential growth. In line with the subsequent EU guidelines, the government in 2010 started to gradually withdraw the fiscal stimulus measures.

The debt-to-GDP ratio increased substantially in 2009 due to a high deficit and pre-financing of the 2010 borrowing requirement, the proceeds of which were used to enhance liquidity conditions of the domestic banking system. The outstanding amount of general government consolidated debt is estimated at 12,449 million euros (35.2 per cent of GDP) at the end of 2009.

The government was faced in 2010 with an additional shortfall in revenues from direct taxes, mainly from corporate income tax. In order to secure the targeted deficit for 2010, the government

The 2005-09 General Government Balance by Government Level

Government Level	2005	2006	2007	2008	2009	2010	2011
Government budget	−1.3%	−0.7%	0.1%	0.2%	−4.9%	−4.8%	−4.6%
Municipal budgets	0.2%	−0.1%	0.0%	−0.5%	−0.4%	−0.3%	−0.2%
PDII (ZPIZ)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HIIS (ZZZS)	0.1%	0.0%	0.2%	0.0%	−0.2%	−0.1%	0.0%
General Government Balance	−1.0%	−0.8%	0.3%	−0.3%	−5.5%	−5.2%	−4.8%

Source: Ministry of Finance; Evaluation methodology: cash flow principle.

prepared a supplementary budget and presented it to the Parliament. The adopted supplementary budget reduced government expenditures by the amount that more than off-set the shortfall in revenues. The outstanding amount of general government consolidated debt is estimated at 13,704 million euros at the end of 2010 or 38 per cent of GDP.

General government balance broken down by government levels is presented in Table 1. It is evident that the 2009 deficit was mainly generated at the state budget level. The fact that the financial situation in municipalities was heavily aggravated in the considered period (income tax data to be added) is a cause of concern: at the end of 2005, the municipalities' budgets recorded a 0.2 per cent GDP surplus, while the end of 2009 saw a deficit of 0.5 per cent GDP.

2.2   *Fiscal policy and business cycle*

An analysis of the influence of economic activity on public finances is very important for the understanding of the current position of the public finances. The analysis of the instabilities created points to the unsuitable interpretation or inconsideration of indicators such as output gaps, and the cyclical and cyclically-adjusted balance.

Based on the changes occurring in the cyclically-adjusted balance (fiscal impulse) in between the specific years, we can make conclusions regarding the tendencies of the fiscal policy – the increase of the cyclically-adjusted balance points to the restrictive tendencies of the fiscal policy, and vice versa, the decrease of the cyclically-adjusted balance points to the expansive tendency of the fiscal policy. Comparison of the dynamics in the cyclically-adjusted balance and the output gap points to the (counter-) cyclical tendency of the fiscal policy. In Figure 6, we can determine the four quadrants setting forth the fiscal situation in terms of changes occurring in the fiscal impulse and the output gap. If the combination of both parameters lies in the first or third quadrant, the fiscal policy is counter-cyclical. In this case, the fiscal policy is responding expansively when the actual GDP is lower than its potential, and restrictively when the actual GDP surpasses its potential. If the combination of both parameters lies in the second or fourth quadrant, the fiscal policy is cyclical. In this case, the fiscal policy is responding restrictively when the actual GDP is lower than its potential, and expansively when the actual GDP surpasses its potential. Cyclical tendency means that the fiscal policy does not allow the functioning of automatic stabilisers due to which, for example, expenditures change in line with the changes in economic growth and not as planned within the budget. This means that, in the event of economic growth

Figure 6

Cyclical Tendencies of the Fiscal Policy
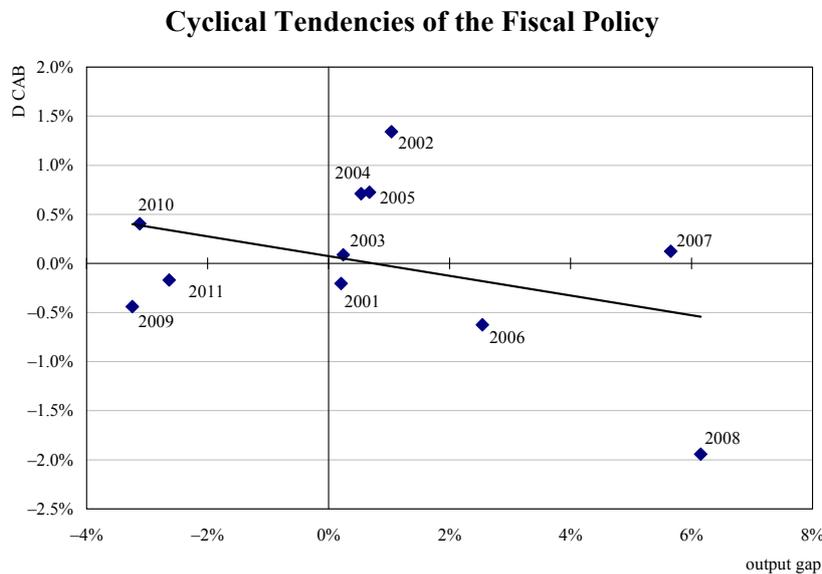
Source: Ministry of Finance.

being higher than that originally planned, the cyclical part of the budget revenue is used to finance the lowering of taxes and/or increase of expenditures, and not to decrease the deficit.

It is evident from the graph below that the fiscal policy exhibited cyclical tendencies throughout the 2005-08 period. Thus the changes of the tax system, especially the abolition of the payroll tax and changes in the income tax system, were not accompanied by corresponding changes on the expenditure side. Instead of saving during that time, the state "adjusted" consumption to surplus revenues. The average annual increase of investments expenditure during the 2005-08 period, therefore, amounted to nearly 22 per cent, while the average annual GDP growth in the same period *concurrently* amounted to less than 10 per cent. Such great growth of investment expenditures only added fuel to the fire of the already overheated economy. To conclude, tax cuts were at the *heart of pro-cyclical* fiscal policy with expenditure retrenchment facilitated by cyclical upturns.

Cyclical behaviours of fiscal outcomes such as primary balance, tax revenue and fiscal variables as a percent of GDP, that are endogenous variables, can be ambiguous. For that reason we analyse cyclical tendencies of the fiscal policy also in terms of government spending – that is, a policy instrument. To obtain a measure of cyclicality of fiscal policy, we estimate the following regression:

$$\Delta \log G_t = const. + \beta \Delta \log GDP_t + \gamma t + \varepsilon_t$$

where G_t is the general government spending, and GDP_t is the gross domestic product, t denotes the year, and ε is an error term. A time trend t is also added. We can interpret the coefficient β as the response of government spending to an idiosyncratic (percent) change in GDP: it measures the elasticity of government spending with respect to output growth. A positive value of β indicates pro-cyclicality of fiscal policy, whereas a negative value implies counter-cyclical behaviour. A value greater than one implies that general government spending rises (falls) more than proportionally in response to a positive (negative) shock to output. The value of coefficient β for Slovenia is 0.3, which indicates pro-cyclical fiscal policy in previous period.

It is evident from the figure below that the influence of economic activity on the general government revenues was positive during the conjuncture period, especially in 2008, as the cyclical revenue component amounted to more than €900 million (this is the amount by which revenues were higher due to high economic growth). The dramatic nominal revenue decline of 2009 was

General Government Revenues, 2004-11
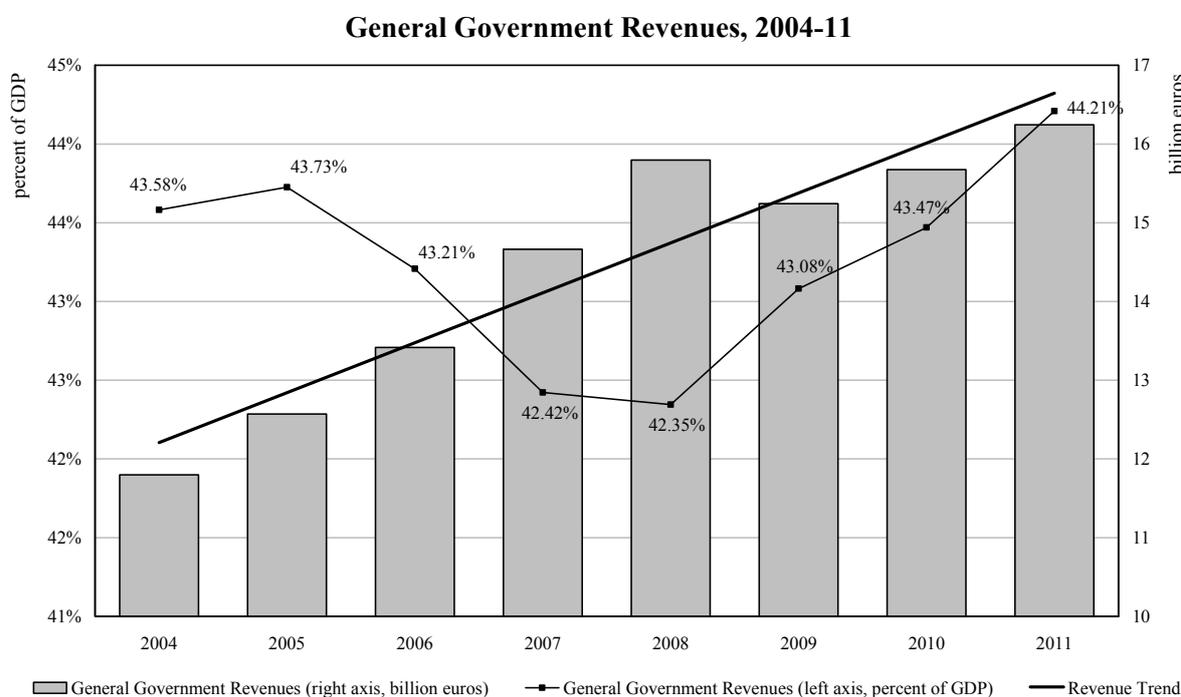
Source: Ministry of Finance.

hidden because of the sharp decline in output activity. Real picture can be obtained if we compare cyclical part of revenues in 2008 and 2009: cyclical revenue component in 2008 was estimated at 920 million euros while the same component in 2009 was –460 million euros; the difference between the two in 2009 GDP terms was 3.9 per cent.

Table 2 presents the general government aggregates in the period from 2004 to 2015 following the spontaneous scenario.[1] It is evident from the table that the actual GDP will not catch up with its potential by the end of 2015 (the output gap for 2015 is negative and amounts to –0.31 per cent of potential GDP). Nevertheless, the public deficit will increase in the absence of structural reforms and surpass 7 per cent of GDP already in 2011, which will affect the debt growth (we estimate that the general government debt will reach 60.7 per cent GDP by the end of 2015). Such debt growth is accompanied by increasingly high interest payments, which will increase by more than 1.1 per cent of GDP in the period from 2009 to 2015. It is evident from the table that the aggravation of the budgetary performance in 2009 was mainly due to the growth of expenditures on salaries and current transfers.

The inadequacy of the mid-term fiscal situation is also shown by the primary public balance which has been negative since 2008. This means that the budget is unable to cover even the expenditures incurred in the current year (the primary balance shows the budgetary performance without the interest payments). In addition, high debt will reduce the scope for counter-cyclical response.

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[1] Assessment of the government budgetary performance or a "spontaneous scenario" is calculated on the basis of IMAD's (Institute of Macroeconomic Analysis and Development) Spring forecasts which do not take into account the effects of structural reforms on the expenditure side.

Table 2

General Government Aggregates Following a Spontaneous Scenario, 2004-15
(percent of GDP)

Fiscal Indicators	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
General Government Revenues	43.58	43.73	43.21	42.42	42.35	43.08	43.47	43.89	43.08	42.61	41.32	40.12
- Personal Income Tax	5.88	5.53	5.76	5.56	5.84	5.83	5.65	5.63	5.50	5.35	5.19	5.03
- Corporate Income Tax	1.93	2.76	2.96	3.23	2.50	1.84	1.82	1.77	1.69	1.98	1.49	1.40
- Social Contributions	14.46	14.45	14.26	13.93	14.28	15.23	15.24	14.78	14.09	13.56	13.03	12.52
- Indirect Taxes	15.67	15.47	15.00	14.51	14.01	14.12	14.04	14.14	14.14	13.95	13.78	13.70
- Other Revenues	5.64	5.51	5.22	5.20	5.72	6.07	6.72	7.57	7.65	7.78	7.83	7.47
General Government Expenditures	45.80	45.16	44.51	42.43	44.15	49.04	48.98	49.82	49.20	47.55	45.84	44.23
- Compensation of employees	11.59	11.49	11.21	10.53	11.02	12.43	12.36	12.07	11.60	11.01	10.41	9.84
- Social Paymentas	17.87	17.67	17.31	16.28	16.60	18.75	19.13	19.29	19.15	18.77	18.34	17.91
- Intermediate Consumption	6.10	6.19	6.23	5.61	6.02	6.53	6.46	6.57	6.59	6.52	6.43	6.34
- Interest Expenditures	1.42	1.29	1.21	1.03	0.90	0.95	1.35	1.61	1.78	1.92	2.00	2.06
- Subsidies	1.74	1.57	1.58	1.56	1.56	1.67	1.78	1.72	1.63	1.50	1.37	1.26
- Gross Fixed Capital Formation	3.46	3.17	3.68	4.16	4.16	4.19	4.00	4.28	4.40	4.17	3.95	3.75
- Other Expenditures	3.62	3.76	3.29	3.26	3.88	4.52	3.91	4.29	4.05	3.67	3.35	3.07
General Government Balance	–2.22	–1.43	–1.30	0.00	–1.80	–5.96	–5.51	–5.92	–6.13	–4.94	–4.52	–4.11
Primary General Government Balance	–0.80	–0.14	–0.09	1.03	–0.91	–5.01	–4.16	–4.32	–4.34	–3.02	–2.52	–2.05
Output Gap	0.54	0.67	2.54	5.66	6.15	–3.25	–3.13	–2.64	–2.12	–1.64	–0.91	–0.31
Cyclically Adjusted Balance	–2.44	–1.72	–2.37	–2.34	–4.31	–4.64	–4.24	–4.86	–5.28	–4.28	–4.16	–3.99
General Government Debt	24.9	24.7	24.5	21.3	22.3	35.2	38.2	45.0	50.5	54.6	58.0	60.7

Source: Ministry of Finance; Evaluation methodology: ESA95.

Table 3

Age-related Expenditures Following a Spontaneous Scenario

Expenditures	2010	2015	2020	2030	2040	2050	2060	2060-2010
Pension	11.20	11.80	11.76	13.63	16.43	18.46	18.75	**7.6**
Health Care	4.33	4.53	4.76	5.43	6.16	6.72	6.96	**2.6**
Long-term	1.02	1.16	1.29	1.65	2.20	2.66	2.97	**1.9**
Unemployment Benefits	0.51	0.52	0.53	0.53	0.52	0.51	0.51	**0.0**
Education	4.57	4.45	4.60	4.90	4.76	5.03	5.36	**0.8**
TOTAL	**21.63**	**22.47**	**22.94**	**26.14**	**30.08**	**33.38**	**34.54**	**12.9**

Source: Ministry of Finance; Evaluation methodology: cash flow principle.

It is clear from the above-referenced facts that the preservation of the existing public deficit policy is leading to an unbearable fiscal situation. Adding to this the resulting aggravation of Slovenia's credit rating, it is clear that fiscal consolidation must be carried out immediately. With each year missed, the fiscal efforts necessary for consolidation will only grow and become more stressful.

2.3   Long-term sustainability of public finances

The problem caused by the ageing population in the light of current economic situation is becoming more alarming by the day. The first reason for this is the fact that the trend of decreasing debt-to-GDP ratio is turning around, which means the debt level will increase substantially by the end of the programming period. Moreover, the crisis has adversely affected the higher employment level that was achieved in previous years.

Table 3 presents the forecasts for age-related expenditures in the event the pension reform is not introduced. The table clearly shows that general government expenditures for pensions will increase by 7.6 per cent of GDP by 2060, health care expenditures by 2.6 per cent of GDP and the expenditures for long-term care by almost 2 per cent of GDP. The total increase of expenditures between 2010 and 2060 associated with population ageing thus amounts to almost 13 per cent of GDP. Sustainability indicator is estimated at 10.6. The main driver of pension expenditures is dependency ratio (population 55+ / population 15-64).

Such a rise of expenditures associated with the ageing of population means that the potential time of responding to a change in the pension system has, in comparison with the one we estimated prior to the crisis, been profoundly shortened! The trend in general government expenditures for pensions and pension contributions, as well as the public debt in the 2010-25 period that is presented in this chapter only further confirms this situation.

In order to have a relevant view on the sustainability of public finances in the long-run it is necessary to include estimates of adequacy. Pensions are decreasing from year to year, which is, in part, due to the less favourable valuation of the pension qualifying period (from 85 per cent for 40/38 years of the pension qualifying period in 2000 to 72.5 per cent in 2024) and partly due to the harmonisation of pensions with the adjustment of pensions provided for the retired and new retirees

Figure 8

Hypothetical General Government Debt and Primary Balance Following a Spontaneous Scenario
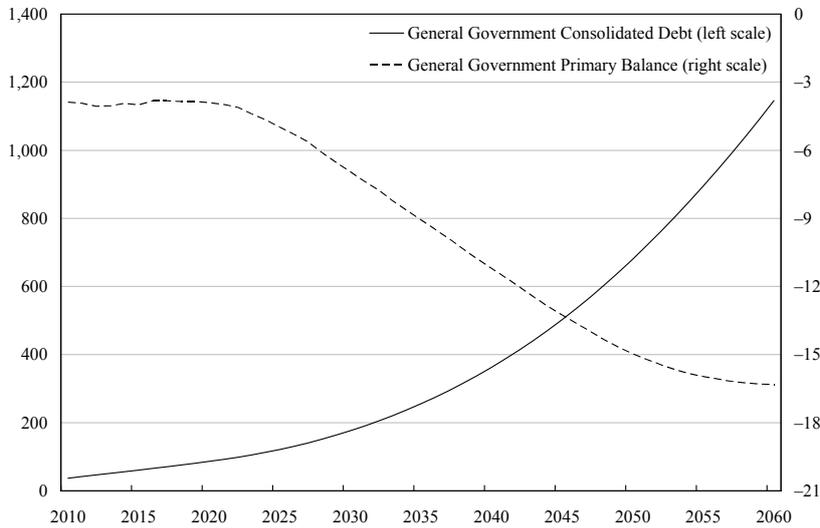
Source: Ministry of Finance; Evaluation methodology: cash flow principle.

(current Article 151 of the Pension and Disability Insurance Act – ZPIZ-1). If the decrease in the value of pensions is not curtailed, the income replacement ratio (the ratio between the last salary and the first pension received) will drop from the current 61 to 56 per cent by 2024 (when the reform dating in 2000 is complete).

In order to curtail the further fall of pensions, it is urgent to adjust the pension assessment for the new beneficiaries by setting the income replacement ratio at not less than 60 per cent net for the 40/38 years of the pension qualifying period, so that we can achieve a situation where the new beneficiaries' pensions are assessed based only on the salaries received, and not one where the pensions are additionally adjusted for all beneficiaries who are already receiving them. This means that only the individual's salaries would count when it comes to pension assessment, and the pension rating base would not be revalued based on the pensions and salaries of all retirees. This means that the new beneficiaries would face much more severe conditions for retirement and pension assessment (the current suggestion is an extension to 27 consecutive years of service as the pension rating base – by one year for each year of work), but there would be no adjustments during the assessment process. Pensions assessed in this way would then be adjusted/indexed for all retirees equally (old and new) in accordance with the modified Swiss formula.

3 The (new) elements of Slovenian fiscal framework

One of the consequences of the recent economic and financial crisis is that the European Commission is going to govern and supervise economic policies and budget preparations more rigorously. With the aim of escalating economic and budgetary surveillance, the Commission gives special attention to the national budgetary frameworks, *i.e.*, the country-specific institutional policy setting that shapes fiscal policy-making at national level. On 29 September 2010 the Commission adopted a set of proposals in connection with public accounting systems, statistics, forecasting practices, numerical fiscal rules, budgetary procedures including medium-term budgetary frameworks for fiscal planning. Accordingly, the Commission proposals include a draft Directive on national fiscal frameworks setting out a number of minimum requirements that budgetary frameworks in Member States should respect in order to ensure consistency between national fiscal governance and the Stability and Growth Pact (SGP) provisions.

The preventive part of the SGP mainly focuses on the measures that are necessary to avoid an excess in public deficit. There are several elements that are important here: i) avoidance of

pro-cyclic policies (a consent is applied in the EU, which shows that "good times" must be used to consolidate public finances which would prevent the states from exceeding the reference deficit limit of 3 per cent GDP during recession); ii) definition of a medium-term budgetary objectives (by the currently applicable rules, the MTO reflects the circumstances in a particular Member State and should ensure general government debt sustainability which, in practice, would mean a level of debt under 60 per cent GDP); iii) adapting to the MTO (states which have not achieved their medium-term objective yet must, on average, consolidate their public finances by 0.5 per cent GDP annually); iv) structural reforms (implementation of certain reforms, e.g. pension reform, can incur considerable costs in the short term, while also contributing to the long-term sustainability of public finance which should be taken into account when treating the Maastricht criteria).

In pursuing its objective of adjusting the economy in the wake of the crisis, the Government of the Republic of Slovenia adopted the Slovenian Exit Strategy 2010-13 in February of 2010. The Strategy is designed as a combination of economic policy measures and structural changes, which – alongside the assurance of fiscal sustainability – will improve the social status of the weakest members of society as well as boost the economy's competitiveness and create new jobs. In this way the Strategy places the consolidation of public finances in the foreground, which will be achieved through the programmed reduction of expenditures rather than an increase of tax burdens. This is conditional upon defining the scope of public spending by a fiscal rule as well as the structure of public spending on the basis of national development priorities by using target-oriented budgeting.

This paper provides detailed description of a) the definition of a medium-term budgetary objectives and b) the framework for determining government expenditure ceilings.

3.1   Definition of medium-term budgetary objectives (MTO's)

In line with the rules of the Stability and Growth Pact amended in 2005, each Member State must set their own medium-term public finance-related target in the form of a cyclically-adjusted balance. At the moment, Slovenia has a target of structural deficit in the amount of 1 per cent of GDP. Based on the decisions made upon agreeing on the reform of the Stability and Growth Pact in 2005, the corresponding Council working groups (especially the Economic Policy Committee and the Committee on Economic and Monetary Affairs) have developed a methodology which also considers the implicit obligations arising from the ageing of the population in relation to the definition of a medium-term fiscal target. The then amended Code of Conduct states that "the criteria and modalities of including implicit obligations in the MTO definition will be decided upon by the Council [of ministers]".

According to the Commission's proposal, the new medium-term target consists of three parts:

$$MTO = \underbrace{Balance_{debt\ stabilizing\ at\ 60\%\ GDP}}_{(i)} + \underbrace{\alpha * Ageing\ Costs}_{(ii)} + \underbrace{Effort_{debt-reduction}}_{(iii)}$$

where:

(i)   General government balance, which provides long-term stabilisation of the level of debt at 60 per cent of GDP;

(ii) Adjustments necessary due to the population ageing (long-term costs of population ageing are translated into the current value, and part of the long-term costs must be covered within the public finance target);

(iii) Additional requirements for the states whose debts already exceed 60 per cent of GDP.

The medium-term target calculation methodology in the second part (adjustments necessary due to population ageing) is based either on i) inclusion of 33 per cent of all costs related to population ageing up to 2060 into today's medium-term target, or ii) public finance sustainability until 2040. According to the first proposal, Slovenia must set a structural surplus of 0.7 per cent as its medium-term target. Compared to the existing medium-term target, the new target is more challenging, especially due to the non-implemented pension reform.

Slovenia maintains reservations to the above described algorithm, most specifically due to:

- *The MTOs must be country-specific and must exhibit ownership*. These are our public finance policy targets and can thus not be a result of a simple mechanical exercise or formula. What we have currently on the table are two figures that come out of a formula – as the Commission note sets out, we have to make a binding choice between two parameters (either 33 per cent prefunding or coverage until 2040). This is not ownership and we strongly oppose an approach like this.

- *Explicit liabilities are treated asymmetrically in favour of contingent not yet existing liabilities*. The MTOs need a proper balance between explicit and implicit liabilities (it implies discounting explicit and implicit liabilities with the same rate).

- *The algorithm does not take into account adequacy of pensions*. Reforms in the long run do not ensure a minimal decent living standards (adequacy) and thus do not eliminate the contingent liability! If we want a comprehensive measure of implicit liabilities, adequacy of pensions (as measures by replacement ratios) must be included.

- *Uncertainty regarding estimates of aging related expenditures is very high*.

In the process of definition of medium-term budgetary objectives, we expose the following basic principles MTOs should be built on:

- The MTOs must be country-specific and should ensure credibility and ownership!

- The MTO must not depend on time horizon for which ageing related expenditures are calculated.

- Fiscal policy cannot be expected to cope with the full structural effects of demographic ageing.

- Fiscal policy surveillance in the context of SGP should aim at fostering that countries respect the safety margin of not breaching the 3 per cent deficit threshold (*i.e.*, lowering debt): this concern should be the driving contribution of fiscal policy to sustainability of public finances.

- The MTOs need a proper balance between explicit and implicit liabilities.

- The MTO algorithms have to take into account adequacy of pensions.

Similarly to credit ratings, the approach to fiscal sustainability should be gradual:

- The contingent liabilities and the period over which are measures when taken into account to be included in the MTOs should be shorter, for example over next 10 years and not over next 50 years.

- The resulting MTOs should be updated every 4 years for the next 10 years on a rolling basis.

- The MTOs should ensure that the safety margin of not overcoming the 3 per cent deficit as percentage of GDP should not be breached.

Gradual approach of including contingent liabilities provides more weight to the current fiscal stance within a period where there is more certainty as to the likelihood that contingent liabilities will turn into explicit liabilities.

Table 4 presents MTO calculation according to Slovenian proposal with the exception of first row which shows Commission's proposal calculation. Debt stabilizing deficit is calculated for the 45 per cent of GDP upper ceiling for debt. Costs of ageing (column 5) are calculated as present

<div align="right">**Table 4**</div>

MTO Using Gradual Approach

Period	Average Nominal GDP Growth (2010-60) *(percent)*	Minimum Benchmark	Euro Area and ERM2	Debt Stabilizing Balance at 45% (5) =-45* (1)/ (1+(1)) *(percent of GDP)*	Cost of Ageing *(percent of GDP)*	(6) = (4) + α * (5) *(percent of GDP)*		MTO	
						(percent of total CoA)		*(percent of total CoA)*	
						33%	100%	33%	100%
	1	2	3	4	5	6	6		
MTO (2011-60)[1]	3.4	−1.6	−1	−1.3	6.2	0.7	4.9	**0.7**	**4.9**
2011-20	5.2	−1.6	−1	−2.2	−0.7	−2.4	−2.9	**−1.0**	**−1.0**
2021-30	3.6	−1.6	−1	−1.6	1.3	−1.1	−0.2	**−1.0**	**−0.2**
2031-40	2.8	−1.6	−1	−1.2	1.8	−0.6	0.6	**−0.6**	**0.6**
2041-50	2.7	−1.6	−1	−1.2	1.3	−0.8	0.1	**−0.8**	**0.1**
2051-60	3.0	−1.6	−1	−1.3	0.5	−1.1	−0.8	**−1.0**	**−0.8**
2060-∞	3.1	−1.6	−1	−1.4	1.9	−0.7	0.5	**−0.7**	**0.5**

[1] Commission proposal; infinite horizon.

All calculations were performed using Commission's methodology for MTO.

Source: Ministry of Finance.

value of changes in the ageing costs in year t compared with the base year. According to the Commission's proposal MTO is calculated using ageing costs for the infinite horizon (6.2 per cent of GDP in the case of Slovenia) which must lead to an ambitious MTO: with 33 per cent frontloading MTO is set to 0.7 per cent of GDP surplus in structural terms and with 100 per cent frontloading of ageing costs MTO is set to be 4.9 per cent of GDP in structural terms. It can be seen from table that even in the case of 100 per cent frontloading MTO calculated gradually does not exceed 0.6 per cent of GDP surplus while in the case of 33 per cent of GDP frontloading MTO is between −1 and −0.5 per cent of GDP deficit.

The fact that Slovenia does not need such a demanding MTO as proposed by the Commission can also be seen if we compare the debt or frontloading evolution using the Commission and Slovenian proposal. According to the Commission proposal, the government debt will be almost diminished in late 30's and will then reach 21 per cent of GDP by the end of 2060 (Figure 9). Debt evolution curve using the Slovenian proposal, never falling below 27 per cent of GDP, is much smoother. We believe that there is no need for such a reduction of debt as proposed by the Commission. On the contrary, such a reduction can negatively influence long-term growth. The same conclusion is obvious if we compare frontloading evolution (Figure 10). So the long-term sustainability can be achieved with on average small deficit (less than 1 per cent of GDP) during 2011-60.

In the case of Slovenia, sustainability gap indicators approach provides limited guidance on what is the appropriate budget target which Member States should aim at in light of the expected costs of ageing populations. Frontloading ageing costs accumulated between 2011 and 2060 does not make sense! This is clear if we analyse deficit and debt dynamics in that period (Appendix 1):

Figure 9

**Debt Evolution
at the 33 per cent of Frontloading, 2011-60**
(percent of GDP)

Source: Ministry of Finance.

Figure 10

**Frontloading Evolution
at the 33 per cent of Frontloading, 2011-60**
(percent of GDP)
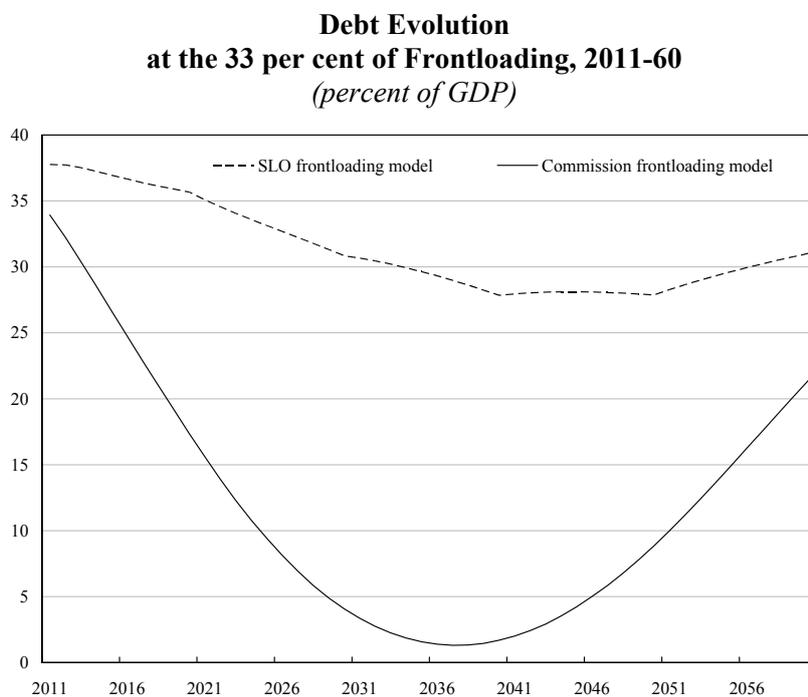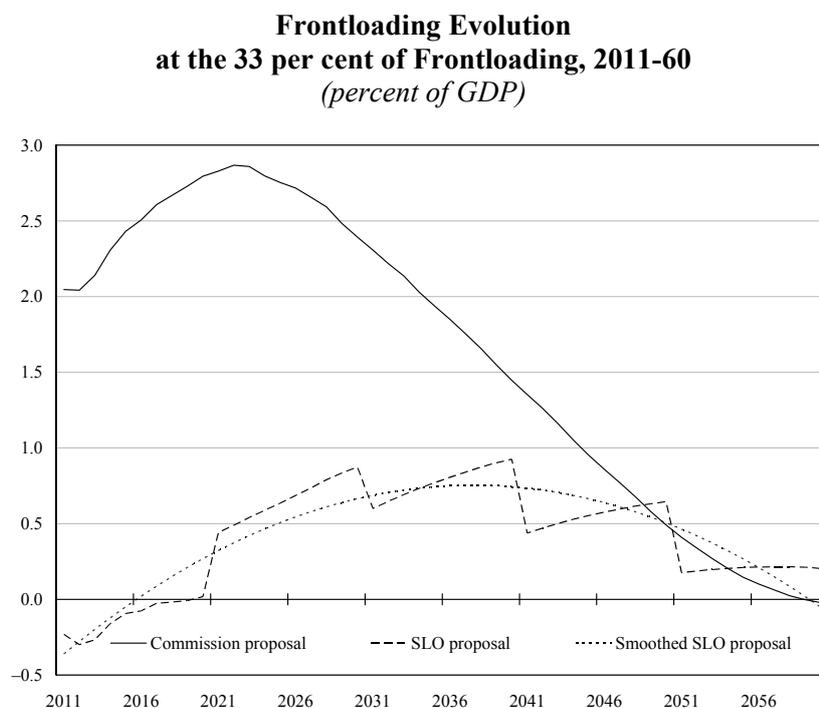
Source: Ministry of Finance.

from 2040 on Slovenia will (according to this calculation) run budget deficits higher than 10 per cent of GDP and its debt will reach level of more than 1000 per cent of GDP! No country can maintain such a position for so many years – rating agencies will downgrade the country and it will default under the debt burden much sooner than this extreme situation becomes possible!

The "closing of the sustainability gap" approach it too simplistic and therefore fails to take into account various other economic factors. Sustainability indicator should be considered as a benchmark and not necessarily a policy recommendation nor a measure of the adjustment needed in any particular year. For this reason, and also simply because an ambitious policy adjustment can be considered to be politically unrealistic, in the process of defining of medium-term budgetary objectives we consider also:

• budgetary constraints,

• economic reality.

Reforms of pension and health care systems to curtail the impact of ageing on expenditure growth and reforms to reduce the level of non-age related

primary spending requires a number of years to be implemented – a newly appointed medium-term objective should (only) be based on the revised expenditure projections and its achievement has to be put in an appropriate /realistic time frame! It was agreed that the length of one business cycle (6 to 8 years) is an appropriate time horizon needed to consolidate public finances.

The Stability and Growth Pact (SGP) emphasizes two criteria in relation to achieving a long-term manageable fiscal situation:

- *stability*: once the fiscal target is achieved as the final point in the consolidation process, this target must be such as to enable its own sustainability as an average GDP percentage throughout the following economic cycles;

- *safety*: the fiscal target expressed as a GDP percentage must be such as to protect the economy with an acceptable level of trust from fiscal shortage deemed as excessive according to the rules of the Treaty on the European Union.

We use simple equations (1) and (2) to calculate country-specific debt and primary surplus objectives which can guarantee both stability and safety taking into account the average potential growth and the average effective interest rate:

$$b^* = \left(\frac{1+g}{g}\right)(0.03 - m) \tag{1}$$

$$s^* = \left(\frac{r-g}{g}\right)(0.03 - m) \tag{2}$$

where g is the average potential growth rate, r is the average effective interest rate and m is the safety margin. We find that it is most realistic that:

$$g \in [3.2\%, 3.6\%]$$

$$r \in [4\%, 5\%]$$

Using these assumptions upper ceiling for debt is set at 45 per cent of GDP with primary surplus of 0.5 per cent of GDP.

Taking into consideration all factors mentioned above, Slovenian public finance medium-term objectives (MTOs) are defined as:

- target level for cyclically-adjusted budget balance is 0 per cent of GDP, *i.e.*, balanced position;
- target level for general government debt is 40 per cent of GDP.

Targeting deficit and debt at the same time allows for the reconciliation of multiple policy targets, such as safety, speed and quality of convergence, whereas deficit benchmark identifies a convergence path only by focusing on one of the above criteria, namely safety.

The resulting MTOs will be consistent with the following objectives:

- providing sufficient margin for not breaching the 3 per cent deficit-to-GDP ratio;
- keeping the debt below 60 per cent of GDP;
- ensuring long-term fiscal sustainability;
- avoiding a distortive allocation of funds in the medium-term based on high degree of uncertain liabilities.

BOX 1
INCORPORATING IMPLICIT LIABILITIES
INTO THE MEDIUM-TERM BUDGETARY OBJECTIVES (MTOS)

European Commission proposed the following methodology for the calculation of the MTO:
$$MTO = \max (MTO^{ILD}, MTO^{MB}, MTO^{Euro/ERM2})$$

A. MTO^{ILD} = rule incorporating implicit and explicit liabilities
B. MTO^{MB} = MTO defined by the minimum benchmark (as agreed by the EFC)
C. $MTO^{Euro/ERM2}$ = Treaty obligation for Euro and ERM2-Member States to have an MTO not lower than –1 per cent of GDP

A. The first element (MTO^{ILD}) was formulated as follows:

$$MTO = \underbrace{Balance_{debt\ stabilizing\ at\ 60\%\ GDP}}_{(i)} + \underbrace{\alpha * Ageing\ Costs}_{(ii)} + \underbrace{Effort_{debt-reduction}}_{(iii)}$$

i) budgetary balance that would stabilise the debt ratio at 60 per cent of GDP

   $b^* = -60\% \cdot G/(1+G)$ where G is nominal GDP growth (if the overall balance is set at the constant level b^*, the actual debt ratio will asymptotically converge to 60 per cent from any initial level (if $G > 0$))

ii) the budgetary adjustment that would cover a fraction of the present value of the increase in the cost of ageing, where α is the size of this fraction (the cost of ageing corresponds to the present value of the increase in total age related spending as of 2010):

$$Ageing\ costs = \frac{\displaystyle\sum_{t-1}^{50} \frac{\Delta PB_t}{(1+\lambda)^t} + \frac{\Delta PB_{50} + (1+\lambda)^{50}}{(long-term\ differential)}}{\displaystyle\sum_{t-1}^{50} \frac{1}{(1+\lambda)^t} + \frac{(1+\lambda)^{50}}{(long-term\ differential)}}$$

where:
long-term differential = $\dfrac{(1+3\%)}{(1+\lambda)^{50}} - 1$; $\lambda = (i - \gamma)/(1 + \gamma)$

γ = nominal GDP growth rate
i = nominal interest rate
ΔPB_t = changes in the ageing costs in year t compared with the base year

   To calculate ageing costs, it is assumed that the change in ageing costs as a share of GDP, the interest rate and the growth rate remain constant after 2060, implying that no further budgetary impact of ageing is assumed after that date!

iii) a supplementary debt-reduction effort, specific to countries with gross debt above 60 per cent of GDP had been set as a step-wise function in the 2008 Commission proposal, mounting to 1.0 per cent of GDP for gross debt between 60 and 70 per cent of GDP, to 1.1 per cent of GDP for debt at 70-80 per cent of GDP, and etc. up to 1.4 per cent of GDP for debt above 100 per cent of GDP.

3.2   Framework for determining government expenditure ceilings

The need to ensure convergence to medium-term budgetary objectives (sustainable fiscal position) is in the core of every stabilizing fiscal policy. Having defined the MTOs (targets of fiscal convergence), the analytical problem is reduced to determining a policy rule which can ensure convergence of the debt and deficit ratio from its initial value to its target (steady state) level within a given period of time and avoiding at the same time distortive allocation of funds.

Last year, the government of the Republic of Slovenia introduced a fiscal rule by means of which it can derive the general government expenditure ceiling. The expenditure rule, which is based on the potential GDP growth, enables the determination of the speed of adjustments to the fiscal target. Within the goal of greater stabilisation of the public finance effectiveness or adjustment to the starting position of public finance, the fiscal rule is also formally defined in the *Decree on the documents of development planning bases and procedures for the preparation of the central and local government budgets* (Official Gazette of the Republic of Slovenia, No. 54/2010). This rule cannot be considered as a fiscal rule in the sense commonly understood of being a permanent constraint on fiscal aggregates in terms of numerical limits. It can be conceived more as an expenditure reaction rule to derive expenditure ceilings based on medium-term budgetary objectives.

The expenditure reaction rule sets upper limit of general government expenditures and is determined by means of the following formula:

$$G_{t+1} = G_t \times (1 + g^*)$$

The nominal growth of general government expenditures (g^*) is determined as follows:

$$g^* = \underbrace{g^{\text{trend}}}_{\substack{\text{``preventive''} \\ \text{part of the rule}}} - \underbrace{u \times (b_t - b^*) - v \times (f_t - f^*)}_{\substack{\text{``corrective''} \\ \text{part of the rule}}}$$

where:

G_{t+1} general government expenditures forecast for the next year *(euros)*

G_t general government expenditures estimate for the current year *(euros)*

g^{trend} arithmetic average of the past three years, the current year and forecasts for the following three years for the nominal growth of the potential gross domestic product *(percent)*

b_t estimate of the consolidated gross general government debt for the current year *(percent of GDP)*

b^* target level of the consolidated gross general government debt *(percent of GDP)*

f_t estimate of the general government primary balance for the current year *(percent of GDP)*

f^* target level of the primary general government balance *(percent of GDP)*

u speed of reaching the target level of the consolidated gross general government debt with a value between 0 and 1

v speed of reaching the target level of the general government primary balance with a value between 0 and 1.

The potential gross domestic product is estimated by following the production function method, which is also the official method used by the EU Commission in calculating potential gross domestic product.

The b^*, f^*, u and v parameters are determined for a two-year period. If fiscal consolidation must be carried out due to aggravated macroeconomic indicators and the consequently lower

potential gross domestic product, the Government of the Republic of Slovenia can change the fiscal rule parameters and the resulting upper limit of the general government expenditures.

The above-defined expenditure reaction rule enables a controlled growth of general government expenditures and, consequently, the medium-term achievement of a stabilised general government balance independent of the cyclically conditioned movement of general government revenues.

When the fiscal situation is either balanced or is on the surplus side, the maintaining of the fiscal stance ensures the growth of expenditures in line with the trend of economic growth ("preventive" part of the rule). If consolidation of the fiscal situation is needed, the second, "corrective" part of the framework is activated, which ensures that the growth of expenditures is decreased in proportion to the difference between the current primary balance and the target level of the general government primary balance, as well as the difference between the current level of the general government debt and the target level of the consolidated gross general government debt. The fiscal policy reaction parameters u and v do not depend on the b^* and f^* targets, but rather only on the difference between the effective interest rate and the trend growth of the economy.

The above-defined expenditure reaction rule in the process of derivation of expenditure ceilings is *flexible*. It enables harmonisation of several fiscal policy criteria such as consolidation safety, speed and quality. The rule distinguishes clearly between the *fiscal policy's target stance* (b^*, f^*) and the *transition* to the target stance by defining the g^* reaction formula which best suits (to) each fiscal consolidation level.

In addition, the above-defined expenditure reaction rule reveals the fundamental fiscal policy trade-off between the fiscal target's ambition and the fiscal balance cycle amplitude: The closer the average deficit to the lower limit (3 per cent of GDP), the more closed/narrower its allowed deviations become. The rule enables the achievement of an "optimum" balance between the severity of structural reforms and the exposure to the economic cycle.

Greater transparency is also an important characteristic of the above-defined expenditure reaction rule, which leads to it being less subject to political manipulations. The corrective part of the rule does not contain the "non-measurable" components such as output gaps or cyclically-adjusted balance: the necessary decrease of general government expenditures within the fiscal consolidation targets is unambiguously calculable by application of the corrective part of the rule.

The above-defined expenditure reaction rule itself is part of a broader fiscal procedural framework to derive general government revenues and expenditures in mid-term. This framework is designed on the idea of Hiebert and Rostagno model but restructured so that primary influence of cyclical economic activity is transferred on revenue side, while fiscal consolidation and restructuring is reflected on the expenditure side. This modelling strategy is justified by the fact that countercyclical fiscal policy would lead to a budget that is balanced on average. The expenditure reaction formula is explicitly devised to guarantee stability but also is enough manageable to strike a balanced compromise between the safety requirement and the authorities' need to retain as much control as possible over fiscal policy throughout the transition and beyond.

3.3   *Fiscal consolidation strategy*

Having defined the MTOs and expenditure reaction rule, *i.e.*, fiscal procedural framework, government of the Republic of Slovenia derived public finance framework according to which:

- general government deficit should be below 3 per cent of GDP by the end of 2013;

Public Finance Framework, 2011-15

Year	Preventive growth (g^{TREND})	Growth Correction	Primary Expenditure Growth	General Government Expenditure Growth	General Government Expenditure Ceilings *(million euros)*
2011	4.0%	−1.0%	3.0%	3.4%	**18,260.8**
2012	3.6%	−4.2%	−0.7%	0.0%	**18,251.6**
2013	3.5%	−2.6%	0.8%	1.4%	**18,501.8**
2014	3.7%	−2.8%	0.9%	1.3%	**18,742.9**
2015	4.0%	−2.8%	1.1%	1.4%	**19,007.4**

Year	General Government Revenues *(million euros)*	CAB *(percent of GDP)*	General Government Primary Expenditure *(percent of GDP)*	General Government Balance *(percent of GDP)*	General Government Debt *(percent of GDP)*
2010	15,636.3	−4.4	−4.0	−5.6	38.1
2011	16,244.2	−4.4	−3.7	−5.5	43.3
2012	16,761.8	−3.0	−1.9	−3.9	45.2
2013	17,324.3	−2.3	−0.8	−2.9	46.1
2014	17,880.9	−1.7	0.2	−2.0	46.0
2015	18,529.5	−1.0	1.2	−1.1	44.8

Source: Ministry of Finance; Evaluation methodology: ESA95.

- cyclically-adjusted general government deficit should be no greater than 1 per cent of GDP by the end of 2015;
- balanced cyclically-adjusted fiscal stance should be reached by the end of 2016.

Table 5 presents general government expenditure ceilings in nominal terms as well as general government revenues, balance and debt. Amount of correction of preventive growth needed to ensure consolidation is also presented. It is important to notice that forecasts of general government revenues and expenditures are derived in cash terms and then converted to ESA95 numbers.

Having in mind that revenue forecasts are conservative, the above presented framework should be resistant to the usual economic activity fluctuations. Only extreme changes in macroeconomic environment should be the reason for the adjustments in the public finance framework.

4   Conclusions

Slovenian economy has been hit hard by the international financial crisis and the collapse of external demand. The economy is estimated to have shrunk by 8.1 per cent in 2009, one of the

highest negative real GDP growth rates in the euro area. Going forward (2010-13), a modest economic recovery is envisaged associated with a weak and uncertain international environment and the pace of normalization of financial conditions. The most notorious effect of the drop of economic activity in 2009 and envisaged slow economic recovery in the program period (2009-13) on the public finances is a downward shift in the government revenue trend level of around 2 per cent of GDP which is not reverted in the program period. With much more uncertainty about economies than before crisis, it was recognized that success of "crisis resolution" and "crisis prevention" strategies heavily depend on adequate domestic fiscal framework – a clear fiscal framework is needed more than ever. The key elements of the new Slovenian fiscal framework are: a) medium-term budgetary objectives, and b) framework for determining government expenditure ceilings.

We understand that medium-term objectives for the government budgets build the link between the current fiscal stance and the medium-term and long-term developments in public finances. For that reason, in the process of defining the medium-term budgetary objectives, we looked carefully into the economic rationale for setting MTOs and considered:

- implicit obligations arising from the ageing of the population,
- budgetary constrains,
- economic reality in Slovenia.

Taking into consideration all these factors public finance medium-term objectives (MTOs) are defined as:

- the target level for cyclically-adjusted budget balance is 0 per cent of GDP, *i.e.*, a balanced position,
- the target level for general government debt is 40 per cent of GDP.

We incorporate expenditure reaction rule as a part of a broader fiscal procedural framework to derive expenditure ceilings based on medium-term budgetary objectives. The expenditure reaction rule enables a controlled growth of general government expenditures and, consequently, the medium-term achievement of a stabilised general government balance independent of the cyclically conditioned movement of general government revenues. The respect of the expenditure ceilings will play the major role in the assessment of the credibility of the Slovenian fiscal policy.

Targeting deficit and debt at the same time allows for the reconciliation of multiple policy targets, such as safety, speed and quality of convergence. The derived MTOs will ensure a long-term fiscal sustainability and at the same time prevent a distorting allocation of funds in the medium-term based on high degree of uncertain liabilities.

APPENDIX 1

Table 6

Long-term Sustainability of Public Finance
(percent of GDP)

Item	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Total Revenue	41.01	41.56	41.93	42.07	41.99	41.87	41.72	41.48	41.24	41.09	41.03
Total Expenditure	46.24	48.01	49.38	52.07	56.24	61.54	68.06	75.82	84.87	94.92	105.99
Pensions	11.20	11.55	11.17	11.47	12.48	13.55	14.49	15.19	15.56	15.51	15.16
- old age	7.55	8.20	8.18	8.59	9.53	10.47	11.28	11.88	12.20	12.17	11.89
- disability	1.40	1.34	1.21	1.10	1.04	1.02	1.01	1.01	0.98	0.93	0.89
- familiy	0.79	0.73	0.69	0.73	0.81	0.89	0.96	1.01	1.05	1.07	1.08
- state	0.09	0.10	0.10	0.11	0.12	0.13	0.13	0.14	0.15	0.15	0.14
- other	1.37	1.18	0.99	0.94	0.98	1.05	1.11	1.16	1.19	1.19	1.17
Healthcare	4.33	4.53	4.76	5.07	5.43	5.80	6.16	6.47	6.72	6.89	6.96
Long-term care	1.02	1.16	1.29	1.45	1.65	1.93	2.20	2.45	2.66	2.82	2.97
Education	4.57	4.45	4.60	4.80	4.90	4.82	4.76	4.83	5.03	5.25	5.36
Unemployment benefits	0.51	0.52	0.53	0.53	0.53	0.53	0.52	0.51	0.51	0.51	0.51
Interest payments	1.35	2.45	3.54	5.02	7.30	10.61	15.13	21.08	28.66	37.86	48.65
General Government Deficit	−5.23	−6.45	−7.45	−10.00	−14.25	−19.67	−26.34	−34.34	−43.63	−53.83	−64.96
General Government Debt	37.12	60.99	86.22	121.51	176.44	255.44	362.61	502.82	680.45	895.20	1146.02

Source: Ministry of Finance; Evaluation methodology: Cash flow.

REFERENCES

European Commission (2009), *Incorporating Implicit Liabilities into the Medium-term Budgetary Objectives (MTOs): Update and Finalisation of June 2008 Proposal*, Document No. ECFIN-C-2/REP/51612.

——————(2010), *Proposal for a Council Directive on Requirements for Budgetary Frameworks of the Member States*, 2010/0277 (NLE).

Heikki, O. (2009), "Setting Targets for Government Budgets in the Pursuit of Intergenerational Equity", *European Economy*, No. 358.

Hiebert, P. and M. Rostagno (2000), "Close to Balance or in Surplus: A Methodology to Calculate Fiscal Benchmarks", in Banca d'Italia (ed.), *Fiscal Sustainability*, Roma.

Marin, J. (1999), "Monitoring Budgetary Discipline: Some Simple Indicators", in Banca d'Italia, *Indicators of Structural Budgetary Balances*, Roma.

——————(2002), "Sustainability of Public Finances and Automatic Stabilization Under a Rule of Budgetary Discipline", European Central Bank, Working Paper, No. 193.

Republic of Slovenia (2011), *Stability Programme 2011 Update*, Ljubljana, April.

COMMENTS ON SESSION 1
NATIONAL FISCAL FRAMEWORKS: THE EXPERIENCE

Andrew Haughwout[*]

Discussion of "Laws for Fiscal Responsibility for Subnational Discipline: International Experience" by Lili Liu and Steven B. Webb and of "Towards (More) Appropriate Fiscal Policy in Slovenia" by Slaven Mićković

The two papers presented here offer different, complementary, perspectives on fiscal rules and institutions. Liu and Webb offer an analysis of tools that governments adopt to keep themselves from the brink of "excess," by which I meant unsustainable, or otherwise undesirable, levels of public indebtedness. An important part of this exercise is a cross-national examination of restrictions placed on the liabilities of subnational governments. Rules of the sort that Liu and Webb discuss are *ex ante* commitment devices, restricting the public sector's ability to expand public debt, thus avoiding rapid, unplanned changes in fiscal policy. Mićković's analysis discusses a particular form of this kind of rule, primarily in the context of the Slovenian central government. This, at least, is a partial interpretation of the concept of Budgeting with Impact (BwI). BwI, with its emphasis on the interaction between fiscal decisions and macroeconomic outcomes, chooses meeting macroeconomic targets as an *ex ante* way of guiding fiscal choices and ensuring that they remain consistent with public objectives.

Mićković also explores the more dire situation faced periodically by governments, and many today, wherein existing *ex ante* restrictions have failed to restrain deficits sufficiently, and a fiscal crisis, or at least outcomes incompatible with broader fiscal stability, loom. Medium-term Objective setting (MtO) is intended to bring public budgets into alignment with fiscal rules imposed from higher-level authorities, in this case those imposed by the EU's Stability and Growth Pact.

Before discussing the effectiveness of the particular kinds of rules presented here, it is worth putting them in the broader context the need for and mechanisms for achieving fiscal discipline. Both papers start from the premise that fiscal rules are necessary – that is, we cannot rely on the voluntary actions of policy makers – either individually or collectively – to restrain spending sufficiently to achieve socially optimal outcomes. In the current context, with governments around the world and especially in Europe experiencing the costs of excessive deficits, this seems natural. But in evaluating the effectiveness of various kinds of fiscal rules, it is useful to remind ourselves of the features of public budgeting that make such rules necessary. For we do not insist on specific rules for private companies' actions with respect to their borrowing, rather we insist on transparency as to what debts are, and the mechanisms by which they are to be repaid. Why, then, do we single out the public sector for especially strict regulation?

Three principal differences between public and private sector borrowing strike me as relevant. First, public sector decision makers are short-lived relative to their private sector counterparts, and thus face incentives to reap the benefits of excellent public services (*i.e.*, high spending) today, while leaving the bills to be paid by the next generation of officials (through debt finance paid for by compulsory taxes levied on future generations). This *time inconsistency* problem is disciplined in the private sector by the fact that the long run value of the firm will

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The views presented here are those of the author and do not necessarily reflect those of the Federal Reserve Bank of New York, or the Federal Reserve System.

incorporate the decisions made by today's decision makers, meaning that today's shareholders face incentives to ensure that the firm's borrowing does not result in reductions in firm value. The concept of public sector ownership is much more diffuse, and for many governments there is no analogue to this concept of ownership, since it is far less easy to exit "ownership" of a particular government than it is a particular private sector firm. Indeed, the latter requires a call to one's stock broker, while the former requires establishing residence in a different country. (In the case of subnational governments, of course, things are less obvious, and I return to this setting shortly.)

A second important difference between the two sectors has to do with their objectives. In the private sector, owners agree that maximization of profits – and thus the value of the firm – is the principal goal of the enterprise, and all decisions may be judged against that rubric. In the public sector, objectives are almost as numerous as constituents, and, even in a democracy, the government in power may not share the objectives of a significant part of its citizenry. This means that some decisions that lead, for example, to a reduction in long run economic growth may be chosen because they have distributional consequences deemed favourable by the ruling party. The difficulties of collective decision making are well known, and while by no means absent in the private sector, are likely more likely to cause difficulties in the public sector.

A final important difference between public and private sectors is the sheer complexity and magnitude of the budgets involved. Governments provide a multiplicity of services, often financed with earmarked taxes or fees. Sometimes these fees are intended to exactly cover the costs that the government incurs in providing the service, but other times they intentionally fall short, producing an implicit subsidy, or provide a surplus that can diverted to other uses. General-purpose revenues come in many different forms – excise taxes, income taxes, value-aded taxes – and may fund a very wide variety of public services ranging from ones that arguably increase future incomes (and tax bases) like education and infrastructure investment, to ones that likely increase consumption in the near term, like transfer payments to needy individuals. In addition, many of today's fiscal decisions create contingent liabilities of uncertain value, like public pension plans. Keeping track of the details of all these funding sources and expenditure objects and their implications for the future is extremely difficult when reporting is well-designed and transparent. When it is not, the ability of ordinary citizens to effectively monitor public sector liabilities is non-existent.

Each of these three features of public finances creates problems for ensuring that budgets remain consistent with a country's long-term economic objectives. Can the private market overcome these obstacles? One natural mechanism to consider is the bond market. Don't bond investors – or bond rating agencies – have an incentive to ensure the sustainability of public finances and the means to invest in gathering the required information? Yes, but only to a limited degree. Like many other constituencies, bond investors care about only one part of the total problem faced by the citizenry – in this case, whether debts will be repaid in a timely manner. This is, of course, a matter of substantial importance, but does not provide citizens with the comprehensive view of budget impacts that they require. As recent activity in Greece indicates, sovereigns typically place a high priority on debt repayment, even when avoiding default requires wrenching macroeconomic adjustments that citizens would much prefer to avoid.

At the subnational level, a substantial literature implies that a well-informed citizenry may face exit costs that are low enough to discipline fiscal policy making. In this case, we would expect to observe negative capitalization of subnational debts (net of assets) into local asset values – particularly land and housing – without the need for strict regulation. The key problem here is, however, the information requirement. Calculating the net present value of *all* subnational governments' fiscal positions is necessary for asset values to accurately reflect the relevant variation, and there is little consistent evidence in the literature that capitalization goes much beyond current tax rates and school quality. Full, consistent, transparent reporting of fiscal positions might allow the combination of mobility and capitalization to send the appropriate market

signals to citizens and their governments, but we are a long way from that situation at present. In addition, the potential for central government bailouts of wayward subnational governments further undermines the ability of mobility and capitalization to provide needed discipline.

We are thus left with the need to regulate, even at the subnational level, and the real substance of these two works. Mićković's discussion of BwI may initially seem an uncomfortable fit for a volume on fiscal rules, since it is focused on what has become known in the US as "dynamic scoring". In essence, the idea is for policymakers to evaluate the long run impact of macroeconomic outcomes on fiscal variables – this part oi standard – and vice versa – and this part is much more controversial. Budget forecasts are often made, and the costs of policy changes are evaluated, in a static framework. For example, a permanent one hundred basis point cut in income taxes would be calculated as 1 per cent of baseline income each year. Advocates of dynamic scoring, however, might argue that reducing taxes in this way will stimulate income growth by increasing capital investment and labor supply, and the final cost will be much less than static scoring would imply – income growth induced by the change in tax policy will offset much, or perhaps all, of the effect of rate reductions.

But how is this debate over scoring policy changes related to fiscal rules? At the heart of the Mićković concept of BwI, in my view, is to make determinations about various macroeconomic targets – the level of aggregate income in the previous example – and design fiscal policy in such a way as to come as close as possible to these targets, with "close" defined in a reasonably rigorous way. The particular form of targeting proposed here is to minimize the sum of squared deviations of realizations from targets. A couple of issues arise, some minor, some major. On the minor side, it is important to make the units consistent so that two objectives may be balanced on an equal basis – otherwise Euro-denominated GDP deviations would swamp unemployment deviations. Also, what is the correct timeframe for this analysis? Shorter timeframes raise the problem of time consistency described above, while longer ones lead to the introduction of considerable uncertainty.

More major issues are related: what macro outcomes are to be included in the list, and how are they to be weighted? Who is to provide the estimates of the general equilibrium model that is required? How are exogenous, non-fiscal, shocks to be accommodated? In the US, questions like these have made the concept of dynamic scoring difficult to implement even as a way of evaluating the impacts of a particular policy initiative. Making hard and fast *rules* on such a basis makes the stakes even higher, and may lead to significant controversy along all of these dimensions and likely many others I have not mentioned. Thus while the feedbacks between fiscal decisions and private macroeconomic outcomes are extremely important, and are in some sense the fundamental driver of fiscal rules, formalizing them is complex, and requires many necessarily subjective elements.

Many of the fiscal rules summarized in the very fine international compendium provided by Liu and Webb share the intent of BwI: ensuring that fiscal choices are compatible with desired macroeconomic outcomes. But most of the rules actually in place require much less information than BwI, and may be thought of as shorthand, readily implementable versions of that concept. As noted above, the subnational governments are more complex in some ways than their national counterparts, since citizens at the regional level have additional mechanisms by which they can externalize their debts: by defaulting (shifting the cost to bondholders), by emigrating (shifting the cost to future residents) or by receiving a central government bailout (shifting the cost onto residents of other regions). Given the difficulties of other forms of discipline, described above, strict regulation may be useful in these cases.

Liu and Webb describe the effectiveness of the rules they catalog in constraining the borrowing of these governments. If this is the full purpose of these rules, then the discussion is complete, although as the authors note it is difficult to convincingly identify the partial effect of the rules themselves. But as Mićković notes, we want to hold fiscal policy to a much higher standard

than low debt. Rather, we want rules that encourage fiscal policies that foster good outcomes in the private economy. Consider the fact that some borrowing by regional governments is likely a good thing – borrowing to finance long-lived capital projects, for example, is a good way to ensure that benefits are paid for by those that receive them. So in my view, a more complete analysis of these rules and their benefits would take a broader view. Do they provide for better economic outcomes? Do they protect against significant disruptions in public service delivery, or variability in tax rates? Do they reduce the probability of central government bailouts and reductions in national economic well-being?

The juxtaposition of these two works provides insight into the difficulty in designing welfare-enhancing fiscal rules. The ideal approach is reflected in a generalized version of Mićković: set fiscal rules that foster achievement of the desired level of key macroeconomic outcomes. But implementable rules are quite a bit simpler than this, and are frequently evaluated against a much more restrictive set of criteria. In the end, rules may help, but we cannot completely rely on them to achieve the outcomes we desire.

COMMENTS ON SESSION 1
NATIONAL FISCAL FRAMEWORKS: THE EXPERIENCE

David Heald

*David Heald**

My allocated task is to discuss two papers: the paper on India, by Brajamohan Misra, and the one on the IMF study on the G7 countries by Paolo Mauro. If I discipline myself in terms of time, I will also discuss the OECD study by Colin Forthun, which has no allocated discussant.

On the India paper, it is excellent that we are broadening the countries to be discussed. The OECD and G7 countries get a lot more attention about fiscal matters than the emerging economies, so it is interesting to have such a paper. The presenter covered the substance of the paper very clearly. I will pick up some issues which I consider important. The first is that, in the 30 years following independence, India did not have a significant problem with fiscal deficits. The problem started from about 1980, and an attempt was made through fiscal responsibility laws from 2004-05 to deal with this problem by means of fiscal rules.

That is the context. One of the questions that comes out in this and other papers is whether the 2008 global fiscal crisis has or has not shifted views about discretionary fiscal policy. There seemed to be a substantial consensus that one used automatic stabilisers but not discretionary fiscal policy. It is not clear from this or other papers whether that view has been substantially changed, or whether it is only the enormity of what happened in 2008 that creates a special case.

Returning specifically to the paper about India, it talks about central government and the 28 State Governments. It would be interesting to know more about variation between the State Governments, because the data in the paper are aggregated. The paper does not deal with local government, because there are no consistent data. That provokes the question about how important local government is in India. In the published version of the paper, it would be helpful if that information was provided.

There are also issues where, given my lack of detailed knowledge about the institutional structure in India, it would be very helpful to have more description about, for example, the Sixth Pay Commission and the Thirteenth Finance Commission, and the substance of their proposals and their impact.

One item discussed briefly in the paper, and even more briefly in the presentation, is the structure of the small macro-model. If the model is to appear in the published paper, I suggest that it appears earlier, with a discussion on why it is a credible model relevant to the Indian economy, because it focuses on central issues about crowding-in and crowding-out.

Two final points about India. It would be very good for most of our countries to have had GDP growth of 8 per cent in 2009-10. That strikes a very cheerful note: obviously, there is a huge boost to public finances when growth rates are on that scale. There is also a mention towards the end of the paper of something I will come back to, which is off-budget and one-off items. The specific issues here are about pay arrears, which sounds alarming, and capital receipts from auctions.

Turning now to the Mauro paper on the IMF Fiscal Adjustment Study, I must declare an interest here, because I was at a very interesting conference in Washington DC in December 2010 when the papers for the forthcoming book were presented, and I was the discussant on the United Kingdom case study. That provoked in me a lot of thought about what the criteria for "success" are

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and the timescale over which one can judge whether a fiscal consolidation has been successful. For example, I was more sympathetic to the Geoffrey Howe (1980) consolidation than the authors of the case study, and much less sympathetic to the so-called success of the Nigel Lawson (1984) fiscal consolidation. It obviously matters whether you look only at the period to which the consolidation applies, or whether you look at the longer period. For instance, if you neglect infrastructure, or you neglect something like health and education, you then get a period later when that neglect creates problems, and there is an attempt at a very fast catch-up which proves very expensive.

There is an issue that I will return to, in relation to the OECD study. The IMF study does recognise the point that it is very dangerous for international bodies to blur the issue about the size and role of the state with that about deficits and debt. One wishes to build a political consensus for dealing with deficits and debt, but that will be undermined if it appears that the agenda is really about how to reduce the size and role of the state, which in my view should be a political choice in democratic countries. There are wide differences in measured public debt-to-GDP ratios, but the reality might be less different because of how spending under particular institutional structures is scored.

There are three points that come out from Mauro's summary. First, data quality and timeliness are essential: without them we do not know where the economy is at present. This has clear links to the broader fiscal transparency agenda. There is no point in talking about fiscal transparency without good data. Second is the way that one thinks about automatic stabilisers. In the first UK consolidation mentioned, automatic stabilisers were explicitly suppressed, but that does not now seem to be something that people argue for. The final point about the IMF presentation relates to the sentence at the end: "Thus a priority going forward will be to build public support through communication campaigns". This makes me shudder a little, because the United Kingdom has had a long period of "spin". What exactly is spin and what is communication is something that people should think about. Substantive transparency is more important than communication. If communication means presentation, that emphasis is somewhat dangerous. I look forward to seeing the book (Mauro, 2011) when it is published.

I have managed my time sufficiently well to say something about the OECD presentation. First, I am to give a presentation in the United States in May 2011 about fiscal transparency, and it is very useful to have the broad summary of positions in different countries. It is almost impossible for an individual academic to pull these things together, and it is helpful to have this kind of summarised presentation. There is an issue not stressed in the presentation as much as it was in the document, namely that these are self-reported data, so the question is whether countries tell the truth to international bodies. This raises questions about classification and about off-balance sheet and off-budget items.

Before I go on to some points of detail, I would make three general points. I worry about some of the language that is used. "Dire fiscal problems" are often talked about. Forthun mentions having a picture of the Titanic. I get quite worried because international organisations want to claim the credit for rescuing the world economy in 2008. It is obvious that, if you have a very big fiscal stimulus, this is going to have an effect on country debt numbers. This ought to be no surprise to people. It does not help the public debate if language gets out of control. Linked to that, one has to think about what the medium-term exit is from that 2008 fiscal stimulus. To give an example, the OECD was created as part of the Marshall Plan in 1945: would one have recommended that post-war Europe go back to 1939 debt-to-GDP ratios when much of the European infrastructure had been destroyed? That point is important because, if one wants to stabilise and reduce debt, building public consent is fundamentally important.

Also relevant to building public consent is my third point: too much discussion of fiscal consolidation, to my taste, proceeds on the basis that the sacrificed public output has zero value, so that health and welfare spending can be cut without economic or social cost. The OECD study contains a number of asides about the effect of certain measures on efficiency and growth, but one of the things that worries me, and I would have thought would worry Ministers in democratic countries, is the lack of discussion about distribution and equity. One of the problems many of our economies have is that the pre-tax distribution of income has become much more dispersed. How governments react to this is an important issue. For example, when talking about consumption taxes versus income taxes, it may well be true that the preference for increasing consumption taxes rather than income taxes is the correct policy choice, but the issues need to be acknowledged more openly.

I will make two final comments. I recognise that international organisations have to be careful about how they voice certain things. What struck me about the comparisons is that political cycles matter. The United Kingdom had an election in 2010; France is to have one in 2012 and Germany in 2013. The way that governments present narratives about the past depends on how long that government has been in office. Finally, I welcome the discussion in the OECD document about various fiscal wheezes and tricks. This is going to be a very significant issue in the future. One of my research interests is Public-Private Partnerships (PPP) (Heald and Georgiou, 2010). When you talk to people in many different countries, you will be told that PPPs are preferred because they are more efficient than traditional procurement. If you then ask about the budget scoring, people smile!

REFERENCES

Heald, D. and G. Georgiou (2010), "Accounting for PPPs in a Converging World", in G. Hodge, C. Greve and A. Boardman (eds.), *International Handbook on Public-Private Partnerships*, Cheltenham, Edward Elgar, pp. 237-61.

Mauro, P. (ed.) (2011), *Chipping Away at Public Debt: Sources of Failure and Keys to Success in Fiscal Adjustment*, New York, John Wiley for the International Monetary Fund.

Mauro, P. (2011), "What Failed and What Worked in Past Attempts at Fiscal Adjustment", in this volume.

Misra, B. (2011), "Fiscal Consolidation and Macro Economy: India's Experience with Rule-based Fiscal Policy and Post-crisis Challenges", in this volume.

OECD (2011), *Restoring Public Finances*, OECD Working Party of Senior Budget Officials, Paris, OECD.

Ernesto Rezk[*]

Comments to the paper "Fiscal Rules, What Does the American Experience Tell Us?" by Byron Lutz and Glenn Follette

What stems from Lutz and Follette's paper is, in the first place, some dissatisfaction with fiscal rules' performance in the United States, basically at the federal level of government, and also question marks on whether the situation may worsen.

From the policy performance side, the concern for large budget deficits and rising public debt levels clearly boosted interest and concentrated efforts in studying:

- the effectiveness of budgetary rules;
- balanced budget rules for operating budgets;
- the limits on borrowing;
- the way public expenditures are financed.

In considering that fiscal policy in the United States is carried out in a federal setting, the fiscal scenario falls short of being homogenous given to:

- the asymmetric situation of federal and subnational governments with respect to constitutional and statutory restrictions related to fiscal discipline;
- a federal debt being proportionally higher and more variable than those of state and local governments, which in turn renders proportionally larger deficits, even though debt levels vary significantly across states.

For that, and owing to constitutional or statutory balanced budget rules, fiscal responsibility performs better at the state than at the federal government level, in spite that a trade-off is seen to arise between government levels' fiscal responsibility and countercyclical behaviour.

The above mentioned asymmetries have in turn consequences as:

- balanced budget rules affect the conduct of fiscal policy over the cycle, for what countercyclical policies are mostly performed by the federal government and the pattern of states' fiscal policy becomes more pro-cyclical;
- incentives emerge for seeking less cyclical revenue sources or for setting stabilization funds.

In sum, the message so far conveyed by the authors that states' constitutional budget rules are binding, that they impose restrictions on the fiscal conduct of state governments and increase in turn pro-cyclicality seems prima facie true, although one may wonder whether creative accounting and overly optimistic projections may not be actual ways to sidestepping balanced budget rules.

In suggesting that statutory budget rules proved to be ineffective, or at least insufficient, at the federal level, the authors carried out an interesting and rich review of diverse stabilization acts, enacted as of 1974.

The point is stressed that the 1974 Budget Control and Impoundment Act (BCIA):

- responded not only to the concern with increasing deficits but also with conflicts between the executive and legislative branches;

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- for what the Houses' budget committees had the task of outlining the policy path for the coming 5 years and of setting targets for appropriations and reconciliation bills.

Nevertheless, and in spite of expectations, this Act fell short of curbing exploding deficits.

Following the failure of the BCIA, the 1985 Balance Budget and Emergency Deficit Control Act (also called the Gramm-Rudman-Hollings Act) amounted to a new attempt to checking deficits by:

- instituting annually projected deficit targets; and
- creating a sequestration mechanism whereby outlays would be cut in order to meet the targets.

Despite all, the budget process based on the GRH rule could not overcome the distortion caused by overly optimistic economic and technical assumptions and called for new instruments to be designed.

Coming next, the 1990 Budget Enforcement Act (BEA) changed the focus common to preceding acts since now:

- efforts were directed to restraining budget decisions rather than budget outcomes;
- the PAYGO rule was resorted to; that is, the set of used taxes and mandatory spending laws would not permit the deficit to increase;
- annual limits were imposed to discretionary spending;
- tax increases and mandatory spending cuts would be conducive to reaching budget balance.

Enforcement mechanisms were implemented in order that the BEA could satisfactorily meet its objectives:

- bills violating PAYGO rules or spending caps were subject to parliamentary obstacles;
- excesses in budget authority or projected discretionary spending immediately triggered sequesters, as well as changes in taxes and mandatory spending that increased deficit.

An evaluation of the Budget Enforcement Act's performance showed that:

- despite BEA rules proved to be more durable than the explicit deficit targets (GRH), its effectiveness was not at all clear and its results were deemed insufficient;
- more serious a drawback, BEA's difficulties to dealing with deficits arising from technical and economic assumptions placed it validity at stake.

President Clinton's plan to balance the budget in five years, based on tax increases and mandatory spending cuts (MEDICARE), and the continued adherence to revised and extended discretionary caps, were reflected in turn in the 1993 Omnibus Budget and Reconciliation Act. This Act was complemented by the 1997 Tax Reduction and Balanced Budget Act whereby:

- president Clinton implemented his second term fiscal plan, aimed at reaching budget balance by 2002 by extending discretionary caps and carrying out severe reductions in MEDICARE and other entitlements.

Two important matters are worth quoting here, the first one concerning the importance of elucidating whether surpluses in the period (tight fiscal policy) stemmed from budget rules, or from the executive and Congress' decisions, and the second one is that the American experience rendered scarce evidence of statutory budget rules' effectiveness while it did not rule out in change the influence of policymakers' preferences.

In ascertaining the manner in which states' budget rules contribute to fiscal consolidations, it must be noticed that:

- constitutional and statutory balanced budget rules add to court rulings on borrowing limits at the states' government level;

- variants include governors proposing balanced operating budgets, legislatures passing balanced operating budgets and budgets balanced at the end of the fiscal year with no possibility of carryovers;
- in order to meet balanced budget rules, legislatures may reduce expenditure or increase revenues and governors may reduce outlays or resort to short term borrowing which bridges the budget gap;
- however, and as mentioned above, main challenges stem from manoeuvres usually known as creative accounting practices.

As the questions can be raised of whether balanced budget rules are associated with differences in state fiscal behaviour, or to what extent states' debt levels are sound when assessing the efficacy of fiscal rules, it is quoted that:

- correlations between usual ratings and debt levels suggest that tighter budget restrictions are associated with lower debt levels, for what one may assume that covenants are binding at the state level;
- states with strong rule states maintain larger balances than those with weak rule; in consequence, it can be deduced that the former exhibit stronger fiscal positions than the latter;
- finally, despite constitutional rules are seen to be more effective in getting lower debt levels and smaller deficits, the cost in terms of an increase of states' budget outcome pro-cyclicity should not be totally ignored.

Comments to the paper "Fiscal Rules and Fiscal Policy in Brazil" by Ana Teresa Holanda de Albuquerque

As amply analyzed by the author, as of the nineties Brazil resorted to varied policies, whose targets and instruments sought to get the country's fiscal consolidation; among these, the following four are particularly worth mentioning:

First, programmes aimed at carrying out large scale privatizations, taking place mainly from 1991 through 2002 and focused on:

- the central government level: industrial and mining firms, ports, railroads and state owned firms from energy and telecommunication sectors;
- subnational privatization programmes including many state owned banks.

In valuing the performance, let it be pointed out that the attraction of foreign direct investment, devaluation of *real* delayed until 1999 and state owned enterprises' deficits no longer impacting upon public budgets may be counted as some of the programmes' main achievements.

Second, the recognition of extra budgetary unrecorded liabilities, occurring in the period1996-2000, whereby:

- state owned firms employees' legal claims were transferred to the central government, as well as bad performance loans of states' financial institutions and the fiscal impact of the private banking system restructuring;
- interest rate subsidies were introduced on housing loans.

Third, the 1997 Subnational Debt Restructuring Programme by which it was intended to meet:

- the problems large scale decentralization caused to states by bringing about the reduction of the public sector primary balance and the consequent deterioration of states' fiscal performance;

• the situation originated in states' sluggishness to adjust to the new low inflation scenario and in theirs resorting to high interest loans for solving cash flow difficulties.

In response to states' fiscal crisis the central government mounted a comprehensive debt restructuring plan that included up front and interest rate subsidies and the banning of future bailouts among government levels. Nevertheless, the once and for all bailout was conditioned to states performing adjustments including primary surplus targets and spending ceilings; limits for future borrowing were also set as well as states' current revenues as a guarantee for service payments.

Fourth, the Fiscal Responsibility Law (FRL) enacted in 2000 stood itself, without any doubt, as the cornerstone of the Brazilian Fiscal Consolidation Plan (following the 1994 Macroeconomic Stabilization Plan) in so far as its mechanisms aimed at ensuring compliance of proposed fiscal targets, control of fiscal aggregates and enhancement of transparency and fiscal consolidation stimulus in all three government levels.

• The FRL, Instead of fixing fiscal targets, set ceilings for debt levels and expenditures in personnel, in terms of the government level's net current revenues.

• The FRL mandated, seeking to enhance transparency, that compliance reports of previous year's fiscal targets (primary balance, PSBR and net debt) and fiscal targets for the coming three years be annexed to pluriannual budget and annual budget guidelines laws; a risk report with an assessment of contingent fiscal liabilities had also be added to the latter.

• Concerning fiscal rules to be met by budgetary laws, it was particularly worth mentioning the requirement that new permanent spending had to be accompanied by increases in permanent revenues or by permanent spending cuts.

• Strict compliance and governance provisions mainly accounted for the success of the FRL. In this connection, when limits were not met, or gaps not done away, state governments were neither permitted to issue new debt nor entitled to receive discretionary transfers or credit guarantees from the central government.

• Likewise, apart from the bailout prohibition among government levels, administrative, financial, political penalties and even prison could applied to public officials failing to obey the FRL ruling.

• Transparency was additionally enhanced by obliging government levels to release bi-monthly reports on budget execution and four month reports on compliance of the FRL parameters.

• Actuarial reports on the social security system of the public and private sectors had also be sent to the Congress together with the annual budget guidelines.

Notwithstanding the fact that the programmes and instruments resorted to by the government, in particular the Fiscal Responsibility Law, marked and inflection point in Brazilian fiscal and budget rules, the question arises of whether the improvement of the situation will be enduring or, as feared by some public sector specialists, there are still red lights in the Brazilian fiscal horizon.

Those analysts in charge of following the Brazilian macroeconomic performance do not hesitate in pointing out that:

• the accelerated economic growth, as of 2003, helped in maintaining an average primary surplus of 3 percentage points of GDP in the period 2004-08, based mainly on increases in the revenue side;

• in proof of that, it is stressed that the tax burden rose from 28.7 per cent of GDP, in 1999, to 34.7 per cent in 2008. At the same time, public spending (wages, social programmes and pension payments) also kept a rising pace during the period;

- current public spending amounted to 20.9 per cent of GDP in 2008, the main component being transfers to families (*i.e.*, the Bolsa Familia programme). Increases in civil servants' wages above the inflation rate and growing pension payments, owing to the early retirement age, also explained the growth of public spending;

- in 2010, central government's revenues fell short of spending requirements, for what revenues from oil sales (PETROBRAS) had to be transferred to the Treasury in order to exhibit a primary surplus of 2.16 per cent of GDP.

In the light of the above mentioned features, it seems clear that the main challenges in the Brazilian fiscal front may be summarized as the need of:

- reducing the present debt level/GDP ratio;

- improving the expenditure allocation by enhancing public savings (share and quality of public investment);

- placing a limit to the growing gap between pension payments and contributions;

- revising the inflexibility of the central government budget, as an important part of revenues are earmarked to specific programmes and mandatory expenditure;

- simplifying the tax system and alleviating the tax burden upon taxpayers.

Finally, and given the level of integration of the country's economy to the world economy, it seems important to highlight Brazilian's fiscal responses to 2007 and 2008 international crises; in particular, the performance of built-in flexibility and the response of active fiscal policies:

- in the first case, the effect of automatic stabilizers was not very important, reaching in the 2009 budget 0.27 p.p. of GDP due to tax losses from manufacturing and 0.17 percentage points of GDP due to more unemployment insurance payments;

- the discretionary fiscal policy did not either play an outstanding role as tax deductions only amounted to 0.8 percentage points of GDP whereas mandatory spending was raised by 1.21 percentage points of GDP. Nevertheless, this sufficed to explain why 2010 revenues could not meet expenditure requirements.

Session 2

FISCAL RULES AND INSTITUTIONS IN THE EUROPEAN UNION

SGP 3.0: CONTINUITY AND INNOVATION
IN THE EVOLUTION OF THE EU FISCAL FRAMEWORK

Martin Larch,[*] *Lucio R. Pench*[*] *and Christine Frayne*[*]

1   Introduction

The global economic and financial crises has exposed the need for greater coordination and enhanced surveillance of economic policies in Economic and Monetary Union (EMU). Existing instruments and methods of coordination and surveillance enabled the EU to avert a full-scale depression in the midst of a storm that no Member State could have managed on its own. However, recent experiences also showed remaining gaps and weaknesses in the current system of coordination and in the existing surveillance procedures.

Against this background, a broad-based reform process is under way in the EU that seeks to address the lessons of the crisis. While no one would argue that the post-2007 economic and fiscal crisis was caused by flaws in EU economic governance, its is also clear that (i) existing arrangements did not necessarily facilitate an effective policy response during the crisis and (ii) the unprecedented impact caused by the crisis calls for changes in the governance structure to put public finances back to a sustainable path after.

Our paper provides a detailed presentation of the reform project deliberated at EU level to strengthen economic governance in the Union. Reflecting the sweeping impact of the crisis, which seriously affected the entirety of our economic system – the real economy, financial systems and public finances – the actual reform debate and reform effort goes well beyond fiscal policy. It embraces all areas of economic policy making in the EU including for instance financial market supervision and regulation.

Keeping this in mind, our main objective is to take a closer look at how the broader reform process will change the EU fiscal framework, which together with centralised monetary policy making was and still is at the core of the EU economic governance framework. Our attention will be centred on two sets of specific initiatives: (i) the legislative proposals for a stronger EU economic policy coordination adopted by the European Commission on 29 September 2010; and (ii) initiatives launched by the Member States within the Council creating mechanisms for crisis resolution, that is arrangements that come into play when sovereign borrows are facing problems of illiquidity or insolvency or both.

Although dealing with interlinked issues, the two sets of initiatives are separated by important legal and institutional differences. The legislative package of the Commission emerges from what is generally called the community method and takes the Treaty provisions as given. The Member States' initiatives largely follow the intergovernmental path including possible changes to EU primary law.

Taking a macroscopic view, the Commission's reform package of 29 September 2010 consists of two major blocks. The first comprises a set of measures aimed at strengthening the provisions of the Stability and Growth Pact, the existing EU fiscal surveillance framework. The second block proposes an entirely new surveillance procedure dealing with macro financial developments. Its aim is to prevent and correct macro financial imbalances which, if they unwind,

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Disclaimer: The views expressed in this paper are those of the authors and do no necessarily reflect the position of the European Commission and/or the Directorate-General for Economic and Financial Affairs.

can have a bearing on the sustainability of public finances and the stability of the economy as a whole.[1]

Both blocks offer concrete responses to important lessons from the crisis. On the fiscal side, the crisis has drastically reversed the favourable economic and financial conditions that prevailed until 2007 and made clear yet again that windfalls accumulated during good times have not been sufficiently used to create room for manoeuvre. As a result, many Member States entered the crisis with little or no fiscal space.

Also on the fiscal side, the slow decline of public debt before the crisis and the very sharp increase during the crisis underscored the need to pay more attention to debt developments. On the back of slowing potential economic growth and an increasing number of below the line operations, keeping the deficit below the 3 per cent of GDP threshold of the Treaty is not longer sufficient to ensure a declining debt ratio.

Finally, fiscal surveillance before and during the crises clearly showed that EU rules can only work if they are backed by national frameworks. In many Member States arrangements of fiscal governance are not necessarily consistent with the obligations under the Treaty. In particular, few countries have effective fiscal rules, institutions or procedures conducive to achieving the objectives of the SGP. Existing frameworks are largely dominated by national institutional history.

Moving beyond the fiscal area, the emergence of large macroeconomic imbalances, including large and persistent divergences in competitiveness trends, proved highly damaging to the EU and in particular to the euro when the crisis struck. In the years preceding the crisis, low financing costs fuelled the misallocation of resources to often low productive uses, feeding unsustainable levels of consumption, housing bubbles and the accumulation of external and internal private debt.

These accumulated debt positions created significant vulnerabilities which were not captured on the radar screen of existing economic surveillance frameworks. Mirroring the prevailing macroeconomic paradigms, low and stable inflation in combination with sustainable public finances were deemed to be sufficient to guarantee overall macroeconomic stability. When they eventually unwound, macroeconomic imbalances turned into massive liabilities of the government sector as fiscal authorities endeavoured to safeguard overall macro financial stability by expanding its own balance sheet.

In particularly severe cases, the financial and economic crisis developed into a sovereign debt crisis where the solvency or liquidity of government was at stake. Such a situation was alien to the logic of the SGP. A forceful implementation of the fiscal framework in combination with the no-bail out clause of the Treaty was meant to prevent any sovereign debt crisis.

Once the unthinkable eventually happened, the no-bail out clause lost its credibility and the lack of provisions to deal with an outright crisis turned into a clear handicap. When faced with the choice of accepting a sovereign default or providing financial help to ailing countries the Council eventually went for the latter. The risk of a financial meltdown of a highly integrated financial market such as the euro area was deemed to be more serious than deviating from the spirit of EU primary law.

While the issues and problems outlined above did not come as a complete surprise their extent and relevance was clearly underestimated. This holds particularly true for macro-economic imbalances. In its Communication and Report on "EMU@10: successes and challenges after

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[1]   A schematic view of the reform package is provided in the Annex.

10 years of Economic and Monetary Union",[2] the Commission had stressed the need to broaden economic surveillance in order to detect and address macroeconomic imbalances at an early stage. Enhanced surveillance efforts were seen as warranted in the area of external competitiveness and current account balances where noticeable divergences between Member States had emerged since the launch of the euro. However, at the time no one anticipated that macro imbalances could shake the foundations of EMU.

With the benefit of hindsight we know better. The crisis has triggered a veritable paradigm shift. An eloquent and succinct account of why and how the crisis forces us to rethink macroeconomic policy is provided by Blanchard *et al.* (2010). Similar and more extensive (re)appraisals are likely to follow. As part of this learning process, the official narrative of EU economic governance, whereby monetary and fiscal discipline would be sufficient to ensure macroeconomic stability and that existing rules would effectively stave off the risk of sovereign default, have been put into question.

Europe is currently trying to adapt its economic policy framework to the "new paradigm". Although incisive and comprehensive, the reform approach is not a radical one. It represents a reasoned balance between continuity and innovation. Existing arrangements, notably the rules-based framework of EU fiscal surveillance, are not thrown over board. Their rational is still valid. The reform seeks to strengthen them. In addition, the reform extends the scope of fiscal policy coordination to include national fiscal arrangements, the interplay between macroeconomic imbalances and public finances and explicit crisis resolution mechanisms.

The remainder of our paper takes a closer look at the main elements of the proposed reform of the EU's fiscal framework. Section 2 details the proposals to strengthen the existing provisions of fiscal surveillance, that is the SGP proper. Section 3 describes the planned extension of the surveillance framework to prevent and correct macro-economic imbalances which, if out of hand, can weigh on public finances and jeopardise overall macro financial stability. Section 3 focuses on crisis resolution reviewing both the ad hoc instruments decided in the face of the Greek sovereign debt crisis in May 2010 and the plans for a permanent mechanism outlined by the Council on 16 December 2010 and confirmed in March 2011.

2 Fiscal surveillance and coordination

2.1 *The EU rules: a stronger Stability and Growth Pact*

The SGP consists of two arms: one on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies – the so-called preventive arm, based on Article 121 of the Treaty – and one on the implementation of the excessive deficit procedure – the so-called corrective arm, based on Article 126 of the Treaty.

The SGP underwent a first reform in 2005 as a direct consequence of the institutional stand-off in November 2003 when the Council decided not to step up the excessive deficit procedure for Germany and France as required by the SGP. The declared goal of the first reform was to make the Pact "smarter". Existing rules were felt to be excessively rigid and to lack economic rational. As a result, while professing the rules-based nature of the SGP, the 2005 reform introduced additional elements of flexibility that were expected to improve the working of the Pact not least by modulating fiscal adjustment as a function of economic conditions. Concretely, the Council report underpinning the 2005 reform considered that, in order to avoid pro-cyclical fiscal

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[2]   See European Commission (2008).

policy, Member States should "[…] use more effectively periods when economies are growing above trend for budgetary consolidation […]".

Backed by remarkably favourable public finances in the vast majority of Member States, the assessment of the 2005 reform prior to the crisis was fairly positive. In 2007, the headline deficit of the EU as a whole was 0.7 per cent of GDP, the lowest level in more than two decades and the debt ratio had embarked on a downward trend. Moreover, available estimates of the structural deficit seemed to suggest the improvement in the headline deficit was accompanied by an improvement in the structural budget balance; most countries were considered to be close or at their respective medium-term objective (MTOs)

Admittedly, doubts were raised about the truly structural nature of the observed improvements. In the 2007 edition of its annual report on Public Finances in EMU the European Commission, when commenting budgetary outturns in 2006 noted that "*the improvement of government budget balances took place against the background of a broad-based economic recovery over the course of which the inflow of tax revenues went clearly beyond normal rates*". However, these concerns did not impact on actual fiscal policy making as official recommendations and opinions issues under the SGP were strictly based on the indications of the commonly agreed assessment tools in particular the cyclically-adjusted budget balance net of one-offs and other temporary measures.

The post-2007 crisis eventually exposed the "Emperor's new clothes". Progress towards MTO turned out to be insufficient and the structural balance, while conceptually a valid indicators, proved an inadequate measure of the underlying fiscal position of a country for two reasons: (i) the difficulty of assessing the cyclical position of the economy in real time and (ii) insufficient account being taken of revenue windfalls and shortfalls not directly related to the economic cycle (in particular housing and financial market developments). As a result, apparently sound budgetary positions before the crisis masked in a number of countries strong reliance on windfall revenues to finance expenditure, the reversal of which contributed to soaring budget deficits.

The crisis also underscored the need to keep a closer eye on debt developments. Within two years, the combined effect of falling revenues, discretionary fiscal expansions and below the line operation aimed at stabilising the financial system, led to an increase of the debt-to-GDP ratio in the EU by around 20 per cent of GDP. In addition, in the face of a general slowdown of potential output growth, visible before the crisis and accelerating as a consequence of the crisis, respecting given thresholds for the budget deficit would no longer be sufficient to ensure a decline in the debt ratio.[3]

2.1.1 *Strengthening the preventive arm*

The preventive arm of the SGP is meant to ensure that Member States follow prudent fiscal policies, and thereby avoid more stringent forms of coordination, so as to not put fiscal sustainability at risk with potentially negative consequences for EMU as a whole. Accordingly, Member States are required to present stability and convergence programmes outlining their plans to achieve medium-term budgetary objectives (MTO), which are defined in percentage of GDP in structural terms (*i.e.*, adjusting for the effect of the cycle and excluding one-off and temporary measures) and are differentiated across countries around a close-to-balance position to reflect the level of public debt and liabilities related to ageing. Member States not having reached the MTO

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[3] When the SGP was designed in the 1990s the 3 per cent of GDP reference value of the Treaty was rationalised as the level of deficit which, with an average growth rate of at the time 3 per cent per year and an inflation target of 2 per cent per year, would ensure a declining debt ratio.

are expected to converge towards it at annual pace of 0.5 per cent of GDP in structural terms. However, as indicated above progress towards MTOs has been generally insufficient, leaving public finances badly exposed to the economic downturn.

To respond to these shortcomings the reform of the preventive arm put forward by the Commission on 29 September 2010 as part of the overall reform package defines principles of prudent fiscal policy-making (PFM), which, while retaining the current MTOs, and the 0.5 per cent of the GDP annual convergence requirement, provide operational guidance on how to effectively achieve the required annual adjustment in structural terms. In point of fact, the structural budget balance and the PFM have a common basis. In both cases fiscal policy is assessed with respect to a benchmark of medium-term economic growth. The analytics of the relationships is detailed in the Annex.

PFM implies that annual expenditure growth should not exceed – and, if the MTO has not been achieved, should be clearly *below* – a prudent medium-term rate of growth of GDP, unless the MTO has been more than attained or the excess of expenditure growth over the prudent medium-term rate is matched by discretionary measures on the revenue side. The essential aim is that of preventing that revenue windfalls are spent and are instead allocated to debt reduction.[4]

PFM will provide the benchmark against which countries' fiscal plans in the stability and convergence programme will be examined. Additionally, failure to respect the agreed rate of growth of expenditure, in conjunction with the stipulated revenue measures, will make the concerned Member State liable to a warning from the Commission and, in case of a persistent and/or particularly serious infraction, to a Council recommendation to take corrective action, on the basis of Article 121 of the Treaty.

It is important to note that principles of PFM do not impose constraints on the size of government or changes thereof. Irrespective of the size of government, principles of PFM simply ensure that, taking into account budgetary objectives, expenditure plans are adequately resourced, specifically, by discretionary measures on the revenue side and not through reliance on revenue windfalls. Consequently, the prime objective of principles of PFM is to have a transparent and effective benchmark for assessing whether fiscal-policy making is geared towards achieving and maintaining the MTO across the cycle.

2.1.2 *Taking stock of the Excessive Deficit Procedure*

The corrective arm of the SGP is meant to avoid gross errors in budgetary policies, which may put at risk the sustainability of public finances and potentially endanger EMU. This translates into the obligation for Member States to avoid excessive government deficits, which are defined against numerical threshold for deficit (3 per cent of GDP) and debt (60 per cent of GDP or sufficiently declining toward it). The excessive deficit procedure (EDP) that implements the ban on

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[4] Conceptually, the principle of prudent fiscal policy making draws on the main intuition underlying the notion of fiscal sustainability, namely that over the long term government expenditures should not grow faster than available government revenues. The intuition can be formalised by looking at the derivative with respect to time of the budget-balance-to-GDP ratio:

$$\dot{bb} = \left(\frac{\dot{R}}{R} - \frac{\dot{Y}}{Y} \right) \frac{R}{Y} - \left(\frac{\dot{G}}{G} - \frac{\dot{Y}}{Y} \right) \frac{G}{Y}$$

where a dot indicates a change over time, bb stands for the government balance-to-GDP ratio, R for government revenues, G for government expenditures and Y for the growth rate of GDP. Assuming that the growth rate of revenues equals the growth rate of GDP, the dynamics of the budget-balance-to-GDP ratio depends on the growth rate of expenditure *vis-à-vis* the growth rate of GDP. To achieve an annual reduction of the budget balance of 0.5 per cent of GDP over the cycle with a government size of say 0.5, the growth rate of government expenditure needs to be 1 percentage point lower than the rate of economic growth.

excessive deficits foresees a sequence of steps, which, for euro-area countries, include the eventual imposition of financial sanctions.

The 2005 reform of the SGP did not alter the core of the corrective arm. In line with the overall objective of the project, it only introduced elements of flexibility into the sequence of steps which were made contingent on relevant economic factors and economic conditions. Government actions to correct an excessive deficit were to be considered in a conditional manner, that is, in connection with the prevailing economic outlook. As a consequence, a failure to bring the headline deficit below the 3 per cent of GDP reference value would not necessarily imply a tightening of the EDP, provided the Member State had taken the agreed action and an unexpected deterioration of economic conditions had hampered the achievement of nominal deficit targets. Apart from these procedural innovations, the government deficit remained the focal point of the corrective arm.

The EDP has been regularly applied in line with the relevant provisions, even against the background of the exceptional circumstances of the financial crisis, thereby contributing to anchoring expectations of its orderly resolution. However, a number of shortcomings have emerged. While the deficit and the debt criterion are in principle on an equal footing, and persistently high levels of debt arguably represent a more serious threat to public finance sustainability than occasionally high deficits, in practice the 3 per cent of GDP threshold has been the nearly exclusive focus of the EDP, with the debt playing so far a marginal role. This owes to the less straightforward nature of the debt threshold compared to the deficit, including the ambiguity of the notion of sufficiently diminishing pace of reduction and the greater impact on the debt ratio of variables outside the control of the government, notably inflation.

The existing EDP is backed in principle by a strong enforcement mechanism, as financial sanctions can, and should be, imposed in case of persistent failure to correct an excessive deficit. However, such sanctions arguably come into play too late in the process to represent an effective deterrent against gross fiscal policy errors, not least because the financial situation of the concerned country may be so deteriorated to make the threat of a fine less credible at the moment when it should become actual.

The credibility of sanction is further dented by the discretion effectively enjoyed by the Council in the decisions to proceed with the successive steps of the EDP. Finally, the recent crisis has highlighted that if the obligation to correct excessive deficits contributes to anchoring the expectation that government solvency will be maintained, the timeline of the correction and the profile of the adjustment may have to reflect EMU-wide considerations, in a situation where the assignment of the respective roles of fiscal and monetary policy may be less clear than in normal circumstances.

2.1.3 *Ensuring a more effective corrective arm*

To respond to these shortcomings the following key proposals for the reform of the corrective arm are being put forward.

The debt criterion of the EDP is to be made operational, notably through the adoption of a numerical benchmark to gauge whether the debt ratio is sufficiently diminishing toward the 60 per cent of GDP threshold. Specifically, a debt-to-GDP ratio above 60 per cent is to be considered sufficiently diminishing if its distance with respect to the 60 per cent of GDP reference value has reduced over the previous three years at a rate of the order of one-twentieth per year. Non-respect of this numerical benchmark however is not necessarily expected to result in the concerned country being placed in excessive deficit, as this decision would need to take into account all the factors that are relevant, in particular for the assessment of debt developments, such as whether very low inflation is hampering debt reduction as well as risk factors linked to the

structure debt, private sector indebtedness and implicit liabilities related to ageing. In line with the greater emphasis on debt, more leeway in taking into account relevant factors is also foreseen in case of non-respect of the deficit criterion, if a country has a debt below the 60 per cent of GDP threshold.

A particularly important element among the other relevant factors is the impact of the economic cycle. If the numerical benchmark of on average one-twentieth per year over the previous three years was applied mechanically, there would be a clear risk of pro-cyclicality: The assessment would signal non-compliance, and possibly warrant procedural steps during temporary downturns, while it would conceal unfavourable debt dynamics and delay procedural steps during temporary economic upturns. In order to avoid this type of situation, the assessment of debt developments needs to take into account the effect of the cycle. Such an exercise is not going to be easy as any adjustment for cyclical factors is subject to a considerable degree of uncertainty. Moreover, while there are established methods for purging headline deficits there is no equivalent for the debt. A good portion of judgement will be necessary.

More flexibility in taking into account relevant factors when determining the existence of an excessive deficit could also benefit countries undertaking systemic pension reforms, beyond the currently foreseen five-year transitory period. The special provisions of the SGP for systemic pension reforms with regards to the deficit criterion are also extended to the debt criterion, through establishing the same 5-year transitory period for considering the net costs of such reforms when assessing the compliance with the debt criterion. Finally, equal consideration shall be given to the partial or total reversal of previously implemented systemic pension reforms, during both the launch and the abrogation of an EDP.

2.1.4 Backing up the new framework with meaningful sanctions

Enforcement is strengthened by introducing a new set of financial sanctions for euro-area Member States, which would apply much earlier in the process according to a graduated approach. Specifically, in addition to the "atomic option" at the very end of the Excessive Deficit Procedure under current provisions the new set of instruments will involve an increasing cost for each successive deviation from the provision of the Stability and Growth Pact. These costs would be mainly reputational at the beginning and translate in real financial costs as the obligations under the Pact are successively violated.

To start with, euro-area Member States could be asked to lodge an interest-bearing deposit amounting to 0.2 per cent of GDP already under the preventive arm of the Pact. The triggering event would be the Council recommendation under Art. 121(4) mentioned in Section 0 issued in the event of a persistent and/or severe deviation from the path of fiscal adjustment towards the MTO. The deposit would become due semi-automatically that is on the issuance of the recommendation by the Council, unless the Council within ten days decides the contrary by qualified majority.

If the euro-area Member State concerned corrects the situation giving rise to the deposit, meaning if it corrects the significant deviation from the adjustment path, the deposit will be returned with accrued interest and the actual financial cost will, depending on the difference between the interest paid on the deposit and the interest rate paid on government debt, be fairly negligible for most countries. The main price to pay is more of moral kind; a country is singled out and has to provide a sort of bail.

The second stage in the proposed set of new sanctions is a non-interest bearing deposit amounting again to 0.2 per cent of GDP. It would apply upon the decision of placing a country in excessive deficit. Like for the interest-bearing deposit, the non-interest-bearing variant would

effectively be imposed with reversed qualified majority: Following the decision to place a country in EDP according to Art. 126(6) of the Treaty, the decision to impose the non-interest bearing deposit would be deemed adopted by the Council unless it decided to reject within ten days of the respective Commission proposal.

In case a country that was previously asked to lodge an interest-bearing deposit does not correct the deviation from the adjustment path and ends up with an excessive deficit, the existing deposit is converted into a non-interest bearing one taking into account the accrued interest. Finally, the non-interest bearing deposit would be converted into a fine in case of non-compliance with the initial recommendation to correct the deficit.

The amount of the fine is equal to the fixed component of the sanctions already foreseen in the final step of the EDP, *i.e.*, 0.2 per cent of GDP. It also bears a link with the minimum amount that Member States currently receive in annual commitments from a relevant subset of EU expenditure categories whose effectiveness depends on sound fiscal policies and that have an impact on the quality of public spending and structural adjustment (Cohesion Fund, European Regional Development Fund, European Social Fund, European Agricultural Fund for Rural Development, European Fisheries Fund). Specifically, half of the amount (0.1 per cent of GDP) corresponds to the minimum GDP share perceived by any Member States under the above-defined subset of EU expenditure categories.

This should facilitate the eventual move to a system of enforcement linked to the EU budget as outlined in the above-mentioned Commission communication of 30 June 2010. Further non-compliance would result in an intensification of the sanction, in line with the already existing provisions in the SGP. To reduce discretion in the enforcement, the procedure of "reverse voting" mechanism is foreseen for the imposition of the new sanctions in connection with the successive steps of the EDP. Specifically, upon each step of the EDP, the Commission will make a proposal for the relevant sanction, and this will be considered adopted unless the Council within ten days decides against it by qualified majority. The size of the non-interest bearing deposit or the fine can only be reduced by the Council based on a specific proposal the Commission following a reasoned request by the Member State concerned.

Moreover, the criteria for assessing compliance with the recommendations at each step, including the possibility allowing an extension of the deadlines for the correction of the excessive deficit, are clarified by placing explicit emphasis on the fiscal variables that can be assumed to be under the direct control of the government, notably expenditure, in analogy with the approach proposed for the preventive arm. Beyond these country-specific circumstances, the possibility of extending the deadlines is introduced also in case of a crisis threatening the smooth functioning of EMU.

Compared to current arrangements, the proposed set of graduated disincentives and sanctions in combination with the reversed qualified majority voting constitutes an important step forward. Sanctions will kick in earlier and be imposed in a semi-automatic fashion. Critical observer, however, doubt whether the reversed qualified majority voting will lead to a more effective enforcement of the rules. In their view the term semi-automatic is misleading because sanctions would only be imposed after the Council has determined, via traditional voting, that provisions of the SGP have been breached. They argue that one can speak of semi-automatic sanctions only if there is no discretionary filter between the breaching of an SGP rule and the reversed qualified majority voting on the sanction. At the same time they acknowledge that it would be difficult to attain such an unfiltered mechanism because it would require a Treaty change. According current EU primary law pertaining to fiscal surveillance, any type of procedure, with the exception of the warning under Article 121(4) which, however, does not lead to sanctions, can be stepped up only after the Council has found the required majority to do so.

2.2 National arrangements: domestic fiscal frameworks

Effective enforcement of the EMU budgetary coordination framework cannot be expected to derive only from provisions established at EU level. The particular decentralised nature of fiscal policy-making in the EU and the general need for national ownership of EU rules make it essential that the objectives of the EMU budgetary coordination framework are reflected in the national budgetary frameworks.

A *national budgetary framework* can be understood as the set of elements that form the basis of national fiscal governance, *i.e.*, the country-specific institutional policy setting that shapes fiscal policy-making at national level. This includes public accounting systems, statistics, forecasting practices, numerical fiscal rules, independent national budget offices or institutions acting in the field of budgetary policy, budgetary procedures governing all stages of the budget process and medium term budgetary frameworks in particular, and fiscal relations across government layers. While Member States' specific needs and preferences must be respected, a number of features stand out as being needed in terms of ensuring minimum quality and consistency with the EMU budgetary framework.

These are the subject of the Directive on national budgetary that is being proposed to complement the reform of the SGP. Such features firstly require that the most fundamental elements of national budgetary frameworks, namely accounting and statistical issues as well as forecasting practices, accord to minimum European standards to facilitate transparency and the monitoring of fiscal developments. Domestic budgetary frameworks need also to adopt a multi-annual fiscal planning perspective so as to ensure the achievement of the medium-term objectives set at EU level. Additionally, Member States must have in place numerical fiscal rules conducive to the respect of the deficit and debt thresholds. Member States must ensure that these features apply to all general government layers. National authorities must also guarantee the transparency of the budget process by providing detailed information on the existing extra-budgetary funds, tax expenditures and contingent liabilities.

3   Tackling macroeconomic imbalances

The foreseen mechanism strives to provide the framework for identifying and addressing macroeconomic imbalances, including deteriorating competitiveness trends. As such it complements the macro-structural country surveillance process foreseen under Europe 2020. It would comprise a regular assessment of risks of imbalances, including an alert mechanism, coupled with a system of rules designed to enable corrective action in case of adverse macroeconomic imbalances beyond fiscal policy. Its scope would cover all Member States.

3.1   The Alert Mechanism

Surveillance would start with an alert mechanism that aims at identifying Member States with potentially problematic levels of macroeconomic imbalances. The alert mechanism would consist of a scoreboard complemented by judgemental analysis. The scoreboard is designed to be transparent, reasonably simple and underpinned by economic rationale. For that purpose, a set of indicators aims at timely identification of imbalances emerging in different parts of the economy. The set of indicators should be sufficiently large to cover any possible case of major imbalance and making sure that it is sufficiently sensitive to detect imbalances early on.

Alert thresholds would be defined and announced for each indicator to increase transparency and accountability. For some indicators, thresholds would be symmetric in the sense of detecting imbalances for both excessively high levels and excessively low levels of the variable. The thresholds should therefore be seen as indicative values which would guide the assessment but should not be interpreted in a mechanical way; they should be complemented by economic judgment and country-specific expertise.

The scoreboard would be composed of several indicators for each Member State. Its composition may evolve over time due to changing threats to macroeconomic stability or advances in data availability. Although the same indicators would be used for all Member States, their availability and underlying methodology may differ from one Member State to another. The structure of the scoreboard would be updated informally, depending on any new threats to macroeconomic stability or progress in statistics availability.

3.2   Preventive surveillance

The Commission would release the results of the scoreboard on a regular basis and attach a Commission report putting it into perspective. On the basis of all available information, the Commission will draw a list of Member States deemed at risk of imbalances. The early discussion of such a list at the Council and the Euro Group will enable the Commission to get appropriate feedback from Member States and ensure transparency of the Commission deliberations. Following such discussions and for Member States where the Commission has detected possible imbalances or the risk thereof, the Commission will provide country-specific in-depth reviews. The in-depth reviews will consist of a detailed investigation of the underlying problems in the identified Member States. When assessing imbalances, account should be taken of their severity, of the degree to which they may be considered unsustainable and of the potential negative economic and financial spillovers to other Member States. The economic adjustment capacity and the track record of the Member State concerned as regards compliance with earlier recommendations under this Regulation and recommendations issued as part of multilateral surveillance should also be considered.

The analysis may be undertaken, where needed, in conjunction with surveillance missions to the country concerned. Any early warnings or recommendations from the European Systemic Risk Board will be taken into account, as well as the policy intentions of the Member State under review as reflected in its Stability and Convergence Programme and National Reform Programme.

If macroeconomic imbalances are considered unproblematic, the Commission will propose that no further steps are undertaken. If the Commission considers that macroeconomic imbalances (or the risk thereof) do exist, it will come forward with preventive recommendations for the Member State(s) concerned. Consistent with the macro-structural surveillance process and depending on the nature of the imbalance, the preventive recommendations may address policy challenges across a range of policy areas.

3.3   The excessive imbalance procedure (EIP)

When the alert mechanism points to severe imbalances or imbalances that jeopardise the proper functioning of Economic and Monetary Union in a specific Member State, the Council, on a recommendation from the Commission, may adopt recommendations in accordance with Article 121(4) of the Treaty declaring the existence of an excessive imbalance and recommending the Member State concerned to take corrective action within a specified deadline. Member States in excessive imbalances in the meaning of the EIP would be subjected to a regime of stepped-up peer pressure. Depending on the nature of the imbalance, the policy prescriptions could potentially address fiscal, wage and macro-structural as well as macro-prudential policy aspects under the control of government authorities. Following the opening of an EIP, the Member State concerned will be obliged to adopt a corrective action plan to set up a roadmap of implementing policy measures.

The flexibility embedded in the procedure should enable the Council to set appropriate deadlines when issuing corrective recommendations, taking into account the nature, scale and urgency of imbalances and the capabilities of policies to remedy the situation. Unlike fiscal policy, not all policy levers are under the direct control of national governments when it comes to the resolution of imbalances. Furthermore, corrective policies may only have a lagged impact on the correction of imbalances, depending on their nature. The Commission will monitor the implementation of corrective action by the Member States concerned.

The Council, on the basis of a Commission recommendation, will conclude by the expiration of the initial deadline whether or not the Member State concerned has taken the recommended corrective action. If the Council decides that the Member State concerned has taken appropriate action, the procedure will be placed in abeyance. Abeyance means that the Member State is making satisfactory progress with corrective action. However, due to the possibly long lags between adoption of corrective action and its effect on the ground, effective resolution of macroeconomic imbalances might take some time. The Member State concerned will be subject to periodic reporting and surveillance until the EIP is effectively closed.

Eventually, sustained and successful corrective action will facilitate the resolution of imbalances. The Excessive Imbalances Procedure shall be closed once the Council, on the basis of a recommendation by the Commission, concludes that the Member State is no longer experiencing excessive imbalances.

3.4   Enforcement measures

If the Member State concerned has not taken appropriate action, the Council would have to adopt stepped up recommendations associated with a new deadline – likely to be shorter – for corrective action. For euro area Member States the enforcement mechanism may ultimately lead to sanctions. If a Member State fails repeatedly to act in compliance with the Council recommendations to address excessive macroeconomic imbalances, it will have to pay a yearly fine, until the Council establishes that corrective action has been taken.

To ensure equal treatment between Member States, the fine should, as a rule, be identical for all euro area Member States and be equal to 0.1 per cent of the GDP in the preceding year of the concerned Member State. As a rule, the Commission will propose the maximum amount of the fine foreseen by this regulation. The Council, on the basis of a Commission proposal, may decide to cancel or to reduce the size of fine.

The Council decisions concerning the fine will be made by only those members of the Council that represent Member States whose currency is the euro. The vote of the member of the Council representing the Member State concerned by the decisions shall not be taken into account.

ANNEX

Schematic overview of the Commission reform proposals

Fiscal governance	**Macroeconomic governance**

Surveillance

- Preventive arm of the SGP: principles of prudent fiscal policy making (amendment to Regulation (EC) 1466/97)

- Corrective arm of SGP: benchmark for sufficiently diminishing debt ratio (amendment to Regulation (EC) 1467/97)

- Minimum requirements of national fiscal frameworks (new draft directive)

Surveillance

New procedures for monitoring, preventing and correcting macro-economic imbalances (new draft regulation)

Enforcement

New disincentives/sanctions in case of non-compliance in preventive and corrective arm of SGP (new draft regulation)

Enforcement

New disincentives/sanctions in case of non-compliance with new macro surveillance procedure (new draft regulation)

Changes in the CAB versus principles of PFM

This box examines the analytical basis the CAB and its link with the PFM approach. Starting with the CAB, the budget can be described as the sum of two components a structural and cyclical. Expressing all budgetary variables in percent of GDP we have:

$$b_t = r_t - g_t = r^s - g^s + (\varepsilon_r - \varepsilon_g)\,(\frac{y_t}{y_t^P} - 1) \tag{1}$$

where r, g, y and y^P are total revenues, total expenditures, actual GDP and potential GDP respectively. The cyclical component of the budget balance is typically modelled as a function of the output gap $(\frac{y_t}{y_t^P} - 1)$ scaled by the difference between cyclical sensitivity of revenues and expenditures ε_r and ε_g. The structural components of the budget balance are indicated by the superscript *s*.

The total differential of equation (1) gives the change of the budget balance:

$$db_t = \left(\frac{\partial r_t^s}{\partial y_t^P} y_t^P - \frac{\partial g_t^s}{\partial y_t^P} y_t^P \right) \frac{dy_t^P}{y_t^P} + \left(\varepsilon_r - \varepsilon_g \right) \left[\frac{dy_t}{y_t} - \frac{dy_t^P}{y_t^P} \right] \frac{y_t}{y_t^P} \tag{2}$$

Subtracting the cyclical component from the change in the headline balance yields the change in the CAB:

$$dcab_t = db_t - \left(\varepsilon_r - \varepsilon_g \right) \left[\frac{dy_t}{y_t} - \frac{dy_t^P}{y_t^P} \right] \frac{y_t}{y_t^P} = \left(\frac{\partial r_t^s}{\partial y_t^P} y_t^P - \frac{\partial g_t^s}{\partial y_t^P} y_t^P \right) \frac{dy_t^P}{y_t^P} \tag{3}$$

Turning to the PFM-based approach we know that:

$$dcab_t = dr_t^s - dg_t^s = \left(\frac{\dot{R}^s}{R^s} - \frac{\dot{Y}^p}{Y^p} \right) \frac{R^s}{Y^p} - \left(\frac{\dot{G}^s}{G^s} - \frac{\dot{Y}^p}{Y^p} \right) \frac{G^s}{Y^p} \tag{4}$$

where capital letters indicate levels of the respective variable and a dot a change with respect to time. This expression tells us how the underlying budget, *i.e.*, the CAB, evolves depending on how fast revenues and expenditures grow relative to potential GDP.

If government revenues *R* have a unit elasticity with respect to potential GDP the first term on the right hand side of equation (4) is equal to zero. In that case, the change of the CAB can only be zero if expenditure *G* grows in line with potential GDP. In terms of equation (3) it means that the increase in expenditure equals the increase in revenues implied by an increase in potential GDP.

Similarly, assuming a government size (G/Y) of around 0.5 an improvement of the CAB in the order of 0.5 per cent of GDP requires that expenditure growth is one percentage point lower than potential GDP growth, unless higher expenditure growth is compensated by discretionary revenue measures, which would go on top of the "natural" increase of *R*.

REFERENCES

Blanchard, O., G. Dell'Ariccia and P. Mauro (2010), "Rethinking Macroeconomic Policy", International Monetary Fund, Staff Position Note, No. 10/03.

European Commission (2007), "Public Finances in EMU – 2007", *European Economy*, No. 3.

—————— (2008), "EMU@10. Successes and challenges after 10 years of Economic and Monetary Union", *European Economy*, No. 2.

REBUILDING THE PUBLIC FINANCES
AND FISCAL DISCIPLINE IN THE EURO AREA

Sebastian Barnes[*]

1 Introduction

The public finances in the euro area are in poor shape following the financial crisis. Debt-to-GDP ratios have reached very high levels by historical standards, while some countries are experiencing a sovereign debt crisis. While the main origins of the crisis were in the private sector and the credit cycle, fiscal positions in most countries were too lax during the run up to the crisis, failing to counter or even adding to expansionary pressures from the private sector in countries that built up large deficits. This limited the room for fiscal manoeuvre during the downturn. These poor fiscal outcomes partly have their origins in poor policy settings and the failure to achieve sufficiently sound fiscal positions in economic good times. Weak enforcement of the Stability and Growth Pact, particularly of the preventive arm, contributed to the failure to achieve prudent fiscal management.

This paper argues that the necessary reforms should be coherent with the economic and political design of the monetary union, particularly the absence of fiscal union, as well as with the lessons of past experience and the challenging fiscal circumstances of the coming years. This approach should span market discipline, stronger EU institutions and better national fiscal frameworks. The role of EU institutions should focus on avoiding fiscal positions that create excessive spillovers. The complementarity of different policy instruments should be exploited, while applying several instruments can be more robust if the effectiveness of each approach is not guaranteed. While adoption of reform proposals made in the late 2010 would do much to improve fiscal outcomes, crucial elements of a coherent approach have yet to be incorporated into the policy agenda.

The second section of the paper sets out the weaknesses in fiscal performance in the years running up to the crisis that contributed to ineffective economic stabilisation. The third section discusses how a combination of market discipline, EU institutions and national budgetary institutions could remedy these weaknesses.

2 Weak fiscal performance has left the public finances in poor shape following the crisis

The recent experience of the public finances in the euro area points to three main weaknesses. Firstly, large budget deficits are now widespread and there has been a sovereign debt crisis in some euro area countries. Secondly, the debt-to-GDP ratio has been trending up in most countries over recent decades to reach historically elevated levels. This is due to a pattern of narrowing deficits after downturns enough to bring debt dynamics under control but not to reduce indebtedness to their original levels. Thirdly, fiscal constraints limited the room for fiscal manoeuvre in the downturn, while policy settings failed sufficiently to lean against the upswing in some countries and actively contributed to economic in balances in some.
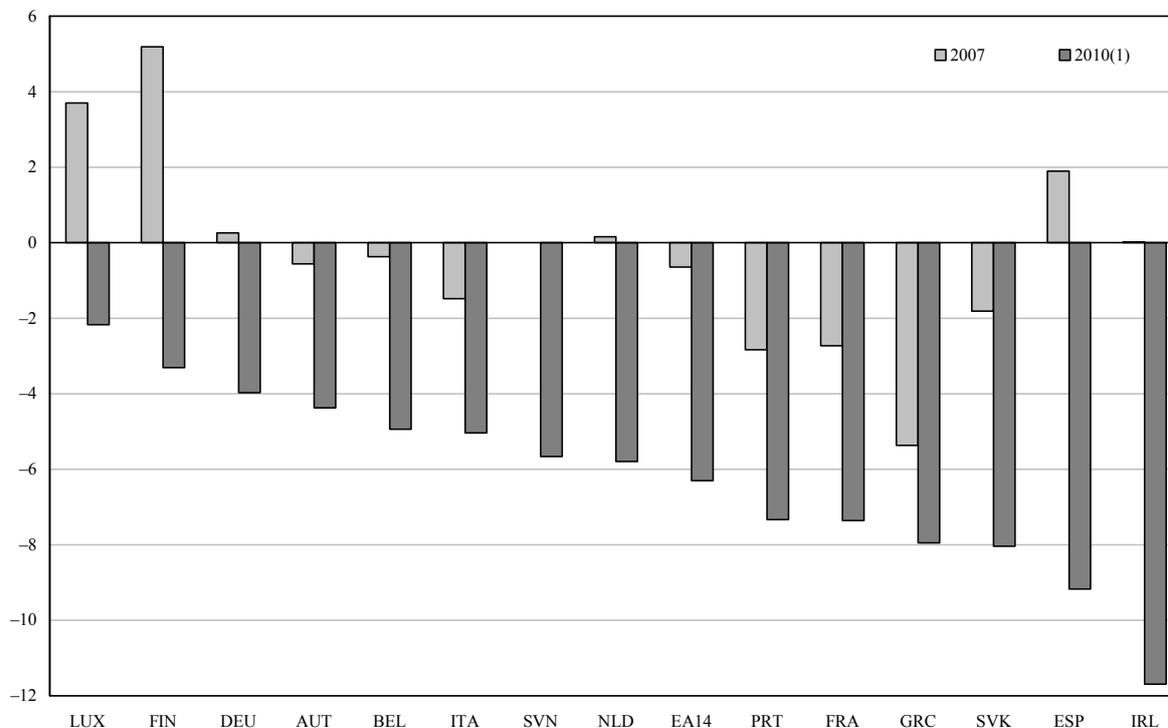
Government Budget Balances Have Deteriorated
(percent of GDP)

[1] OECD estimates. For Ireland, the balance shown in the figure excludes the capital injections into the banking system.
Source: OECD, OECD Economic Outlook 88 Database.

2.1   *The public finances have deteriorated sharply*

The budgetary position of euro area countries deteriorated rapidly following the crisis and current policy settings are unsustainable in many countries. The fiscal position in the euro area has deteriorated sharply since 2008: the budget deficit increased from 0.7 per cent of GDP in 2008 to 6.4 per cent in 2010, while the debt-to-GDP ratio measured on the Maastricht basis increased by over 10 percentage points to reach 81 per cent. This is broadly in line with the deterioration in the United States and for the OECD as a whole. The annual increase in the budget deficit as a share of GDP is very large by historical standards and substantially exceeds the increases in previous downturns in 1975, 1981, 1995 and 2001. This reflects the effects of the economic and financial crisis: revenues have dropped and spending has increased as the result of the normal automatic stabilisers. Tax receipts related to booming financial and property markets evaporated. Both the fiscal outcomes and the underlying drivers vary enormously across countries. In some countries, such as Germany, sizeable discretionary fiscal packages also explain a substantial part of the weakening of the public finances. Government borrowing further increased in some countries as the result of support to the financial system, some of which was in addition provided off-balance sheet. The scale of the weakening in public finances has been particularly marked in countries that are having to unwind excessive private or public sector borrowing: the general government balance between 2007 and 2010 weakened by around 12 per cent of GDP in Ireland, even allowing for major emergency fiscal tightening and excluding major costs related to bank recapitalisations, and

Figure 2

Credit Spreads[1] Have Widened
(percent)
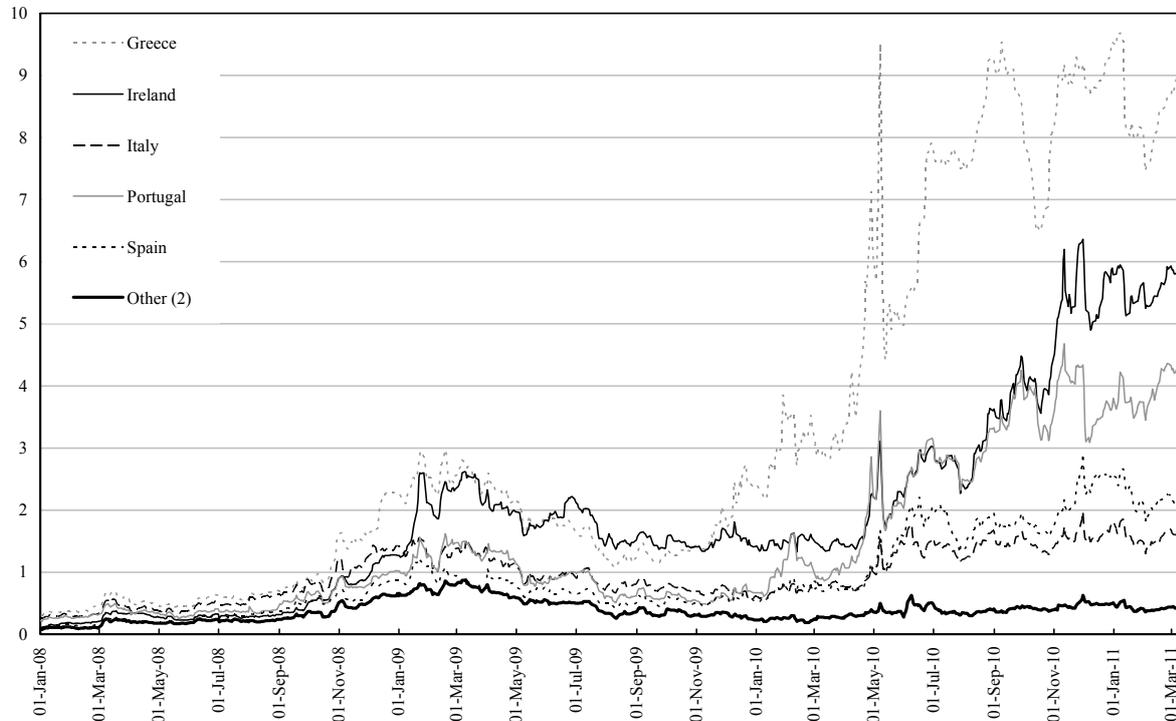
(1) Benchmark bond 10-year over German bond yields.
(2) Unweighted average of the spreads for Austria, Belgium, Finland, France and the Netherlands.
Source: Datastream.

more than 10 per cent of GDP in Spain (Figure 1). The sharp contraction of private demand, as private-sector economic imbalances adjusted, led to powerful effects from the automatic stabilisers and a marked drop in housing boom-related revenues. Excessive risk-taking by the financial sector in these countries with large imbalances added very substantially to fiscal costs.

Several euro area countries have experienced crises around sovereign debt as markets have sharply increased interest rates on their debt, leading Greece and Ireland to seek external official financing. Thecredit spread on government borrowing for many euro area countries began to widen in late 2008 and in the early part of 2009. From a situation where spreads against German debt were very narrow (Figure 2), the initial increase appeared to be largely explained by higher risk aversion with some greater differentiation according to national fiscal conditions (Haugh *et al.*, 2009). While flight-to-quality effects may have lowered yields on German debt somewhat, the main underlying driver was a reassessment of risk by markets. As financial conditions in general improved during the course of 2009, euro area sovereign spreads generally narrowed. However, spreads in a number of countries rose again during 2010 at the time of the fiscal crisis in Greece. Spreads remained high even after May 2010, when the support package for Greece was put in place, the European Financial Stability Facility (EFSF) was created and the European Central Bank (ECB) began to purchase government bonds in the secondary market through the Securities Market Programme. Despite some initial narrowing, spreads have remained at a high level and come under

Figure 3

Government Gross Debt
(percent of GDP)
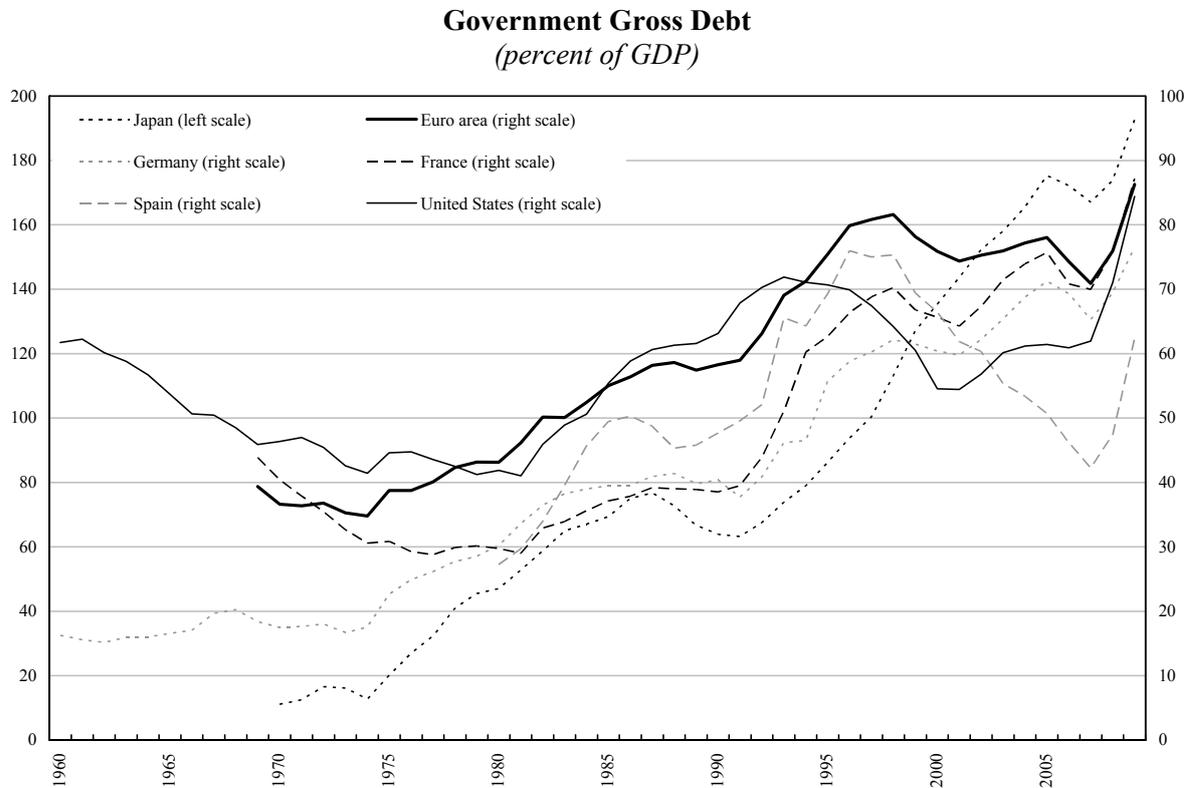
Source: OECD, OECD Economic Outlook Database.

strong pressure at times. In November 2010, Ireland requested IMF and EFSF support and a package was put in place. Spreads on Portuguese and Spanish debt remain high. Although only in Greece, Ireland, Portugal and Spain are long-term borrowing costs similar to or higher than prior to the crisis, the current level of yields may give a misleading impression of future borrowing costs if there is a cyclical recovery in bond yields and credit spreads remain at their current levels.

2.2   Government debt has been trending up

Debt-to-GDP ratios have been trending upwards in many OECD countries, including many in the euro area, since the 1970s (Figure 3). The debt-to-GDP ratio for euro area countries in 2009 is just over double its level in 1979. While the ratio typically stabilises or even falls during an upswing, this has been insufficient to restore the initial position and so debt levels after each recession have been progressively higher. Current levels of debt are elevated by post-1945 standards. While current real interest rates are relatively low in this comparison, growth prospects are also notably weaker. Prospective indebtedness in the euro area, however, is much lower than in Japan and somewhat lower than in the United States in both gross and net terms. Per capita gross debt in the euro area in dollar terms is around half the level in the United States and a quarter of what it is in Japan, although per capita incomes are also lower in the euro area and the circumstances of each major economy are different. The debt-to-GDP ratios in Belgium, Greece and Italy stand at a particularly high level by international comparison, while debt will remain fairly low in Finland, Luxembourg, Slovakia and Slovenia (Figure 4).

Figure 4

The Debt-to-GDP Ratio Has Increased[1]
(percent of GDP)
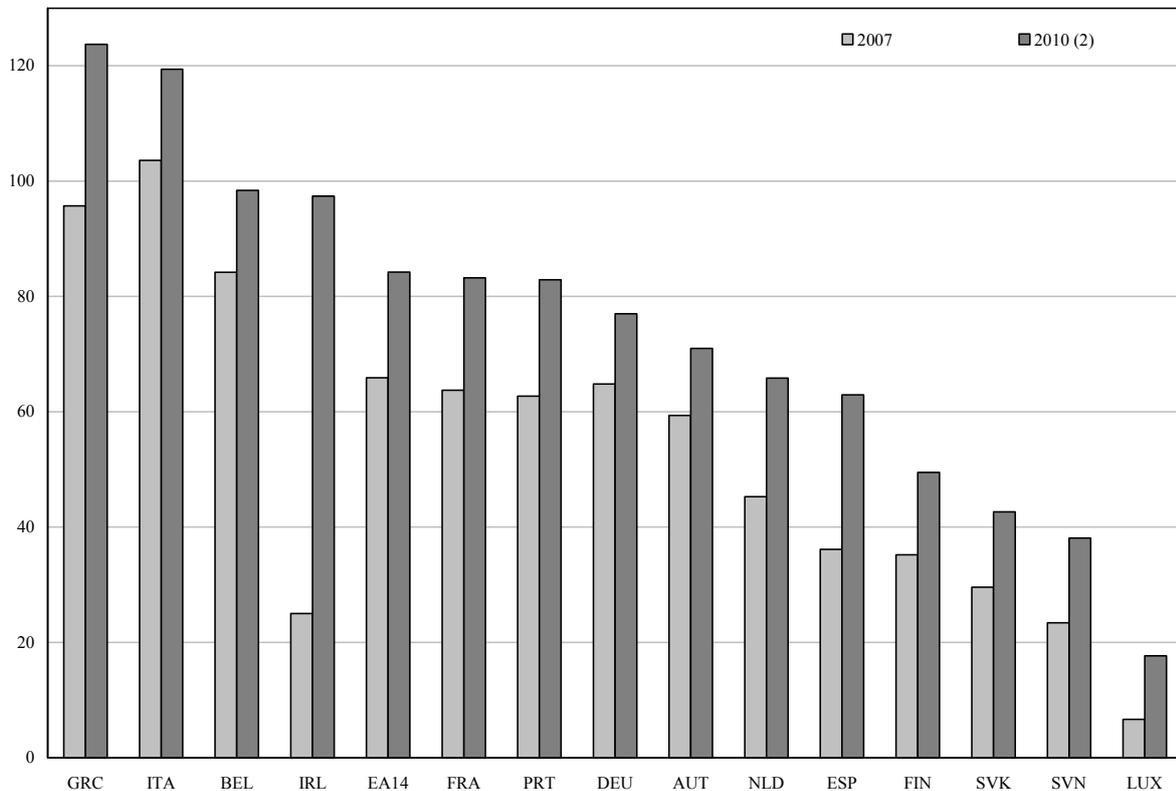
(1) Maastricht definition.
(2) OECD estimates.
Source: OECD, OECD Economic Outlook 88 Database.

While many euro area countries have experienced a tendency to rising indebtedness over past decades, there have been some exceptions. Belgium, Finland and the Netherlands managed to reduce their debt-to-GDP ratios quite substantially since 1995 with only a relatively modest deterioration during the crisis. Ireland and Spain also reduced their debts over this period, although this was facilitated by high growth and ultimately much of the improvement was based on unsustainably strong revenues and excessive imbalances that have led to a sharp deterioration in their debt positions during the crisis. In general, such reduction in the debt-to-GDP ratio that occurred during the upswing was the result of nominal growth exceeding interest rates rather than through running primary surpluses.

Although it is difficult to assess what level of debt is optimal or prudent, there are reasons to think that the current level may be too high. Debt has been allowed to reach an undesirable level. Indeed, the increase in debt to these levels has not arisen out of a considered policy choice but largely through the process of minimal fiscal tightening in downturns and excessive budget deficits in goods times is the consequence of deficit bias in fiscal policy, which has its origins in political economy considerations related to deficit-augmenting decisions by incumbent policy-makers seeking to gain reelection and electoral uncertainty that encourages policy-makers to behave in a myopic way (Persson and Svensson, 1989; Alesina and Tabellini, 1990).

Higher debt levels increase the burden on future generations and fiscal risks in a number of ways. Firstly, they increase risks around access to market finance because the sustainability of debt becomes increasingly sensitive to sharp deteriorations in the budget balance, costs associated with calamities such as the financial crisis or large changes in interest rates or growth prospects. Also, sustainability is more difficult at higher levels of debt. Secondly, weak growth prospects in the euro area mean that debts today will continue to be a large burden relative to the size of the economy in the future. While using debt to finance productive investments should pay for itself in terms of higher growth, government investment as a share of GDP is lower in most euro area countries than the OECD average, although forms of other forms of social spending such as education and healthcare may also yield future as well as current gains. Thirdly, higher debt also requires higher interest payments that must be financed primarily through taxation. Although debt held within the country has a largely redistributive effect from tax payers to bond holders, although even for a debt-to-GDP ratio of 100 per cent of GDP, interest payments would probably only amount to 5 per cent of GDP so the distortion would not necessarily be large.[1] Fourthly, high debt may be incompatible with intergenerational equity as it shifts debts to future generations. This is a complex ethical and practical question, as future generations will inherit both some of the wealth and the liabilities accumulated by current generations. However, it is questionable how far future generations should be held responsible for decisions they did not take and the possibility of imposing costs on future generations creates poor incentives for current taxpayers, not least in the light of ageing costs and other contingent liabilities.

It is difficult to assess in quantitative terms what level of debt is appropriate, not least as this will depends on social preferences and the economic situation of a country, notably its growth prospects. Furthermore, by historical standards, current debt-to-GDP ratios are not especially high when compared with the pre-1945 period: ratios were often well above 100 per cent of GDP in this era, although it was a period characterised by a number of defaults (Reinhart and Rogoff, 2010a). Econometric research indicates that the wider effects of debt are non-linear and begin to have a significant effect above a threshold (Reinhart and Rogoff, 2010a). This would appear to be around 75 to 90 per cent of GDP, beyond which the effect of debt levels on GDP becomes substantially larger (Égert, 2010). Reinhart and Rogoff (2010b) find evidence that growth rates fall by around 1 per cent when the public debt-to-GDP ratio exceeds 90 per cent.[2] However, past relationships should be interpreted with caution and the limited experience of current levels of indebtedness in developed countries makes it difficult to draw inferences. Furthermore, in recent years, real interest rates have been lower than in the past, which may make it easier to support high levels of debt if these low financing costs were to be sustained.[3] Despite the difficulties of establishing the appropriate debt level, a number of OECD countries have set targets or ceilings: in New Zealand, the government fiscal target is net debt of 20 per cent of GDP, while the United Kingdom set a ceiling of net public debt at 40 per cent of GDP prior to the crisis. Poland has a constitutional limit of gross debt of 60 per cent of GDP with a target of 50 to 55 per cent. The euro area also has a ceiling set in the Stability and Growth Pact (SGP) for gross debt at 60 per cent of GDP with the expectation that debt will be reduced at a "satisfactory pace" to meet this objective.

One key problem in the euro area is that debt-to-GDP ratios have been allowed to rise at the same time as unfunded off-balance sheet pension liabilities. In almost all cases, these exceed explicit debt and explain a large share of the negative net worth of the general government sector

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[1] For example, the semi-elasticity of the tax burden as a share of GDP implied by recent OECD research is only around −0.2 and this can be lowered if taxes are raised in the most efficient way (Arnold, 2008).

[2] Caner *et al.* (2010) find a threshold around 80 per cent of GDP.

[3] The impact of lower inflation expectations through nominal interest rates is more complex, depending on whether the inflation tax is more efficient than other taxes.

General Government Gross Debt and Unfunded Pension Liabilities[1]
(percent of GDP)
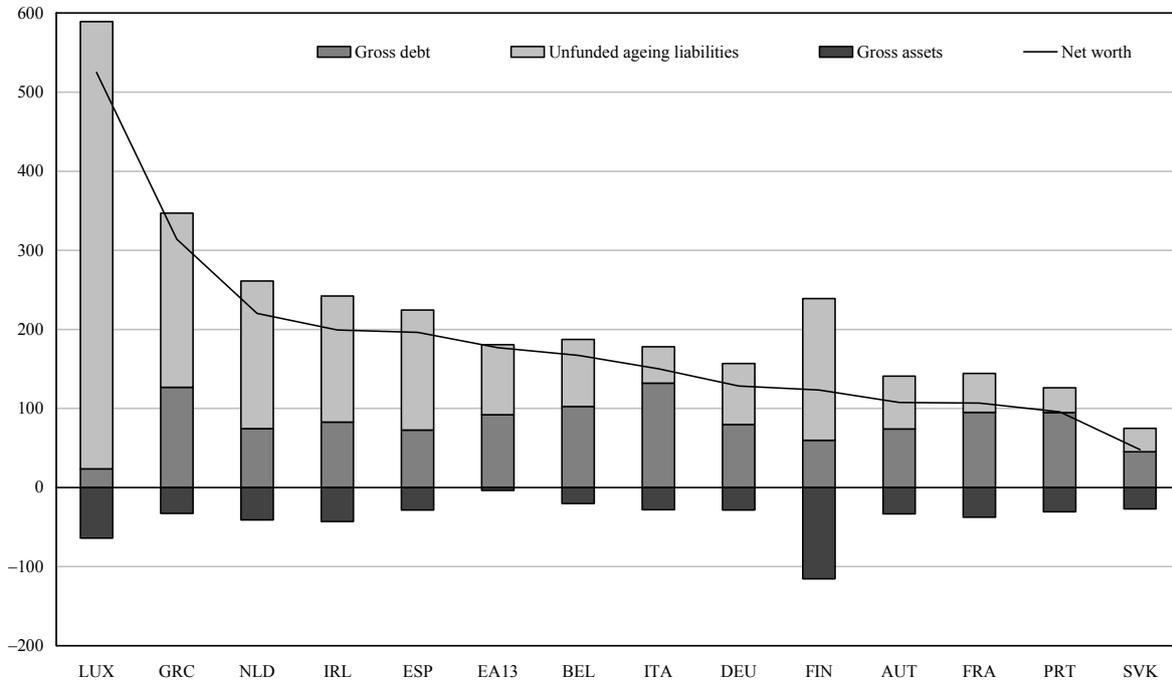
[1] Excludes the impact of some recent reforms, notably in Greece.
Source: OECD calculations, ECP Working Group on Ageing and Pensions and OECD Economic Outlook 88 Database.

(Figure 5).[4] In most cases, the present value of these costs exceeds 100 per cent of GDP and is very much larger for a few countries. Ageing-related costs are already rising in many countries and will pick up in many cases during the next decade. In the absence of reform, ageing-related expenditures in many euro area countries will rise substantially in the coming years and pension expenditures alone will generally be between 10 and 15 per cent of GDP for euro area countries in future decades (EC, 2010b). There has been considerable pension reform in euro area countries over the past decade (OECD, 2009b) and renewed efforts are underway in some countries. The scope to raise tax burdens to offset the costs of ageing is limited given the already high tax rates in most euro area countries. However, paying down government debt or pre-funding of pensions are strategies to help meet future pension liabilities and to avoid future generations subsidising current workers and pensioners. Some smoothing of pension costs may be particularly relevant in the context of the retirement "baby boom", which creates an inherent rise and fall in the pension costs even if there is no change in benefits across generations. The recent increase in the debt burden is therefore a huge setback in preparing for future demographic ageing, with the revenue-rich years of the boom having been largely wasted as an opportunity to prepare for the retirement of "baby boom" generations.

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[4] Calculations based on Abstracting from changes in tax revenues as a share of GDP related to ageing and assuming that non-ageing related expenditures remain constant as a proportion of national income, simple calculations suggest that the costs of increased ageing that would not be met out of current taxation are very large and generally of a similar order in present value terms to outstanding public debt. Results are similar to Velculescu (2010).

Figure 6

Contributions to Changes in the Euro Area Debt-to-GDP Ratio[1]
(percent of GDP)
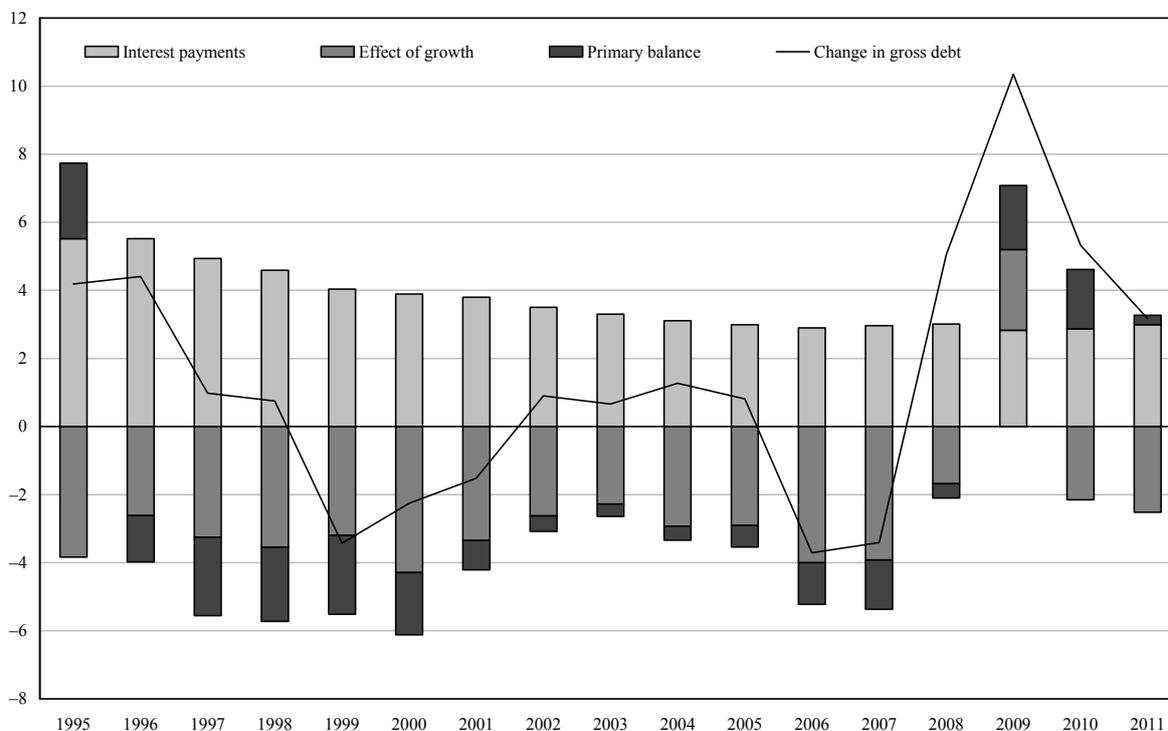
[1] Excludes certain financial transactions.
Source: OECD, OECD Economic Outlook 88 Database.

2.3   *Fiscal stabilisation has been ineffective*

Weak fiscal policies have often led to ineffective economic stabilisation. During the upswing, there were only sizeable primary surpluses in the euro area as a whole during two years at the peak of the cycle and the relatively weak growth performance over the period did little to reduce the euro area debt-to-GDP ratio (Figure 6). The cyclically-adjusted euro area primary balance amounted to only about 3 per cent of annual GDP for the period of growth as a whole. In 2007, the last year entirely prior to the crisis, the majority of euro area countries were running fiscal deficits with the aggregate euro deficit at 0.65 per cent of GDP. Based on the OECD's current estimates of structural fiscal positions, only Finland, Luxembourg and Spain had underlying surpluses, with the euro area as a whole running an underlying deficit of 1.3 per cent of GDP. Furthermore, the strength of these underlying positions was overstated because of revenue buoyancy related to the credit and housing booms. This fits the long-run pattern of asymmetric fiscal policy with large deficits and accumulation of debt during recessions and little progress to reduce debt during boom years.

When the crisis came, high debt levels and weak fiscal policy settings meant that, discretionary fiscal stimulus was only around 1.5 per cent of GDP, despite the severity of the downturn, monetary transmission being impaired and the monetary policy rate being at a very low level (OECD, 2009c). Discretionary stimulus was unevenly distributed across countries because of

limited room for fiscal manoeuvre: half of the overall stimulus came from Germany with a further quarter from Spain. Stimulus measures in France and Italy were extremely modest. Greece, Ireland, Portugal and Spain actively tightened fiscal policy during intense periods of crisis due to market pressures despite particularly weak economies as the result of the unwinding of imbalances. This problem will only be greater at higher levels of debt as, based on past experience, there is evidence that fiscal policy has tended to become pro-cyclical at levels of debt higher than 90 per cent of GDP, while policy has been fairly neutral at above 30 per cent and counter-cyclical for lower debt levels (Égert, 2010). Furthermore, the high level of debt itself can reduce the effectiveness of fiscal policy by making households more worried about future fiscal adjustment and thereby reduce their current consumption in anticipation. Over a sample of OECD countries, the short-run private saving offset of fiscal stimulus is larger for countries with debt above 70 per cent (Roehn, 2010). Set against these effects, it could be argued that the scale of the endogenous deterioration in the public finances implies that automatic stabilisation was highly effective (Figure 6). For instance, in Ireland and Spain, the automatic stabilisers and fall in revenues imply that the government hugely contributed to offsetting the fall in private demand. However, it is doubtful that, for example, the reduction in housing transaction tax revenues had much of an effect on supporting private consumption in these cases.

Effective fiscal stabilisation through a stronger and more prudent underlying budgetary position is vitally important in a monetary union. Given the potentially destabilising role of real interest rates at the national level, sound fiscal policy to lean against the cycle could be a key instrument for avoiding excessive imbalances (OECD, 2010). In Greece and Portugal, high public debt has been a key component of a highly negative net foreign asset position. It is less clear that discretionary fiscal policy can be effective at national level, despite the area wide nominal exchange rate and monetary policy, because of the high degree of openness of many euro area economies and the normal difficulty in making discretionary fiscal policy timely, temporary and targeted. It was fortuitous that the slowdown in 2008 should have occurred in the autumn when many national budgets were being set. The effectiveness of systematic fiscal policy would be increased by more sustainable public finances overall, so that loosening would not be hindered by sustainability concerns, and by a clear fiscal framework against which discretionary and temporary decisions can be taken (Leeper, 2010).

Fiscal stabilisation inside a monetary union without fiscal transfers is likely to require capital markets to allocate funds to governments that need to borrow to support demand from countries that are over-heating or sectors that are saving. This is in contrast to the situation in other currency unions, such as the United States, where the federal government partly acts to ensure this distribution of resources. The sovereign debt crisis has underlined that such financing may not necessarily be available and that the ability to operate counter-cyclical fiscal policies may be compromised by a loss of confidence of liquidity shocks. Such problems may be particularly acute for small countries within a monetary union, whose bonds generally would be substitutable for the debt of other countries given the shared currency, and therefore can be very sensitive to news about the country.[5]

There are in principle a number of ways to avoid liquidity problems. In general, maintaining sound public finances and a strong institutional setting that leads to clear commitments about the sustainability of future finances should avoid losing market access. Furthermore, refinancing needs depend on both the overall level of debt and its maturity structure. Most euro area countries in 2008 had largely long-term debts, although debts that needed to be rolled over in the coming year

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[5]   In other respects, the relative illiquidity of the markets for some smaller euro area sovereigns can make it more difficult to raise finance and adds to uncertainty and risk.

amounted to around 20 per cent of GDP in Italy and Portugal (Eurostat, 2008).[6] When market conditions become unfavourable during a crisis, countries can draw down on reserves or liquidate assets. Indeed, they may build up "rainy day" funds in anticipation of such risks. In Ireland, heavy pre-funding of future financing needs in 2009 together with the National Pension Reserve Fund, with funds of around 15-20 per cent of GNP before the crisis (and even if not designed for this purpose), have provided some protection against the crisis and the need to borrow in the market. If liquidity shocks are not strongly positively correlated across countries, it is more efficient to have a system of insurance whereby countries with market access lend funds to those whose access is restricted. This should not in principle involve a fiscal transfer provided that the loans are provided at interest rates that reflect the riskiness of the fiscal position of the borrowing. The existence of such insurance may mean that it is never actually required. Prior to the fiscal crisis in Greece, there were limited mechanisms to provide support for a euro country facing liquidity crises other than the support available to members of the International Monetary Fund (IMF). A balance of payments support facility run by the European Union was too small to provide meaningful help for euro area countries, although it was expanded during the crisis to help Greece. The European Financial Stability Facility (EFSF) temporarily fills a gap in the institutional architecture by creating a liquidity facility for euro area countries, subject to the necessary strong conditionality. This basic architecture will be made permanent with the European Stability Mechanism (ESM).

3   Strengthening fiscal discipline

The setting of fiscal policy needs to be improved to avoid high levels of debt, manage long-term fiscal pressures and contribute more to the economic stability of national economies. These objectives are closely connected and avoiding high debt is central to meeting the other goals. The design of institutions needs to be coherent with the economic and political design of the European economic and monetary union. There is a common monetary policy but essentially no fiscal and political union (Issing, 2006). Countries in the monetary union therefore largely retain responsibility and the means to set their own national fiscal policy and stand behind their own debt. However, there is the possibility of spillovers between countries through the central bank, as well as through the high level of economic and financial integration that monetary union supports. Given the negligible role of fiscal transfers between countries and through the Union, the market plays the role of allocating capital across countries and providing finance to governments. In addition, the European Financial Stability Fund (EFSF) has been put in place on temporary basis to provide liquidity support to euro area governments facing difficult market conditions. This basic economic and political context defines the contours of a coherent set of fiscal institutions for the euro area based on market discipline, EU institutions and national budgetary frameworks. It implies a division of labour between then. These policies are complementary and, as none can be guaranteed to be effective, strengthening each pillar is the most robust strategy to improving fiscal performance. In addition, there are important interconnections: as long as this scope for contagion exists, it is difficult to develop time-consistent "no bail-out" policies. While "no bail out" issues are unresolved, market discipline cannot be effective.

3.1   *Market discipline*

Markets are relied up on to allocate finance to euro area governments and market discipline could help to achieve fiscal discipline by sanctioning risky policies through appropriate increases in

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[6]   By contrast, Greece was somewhat insulated by the very low share of short-term debt in the existing stock, although the combination of the large deficit and the refinancing need in 2010 became overwhelming.

borrowing costs. Admittedly, markets have a mixed record when it comes to assessing risks and under-estimated a wide range of risks during the credit boom. Euro area sovereign credit spreads prior to the financial crisis were negligible and broadly similar across countries: spreads over German government debt were at around 25 basis points for Greece, Italy and Portugal. Market prices proved a poor predictor of developments during the crisis, particularly for Ireland and Spain which had relatively low debt but fragile revenue bases. While the market reaction may subsequently have been excessive in some cases, market prices have differentiated between the riskiness of different countries. Greater transparency about fiscal positions, together with improved financial regulation, would help markets to assess risk more effectively.

The effectiveness of market discipline is undermined if there is a perception that debts will be repaid regardless of a country's fiscal situation through a bail-out. Article 125 of the Treaty, the so-called "no bail-out" clause, forbids countries from assuming each others' debts.[7] However, it does not prevent lending to a country to allow it to service or repay its existing debt. Prior to the crisis, there was room to doubt whether a euro area country could receive support from other countries given that no precise instrument existed to do so. However, the packages for Greece and Ireland in 2010 demonstrated that support could be made available for euro area countries and this type of support has been institutionalised on a temporary basis through the European Financial Stability Facility (EFSF) and in the future by the proposed European Stability Mechanism (ESM). While this could increase moral hazard by weakening the budget constraints, this risk can be mitigated or avoided by imposing strict conditionality. These conditions make it costly for countries to have recourse to this funding, while ensuring that measures to address the underlying problem are put in place. The tough conditionality imposed on Greece and Ireland, together with the participation of the IMF, is likely to discourage any country from seeing this as an easy option. However, it will be important for maintaining fiscal discipline in the future that countries in these programmes are actually held to their undertakings, even as the incentive to comply weakens as the underlying fiscal and financial sector problems ease.

Enforcing "no bail-out" conditions is difficult, as the experience of sub-federal governments in OECD countries shows (Box 1). In essence, this is because there is a time-consistency problem: *ex post* it may not be in the short-term interest of other countries not to help because of the possible spillovers through trade, the financial sector and contagion. In addition, if the underlying financing problem is related to liquidity, it is desirable for countries with liquidity to provide assistance to those whose access is impaired. For these reasons, a "no bail-out" clause is unlikely to be enforceable or even desirable in some case. However, in cases where these arguments do not apply (externalities are small, solvency risk is high), it is useful to have a mechanism that avoids bail-outs. One approach to committing credibly to not bailing out is to build a strong reputation. This has existed vis-à-vis the states of the United States for a long time. Depending on how the current crisis is resolved, the euro area may establish a similar precedent for applying strong conditionality.

Policies to limit spillovers would help to increase the credibility of the "no bail-out" commitment, where it is appropriate, by reducing the *ex post* incentives to bail out. This has two main aspects. *Firstly*, excessive risks exposures of euro area financial institutions and limited transparency about their holdings magnify the consequences of weaknesses in national fiscal positions (Blundell-Wignall and Slovík, 2010). In particular, it can be attractive to bail out a sovereign debt to avoid imposing losses on financial institutions unable to bear them and the wider

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[7] The article states that "The Union shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project. A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project".

BOX 1
EXPERIENCE FROM SUB-FEDERAL FISCAL CRISES IN OECD COUNTRIES

The experience of sub-federal governments within OECD countries provides some insights into fiscal policy inside the monetary union as such governments do not issue their own currency. Over past decades, there have been a number of sub-national fiscal crises in OECD countries, including in the Italian regions in 1978, in Germany with Saarland and Bremen from the late 1980s, in Australia and Canada in the early 1990s and the bail-out of Mexican local governments in 1995. Episodes where there has been strong fiscal pressure at state-level are more widespread. The United States has a long history of sub-national default with a number of states declaring bankruptcy in the 1830s and 1870s, and a number of municipal defaults in the 1930s (Inman, 2001). A small number of municipalities have faced severe stress since the 1970s and other public entities have defaulted on occasion. Some US states are now experiencing difficult budgetary situations, however, explicit federal bail-out appears highly unlikely.

Two sets of factors contribute to state-level fiscal pressures. Firstly, unbalanced assignments of revenue and spending powers often create tensions with excessive demands for spending or too little scope to raise revenue. Secondly, soft budget constraints can encourage states to borrow excessively in the hope of a transfer from the central government. Given that tax and expenditure powers are almost entirely in the hands of nation states, assignments in the euro area are balanced but the tightness of the budget constraint has been more ambiguous. National responsibility for banking supervision adds an additional fiscal risk for euro area countries compared with many other OECD sub-national governments, although the Swiss cantonal banks have posed fiscal problems.

For sub-national level governments that have the power to borrow, there are two basic approaches to achieving fiscal discipline. Firstly, there are institutional measures. Most have balanced budget rules and face legal restrictions on their ability to borrow (Sutherland *et al.*, 2005). Thirty-two US states have balanced budget provisions in their constitutions and a further 11 have similar statutory requirements. Six out of eleven Canadian provinces have anti-deficit laws. Secondly, it is rare for sub-national borrowing to be explicitly guaranteed and this should, in principle, create market discipline. However, there is often a perception that such debt is implicitly backed by the national government and this weakens the disciplining force of the market. Applying the same methodology as Sutherland *et al.* (2005) to the euro area, the strictness of fiscal rules in the euro area appears weak compared with sub-national governments (Figure 7). While monitoring is much more comprehensive than for most sub-national bodies, the binding rules to enforce fiscal commitments appear weak.

A number of crises have resulted in the provision of bail-outs to sub-national governments. A very small number of constitutions make explicit provision for this type of support, usually in very narrowly defined circumstances, such as natural disasters. In Germany, states may apply for federal assistance. Bail-outs may also be channelled through implicit channels such as fiscal equalisation mechanisms. There are also numerous examples of *ad hoc* support being provided, realising implicit guarantees. In the euro area, the so-called "no bail-out" clause in the Treaty has prevented states from assuming each other's debts but not euro area states from providing finance to Greece and other EU countries.

Figure 7

Composite Indicator of Strictness of Fiscal Rules
(sub-index score)
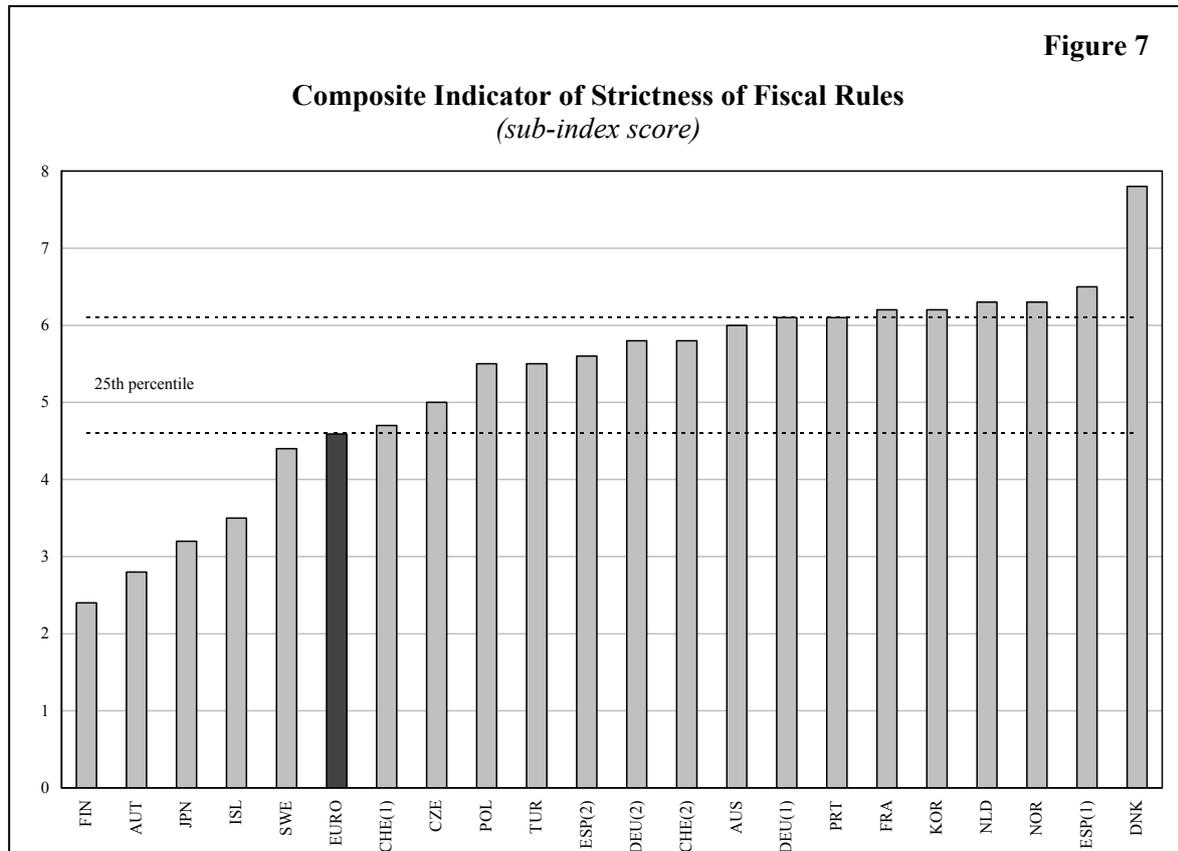
(1) State government.
(2) Local government.
Source: Sutherland *et al.*, (2005), "Fiscal Rules for Sub-central Governments: Design and Impact", OECD Economics Department Working Papers, No. 465, OECD, Paris, and OECD calculations for the euro area.

The experience of sub-national governments in OECD countries suggests that it is generally difficult to enforce "no bail-out" conditions because of the time-inconsistency problem. When a state is in trouble, the central government will have an incentive to act if failure would lead to: macroeconomic spillovers; losses on loans from the central government or other states; financial instability due to banks' exposure; pressure on the central bank to provide loans; a contagion effect to the cost of borrowing in other states or for the country as a whole. The United States has built up a strong reputation with no explicit state bail-out since the 1870s. Most recently, the federal government signalled little willingness to help California during the crisis. At municipal level, support was provided to New York in 1975 but this was "within the tradition of very limited local bail-outs" (Inman, 2001) and Philadelphia did not seek federal help during its crisis in 1990.

Fiscal crises often lead to reform of the finances of sub-national governments. These may be "top down" reforms, as in Australia in the 1990s, that strengthen the control of the federal government over the sub-federal governments in return for funds to resolve the immediate financial problems of states. By contrast, reform in the 1990s in Canada was essentially "bottom up" with the provinces applying stricter rules on themselves. It remains to be seen how far the fiscal crisis in the euro area will lead to reforms. Reform processes for sub-national governments have not always been successful. For example, after the bail-out of the Mexican states, many of the original problems quickly reemerged.

Figure 8

Bank Holdings of Sovereign Debt
(benchmark share of home based on share of total EU debt outstanding, percent of GDP)
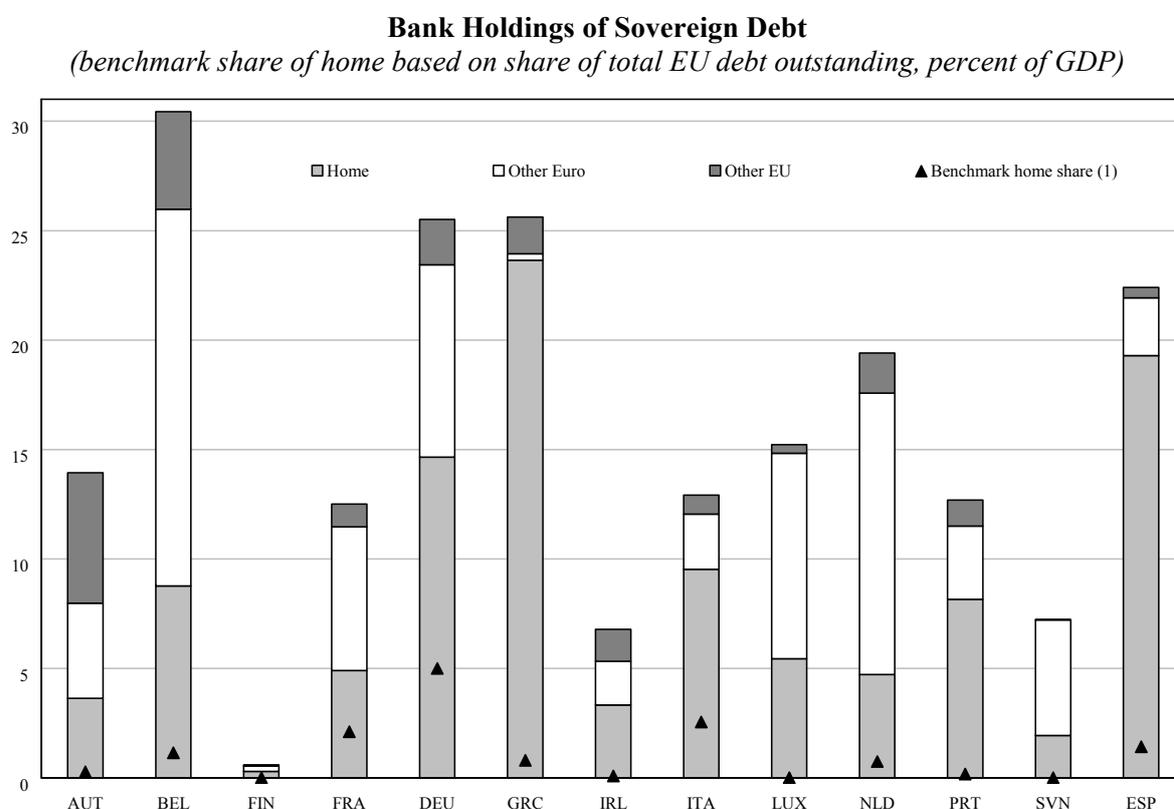
[1] The benchmark home share is the share of the home country's sovereign debt in total euro area government debt outstanding.
Source: EU Stress Tests (2010), OECD calculations and OECD Economic Outlook 88 Database.

financial stability repercussions this can have. If banks holdings of sovereign debt were appropriate and well-diversified, there would be no problem. However, at institution level, a number of banks have had sovereign exposures that market prices imply are a serious risk to their capital base (Blundell-Wignall and Slovík, 2010). In addition, there is a marked home bias in many countries in sovereign debt holdings, which implies a close relationship between the national government and its banking system (Figure 8). This ties the stability of the national financial system to the credit of the government.[8] The reasons for the home bias are unclear, although it is also a feature of other asset markets. There are, however, a number of distortions in the treatment of government debt in financial regulations that need to be resolved:

• The overall treatment of government debt in financial regulations has been relatively favourable in a number of respects. The zero risk-weighting of government debt under Basel II capital requirements created an incentive towards holding debt and skewed this towards holding relatively risky bonds. For example, the 2010 Stress Tests revealed that French banks held more Greek and Spanish government debt than German. Furthermore, most government debt is held on the banking book, where it is not held on a mark-to-market basis. More generally, risk concentrations continue to be given a low priority in the international regulatory framework and are a "pillar 2" matter for supervisory authorities under the Basel framework.

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[8] As the case of Ireland shows, this also presents large risks when the financial sector itself becomes a major driver of fiscal weaknesses and the ability of the government to stand behind its financial system is limited.

- The ECB's collateral policy has arguably been distorted in favour of government debt, particularly that which carried higher risks (Buiter and Siebert, 2005). While valuation margins are based on market prices, these in turn reflect the treatment of government debt, which is subject to its own, less stringent, schedule of haircuts (Category I) and where the penalisation of debt maturities according to these schedules favours the use of short-term collateral, a horizon over which some of the fiscal risks should be less apparent. More recently, the application of the minimum credit rating threshold for euro area sovereigns was suspended from 3 May 2010.[9]

A key aspect of improving market discipline, both in terms of encouraging financial institutions to assess sovereign risk properly and in making "no bail out" credible is to remove these distortions. Sovereign risk should be treated more symmetrically with other assets in financial oversight and excessive risk concentrations, particularly in the bonds of the home government, should be avoided (OECD, 2010). In addition, ECB collateral policy should be based on the notion that risks on euro area sovereign debt may differ and should be treated relatively similarly to other assets. This would imply increasing valuation margins for countries with weak fiscal positions, which could have the additional advantage of being based on objective criteria rather than then the judgements of the Council as is the case for penalties under the SGP. To ensure that banks diversify, one idea would be for the ECB to require the collateral banks submit to be diversified according to some minimal standard. These measures would not only improve market discipline and fiscal performance, but also contribute to financial stability. Conversely, strengthening financial crisis management, including by putting in place credible bank resolution legislation in all EU countries, could enhance the ability to apply a "no bail-out" approach (OECD, 2010). Furthermore, even if these mechanisms fail to prevent poor fiscal behaviour and countries get into difficulty, reducing the externalities between countries should avoid substantial costs to other euro area countries. While such a fiscal outcome would be regrettable, it would ultimately be the responsibility of that country and it would face the consequences.

Secondly, an effective system of crisis management is also required to make "no bail-out" conditions more credible. In particular, there must be a credible option to withdraw support if conditionality is not met. In the absence of such a mechanism, a high level of uncertainty is likely about what would happen if a country were no longer able to fulfil its financial obligations and the possible spillovers that could result may force countries to bail-out a country which has run a lax fiscal policy. The creation of a permanent liquidity-support mechanism subject to appropriate conditionality, along the lines of the proposed European Stability Mechanism (ESM) would be helpful in this regard as it provides a procedure to help countries with liquidity problems in a defined way. Furthermore, if conditionality is not met or a country is judged based on an objective analysis to be effectively insolvent, support would not be available under this mechanism and principles for a voluntary restructuring would be in place. The greater clarity provided by the ESM about its creditor status, which would be senior to other debt except for the IMF, helps to make the resolution mechanism credible. Additional legal certainty would be provided by a clarification of the ECB's status as a creditor if it were required to take losses in the event that a counterparty failed, leaving the ECB with collateral that was worth less than the valuation margin allowed for, as well as for losses on assets held under the Securities Market Programme. Given that there is a transfer of risk between sovereigns over the ECB's balance sheet and risks of adverse selection, there is a case for the ECB making public in a timely way the composition of its collateral in this respect. The proposed inclusion of collective action clauses (CACs) may facilitate this process, although arguably it would make little difference provided that debt continues to be issued under national law and CACs may be difficult to implement in practice or unnecessary (Buchheit and Mita Gulati, 2010). The wide range of different conditions attached to bonds in each country makes

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[9] ECB, Press Release, "ECB announces change in eligibility of debt instruments issued or guaranteed by the Greek government", 3 May 2010.

it difficult for investors to assess the position in different countries, which is encouraged by the exemption of sovereign debt from EU securities legislation. There is a case for greater standardisation of new issuance around commonly agreed best practice.

The approach to reinforcing market discipline set out above would essentially align the de jure responsibility of each country for its government's debt with a set of more credible institutions that would de facto reduce the likelihood of external support in the case of solvency difficulties by reducing to other countries. This stands in contrast to proposals to issue a common "euro bond" (Delpa and Weizsäcker, 2010), which would tend to tie the liabilities of euro area countries closer together. While such proposals include ceilings on the amount of borrowing and institutional mechanisms that aim to impose conditions on accessing the "euro bond", with the gains of greater liquidity offering a quid pro quo for tighter policies, the success of such a system would nevertheless continue to rely on the ability of the institutional framework to overcome the inherent time consistency issues. These problems are avoided by the approach that seeks to limit this problem directly.

3.2   EU institutions

The EU fiscal framework, which is laid out in the Treaty, is necessary to reduce the risk of economic and financial spillovers arising from national fiscal policies. In normal times, the fiscal stance in each country has effects on aggregate demand and the cost of capital in the euro area as a whole, which may not be fully internalised by individual euro countries. Unsustainable fiscal policies can lead to financial spillovers through the banking system and financial markets to other countries, as has been seen in the euro area debt crisis. In addition, the risk of default creates costs for other euro area sovereigns in terms of their own funding costs, support for their financial system and exposure through the ECB. To the extent that the time consistency problem of "no bail-out" commitments cannot be fully resolved and that market discipline is not wholly effective, EU institutions should provide a safeguard against running lax fiscal policies to protect other euro countries and allow the European Central Bank to fulfil its mandate effectively. In addition, the creation of a European liquidity support mechanism creates the need to offset any increase in moral hazard that may arise as a result and to impose conditionality. EU institutions can in principle also serve as a mechanism to overcome weaknesses in national fiscal institutions, particularly in making binding commitments, but achieving this is fraught with difficulties.

The Stability and Growth Pact (SGP) provides the basic framework for fiscal policy in the European Union, including for the euro area. The SGP has a "corrective arm", set out by the Excessive Deficit Procedure (EDP), and a "preventive" arm that aims to support this objective more generally. Following the economic crisis, almost all euro area countries are subject to the EDP because their deficits are larger than the 3 per cent of GDP reference point set out in the Protocol on the Excessive Deficit Procedure. A major package of legislative proposals is now under discussion with the aim of strengthening the EU fiscal framework (EC, 2010c; EC, 2010d; EC, 2010e) and these issues have been examined by an EU Taskforce on economic governance (EU Taskforce, 2010). It is intended that this package of reforms will have been agreed by the summer of 2011, although the "European Semester" is being applied from 2011.

3.2.1 Institutional design

A difficulty with the implementation of the SGP has been that the "corrective arm" is most likely to bind during downturns because it is triggered by the actual budget balance. It is therefore unlikely to provide effective guidance about prudent fiscal policy during upswings. This may have contributed to the tendency to do too little to strengthen the public finances during good times. By

late 2008, no euro area member was subject to the EDP. Italy and Portugal had been subject to the EDP from 2005 to 2008, while France, Germany and Greece had been in EDPs for a number of years up to 2007. In 2007, France, Greece, Italy, Portugal and Slovakia had deficits at or greater than 1.5 per cent of GDP. While the severity of the crisis has been exceptional, many countries had too little room to cope with negative shocks and even a downturn of a normal business cycle magnitude would have resulted in many countries having excessive deficits. In principle, a binding constraint at 3 per cent of GDP could have encouraged countries to run sufficiently small deficits to make the probability of hitting the constraint low. However, it appears that the constraint has not been viewed as sufficiently binding for policy to set on such a prudent basis.

Following the revision of the Pact in 2005, the "preventive arm" of the SGP was developed to improve underlying budgetary positions. This was intended to make breaches of the 3 per cent deficit reference value less likely and to provide a better path for budgetary positions looking further ahead. A medium-term objective (MTO) for the structural fiscal balance was set for each country. MTOs targeted either a surplus, balance or a deficit no larger than 1 per cent of GDP. The methodology for determining the MTOs has been recently revised to incorporate a measure of implicit liabilities relating to ageing, while retaining a structural deficit cap of 1 per cent. The methodology has not been published, undermining its credibility and fiscal transparency. For those countries which have not reached their MTO, there is an expectation that the structural fiscal balance should be improved by at least 0.5 percentage points each year until the objective is reached, with some leeway in bad times and an expectation that faster progress would be made in good times. As this leeway has not been defined in quantitative terms, it has been difficult to apply.

The "preventive arm" has had a number of weaknesses. Firstly, half of euro area countries had not met their MTOs by 2007 and progress towards them was uneven. Many countries did not reach their MTOs and some of those that did were helped by exceptional and unsustainable growth and financial cycles (OECD, 2009a). The convergence process has been hampered primarily by the lack of political will, but also by the absence of an operational definition of "good times" in which progress towards MTOs should exceed 0.5 per cent of GDP. Secondly, the structural budget balance measure used to assess the MTO gave a highly misleading picture of the underlying fiscal position. The problems were twofold: the output gap was inaccurately assessed and highly buoyant government revenues tended to improve the estimated structural position of the economy without any real strengthening of fiscal policy settings. These effects were amplified by the credit cycle and economic imbalances, which led to strong demand in some countries but a low measured output gap. These generated large and unsustainable revenues from financial and housing transactions. Thirdly, until recently, countries were able to set their own MTOs within limits and there was no systematic link to their fiscal needs (OECD, 2009a). This practice has now been superseded, but the range of MTOs across countries remains relatively narrow compared with differences in long-run fiscal pressures. Fourthly, the MTOs do not appear to have achieved a high level of recognition or acceptance as a framework for budgetary decisions. Even within the EU budgetary framework, Stability Programmes have generally not included a clear path of measures towards meeting the MTOs and mention of them has been scant in some editions of Commission's main annual fiscal assessment, Public Finances in EMU. The medium-term objectives would be more effective if measures of underlying fiscal positions were improved, in particular to take into account economic and financial imbalances, and if countries were required to specify in greater detail how progress towards them will be achieved over the coming years.

Current legislative proposals set out a new additional principle of "prudent fiscal policy-making" (EC, 2010c). This is basically defined as ensuring that the annual expenditure growth does not exceed a "prudent" estimate of medium-term growth, unless explicitly covered by offsetting tax measures or the MTOs is already "significantly overachieved". Where it is a binding constraint, it implies that policy would be counter-cyclical through the automatic stabilisers with

expenditures growing at a steady pace and revenues following the cycle. As a result, the actual budget balance would be stronger in good times than in downturns. Given that the underlying basis of the new principle is a concept of structural growth, it provides some guidance about how MTOs should be achieved. It also shifts emphasis towards expenditure growth. However, the new principle still requires an assessment of structural growth, which is inherently difficult, although it does avoid relying on estimates of structural elasticities of government revenues to growth (which are especially problematic to estimate in an accurate way because of structural breaks and non-linearities).In terms of enforcement, expenditure growth is more directly under the control of the authorities than tax revenues so compliance with this principle will be more observable than for MTOs. But, there is a risk that the focus on expenditure creates an incentive to reduce taxes as a substitute for higher spending, particularly in the form of tax expenditures.

The impact of the Stability and Growth Pact on national budgetary decisions has been also been held back by the lack of integration of the EU level and national budgetary procedures. While this may largely reflect a lack of political will at national level to comply with EU requirement, it may also have reflected detailed aspects of the procedures. In particular, national budgets in most euro area countries are legislated at the end of the calendar year with the underlying forecast assumptions set in the autumn. This information was then submitted into Stability Programmes, prepared in the early part of the following year and assessed by the Commission and the ECOFIN Council in the spring. This *ex post* assessment was unlikely to have an *ex ante* effect on policy, not least because the main decisions about fiscal policy for the current year were already taken by the time the EU review was completed but also that circumstances could change significantly between then and the following budget. The creation of the European Semester from 2011, which modifies the timing and procedures for EU budgetary and economic surveillance, will help to address this problem with final recommendations on fiscal policy being made by the EU in July. This will more or less coincide with the beginning of the budget cycle in many countries and thus should increase national "ownership" of EU fiscal goals and analysis.[10] In addition, greater emphasis on multi-year planning, as described below, would also help to align the long-term objectives of the Stability Programmes with a national debate and commitment over the same horizon. However, the effectiveness of this approach will still continue to depend largely on political will both at the EU and national levels.

3.2.2 Enforcement

The effectiveness of the SGP framework has been impaired by the lack of effective enforcement. Under the "corrective arm" of the Pact, enforcement should in principle be relatively simple given that the reference value of a budget deficit of 3 per cent of GDP should be observable. A key problem, however, has been that the only penalties available have been *ex post* fines: these lack credibility because they would only apply to countries already facing budgetary problems and enforcing the sanctions would add to those difficulties. In addition, procedural delays and difficulties in identifying compliance with undertakings to take corrective action have impeded the swift return to SGP norms. Legislative proposals from the Commission imply a slight increase in some delays, from four to six months, but would clarify the criteria for assessing compliance with recommendations by putting greater emphasis on variables that are under the direct control of the national authorities, particularly in terms of government spending (EC, 2010c). More importantly, it is proposed that a sum equivalent to the fine under the EDP of 0.2 per cent of GDP should be deposited in a non-interest bearing account as soon as an EDP begins, which could be returned to countries if corrective action is undertaken. This combines a small sanction, the foregone interest, combined with an upfront fiscal cost, which may be more credible than threatening to levy a

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[10]   This was approved by ECOFIN on 7 September 2010.

similar fine when a country is deeper into budgetary problems. In addition, a range of sanctions and fines linked to the EU budget is envisaged when the new EU budget is negotiated.

The Treaty requires a Council decision at each step of the EDP from the finding that deficit is "excessive" to the imposition of penalties. These steps are not automatic and a fine has never been imposed. In 2003, the Council decided not to act despite a Commission recommendation to step up the EDP against France and Germany. This set a poor precedent. The European Court of Justice subsequently ruled that the Council can *de facto* put in abeyance the excessive deficit procedure, even against the recommendation of the Commission, although it cannot alone revise the EDP recommendations. Enforcement by the Council is therefore crucial, but it has not worked well either in ensuring compliance with the Pact or in terms of its deterrence effect.

There are limits within the existing Treaties to how far more binding rules can be applied, without a change in behaviour by the Council. However, legislative proposals from the European Commission and recommendations from the EU Taskforce set out a "reverse voting majority" mechanism within the existing Treaty that would consider a proposal on sanctions, either under the "corrective" or "preventive" arms of the SGP, to be adopted unless the Council rejects the proposal by an appropriate qualified majority within a given time delay (EC, 2010c; EU Taskforce, 2010). This could make it more likely that the Council backs the technical analysis of the Commission given that the required number of countries needed for the recommendation to pass would fall under this procedure. Nevertheless, this "quasi-automaticity" still relies on the willingness of members of the Council to enforce fiscal discipline on each other. There is a risk that the new procedures could change voting incentives in a perverse way: if countries are behaving strategically by not sanctioning others to set a precedent that reduces the risk of being sanctioned themselves, the reversed voting majorities may lead to a shift in behaviour whereby some countries act more leniently to offset the impact of the reform. Furthermore, while recent experience may underline to countries the risks created by the unsustainable budgetary positions of other euro area governments, the large number of countries that will be in EDPs in the coming years (especially if the debt criterion is operationalised) may build a constituency against stricter application of the fiscal rules.

The enforcement of the reference value of public debt in excess of 60 per cent of GDP has been even more limited than for the deficit rule. This partly reflects the overall focus of the Excessive Deficit Procedure, which as the name suggests is mostly concerned with the budget balance. Furthermore, few countries exceeded the reference value for debt in the years leading up to the crisis. The debt criterion can lead to enforcement action "unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace". This phrase leaves considerable room for interpretation. While it would be unreasonable to expect countries far above the reference level to reach it over a short period of time, progress in the past has been mixed during the past cycle. While Belgium managed to reduce its debt-to-GDP ratio by around 20 percentage points over a six-year period, indebtedness was roughly unchanged in Italy. The enforceability of the debt criterion would be greatly improved by setting a numerical standard for the required pace of reduction, although determining the exact appropriate minimum pace is difficult as it should take into account country-specific factors as well as the point of the cycle. Current legislative proposals suggest that debt reduction should be at an annual pace of closing one-twentieth of a three-year weighted average of the gap in the debt-to-GDP ratio over a three-year period (EC, 2010c). A standard argument based on tax smoothing is that the debt should largely be taken as given and gradually paid back over time at a smooth rate or simply rolled over (Lucas and Stokey, 1983). However, the deficit bias means that this approach would lead to ever higher debt. One-off taxes to repay debt, as opposed to reducing the deficit, could be less distorting particularly in their effects on capital accumulation, provided that their one-off nature is credible. In addition, asset sales could be an important solution to the current debt levels, although "one off" in its nature and requiring careful management. In political economy terms, larger adjustments can

also be more costly and so it is optimal to begin consolidation early rather than pushing larger efforts into the future even for relatively high discount rates (Cournède, 2007). High levels of debt can have a non-linear effect on financing costs, which supports front-loading debt reduction in this situation (Koutsogeorgopoulou and Turner, 2008). Much may depend on the past record of countries in reducing debt (Ostry *et al.*, 2010). Current legislative proposals set out an operational definition of the required reduction in the debt-to-GDP ratio under the SGP as a reduction of the distance with respect to 60 per cent over the previous three years at a rate of the order of one-twentieth per year (EC, 2010c). This implies a strong degree of front-loading in the early years for countries with high debt, while the averaging over three years allows some flexibility with respect to asset sales and limited room for manoeuvre during each time window.[11] By contrast, the implied pace of convergence for countries with indebtedness closer to 60 per cent of GDP is very slow.[12] It is important to note, however, that convergence to and adherence with the MTOs (which are specified in terms of the overall fiscal balance) are likely to impose a tighter fiscal position for most countries with debt in excess of 60 per cent of GDP than this formula for debt reduction, so that the debt criterion would only be the binding constraint for countries that are sufficiently far from their MTOs.

Enforcement of the "preventive arm" of the Pact has proved more difficult than for the "corrective" part and has been the main weakness of this mechanism. The key problem has been lack of sanctions to ensure that fiscal policy is set in the good times to avoid problems in economic downturns and remove the bias towards higher debt. Application of the framework relied solely on peer review to achieve the MTOs and appropriate convergence towards them. National authorities are required to submit annual Stability Programmes. The Commission and the Council have the power to monitor, examine and assess proposed national adjustment paths. This includes making recommendations on the necessary adjustment measures and, where divergence from the objective persists, to make public recommendations on prompt corrective measures. While weak fiscal policy settings were identified through this approach, too little was done to ensure that all countries achieved sustainable medium-term budgetary positions. Sanctions are inherently more difficult to apply in this case as they involve a greater element of judgment. Nevertheless, the introduction of *ex ante* sanctions into this arm of the Pact would be an important step forward. This would be reinforced by "quasi-automatic" decision-making, as well as clearer criteria for judging compliance with corrective action. Proposed legislation from the European Commission (EC, 2010c) sets out new sanctions to include:

- new procedural sanctions consisting of a warning from the Commission and ultimately from the Council. More frequent and intrusive surveillance by the Commission and the Council would be undertaken for countries with weak fiscal policy settings;

- a financial penalty of posting 0.2 per cent of GDP to an interest-bearing account for as long as the country is deemed to be in breach of its obligations (EC, 2010c). The suspended funds could be forfeited if the fiscal weaknesses are not addressed with an unanimous decision of the Council required to lift the sanction.

3.2.3 Monitoring

Enhanced enforcement of the SGP requires better monitoring of the fiscal positions of euro area countries and greater transparency. This would facilitate fiscal dialogue at the EU and

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[11]   A country with a debt-to-GDP ratio of 100 per cent, nominal growth of 3.5 per cent and facing interest costs of 4.5 per cent would be required to run a primary surplus in the early years of close to 3 per cent of GDP. By contrast, a country with a 70 per cent debt-to-GDP ratio would only be required to run a primary balance of around 1.5 per cent of GDP.

[12]   Under the assumptions in the previous footnote, it would take well over a decade for country with a debt-to-GDP ratio of 80 per cent to get its debt ratio down to 70 per cent.

national level, as well as making it easier for investors to assess risk. The Directorate-General for Economic and Financial Affairs (DG ECFIN) has increased its resources and is undergoing an internal restructuring to strengthen its capacity to monitor economic and fiscal developments in EU countries. The presentation of Stability Programmes should be enhanced. Projections should be presented in a more similar way across countries. The presentation should clearly distinguish between a scenario based on a "no change" assumption (incorporating only specific legislated changes) and plans that assume hypothetical future decisions. Forecasts should be made for at least the next three years, or for as long as it is expected to take to reach MTOs. Projections should identify expected current spending, capital spending and tax revenues, based on an outline of specific measures to achieve the stated objectives.

Stability Programmes are currently set out using national fiscal forecasts. These are in most cases largely provided by national finance ministries and so are not politically independent. There is bias towards overly optimistic forecasts, which imply an easier trade-off between spending decisions and raising revenue (Jonung and Larch, 2006). In the 2010 round, the Commission judged many forecasts to be "optimistic" (EC, 2010b). The Commission and the Council base their assessments of the Programmes on the Commission's own projections. However, the dialogue about policy is partly obscured by differences in underlying economic and budgetary assumptions, aggravated by national forecasts being based on data from the autumn rather than the early spring. Appropriately-mandated national forecasters could in principle have some advantages over the Commission in making forecasts, in particular through privileged access to highly detailed confidential expenditure and revenue data. Stability Programmes would benefit from national forecasts being formulated by independent fiscal councils as set out below. This is likely to facilitate the assessment of policies by removing any political bias in national forecasts, providing a more similar set of assumptions between national and EU authorities.

The analysis of monitoring of structural budget positions should be improved, as these underpin the "preventive arm" of the SGP, and should systematically reflect uncertainties in fiscal forecasting. The assessment of structural positions should not solely be grounded in estimates of the output gap, which is an unobserved variable and difficult to estimate in real time. Estimates of the structural fiscal position should follow a disaggregated approach, allow for time-varying tax elasticities and structural breaks. As discussed in the OECD Economic Survey of the euro area (OECD, 2010), economic and financial imbalances are much wider in scope than the balance between internal demand and supply. Furthermore, capital flows and immigration may lead to shifts in short-run supply that make the output gap particularly difficult to identify. The creation of the European Semester and co-ordination with broader economic policy orientations should bring broader developments systematically into the setting of EU fiscal policy recommendations. The effect of credit and asset prices on revenues should be systematically taken into account. The presentation of forecasts of the budget balance and estimates of the underlying budgetary position should reflect economic, data and model uncertainty and the representation of fiscal forecasts should be less reliant on point estimates.[13] While this would add to the complexity of the discussion, it would provide a better reflection of the state of knowledge about the future of fiscal positions. In addition, it would help to highlight risks to the fiscal position when the economy is performing strongly.

Large revisions to GDP and the fiscal position in Greece threw the weaknesses in the collection of accurate and timely statistical data into sharp relief. Based on current data, Greece would have exceeded the reference value in 2008 and the EDP would not have ended. These weaknesses further undermine the credibility of the system. The auditing of fiscal positions should

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[13] Part IV.3 of *Macro-financial and (Contingent) Fiscal Risks – An Analysis with Composite Indicators* by the EC (2010b) constructs indicators of macroeconomic and fiscal risks.

be strengthened and make greater use of independent auditing. Eurostat's powers to validate data were increased in July 2010, including a system of methodological visits where weaknesses are identified and increased powers to oversee the preparation of fiscal statistics at national level.[14] Eurostat should allocate sufficient resources to fiscal monitoring and weaknesses in national audit processes should be addressed as the credibility of fiscal data is essential to the effective operation of EU fiscal institutions and market discipline.

Fiscal monitoring should be broadened along two dimensions. Firstly, surveillance and transparency around off-balance sheet liabilities should be strengthened. In a narrow sense, this should cover off-balance sheet operations that can distort the headline statistics on the public finances, as well as important off-balance sheet positions such as government guarantees, special purpose vehicles that may ultimately create a liability for the state, and obligations under Public Private Partnerships (PPPs). It is important that gaps in monitoring do not bias policy decisions towards less transparent forms of support. This will be particularly important as tighter budgets in the coming years will create strong incentives to avoid fiscal discipline. More broadly, liabilities under public-private partnerships should clearly be accounted for in budget annexes. Secondly, the monitoring and availability of data about debt management should be stepped up. This is extremely important given the role that short-term financing needs can have on market pressures, which have been a key conduit for contagion during the crisis. Given these liquidity risks, these issues should be given prominent scrutiny and all countries should move into line with best practice in terms of institutional arrangements and management of liquidity and market risks. Fiscal stress tests should be undertaken to explore and communicate these risks.

3.2.4 Limits of EU institutions and fiscal rules in the current fiscal situation

While the SGP may have played a positive role in fiscal outcomes, it has ultimately fallen short of its objectives. The financial crisis may have been an unusually tough test of the public finances, but the euro area sovereign debt crisis has underlined real weaknesses in the ability of the SGP to protect the central bank and other EU countries from fiscal spillovers. In addition, the revision of the Pact, which was intended to address perceived shortcomings in its credibility, suggests that these problems may have inherently difficult to solve. In particular, the more sophisticated approach of the "preventive arm" that was intended to create national ownership of the objectives appears to have failed. The implementation of current legislative proposals would mark an important step forwards by addressing some of the key weaknesses in the existing system, notably the weak credibility of *ex ante* sanctions, the failure of peer pressure to enforce the preventive arm and the making of decisions by the Council "quasi-automatic". However, the key issue remains the willingness of national authorities to abide by the rules and, if not, of the Council to enforce sanctions effectively and for the Commission might not use its powers, even if expanded, fully.[15] Under the existing architecture of the monetary union, there are good reasons for which enforcement at the EU level will remain limited. Setting fiscal policy depends on a very large element of judgement, more so for than for monetary example (Leeper, 2010). It is therefore appropriate that it is set by a political process with a high degree of legitimacy, most obviously national and some sub-national levels in this case. Furthermore, in the absence of transfers, the consequences of the exercise of this judgment at European level could not be compensated in any way by fiscal transfers.

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[14] Council Regulation (EU) No. 679/2010 of 26 July.

[15] For a parallel, the enforcement of warnings and the Broad Policy Guidelines in relation to Ireland proved difficult and ultimately this approach was never again attempted (Deroose *et al.*, 2008).

Appropriate fiscal rules that are optimal in all circumstances are likely to be difficult to derive. This imposes a limit on how much EU institutions can be expected to achieve, given that the circumstances of European countries are so different both with respect to their membership of the monetary union but also future growth prospects and other key variables in terms of fiscal consolidation. This argues for an EU approach based on ensuring basic sustainability and avoiding spillovers rather than trying to approximate optimal policies for all countries. Furthermore, the coming years are likely to provide a highly unusual background against which fiscal institutions must operate: reaching the objectives set by the Stability Programmes and then the Medium-term Objectives will be difficult given the scale of the consolidation required to achieve it and high debt levels. Based on the experience of 84 fiscal consolidation episodes in 24 OECD countries since the late 1970s, the overall size and duration of consolidation required just to fulfil 2010 "Stability Programmes" is not out of line with past experience (Guichard *et al.,* 2007; Figure 9) with the notable exceptions of Greece and Ireland.[16] However, if countries then continued to converge with the more demanding standard of achieving Medium-term Objectives, this would imply that consolidation would have to be longer and in a number of cases larger than has been normal in the past (see OECD, 2010 for more detailed discussion of the underlying assumptions). Such a scenario would be needed for most countries so that debt falls towards the 60 per cent of GDP ceiling in the Treaty. With a large number of countries likely persistently to exceed the Treaty benchmarks for many years, past experience suggests that consolidation is more likely to be durable if accompanied by strong fiscal institutions (Guichard *et al.*, 2007). At the same time, the political economy pressures arising from such an intense consolidation will need to be carefully managed and may lead to greater resistance from national governments to EU fiscal constraints.

3.3   *Reform of fiscal frameworks at national level*

The poor fiscal outcomes of many euro area countries, however, suggest that national authorities have faced two kinds of problems. Firstly, political incentives often lead to short-term decision-making and excessive risk-taking. In addition, the conditions of monetary union together with low risk aversion in financial markets may have weakened some elements of market discipline. Countries, which did little to reduce their high debt-to-GDP ratios since 2000, were clearly taking large fiscal risks. Secondly, it is technically very difficult in real time to distinguish structural from cyclical revenues and to build up sufficient reserves. Despite apparently good fiscal outcomes at the time, it is clear *ex post* that some countries should have made a greater effort to improve their fiscal positions. By 2007, Ireland and Spain had reduced their debt-to-GDP ratios to among the lowest in the euro area and were among the few countries to run budget surpluses. While there were some indications at the time that the fiscal position in these countries may not have been sufficiently solid given the overheating of domestic demand, the scale of the subsequent weakening has been a surprise relative to forecasts both by the authorities and external commentators. Furthermore, it may be politically very difficult to justify sufficiently large surpluses to address such domestic imbalances. To address these weaknesses, budgetary frameworks at national level should generally be upgraded through a combination of well-designed fiscal rules (consistent with the SGP framework) and the introduction in many countries of independent national fiscal councils.

Wider user of medium-term fiscal framework in euro area countries would help to strengthen fiscal performance. These rules can embody sound budgetary principles in decision-making and help governments to pre-commit to setting policies in a particular way. There are several basic types of fiscal rules, including deficit and debt rules, as well as revenue and expenditure rules.

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[16]   Consolidation for Ireland is understated under this methodology as some of the current episode occurred prior to 2010.

Figure 9

Planned Consolidation Compared with Past Experience[1]
(improvement in budget position, percent of potential GDP)
Stability Programme Scenario
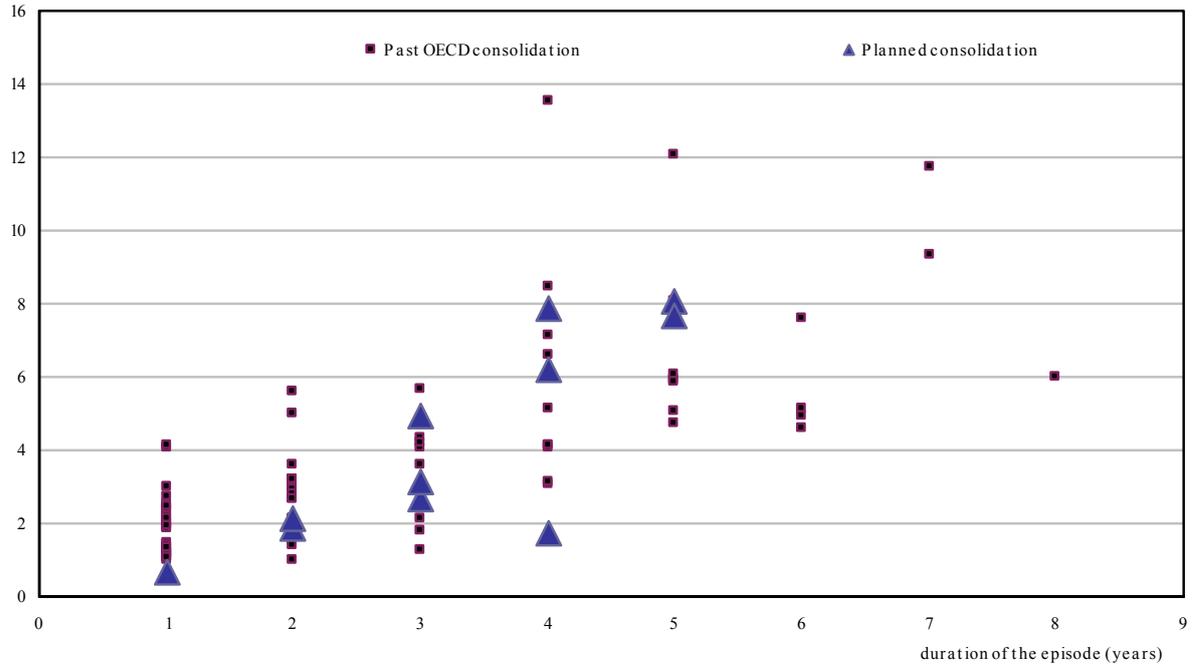
Convergence to Medium-term Objectives Scenario
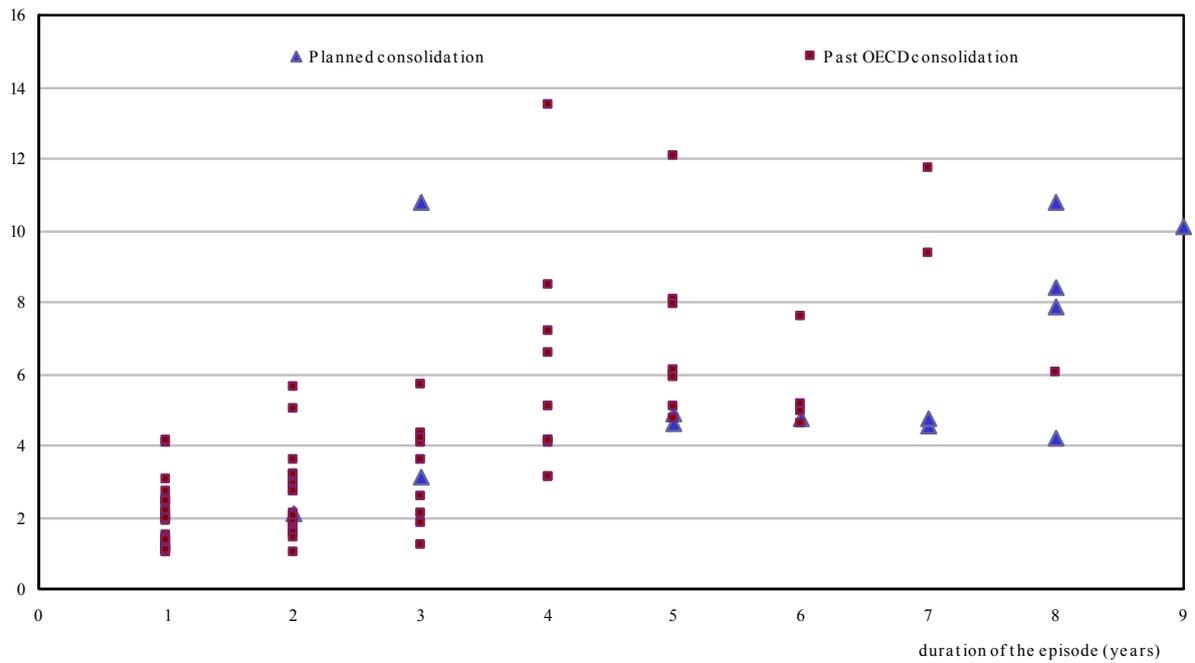
[1] See assumptions given in OECD (2010).
Source: Guichard *et al.* (2007), "What Promotes Fiscal Consolidation: OECD Country Experiences", OECD, Economics Department, Working Paper, No. 553, and OECD, OECD Medium-term Database and OECD calculations.

Rules may either specify a target or a ceiling. Deficit and debt rules are highly appropriate at the EU level, given that the main externalities in fiscal policy between countries arise from unsustainable public finances. However, other types of rules may be useful at national level, not least because deficit and debt rules are less likely to bind during periods of economic expansion when governments find it difficult to save. While this problem can in principle be overcome by basing the rules on estimates of the structural fiscal balance, this measure is unobservable and difficult to estimate accurately. Deficit rules (including the SGP) are the most commonly used fiscal rules among OECD countries and are in place in some form in almost all countries (Guichard *et al.*, 2007).

3.3.1 Medium-term fiscal frameworks

Medium-term expenditure rules have significant advantages compared with deficit rules. They involve setting a multi-year plan or ceiling for government expenditures. These build on the sensible practice of viewing the public finances from a multi-year perspective, both to see through the cycle and avoid boom and bust in government spending. The implication is that these plans will be met irrespective of actual government revenues, so that stronger than expected revenues are saved rather than spent (Anderson and Minarík, 2006). Unlike deficit rules, expenditure-based rules are likely to be binding through the cycle. Indeed, the disadvantage of deficit rules is that they will typically require consolidation when the economy is already in a weak state. Expenditure rules have the additional advantage that expenditure is generally more directly under the control of the authorities than revenues, which are more cyclical and autonomous (Atkinson and van den Noord, 2001). This implies that violations of the rules are easier to observe and enforce. To be effective, expenditure rules must cover all categories of expenditure to avoid gaming of the system by reclassifying expenditures to categories outside the cap.[17] This argues against the use of "Golden Rules", which exclude government investment, because there is ambiguity about which category some types of spending belong (Fatás, 2005). The main argument against expenditure rules is that they may reduce the quality of public finances by distorting expenditure decisions, for example leading to cuts in pro-growth investment to meet the cap. However, a broad definition of expenditure should not in itself lead to these problems. A large number of OECD countries now have some system of expenditure targets while some others have rules about the use of windfall tax revenues, which can be seen as potentially having a similar effect (Guichard *et al.*, 2007). The importance of expenditure-based rules is recognised in the new concept of "prudent fiscal policy-making" in current EU legislative proposals, which imply a basic rule (EC, 2010c).

Overall, there is some evidence that the existence of fiscal rules is associated with better fiscal outcomes, although much depends on their design and the circumstances (EC, 2006b; Guichard *et al.*, 2007). In the euro area, Austria, Greece, Ireland, Luxembourg, Portugal, the Slovak Republic and Spain have not had rules for central government or the general government public finances beyond the excessive procedure and SGP rules.[18] While several of these countries appeared to perform well during the upswing, the most severe fiscal problems in the downturn have all been among countries in this group. The experience of countries with strongly overheating economies raises two important issues for expenditure rules. Firstly, the implied surpluses would have been extremely large during the upswing and would most likely have led to strong pressure on governments to renege on their commitments. Secondly, the scale of the reversal of fortunes in these countries was very large and so even prudent expenditure plans made after several years of boom would most likely have been totally unrealistic for the coming years. Taken together, these considerations imply a need for some well-defined clauses setting out exceptional circumstances

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[17] An exception may be justified for social security expenditure related to unemployment.

[18] In Spain, there are expenditure ceilings and several debt limits for regional and local authorities.

when the rules may be relaxed, while maintaining discipline in the face of strong revenue booms. The exact design of fiscal rules may be difficult and can imply trade-offs between various objectives, such as stabilisation of the cycle and maintaining the pace of investment. The design of fiscal rules to achieve consolidation in the coming years may involve some special considerations beyond those that are eventually required to keep the public finances on a prudent path. It would be appropriate to design fiscal rules at a national level, within the minimum deficit and debt criteria set out by the SGP, fully to reflect national circumstances, preferences and approaches. There is some scope for EU monitoring to help ensure that these rules are well-designed, but it is important that political will at national level supports the rules and that there is national ownership of the fiscal frameworks.

3.3.2 *Independent national fiscal councils*

Enforcement of the fiscal rules and budgetary outcomes would be improved if all euro area countries had independent national fiscal councils. These could reduce political biases, increase the commitment to rules and raise the level of analysis and debate around fiscal policy. In principle, independent fiscal institutions could assume a variety of tasks, ranging from setting the ultimate objectives of fiscal policy to providing technical input to the policy-setting process such as a forecast or to making a normative assessment of the fiscal position. However, there are good reasons for limiting the scope of independent fiscal bodies more than for central banks given the lower level of agreement about objectives and stronger distributional impact of fiscal policy. No OECD country has an independent fiscal authority in the sense given below, but an increasing number have adopted some form of fiscal council (Debrun *et al.*, 2009).

Independent fiscal councils in euro area countries should be allocated two tasks:

- preparing independent forecasts of the public finances to remove bias;
- independent fiscal policy assessment. At a minimum, this should include assessing whether fiscal rules have been met. This is particularly important where judgment is required. More broadly, a fiscal council can provide normative commentary on the state of the public finances and also the fiscal stance. This analysis can also be applied to political parties' election manifestos.

This mandate would improve transparency and the quality of public debate about fiscal issues. In most countries, there is already a wide range of commentators on fiscal policy, such as research institutes, academics and banks. However, these commentators do not have formal mandate to provide such scrutiny and lack accountability. This can undermine their impact on the public debate. Furthermore, these *ad hoc* commentators do not have the privileged access to confidential government data that is required to undertake detailed and robust analysis of the public finances. The resources available to commentators for fiscal policy tasks are also typically very small relative to those required to undertake thorough analysis. Many euro area and OECD countries already have an institution that performs some of the functions of a fiscal council (EC, 2006a; Hagemann, 2010). Many have a forecasting role but this is usually limited to setting underlying macroeconomic assumptions. Only a few euro area countries have a fiscal council that produces forecasts for the government balance and debt. There is typically some analysis of the fiscal policy position, although monitoring of budgetary implementation or analysis of outcomes with respect to fiscal rules is less common. The normative role is generally limited to a commentary on whether rules or budgetary plans are respected and how to deal with slippages. Implementing fiscal councils in all euro area countries with the dual mandate of preparing independent forecasts and assessing the fiscal position would therefore be a major change.

The design of fiscal institutions can help to ensure their effectiveness. The optimal configuration will depend on the circumstances of each country. However, the mandates of national fiscal councils must be clear and achievable. Agencies need to be assured of full discretion in carrying out their mandates. Independence from political influence and the executive is crucial and adequate firewalls are required to ensure the independence of staff and everyday operations. Conversely, they must be democratically accountable, for example to national parliaments, for meeting these objectives. In addition, the funding of independent agencies should be protected as far as possible from political influence and be sufficient to carry out the important tasks that have been delegated to them. The development of independent central banks over recent decades provides a model in some respects in terms of independence, analytical capabilities, the collection of data necessary to carrying out this analysis, and an increasing emphasis on communication and transparency. The integration of national fiscal councils with the other political and budgetary processes is a key determinant of their effectiveness. This explains why such national institutions might be able to achieve results where EU surveillance cannot. In the United States, the Congressional Budget Office (CBO) prepares a baseline against which budget proposals are prepared, although this role is somewhat impaired by a legal obligation to follow current law rather than a more realistic policy scenario. The CPB stands out as an institution that has over the decades become fully integrated into the policy-making process while retaining a solid reputation for professionalism and impartiality in its analysis.

Figure 10

Budgetary Developments and Fiscal Councils, 1995-2005[1]
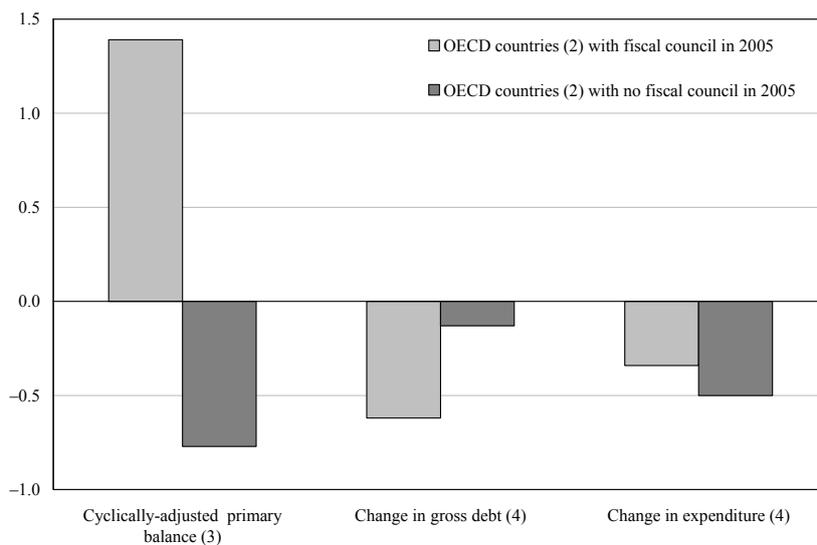
(1) Fiscal councils as defined in EC (2009), *Public Finances in EMU – 2009* and OECD calculations.
(2) OECD countries excluding Chile, Mexico, Slovenia and Turkey.
(3) Average balance over the period.
(4) Average yearly percentage point change in the ratio to GDP over the period.
Source: OECD, OECD Economic Outlook Database.

The experience with independent fiscal councils is encouraging, even if there are few examples of the type of institution with the full mandate proposed here for euro area countries. Over the period from 1995 to 2005, the unweighted average fiscal performance of OECD countries with fiscal councils in terms of the cyclically-adjusted primary balance and the reduction in debt was stronger than for those without fiscal councils (Figure 10). This parallels similar findings based on the same methodology for the European Union (EC, 2006a). This *prima facie* evidence is difficult to evaluate because of the endogeneity of the decision to create a fiscal council: these are more likely to be created in countries that are serious about budgetary discipline, although the need for such institutions may be less where budgetary processes are already sound and have political support.

While the experience of institutions with the full range of the necessary powers is limited, there is some evidence that these bodies can be effective if well-designed and truly independent. Much of their success will also depend on how serious policy-makers are about fiscal prudence and allowing these institutions to flourish. However, it is precisely this link to local circumstances that provides legitimacy in the national policy process and strong integration to the budget. At the EU level, the European Commission already plays a somewhat analogous role by monitoring national fiscal positions and compliance with the SGP rules. The Commission is not politically independent in the same way as a national fiscal institution would need to be. Nevertheless, it has a mandate to protect the EU interest and so should not be subject to influence from national governments.

4   Conclusion

While the immediate priority is to stabilise the public finances and then reduce the debt-to-GDP ratio to more prudent levels over the coming years, strengthening the fiscal framework would enhance the credibility of the consolidation process. Stronger market discipline and fiscal frameworks are required to avoid pro-cyclical policy settings and to ensure long-run sustainability. The institutional design should reflect that national governments retain the main responsibility for the state of their public finances, while EU institutions are needed to avoid fiscal spillovers and to mitigate moral hazard.

This coherent approach should be based on three pillars: market discipline, EU institutions and national budgetary frameworks. At EU level, the experience of the Stability and Growth Pact has been that it has been difficult even to enforce the basic rules and the sovereign debt crisis has led to important financial spillovers between countries. Reforms in this area should focus on achieving these core objectives and not overloading the EU level with other objectives, outside this core role, that it is unlikely to be able to achieve. One reform strategy would be to focus on enforcing the pre-revision Pact aimed at providing a maximum allowable fiscal deficit and debt ratio, augmented by stronger and more credible sanctions, improved monitoring and including a numerical standard for the required reduction in the debt-to-GDP ratio towards 60 per cent. The currently discussed reform proposals aim to implement the post-revision Pact more effectively and also include extensions, for example to co-ordinate with policies to avoid unsustainable imbalances. While current reform proposals would be a major step forward, there is a risk of continuing to place more weight at the EU level than it can reasonably be expected to bear, while neglecting the role of market discipline and national fiscal institutions.

REFERENCES

Alesina, A. and G. Tabellini (1990), "A Positive Theory of Fiscal Deficits and Government Debt", *Review of Economic Studies*, No. 57.

Anderson, B. and J. Minarík (2006), "Design Choices for Fiscal Policy Rules", *OECD Journal on Budgeting,* Vol. 5, OECD, Paris.

Arnold, J. (2008), "Do Tax Structures Affect Aggregate Economic Growth? Empirical Evidence from a Panel of OECD Countries", OECD, Economics Department, Working Paper, No. 643, OECD, Paris.

Atkinson, P. and P. van den Noord (2001), "Managing Public Expenditure: Some Emerging Policy Issues and A Framework for Analysis", OECD, Economics Department, Working Paper, No. 285, OECD, Paris.

Blundell-Wignall, A. and P. Slovík (2010), "The EU Stress Test and Sovereign Debt Exposures", OECD, Working Papers on Finance, Insurance and Private Pensions, No. 4, OECD Financial Affairs Division, Paris.

Buchheit, L. and G. Mitu Gulati (2010), "How to Restructure Greek Debt", available at SSRN: http://ssrn.com/abstract=1603304

Buiter, W. and A. Sibert (2005), "How the Eurosystem's Treatment of Collateral in Its Open Market Operations Weakens Fiscal Discipline in the Eurozone (and What To Do About It)", CEPR, Discussion Paper, No. 5387, London.

Caner, M., T. Grennes and F. Koehler-Gelb (2010), "Finding the Tipping Point – When Sovereign Debt Turns Bad", World Bank, Policy Research, Working Paper, WPS 5391.

Cournède, B. (2007), "The Political Economy of Delaying Fiscal Consolidation", OECD, Economics Department, Working Paper, No. 548, OECD, Paris.

Debrun, X., D. Hauner and M. Kumar (2009), "Independent Fiscal Agencies", *Journal of Economic Surveys*, Vol. 23, No. 1, pp. 44-81.

Delpa, J. and J. Weizsäcker (2010), "The Blue Bond Proposal", *Bruegel Policy Brief*, Issue 2010/03.

Deroose, S., D. Hodson and J. Kuhlmann (2008), "The Broad Economic Policy Guidelines: Before and After the Re-launch of the Lisbon Strategy", *Journal of Common Market Studies*, Vol. 46, No. 4.

European Commission (2006a), *Independent Fiscal Institutions in the EU Member States*, Brussels.

——————— (2006b), *Public Finances in EMU – 2006*, Brussels.

——————— (2010a), *Enhancing Economic Policy Coordination for Stability, Growth and Jobs – Tools for Stronger EU Economic Governance*, communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee, and the Committee of the Regions, COM(2010) 367/2, Brussels, 30 June.

——————— (2010b), "Public Finances in EMU 2010", *European Economy*, No. 4, Brussels.

——————— (2010c), "Proposal for a Council Regulation (EU) amending Regulation (EC) No. 1467/97 up speeding up and clarifying the implementation of the excessive deficit procedure", 29 September, Brussels, available at: http://www.google.it/url?sa=t&source =web&cd=3&ved=0CC4QFjAC&url=http%3A%2F%2Fec.europa.eu%2Feconomy_finance

%2Farticles%2Feu_economic_situation%2Fpdf%2Fcom2010_522en.pdf&ei=Cir7TaGZON CSOqzQoLgE&usg=AFQjCNFXsLy40fK4SzYZZL8unfxP6GVHgA&sig2=Q9rhR29ed7q MrgZyvSgrVg.

European Commission (2010d), "Proposal for a Regulation of the European Parliament and of the Council Amending Regulation (EC) No. 1467/97 on the Strengthening of Surveillance of Budgetary Positions and the Surveillance and Coordination of Economic Policies", 29 September, Brussels.

——————(2010e), "Proposal for a Regulation of the European Parliament and of the Council on the Effective Enforcement of Budgetary Surveillance in the Euro Area", 29 September, Brussels.

——————(2010f), "Proposal for a Council Directive on Requirements for Budgetary Frameworks of the Member States", 29 September, Brussels.

ECB (2010), "Reinforcing Economic Governance in the Euro Area", note by the European Central Bank, Frankfurt, 10 June.

EU Taskforce on Economic Governance (2010), "Strengthening Economic Governance in the EU", report of the taskforce to the European Council, 21 October, Brussels.

Eurostat (2008), "Structure of Government Debt in Europe", *Statistics in Focus*, 110/2008, Luxembourg.

Égert, B. (2010), "Fiscal Policy Reaction to the Cycle in the OECD: Pro- or Counter-Cyclical?", OECD, Economics Department, Working Paper, No. 763, OECD, Paris.

Fatás, A. (2005), "Is There a Case for Sophisticated Balanced-budget Rules?", OECD, Economics Department, Working Paper, No. 466, OECD, Paris.

Furceri, D. (2009), "Stabilisation Effects of Social Spending: Empirical Evidence from a Panel of OECD Countries", OECD, Economics Department, Working Paper, No. 675, OECD, Paris.

Guichard, S., M. Kennedy, E. Wurzel and C. André (2007), "What Promotes Fiscal Consolidation", OECD, Economics Department, Working Paper, No. 553, OECD, Paris.

Hagemann, R. (2010), "Improving Fiscal Performance Through Fiscal Councils", OECD, Economics Department, Working Paper, No. 829, OECD, Paris.

Haugh, D., P. Ollivaud and D. Turner (2009), "What Drives Sovereign Risk Premiums? An Analysis of Recent Evidence from the Euro Area", OECD, Economics Department, Working Paper, No. 718, OECD, Paris.

Inman, R. (2001), "Transfers and Bail-outs: Institutions for Enforcing Local Fiscal Discipline", *Constitutional Political Economy*, Vol. 12, No. 2.

Issing, O. (2006), "The Euro – A Currency Without A State", speech at an event organised by the Bank of Finland, Helsinki, 24 March.

Jonung, L. and M. Larch (2006), "Improving Fiscal Policy in the EU: The Case for Independent Forecasts", *Economic Policy*, No. 21.

Koutsogeorgopoulou, V. and D. Turner (2008), "The Costs of Delaying Fiscal Consolidation: A Case Study for Greece", OECD, Economics Department, Working Paper, No. 582, OECD, Paris.

Leeper, E. (2010), "Monetary Science, Fiscal Alchemy", NBER, Working Paper, No. 16510.

Lucas, R. and N. Stokey (1983), "Optimal Fiscal and Monetary Policy in an Economy Without Capital", *Journal of Monetary Economics*, Vol. 12, No. 1.

OECD (2009a), *OECD Economic Surveys: Euro Area*, OECD, Paris.

——————— (2009b), *Pensions at a Glance*, OECD, Paris.

——————— (2009c), *OECD Economic Outlook*, No. 85, June, OECD, Paris.

——————— (2010), *OECD Economic Surveys: Euro Area*, OECD, Paris.

Ostry, J.D., A.R. Ghosh, J.I. Kim and M.S. Qureshi (2010), "Fiscal Space", IMF, Staff Position Note, Washington (D.C.), September.

Persson, T. and L. Svensson (1999), *Fiscal Institutions and Fiscal Performance*, National Bureau of Economic Research.

Reinhart, C. and K.S. Rogoff (2010a), "From Financial Crash to Debt Crisis", NBER, Working Paper, No. 15795,

——————— (2010b), "Growth in a Time of Debt", *American Economic Review*, Vol. 100, No. 2.

Roehn, O. (2010), "New Evidence on the Private Saving Offset and Ricardian Equivalence", OECD, Economics Department, Working Paper, No. 762, OECD, Paris.

Sargent, T. and N. Wallace (1981), "Some Unpleasant Monetarist Arithmetic", *Quarterly Review, Federal Reserve Bank of Minneapolis*, Fall.

Sutherland, D., R. Price and I. Joumard (2005), "Fiscal Rules for Sub-Central Governments: Design and Impact", OECD, Economics Department, Working Paper, No. 465, OECD, Paris.

Velculescu, D. (2010) "Some Uncomfortable Arithmetic Regarding Europe's Public Finances", IMF, Working Paper, No. WP/10/177.

CLOSING THE GAPS OF THE SGP.
WHY A SOVEREIGN DEBT RESTRUCTURING MECHANISM?
REFLECTIONS FROM A POLITICAL ECONOMY PERSPECTIVE

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1   Motivation

The agreements reached by the European Heads of State or Government at their recent summits and the succeeding implementation steps have caused intense public discussions. The crucial question is if the tools developed under the new EU coordination framework, including the fiscal compact, provide a comprehensive answer in resolving the major economic and fiscal crisis in the euro area or if major conceptual issues remain which could lead to a prolongation of the current turbulences. One major flaw is still evident and will be of great influence. The summits did not answer the crucial question whether there is a bail out or not; markets will further speculate on the answer.

At the same time the current debate reflects fundamental misperceptions of the political economy of the EU economic and fiscal governance. This raises the question of how to address the possible conceptual shortcomings.

In this essay we explore what we see as major structural gaps or black holes of the SGP architecture and of the macro/microeconomic governance and we propose as a vital complement to the current (reformed) framework a comprehensive sovereign debt restructuring mechanism. We clearly offer the following view: there will be no solution without a clear perspective concerning bail-outs and an insolvency scheme or full joint commitment for all sovereign debt. And we also clearly expect that the latter alternative brings us into a state of the union of a quite different kind with very dangerous economic, political and legal pitfalls.

We derive our conclusions from a political economy perspective as we focus mainly on the institutional side of the EU governance. In a way, we contrast the ongoing real time politics with an ideal-type view or blueprint idea, as the German sociologist Max Weber once put it. Furthermore, if we want to break new ground and get a full picture of the European Scenery, we have to know where we come from – historically and institutionally. Having been involved in all the stages of SGP development and reform starting from the late nineties and during the last decade, we start with a reflection of the history of the SGP from the very beginning until the current crisis.

When assessing the current reform package labelled SGP 3.0 based on quite reasonable proposals by the European Commission, we turn the screw of these ideas slightly further and focus on structural gaps which have not been closed by the current reform, not even by the fiscal compact from December 2011. We refer to important fiscal governance elements that were under discussion in the European arena in recent years. We also assess the fiscal and economic governance elements which have been laid down in the current 6-pack (plus fiscal compact) with a plea for an integrated approach.

Derived from the severe shortcomings of the whole governance architecture, the debt restructuring issue brings an additional dimension into play: a comprehensive approach with an orderly use of market forces and the systematic involvement of private actors beyond the political process. The basic ingredients for such a complementary framework will be compared with the current ESM consensus from a political economy or public choice perspective.

2   From SGP 1.0 to the sovereign debt crisis

In order to reach a full understanding of the underlying problem structure of the current economic and fiscal developments in the present institutional setting, it is sometimes wise to reflect historically where one comes from, the fundamental ideas and different stages of the evolution of the SGP framework and the specific reasons for the respective institutional set-up.[1]

2.1   *The invention of SGP*

The well known basic premise of the original Stability- and Growth-Pact for the nineties relied on the conviction that the independent monetary policy of the ECB has to be and can be complemented by a political process of controlling public finances and of indirectly fostering convergence in the euro area – without leading to a "gouvernment economique". That philosophy implied that the prevention and correction of unsound fiscal (and economic) developments depends exclusively on the effectiveness of cooperative political institutions, processes and actors.

In substance, the Pact in its "premature" state of the art at that time focussed on the current deficit, the 3 per cent ceiling in the famous dictum of the former German finance minister Theo Waigel: "3.0 is 3.0". What was meant by that saying is the presumption that a clear and undisputable focus on the deficit is necessary and sufficient to ensure sound public finances in the euro area. Although the 60 per cent public debt criteria was already mentioned in the Maastricht Treaty, there was a general consensus that – under certain then realistic assumptions for GDP growth and interest rates – respecting the deficit criteria would automatically lead to a convergence of the public debt level below 60 per cent. Although scientific literature already had developed the concept of fiscal sustainability,[2] there was no sense for or focus on fiscal sustainability in the fiscal policy debate.

Nevertheless, what was rooted in the expectations of political stakeholders at that time – particularly on the German side – was the conviction that beyond the institutionalized political pressure of the Pact, market forces expressed by interest rate spreads would continue to do their job and create sufficient complementary incentives to discipline the fiscal policy of politicians. It turned out that this ambition was not met by reality, on the contrary, a strong convergence of interest rates in the currency union occurred in the run-up to EMU. In addition to "false" exchange rate relations specified for entry to the EMU, that under-pricing of risks[3] weakened the stabilizing effect of an exclusively politically steered SGP process.

The lesson to be learned from that history is that the narrow focus on the public deficit and the dependency of a full functioning political process with a "blackout" of disciplining market forces were key issues in the early phase of the SGP which must be addressed in the subsequent reform periods. And, it should not be forgotten that the issue of sustainable economic development

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[1]   See, e.g., EU COM (2011), Van den Noord *et al.* (2008), and Heipertz/Verdun (2011).

[2]   See the seminal paper by Blanchard *et al.* (1990).

[3]   See, recently, OECD (2010). That unsound development was countered later by an overshooting on the upside.

Public Finance in EMU
(public deficit, percent of GDP)

Country	97-01	2002-06	2007	2008	2009	2010	2011	2012	2013
Belgium	–0.7	–0.6	–0.3	–1.3	–5.8	–4.1	–3.6	–4.6	–4.5
Germany	–1.7	–3.3	0.2	–0.1	–3.2	–4.3	–1.3	–1.0	–0.7
Ireland	2.4	1.2	0.1	–7.3	–14.2	–11.7	–10.3	–8.6	–7.8
Greece	–4.2	–5.9	–6.5	–9.8	–15.8	–10.6	–8.9	–7.0	–6.8
Spain	–1.9	0.6	1.9	–4.5	–11.2	–9.3	–6.6	–5.9	–5.3
France	–2.2	–3.2	–2.7	–3.3	–7.5	–7.1	–5.8	–5.3	–5.1
Italy	–2.3	–3.6	–1.6	–2.7	–5.4	–4.6	–4.0	–2.3	–1.2
Portugal	–3.3	–3.9	–3.1	–3.6	–10.1	–9.8	–5.8	–4.5	–3.2
Hungary	–5.3	–8.0	–5.1	–3.7	–4.6	–4.2	3.6	–2.8	–3.7
Sweden	1.0	0.6	3.6	2.2	–0.7	0.2	0.9	0.7	0.9

Source: EU Commission, Autumn Forecast 2011.

leading to a convergence of the euro are economies was more or less taken for granted, there did not exist a serious coordination framework to ensure this.

2.2   The SGP reform 2003/05

Triggered by Excessive Deficit Procedures against Germany and France from 2001 onwards, the launch of the SGP reform brought indeed some progress on the conceptual side. The so-called SGP 2.0 was clearly less simple and mechanistic compared to the original start-up: the whole surveillance process was refreshed and departed to a certain degree from the simplistic 3.0 per cent dogma. Specifically and in addition to the Maastricht reference value, the dimension of sustainability was systematically incorporated in the preventive arm of the Pact leading to a safety margin by shifting the medium term objective close to or above surplus. On the other hand, the fiscal impact of structural reforms was to a certain extent included in the corrective arm, and more transparent consolidation paths (0.5 per cent-points per year) were defined. Not covered in the sustainability and public debt assessment were implicit liabilities or implicit debt.

The other side of the coin, however, was that the institutional backing and the incentive structure of the SGP were improved only partially or even weakened by the "original sin" of the Franco-German case. The enforcement of the Pact based on hard political sanctions remained as an overarching principle. In that sense the power and credibility of the Pact relied totally on the strength and effectiveness of the political process, an idea that was simply proven wrong after 2001. As the former chief economist of the ECB, Otmar Issing, criticized sharply, the reform caused severe political losses which outweigh the conceptual improvements. From a political

economy view, it is indeed this dependence of the functionality of the Pact on a political process which represents the Achilles heel of the whole fiscal coordination architecture.

2.3   Remaining gaps and missing links to economic governance

Beyond the institutional shortcomings severe conceptual gaps and undiscovered areas remained: the concept of the Pact at that time oaid no attention to (sovereign) debt risk, the debt criterion remained more or less untouched. Obvious malfunctions of the markets were not addressed. Driven by the hope that different interest rates paid by the currency's members are a sufficient incentive for prudent fiscal policies, *i.e.*, SGP plus markets work, the possibility of market distortions and non-linearities was not recognized. The reality was that, until recently, there were no spreads emerging at all, rooted in a public bail-out belief which could not be encountered by the political stakeholders.

A further conceptual issue was that, although fiscal institutions matter a lot, they were not prominently highlighted in the Pact. The academic debate and the international institutions, EU Commission, OECD and IMF, focussed in recent years on the exchange of best practices regarding the supporting role of institutions for an effective enforcement of fiscal rules. The Pact itself, however, was blind with respect to the national institutional setup.

Moving beyond the mere public finance dimension, a missing link from the SGP to economic governance has to be recognized. Although complementary coordination mechanisms were developed, they had never been devoted to the issue of euro area coherence or systematically linked to each other. Economic governance as the second major arm of coordination in Europe started from scratch and it took some years for the so-called Broad Economic Policy Guidelines, the major coordination tool, to develop – and it evolved in the wrong direction, economically and institutionally. Economically, the focus on growth and competitiveness of Europe as a whole against rest of the world neglected economic disparities or unsustainable developments with the common currency area. Institutionally, squeezed by the heterogeneous interests of the political and bureaucratic actors, a "Christmas Tree" evolved, meaning that a focus on growth and employment, which could function as links to the Pact, could not be produced. And departing from the political platform of the Lisbon Strategy of the year 2000, the Mid-Term Review in 2005 with a final relaunch via the EU 2020-Strategy delivered only insufficient improvement. At least it can be said that the tools of Integrated Guidelines and National Reform Programmes were able to streamline the processes.

Regarding enforcement, the Treaty based BEPGs were even weaker and, as history showed, never focussed on problematic developments. In addition, there was no systematic macro/micro „check" incorporated in the system, for example in form of a competitiveness review or in form of an assessment of the fiscal impact of structural reforms. And we have to keep in mind that we still lived in a pre-crisis world, Greece was not on the institutional radar at all, although it had already materialized in substance.

3   Sovereign debt crisis changes the picture

After the financial markets crisis and the real economy crisis, the Sovereign Debt Crisis (Crisis 3.0) changed the picture dramatically and revealed additional major gaps in the whole governance architecture. As documented in the historical analysis by Reinhart/Rogoff,[4] the

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[4]   Reinhart/Rogoff (2009).

Sovereign Debt Crisis typically emerges from a crisis of financial markets and real markets and it spreads quickly.

Despite that empirical wisdom, the political stakeholders and also the political economists never imagined that a sovereign debt crisis in a relatively small country could affect the entire Eurozone and weaken confidence in the common currency. Indeed, it was a fact that after the limits of rational markets became visible during the financial and banking crisis in 2008, market beliefs shifted 180 degrees and led to an overshooting of spreads on the upside (today Spain faces a spread more or less equal to North Korea). And it is for the accumulation of systemic risks, the risk that one country's debt crisis will prove contagious for the collective area as a whole, that the SGP without complementary support fails to function as an adequate provision and that we end up with a total bail-out.

That does not mean that governments do not need the markets. On the contrary: we will not find a permanent solution to the Euro zone problems if we cancel out the function served by interest rates signals. This market instrument forces countries, parliaments and governments to take the necessary decisions and reduce incentives for pursuing poor policies indefinitely. Nevertheless, we face a new conceptual problem dimension in the sense that at the end of a political process – represented by the preventive and corrective arm of the SGP - the process does not stop and that the (economic/fiscal) process is not under control.

The strategic question is then: in our attempt to remedy the system, should we still rely totally on the strength of the political coordination framework or should we complement an improved political process (SGP+) with a systematic and institutionalized use of market forces as a disciplinary instrument, *i.e.*, to force governments to do the right things early and comprehensively. One should be reminded that regarding the private sector, there was no monitoring of private bank debt, no clear mechanism for bank failure and inadequate financial market supervision and regulation.

The question of what a systemic response could look like was answered by the real political process. In 2010 time for crisis management was running out quickly, and what followed was mere ad-hoc or piecemeal engineering. Partly, the rescue packages and day-to-day solutions were a natural reflection of the pressing short term-problems which were occurring. Therefore, the creation of the EFSM and the further evolvement of the EFSF were thoroughly necessary steps towards stabilising the situation.

Nevertheless, history demonstrated quite vigorously that such structural weaknesses of a coordination framework cannot be fixed by ordinary measures. In a sense, one could argue that short-term solutions may even turn out to be dangerous precedents as they obstruct the view to the underlying systemic problems and politically they block the requested comprehensive response. We face a clear political lock-in situation.

4   SGP 3.0 – Promising start for problem resolution but more to be done

As the political negotiations on the SGP approached the final stretch we nevertheless enjoyed clear improvements which partly resolve some open issues mentioned above.

4.1   *New elements of the Pact and remaining issues*

In substance, the public debt criterion now is much more in the focus. It has become a transparent and politically sanctionable reference value. In future, it will not only be obligatory to

Figure 1

New Fiscal and Economic Surveillance System

O V E R V I E W	**More effective Stability and Growth Pact**	• In future, it will not only be obligatory to comply with the deficit criterion (ratio of new debt to gross domestic product (GDP) below 3 per cent) under the Stability and Growth Pact, but also the debt criterion (ratio of total debt to GDP below 60 per cent). • Obligatory reduction of debt: reduction in difference between debt and reference value of 60 per cent of GDP by 1/20 each year.
	Earlier sanctions	Introduction of a sanction mechanism for the euro countries in the "preventive arm" of the Stability and Growth Pact (if public deficit is less than 3 per cent of GDP): obligation to ensure that budget is close to balance/in surplus.
	More rapid sanctions	Reform of the sanction mechanism in the "corrective arm" or the Stability and Growth Pact (if deficit is greater than 3 per cent of GDP and/or insufficient action has been taken to reduce debt): sanctions are triggered more rapidly for the euro countries.
	More comprehensive sanctions	Not only can financial penalties and fines be imposed, in future a Member's EU funding could be cut far more than previously. This would mean a stronger linkage of payments from certain EU funds to sustainable fiscal policies than in the past.
	European Semester	National planning and reporting cycles will be synchronised in the "European Year": the Member States' budgetary and structural policies will be reviewed over a period of 6 months to identify inconsistencies and emerging imbalances.
	New Surveillance Procedure	New procedure for the surveillance and correction of macroeconomic imbalances with concentration on Member States that are running large current account deficits and have lost competitiveness.

comply with the deficit criterion but also with the debt criterion (ratio of total debt to GDP below 60 per cent). The balanced budget will become compulsory and be backed up with sanctions over the medium term. A violation of the deficit criterion and/or insufficient action to reduce debt leads to an EDP and can in the end lead to sanctions under the new regime. The agreed correction path leads to the obligation to reduce excessive debt, defined as the difference between actual debt level and the 60 per cent-reference value, by 1/20 each year.

On the institutional side we can expect – at least on paper – a better and quicker enforcement via quasi-automatic sanctions. In the "corrective arm" of the Pact sanctions are triggered more rapidly for the euro countries. Not only can financial penalties and fines be imposed, in the future a Member's EU comprehensive funding can be cut far more than previously. This would mean a stronger linkage of payments from certain EU funds to sustainable fiscal policies than in the past.

Most important, the overruling power of the Council is to a certain extent blocked. But that necessitates that the EU Commission now takes its responsibility as guardian of the Treaty

seriously, which was in the past not always the case and which can be doubted for the future. Also fiscal institutions are now more prominent, although the conceptual role and the legal status are still to be developed further. These developments are all fine, but it should be seen that there are quite substantive agenda points not settled yet.

One important element is an even more ambitious shift of the SGP anchor (MTO) to surplus as the fiscal impact of the ageing societies calls for a much more prudent safety margin against these developments and in order to increase the resilience of public budgets against future shocks.

As recent analysis by Deutsche Bank Research reveals, the major economies in the world will face a dramatic pressure on public debt, even under a scenario where significant budget consolidation following the current SGP rules is implemented. The quite substantive risk factors and the fiscal sustainability problems will add up to an upward pressure on public debt that can hardly been controlled by merely reaching a balanced budget. Rather, what is necessary are significant primary surpluses. Furthermore, the upward pressure is triggered by the fact that there is no containing effect in the economic upswing. What was conceptually healed in Germany by the introduction of a cyclically adjusted MTO,[5] is unfortunately not implemented in Europe in a real credible manner. These empirical finding should therefore translate into the set-up of the MTOs and the enforcement of the MTOs over the cycle.

There are experts who argue that this kind of tough fiscal consolidation, a smaller public sector and austerity as a paradigm (together with a competitiveness fetish) will lead to a decrease in consumption in these countries in the immediate future and therefore to negative macroeconomic spillovers for the euro area as a whole. We would rather argue that an increase in consumer and investor and financial markets confidence and a shortening of unemployment lines will in the medium term cancel out by far any possible short-term dip of consumption. It will take time before these efforts will bear fruit and the situation normalise. But not consolidating, not sticking to such tough MTOs and reforming now would be much worse and would undermine confidence in the crisis countries and the Euro area even more.

The second remaining major reform element is the revival of the "quality of public finances" agenda, meaning that the link between public budgets and economic growth being systematically highlighted in the surveillance process, mirroring the issue of the (macro-)fiscal impact of structural reforms.

Starting from the year 2000, there was an ongoing debate on complementing the Pact with a process that tries to capture the growth effects of public expenditure and revenues resulting in a widely acknowledged EU initiative by Germany, Denmark and Austria, backed by the EU Commission and the Economic Policy Committee of the EU.[6]

The task in this concept is threefold: first, there is a need to assess the effects of the composition of public expenditures on sustainable growth and employment. At issue here is mainly the prioritization of expenditures as well as efficiency and effectiveness analysis, for example in the policy areas of social spending, R&D, health care and education.

Second, we have to analyze how the tax structure can contribute to sustainable growth paths. OECD[7] has done a great deal of work in that field and recent analysis shows that national tax policies were among others responsible for asset price bubbles particularly in the housing sector.[8]

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[5] There are still open issues, see Ebert (2012).

[6] For a comprehensive overview see Kastrop/Deroose (2008) and Ebert (2009).

[7] Heady (2007).

[8] OECD (2010).

The Quality of Public Finances: A Multi-dimensional Framework
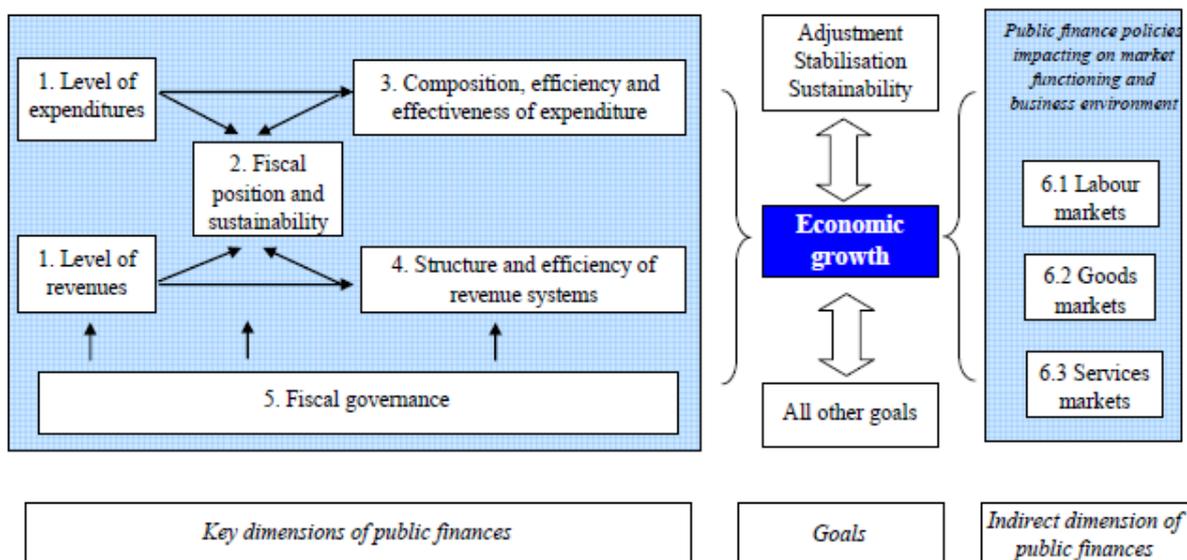
Source: Barrios/Schächter (2008) with further references.

Third, we have to deepen our understanding of fiscal institutions and the role of national implementation of EU type fiscal rules. We would like to point here to the experience made in Hungary, where the then independent Fiscal Council was chaired by George Kopits,[9] but also to other independent bodies, such as in the Netherlands or Sweden, which help to control public expenditure and which procedures like Top-down-Budgeting (for strength of fiscal rules and institutions, see Figure 3).

A further gap of the SGP which is only closed partly relates to the full integration and strengthening of national fiscal rules and frameworks in the Pact. As we learned, the political process under the Pact will not be sufficient to realize the necessary prudent fiscal policy path without backing by the national fiscal authorities. Therefore, to add clear procedures regarding the transfer of the European logic into national rules and institutions, as done in the case of Germany, or even amend the SGP logic with complementary framework tools is key. And the fiscal compact from December 2011 points exactly in that direction, although it is not clear yet if that transfer of institutions into national law will materialize as it was envisaged.

4.2   The fiscal compact

The decisions taken by the European heads of state and government on 9 December 2011 regarding a new fiscal compact represent an important step forward towards the formation of a fiscal union in the spirit of a stability union. Based on the model of Germany's constitutional debt rule which itself is based on the EU fiscal stability model, the Euro countries commit to introduce national arrangements for balanced budgets. In future, the annual cyclically adjusted deficit is not

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[9]   See Kopits (2012), in this volume, and the supporting Debrun/Takahashi (2011), as well as Nyikos (2012)

Figure 3

Fiscal Rule Index
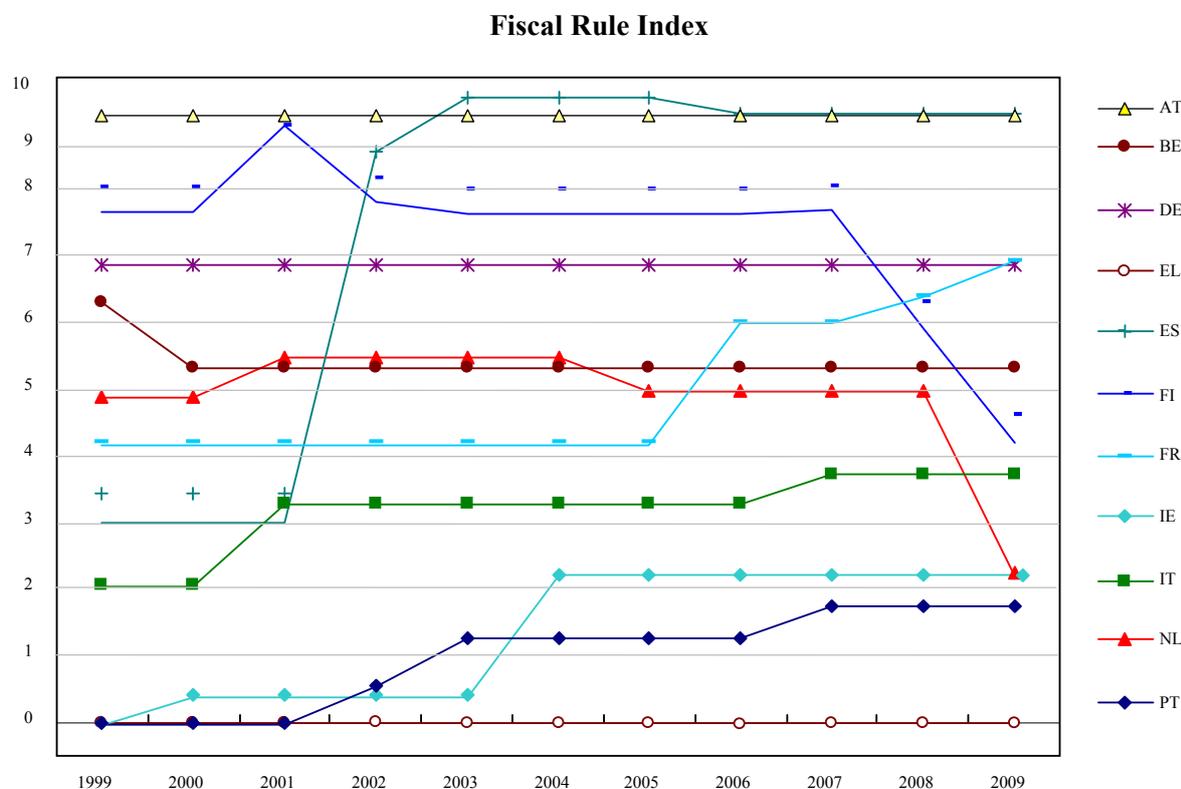
Source: Iara and Wolff (2010).

allowed to exceed 0.5 per cent of GDP. This should on a long-term basis ensure that budgets are kept close to balance over the economic cycle, while fiscal policy can be counter-cyclical.

This national budget rules are supposed to strengthen the preventive arm of the SGP. The rule will be introduced into national legal systems at constitutional or equivalent level. It is planned that the European Court of Justice will control whether the new budget rules have been correctly transformed into national law. This is an entirely fresh aspect which emphasises the credibility of the fiscal compact.

Furthermore, the preventive monitoring of national budget policies will be enhanced noticeably. This goes so far as to enable the European Commission to ask a Member State to resubmit a budget. The corrective arm of the Stability and Growth Pact will be further strengthened on the basis of inter-governmental agreement. Member States under EDP are to commit to detailed consolidation and adjustment measures as part of a partnership programme, with compliance monitored by the European Commission and Council. Furthermore, sanctions imposed on Member States for exceeding the 3 per cent deficit threshold will be triggered in a more automatic way. All recommendations and decisions leading to sanctions can only be rejected by qualified majority. This introduces an automatic response that substantially limits the leeway for generous interpretation of the provisions.

The rules and obligations of the new fiscal compact should be implemented by way of primary legislation in order to strengthen their binding force; this was a particular concern of the German Government. However, as long as this step towards integration is not taken by all

27 Member States, any amendment to the treaties is impossible. Therefore, implementation is to be achieved initially via an inter-governmental treaty, with the objective of bringing it under EU law subsequently.

4.3   Integration of fiscal and economic surveillance

The experience with the unsustainable developments in some countries of the euro area, combined with unsustainable fiscal positions revealed that the economic governance in Europe cannot solely rely on a tough fiscal monitoring. What is needed instead is a systemic integration of fiscal and (macro-/micro-)economic governance in the corrective and in the preventive arm. The "New Normal" after the crisis is to put economic imbalances and unsustainable position, competitiveness questions as well as the coherence issue in the euro area and the micro-macro/fiscal link to the forefront of the surveillance process and on the political agenda.

In that philosophy, a new procedure for preventing and correcting macroeconomic imbalances has been developed, partly complementing the EU2020-Strategy and taking up a few institutional elements of the Pact (e.g., the form of an Excessive Imbalances Procedure EIP).

Not all new elements of that process can be reviewed in this paper,[10] therefore we want to focus on two issues: economically, there has been an ongoing discussion about the focus of the assessment of external imbalances, if the procedure should be applied symmetrically (current account surplus countries should also be subject to an EIP) or asymmetrically (only deficit countries are under closer surveillance). Much has been said about the economic reasoning for both sides – the pure micro pro-competitiveness view against the pure macro-view. Using some economic common sense and taking a look at the historical figures, it seems quite reasonable that a moderate (a)symmetry, for example –4/+6 per cent (plus a catching-up mark-up if appropriate) could serve as thresholds. That would give the country specificities, such as the export orientation of countries as in Germany, enough room without releasing them from co-responsibility for the coherence of the euro area as a whole. A link to the SGP in this procedure can be created if the implications of public and private debt to the stability of the euro area are addressed in the analysis. Other important issues in this context are the role of external debt, the identification of asset price bubbles and a clear focus on competitiveness in general. Widely undeveloped in this surveillance process and also in the work of the ESRB is a systematic macro-prudential supervision of financial markets in a general (macro- and micro)economic context. A lot of follow-up work on that issues will be necessary to make the picture complete.[11]

A word on the Lisbon Strategy and its follow-up, the strategy Europe 2020: Although it is economically reasonable to focus economic surveillance on competitiveness combined with macro-structural aspects, the case of Greece brings one additional dimension in the focus which has not been addressed conceptually by the European institutions. The central aim to take care of a coherent and sustainable economic development in the common currency area in principle should call for a renewed Lisbon Strategy focussed on growth and jobs – and convergence of developments. To focus this task on competitiveness, as done by the EIP, seems much too narrow in view of the immense challenges a dispersed euro area faces. Insofar the Lisbon Strategy after the Mid-term review in 2005 was right in focus; again, it lacked a constructive institutional back-up and it lacked a second stage in form of an economic union which is able to steer growth in the respective regions. The Strategy Europe 2020 with its Christmas tree approach and unclear competences is not capable to fulfil such an ambitious task.

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[10]   See the respective COM proposals and Ebert (2011).

[11]   See Pisani-Ferry, J., A. Sapir and G. Wolff (2011); and keep in mind the bad (surveillance) examples of Ireland and Iceland.

The second crucial issue, however, concerns again the institutional side. The experience of developing an economic governance under the former Art. 99, now Art. 121, of the Treaty, made clear over the last decade that, despite having reached some mutual understanding of national economic policies within the EU, it is a long way to go reaching a surveillance process which is sharp and focussed and shows the necessary bite. Until today, the processes have been diluted in a bureaucratic monster with too many stakeholders in charge, from the side of the EU Commission (where DG ECFIN lost leadership) and from the side of the Council (where ECOFIN lost its dominating role) – and it is highly improbable that the treaty based processes will in the future deliver reasonable recommendations for national economic policies or even sanctions, and that might be true even for the economic surveillance under the new macroeconomic procedure: anyway, its main task will be to focus on the problematic, unsustainable developments and to draw substantive structural recommendations which are backed by a credible enforcement technology.

The introduction of the European Semester as a formal requirement is by far not sufficient for that ambitious institutional task. Although synchronizing the national planning and reporting cycles and structural policies in the "European Year" may help to identify inconsistencies and emerging imbalances, what is really needed is the political will of the Council of the Commission to fill the new EIP with life. The first round of assessment in June 2011 was far from promising and shows a clear danger of once again diluting the process.

5   Why a sovereign debt restructuring mechanism?

The historical reflection showed that the governance architecture re is incomplete both in substance and in its institutional set-up. Now, after the reform of the SGP by the 6-Pack plus fiscal compact and the installation of the European Stability Mechanism (ESM) replacing the EFSF and EFSM from mid 2012 onwards, the crucial question comes up if these new tool are sufficient to prevent and to manage the crisis. Greece, which is now predominantly an emergency management case, is not the issue here, we focus more on the "unknown future", the possible next crisis. The task is twofold: improve the resilience of the system against a new sovereign debt crisis and minimize economic costs if an emergency case does arise.

5.1   *SGP 3.0 Plus fiscal compact and new ESM – Sufficient tools to prevent and manage the crisis?*

The new ESM builds upon and complements the SGP framework and the existing short-term solutions EFSF and EFSM.[12] The ESM is equipped to assist countries whose financing problems threaten the stability of the Euro area as a whole. Its toolbox consists of loans provided on condition of strict economic reform and adjustment programmes, the right to intervene in primary and secondary markets, the ability to recapitalise financial institutions of systemic importance and precautionary programmes.

The ESM is characterized by a focus on liquidity help as it is derived from the EFSF and from IMF type liquidity facilities. Even if the main purpose of the ESM is to avoid a situation in which an illiquidity develops into a state insolvency, through Collective Action Clauses (CACs) as ultima ratio-measure it provides at least basic elements for an orderly debt restructuring, should such restructuring become unavoidable.

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[12]   This new governance structure cannot be described in detail, for details see Schuknecht *et al.* (2011) and German Federal Ministry of Finance (2011).

One month after the ESM treaty will come into effect, CACs will be introduced in all new sovereign bond contracts of Euro area countries with maturities of more than one year. This makes allowances for the fact that the decentralized approach of CACs is becoming the predominant instrument to enable easier coordination between bondholders for a debt restructuring. They will assist in fostering an early dialogue between the debtor and the bondholders. And they hopefully will prevent individual creditors from blocking negotiations on specific debt restructuring models. Although these EURO CACs are principally based on existing CACs under UK and New York law, they have been re-modelled in order to find a distinct balance between an effective restructuring and creditor interests.

In this context, it is noteworthy that Euro zone finance ministers in March 2011 explicitly decided that an aggregation clause is to be introduced which allows an aggregation of claims across different instruments. For this to happen, a two-stage decision-making procedure with different majorities is envisaged, the result of which is binding for the outvoted minority. This restructuring-friendly approach will be counter-balanced by creditor-friendly majority rules. In particular, it is guaranteed that any decision is taken at least by a simple majority. It is also envisaged, that creditors may appoint a representative who prepares for negotiations with the debtor country.

If we look on the negative side one has to acknowledge that, analogous to the IMF toolbox, although a thorough debt sustainability analysis is the core of the decision basis, the concepts and definitions of debt sustainability are far from clear or transparent.

Its governance is politically driven and it is based on unanimous decisions, as was the rule in the SGP before the recent reform. Here the political economy mistakes of the setup of the SGP are repeated for worse. And similar to the SGP process one can question if the conditionality of the mechanism and sanctions in the case of deviation are strict enough.

Against that background the danger of moral hazard and bail out through the back door is quite realistic. The ESM set-up has a malevolent incentive structure for markets and for both, indebted and „supporting" countries. This has fostered the public view of a looming transfer union which could indeed be a realistic alternative if one has a clear euro federal vision. But again, even in such an equalization regime, the right incentive structure would be needed, as the German system of fiscal equalization and its treatment of emergency cases demonstrate. Even in such a system we are not out of the game and maybe that bridge to such a vision is still a bit too far to cross.[13]

5.2   *Elements of a comprehensive crisis mechanism*

Under current circumstances it is in any case unavoidable that we reach a comprehensive and complementary crisis mechanism which is more than just ESM. And, as Barry Eichengreen pointed out recently, the systemic question will arise soon.

What we have to clarify is the starting position of the countries with SD-Problems, and we should always keep in mind that we do not primarily face a financial market problem rather than a structural economic and fiscal problem. A negative track record within SGP 3.0 procedures immediately leads to the question whether we are dealing with an "illiquidity or insolvency case". Independent of the decision who conducts such an assessment, we propose that if a clear solvency case exists, managed default should be possible. This no-bail out message, which at the same time safeguards against contageon, is a favorable way of healing the disease instead of fiddling around with the symptoms.

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[13]   See the assessment of the economic advisors at the German Ministry of Finance, WBR (2012).

In a suitable setup, we first need a tool: an independent debt sustainability analysis which clearly indicates whether we have an L or S case. Several concepts are available and could be checked for significance, for example a mix spreads, debt stock, market environment, implicit debt and other indicators. Such an evaluation could be undertaken by the ECB, the ESRB or – better – an independent Fiscal Council. We have to distinguish clearly between liquidity and solvency: we surmise that, except in special cases such as Ireland, the real problem remains the solvency issue and not transitory liquidity difficulties which can indeed be solved by EFSF/ESM.

One issue of utmost necessity should not be overlooked: it is absolutely crucial not just to think in terms of crisis resolution, but in terms of crisis prevention. Crisis tools might help resolution but can be very detrimental from a prevention point of view. Even if a mechanism would be more costly in the short term, this should be judged against the tremendous prevention effect.

So, in the end the core mechanism of the restructuring part[14] of the crisis tool box is all about incentives avoiding moral hazard and blackmail potential from markets and countries with adequate governance: decisions in principle will then be case by case. As an example, a necessary debt restructuring could include the following elements:

1) significant debt haircut (50 per cent);
2) guaranteed debt part with premium (30 per cent);[15]
3) free-floating part to test markets (20 per cent).

Case by case means a toolbox for a comprehensive ESM; while ESM is not given here there is some sense to use the existing ESM also as a "broker" for a managed default "deal" with the ingredients: CAC's, guarantees, liquidity, collateral of the country concerned where available. Default should by no means be "attractive". Therefore tough conditionalities are needed such as fees, mandatory programs, tight fiscal control and even the (partial) loss of deficit sovereignty. The other necessary side of the coin is the systematic integration of financial market regulation into the governance structure. From a public finance point of view issues like FTT are relevant here not only for getting returns but also in terms of political economy.

Important will be the governance structure of the crises mechanism – additionally to the right "set" of economic incentives. In principal there are three "governing" principles: market driven, politically driven or independent. A clever combination of all three would probably deliver best results, not only in economic terms but – what is at least of the same importance – with respect to political economy. However, it can be left open here, which specific institutional setup will serve best: options range from a loosely institutionalized but very efficient and fast setup like the London Club via an substantial extension of the ESM structure plus independent fiscal council to a formalized procedure like an Re-solvency mechanism.[16] In any case, under the current state of the European Union, a pure politically-driven mechanism/institution seems to be less favorable. The whole SGP 3.0 corrective/preventive arm and complementary measures of the fiscal compact are so far to a large extent politically driven, in decision, in commitment and even in enforcement.

If a country seeks support within a crises mechanism neither the pure market, nor the pure political solution might be feasible. Market driven would imply no political influence at all. Just political driven/enforced crises mechanism, with strong conditionality and a potential loss of certain budgetary sovereignty, would probably fuel political stress, not only in receiving but also in

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[14]   See also Darvas (2011).

[15]   See for an alternative option of a European Redemption Pact the German Council of Economic Advisors SVR (2011).

[16]   See, for example, Paulus (2012).

"giving" countries, when a guarantee or equivalent or at the very end tax payers money is necessary. If we stick to the ESM, the crisis management institution needs to be converged to an independent and expert driven mediator between markets, countries in trouble and the community which has to cushion the unavoidable pain and bridge the gaps. It is that reason why a political ESM should be supported strongly by a European fiscal council, which should be installed in any case as supervisor. Insofar, we go slightly beyond the scope, George Kopits has outlined for such a Council.

6   Summary and outlook

We are in the process of creating the structures for a fiscal union which in principle allows us to overcome the mismatch between monetary and fiscal policy coordination and restore public and financial market confidence. If we have a fiscal union that makes the Stability Pact more binding and enforceable, and which does the same for provisions to improve competitiveness, we could convince the public and financial markets that European Monetary Union will remain stable. Nevertheless, taking a broader and more long-term view and following the political economy reflections of the last 20 years of economic governance in Europe, there is significant room for improvement and the following ingredients of a comprehensive and systemic response are crucial to improve the resilience of the euro area system and to manage crisis in an orderly manner.

- First of all: let markets work, but of course with a clear-cut regulation and a ban on all financial activities which have clearly no positive impact on the real economy. Whether this is done by pure regulation or equity provisions of 100 per cent on certain activities or a financial transactions tax should be judged against other arguments (fiscal, locational factors, etc).

- Second: profit oriented rating agencies have to be cut off and only NGO's should deal with ratings as "consumer agencies".

- Third: full implementation of the six-pack and complementary measures such as the fiscal compact treaty (solve the legal ambiguity as soon as possible)

- Fourth: implementation of a full-fledged and partly independent crises mechanism with liquidity and solvency "arm". The ESM institution as mediator between markets, state and community, supported by an independent Fiscal Council. There is no bail-out but a rescue line which will be calibrated between all actors. Funds shall not be limited beforehand, they are created when they are needed.

- Fifth: the ECB will not be in the game, but as with any other central bank should still be the final lender of last resort in their fully given independence.

- Sixth: the fiscal strategy needs to be accompanied by an intelligent growth strategy, and that is the reason why we strongly call for a revival of the Quality of Public Finances Agenda which unfortunately had been block on the EU level by political interests. Such an agenda is conceptually clearly linked to a renewed Lisbon agenda, the new EIP and to the Pact 3.0.

Debt crisis have always been hard and costly to solve as they require significant behavioural, financial and institutional changes. A stage has been reached where countries within the Euro area have to make overdue and painful structural adjustments. We have come to a point where more solidity is the only thing that will increase confidence. To this end, we need stronger European institutions. We do not claim a European super-state rather than a new form of governance that does not just transfer certain competencies to a more central level by international treaty. The approach that the Euro zone has to take is taking limited but stringent additional steps towards a

deepening of institutions, otherwise we will not succeed in equipping Europe to act in the long term. This process is underway in the Euro area and we have presented further proposals for a comprehensive solution. But what should be avoided at all cost is a disorderly default and instability and default spreading from one country to others and by that leading to a breakdown of the euro area.[17]

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[17]   See also the reflections in Thiel (2010) and the recent, quite bold proposals by Marzinotto, Sapir and Wolff (2011).

REFERENCES

Barrios, S. and A. Schaechter (2008), "The Quality of Public Finances and Economic Growth", *European Economy*, Economic Papers, No. 337, Brussels.

Blanchard, O., J.C. Chouraqui, R. Hagemann and N. Sartor (1990), "The Sustainability of Fiscal Policy: New Answers to an Old Question", OECD, Economic Studies, No. 15, Autumn, Paris.

Darvas, Z. (2011), "Debt Restructuring in the Euro Area: A Necessary but Manageable Evil?", Bruegel Policy Contribution, June, Brussels.

DB Research (2011), "Staatsverschuldung in 2020. Eine Tragfähigkeitsanalyse für Industrie- und Schwellenländer", Berlin.

Debrun, X. and K. Takahashi (2011), "Independent Fiscal Councils in Continental Europe: Old Wine in New bottles?", in CESifo (ed.), *DICE Report*, Vol. 9, No. 3, Autumn, p. 44-49.

Ebert, W. (2009), "Qualität der öffentlichen Finanzen – Eine finanzpolitische Strategie für Deutschland und Europa", in M. Junckernheinrich, S. Korioth, T. Lenk, H. Scheller and M. Woisin (eds.), *Jahrbuch für öffentliche Finanzen*, Berlin, p. 313-44.

—————(2011), "Die Reform der finanzpolitischen Koordinierung in Europa", in M. Junckernheinrich S. Korioth, T. Lenk, H. Scheller and M. Woisin (eds.), *Jahrbuch für öffentliche Finanzen*, Berlin, p. 243-270.

—————(2012), "Erste Erfahrungen und Weiterentwicklung der Schuldenbremse in Deutschland und Europa", in M. Eckardt (ed.), *Schuldenregeln als goldener Weg zur Haushaltskonsolidierung in der EU?*, Budapest, forthcoming.

Ebert, W. and C. Kastrop (2010), "Die europäische und internationale Perspektive", in C. Kastrop, G. Meister-Scheufelen and M. Sudhoff (eds.), *Die neue Schuldenregel im Grundgesetz*, Berlin, p. 200-10.

EU Commission (2011), "Public Finances in EMU – 2011", European Economy, Brussels.

European Council (2011), "Council Conclusions from 9 December 2011", Brussels.

German Federal Ministry of Finance (2011), *Monthly Bulletin*, Berlin, April.

Heady, C. (2007), "Tax Policy for Growth", OECD, Paper, Paris. Also in *Fiscal Elements of Growth and Development*, proceedings of G-20 workshop, Istanbul, July.

Heipertz, M. and A. Verdun (2010), *Ruling Europe*, Cambridge (MA).

Iara, A. and G.B. Wolff, (2010), "Rules and Risk in the Euro Area: Does Rules-based National Fiscal Governance Contain Sovereign Bond Spreads?", *European Economy*, Economic Paper, No. 433, Brussels.

Kastrop, C. and W. Ebert (2009), "Governing the Euro Area in the Next Decade: Assessment and Challenges Ahead", in R. Caesar, W. Kösters, H.H. Kotz and D. Schwarzer (eds.), *Governing the Eurozone*, p. 51-61, Stuttgart.

Kastrop, C. and S. Deroose (2008), "The Quality of Public Finances. Findings of the Economic Policy Committee – Working Group (2004-07)", *European Economy*, Occasional Paper, No. 37, March, Brussels.

Kopits, G. (2012), "Can Fiscal Discipline Be Reconciled with Fiscal Sovereignty?", in this volume.

Larch, M., L. Pench and C. Frayne (2012), "SGP 3.0: Continuity and Innovation in the Evolution of the EU Fiscal Framework", in this volume.

Marzinotto, B., A. Sapir and G. Wolff (2011), "What Kind of Fiscal Union?", Bruegel, Policy Brief, No. 6/2011, Brussels.

Nyikos, G. (2012), "Fiskalregeln als Instrumente für einen nachhaltigen Haushalt in Ungarn", in M. Eckardt (ed.), *Schuldenregeln als goldener Weg zur Haushaltskonsolidierung in der EU?*, Budapest, forthcoming.

OECD (2010), *Economic Surveys: Euro Area 2010*, Paris.

Paulus, C. (2012), "A Resolvency Proceeding for Defaulting Sovereigns", *International Insolvency Law Review*, No. 1, pp. 1-20.

Reinhart, C. and K. Rogoff (2009), "This Time Is Different", Princeton University Press.

Schuknecht, L., P. Moutot, P. Rother and J. Stark (2011), "The Stability and Growth Pact: Crisis and Reform", in CESifo, *DICE Report*, Vol. 9, No. 3, Autumn, p.10-17.

Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung SVR (2011), *Euro Area in Crisis*, Wiesbaden.

Thiel, E. (2010), "Europäische Integration wie bisher oder anders: Bahnt sich eine Kurswende an?", *Andrassy-Abhandlungen*, No. 25, AUB Budapest.

Van den Noord, P., B. Döhring, S. Langedijk, J. Nogueira Martins, L. Pench, H. Temprano-Arroyo and M. Thiel (2008), "The Evolution of Economic Governance in EMU", *European Economy*, Economic Paper, No. 328, Brussels.

Wissenschaftlicher Beirat beim Bundesministerium der Finanzen (2012), *Fiskalpolitische Institutionen in der Eurozone*, Berlin.

Pisani-Ferry, J., A. Sapir and G. Wolff (2011), "An Evaluation of IMF Surveillance of the Euro Area", Bruegel Blueprint, No. 14, Brussels.

RULES AND RISK IN THE EURO AREA: DOES RULES-BASED NATIONAL FISCAL GOVERNANCE CONTAIN SOVEREIGN BOND SPREADS?

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The strengthening of national fiscal frameworks, including numerical fiscal rules, has recently been proposed as an important part of the economic governance reform of the EU. The strength of numerical fiscal rules can be described along the dimensions of their statutory base, the room to revise budgetary objectives, provisions for their monitoring and enforcement, and their media visibility. With a unique data set summarizing the quality of national fiscal rules along these dimensions, we show that stronger fiscal rules in euro area member states reduce sovereign risk. According to our estimates, yield spreads against Germany of countries with relatively weak fiscal rules could be up to 100 basis points lower if they upgraded their numerical fiscal rules. The legal base turns out to be the most important dimension for the perceived effectiveness of the rules. The effectiveness of the correction and enforcement mechanisms turns out to be very important as well, while the role of the bodies in charge of monitoring and enforcing compliance is somewhat smaller. Overall, national fiscal rules are found to be beneficial for market assessments of governments' ability and willingness to timely service debt: they could thus provide an effective way to implement fiscal discipline.

1   Introduction

The ongoing economic and financial crisis has put public budgets world-wide under extraordinary strain. Large public spending packages designed to support domestic consumption and the financial sector coincided with sizeable drops of public revenue and resulted in soaring public debt in many countries. The members of the euro area experienced an increase of public debt from 66 per cent of GDP in 2007 to 79 per cent in 2009 on average. At the same time, differences of government bond yields relative to German bonds have increased markedly in euro area members. A part of the increase in these spreads can be attributed to different developments in explicit debt (Schuknecht, von Hagen and Wolswijk, 2010) and government liabilities due to potential banking liabilities (Gerlach, Schulz and Wolff, 2010; Ejsing and Lemke, 2010).

Going beyond these factors, investors' expectations regarding the credibility of the commitment of governments to ultimately correct unsustainable fiscal policies could be a further central determinant of increased sovereign spreads. In the wake of rising bond spreads and increasing fiscal difficulties, several governments in the euro area are currently contemplating the introduction of stronger fiscal rules to increase confidence in the sustainability of public finances. Germany recently introduced a constitutional rule, the "debt brake", to limit government debt. France, one of the largest euro area countries, is currently concerned about preserving the AAA rating of its debt and about the yield of its sovereign bonds relative to Germany.[1] The introduction of a debt brake is therefore deliberated in France as well.[2] Moreover, the strengthening of fiscal

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[1]   See, for example, the interview with Christine Lagarde, the then French minister of finance, in the *Financial Times*, 23 August 2010, http://www.ft.com/cms/s/0/d1b79676-ae16-11df-bb55-00144feabdc0.html The French prime minister Francois Fillon voiced concerns in this regard as well (see *Le Monde*, 10 June 2010).

[2]   Going further, stronger fiscal rules might even reduce short-term consolidation needs as they might increase investors' trust, thereby allowing for a more gradual fiscal exit (Fatás, 2010).

frameworks at a national level has received particular attention in the euro area in view of the difficulties to effectively enforce European fiscal rules. A legislative proposal to strengthen numerical fiscal rules at EU member states' level has been made by the European Commission (ibid., 2010a) on September 29, 2010.[3]

The present paper investigates whether national numerical fiscal rules can contribute to containing the interest required on government bonds. Based on a unique dataset on fiscal governance in EU member states, we show that stronger numerical fiscal rules contribute to lower government bond spreads, in particular in periods of higher risk aversion of market participants. In particular the legal base turns out to be the most important dimension for the perceived effectiveness of the rule. The stronger the statutory base establishing national fiscal rules (that may vary between mere party coalition agreements and constitutional law), the lower risk premia will be. But also the enforcement mechanisms of the rules turn out to be important while the body in charge of the supervision of compliance with the fiscal rule appears to be somewhat less important. Our results thus show that rules become the more credible to market participants the stronger their binding character is, and the more effectively they can be enforced.

Numerical fiscal rules are a central part of the institutional setting of countries that shapes countries' budgetary policies. They are defined as permanent constraints on summary indicators of fiscal performance, such as the budget deficit, debt, or a major component thereof (Kopits and Symansky, 1998). Such constraints are aimed at reducing the policy failures due to which budget process outcomes tend to be biased towards deficits. This includes in particular the common pool problem of governments without centralised spending powers and the short-term orientation of governments due to short electoral cycles and possibly the short-term orientation of voters as well. In the EU, fiscal rules further aim at mitigating the incentives for deficits resulting from a common currency. In an important recent contribution, Krogstrup and Wyplosz (2010) study theoretically the implications of supra-national and national fiscal rules. They find that a supra-national fiscal rule is welfare improving relative to a national rule, while a supra-national rule alone does not fully eliminate the deficit bias. Their results thus lend support to strengthening national alongside supra-national fiscal rules.

Empirical research of the past two decades has shed light into the role of numerical fiscal rules for sound public finance. While earlier research concentrated on the experience of the US states, sometimes in view of deducting insights for the nascent EMU (e.g., von Hagen, 1991; Bayoumi and Eichengreen, 1994; Alesina and Bayoumi, 1996; Bohn and Inman, 1996), the undertaking of the EMU fostered the adoption of fiscal rules in EU member states and the EU and shifted the focus of empirical research to Europe. The effectiveness of national fiscal rules to shape fiscal performance has been shown to crucially depend on the mechanisms established to enforce compliance with the rule (Inman, 1996; Ayuso-i-Casals, Gonzalez Hernandez, Moulin and Turrini, 2009), as well as on the type of the rule, where budget balance and debt rules appear to outperform expenditure rules (Debrun, Moulin, Turrini, Ayuso-i-Casals and Kumar, 2008). Taking the institutional characteristics of the rules into account, fiscal rules are also found instrumental for the initiation of lasting fiscal consolidations (Larch and Turrini, 2008). Recent research has also scrutinized the role of fiscal rules in the budgetary process: they can serve as commitment devices to tie governments' hands that are tempted to pursue short-sighted and pro-cyclical budgetary policies (Debrun and Kumar, 2007a, Debrun *et al.*, 2008). Alternatively, they can fulfil the role of

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[3]   The ideas have been developed in earlier communications of the European Commission (ibid., 2010b, 2010c) and have been supported by the European Central Bank (ibid., 2010).

signalling tools meant to remove information asymmetries between governments and the electorate (Debrun and Kumar, 2007b; Debrun, 2007). European fiscal rules have further been shown to be effective, but to lead to significant creative accounting to circumvent them at the same time (von Hagen and Wolff, 2006; Buti, Nogueira Martins and Turrini, 2006). Finally, the fulfilment of fiscal plans by EU governments – a central plank of EU budgetary surveillance – is found to hinge on the stringency of fiscal rules among others (von Hagen, 2010).

The past several years witnessed a surge of research interest in the impact of fiscal variables on government bond spreads. In an international context, Alexander and Anker (1997), Lemmen and Goodhart (1999), Lonning (2000), Copeland and Jones (2001) and Codogno, Favero and Missale (2003) consistently confirm a positive relationship between public debt and interest rates. Bernoth, von Hagen and Schuknecht (2004) study the bond market of euro area member states during 1991-2002 and find that debt, deficits and debt-service ratios all have a positive impact on sovereign bond spreads. Schuknecht, von Hagen and Wolswijk (2009) analyse regional government debt and show that regions also pay higher risk premia when fiscal fundamentals are weak. Investigating the German sub-national bond market in detail, Heppke-Falk and Wolff (2008) and Schulz and Wolff (2009) find weak evidence of market reaction to fiscal fundamentals. Bernoth and Wolff (2008) document that sovereign bond markets in the EU also react to hidden fiscal policy activity and creative accounting practices. Moreover, they uncover that governments of countries with better transparency performance pay lower premia on government debt. Focusing on the period during the global financial crisis of 2007, Barrios, Iversen, Lewandowska and Setzer (2009) underline the impact of general risk perception on government bond spreads and document an increased relevance of domestic fiscal variables. Bernoth and Erdogan (2010) highlight the time-varying nature of sovereign risk.

Empirical research has also studied the impact of fiscal restraints on the borrowing cost of US states in particular. Bayoumi, Goldstein and Woglom (1995) show that the impact of constitutional controls on US state borrowing depends on the level of public debt; at average debt levels, the presence of such controls is found to be associated with a reduction of the interest cost by 50 basis points. Eichengreen and Bayoumi (1994) confirm the negative impact of fiscal rules on the cost of government borrowing. Poterba and Rueben (1999) uncover that expenditure, deficit, and debt rules (negatively) as well as tax limitations (positively) impact on state bond yield differentials, while debt rules appear to be the least effective in this respect. Differentiating this result, Johnson and Kriz (2005) show that revenue limits have a direct impact on state government borrowing, while the effect of expenditure, budget balance, and debt rules is indirect via improved credit ratings. In the euro area context, Hallerberg and Wolff (2008) show that fiscal institutions play an important role for government bond yields. The quality of fiscal governance and in particular the budget process is found to be a significant determinant of sovereign spreads. Moreover, they highlight that controlling for this institutional quality is important when assessing the impact of EMU on sovereign bond pricing in the euro area. Our study uses a unique dataset compiled by the European Commission on numerical fiscal rules and assesses the much-debated importance of national numerical fiscal rules for sovereign risk in the euro area.

The remainder of the paper is structured as follows. Section 2 outlines the theory foundations of our inquiry and the empirical strategy adopted. Section 3 describes our dataset and the construction of the fiscal rule index in particular. Section 4 discusses the results of our panel data estimations and a set of robustness checks. Section 5 concludes.

2   Theory and empirical approach

To investigate the effects of fiscal rules and fiscal policy on risk premia in euro area government bond markets, we depart from a simple no-arbitrage condition, in which an investor has the choice between a risk-free and a risky asset, both issued in the ongoing budget year $t = 0$, and maturing in $t = 1$. The risk-free asset bears an interest of r^*. The creditor of the risky asset of country i with interest r_i faces a default probability $\theta \in\ ]\ 0;\ 1[$. Under risk-neutrality, the no-arbitrage assumption requires that expected returns on both assets be equal:

$$1 + r^*_t = (1 - \theta_{t+1})(\ 1 + r_{i,t}) \tag{1}$$

which approximately implies:

$$r_{i,t} - r^*_t = \theta_{t+1}$$

The empirical literature on sovereign bond spreads has elaborated that the price of sovereign risk systematically varies with international credit risk (Favero, Giavazzi and Spaventa, 1997 and Codogno, Favero and Missale, 2003), which implies variations in the level of risk aversion. To cater for such variation and allow for risk-averse investors, we introduce a time-varying scaling factor $\alpha_t \geq 1$ to the above approximation, where $\alpha_t = 1$ describes the case of risk-neutrality:

$$r_{i,t} - r^*_t = \alpha_t \theta_t$$

The difference between the yields is thus proportional to the risk θ_t of the debtor's default; it is the larger the higher the level of risk aversion.

The risk of default of country i in $t = 1$, in turn, is a function of expectations on standard determinants of the sovereign debtor's solvency, such as the level of debt B, and the budget balance s, as well as institutional characteristics of the country that can be considered time-invariant, c_i, such as the transparency of public accounting and the extent to which budgetary procedures are conducive to fiscal stability and sustainability:

$$\theta_{i,t} = \xi\,(E_t(B_{i,t+1}),\, E_t(s_{i,t+1}),\, c_i) \tag{2}$$

The expected value of debt in the next period equals its actual realization as it can be obtained from current debt and deficit observed in time t, *i.e.*, $E(B_{t+1}) = B_{t+1} = B_t + s_t$.[4] Sovereign spreads are thus a function of the scaling factor reflecting the level of risk aversion, present debt and deficit, and expectations of future deficits:

$$r_{i,t} - r^*_t = f\,(\alpha_t,\, E_t\,(X_{i,t+1}),\, B_{i,t},\, s_{i,t},\, E_t(s_{i,t+1}),\, c_i) \tag{3}$$

Among the arguments of f, α can be proxied by standard measures of international risk such as the spread between US low grade corporate and government bonds, or the Chicago Board Options Exchange Market volatility index known as VIX conventionally employed to measure the fear of market participants of volatility. Information on $B_{i,t}$ and $s_{i,t}$ is readily available. Deficit forecasts $E(s_{i,t+1})$ however are endogenous with respect to the bond spreads. A straightforward instrument would be the variable on contemporary deficits $s_{i,t}$. Indeed, $s_{i,t}$ will pick up the effect of expected deficits on the risk of default as well, but this effect can not be identified in separation from its direct effect on debt. As concerns the functional form of our regression equation, we adopt a flexible approach based on linearity, allowing for interactions between the variables proxying the arguments of ξ and a.

What is the contribution of rules-based fiscal governance to the evaluation of sovereign default risk? The very role of numerical fiscal rules is to constrain realisations of fiscal outcomes:

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[4]   This equation ignores stock-flow adjustments.

they hence reduce the range of values that fiscal deficits may assume. Accordingly, fiscal rules play a crucial role in the formation of expectations on fiscal outcomes and of future deficits $E(s_{i,t+1})$ in particular: they reduce the range of values that deficits can be expected to assume. While the mean forecast error in budget balance forecasts should be zero, the variance of forecast errors in countries with numerical fiscal rules should be lower as compared with countries without such rules or with only weak rules. In other words, rules-based domestic budgetary frameworks render the estimator of budget deficits on which the forecast is based more efficient. This will not be relevant for risk-neutral investors. The reduction of the deficit forecast error variance will become important in times of elevated risk aversion, when the willingness to accept uncertainty is reduced. Moreover, the constraints imposed by numerical fiscal rules will be more likely to become binding in times of higher uncertainty or negative shocks that are characterised by higher risk aversion. Hence, our prediction is that effective domestic fiscal rules constraining deviation from balanced budgets[5] are the more important in reducing sovereign bond spreads the more risk-averse investors are.

We test this hypothesis by the inclusion of a fiscal rule index *fri* measuring the stringency of rules-based fiscal governance in the regression. The index is included both separately and in interaction with the risk aversion indicator among the regressors. We further control in our regressions for liquidity risk, *i.e.*, that the assets cannot be sold quickly in the markets, employing bid-ask spreads of the respective government bonds *bas* to this end. With an indicator of risk aversion *risk,* the stock of public debt and the general government balance as percentage of GDP *debt* and *bal* respectively, the fiscal rule index *fri* and country fixed effects *c*, our baseline estimating equation thus becomes:

$$r_{i,t} = \beta_1 risk_t + \beta_2 bas_{i,t} + \beta_3 risk_t\, bas_{i,t} + \beta_4\, debt_{i,t} + \beta_5\, risk_t\, debt_{i,t} + \\ + \beta_6\, bal_{i,t} + \beta_7\, risk_t\, bal_{i,t} + \beta_8\, fri_{i,t} + \beta_9\, risk_t\, fri_{i,t} + c_i + u_{i,t} \qquad (4)$$

where all terms except *risk* are measured in deviation to the benchmark country, Germany; $u_{i,t}$ is an error term with the usual properties.

The endogeneity of fiscal rules with respect to fiscal policy outcomes has been explored in empirical research (e.g., Debrun and Kumar, 2007a; ibid., 2007b). Our research benefits from the advantage that the fiscal rules can be considered exogenous or predetermined to government bond yields. While certainly at present, national fiscal framework reform debates are driven by the consolidation pressures and high sovereign bond spreads, changes in fiscal governance have not been connected with bond markets in the time period of our sample as government bond spreads across euro area countries had been too low to fuel institutional debates. Fiscal framework reforms were enacted because of domestic and EU level pressure instead and endogeneity should thus not be an issue. Still, to be sure that our results are not impaired by endogeneity concerns, we check for the robustness of our results to the exclusion of the 2009 data where the strength of numerical fiscal rules might have been pre-determined by the fanning out of the government bonds yields in the previous year. In turn, measures of common risk, including the US corporate bond spread, are driven by global shocks and are thus also exogenous to euro area bond spreads.

Our baseline regressions are amended by further analysis. We do not only consider the global impact of rules-based fiscal governance on sovereign risk premia but study the impact of its different dimensions in separation as well. Besides we provide robustness analyses with regard to the time period covered and the sovereign debt crisis in particular, the role of liabilities stemming from bank rescue operations, the frequency of our data, and the choice of some indicators. The data employed in our analysis are described in the next section in more detail.

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[5]   Fiscal rules may constrain different budgetary aggregates; but most serve the ultimate goal of stability and/or sustainability.

3   The dataset

Our empirical analysis is based on a dataset covering 11 euro area countries in the time period of 1999 to 2009 respectively 2010. Luxembourg – with very little public debt until recently – as well as the latest euro area entrants Cyprus, Malta, Slovenia, and the Slovak Republic are not included. The country specific variables are expressed in differences to German data, which leaves us with a panel dataset of 10 countries.

Our dependent variable is the government bond spread against the German Bund of the above euro area members based on the yield of their 10-year on-the-run fixed coupon bonds obtained from Bloomberg. Bid-ask spreads obtained from the EuroMTS indices platform are used to control for liquidity risk in sovereign bond markets. We also provide robustness checks using the data set of Gerlach *et al.* (2010), where yields and bid-ask spreads are derived from information on the individual on-the-run bonds provided by Bloomberg. As an indicator of the debtors' repayment capacity, data on government debt and deficits from the Ameco dataset are employed. As a general measure of investors' willingness to take on risk, we employ the seven-to-ten year US corporate bond spread for the rating category BBB from Merrill Lynch against US treasuries. Financial data are available at a very high frequency. However, as the fiscal and institutional data are only available at quarterly respectively annual frequency, we average the financial data to annual frequency. We further provide robustness checks with financial data averaged at quarterly frequency and quarterly fiscal data stemming from the Trimeco dataset of the European Commission.

The innovative element of our research is the inclusion of the index of the strength of numerical fiscal rules at country level in our analysis. This fiscal rule index has been constructed by the fiscal policy unit of the European Commission's Directorate-General for Economic and Financial Affairs from information on fiscal governance obtained from the EU member states via the Economic Policy Committee of the Ecofin Council of the EU.[6]

The fiscal rule index is based on information on five dimensions describing each fiscal rule in force at the local, sub-national or national level in an EU member state: (1) the statutory base of the rule, (2) room for revising objectives, (3) mechanisms of monitoring compliance with and enforcement of the rule, (4) the existence of pre-defined enforcement mechanisms, and (5) media visibility of the rule. According to a pre-defined scale distinguishing different degrees by which the design of the rule supports its strength along these dimensions, scores are attributed to each of the dimensions for each fiscal rule. Box 1 shows how the index is computed based on different characteristics of fiscal rules.

To construct the fiscal rule index, these scores are aggregated using weights obtained as averages of 10,000 randomly drawn numbers from a uniform distribution, following the method used by Sutherland, Price and Joumard (2005). The random weights technique is applied because of the absence of theoretical guidance on the importance of each criterion in the composite index of the strength of fiscal rules. Finally, the indices of the strength of a fiscal rule obtained for each single rule are aggregated to a single comprehensive score per country per year by adding up the indices of single fiscal rules adjusted by the coverage of general government finances by that rule.

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[6]   This rich dataset is updated annually; it is accessible to the public at: http://ec.europa.eu/economy_finance/db_indicators/fiscal_governance/index_en.htm.

BOX 1
SCORES ASSIGNED TO CHARACTERISTICS OF FISCAL RULES BY 5 DIMENSIONS

Dimension 1 (FRI_1): Legal base of the rule

4   The rule is established by the constitution;

3   The rule is based on a legal act (e.g., public finance act, fiscal responsibility law);

2   The rule is based on a coalition agreement or an agreement reached by different general government tiers, but not enshrined in a legal act;

1   Political commitment by a given authority (central/local government, Minister of Finance).

Dimension 2 (FRI_2): Room for setting or revising objectives

3   There is no margin for adjusting objectives: they are encapsulated in the document underpinning the rule;

2   There is some but constrained margin in setting or adjusting objectives;

1   There is complete freedom in setting objectives: the statutory base of the rule merely contains broad principles or the obligation for the government or the relevant authority to set targets.

Dimension 3 (FRI_3): Nature of the body in charge of monitoring respect and enforcement of the rule

The score of this criterion is constructed as a simple average of the two elements below:

Nature of the body in charge of monitoring respect of the rule

3   Monitoring by an independent authority (fiscal council, court of auditors or any other court) or the parliament;

2   Monitoring by the ministry of finance or any other government body;

1   No regular public monitoring of the rule (no report systematically assessing compliance).

The score of this sub-criterion is augmented by 1 if there is real time monitoring of compliance with the rule, *i.e.*, if alert mechanisms of risk of non-respect exist.

Nature of the body in charge of enforcement of the rule

3   Enforcement by an independent authority (fiscal council or court) or the parliament;

2   Enforcement by the ministry of finance or other government body;

1   No specific body in charge of enforcement.

Dimension 4 (FRI_4): Enforcement mechanisms of the rule

4   There are automatic correction and sanction mechanisms in case of non-compliance;

3   There is an automatic correction mechanism in case of non-compliance and the possibility of imposing sanctions;

2   The authority responsible is obliged to take corrective measures in case of non-compliance or is obliged to present corrective proposals to Parliament or the relevant authority;

1   There is no ex-ante defined actions in case of non-compliance.

The score of this dimension is augmented by 1 if escape clauses are foreseen and clearly specified.

Dimension 5 (FRI_5): Media visibility of the rule

3   Observance of the rule is closely monitored by the media; non-compliance is likely to trigger public debate;

2   High media interest in compliance, but non-compliance is unlikely to invoke public debate;

1   No or modest interest of the media.

Correlation Across the Components of the Fiscal Rule Index

	FRI	FRI_1	FRI_2	FRI_3	FRI_4
FRI_1	0.95	1.00			
FRI_2	0.97	0.91	1.00		
FRI_3	0.97	0.90	0.95	1.00	
FRI_4	0.93	0.90	0.90	0.84	1.00
FRI_5	0.93	0.84	0.86	0.93	0.80

In the presence of more than one rule covering the same government sub-sector, the second, third and forth weaker rules obtain weights ½, 1/3, and ¼, to reflect decreasing marginal benefit of multiple rules applying to the same sub-sector of general government. The design of the index is inspired by Deroose, Moulin and Wierts (2006). The index is re-scaled to assume values between 0 (minimum) and 10 (maximum). An improvement of the index is achieved by strengthening one or several existing numerical fiscal rules along either of the above dimensions, by introducing new numerical fiscal rules, or by extending the coverage of general government by existing or new rules. Note that the fiscal rule index only considers if there is a numerical constraint to a budgetary aggregate: it does not take into account however if this constraint is realistically binding in reality (e.g., debt rules allowing for a comparatively high debt level are not binding in low-debt countries).

We also analyse the impact of numerical fiscal rules on sovereign bond spreads considering the five above components separately. To this end we apply the same technique of aggregation as for the composite index. Obviously, no weighting is involved in obtaining this set of sub-indices. Table 1 shows the correlation between the components of the global fiscal rule index: correlations between pairs of components are typically high. Country sets of rules that are strong by one dimension tend to be strong along other dimensions as well. The correlation between components 1 and 3 of the overall index (referring to the legal base and the body in charge of monitoring and enforcing compliance with the rule respectively) appear to be particular strong. Components 4 and 5 of the overall index (referring to its enforcement mechanisms and media visibility) appear to be less connected to the overall index than components 1 and 2.

Figure 1 shows the development of rules based fiscal governance in the eleven euro area members of our sample, as measured by the fiscal rules index, 1999 to 2010 (data in 2010 are preliminary). The strength of the fiscal rules in force in our country of reference, Germany, has been above average and constant at around 7 throughout the period considered.[7] The strength of the numerical fiscal rules in force in the other euro area countries ranged between zero (for Greece, that has had no such rule in force) and 9.5 (the Netherlands,[8] unchanged, and Spain as

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[7]   In the period covered by our sample, Germany has operated "golden" budget balance rules and rules limiting nominal expenditure growth for both the federal government; local governments' budgets have been constrained by debt ceilings and a balance budget rule. In the period considered, the target of the nominal expenditure rule was reformulated, that had no impact on the score of the fiscal rule index, though. Note that the much-debated "debt brake" for the federal government and the Länder will be phased in only from 2011, so the score of the index is unaffected in our sample.

[8]   The Netherlands have been operating a real expenditure ceiling and a rule to allocate windfall revenues applying to all general government.

The Fiscal Rule Index in 11 Euro Area Members, 1999-2009
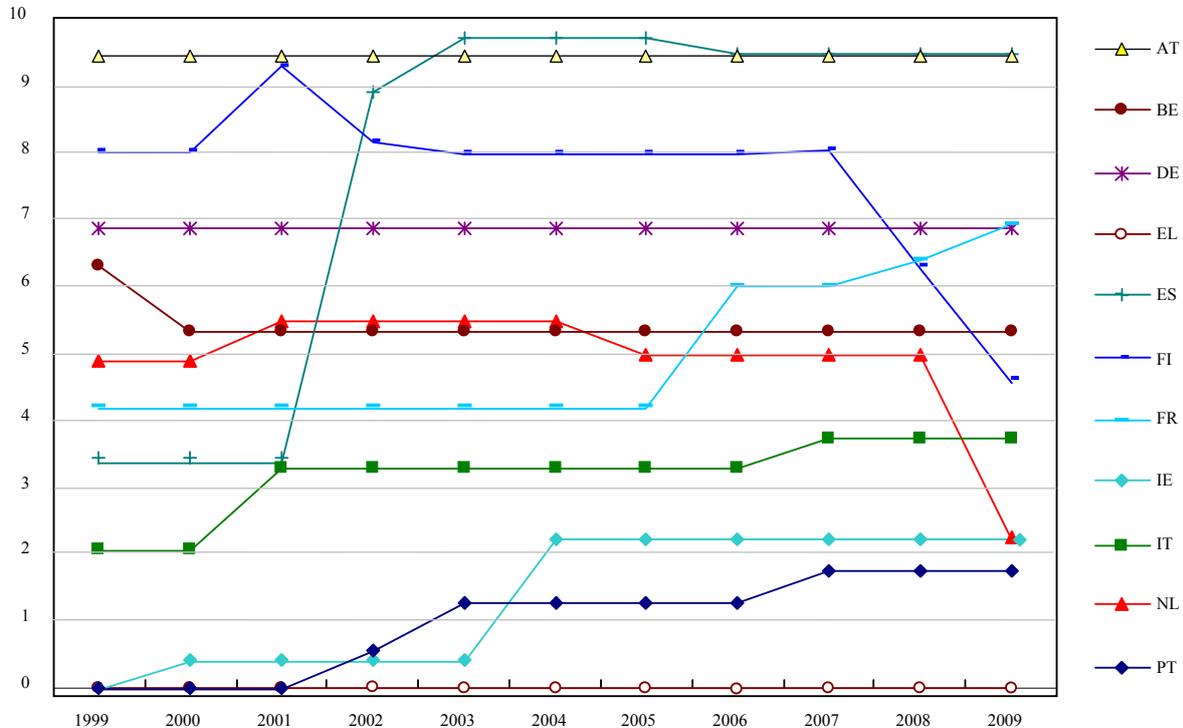
from 2006) and 9.7 (Spain,[9] 2003-05) respectively. Countries with below-average fiscal rule index scores were Ireland, Portugal, and Italy, while the scores of France, Austria, Belgium, and Finland qualified these countries as having stronger fiscal rules than on average. Remarkable changes to the better occurred in the case of France 2006 and 2008 to 2009,[10] as well as Ireland 2004, while the strength of the fiscal rules deteriorated in Finland after 2007 and in Austria in 2009,[11] in particular due to the suspension of rules in force in the course of the economic and financial crisis.

Turning now to the development of the government bond spreads as compared to German Bund yields in the period under review, these spreads were below 30 basis points for most euro area members, with a slight increase until 2001 and decreasing in the period between 2001 and 2006. Sovereign bond spreads mounted and fanned out in the wake of the economic and financial crisis, with particularly high values of 190 basis points reached on average by Greece and Ireland

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[9]   Until 2002, Spain has operated debt ceilings to local and regional governments. In 2002, a budget-balance rule covering all general government was introduced, which was slightly modified in 2006. In 2003, the rules-based framework was extended by further restrictions on debt applied to regional governments.

[10]   In 2006, France introduced a rule to the central government to pre-commit unexpected revenues, and a ceiling to the growth of health expenditure to be established by the parliament. In 2008 the increase of social security debt was made conditional upon an increase in revenues. Finally, since 2009, unexpected revenues were automatically assigned to deficit reduction.

[11]   In Finland, a debt rule and budget balance rule applied to the central government were no longer in force after 2007 and 2008, respectively. In Austria, the budget balance rule laid down in the National Stability Pact was replaced in 2009 by a nominal expenditure ceiling for five headings of the general government budget. The main difference between the two approaches is that the more recent nominal expenditure ceiling only covers a fraction of parts of the budget previously covered by the National Stability Pact.

Sovereign Bond Spreads in 10 Euro Area Members, 1999-2009
(basis points)
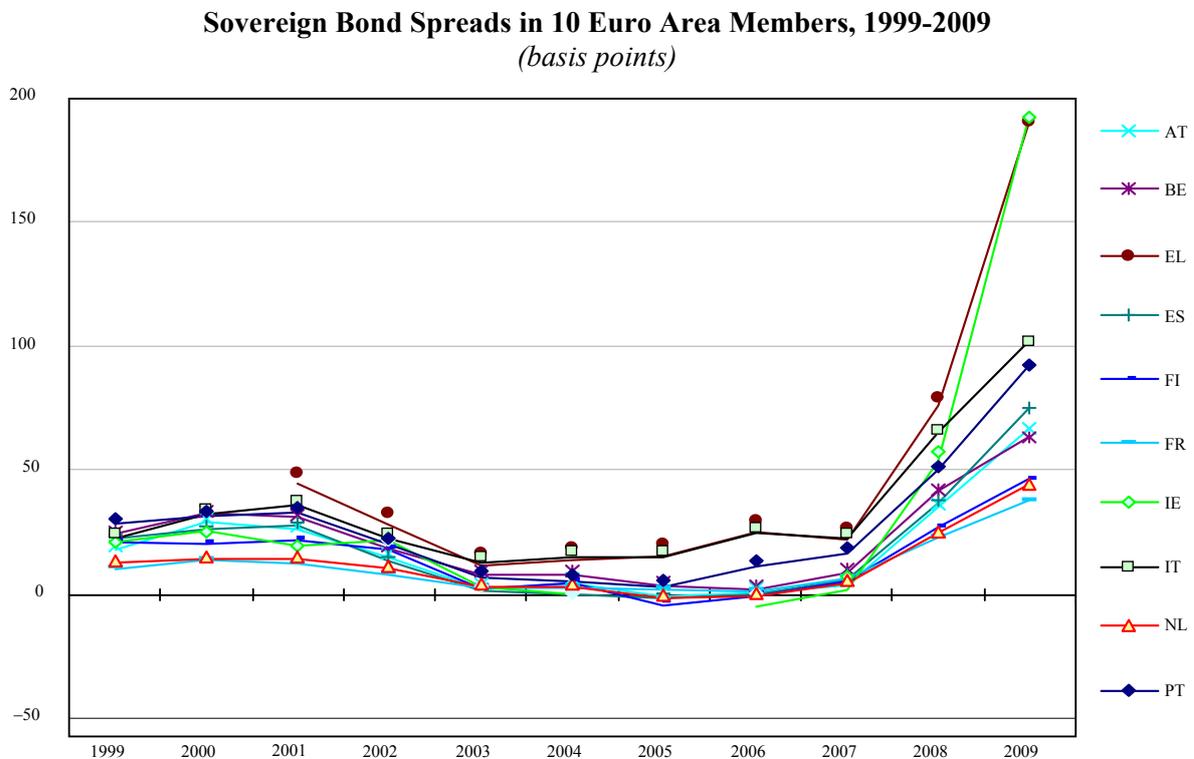
and values between 40 and 100 basis points for the other euro area members during 2009 (see Figure 2). The ranking of the euro area members by the size of the spread of their bond yields against Germany was broadly constant in the period considered, with France, the Netherlands, and Finland being closer to the benchmark and Greece, Italy, Portugal and Spain being at the higher end of the distribution.

In Figure 3 we look at the development of international risk aversion as measured by the spread between low-grade US corporate and government bonds, *uscorp*. As can be seen by comparison with Figure 2, euro area government bond spreads have moved in parallel with international risk aversion. In fact, international risk aversion was particularly low in the mid-2000s, when euro area sovereign bond spreads were historically low as well. With the rise of international risk aversion during the economic and financial crisis, sovereign bond spreads increased markedly, too.

Table 2 provides the simple correlations of the variables applied in our analysis. High correlations of around 0.75 can be observed between the indicator of international risk aversion, *uscorp,* and the bid-ask-spread, and between the fiscal rule index and its interaction with *uscorp*.

4   Estimation results

4.1   Main results

Table 3 shows the baseline results of our regression analysis of the determinants of government bond spreads in the euro area. The results document an important role of fiscal rules in

Figure 3

Spread Between Low-grade US Corporate and Government Bonds (*uscorp*), 1999-2010
(basis points)

Table 2

Correlation Across Variables Employed in the Analysis, 1999-2009

	r	ris	fri	risk*fr	ba	deb
risk	0.75***	1.00				
	(0.00)					
fri	−0.31***	−0.03	1.00			
	(0.01)	(0.79)				
*risk*fri*	−0.66***	−0.39***	0.74***	1.00		
	(0.00)	(0.00)	(0.00)			
bal	0.74***	0.57***	−0.44***	−0.52***	1.00	
	(0.00)	(0.00)	(0.00)	(0.00)		
debt	0.29**	0.06	−0.47***	−0.36***	0.43***	1.00
	(0.01)	(0.63)	(0.00)	(0.00)	(0.00)	
bas	0.71***	0.79***	−0.08	−0.45***	0.57***	−0.07
	(0.00)	(0.00)	(0.52)	(0.00)	(0.00)	(0.55)

Note: *p*-values in parentheses.
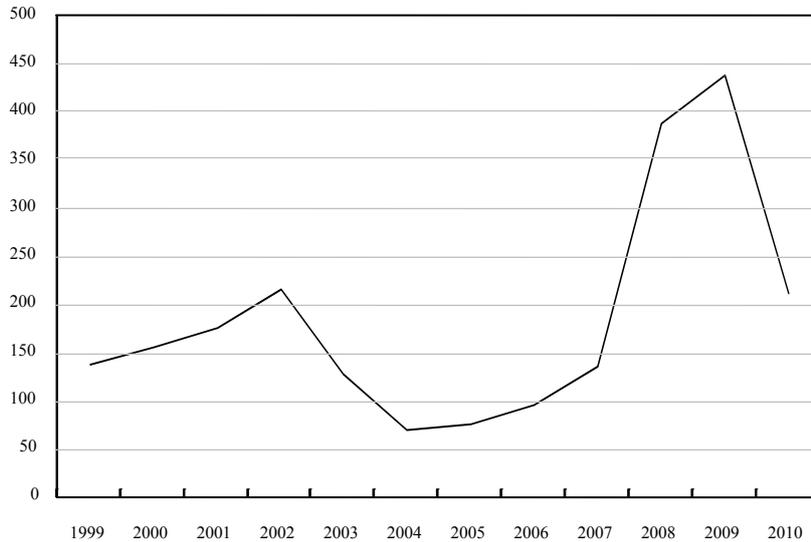
explaining sovereign risk in the euro area. Fiscal rules do not have a significant explanatory role regarding sovereign bond yields as such (regression C). However, they are highly relevant when investors become risk averse as implied by our analytical framework. As regression D documents, when global risk aversion increases, countries with better fiscal rules witness lower increases of sovereign bond yields relative to Germany.

Figure 4 illustrates how the effect of fiscal rules depends on the level of international risk aversion. When international risk aversion rises, stronger fiscal rules are increasingly important to reduce sovereign risk: their marginal benefit increases with uscorp. This effect is statistically significantly at a 5 per cent level when *uscorp* exceeds 155 basis points.

These effects are also economically meaningful. Suppose that Greece, a country with no fiscal rule in place to date, had fiscal rules of similar quality as Germany. When risk aversion peaked at a spread of 750 basis points in 2009, risk premia required on its bonds would have been 55 basis points lower.

Table 3

Main Estimation Results

Variable	A	B	C	D	E	F	G	H	I	J	K	L	M
uscorp	0.19*** (0.02)	0.18*** (0.01)	0.14*** (0.02)	0.08*** (0.02)	0.08*** (0.02)	0.08*** (0.01)	0.07 (0.04)	0.08*** (0.02)	0.08*** (0.02)	0.06** (0.02)	0.07*** (0.02)	0.05** (0.02)	−0.44*** (0.12)
FRI		0.75 (1.57)	4.37*** (1.59)	3.90*** (1.32)	2.66* (1.41)	−0.88 (1.48)	5.58 (3.54)	4.00*** (1.34)	−1.14 (3.05)	−10.22*** (3.19)	−0.48 (2.93)	−9.32*** (3.19)	1.91 (2.47)
uscorp*FRI			−0.02*** (0.00)	−0.02*** (0.00)	−0.02*** (0.00)	−0.01** (0.00)	−0.02** (0.01)	−0.02*** (0.00)	−0.02*** (0.00)	−0.004 (0.005)	−0.02*** (0.00)	−0.01 (0.01)	−0.023* (0.012)
balance				−4.04*** (0.61)	−4.39*** (0.62)	0.69 (1.22)	−5.27*** (1.61)	−3.99*** (0.62)	−4.29*** (1.03)	−0.93 (1.62)	−3.64*** (1.02)	−1.35 (1.62)	0.82 (1.13)
debt		0.93*** (0.24)	0.81*** (0.22)	0.75*** (0.18)	0.56*** (0.20)	0.57*** (0.18)	1.57*** (0.47)	0.76*** (0.18)	1.63*** (0.45)	1.03** (0.40)	1.40*** (0.44)	0.97** (0.39)	−1.24*** (0.41)
uscorp*balance					−0.02*** (0.00)					−0.02*** (0.01)		−0.01** (0.01)	−0.02*** (0.00)
uscorp*debt					0.001** (0.001)	0.001 (0.001)				0.002** (0.001)		0.002** (0.001)	0.012*** (0.002)
debt²								−0.002 (0.003)					
bid-ask spread									−13.50 (42.29)	14.15 (38.20)	−357.18** (148.26)	−193.61 (134.16)	
uscorp*bid-ask spread											0.882** (0.366)	0.542 (0.336)	
N	107	107	107	107	107	107	117	107	69	69	69	69	107
R^2	0.60	0.66	0.73	0.82	0.82	0.86	0.42	0.82	0.86	0.91	0.87	0.91	0.93

Estimation with panel fixed effects. Standard errors in parentheses. Time period: 1999-2009 (107 observations), 1999-2010 (117 observations), 2003-09 (69 observations).
Regression M is with panel fixed effects in interaction with *uscorp*.

Figure 4

Marginal Effect of Fiscal Rules on Sovereign Bond Spreads
(marginal effects, basis points)
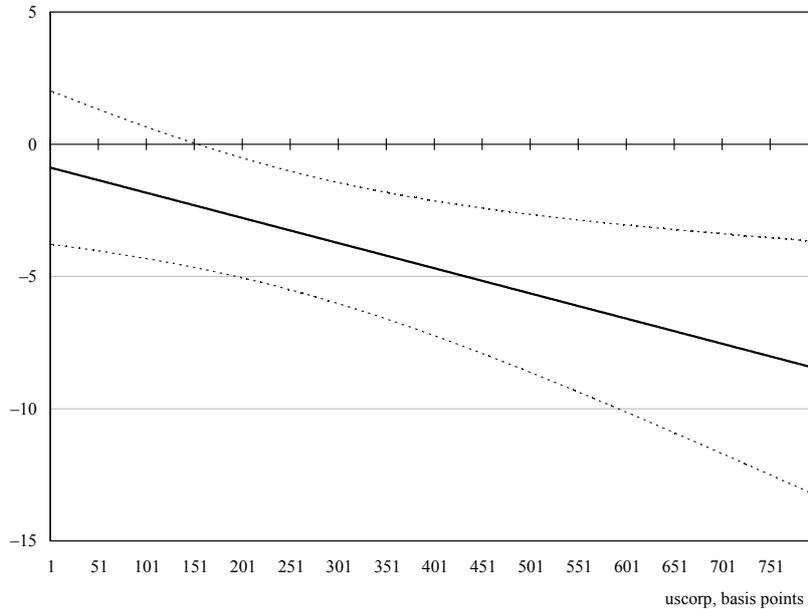
Note: The figure shows the marginal effect of fiscal rules on sovereign bond spreads as a function of international risk aversion measured by *uscorp*, based on regression F shown in Table 3. Dotted lines indicate the 95 per cent confidence interval. Source: authors' calculation.

Better fiscal rules can thus effectively reduce sovereign bond spreads in times of marked turbulences in international markets. Similarly, the quality of Irish fiscal rules could be significantly improved relative to Germany: this would imply a lowering of the sovereign bond yields by up to 40 basis points. For Portugal, at the culmination of the international crisis during 2009, yields could have been by up to 50 basis points lower according to our estimates, had it enhanced the quality of its rules to the level of Germany's. In contrast, the quality of fiscal rules in Spain contributed to the comparatively low level of sovereign bond yields in Spain in 2009.

In line with previous research, we also find that international risk aversion – as measured by *uscorp* – is an important driver of sovereign bond spreads in the euro area in itself. We also find that the ratio of general government debt to GDP significantly enhances sovereign bond yields throughout (regressions B to M). In regression E, we add an interaction effect between *uscorp* and the debt-to-GDP ratio and find that with increasing international risk aversion, countries with high debt levels are increasingly punished by financial markets as well.

General government budget deficits are also found to strongly shape differences in sovereign bond yields in normal times. When we further add an interaction effect between *uscorp* and the budget balance (regression F), the budgetary position has a sizeable effect depending on the level of risk aversion while the interaction between risk aversion and debt levels becomes insignificant. When risk aversion is high, markets thus punish countries with large deficits more, while the pricing of differences in levels of debt does not change with risk aversion.

In regression G, we extend the sample to include also observations of 2010. These results should be considered with caution as the fiscal rules data are preliminary and the other data are based on forecasts respectively in case of the financial variables the first 5 months of available data. Given this caveat, a number of results stand out. First, the estimated effect of fiscal rules remains robustly in place despite the huge uncertainty in the euro area sovereign bond market. Second, the variance explained by the model drops significantly, highlighting non-linear developments in the bond market in the eurozone in 2010 in particular. Third, public debt and deficits are punished much more significantly when 2010 data are taken into account as well.

We have further included a quadratic term of the debt-to-GDP ratio (regression H), in order to allow for nonlinearities in the increase of the risk of default with higher levels of debt resulting from interest payments. We do not find, however, any evidence of such non-linearity. We also control for differences in liquidity across bond markets by employing bid-ask spreads to this end. Unfortunately, this measure of liquidity is only available as of 2003. We continue to find a significant role for fiscal rules (regressions I to L). While the interaction effect in this shorter sample becomes insignificant in some specifications, fiscal rules become significant determinants of sovereign risk in levels, with the marginal effect only slightly differing from the marginal effects obtained above when risk aversion is high. We also allow for an interaction term between liquidity risk and risk aversion, thereby permitting markets to value liquidity differently in different states of the economy (Regression K and L). This does not, however, change the results. Our results are therefore robust to controlling for this measure of liquidity.

We further address the fact that in many countries the quality of fiscal rules moves only rarely: the fiscal rule index and its interaction might pick up other non-observable time-constant factors in these cases. To control for non-observable time-constant factors that vary with the level of overall risk, we employ country fixed effects in interaction with *uscorp* along with the country effects in levels (regression M). This implies that sovereign risk premia may increase more strongly with risk aversion when countries have bad unobserved characteristics. Our findings on the relation between fiscal rules and sovereign spreads are preserved in this highly flexible specification as well.

4.2   What characteristics of fiscal rules matter most?

To assess the relative importance of the different characteristics of national fiscal rules for reducing sovereign risk, we compare the effects of the components making part of the fiscal rule index, namely the legal base of the rule, the room for setting or revising objectives, the nature of the body in charge of monitoring respect and enforcement of the rule, its enforcement mechanisms, and its media visibility. Table 4 first shows estimation results using the above components of the fiscal rule index one by one (estimations D1 to D5). All components are found significant in reducing sovereign risk in times of higher uncertainty. However, the size of the effect differs across the characteristics of the rule. The legal base of the fiscal rules turns out to be particularly relevant: the marginal effect of an improvement is largest. Besides, the stringency of the enforcement mechanisms attached to the rules is also found to be quantitatively important. The separate dimensions of national fiscal rules are highly correlated, though (see Table 1): countries with fiscal rules well anchored in law, for example, also tend to have strong enforcement provisions for their rules. To account for such correlation, the last regression includes all components of the fiscal rules index simultaneously. Now, the legal base of the rules in force is found to be the only characteristic to significantly – and sizeably – contribute to the reduction of sovereign bond spreads. A stronger legal base of the rules in force is found to be associated with lower risk also in times of relatively low international risk aversion.

The economic effects are sizeable. Our analysis implies that a strengthening of the legal base of the rules in force in a country where this characteristic of the rules is weak to the level of the German rules (before the introduction of the constitutional debt brake) could reduce sovereign risk premia by almost 100 basis points in times of severe market turbulence.[12]

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[12]   At *uscorp* = 750, the marginal effect of the legal base of the numerical fiscal rules is –12.4. In terms of the legal base of the rules, Greece scores –7.4, signaling its weakness in comparison to Germany (note that our regressors are defined as differences to German values). This implies that Greece could experience an improvement in its sovereign bond spreads by –12.4*7.4 = –91.8 upon the introduction of numerical fiscal rules with similarly strong legal base as the German ones.

Table 4

Estimation Results with Components of the Fiscal Rule Index

Variable	D	D	D	D	D	D	D
uscorp	0.08*** (0.02)	0.06*** (0.02)	0.11*** (0.01)	0.11*** (0.01)	0.13*** (0.01)	0.00 (0.03)	−0.04 (0.08)
FR	3.90*** (1.32)						
uscorp*FRI	−0.02*** (0.00)						
FRI		3.46** (1.40)					−10.08** (4.85)
uscorp*FRI		−0.02*** (0.00)					−0.03* (0.02)
FRI			4.06*** (1.23)				5.17 (3.88)
uscorp*FRI			−0.02*** (0.00)				−0.02 (0.02)
FRI				3.24*** (1.09)			3.39 (4.45)
uscorp*FRI				−0.02*** (0.00)			0.03 (0.02)
FRI					3.41*** (1.24)		0.65 (2.67)
uscorp*FRI					−0.02*** (0.00)		0.01 (0.01)
FRI						3.96*** (1.32)	4.78 (4.70)
uscorp*FRI						−0.02*** (0.00)	−0.01 (0.01)
balance	−4.04*** (0.61)	−4.18*** (0.61)	−4.02*** (0.61)	−4.09*** (0.61)	−3.90*** (0.65)	−4.08*** (0.61)	−4.29*** (0.62)
debt	0.75*** (0.18)	0.72*** (0.18)	0.73*** (0.18)	0.73*** (0.19)	0.79*** (0.19)	0.84*** (0.18)	0.88*** (0.21)
N	10	10	10	10	10	10	10
R²	0.8	0.8	0.8	0.8	0.8	0.81	0.8
marginal effect of FRI_i at *uscorp* = 500	−6.15	−7.12	−4.79	−4.73	−5.72	−5.45	−24.71

Dimensions of the Fiscal Rule Index: Marginal Effects, Equality of Coefficients

	Coefficient of Interaction Effect	**Marginal Effect at** *uscorp* = **500**	**Hausman test – H_0: $\beta_1 = \beta_2$** *p*-values				
			FRI	**FRI1**	**FRI2**	**FRI3**	**FRI4**
FRI	–0.020	–6.15					
FRI1	–0.021	–7.12	0.61				
FRI2	–0.018	–4.79	0.02	0.21			
FRI3	–0.016	–4.73	0.00	0.05	0.06		
FRI4	–0.018	–5.72	0.44	0.43	0.81	0.40	
FRI5	–0.019	–5.45	0.43	0.50	0.46	0.09	0.81

Table 4 compares the size of the effect of the components for the regressions in which the components are introduced one by one. For convenience, the first column replicates the coefficient of the interaction term between the respective component and *uscorp*. The coefficient related to the legal base is the strongest. The second column presents the point estimate of the marginal effect of an improvement of the fiscal rule index components when international risk aversion reaches relatively high levels (uscorp = 500). Again, the largest marginal effect is found for the aggregate strength of the statutory base of the set of numerical fiscal rules in force. We investigate the equality of the coefficients of the interaction effects between uscorp and the components of the fiscal rule index respectively by means of a Hausman test: columns 3 to 7 of Table 4 show the *p*-values attached to the test statistics. These tests confirm the statistical difference between some of the estimated coefficients, underlining that different characteristics of numerical fiscal rules in force do matter for the containment of sovereign bond yields to different degrees. The strictness of the rule (as captured by the legal base, the room to revise objectives and the enforcement possibilities) are found to be similarly important while they are statistically significantly different from the effects of the differences in the body in charge of the supervision of the rule. Independent fiscal councils with monitoring functions – while effective – appear to impress the markets significantly less than strong constitutional limits or tough enforcement mechanisms.

4.3   Robustness checks

We supplement the basic analysis presented above by a number of robustness checks. First, we assess the robustness of our results against the consideration of a set of specific factors: the effects of the crisis materialising in 2009 specifically, the burdens of support to the banking sector on public authorities and the critical features of Ireland in particular, and the role of expectations on the fiscal policy stance as measured by deficit forecasts (Table 6). Excluding the data of 2009 renders the regression robust to the special crisis effects and has the additional advantage that we can safely consider the quality of rules-based fiscal governance to be exogenous with respect to government bond yields and their spreads. Before 2009, debates on the reform of fiscal governance were not influenced by sovereign bond spreads, that were comparatively small. Second, we provide a set of regressions with variables at quarterly frequency where available, to establish the invariance of our results to the level of aggregation in time (Table 7). Third, we use a different

Table 6

Robustness Checks: Time Period, Banking Sector, Deficit Forecasts

Variable	D'	N	F''	O	F'''	P
uscorp	0.08 *** (0.01)	0.10 *** (0.01)	0.09 *** (0.01)	0.08 *** (0.02)	0.09 *** (0.01)	0.10 *** (0.01)
FR	0.41 (0.66)	–0.74 (0.63)	–0.15 (0.79)	4.07 *** (1.40)	–0.93 * (1.40)	0.04 (0.78)
*uscorp*FRI*	–0.01 *** (0.00)		–0.01 ** (0.00)	–0.02 *** (0.00)	–0.01 ** (0.00)	–0.01 *** (0.00)
balance	–1.54 *** (0.31)	–1.61 *** (0.34)	–1.21 * (0.66)	–4.20 *** (0.74)	0.27 * (1.12)	
debt	0.50 *** (0.09)	0.52 *** (0.09)	0.45 *** (0.10)	0.73 *** (0.19)	0.37 ** (0.18)	0.46 *** (0.11)
uscorp *balance			0.00 (0.00)		–0.01 *** (0.00)	
uscorp *debt			0.00 (0.00)		0.00 * (0.00)	0.00 (0.00)
E(F3.balance)					–0.99 * (0.59)	
bankassets				–0.01 (0.03)		
N	97	97	97	107	97	97
R^2	0.85	0.82	0.85	0.82	0.86	0.81

Estimation with panel-fixed effects. Standard errors in parentheses. Time period: 1999-2008 (estimations D', N, F'', P), 1999-2009 (estimations O and F'''). Data on Ireland excluded from estimation F'''.

data set of sovereign bond yields available from Gerlach *et al.* (2010), which provides us with a longer data set on liquidity as measured by bid-ask spreads in particular (Table 8). Finally, we repeat our regressions using a measure of international risk aversion other than the US corporate bond spreads (Table 9).

Table 6 first shows the robustness of our results with respect to potential effects of the crisis impacting on public budgets and crisis-related market risk aversion in 2009 (regressions D', N, F''): our central result regarding the beneficial effects of better fiscal rules remains in place when we exclude the 2009 data from the sample. Next, to cater for governments' support of the banking sector and the potential liabilities resulting from it, we include the size of the aggregate bank assets as a proportion of GDP (relative to Germany) among our regressors (regression O). We further run a regression without the observations on Ireland to avoid that our results are spuriously driven by the high degree of bank vulnerability that coincides with a comparatively low quality of fiscal rules in force (regression F''). These robustness checks all leave our central results regarding the importance of national fiscal rules for containing sovereign bond yields unaltered.

Finally, to better capture the developments of fiscal fundamentals in the near future, we add the three-year-ahead deficit forecasts obtained from the stability and convergence programmes of the EU members (regression P). Deficit forecasts are found to be a significant and quantitatively important determinant of government bond spreads, while our main results are again confirmed. Rules-based fiscal governance thus plays an important role for the formation of expectations by financial markets in the longer run specifically. Even when we control for the effects of expectations on fiscal policy for a period of 3 years ahead, sound domestic rules-based fiscal governance has a significant and quantitatively

Table 7

Robustness Checks with Quarterly Data

	A'	B'	C	D'	I	I'
uscorp	0.18 ***	0.17 ***	0.13 ***	0.11 ***	0.09 ***	0.06***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
FR		1.98	5.35 ***	2.15 ***	0.18	–0.70
		(1.37)	(1.48)	(0.69)	(1.87)	(1.39)
*uscorp*FRI*			–0.02 ***	–0.02 ***	–0.02 ***	–0.02***
			(0.00)	(0.00)	(0.00)	(0.00)
balance (quarterly)				–2.16	–2.17	
				(0.58) ***	(0.82) ***	
balance (annual)						–4.35***
						(0.39)
debt		1.51 ***	1.41 ***	0.57 ***	1.15 ***	1.70***
		(0.21)	(0.20)	(0.09)	(0.22)	(0.20)
bid-ask					60.91 ***	43.53***
					(17.26)	(14.66)
N	448	448	448	394	229	259
R^2	0.32	0.40	0.43	0.77	0.85	0.89

Note: Estimation with panel-fixed effects. Standard errors in parentheses. Time period: 1999-2009 (regressions A' to D''), 2003-09 (regressions I' and I'').

important risk-reducing effect by reducing uncertainty affecting expectations on the fiscal deficit, as well as better anchoring longer term expectations.

Financial market data come at a very high frequency and are typically available on a daily or even hourly basis. At the same time, the institutional measures are rather stable and move annually at most. To assess whether the results presented above with annual data are not just a statistical artefact of aggregating financial market data to an annual frequency, we carry out the regression analysis using the financial data aggregated at higher frequency such as to better reflect their variation. Hourly (financial) and annual (institutional) data do not match well, because much of the information reflected in the annual data is de facto available to the decision-makers in financial markets long before the release of data updates. As a compromise between loosing variation from aggregating financial data and accepting measurement error from institutional data, we aggregate the financial market data to a quarterly frequency and choose the quarterly Trimeco release of the government statistics data instead of the annual Ameco series respectively, while the annual data on fiscal rules remains unchanged.

Table 7 presents the first set of our robustness results. Our previous findings are essentially confirmed. Again, the interaction between risk aversion and the fiscal rules index is an important determinant of sovereign spreads. The effect is also quantitatively comparable to our baseline results.

Table 8

Robustness Checks with Gerlach *et al.* (2010) Data

	Q	**R**	**S**	**I'''**
uscorp	0.19 **	0.18 **	0.18 **	0.11 **
	(0.02)	(0.01)	(0.01)	(0.01)
FR			0.37	3.76 **
			(1.77)	(1.40)
*uscorp*FRI*				−0.02 **
				(0.00)
balance				−3.19 **
				(0.70)
debt		0.94 **	0.95 **	0.66 **
		(0.26)	(0.27)	(0.20)
bid-ask spread	3.26	4.44	4.62	0.23
	(4.19)	(3.95)	(4.06)	(3.11)
N	105	105	105	105
R^2	0.74	0.77	0.77	0.88

Note: Estimation with panel-fixed effects. Standard errors in parentheses. Time period: 1999-2009.

As a next set of estimates to investigate the robustness of our findings, Table 8 shows the regression results using the data set on sovereign bond yields computed by Gerlach *et al.* (2010). This data set extends over a longer time horizon, covering the years 1999 to 2009. Moreover, information on bid-ask spreads has been gathered specifically from the very same bonds from which the yield information is obtained. The original data set is available at weekly frequency which we have aggregated to annual data to render results comparable with our main regressions.

The results again confirm our previous findings. We find a highly significant interaction effect between *uscorp* and the fiscal rule index, underscoring that in times of elevated market risk aversion, countries clearly benefit from more stringent and effective fiscal rules. The magnitude of the effects obtained with the Gerlach *et al.* (2010) data is also very similar to our first set of results.

Finally, we re-estimate our regression model employing a different measure of international risk aversion than the US corporate bond spread, namely the Chicago Board Options Exchange Market volatility index, *VIX*. Table 9 presents these estimation results. Our main findings are again corroborated: the choice of the measure of international risk aversion does not drive our results.

5   Conclusion

The present paper documents the importance of rules-based national fiscal governance for the assessment of sovereign risk by financial markets in the euro area. Stronger fiscal rules turn out to be of great importance to contain sovereign bond spreads in times of elevated market uncertainty in particular. Under extreme circumstances, better fiscal rules can reduce sovereign bond spreads between euro area member states and Germany by as much as 80 to 100 basis points according to our estimates. Of particular importance is the strength of the legal base of the fiscal rules in force. Countries operating rules with stronger legal foundations obtain lower risk premia,

with beneficial effects potentially reaching up to 100 basis points. The stringency of the enforcement mechanisms of national fiscal rules further turns out to be comparatively important for the effectiveness of the rules in view of reducing sovereign risk premia as well. Our results are robust to the level of aggregation of the data in time, the length of the time period, and the measurement of international risk aversion, and they are not flawed by the impact of the financial crisis 2009 and by burdens to public finance resulting from liabilities of the banking sector either.

We argue that national fiscal rules have their beneficial effect by reducing the uncertainty of market expectations of

<div style="text-align:right">Table 9</div>

Robustness Checks with Measuring Risk Aversion by *VIX*

	A'	B''	C'	D''	I'''
uscorp	2.51***	2.43***	1.86***	1.08***	0.90***
	(0.20)	(0.21)	(0.22)	(0.18)	(0.26)
FR		2.02	8.97***	8.17***	4.68
		(1.62)	(2.02)	(1.48)	(3.03)
vix* FR			−0.29***	−0.28***	−0.29***
			(0.06)	(0.04)	(0.05)
balanc				−4.65***	−4.79***
				(0.51)	(0.93)
debt		0.40	0.35	0.43**	1.06**
		(0.26)	(0.23)	(0.17)	(0.41)
bid-ask					−0.04
					(34.67)
N	107	107	107	107	69
R²	0.62	0.64	0.71	0.85	0.88

Note: Estimation with panel-fixed effects. Standard errors in parentheses. Time period: 1999-2009 (regressions A''-D'''), 2003-09 (I'''').

fiscal variables. This is specifically important in times of higher risk aversion, which often coincide with higher uncertainty or negative shocks. Overall, our results lend strong empirical support to the recently debated policy proposals that the strengthening of national fiscal rules should be an integral part of the European economic governance reform. National fiscal rules can thereby contain sovereign risk by increasing trust in the sustainability of public finances in addition to their direct contribution on better fiscal outcomes.

REFERENCES

Alesina, A. and T. Bayoumi (1996), "The Costs and Benefits of Fiscal Rules: Evidence from U.S. States", NBER, Working Paper, No. 5614.

Alexander, V. and P. Anker (1997), "Fiscal Discipline and the Question of Convergence of National Interest Rates in the European Union", *Open Economies Review*, Vol. 8, No. 4, pp. 335-52.

Ayuso-i-Casals, J., D. Gonzalez Hernandez, L. Moulin and A. Turrini (2009), "Beyond the SGP: Features and Effects of EU National Fiscal Rules", in S. Deroose, E. Flores and L. Moulin (eds.), *Policy Instruments for Sound Fiscal Policies: Fiscal Rules and Institutions*, Houndmills and Basingstoke, Palgrave Macmillan, pp. 204-20.

Barrios, S., P. Iversen, M Lewandowska and R. Setzer (2009), "Determinants Of Intra-euro Area Government Bond Spreads During The Financial Crisis", *European Economy – Economic Papers*, No. 388, Brussels, European Commission, Directorate General Economic and Financial Affairs.

Bayoumi, T. and B. Eichengreen (1994), "Restraining Yourself: Fiscal Rules and Stabilization", CEPR, Discussion Paper, No. 1029.

Bayoumi, T., M. Goldstein and G. Woglom (1995), "Do Credit Markets Discipline Sovereign Borrowers? Evidence from U.S.", *Journal of Money, Credit and Banking*, Vol. 27, No. 4, pp. 1046-59.

Bernoth, K. and B. Erdogan (2010), "Sovereign Bond Yield Spreads: A Time-varying Coefficient Approach", DIW, mimeo.

Bernoth, K., J. von Hagen and L. Schuknecht (2004), "Sovereign Risk Premia In The European Government Bond Market", ECB, Working Paper, No. 369.

Bernoth, K. and G. Wolff (2008), "Fool the Markets? Creative Accounting, Fiscal Transparency and Sovereign Risk Premia", *Scottish Journal of Political Economy*, Vol. 55, No. 4, pp. 465-87.

Bohn, H. and R. Inman (1996), "Balanced-budget Rules and Public Deficits: Evidence from the U.S. States", Carnegie-Rochester Conference Series on Public Policy, Vol. 45, No. 1, pp. 13-76.

Buti, M., J. Nogueira Martins and A. Turrini (2006), "From Deficits to Debt and Back: Political Incentives under Numerical Fiscal Rules", CEPR, Discussion Paper, No. 5809.

Codogno, L., C. Favero and A. Missale (2003), "Yield Spreads on EMU Government Bonds", *Economic Policy*, Vol. 18, No. 37, pp. 503-32.

Copeland, L. and S.A. Jones (2001), "Default Probabilities of European Sovereign Debt: Market-based Estimates", *Applied Economic Letters*, No. 8, pp. 321-24.

Debrun, X. (2007), "Tying Hands Is Not Commitment: Can Fiscal Rules and Institutions Really Enhance Fiscal Discipline?", Bruegel, Working Paper, No. 2007/01.

Debrun, X. and M. Kumar (2007a), "The Discipline-enhancing Role of Fiscal Institutions: Theory and Empirical Evidence", International Monetary Fund, Working Paper, No. 07/171, Washington (D.C.).

——————(2007b), "Fiscal Rules, Fiscal Councils and All That: Commitment Devices, Signalling Tools or Smokescreens?", mimeo.

Debrun, X., L. Moulin, A. Turrini, J. Ayuso-i-Casals and M. Kumar (2008), "Tied to the Mast? National Fiscal Rules in the European Union", *Economic Policy*, Vol. 23, No. 4, pp. 297-362.

Deroose, S., L. Moulin and P. Wierts (2006), "National Expenditure Rules and Expenditure Outcomes: Evidence for EU Member States", *Wirtschaftspolitische Blätter*, No. 1, pp. 27-42.

Eichengreen, B. and T. Bayoumi (1994), "The Political Economy of Fiscal Restrictions: Implications for Europe from the United States", *European Economic Review*, No. 38, pp. 783-91.

Ejsing, J. and W. Lemke (2009), "The Janus-headed Salvation: Sovereign and Bank Credit Risk Premia During 2008-09", ECB, Working Paper, No. 1127.

European Central Bank (2010), "Reinforcing Economic Governance in the Euro Area", 12 June 2010, mimeo.

European Commission (2010a), "Proposal for a Council Directive on Requirements for Budgetary Frameworks of the Member States", Brussels, 29 September 2010, available at: http://ec.europa.eu/economy_finance/articles/eu_economic_situation/pdf/com2010__523en.pdf (19 October 2010).

———————— (2010b), "Reinforcing Economic Policy Coordination", communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the Economic and Social Committee and the Committee of the Regions, Brussels, 12 May 2010, mimeo.

———————— (2010c), "Enhancing Economic Policy Coordination for Stability, Growth and Jobs – Tools for Stronger EU Economic Governance", communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the Economic and Social Committee and the Committee of the Regions, Brussels, 30 June 2010, mimeo.

Fatás, A. (2010), "The Economics of Achieving Fiscal Sustainability", paper prepared for the *Academic Consultants Meeting at the Board of Governors*, Federal Reserve Bank, April 2010, mimeo.

Favero, C., F. Giavazzi and L. Spaventa (1997), "High Yields: The Spread on German Interest Rates", *The Economic Journal*, No. 107, pp. 956-85.

Gerlach, S., A. Schulz and G. Wolff (2010), "Banking and Sovereign Risk in the Euro Area", CEPR, Discussion Paper, No. 7833.

Hallerberg, M., R. Strauch and J. von Hagen (2007), "The Design of Fiscal Rules and Forms of Governance in European Union Countries", *European Journal of Political Economy*, Vol. 23, No. 2, pp. 338-59.

———————— (2009), *Fiscal Governance in Europe*, Cambridge, Cambridge University Press.

Hallerberg, M. and G. Wolff (2008), "Fiscal Institutions, Fiscal Policy and Sovereign Risk Premia in EMU", *Public Choice*, Vol. 136, No. 3-4, pp. 379-96.

Heppke-Falk, K. and G. Wolff (2008), "Moral Hazard and Bail-out in Fiscal Federations: Evidence for the German Länder", *Kyklos*, No. 61, pp. 425-46.

Inman, R. (1996), "Do Balanced-budget Rules Work? U.S. Experience and Possible Lessons for the EMU", NBER, Working Paper, No. 1996.

Johnson, C. and K. Kriz (2005), "Fiscal Institutions, Credit Ratings, and Borrowing costs", *Public Budgeting & Finance*, Vol. 25, No. 1, pp. 84-103.

Kopits, G. and S. Symanski (1998), "Fiscal Policy Rules", International Monetary Fund, Occasional Paper, No. 162, Washington (D.C).

Krogstrup, S. and C. Wyplosz (2010), "A Common Pool Theory of Supranational Deficit Ceilings", *European Economic Review*, No. 54, pp. 269-78.

Larch, M. and A. Turrini (2008), "Received Wisdom and Beyond: Lessons from Fiscal Consolidation in the EU", *European Economy – Economic Papers*, No. 320, Brussels, European Commission, Directorate General Economic and Financial Affairs.

Lemmen, J. and C. Goodhart (1999), "Credit Risks and European Government Bond Markets: A Panel Data Econometric Analysis", *Eastern Economic Journal*, Vol. 25, No. 1, pp. 77-107.

Lonning, I. (2000), "Default Premia on European Government Debt", *Weltwirtschaftliches Archiv*, No. 136, pp. 259-83.

Poterba, J. and K. Rueben (1999), "State Fiscal Institutions and the U.S. Municipal Bond Market", in J. Poterba and J. von Hagen (eds.), *Fiscal Institutions and Fiscal Performance*, Chicago, London, The University of Chicago Press, pp. 181-207.

von Hagen, J. (1991), "A Note on the Empirical Effectiveness of Formal Fiscal Restraints", *Journal of Public Economics*, Vol. 44, No. 2, pp. 199-210.

——————(2010), "Sticking to Fiscal Plans: The Role of Institutions", *Public Choice*, No. 144, pp. 487-503.

von Hagen, J. and G. Wolff (2006), "What Do Deficits Tell Us About Debt? Empirical Evidence on Creative Accounting with Fiscal Rules in the EU", *Journal of Banking and Finance*, Vol. 30, No. 12, pp. 3259-79.

Schuknecht, L., J. von Hagen and G. Wolswijk (2009), "Government Risk Premiums in the Bond Market: EMU and Canada", *European Journal of Political Economy*, Vol. 25, No. 3, p. 371-84.

——————— (2010), "Government Bond Risk Premiums In The EU Revisited: The Impact Of The Financial Crisis", ECB, Working Paper, No. 1152.

Schulz, A. and G. Wolff (2009), "The German Sub-national Government Bond Market: Structure, Determinants of Yield Spreads and Berlin's Foregone Bail-out", *Journal of Economics and Statistics – Jahrbücher für Nationalökonomie und Statistik*, Vol. 229, No. 1, pp. 61-83.

Sutherland, D., R. Price and I. Joumard (2005), "Fiscal Rules for Sub-central Governments: Design and Impact", OECD, Economics Department, Working Paper, No. 465.

IMPLEMENTING GERMANY'S NEW CONSTITUTIONAL FISCAL RULES

Jürgen Hamker[*]

1   Historical background

In June 2009, a new constitutional debt rule was passed by the Bundesrat following approval by the Bundestag. 2/3 majorities of the members – as required by article 79 II of the German Basic Law – voted in favour of a debt brake for Federal and state government budgets to become fully binding as of 2016 and 2020, respectively. To understand the reasons for this step, it seems necessary to take into account prior developments concerning government deficit and debt in Germany.

Government borrowing has been subject to constitutional limits since the foundation of the Federal Republic of Germany in 1949. By the end of the 1960s, a constitutional reform had been made to commit fiscal policy to safeguarding macroeconomic equilibrium. According to Section 1 of the Act to Promote Economic Stability and Growth, fiscal policy measures must contribute to the stability of the price level, high employment levels, external equilibrium and continuous as well as adequate GDP growth. In order to avert a disruption of the macroeconomic equilibrium, the former article 115 of the Basic Law allowed central government borrowing to be extended above the ordinary limit defined by the total of estimated investment expenditure in the budget. The extent of such exceptional borrowing was not limited effectively and there was no obligation to repay these debts. General exceptions from borrowing limits could also be claimed for special funds outside of the core budget.

Given that strong political incentives to spend now and to shift financing burdens into the future exist in Germany, too, it was no surprise that debt levels grew significantly in the decades after the aforementioned constitutional reform for Federal and state government budgets.[1] During the first few years, attempts were made to stabilise GDP growth and employment levels. While providing additional stimuli was easy and also successful at first, cutting deficits in relatively good times was not nearly as successful. As trend GDP growth declined significantly throughout the last decades, the misinterpretation that the cyclical environment was unfavourable prevailed and eliminating deficits was not considered to be the main task of fiscal policy. Instead of implementing consolidation measures, the exception clause for averting a disruption of the macroeconomic equilibrium was used quite often, especially during the first decade of the 21st century. Consequently, debt levels climbed considerably.

In addition, during the process of German reunification, off-budget funds and entities were used to finance political tasks, such as compensating east German banks for converting customer deposits at more favourable exchange rates than those applicable to their own assets, providing state governments with money for creating infrastructure and preparing state enterprises for a competitive environment while providing their staff with earnings above productivity levels. By 1995, a respective debt total of about 10 per cent of GDP had been accumulated. The largest part was attributed to a new special fund for the redemption of inherited liabilities. While it was possible to repay a minor part, e.g., by means of part of the Bundesbank profit distributions, the

[1]   For the development of debt levels and the underlying reasons, see Deutsche Bundesbank (2010), "Government Debt and Interest Payment Burden in Germany", monthly report, April, pp. 15-33.

Figure 1

Government Debt[*]
(percent of GDP)
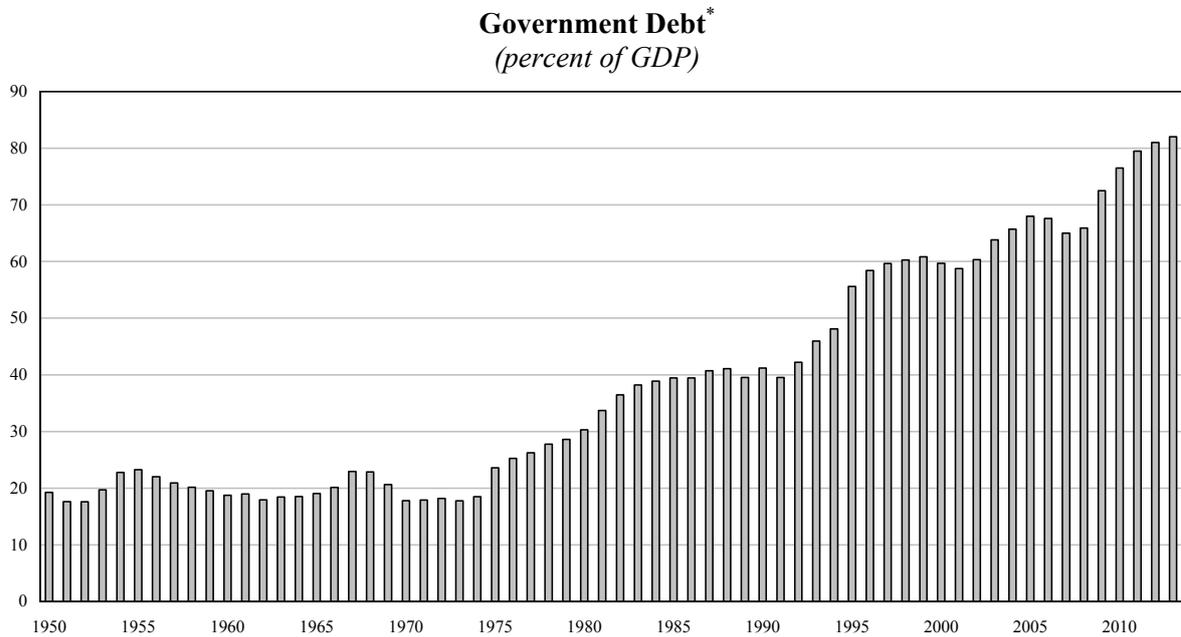
[*] Up to and including 1990, data from debt statistics, Western Germany. From 1991, pursuant to the Maastricht criteria. From 2009, data from the updated stability programme of January 2010.
Deutsche Bundesbank.

Figure 2

Government Net Assets[*]
(percent of GDP)
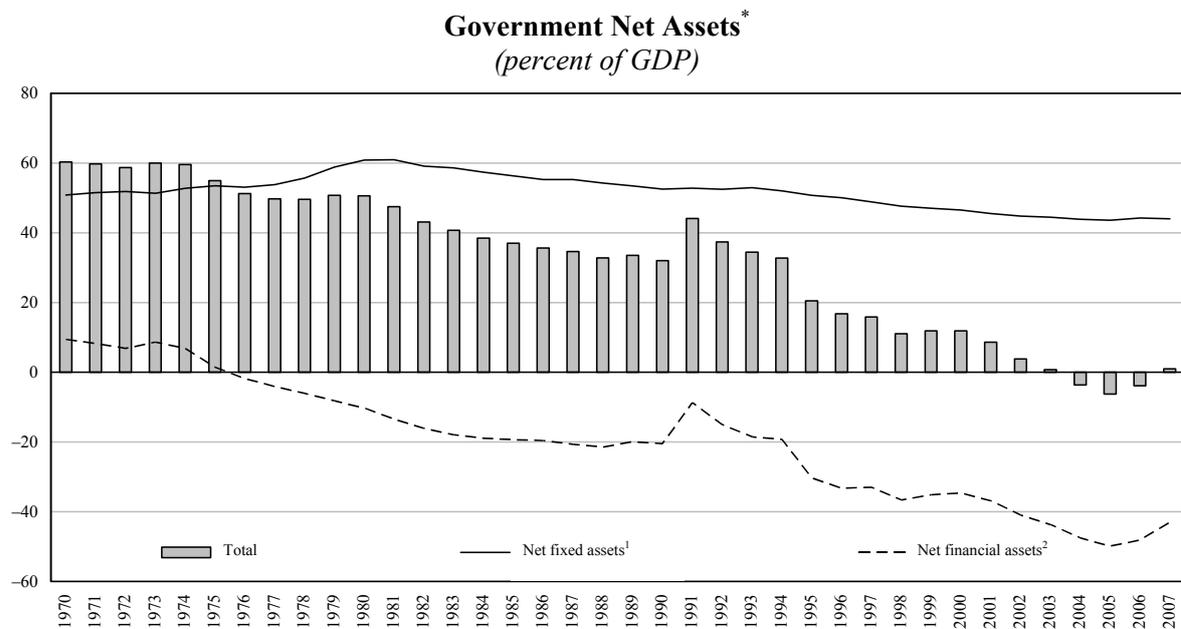
Source: Federal Statistical Office and Bundesbank calculations.
[*] As defined in the national accounts; central, state and local government and social security funds. Up to and including 1990, western Germany.
[1] At replacement cost: tangible and intangible fixed assets less depreciation, as at the beginning of the year.
[2] Financial assets less liabilities, as at the end of the year. Results of the Deutsche Bundesbank's financial accounts.
Deutsche Bundesbank.

majority was refinanced via Federal debt instruments and is no longer separated from other debt instruments.

Even before the financial crisis and its effects on economic activity began to have an impact on government finances, the German Maastricht general government debt-to-GDP ratio had climbed to above 65 per cent. Bringing this ratio back below the reference value of 60 per cent sufficiently quickly seemed barely feasible after the outbreak of the crisis. If the development of the general government debt rate had been accompanied by a comparable increase in the asset position, it probably would have given less cause for concern. But, in reality, the net asset position had decreased significantly during the previous decades. Furthermore, in 2007, the German constitutional court judged that the central government's 2004 budget – for which the exemption clause for averting a disturbance of the macroeconomic equilibrium was used for the third time in a row, despite rising GDP growth rates – could not be declared unconstitutional. It noted that the constitutional borrowing limits were not sufficient to safeguard sound public finances. As the judges are not entitled to change the constitution, they called for politicians to create an effective framework to safeguard sustainable public finances.[2]

While in many European countries deficits and debt occur almost exclusively at the level of central government, state governments in Germany are usually responsible for about 1/3 of general government deficit and debt levels. Despite a revenue sharing system that largely aligns per capita-tax revenue, significant differences prevail between the budgetary positions of the sixteen German states. In 1992, the German constitutional court decided that the two (least populated) states of Bremen and Saarland were suffering from extreme budgetary hardship and were consequently entitled to claim assistance from the other members of the German federation. From 1994 to the end of 2004, the two states received aid totalling €15 billion and were obliged to limit their annual expenditure increases (e.g., to just 1 per cent on average for 2003 and 2004).[3] Nonetheless, they did not manage to return to sound budgetary positions and filed lawsuits for further financial assistance. In addition, the state government of Berlin also called for help to overcome a situation it considered to be a case of extreme budgetary hardship (following a judgment by the Berlin state constitutional court offering additional borrowing possibilities in such a case).[4] However, in 2006, the German constitutional court decided that help for Berlin was not necessary because such assistance can only be claimed if all possibilities to improve revenue have been used and expenditure levels have been restricted to the level considered strictly obligatory under Federal law and other binding commitments.[5] As most other state governments also faced severe budgetary pressure in the first years of the 21st century,[6] they acknowledged that a comprehensive change of their fiscal policies was necessary to avoid unsustainable debt growth and further cases of states claiming help due to extreme budgetary hardship. All in all, strict borrowing rules were considered to bring about the exterior pressure needed to enable politicians to eliminate deficits from the budgets.

2 The main elements of the German debt brake

The main elements of the new fiscal rules were agreed by a commission of 16 Bundestag members and one member of each state government – in most cases the prime minister. Discussions were held for about two years starting in 2007. The time was considered suitable for

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[2]   See German Constitutional Court, 2BvF 1/04 from 9 July 2007, Sections 133-135, available in German only.

[3]   See Bericht des Saarlands zur Sanierung des Landeshaushalts – Sanierungsbericht 2004, p. 9-10.

[4]   See Berlin state constitutional court, VerfGH 125/02, Section D.III, available in German only.

[5]   See German constitutional court, 2BvF 3/03 from 19 October 2006, available in German only.

[6]   See Deutsche Bundesbank (2006), "State Government Finances in Germany", monthly report, July, pp. 29-50.

changing budgetary rules as a coalition of the two largest German parties formed the central government in the legislative period from autumn 2005 to autumn 2009. They had a 2/3 majority of Bundestag members and were also in a position to organise the majorities in the Bundesrat that were needed to change the Basic Law. Furthermore, following the impressive deficit reduction from 2006 onwards, many politicians believed that avoiding borrowing in the future should not be too challenging.

While the Council of Economic Experts had favoured a net investment-based borrowing limit,[7] politicians decided to follow an "at least close-to-balance approach" as already prescribed over the medium term by the European Stability and Growth Pact. Keeping in mind that a structural general government deficit ratio of about 0.5 per cent was considered to be in line with European rules, central government – in line with its share in general government debt and its financial responsibility share in the event of European sanctions due to persisting excessive deficits – claimed a structural borrowing limit of about 2/3 of this amount. However, dividing up the remaining amount among the sixteen states would have created significant problems. A zero borrowing limit was ultimately agreed. Some relatively strictly defined exceptions are foreseen under the condition of a redemption plan for incurred additional debt. As it was obvious that the deficits expected in early 2009, partly due to measures aimed at overcoming the effects of the financial crisis, would not be eliminated in the near future, transitional periods were agreed. While the years up to 2016 were considered sufficient for central government, prior to the final outbreak of the crisis state governments had already claimed the period up to 2020 to give those states with high structural deficits enough time to balance their budgets. Transitional auxiliary payments for five states with high deficits or debt levels were agreed under the condition of a gradual reduction of structural deficits in the transitional period. In order to closely monitor the agreed deficit reduction and also to prevent new cases of extreme budgetary hardship, a stability council was founded.

For central government, the commission also developed the main rules for the use of the debt brake, which were passed as the new article 115 of the Basic Law and the Law to Execute Article 115 of the Basic Law. For state governments, a balanced budget rule is prescribed in article 109 of the Basic Law. It will become effective in 2020 without further state parliament action. However, the relevant details (and the limited set of exceptions) have to be defined by state (constitutional) legislation.

3   The details of the debt brake for the Federal government budget

3.1   *Constitutional and legal framework*

The new borrowing limit for central government budgets clearly refers to the European Stability and Growth Pact.[8] The draft law to introduce the constitutional debt brake stresses the intentions of the reform. By setting an at least close-to-balance budget in structural terms as an upper limit, the reform aims to stop the upward trend of the Maastricht debt ratio in particular. As a consequence, several changes to the traditional concept were introduced.

To begin with, the borrowing limit had to be defined precisely. In order to come close to the deficit relevant for the preventive part of the Stability and Growth Pact, a cyclical adjustment procedure was introduced. The Basic Law stresses the importance of symmetry of the procedure during upturns and downturns to prevent an increase in the debt level. An accumulation of

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[7]   See Council of Economic Experts (2007), "Effectively Limiting Government Indebtedness", March, available in German only.

[8]   See Bundestag Document No. 16/12410, e.g., pp. 1 and 5.

"cyclical" debt would have to be expected if the procedure were to detect more severe or longer recession periods than years with output levels above potential. Section 5 (4) of the Law to Execute Article 115 of the Basic Law also contains an indication that the methods used by the European Commission should be followed. Furthermore, the cyclical adjustment procedure is also to be adjusted to reflect scientific progress. The legal definition of the cyclical effect is the output gap multiplied by the budget sensitivity of the central government budget. More detailed prescriptions on how to calculate this effect were laid down in a regulation by the German Ministry of Finance in consultation with the Ministry of Economics and was published in summer 2010. According to the regulation, output gaps have to be calculated in line with the EU Commission procedure when the budget is drafted and finalised. In later steps, a simplified approach is envisaged. Differences between expected and actual GDP growth are considered to be entirely cyclical. According to Section 7 of the Law to Execute Article 115 of the Basic Law, revisions of the cyclical component will be stopped by 1 September of the year after the budget is implemented.

In addition, financial transactions are not included in the borrowing limits. While central government budgets have, in the past, often contained significant amounts of sales of financial assets[9] – in order to limit borrowing and not to exceed the former borrowing limit – such transactions can no longer be used for this purpose. On the other hand, the acquisition of such assets is not limited by the debt brake. As granting loans and acquiring shares are also excluded from the Maastricht deficit, this procedure could be considered to be straightforward.

Furthermore, the borrowing rules no longer apply only for the drafting period but also for the implementation stage, too. This was deemed necessary, since problems might occur if cyclical conditions prove to be better than expected or net borrowing requirements for financial transactions are lower than budgeted. If a government nevertheless uses the full amount of borrowing entitlements given in the budget and possibly also inherited borrowing entitlements from the previous year, constitutional structural limits could be exceeded. Consequently, a control account was identified as being needed. On this account, the difference between the constitutional borrowing limit – adjusted for actual net financial transactions as well as the actual cyclical effect – and the actual net borrowing in a budget has to be booked every year. If a debt threshold of 1 per cent of GDP is surpassed on this account and the government expects cyclical burdens to decrease, borrowing has to be restricted below the constitutional limit by an amount of up to 0.35 per cent of GDP (Section 7 (4) of the Law to Execute Article 115 of the Basic Law) to prevent a permanent increase of burdens on that account. Under this restrictive framework concerning results, borrowing limits for supplementary budgets were made less challenging to avoid urgent needs for sizeable short-term consolidation measures. Section 8 of the Law to Execute Article 115 of the Basic Law consequently allows additional borrowing for such budgets of up to 3 per cent of estimated tax revenue above the constitutional limit provided that no additional deficit-increasing measures are implemented.

Moreover, reflecting that the Maastricht deficit also includes government entities beyond the core budgets, the general exception from borrowing limits granted for special funds was abandoned. According to article 143d of the Basic Law, which stipulates rules for the introduction of the debt brake, from 2011 onwards – also defined as the first year of application of the debt brake for the central government budget – no additional special funds may be founded or given entitlements to borrow. Only those special funds that had been given borrowing entitlements before the end of 2010 may still use them up to the expiration date.

Furthermore, article 143d of the Basic Law contains the clause that the reduction of structural deficits – expected to rise up to 2010 – should begin in 2011. A postponement of consolidation measures was not definitively ruled out due to concerns about a possible need for

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[9]   From 1995 to 2010 receipts of €140 billion were recorded – in addition to total borrowing of about €470 billion.

further government stimuli in order to return to macroeconomic growth after the crisis.[10] However, the Law to Execute Article 115 of the Basic Law (which could be amended by a Bundestag majority if needed in the event of a longer severe crisis phase) goes further and stipulates that the structural borrowing limits of the central government budget are to be reduced in equal steps, starting in 2011, from the level reached in the budgetary year 2010 (Section 9 (2)).

Finally, according to article 109 of the Basic Law, exceptions from the debt brake are only envisaged in the event of natural disasters or outstanding emergencies beyond government control (meaning that the government and the legislation are not in charge of the situation) and if budgetary effects are sizeable. According to the draft law to change the constitutional borrowing rules, the traditional justification for exceptional borrowing to avert a disruption of the macroeconomic equilibrium does not qualify for the new clause. Even more importantly, exceeding the constitutional borrowing limit will only be allowed if a concept is approved on how to repay the additional debt incurred. The incentive to use the exception clause should consequently be much lower than under the preceding borrowing rules.

In summary, the clearly announced intention to limit the growth of central government debt levels was underpinned by a series of relatively detailed constitutional and legal rules which intended to close the main loopholes of the old constitutional borrowing limits. Only time will tell whether these efforts are really sufficient. The first months of the implementation stage, however, show that continuous vigilance is necessary to avoid recourse to – almost unavoidable – loopholes.

3.2   Implementation of the framework: possible loopholes and actual problems

As the first application of the debt brake was for the 2011 budget, the actual implementation for central government budgets was due after the general elections in autumn 2009. Voters changed the majorities by adding much weight to the Free Democratic Party (FDP), which had stressed its firm intention to cut levies, especially income taxes. Hence a coalition agreement between the Christian Democrats and this party was signed promising further tax cuts of €24 billion (about 1 per cent of GDP). After additional smaller steps in 2010, major tax relief was envisaged – if possible – for 2011 or later in the legislative period (up to 2013). However, all additional measures were only promised on the condition that they could be refinanced within the budget already burdened by a high structural deficit. It was also declared that the rules of the new debt brake would be respected.[11] It therefore seemed at least useful for the new government to find loopholes in order to finance the promised tax relief measures.

The first attempt was already mentioned in the coalition agreement. The parties proposed the creation of a *special fund* to finance transfers to compensate crisis-related deficits of the Federal Employment Agency and possibly also revenue shortfalls of the statutory health insurance scheme (page 24 of the agreement). By creating the fund before the old exception for borrowing by such bodies had expired, sizeable transfers could have been financed for a number of years without being subject to the new borrowing rules. However, the public response was strictly negative. Such very obvious recourse to loopholes in the highly appreciated debt brake could not be explained credibly. Hence, the idea of creating a big special fund to provide – interim – relief for the core budget was dropped at an early stage.

However, one year later, a new special fund responsible for stability within the financial sector has been created. In October 2008, at the peak of the banking crisis, SoFFin was established

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[10]   See Bundestag Document No. 16/12410, pp. 13-14.

[11]   See "Growth. Education. Unity. The coalition agreement between the CDU, CSU and FDP for the 17th legislative period", available at: http://www.cdu.de

as a special fund to stabilise monetary financial institutions for a limited period. New measures could only be taken up to the end of 2010. While borrowing entitlements, mainly for recapitalisations, amounted to up to €80 billion, actual borrowing requirements only reached about 1/3 of this amount by the end of 2010. The successor fund is primarily to be financed via a bank levy. As regular annual revenue was expected to reach about €1.3 billion only, the idea of "inheriting" borrowing entitlements from SoFFin was proposed. In order to fulfil the requirements of the debt brake, the new special fund had to be created before the start of 2011 and the inheritance of borrowing entitlements had to take place just before the actual end of the SoFFin assistance measures. Unlike the above mentioned intentions to create additional borrowing facilities in late 2009, the actual transfer of borrowing entitlements of €20 billion did not cause any political problems. While this transfer was obviously designed to circumvent the veto on borrowing by new special funds, the transaction ultimately does not give any additional room for budgetary manoeuvre. A possible extension of the SoFFin assistance period could have led to even higher borrowing. Furthermore, as the borrowing entitlements of the new fund are to be used for capital injections to stabilise the financial sector, acquiring equity through the central government budget instead would not be limited under the debt brake if the measures can be considered to be financial transactions.

A further issue for concern is the *borrowing limit during the transitional period* from 2011 to the end of 2015. The Law to Execute Article 115 of the Basic Law states that the limit is formed by the structural deficit of the 2010 budgetary year being reduced in six even steps in each of the following years, leading to the permanent limit of 0.35 per cent of GDP in 2016. Two main questions arose concerning the starting level for the structural borrowing ceiling in 2011.

The first issue not explicitly addressed in the legal rules was *how to proceed with one-offs* in the reference year 2010. The new coalition partners agreed that no adjustment was to be made. Consequently, by budgeting high one-off burdens in 2010, structural borrowing limits in the following years up to 2015 could be increased. Consequently, instead of providing a loan to finance the expected very high deficit of the unemployment insurance scheme (Federal Employment Agency) – as legally prescribed since 2007 and considered to be exempt from the structural deficit under the debt brake rule as a financial transaction – the government decided to make a transfer for this purpose just for 2010. Furthermore, a one-off transfer to the statutory health insurance scheme to provide compensation for crisis-related revenue shortfalls was budgeted. As labour market developments turned out to be not as bad as expected, the estimated transfer to the Federal Employment Agency was revised downwards from €16 billion in December 2009 to €12½ billion when finalising the 2010 budget in the Bundestag in March 2010. Together with the additional transfer to the health insurance scheme, estimates of about €16½ billion were budgeted for one-off burdens. Adjusted for the cyclical component in the transfer to the Federal Employment Agency, the one-off structural deficit increase in the reference year would have been about €10 billion (0.4 per cent of GDP), leaving short-term scope for parts of the tax cuts promised in the coalition agreement or the postponement of ultimately necessary, but unpleasant consolidation measures.

The second issue was *when to define the reference value* prescribed by law as the "structural deficit in the 2010 budget year". The necessity to draft budgets and medium-term financial plans on the basis of reliable assumptions was stressed by the Federal Ministry of Finance. Hence, it was announced that the budget estimates for 2010 would be used to calculate the reference value.[12] However, there seemed to be an even more important factor. As budgetary developments were much better than to be expected under the improved macroeconomic conditions – mainly owing to positive tax revenue surprises, labour market-related expenditure shortfalls, €4.3 billion in one-off relief from an auction of mobile phone licences and declining interest expenditure – using the

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[12] See the statement by parliamentary state secretary Steffen Kampeter, Bundestag Document No. 17/494, pp. 14-15.

budget estimates instead of the final result or a best interim guess leads to a much higher reference value for the structural deficit and higher borrowing limits in the transitional period.

All in all, the 2010 budget law granted borrowing entitlements of €80.2 billion. After deducting cyclical components and net effects of financial transactions, an amount of €66.7 billion was classified as the structural component. Taking into account the structural part of the upward revision of the official tax forecast from May 2010 and the revenue from the mobile phone licence auction also concluded in that month combined with the positive surprises from German labour market developments and from the interest conditions for German bonds, it could be expected in June that the actual deficit would probably be about €60 billion and the structural component still about €10 billion lower. Neglecting the positive developments would have enabled the Federal government to draft a budget for 2011 showing an increase in the structural deficit and total borrowing entitlements compared with the results for 2010 that were expected in June.

In order to avoid a scenario with a deficit increase, which was too obviously not in line with the intentions of the debt brake, the Federal Ministry of Finance decided to adjust the starting point for the structural deficit limits notably by assuming a 2010 result for the total borrowing requirement of €65 billion and a structural component of €53 billion.[13] Based on these figures, central government agreed a consolidation package on 7 June 2010. On 7 July, the draft budget for 2011 was approved by the cabinet. The borrowing entitlement amounted to €57.5 billion, the structural component – excluding, in particular, a loan of €6.6 billion to balance the deficit of the Federal Employment Agency – was calculated to be about €46 billion and hence just fulfilled the limit for 2011 derived from the Ministry's own (cautious) 2010 estimate.

However, positive surprises continued to occur up to the end of 2010. When making final parliamentary adjustments to the 2011 draft budget after the new official November tax revenue forecast, the government conceded that the actual borrowing requirement in 2010 would be only about €50 billion. However, no figures for the structural component were mentioned. According to rough estimates, a size of about €40 billion seemed plausible. To avoid an increase in the 2011 borrowing entitlements compared with the expectations for 2010, the figures for 2011 were adjusted mainly for the increase in tax revenue estimates. However, further adjustments, mainly regarding lower interest or labour market-related expenditure, remained strictly limited. Hence sizeable buffers remained in the budget estimates. Total borrowing entitlements were reduced to slightly above €48 billion, while the structural component was declared to be €41 billion. The borrowing limit, however, had not been adjusted to the new 2010 forecasts. Hence, a safety margin of almost €5 billion between the borrowing entitlement and its constitutional limit was claimed to exist – created mainly by the base effect of a more favourable outcome for 2010.

By mid-January, official figures for the 2010 budget had been published. Total net borrowing amounted to just €44 billion. However, figures for the cyclical impact as well as for the net effects of financial transactions were not published by that time. According to preliminary approximate calculations by the Bundesbank, the structural component should be about €38 billion instead of the amount of €53.2 billion estimated in June 2010. Not adjusting the starting point for the constitutional borrowing limits for the transitional period is hence a clear and quantitatively highly significant contravention of the intentions of the debt brake. Assuming that most factors contributing to this improvement cannot be considered to be "one-offs", there would be no need to reduce the structural deficit until 2013 by additional measures in order to keep borrowing in line with the adjusted limit for the transition period. While analyses from the most important economic research institutes and from the German Council of Economic Experts reached the conclusion that 2011 offers very good conditions for consolidation measures,[14] central government's interpretation

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[13]   See Federal Ministry of Finance press release: "Debt Rule Compels Us to Consolidate", 6 July 2010.

[14]   See Gemeinschaftsdiagnose Autumn 2010, p. 47, and Council of Economic Experts (2010), p. 11.

Figure 3

**Minimum Adjustment Path
for the Structural Federal Government Budget Deficit**
(billion euros)
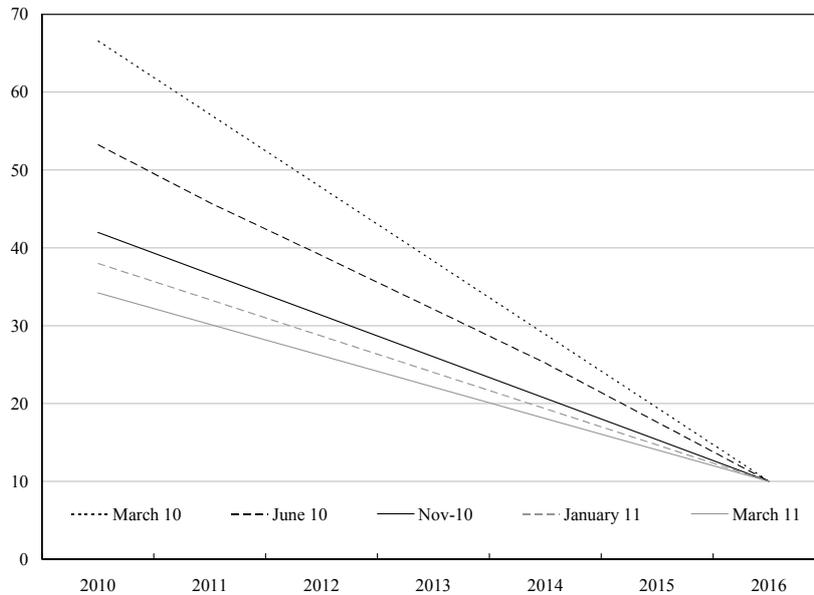
March and June 2010 data from Budget Law rsp. Federal Ministry of Finance, later data partly based on own estimates for cyclical effects and financial transactions.

of the debt brake signals no necessity to do so. Adjusting the starting point for the borrowing limits in the transitional period is essential to preserve the credibility of the debt brake. Otherwise, the deficit in the 2011 budget – the first year under the debt brake – would be allowed to rise again substantially, even in structural terms.[15] If the consolidation of the 2011 budget is nevertheless continued as announced, the room for possible deficit increases in the next few years will remain significant and pressures, e.g., to lower tax rates despite still high structural deficits may become hard to resist. In general, it is very important to make use of the current opportunity of good cyclical conditions to bring down structural deficits by more than the prescribed minimum amounts – not least in order to be in a better position in case macroeconomic growth perspectives take an unexpected turn for the worse in the future. If the minimum target is not set at a sufficiently ambitious level now, there is a danger of repeating a major mistake from past years when necessary consolidation measures were postponed during good times.[16]

The fact that the government has used a misinterpretation of the wording of the debt brake rules becomes even more evident under the assumption that the 2010 budgetary development would have brought about sizeable negative surprises from June onwards. If the starting point for the structural deficit had been fixed in June and the expected outcome after the official tax forecast in November had been, e.g., €10 billion higher owing to lower tax revenue, there would have been an urgent need to fully compensate this amount in 2011 on top of the graduated consolidation measures agreed upon in June 2010, as the budget for 2011 would have had to respect the borrowing limit derived from the June estimates. Such pressure would have been against the spirit of the transitional rule for the debt brake and could have led to its failure during the first year.

The importance of the 2010 reference value can be seen in the chart below. Sticking to the structural deficit figure estimated in June 2010 leads to a difference of €15 billion for the structural

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[15] The biggest opposition party in the Bundestag proposed passing a law prescribing corrections for the structural borrowing limits in the transitional period by using the 2010 results as the starting point. See Bundestag Document No. 17/4666 dated 8 February 2011. However, a majority of Bundestag votes rejected the proposal. See Bundestag Protocol No. 17/117 (30 June 2011), p. 13486.

[16] See also Deutsche Bundesbank (2010), "Overview", monthly report, November, p. 10.

borrowing limit in 2011, if March 2011 figures (derived by using the new cyclical adjustment procedure agreed upon for the European Union budgetary surveillance procedure currently used for the German debt brake) are taken as a benchmark. Up to 2016, the difference would accumulate to almost €50 billion for the stock of Federal government debt.[17]

Besides the issues surrounding special funds and the starting point, the treatment of *financial transactions* might prove to endanger the success of the debt brake. While excluding sales of financial assets from the deficit rule closes an important gap in the old constitutional borrowing limit, the general exemption for the acquisition of such assets could open another loophole. After paying a transfer to finance the deficit of the Federal Employment Agency in 2010, central government budgeted a €5.4 billion loan for 2011. However, the good performance of the German labour market in 2010 may mean that only a much smaller amount will be needed. The medium-term financial plan from 2010 to 2014 had already envisaged repayments from 2013 onwards. Given the better-than-expected performance, continuously accumulating loans no longer seemed to pose a threat. As a consequence, politicians soon came up with the idea of diverting funds. The German constitutional court had judged that a reform of the benefits for the long-term unemployed was necessary. As approval from the Bundesrat was required (and the central government parties had lost the majority of votes in the second chamber), a package was bundled to obtain approval. As local governments had run up high deficits during the crisis and improvements were hard to achieve, the central government offered to take on their burdens of about €4 billion for social benefits for the basic needs of the elderly and persons with disabilities affecting their capability to work. State governments co-responsible for the finances of their local authorities hence were under pressure to approve the reform package. Ultimately, with only small adjustments to the benefits for the long-term unemployed, the reform passed the two legislative chambers. As the central government budget still suffers from high structural deficits and the borrowing limits of the debt brake have to be respected, recourse was made to the regular transfers to the Federal Employment Agency. Since 2007, revenue from 1 percentage point of the increase in the general VAT rate has been forwarded to the Federal Employment Agency, which, in turn, has lowered contribution rates by 1 additional percentage point. From 2012 onwards, this transfer will be lowered in three steps. From 2015 onwards, an annual amount of €4 billion will be diverted to the aforementioned local authority relief measure. Hence, a trend towards growing stocks of central government loans to finance deficits of the Federal Employment Agency can no longer be ruled out.[18] By practically shifting burdens to the agency (while still offering central government loans to balance deficits), a possible loophole of the debt brake was already used in the first months of the new rule being applied.

A crucial question will then be how to proceed if the loans given to finance deficits reach a level that makes repayment obviously implausible. If a *debt release* takes place for the benefit of the Federal Employment Agency, Federal government debt will remain without the corresponding financial assets. From a budgetary perspective, this might be no cause for concern, because no entitlements for payments are needed. But under the debt brake framework, this is obviously inappropriate. Article 109 (2) of the Basic Law postulates that the main goal is to balance the general government budget according to the European budgetary accounting rules laid down in the European System of National Accounts 1995. Under this framework, debt releases have to be booked as capital transfers. As these potentially very sizeable transactions increase the deficit, the use of such instruments has to be restricted under the debt brake rules. Hence, a debt release would

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[17]   See the Statement given by the Bundesbank at an expert hearing by the budget committee of the Bundestag on 21 March 2011 at www.bundestag.de, available in German only.

[18]   See Deutsche Bundesbank (2011), Public Finances, monthly report, May.

need to be recorded as a transaction that increases borrowing analogously for the debt brake.[19] Otherwise it would be possible to pay, e.g., individual social benefits as principally repayable loans and borrow as much as needed for such purposes. After a defined period without (sufficient) repayments, unlimited debt releases could take place, leaving high government debt without corresponding financial assets. This would be a clear breach of the intentions of the debt brake. If this is not stopped, there will be only very limited hope for the lasting success of the new rules.

Generally, strict rules to *clarify which payments may be classified as financial transactions* seem necessary. Given the principal goal pursuant to article 109 II of the Basic Law, the rules for the European budget supervision should be applicable. The above-mentioned loans to the Federal Employment Agency are given without interest claims and redemption dates. Hence, they would usually hardly qualify as a financial transaction. The same conclusion would have to be reached in the case of capital injections to enterprises that do not seem to be sufficiently profitable to pay an adequate return via profit distributions. For central government, capital injections have so far only played a minor role of less than €1 billion per year. The largest part is obviously paid as capital injections into multilateral development banks that mainly give concessional loans and hence can hardly be profitable. The government classified these payments as financial transactions until 2011, but obviously treats them as transfers in the 2012 draft budget. This new treatment seems appropriate and should be used in all similar cases in the future. Otherwise even regular transfers to prevent or compensate losses might qualify as financial transactions under the debt brake framework. The incentive for misclassification would then strongly endanger the effectiveness of the new borrowing limits. A more difficult question is how to treat calls on guarantees. Backed by the experience that calls on guarantees given for claims from exports typically lead to notable repayments in later years, central government considers such calls to be financial transactions as well as received corresponding repayments. When expecting a continuation of high repayments, this treatment seems adequate. By contrast, calls on guarantees given for transactions within Germany increase structural deficits.[20] However, within the regular reporting framework for 2010,[21] no budgetary figures were published showing a breakdown of calls on guarantees within Germany and those abroad. Hence, there was at least a lack of transparency regarding the actual structural deficit 2010.

In principle, the *cyclical adjustment* of deficits within the framework of fiscal rules is an accepted procedure. However, it is necessary to respect some basic principles. The debt brake for the central government budget encompassed the concept of symmetry as a constitutionally fixed condition. Following the wording of article 109 of the Basic Law, symmetry could be understood as using the same procedures in upturns and downturns. The explanations in the draft law to establish the constitutional reform, however, make it clear that the intention is to prevent a structural increase in nominal debt levels due to effects labelled as cyclical. The Law to Execute Article 115 of the Basic Law also rules that the details of the adjustment procedure have to be fixed by a regulation from the Ministry of Finance (with the agreement of the Ministry of Economics) in accordance with the rules used for the European budgetary surveillance procedure. This reference to an institution considered competent and neutral seemed at that time helpful to prevent politicians from fine-tuning procedural details in order to achieve cyclical components that are compatible with the intended fiscal policy. Furthermore, the principles of transparency and simplicity should be taken into account. Although there was no legal prescription to publish the code of the cyclical

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[19] See the Statement given by the Bundesbank at an expert hearing by the budget committee of the Bundestag on 21 March 2011 at www.bundestag.de, available in German only.

[20] See Kompendium zur Verschuldungsregel des Bundes gemäß Artikel 115 Grundgesetz, pp. 11-12.

[21] Adjusted figures for financial transactions were only given after an inquiry by a member of the Bundestag. See Bundestag Document 17/4987, p. 12, available in German only.

adjustment programme or the data used, central government provided experts with detailed explanations.

Meanwhile, the *cyclical adjustment procedure* used for European budgetary surveillance was *changed considerably*.[22] While the new concept is said to produce less sizeable data revisions for individual years, the pattern of calculated cyclical effects has changed markedly. Compared with the preceding adjustment procedure, cyclical effects in the past tended to be more positive or less negative, while the results for the most recent years show less positive or more negative cyclical impacts. While long-term symmetry still seems to be given, higher cyclical burdens during the crisis and the following recovery period justify higher borrowing even in coming years. When deciding headline figures for the 2012 draft budget in March 2011, central government assumed a cyclical component of –2.9 billion, whereas a comparable estimate with a standard filter (HP-ilter, lambda 100) delivered a slightly positive cyclical component.[23] If the change in the adjustment procedure is fully based on scientific progress, this may be no reason for concern.

However, given the special rules for the central government borrowing limit in the transitional period before 2016, the cyclical component for deriving the structural deficit for 2010 as the starting point would have to be recalculated with the new cyclical adjustment procedure. The consequence would be a notably lower structural borrowing limit, especially in the first years of the transitional period. By changing to the revised cyclical adjustment procedure and not redefining the borrowing limits, central government is using another loophole, securing some margins that might be used to fill up the control account (with the option of strategically distorting budget estimates in the future if needed to circumvent consolidation measures) or in order to limit short-term consolidation efforts or to fulfil tax relief promises made for the current legislative period. Each of these options would be in clear contrast to the intentions of the debt brake. However, it seems questionable whether this can still be stopped.

Another possible problem concerning cyclical adjustment is the question of *when and how to calculate the cyclical effects ex post*. While safeguarding symmetry would, in principle, also require an adjustment of the effects recognised for former years, probably numerous sizeable revisions of the total stock recorded on the control account could lead to some general distrust concerning any results. Hence, stopping adjustments for every single year after a limited time span would seem to be useful if systematic breaches of the symmetry principle can be avoided. Section 7 of the Law to Execute Article 115 of the Basic Law stipulates that the final entry for a budgetary year has to be made on 1 September of the following year. Furthermore, the regulation on execution details of article 115 of the Basic Law rules that after passing the main budget law no adjustments are to be made with regard to estimates of trend growth: differences between predicted and actual GDP growth have to be considered entirely cyclical. While the rules did not define whether real or nominal growth has to be considered, the Ministry of Finance obviously decided to base its calculations on nominal rates,[24] which are in fact more important for tax revenue developments. Having a final deadline for entry adjustments on the control account and simplifying *ex post* calculations of cyclical impacts on the budget really simplify the application of the new borrowing rules. However, problems regarding the constitutional symmetry condition for cyclical effects will occur if trend GDP growth continues to decline as it did over the past few decades or is just overestimated when drafting the budgets. If this occurs, misestimates of trend growth will be labelled as cyclical once a budget has passed the legislative process. To limit corresponding debt

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[22]   For information on the interconnection with the German debt brake, see Deutsche Bundesbank (2011), "Requirements Regarding the Cyclical Adjustment Procedure Under the New Debt Rule", monthly report, January, pp. 55-60.

[23]   The Bundesbank Spring 2011 forecast also envisages a positive output gap for 2012. See Deutsche Bundesbank (2011), "Outlook for the German Economy – Macroeconomic Projections for 2011 and 2012", monthly report, June, pp. 13-26.

[24]   See Baumann, E. and J. Schneider (2010): "Die neue Regel des Bundes", in C. Kastrop, G. Meister-Scheufelen and M. Sudhof (eds.), *Die neuen Schuldenregeln im Grundgesetz*, Berlin, pp. 109-110.

increases, it would also be useful to introduce a control account for cyclical effects. While no limit on its stock is needed, it seems useful to prescribe that after a full cycle the stock may not increase on its level at the start of the cycle. If this condition is not fulfilled, the respective debt growth should have to be compensated by lowering the structural borrowing limit over the next few years.

A further loophole might be found in the use of *public private partnerships* (PPPs). By giving orders to build and operate infrastructure projects, budgetary burdens can be postponed under the framework of cash-based accounting systems run by central government and also by most state governments. Instead of budgeting investment expenditure and borrowing to finance it right from the start of a project, when choosing a PPP only smaller payments in later years have to be budgeted. Hence, borrowing limits could be formally respected without reducing long-term budgetary burdens in a comparable way. Paying for a PPP might be considered to be indirectly paying interest and redemption for incurred debt. From a purely legal point of view, this does not seem to be a problem, as constitutional borrowing limits are usually understood as rules governing immediate borrowing only.[25] However, the objective of article 109 II of the Basic Law to achieve an at least close-to-balance general government budget seems to necessitate a different approach. According to the European accounting rules, PPPs have to be recorded as government investment if certain main risks are not transferred to the private partner. In Germany, the necessary degree of risk transfer to avoid investment expenditure entries in the government accounts does not seem to be achieved in most cases. Hence, PPPs will have an immediate impact on the Maastricht deficit. Not including PPPs in the borrowing rule would then make it impossible to ensure that the above-mentioned overriding objective of the debt brake laid down in article 109 II of the Basic Law is achieved. However, it cannot be ruled out that the legalist view may be followed. As a consequence, it would seem useful to explicitly include transactions similar to taking up a loan in the structural borrowing limit.

Although the above-mentioned possible loopholes could already endanger the debt limitation intended by the reform of the borrowing rule, there is a further problem that might prove to be very severe. While additional borrowing entitlements are available for supplementary budgets, and higher-than-expected deficits during the execution of the budget may be financed via recourse to borrowing entitlements inherited from the previous budget, the budget for the next year has to fulfil the structural borrowing limit set by the debt brake. As deficit problems in the German central government budget were often caused by tax shortfalls which went beyond the amounts that could be classified cyclical, they could not be reverted easily. During the protracted phase of low GDP growth from 2001 to 2004, even additional substantial structural tax shortfalls were noticed in every year. If the debt brake had been implemented before that time and no *safety margin* had been established between the structural borrowing limit and the actual structural deficit, a series of very sizeable consolidation measures would have become necessary despite real and nominal GDP growth rates that were (almost) close to zero (instead of the former common recourse to sales of financial assets or the exemption clause "averting a disturbance of the macroeconomic equilibrium"). Sizeable consolidation measures might have even aggravated the poor performance of the German economy during that phase. This could have strongly endangered the acceptance of the strict borrowing rule. As a consequence, sufficient safety margins between constitutional limits and budgetary plans or smooth adjustment path rules should be implemented.[26] However, no such elements are explicitly included in the central government debt brake. A useful instrument would be an obligation in the budget regulations law for central government to strive for a slight structural

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[25] See Tappe (2010), "Haushaltsrechtliche Umsetzung der Artikel 109 und Artikel 115 GG n.F. in Bund und Ländern", in C. Kastrop, G. Meister-Scheufelen and M. Sudhof (eds.), *Die neuen Schuldenregeln im Grundgesetz*, Berlin, p. 435.

[26] For information on the necessity of safety margins, see also Deutsche Bundesbank (2009), "The Reform of the Borrowing Limits for Central and State Government", monthly report, May, pp. 78-79, and Kremer, J. and D. Stegarescu (2009), "Neue Schuldenregeln: Sicherheitsabstand für eine stetige Finanzpolitik", *Wirtschaftsdienst*, Vol. 89/9, pp. 630 and the followings.

surplus. If this target is missed, gradual adjustments during the medium-term financial planning period could be a useful setting to prevent fiscal policy from being obliged to almost immediately take sizeable consolidation measures. The safety margin might also be used for active countercyclical policy in very bad times. Given that no redemptions are necessary in that case, stabilisation success might be easier to achieve than by using the exception clause. In order to prevent abuse of the growing bonus amounts booked on the control account due to the safety margins, it might be helpful to also introduce an upper limit of 1½ per cent of GDP. Higher amounts would not be recorded then. Notwithstanding, reaching this level should not be considered a signal to change fiscal policy to, e.g., tax relief measures, at least as long as debt levels are still above the European reference value.

4   Implementation of the debt brake at state level

Whereas the legal details of the central government debt brake had been laid down together with the reform of article 109 of the Basic Law in summer 2009, overall progress at state government level is far more moderate. Without amendments in the state constitutions, a balanced budget rule without any exceptions at all will be applicable for state government budgets from 2020 onwards. As also mentioned above, the long transitional period was agreed to give sufficient adjustment time for the states that had high structural deficits even before the outbreak of the major crisis in the course of 2008 (mainly Bremen, Saarland and, to a far lesser extent, Schleswig-Holstein). From 2011 to 2019, these states plus two heavily indebted ones (Berlin and Saxony-Anhalt) will be granted annual transitional aid of €0.8 billion in total, financed by the Federal and each of the state budgets. As a gradual reduction of structural deficits was prescribed as a precondition for actual aid payments, these states should feel compelled to make early adjustments, whereas the other ones are just vaguely obliged by article 143d of the Basic Law to avoid a fiscal situation that might make a balanced budget in 2020 impossible. However, there seems to be a lot of scope for different interpretations about what was actually agreed in 2009.

A first and very important question refers to the definition of the ban on (structural) borrowing for state budgets. Legal experts tend to follow the traditional definition of borrowing. According to this approach, only the issuance of all types of bonds or financing by taking up loans is prohibited. Consequently, transactions as sale-and-lease-backs or PPPs would not be limited directly.[27] As at central government level, this does not seem to reflect the wording of 09 2) of the Basic Law or the intentions of the debt brake. Besides limiting the increase in future budgetary burdens, caused in particular by growing outstanding debt, a clear commitment to the rules of the European Stability and Growth Pact was given. This means that at least close-to-balance budgets have to be ensured. As European rules treat typical German PPPs in a different way than national budgetary practice, the overriding goal of avoiding breaches of European obligations should be given priority over the traditional view of legal experts. Hence, the budgetary data should be corrected if European rules lead to a different classification. As a by-product, future budgetary burdens as a result of present decisions would be limited much more effectively.

In addition, the traditional view might lead to the conclusion that the ban on structural borrowing would only apply for the core budgets. From this point of view, borrowing limits would only bind the legal person immediately addressed. *Entities beyond the core budgets* would then have constitutionally unlimited recourse to financing by loans. However, article 143d (1) of the Basic Law governing the introduction of the debt brake already casts doubts on such reasoning. It is stipulated that from 2011 onwards, special funds may only use those credit entitlements granted

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[27]   See Tappe (2010), "Haushaltsrechtliche Umsetzung der Artikel 109 und Artikel 115 GG n.F. in Bund und Ländern", in C. Kastrop, G. Meister-Scheufelen and M. Sudhof (eds.), *Die neuen Schuldenregeln im Grundgesetz*, Berlin, p. 435.

up to the end of 2010.[28] While no explicit reference is made in this section, the background documentation as well as the difference concerning the date of entry into force seem to indicate that the focus was only on central government special funds.[29] Once again, a look at the rules for European budgetary surveillance proves helpful. As their focus is on general government, all entities to be classified within the government sector would have to be included. Consequently, not only the core budgets of the states would have to be (structurally) balanced, but also their special funds and those among their institutions that do not have sufficient autonomy in their main business or cannot be considered market producers. Furthermore, the Basic Law only distinguishes two levels of government (see article 106 of the Basic Law). Hence, deficits at local government level would have to be interpreted as state government deficits,[30] although background parts of the draft law to introduce the constitutional debt brake state that such an inclusion of local government would be impossible due to insufficient timely information. However, local governments usually already have to adhere to very strict budget rules forcing them, ultimately, to avoid structural deficits over a longer period. Hence, the question of including local government deficits in state borrowing does not need as much attention as the issue of outsourcing deficits to special funds and state enterprises.

There seems to be uncertainty over whether state governments also have to establish *control accounts* recording differences between the constitutional borrowing limit and the actual level *ex post* and whether to make adjustments for financial transactions. Article 109 (3) of the Basic Law does not give any indications on this matter. For central government, these elements were introduced on the basis of article 115 of the Basic Law, which is announced as just specifying details regarding the principle rules in article 109 of the Basic Law. As the prescription of an at least balanced budget in structural terms must include the results, *ex post* control via control accounts seems to be necessary for state government budgets, too. Given the reference to European budgetary obligations, adjustments for purely financial transactions also seem to be intended for state government budgets. At least for those states receiving transitional aid, reporting obligations were introduced that explicitly prescribe adjustment of budgetary figures for financial transactions and also encompass *ex post* controls (Section 2 of the law on granting consolidation assistance).

While state parliaments are explicitly allowed to include *cyclical adjustment* mechanisms in their debt brakes provided the symmetry condition is fulfilled (see article 109 (3) of the Basic Law), there seemed to be widespread objections to using the central government method. Concerns especially referred to the significant revisions of structural deficits that tend to occur when using established cyclical adjustment procedures. In addition, it is still questionable whether the state governments will agree on a single procedure for all of them. While comparability of data is desirable for analysts as well as taxpayers, state politicians might fear augmented control of their fiscal policy. Moreover, being able to fine tune the adjustment procedure may help to obtain politically desirable results. Meanwhile, agreements have been reached between the Federal Ministry of Finance and the five states nominated for transitional aid to use a procedure very similar to the one chosen by central government.[31] However, the procedure may be revised later and it cannot be concluded that the other states will follow suit.

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[28] This might be considered as also referring to state governments' special funds. See, for example, the statement by Reimer (p. 91) at an expert hearing concerning the introduction of a debt drake in the state constitution of Hesse (draft law: 18/2732) on 3 November 2010, in Stenografischer Bericht – öffentliche Anhörung –, available at: www.hessischer-landtag.de

[29] For arguments referring to the timing issue, see Tappe (2010), "Haushaltsrechtliche Umsetzung der Artikel 109 und Artikel 115 GG n.F. in Bund und Ländern", in C. Kastrop, G. Meister-Scheufelen and M. Sudhof (eds.), *Die neuen Schuldenregeln im Grundgesetz*, Berlin, p. 456.

[30] See Reimer (p. 90) at the expert hearing mentioned in footnote 29.

[31] See the respective administrative agreements, available at: www.stabilitaetsrat.de

Nonetheless, some states have already *introduced constitutional debt brakes* according to the new concept of the Basic Law. In May 2010, *Schleswig-Holstein* (just under 3 million inhabitants)[32] was the first state to pass a new constitutional borrowing limit after attempts in North Rhine-Westphalia and Thuringia failed due to the lack of the necessary high degree of parliamentary approval. Being forced to gradually reduce its structural deficit by 2020 in order to receive its annual transitional aid of €80 million (almost 1 per cent of the state budget), the minimum deficit adjustment path was also defined: each year the constitutional borrowing limit declines by 1/10 of the structural deficit level achieved in 2010. Compared with the old regular constitutional borrowing limit, this provides significant additional scope for deficits over the coming years. While the borrowing limit derived from estimated investment expenditure would be about €0.5 billion, the budget for 2011 and 2012 includes entitlements of €1.3 billion and €0.9 billion, respectively. Despite the constitutional reform, the state budget regulations law has so far not been adjusted. However, the administrative agreement with the Federal Ministry of Finance closes the gap by including the details of the consolidation process up to 2020 regarding cyclical adjustment, financial transactions, inclusion of entities beyond the core budget and borrowing limits to qualify for transitional aid payments. While the state constitution does not explicitly address the treatment of off-budget entities such as the unit founded in 2009 to supply the HSH Nordbank with necessary additional own funds (contribution of Schleswig-Holstein: €1.5 billion), the agreement excludes it. Other entities belonging to the government sector and being allowed to borrow are included in the borrowing limit under the agreement and hence cannot be used as a loophole. Furthermore, the constitutional reform prescribes a 2/3 majority approval by state parliament for using the exemption clause according to article 109 of the Basic Law to prevent abuse by the government parties.

The second state to change its constitutional borrowing limit was *Rhineland-Palatinate* (4 million inhabitants). As this state does not receive transitional aid, politicians felt no need to define a constitutional path for minimum consolidation up to 2020. Instead, the old borrowing limit will be applicable until the end of 2019.[33] Furthermore, in comparison with article 109 of the Basic Law, an additional exemption was introduced. Stressing the need for stable revenue development but being afraid of having a minority position in the Bundesrat, the state considers consequences of Federal laws on structural revenue (and expenditure) to have a similar status to natural disasters or major emergencies as they may have severe budgetary consequences and cannot be influenced by the government of Rhineland-Palatinate. During the transitional period up to the end of 2019, the state is free to define its constitutional borrowing limits. From 2020 onwards, the rules of the Basic Law will have to be complied with. It has to be considered at least questionable whether Bundesrat decisions will obtain the same classification as natural disasters in the case of complaints being submitted to the Federal constitutional court. However, with regard to the delineation of the debt brake, it is stressed that no structural deficits shall be outsourced to circumvent the constitutional borrowing limit. Rhineland-Palatinate had founded public enterprises to take over responsibilities from the core budget in the fields of road construction and real estate management in the first years of the 21st century. For European budget surveillance, these enterprises are to be included in the government sector. Hence, the inclusion of their borrowing[34] would follow the intentions of the national debt brake laid down in article 109 (2) of the Basic Law.

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[32] The number of inhabitants compared with the German total population of about 82 million is a good indicator for the specific state's share of total state government expenditure.

[33] The draft budget for 2011 referred to the need to avert a disturbance of the macroeconomic equilibrium and it cannot be ruled out that this clause might have to be used again for the next budget despite strong GDP growth and broadly normal capacity utilisation in 2011. Using a moderate negative output gap as a main indicator for such a disturbance appears to be problematic as such figures do not show severe imbalances.

[34] Article 117 III of the state constitution contains some conditions for borrowing by enterprises to be included in the debt brake framework. The respective enterprises have to perform governmental tasks and the debt service has to be financed from the core

(continues)

In *Hesse* (6 million inhabitants), the state parliament passed a law to adjust the constitutional borrowing limit which was approved by a very large majority of votes afterwards. The rule strictly follows article 109 (3) of the Basic Law. To give voters a better foundation for their decision, the main features of the future law to execute the state debt brake were also agreed by a very broad parliamentary majority and published. As the Federal government debt brake is used as a guideline, adjustments for financial transactions, a control account (limited to 15 per cent of average tax receipts) and additional borrowing options for supplementary budgets are envisaged. With regard to special funds and enterprises, however, the debt brake tends to remain rather vague. Borrowing will not be allowed for them unless a specific law entitles them to do so.[35] Upon request, it will be up to the Federal constitutional court to decide whether such laws can be considered to be in line with article 109 (2) of the Basic Law (primarily referring to European obligations concerning deficits). However, attempts to make laws that are not in line with European budgetary surveillance principles cannot be excluded.

In *Mecklenburg-Western Pomerania* (less than 2 million inhabitants) the state parliament also passed a debt brake for the state government budget with the necessary 2/3-majority of votes. The rule strictly follows the wording of Article 109 (3) of the Basic Law. While the draft law also included an explicit redemption duty for borrowing related to cyclical burdens, the final version sets this restriction only for exceptional borrowing in case of severe catastrophes and similar cases.

Some other states introduced *balanced budget rules in their state budget regulations law*. The first state to do so was *Bavaria* (12 million inhabitants) in 2000 starting with the budget for 2006. While principally prohibiting borrowing, exemptions can be made to respect the needs of macroeconomic equilibrium. If they are used, redemption duties do not exist. As Bavaria's politicians were very proud of the low level of their state government indebtedness, strong efforts were taken to meet the balanced budget provision. During the recent crisis, substantial reserves could be used. However, when the Bavarian Landesbank got into trouble in late 2008, a supplementary budget was passed with a borrowing entitlement of €10 billion (to be compared with regular total expenditure of about €40 billion). Possible conflicts with the Bavarian debt brake were resolved by a paragraph ruling that the legal borrowing rules need not be respected for this specific transaction. The protective power limit of state budget regulations law became apparent as even a budget law might adjust the rules of the budget regulations as an equivalent *lex posterior*.

Similar problems could be observed in *Baden-Württemberg* (almost 11 million inhabitants). This state introduced a debt brake in its state budget regulations law in 2008. Balanced budgets are prescribed in principle. Exemptions can be made to compensate cyclical effects or to avert a disruption of the macroeconomic equilibrium. Only in severe emergencies, natural disasters or decreases of tax revenue by at least 1 per cent is borrowing allowed and the level of state government indebtedness reached at the end of 2007 may be exceeded. However, a full redemption has to be accomplished within seven years. The exemption clause had to be used for the budgets of 2010 and 2011 that were passed together by the end of 2009. Meanwhile, tax revenue perspectives for 2011 look much better and the conditions for the exception clause seem to be met no longer. But without a supplementary budget updating these estimates, the use of the exception clause will still be in line with the debt brake rule as a tax revenue decline was budgeted and a redemption plan had been agreed upon. Furthermore, in 2009 and 2010, additional recourse to a loophole was taken by creating state enterprises that borrow to finance capital injections into the Landesbank (€2 billion) and the acquisition of the regional energy supplier (up to €6 billion). While these

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budget. According to parliamentary documentation (see Rhineland-Palatinate parliamentary documents 15/4966 and 15/4967 as well as the protocol of the 97th session in the 15th legislative period, p. 5768 ff), it was intended to include those enterprises that are not in the position to finance interest and redemptions by performing profitable activities. Consequently, special funds are covered by the debt brake, too.

[35] See Hesse Parliamentary Document No. 18/3492.

enterprises are not included in the state debt brake and hence no borrowing limits apply, for European budgetary surveillance purposes their indebtedness has to be treated as part of the Maastricht debt. However, as borrowing by these enterprises is just for financial transactions, the exclusion from the debt brake might be considered acceptable. The election of a new state parliament in 2011 changed political majorities, and the limited protective power of state budget regulations law seems to have become an issue as the new majority parties appear to have postponed the aim of a structural balanced budget to 2020.[36]

While in the east German state *Thuringia* (more than 2 million inhabitants) an early attempt to introduce a constitutional debt brake failed, especially Section 18 of the state budget regulations law was adjusted in 2009 to become effective in 2011. Borrowing is allowed only in the case of major emergency or natural disasters. A further exception applies to the extent that expected tax-related revenue (excluding gradually diminishing special central government transfers to east German states) is lower than the average value in the three years preceding the year of the drafting process (2007-09 for the 2011 budget). This exception clause was used for 2011 and net borrowing estimates of almost €0.5 billion could be budgeted. According to the state budget regulations law, the redemption has to be accomplished within five years after the first year without additional borrowing requirements. In the medium-term fiscal plan, the start of repayments was announced for 2013. However, given the better-than-expected macroeconomic and fiscal development, far less borrowing than budgeted might be needed in 2011 and more timely redemptions seem to turn out to be only a moderate challenge. Adjustments for cyclical effects (and also for financial transactions) are not made within the state debt brake. While special funds, in principle, have to respect the balanced budget rule, exceptions may be granted by special laws (Section 113 of the state budget regulations law).[37]

All in all, much progress still has to be achieved during the coming years. While the 2020 deadline is still relatively far away, a significant acceleration of the implementation process might be brought about by *rulings by state constitutional courts* that partly even try to make the old borrowing limits effective. The most prominent example is the constitutional court of *North Rhine-Westphalia* (state population: 18 million inhabitants). After the state elections in May 2010, the new government soon drafted a supplementary budget raising borrowing entitlements by another €2 billion (almost 4 per cent of total expenditure) to almost €9 billion. Immediately after the law became effective, the biggest opposition parties started a lawsuit similar to a previous case where the ruling went against the government and the parliament majority in 2003 and – for the first time in German history – asked for an immediate intervention to stop the execution of the budget. In the latest case, the judges actually ordered the execution to be stopped and announced a final decision by mid-March 2011. The court was in doubt as to whether the exception clause to avert a disruption of the macroeconomic equilibrium could still be used by the end of 2010, given the relatively favourable economic conditions in Germany by that time. Ultimately, the judges decided that there was insufficient explanation as to how the measures chosen would solve the macroeconomic problems claimed by the state government.[38] As the macroeconomic situation has since improved, justifying further recourse to the exemption clause might turn out to be almost impossible.[39] As individual state governments have only very limited tax-setting powers, expenditure cuts seem to be inevitable. However, short-term adjustments are possible only to a very limited degree as compensation of employees (mainly civil servants), grants for local government

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[36]   See Der Wechsel beginnt (coalition agreement for Baden-Wuerttemberg up to 2016), available at: www.gruene-bw.de

[37]   Further legal debt brakes were introduced in Saxony, Saxony-Anhalt and Hamburg, partly still to become effective by 2013.

[38]   See press release by the state constitutional court of North Rhine-Westphalia: Supplementary budget law 2010 unconstitutional, 15 March 2011.

[39]   See Deutsche Bundesbank, Implications of the ruling on the supplementary budget of North Rhine-Westphalia for 2010, Monthly Report, April 2011, pp. 10-11.

and interest expenditure are responsible for about 2/3 of total expenditure. There is a risk, that a *changeover to the debt brake* is used as a less painful exit for politicians if a gradual adjustment path is defined, starting with the deficit level achieved in 2010. An extension of borrowing compared with the old constitutional limits was obviously not intended by the introduction of the debt brake. However, taking the opportunity to define a moderate adjustment path in the state constitution might prove to be a politically attractive loophole.

5 Summary and conclusions

The 2009 constitutional reform to introduce a national debt brake in the German Basic Law was a huge success. The preceding "golden rule" had failed to stop the increase in the government debt ratio. In addition, the net government asset ratio had also decreased rapidly. The reform directly addressed the main weaknesses of the old borrowing limits:

- the definition of investment expenditure did not contain sufficient restrictions. To avoid definition problems, the balanced budget concept was chosen;

- the exception clause regarding macroeconomic imbalances contained vague definitions and no redemption duties while inheriting respective unused borrowing entitlements was allowed. To avoid further abuse, definitions of exceptions are much stricter and redemptions are mandatory;

- a general exception clause was included for special funds. To stop outsourcing deficits, the old article 115 (2) of the Basic Law was abrogated. Furthermore, there is a reference to the Stability and Growth Pact (setting limits for the whole government sector);

- borrowing limits were applicable only for the drafting process. To safeguard adherence *ex post*, a control account was introduced explicitly for the Federal government.

However, whether the debt brake for central and state government budgets will be able to safeguard sustainable public finances in Germany ultimately depends on the implementation of the new rules. Some recent developments give cause for concern:

- The exception for financial transactions might induce abuse (e.g., classification of transactions as loans despite very favourable conditions for the debtor). However, from the author's point of view, the clear reference to the objectives of the European Stability and Growth Pact should make it necessary to follow its classification rules. As a consequence, (strict) ESA definitions and Eurostat decisions should be applicable. In the case of significant transfer elements (e.g., sizeable interest concessions or debt release agreements), classification as a financial transaction would be impossible.

- State government implementation plans so far do not fully exclude outsourcing government borrowing to special funds or – which also seems to be under debate for central government – public enterprises. As this would not be in line with the structurally almost balanced budget objective of the Stability and Growth Pact and the clearly stated intentions of the reform of the Basic Law, limits might ultimately have to be drawn by constitutional courts.

- As German budgetary rules traditionally defined borrowing as limited to transactions acquiring cash funds, PPPs might be used as a loophole. However, taking the Stability and Growth Pact as a benchmark again, exclusion of investment via PPPs from the borrowing limit is only acceptable if there is sufficient transfer of risks to the private sector. As this does not seem to be a typical element of most German PPP treaties, respective attempts to circumvent the debt brake might also be stopped.

- The cyclical adjustment procedure seems to offer room for creating fiscal scope mainly by redefining methods as needed in a given circumstance. Such adjustments can be stopped by strictly referring to the clearly announced necessary condition for cyclical adjustment – the symmetry condition intending to avoid systematic growth of the debt level due to effects

(mis)labelled as being cyclical. Hence, a change in the method should make it necessary to also adjust data for past years and to correct the amounts booked on the control account accordingly. In general, cyclical deficits should also be monitored closely. Misclassifications can be detected by subtracting allowed amounts of structural borrowing and by means of financial transactions from the total debt level increase after a full cycle. Corresponding amounts should be corrected by lowering the limit for the structural deficit over the next few years.

- Politicians are obviously trying to manipulate the borrowing limits during the transitional period. From the author's point of view, constitutional reference to the 2010 structural deficit or an even later one as a starting point does not give much room for interpretation. As it was clearly stated that the adjustment path could not be defined by mid-2009 due to crisis-related high uncertainty concerning macroeconomic and budgetary developments, only actual results can be an acceptable benchmark. Refusing to adjust the starting level would bring about additional borrowing options of about €15 billion for central government in 2011. However, the fiscal leeway added would decline every year and come to an end in 2016. If this leeway were not (fully) used, it would lead to a significant buffer stock on the control account which might induce central government to make strategic favourable budget estimates in future years. While deficit-increasing effects could only be of a temporary nature, it is important to stop the abuse of the debt brake in order to avoid additional interest burdens and – much more importantly – to strengthen the trust in and the effectiveness of the new borrowing rules.

- A very big fundamental problem of binding constitutional borrowing limits seems to be the need for sufficient safety margins to prevent the need for sizeable almost immediate consolidation measures mainly occurring in bad times. In Germany, budget execution during the past years often suffered from major surprises due to lower-than-expected "structural" tax revenue. Major parts of deviations could not be classified by common methods as cyclical effects or just one-offs. Such surprises cannot be ruled out for the future. Consequently, a need to compensate such effects almost without delay will come up under the new debt brake, if there is no sufficient safety margin between the constitutional borrowing limit and the budgetary entitlement. It seems impossible that politicians will agree to strive for such reserves – possibly up to €20 billion – without binding rules. Hence, a respective supplement to the German debt brake seems useful. However, the use of this safety margin will have to be governed by rules strictly limiting flexibility concerning timing and the size of consolidation measures needed to regain the buffer between the budget estimate and the constitutional limit for borrowing. A delayed gradual correction of a structural balance not in line with the safety margin may be an adequate approach. Generally using significantly more cautious (nominal) GDP growth assumptions when preparing a budget and especially the medium-term financial plan would also help to prevent negative surprises such as those often experienced in the past.

A restrictive implementation of the debt brake taking into account the problems listed will be a challenging task. Effectively limiting circumvention activities requires transparent and – as far as possible – simple rules. This is a precondition for the necessary public support. Furthermore, only clear rules can be given effective judicial protection against abuse. Hence, definitions of details should be made with care. If this seems hard to achieve, explicit reference to well-defined and carefully supervised statistical figures – as the Maastricht deficit – may enable a clear interpretation and avoid the creation of dangerous loopholes.

THE IMPORTANCE OF FISCAL POLICY FRAMEWORKS – SWEDISH EXPERIENCE OF THE CRISIS

Robert Boije and *Albin Kainelainen*

The unfavourable development of public finances in many European Union countries during the current crisis has intensified the discussion on the importance of national fiscal policy frameworks. The Swedish fiscal policy framework is interesting in this context. As one of few EU countries, during the present economic crisis Sweden has been able to combine significant fiscal stimuli with limited deficits. Deficit and debt levels have also stayed below the levels set by the SGP. We argue that the relatively favourable development of the Swedish public finances both before and under the crisis, to a large extent, can be attributed to the national Medium Term Budgetary Framework combined with a strong political support for the framework. To strengthen the framework the government recently introduced a Code of Conduct for fiscal policy.

1   Introduction

The economic crisis that started in 2007 has led to a rapid deterioration of public finances in most advanced economies. In many of the countries where fiscal deficits were large before the crisis began, deficits have reached or approached double-digit levels, raising concerns about the sustainability of public finances. In some countries (Greece, Ireland and Portugal being the most prominent examples), this development has not only contributed to significantly increased risk premia, but also accentuated the sustainability problem and made stabilisation policy measures less effective.

The unfavourable development of public finances in many EU countries has renewed the discussion on the need to strengthen the Stability and Growth Pact (SGP). Besides suggestions on how the Pact itself can be strengthened, the importance of national Medium Term Budgetary Frameworks (MTBFs), as a complement to the Pact, has been emphasized. The European Commission (2010b) has proposed a directive that would set minimum standards for national budgetary (or fiscal) policy frameworks. This proposal is currently being negotiated between the commission, the council and the parliament with the intention to reach an agreement before the end of spring 2011.

As one of few EU countries, during the present crisis, Sweden has been able to combine significant fiscal stimuli with limited public deficits. In addition, deficit and debt levels have stayed below the levels set by the SGP. We argue that the relatively favourable development of Swedish public finances both before and during the crisis, to a large extent, can be attributed to the national MTBF combined with a strong political support for the framework. The framework, introduced 1997-2000, consists of a surplus target for *general* government, an expenditure ceiling for *central* government (combined with a stringent top-down budget process), and a budget-balance requirement on *local* governments. Both the former social democratic governments and the current center-right government have, largely, respected the framework. During its first term of office 2006-2010, the current government strengthened the framework by making central parts of it mandatory by law. Recently the government has strengthened the framework further by introducing a Code of Conduct for fiscal policy.

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    The views expressed herein are those of the authors and should not be attributed to the Swedish Ministry of Finance.

Figure 1

Net Lending
(percent of GDP)
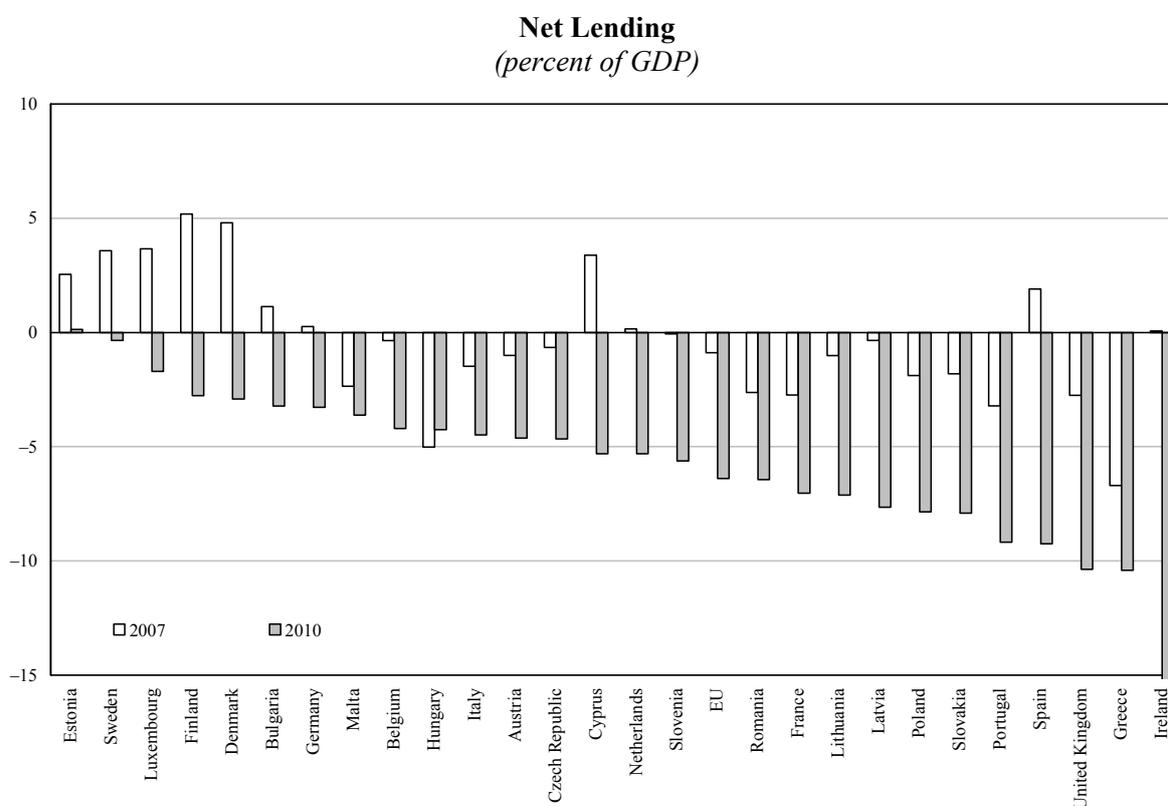
Source: AMECO-database.

The purpose of this paper is to contribute to the debate on the significance of MTBFs by describing the Swedish framework, how it has functioned and recent improvements of it.[1] The paper is organized as follows: Section 2 compares the development of public finances in Sweden and other EU-countries during the financial crisis that began 2008. We evaluate to what extent Sweden and other EU-countries have managed to abide by the numerical rules in the SGP both before and under the financial crisis. In addition, we discuss the role of MTBFs as a mean to improve fiscal performance. Section 3 describes the Swedish MTBF and its background. In Section 4 we assess the performance of the Swedish MTBF. In Section 5 we discuss what constitutes an effective MTBF and to what extent the Swedish framework is designed in accordance with those findings. In Section 6 we briefly describe the content of the Swedish government's Code of Conduct for Fiscal Policy. Section 7 concludes.

2   Public finances in Sweden and the EU – A comparison

The financial crisis affected public finances in all EU countries. Still, there is a wide variety in public deficits 2010 (see Figure 1); from a small surplus in Estonia to –32.3 per cent in Ireland. It is therefore relevant to discuss the causes of these large differences between countries.

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[1]   Se also Boije, Kainelainen & Norlin (2010) and Boije & Fischer (2009).

Table 1

Comparison Between EU-countries with and without Surpluses in 2007
(percent of GDP)

	Net Lending 2010	Change in Net Lending 2007-2010	Change in Output Gap 2007-10	Stabilisation Policy Measures	Fiscal Rules Index
Surplus countries 2007	–4.1	–6.7	–7.8	9.2	1.2
Non-surplus countries 2007	–6.7	–4.7	–8.1	7.3	0.4

Note: Ireland has been excluded due to its extreme net lending in 2010 (–32.3 per cent of GDP). In 2007 its net lending was zero.
Source: European Commission (2009, 2010a), AMECO-database and own calculations.

2.1 Bailouts of financial institutions do not explain differences in net lending

One popular explanation to the differences is that it is connected to that some countries had to bail out financial institutions. This is certainly the case for individual countries like Ireland. Historical evidence shows that severe financial crises almost invariably are accompanied by massive increases in government debt. In a sample of 13 financial crises after World War II, described by Reinhart and Rogoff (2009), the increase in real public debt following the crisis averages 86 per cent. Most of these build-ups, however, are attributed, not to the cost of bank bail-outs, but mainly to decreased tax revenue and to increased government spending to fight the recession. IMF (2010) shows that the same factors largely explain today's deficits in the G7-countries, while support to financial institutions accounts for less than 10 per cent of the forecasted growth of government debt between 2008 and 2015.

2.2 The importance of securing surpluses during good years

Empirical research shows a tendency for economic upswings to be followed by significant deteriorations in structural positions; when revenue is high, governments find it difficult to resist demands for increased spending or decreased taxes (Joumard and André, 2008). Institutions that promote surpluses in good times can therefore contribute to smaller deficits in bad times.

For the EU countries, there is substantial differences between the eleven countries that had surpluses in 2007 and the ones that had deficits already before the crisis (Table 1). Generally, the deficits for 2010 in countries that had surpluses before the crisis are substantially smaller at –4.1 per cent of GDP as compared to –6.7 per cent of GDP in the countries running deficits in 2007. This does not follow from a smaller decrease in net lending; net lending fell more in surplus countries. Output gaps widened about as much in both groups of countries. Furthermore, the surplus countries made larger stabilisation policy efforts (Table 1 and Figure 2).[2] In the eleven EU countries running surpluses in 2007, measures to meet the economic crisis have averaged 9.2 per cent of GDP as compared to 7.3 per cent in the other countries. Furthermore, the five countries with the largest deficits in 2010 had undertaken combined measures that average 6.6 per cent of GDP as compared to 10.0 per cent in the five countries with the smallest deficits in 2010.

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[2]   Stabilisation efforts are defined as the combination of automatic stabilizers and discretionary measures.

Figure 2

Stimulatory Fiscal Policy Measures in 2008, 2009 and 2010 Compared to 2007
(percent of GDP)
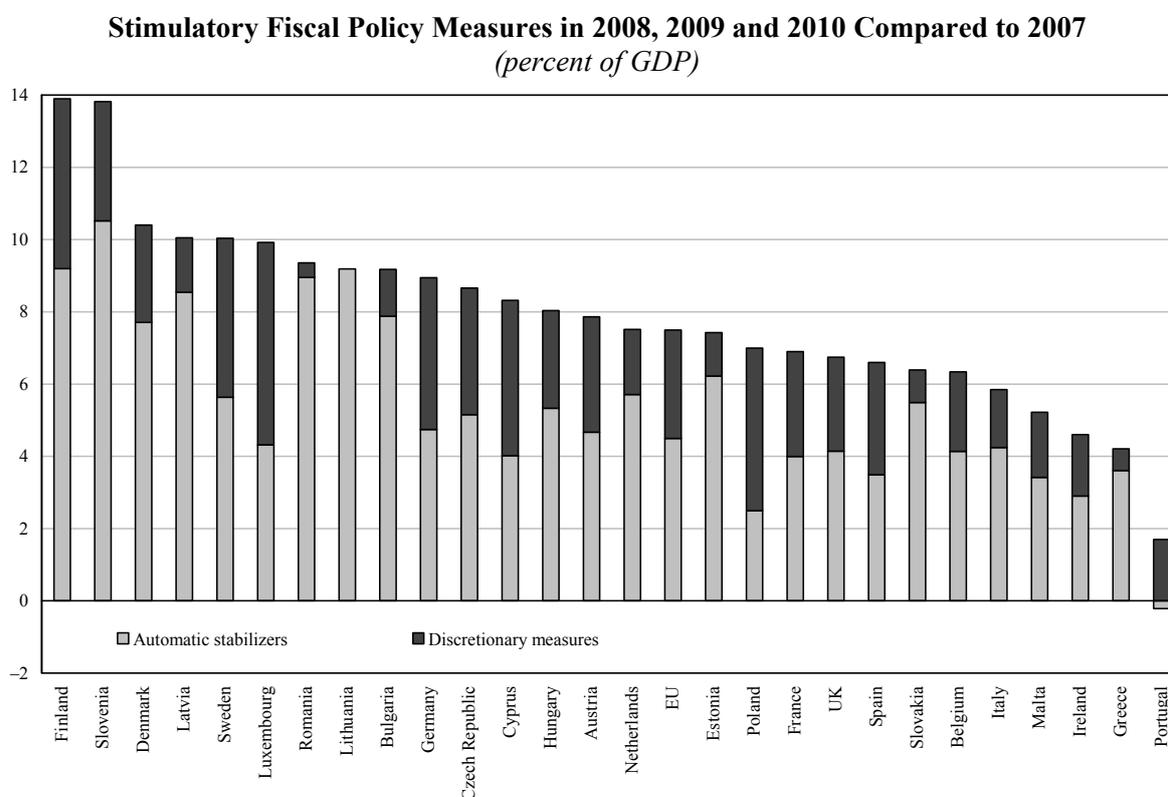
Source: European Commission (2010a), AMECO-database and own calculations.

The conclusion from this simple comparison is that countries with surpluses in 2007 have done more to combat the crisis than the countries that ran deficits in 2007, yet the former still have smaller deficits. This illustrates the importance of maintaining surpluses in good years. The Swedish experience is interesting in this context. Even though the financial crisis affected Sweden to the same extent as other countries in terms of loss of GDP, the effect on the public finances has been less severe. In an international comparison, Sweden's current fiscal position is very strong. The deficit was limited to 0.3 per cent of GDP in 2010 and the forecast is that net lending will return to show a surplus in 2011. At the same time, Sweden is one of the EU countries that have pursued the most active contracyclical fiscal policy during the crisis (Figure 2). This combination was made possible by the substantial surpluses in the years preceding the crisis.

2.3   The effectiveness of stabilisation policy during the crisis

Surpluses in Sweden the years before the crisis and the resulting low public debt have given the financial markets confidence in the sustainability of the Swedish public finances, especially compared to the situation in the early 1990s and to that in many other EU-countries today. The interest rate spread to Germany has been close to zero since 2006 (Figure 3). This has been important, not only for the long term sustainability of public finances per se, but also for the effectiveness of the stabilisation policy measures implemented to combat the crisis. Thus, it is a pre-requisite for the effectiveness of stabilisation policy to secure surpluses during good years.

Swedish Interest Rate Spreads Against Germany for 10-year Bonds
(percent of GDP)
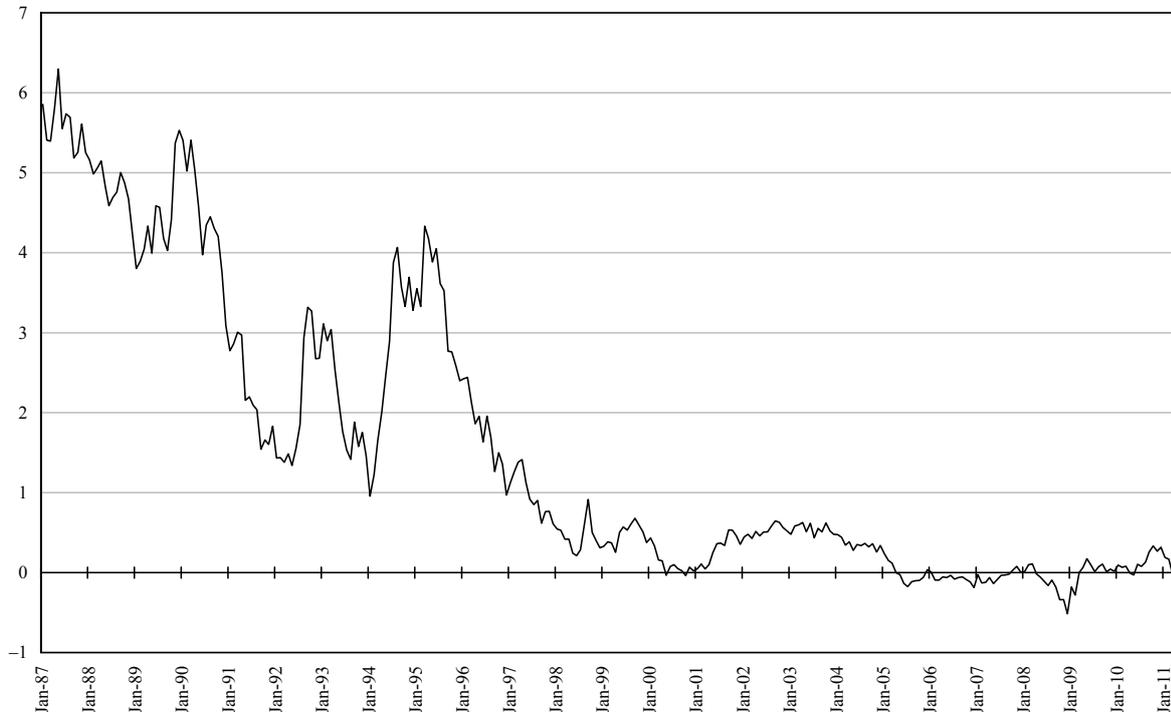
Source: Ecowin.

2.4 SGP compliance

Figure 4 shows that in 2010 Sweden was one of only three EU countries which was able to keep the deficit and debt within the SGP's numerical fiscal rules. Figure 5 shows that Sweden has abided by these numerical rules in every year since 2000. The debt ratio has been below the 60 per cent level and it is expected, despite the crises, to fall towards 25 per cent of GDP in 2014. Between 2000 and 2009, there are several countries, which as an average, stayed inside the target levels (Figure 6). Sweden, Estonia, Luxembourg and Finland, however, are the only EU countries that during this period never exceeded the SGP target levels.

2.5 The role of the Swedish MTBF

Our assessment is that the Swedish MTBF has played a key role in securing surpluses in good times and limiting deficits in downturns. In addition, it has contributed to low risk premia, and an effective stabilisation policy. The framework has also contributed to that Sweden all years has abided to the SGP rules. Existing empirical studies generally shows that tighter and more encompassing fiscal rules are correlated with stronger cyclically-adjusted primary balances.[3]

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[3] See IMF (2009) for a brief overview of the literature. It's important to note that there are methodological difficulties in assessing the impact of fiscal rules on fiscal performance. In particular, both fiscal rules and improved fiscal performance could be affected by the omission of determinants of fiscal behaviour, such as political or budgetary institutions or processes. A stronger political commitment to fiscal discipline, for instance, could lead to both an improvement in performance and the adoption of rules.

Furthermore, there is empirical evidence suggesting that strong fiscal rules lead to lower interest rate risk premia.[4]

It is clear, however, that a strong MTBF *on paper* does not guarantee sound public finances. The European Commission (2009) has constructed a fiscal rule index, which encapsulates the strength and coverage of domestic fiscal rules. The latest edition of this index describes the situation in 2008 (see Figure 7). According to the index, the fiscal rules were the strongest in the UK, Denmark and Bulgaria, while they were weak in Greece, Cyprus and Malta. An empirical analysis by the European Commission (2009) shows a link between the index and budgetary outcomes in the period 1990-2008. Moreover, Table 1 shows that EU countries that had surpluses before the financial crisis began, on average also had a considerable higher fiscal rule index as compared to the non-surplus countries. However, countries with a strong index-rating do not necessarily have strong public finances at present. The countries with a relatively high index-rating include the UK, Spain and Lithuania,

Figure 4

SGP Compliance in EU Member States, 2010
(percent of GDP)
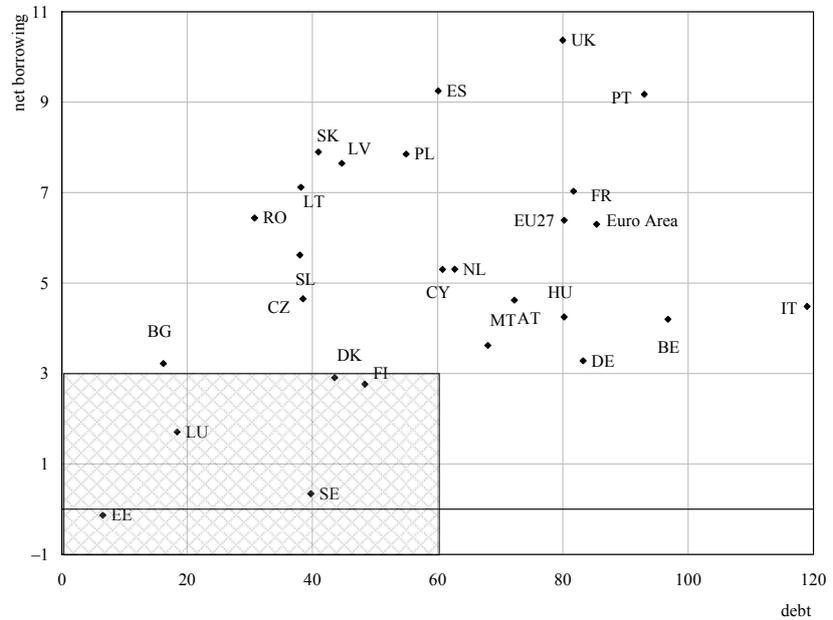
Source: AMECO Database.

Figure 5

SGP Compliance for Sweden, 2000-14
(percent of GDP)
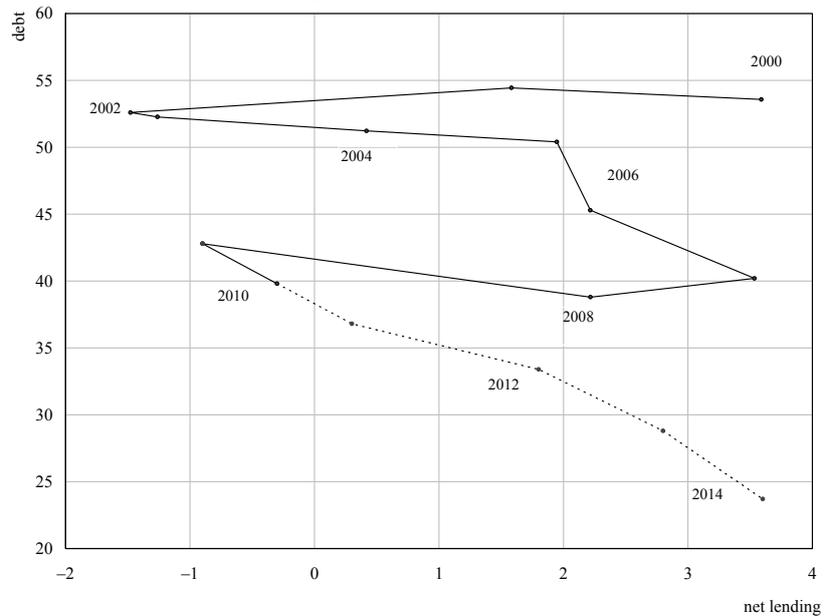
Source: Ministry of Finance and Statistics Sweden.

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[4]   Iara and Wolff (2010).

Figure 6

SGP Compliance in EU Member States, Average 2000-09
(percent of GDP)
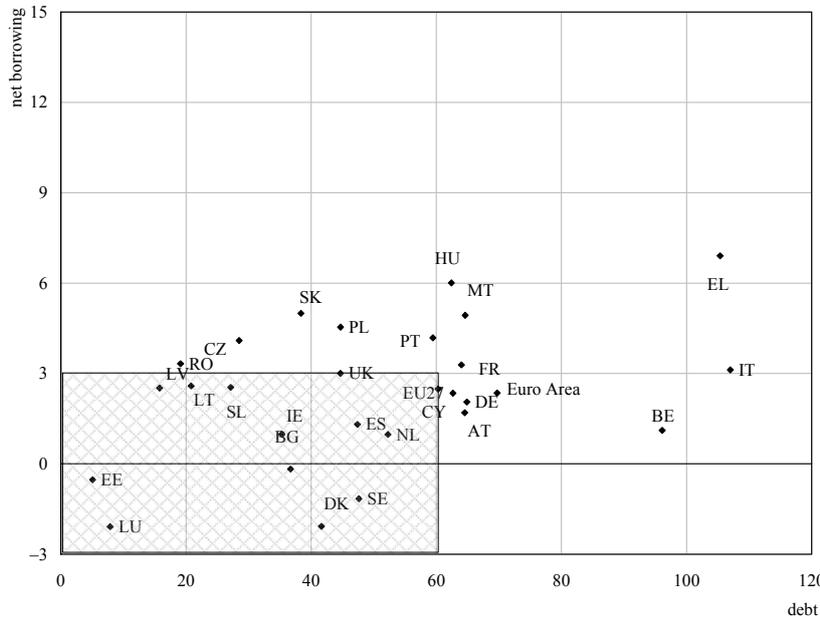
Source: AMECO Database.

Figure 7

Standardized Fiscal Rule Index, 2008
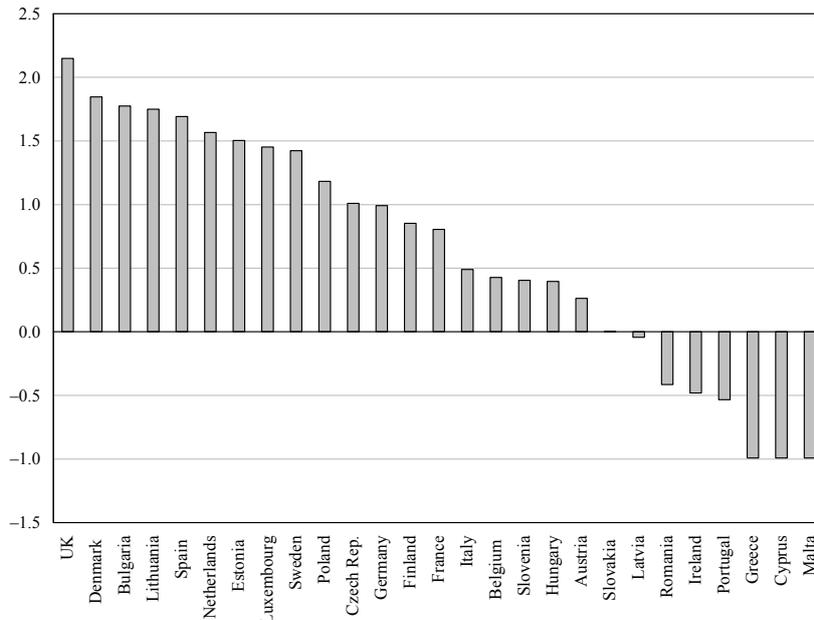
Source: European Commission (2009).

countries in which public finances at the moment are weak.

Given the difference in experience of countries with strong fiscal rules on paper, it is, in addition to quantitative cross-country studies, valuable to study the fiscal frameworks in individual countries. Due to the strong fiscal position in Sweden since 2000, the Swedish experience can be interesting in the debate on how fiscal frameworks should be constructed. In the following section, we therefore describe the Swedish MTBF. We thereafter evaluate the framework and briefly discuss what constitutes an effective MTBF, and to what extent the Swedish MTBF corresponds to such a framework.

3 The Swedish MTBF

The MTBF is one part of the Swedish fiscal policy framework. It consists of a surplus target for *general* government, an expenditure ceiling for central government combined with a stringent top-down budget process, and a budget-balance requirement on local governments. The components of the framework are described in more detail in

Section 3.2-3.5 below. Section 3.1 gives a background to the framework.

3.1   Background

The main driving force behind Sweden's introduction of a MTBF was the economic crisis in 1992-94. Although the crisis was exacerbated by an international downturn, its causes were primarily domestic. In response to the crisis, Sweden's monetary and budgetary frameworks were thoroughly reformed. In the autumn of 1992, speculation against the krona, encouraged by earlier series of devaluations, forced the Swedish Central Bank (The Riksbank) to abandon the fixed exchange rate regime, whereupon the TCW exchange rate fell 20 per cent. Responsibility for monetary policy, with price stability as its objective, was transferred to the Riksbank.[5]

Fiscal policy initially aimed at consolidating the public finances. A substantial consolidation programme (7.5 per cent of GDP) was successfully implemented in steps between 1995 and 1998. This programme lowered real demand in the short term but enhanced the public finances' long-term sustainability. This strengthened business and household confidence, which together with falling real interest rates and the weak currency's stimulation of export demand partly counteracted the consolidation programme's initial negative effects on domestic demand.

The implementation of the consolidation programme was accompanied by the adoption of a new, firmer top-down budget process, including the introduction of multiannual nominal expenditure ceilings from 1997 and onwards. In 1997 it was also decided that a general government surplus target of 2 per cent of GDP over the cycle would be implemented in steps between 1997 and 2000. In addition, to strengthen the public finances at the local level (and to increase the probability of the surplus target being met for the general government sector as a whole), from 2000 local governments were required to plan for balanced annual budgets.

It is important to note that, to a large extent, Sweden's MTBF was introduced *after* the consolidation programme had been completed. While the MTBF is mainly intended to work as an anchor for future fiscal policy, at its introduction it was also a method for locking-in the fiscal adjustments that the consolidation programme had achieved. As pointed out by, for example, the IMF (2009), fiscal rules are more likely to be accepted when countries already have made some progress towards fiscal consolidation. One way of interpreting this is that when countries have recently experienced a fiscal crisis that necessitates fiscal consolidation, as in the Swedish case, political conviction that fiscal rules actually have a role to play may be stronger than otherwise.

3.2   The surplus target

The surplus target states that net lending shall be 1 per cent of GDP over a business cycle.[6] After proposal from the government, parliament made it mandatory by law for the government to present a medium-term target for net lending from August 1, 2010. The level of the target, however, is not subject to legislation.

The surplus target is to be met over a business cycle, which is intended to prevent a pro-cyclical fiscal policy. With an annual surplus as the target, fiscal policy would need to be contractive in a recession and vice versa; fiscal policy would then be pro-cyclical and not contribute to stabilisation of resource utilization.

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[5]   The Riksbank was not made legally independent until 1999 but in practice it became independent when monetary policy was delegated to it in the early 1990s.

[6]   The target was originally 2 per cent of GDP. After a decision by Eurostat that part of the old-age pension system savings should be accounted as private savings, the target was technically adjusted to 1 per cent from 2007.

Over the years, various arguments have been used to motivate the surplus target, and the attributed weight to each argument have varied. Debt reduction was emphasised in the early stages, followed later by demographic issues. In the 2010 Spring Budget Bill, the government clarified that the target should contribute to:

1) long-term sustainable public finances so that citizens, business and financial markets maintain confidence in fiscal policy;

2) keep sufficient buffer in place to meet major economic declines and enable an expansionary fiscal policy without causing substantial and sustained deficits in the public finances;

3) intergenerational equality. In Sweden, as in many other countries, the older segment of the population will increase sharply over the coming decades. During demographically favourable years, relatively high savings translates into reduced national debt. Such savings mean that larger generation groups can contribute to the financing of their future medical and care services, while also contributing to fairness between generations;

4) economic efficiency. By enhancing conditions that make it unnecessary to raise the tax ratio (as a consequence of the demographic development), a surplus target contributes to economic efficiency.

The government has emphasised that maintaining the long-term sustainability of public finances is a necessary condition for achieving the other motives for the surplus target. If public finances are not sustainable, financial markets and households lose confidence in the government's ability to meet its commitments. As a consequence, the focus of fiscal policy would have to shift from promoting higher growth, employment and welfare to reducing debt. This is evident not least from what happened in Sweden during, and after, the crisis in the early 1990s.

International experience from the current financial crisis shows that there are good reasons to ensure that a buffer exists for coping with severe economic downturns and avoiding an unsustainable increase in debt. Having room for fiscal manoeuvring in such situations enables a strong fiscal policy. Against this background, the Swedish government has declared that it attaches great importance to the stabilisation policy argument provided that long-term fiscal sustainability is maintained. Support for this comes from Leeper (2009), who stresses the importance of maintaining a risk-free fiscal policy, *i.e.*, a policy that ensures that the probability of the economy approaching its fiscal limit is negligible, so that investors do not demand a risk premium for holding the government's bonds. The financial markets' reactions differ between different types of countries. The ability to maintain surpluses in good years is likely to be particularly important for small open economies with their own currency and with large automatic stabilizers, like the Swedish economy. Haugh *et al.* (2009) present empirical evidence, which indicates that in times of global financial stress, such economies often are more vulnerable in terms of risk premia. If financial markets and households lack confidence in the sustainability of public finances, fiscal stabilisation measures will be less effective or even counterproductive.

Regarding the surplus target's contribution to intergenerational equality and economic efficiency, the government announced in the 2010 Spring Budget Bill that the target should be used only to manage the part of the increase in the proportion of elderly that is due to temporary changes, *i.e.*, that it should not be used to manage the continual increase in average life expectancy. It also emphasised that the surplus target should not be used to pre-fund any future demand for a higher quality of publically provided services.

It is reasonable to assume that the relative weights attached to the various motives will change over time. In the 2010 Spring Budget Bill, the government therefore declared that the motives behind the surplus target and its level should be reassessed at regular intervals. However, it was also emphasised that the overhauls shall not be used to justify deviations from targets.

When Sweden introduced the surplus target, there was very limited published analysis concerning the appropriate level of a such target. The level was chosen on the grounds that net debt would be eliminated in the coming 10 to15 years. When this was achieved already in 2001, the level remained unchanged. Recently, however, a government report presented such an analysis (Finansdepartementet, 2010a). Given the motives specified by the government, the report concluded that there are no strong reasons for changing the current level of 1 per cent. Moreover, it concluded that at present, there were no major conflicts between the different motives for the target.

3.3   The expenditure ceiling

The Swedish expenditure ceiling covers the primary expenditures of the central government together with expenditure of the old-age pension system. The ceiling is set by Parliament on the basis of a government proposal. The ceiling was used by the government on a voluntary basis up to 2010. From 2010, the government is required by law to propose an expenditure ceiling for year $t+3$ in the Budget Bill for year $t+1$ (presented in the autumn of year t). For example, in the Budget Bill for 2010 (presented in the autumn of 2009), the government proposed a ceiling for 2012. The government is obliged by law to take necessary measures to secure that actual expenditures do not exceed the ceiling. The *practice* is that once a ceiling has been set, it shall not be changed, unless that is technically motivated.[7] This secures a medium-term planning horizon. It is *possible* to change set ceilings for non-technical reasons, but this has only occurred twice and on both occasions the ceiling was lowered.[8]

The ceilings are set in nominal terms (thus they are not adjusted for inflation). Normally the ceiling therefore include a buffer that can be used for expenditure arising from unforeseen cyclical factors and inflation. This buffer is called the budgeting margin. The government's practice has been for the budgeting margin to be at least 3 per cent of forecast expenditure for year $t+3$, at least 2 per cent for year $t+2$, at least 1.5 per cent for year $t+1$ and at least 1 per cent for the current budget year.

The Swedish budget process is characterized by a top-down perspective (see Section 3.4). The expenditure ceiling is the overarching restriction on the budget process in terms of total expenditure. Throughout the process, from the setting of the ceiling to the completion of the budget year, it is necessary to prioritise between different areas of expenditure within a given space. In addition, the ceiling's medium-term perspective provides conditions whereby temporary increases in revenue (due, for example, to cyclical factors) are not used to finance permanently higher expenditure. This also limits the risk of pursuing a destabilising (pro-cyclical) fiscal policy on the expenditure side.

Consequently, the expenditure ceiling constitutes an important policy commitment that promotes budget discipline and strengthens economic policy's credibility. It improves the probability of achieving the surplus target and promotes long-term sustainable finances. The level of the ceilings should also promote a desirable long-term development of central government expenditure. Together with the surplus target, the ceilings are central for controlling the overall level of taxation, and help to avoid a situation in which poor expenditure control necessitates gradually higher taxes.

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[7]   The limiting effect of the ceiling shall be the same over time. Adjustments *shall* therefore be done for "technical reasons", for instance if responsibility for an item of expenditure is transferred from central to local government without affecting the level of expenditure in the general public sector.

[8]   One may argue that the possibility of changing the set ceilings is a weakness of the framework. However, a *new* government must be able to choose a ceiling that is consistent with its priorities.

3.4   A stringent budget process

The top-down perspective in the Swedish budget process entails a procedure whereby different expenditure proposals are set against each other and spending has to be accommodated in the expenditure ceiling's and surplus target's predetermined limit on total expenditure.

In April the government submits a spring fiscal policy bill that describes the guidelines for fiscal policy, including an assessment of the suitable level of the expenditure ceiling in the end year in the forecast horizon. After parliament's decision on the spring fiscal policy bill the guidelines are transformed to a concrete budget proposal in September. The budget negotiations are hence concentrated to one occasion per year.

3.5   The budget process inside the government

The budget process starts with an forecast of expenditures for the different areas of expenditures and for the income side. The Ministry of Finance analyses these forecasts and makes an assessment on whether the forecasted development is consistent with the surplus target and expenditure ceilings. If not, proposals for budget strengthening are evolved. All ministries have a responsibility to deliver sufficient information to make priorities, but the Ministry of Finance coordinates this work, and is responsible for ensuring that the assessment is consistent for all expenditure areas.

The Minister of Finance has a strong position in the Swedish government. All proposals that has budgetary consequences must be cleared by the Ministry of Finance before they are announced. The Ministry of Finance is also responsible for that the budget proposal is consistent with the surplus target and the expenditure ceilings. At all points in the internal negotiations on the budget, the foundation for negotiations is a complete budget proposal. This means that negotiations are focused on prioritising between different areas of expenditures within the boundaries set by the surplus target and the expenditure ceiling. The Ministry of Finance also has the responsibility for setting guidelines for the budget process.

The guiding principle for expenditures is that increases shall be financed by an equivalent decrease in other expenditures. Furthermore, the financing of a reform must derive from a concrete measure and dynamic effects shall not be used to finance individual reforms (although the dynamic effects of all reforms are taken into account in the overall macro-economic forecast). The general rule is that all items are reported gross. Consequently, transactions cannot be hidden by reporting only net flows. Another important feature is "the completeness principle", meaning that every item which affects the public borrowing requirement will be included in the state budget. This results in a clear statement of government commitments and a better understanding of the state budget.

3.6   Parliament's processing of the budget

By law parliament's processing and resolution of the budget follows a distinct top-down perspective. The expenditures are presented under 27 headings. As a first step, Parliament decides on the spending plans for each of the 27 areas of expenditures and an estimate of the state budget revenues. In a second step, the various committees deal with appropriations for the expenditure items. Since the 27 expenditure areas have already been decided in the first step, they constitute a binding constraint in the second stage. It follows that, at this stage, an increased appropriation under one expenditure area has to be financed by a reduction of other appropriations in the same expenditure area. An important aspect of the Swedish budget process is that the government do not need a majority in parliament to vote for their budget proposal. The budget is passed unless a

majority unites behind a different proposal. This makes it easier for a minority government to pass the budget through parliament since the opposition has to agree on one single proposal.

3.7   *The budget-balance requirement on local governments*

The local government sector in Sweden is responsible for roughly 45 per cent of the general public sector's expenditures. To strengthen the budgetary process at local level, local governments are required by law to budget for at least balance. A local government that reports a deficit *ex post* has to correct it within three years. The budget-balance requirement applies to the financial result net of extraordinary items. It accordingly follows a different accounting practice from that of the surplus target, which is defined in accordance with the standard for national accounts (ESA 95).

The local government balanced-budget requirement is a *minimum* requirement. The Swedish Local Government Act stipulates that municipalities and county councils shall also comply with principles of good financial management. Thus, their budgets shall also take into account future costs such as major pension undertakings. There is no explicit sanction mechanism in the event of non-compliance with the balance requirement (apart from the response from the electorate).

4   The performance of the Swedish medium-term budgetary framework

In this section we briefly evaluate the performance of the Swedish MTBF since 2000 with an emphasis on the period 2006-10, the latter period covering the current government's preceding term in office and the crisis years.

4.1   *The surplus target*

When evaluating the surplus target, it is necessary to consider that the target is to be reached as an average over a business cycle. The National Audit Office (2008) and the Fiscal Policy Council (2009) have criticised the formulation of the surplus target for being too imprecise for stringent monitoring. They have argued that the current lack of a definition of the business cycle may give the government too much freedom, and that, consequently, the surplus target may not be a binding constraint. The government's use of several indicators to follow up the target and the absence of specified corrective measures to deal with slippages from the target, have also been criticised.

When the surplus target was introduced, there were no clear principles for monitoring compliance. Such principles have been developed gradually (and also changed) over time. The required surplus is to be achieved *on average over the business cycle,* but the length of the business cycle is not specified either *ex ante* or *ex post*. In recent years, three indicators have been used to assess compliance: (i) a backward looking 10 year moving average of net lending,[9] (ii) a centred seven-year moving average of net lending, capturing the current budget year, the three preceding years, and three "forecast years" following the current budget year, and (iii) the structural budget balance.[10] *In theory*, the structural budget balance can be regarded as the most relevant indicator.

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[9]   Before the 2010 Spring Budget Bill the government instead used average net lending since 2000 (the year the surplus target was introduced).

[10]   Structural net lending is actual net lending adjusted for the GDP gap times an elasticity of 0.55, plus corrections for one-off effects and extraordinary tax income from capital gains.

Table 2

Public Sector Net Lending and GDP Gap
(percent of GDP and potential GDP)

	06	07	08	09	10	11	12	13	14	15
Net lending	**2.2**	**3.6**	**2.2**	**−0.9**	**−0.3**	**0.3**	**1.8**	**2.8**	**3.6**	**4.4**
Average since 2000*	1.0	1.3	1.4	1.2	1.0					
cyclically adjusted**	1.1	1.2	1.3	1.4	1.3					
Seven-year indicator	1.0	1.1	1.2	1.2	1.3	1.3	1.6			
cyclically adjusted**	1.4	1.7	1.8	1.9	2.1	2.3	2.7			
Structural BB	0.8	1.1	1.8	3.0	1.9	1.4	2.2	2.9	3.6	4.5
GDP gap	**1.8**	**3.2**	**0.5**	**−6.7**	**−3.8**	**−1.9**	**−0.7**	**−0.1**	**0.1**	**0.0**
Average since 2000	−0.2	0.2	0.2	−0.5	−0.8					
Seven-year average	−0.6	−0.9	−1.1	−1.1	−1.4	−1.8				

* Ten-year indicator from 2010.
** The indicator has been cyclically adjusted by the average GDP gap for the relevant time period times a budget elasticity of 0.55.
Source: Ministry of Finance.

However, measuring the structural budget balance is a highly uncertain matter, which is why, in its evaluation of the surplus target, the government uses several indicators.[11]

The first indicator has been used for retrospective evaluation. The "seven year moving average indicator" has been used as a forward-looking indicator "with memory". Although the retrospective indicator does cover many years, there is no guarantee that the average GDP gap in the relevant period is zero. The probability of the average GDP gap being non-zero is even higher for the seven-year moving average indicator. In the evaluation of these indicators, the government therefore takes into account the average GDP gap in the relevant periods. If the retrospective indicator, and the seven-year moving average indicator are both close to 1 over the relevant periods at the same time as the GDP gap on average is close to zero, those indicators indicate compliance. The structural budget balance is used to measure compliance in individual years. For compliance, the structural budget balance should be close to 1 per cent of GDP each year, unless discretionary stabilisation policy measures are warranted. For example, in a severe economic slowdown, the structural budget balance is allowed to (and should) be smaller than 1 per cent of GDP.

The practice has been that, given the values of the three indicators, the government makes an *overall* assessment of compliance, in which allowance is also made for the uncertainty of the assessment and the risk scenario; among other things, the risk of an asymmetric business cycle.

Table 2 shows the three indicators for 2006 to 2014. The most recent year with a final outcome is 2010. The backward looking ten year average is used for *ex post* evaluation. From 2001 to 2010, net lending averaged 1.0 per cent of GDP. If the 10 year average is adjusted for the GDP gap, the average is 1.3 per cent of GDP. The average net lending since 2000 (as well as the

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[11] In can be interesting to note that this is analogous to the Riksbank's use of several measures of inflation. Se Boije *et al.* (2010) for a discussion on the pros and cons of the governments method to evaluate the surplus target.

Table 3

Expenditure Ceiling and Budgeting Margin
(billions of SEK)

	00	01	02	03	04	05	06	07	08	09	10
Expenditure ceiling	765	791	812	822	858	870	907	938	957	989	1024
Budget margin	5.0	4.7	0.4	2.9	2.4	5.7	11.8	27.9	13.6	24.4	38.5
percent of expenditure below the ceiling	0.7	0.6	0.0	0.4	0.3	0.7	1.3	3.1	1.4	2.5	3.9

Source: Ministry of Finance.

cyclically-adjusted figure) has, from 2006 and onwards, been at or above 1 per cent of GDP. This indicates that net lending has been somewhat above the surplus target during this period. Considered that fiscal policy always is forward looking and based on uncertain forecasts, this deviation from the target is not remarkably large.

The seven-year moving average indicator is forecasted to be at or slightly above 1 per cent of GDP for 2006-12. The cyclically-adjusted seven-year indicator on the other hand indicates a surplus substantially above the target. The structural budget balance is assessed to be above 1 per cent for all years except for 2006. In 2012-15, on average, net lending is forecasted to be substantially above 1 per cent of GDP. Based on these indicators the government's assessment in the 2011 Spring Budget Bill was that savings would be above the surplus target up to 2015, and that there therefore is a future scope for unfinanced measures. Due to the large uncertainty in the economic development over the coming years, the government did, however, emphasise that unfinanced measures should be undertaken only when it was certain that net lending would return to surplus.

This simple exercise does not prove that the surplus target has been a strictly binding restriction *ex ante* but it does show that the surplus target, *ex post*, has been respected over the years 2000-2010 and that, with current forecasts, it also is to be respected the coming years.

4.2   The expenditure ceiling

Table 3 shows that the expenditure ceiling has been respected in every year since 2000. It is also clear from the table that in some years the budgeting margin has been very small. During the period 2000-05, the (*ex post*) budgeting margin never exceeded 1 per cent of expenditures. In the past four years, the budgeting margin, on average, has exceeded 2 per cent of expenditures.

Both the National Audit Office (2008) and the Swedish Fiscal Policy Council (2009) have criticised the government for using "creative" accounting a number of times to avoid the ceiling to be exceeded; for example, expenditures have either been booked on the income side of the budget in the form of tax deductions (so called tax expenditures) or transferred from one year to another when the first year's margin under the ceiling was becoming too narrow.[12] This has occurred both under the current and the former government. For example the government transferred a payment to the municipalities of 7 billions SEK from 2010 to 2009 when the margin under the ceiling 2010

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[12]   For further discussion on this and other points of criticism on the use of the expenditure ceiling, see Boije *et al.* (2010).

Table 4

Net Lending and Result for the Local Government Secto
(billions of SEK)

	00	01	02	03	04	05	06	07	08	09	10
Net lending	1.5	−5.8	−14.5	−8.9	0.9	11.8	3.8	3.5	−3.6	−8.6	1.7
percent of GDP	0.1	−0.2	−0.6	−0.3	0.0	0.4	0.1	0.1	−0.1	−0.3	0.1
Result	1.4	1.3	−7.1	−0.8	2.2	13.3	15.2	14.1	7.9	13.3	19.1
percent of GDP	0.1	0.1	−0.3	0.0	0.1	0.5	0.5	0.5	0.2	0.4	0.6

Source: Ministry of Finance.

was forecasted to be very small. In some of these cases the government has presented these operations to the parliament in a transparent way, in other cases the government has failed to do so.

4.3 The balanced-budget requirement on local governments

Table 4 shows that, except for the years 2002-03, the local government sector as a whole has had a positive result. The general perception is that the balanced-budget requirement has contributed to a significant improvement in local government finances.

Although the balanced-budget requirement has contributed to improved finances for the local public sector, it has been criticised for contributing to a pro-cyclical policy at the local level. Since the municipalities and county councils are required to plan for balanced budgets each year, there is an obvious risk that they reduce expenditure when tax revenue falls in years with low capacity utilization and vice versa. The government has acknowledged this problem and recently appointed a committee to propose how this problem can be handled (subject to the restriction that the proposal shall not weaken the fiscal position of municipalities and county councils). Among potential solutions, the committee will analyse a mandatory "rainy day" fund to which municipalities and county councils would be obliged to contribute in "good" years, and from which they would receive payments in "bad" years.

4.4 Is it the framework or is it the Swedes?

As described above, Sweden generally has adhered to the MTBF both before and during the crisis. Is this a result of the construction of the framework or a result of that the framework has been operated by the Swedes? Our view is that well designed rules and budget procedures are important, but that strong political commitment is necessary for the MTBF to be effective. A well-constructed framework will not have the desired effect in the absence of political commitment to the framework. In Sweden, there is almost consensus among the political parties that the MTBF is an valuable fiscal policy tool, although there have been some disagreement regarding to what extent the framework should be binding by law.[13] The support for the framework derive from the experiences of the consolidation of the public finances after the fiscal crisis in the 1990s. This fiscally distressing period established an aversion to deficits, both among policy makers and the

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[13] The exception is the left-wing party that is critical of many parts of the framework.

public. The fact that there have been no major deviations from the MTBF since it was established, has also created a "good" path dependence where deviations from the framework are politically costly.

5   What constitutes an effective MTBF?

In this section, we briefly discuss what constitutes an effective MTBF and to what extent the Swedish MTBF corresponds to such a framework. The economic literature does not provide any clear-cut answer as to what constitutes an effective MTBF. Some insights can although be drawn from the empirical literature:[14]

1) balanced-budget rules and debt rules contributes to better budgetary outcomes. For expenditure rules, an impact is found mainly in terms of restraining primary spending;

2) balanced-budget rules are more effective when they are combined with expenditure rules;

3) budget processes with a clear top-down perspective contribute to better fiscal performance;

4) fiscal councils enhance the effectiveness of fiscal rules;

5) transparent fiscal policies improve budgetary outcomes;

6) a strong legal foundation for rules and strict enforcement have a beneficial impact on fiscal performance.

On the whole, these empirical results support the construction of the Swedish MTBF. The first four points clearly correspond to the features of the Swedish framework. Regarding transparency, our assessment is that there has been a considerable improvement in recent years, but that the framework has a potential to improve further (see Section 6). The recent steps by parliament to make the use of the surplus target and the expenditure ceiling mandatory in a new budget law that regulates the budget process are in line with the first part of point 6.

Enforcement procedures should, according to the IMF (2009), rely on mandating corrective action and/or mechanisms that maximize the reputational cost of not taking action. Germany and Switzerland are examples of countries that use the first approach, while Sweden uses the second. A number of agencies participate in the external monitoring, for example, the Fiscal Policy Council, the National Financial Management Authority, the National Institute of Economic Research and the Audit Office. The Fiscal Policy Council, established by the government in 2007, has a special role in the monitoring of fiscal policy.[15] The council's main tasks is to assess whether fiscal policy is consistent with long-term sustainable public finances and the MTBF, especially the surplus target and the expenditure ceiling. Furthermore the council shall evaluate whether economic developments are in line with healthy long-run growth and sustainable high employment, evaluate fiscal policy in relation to the business cycle and examine the clarity of the stated grounds for economic policy and the motivations for policy proposals.

The Fiscal Council is formally an agency under the government, which appoints the eight members for a three-year period. The appointments are based on proposals from the Council itself. These proposals are made public, which means that the government's reputation is liable to suffer if it does not follow the proposals. It has so far followed the proposals of new members from the Council.

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[14]   See Ayuso-i-Casals *et al.* (2008), Broesens and Wierts (2009), Debrun *et al.* (2009), Debrun *et al.* (2008), European Commission (2006), Holm-Hadulla *et al.* (2010), IMF (2009), Ljungman (2009) and OECD (2007).

[15]   Debrun *et al.* (2009) show large effects of fiscal councils on budgetary outcomes.

It is likely that countries with a good public finance track record, where the memory of earlier fiscal crises has contributed to strong political support for the MTBF, can rely on reputational cost to a greater extent than other countries. It is also likely that this enables a more qualitative and flexible approach to the assessment of potential deviations from targets. However, *if* the memory of earlier fiscal crises fades and this gives rise to deliberate deviations from fiscal targets, it may be necessary, also in Sweden, to introduce a stronger corrective arm instead of just relying on reputational costs.

6   A Code of Conduct for fiscal policy

The past 20 years have brought significant progress in developing and describing the methods of monetary policy. This has been a major contributor to stabilising inflation at levels considerably lower than before. Even though there has been some progress has been made in developing and describing methods in fiscal policy, the gap to monetary policy in this aspect is still substantial.

Leeper (2009) has pointed to the large gains that could be achieved by, to a larger extent than today, anchoring fiscal expectations. The anchoring of fiscal expectations is important since economic agents need to form expectations on future policies to make economic decisions today regarding, for example, the appropriate level of investment. Central banks to a large extent communicate the information it possesses and thus helps the public to form its views about current and future states of the economy. To central banks, transparency is a means to enhance the effectiveness of monetary policy. Leeper (2009) argues that fiscal policy can learn from monetary policy in this aspect.

Although there are good reasons to increase fiscal policy transparency, and, in this work, learn from monetary policy, it is important to stress that there are important differences between fiscal and monetary policy, which necessarily means that the descriptions of the principles according to which each policy is conducted has to be significantly different. The decision-making process is much more complex for fiscal policy than for monetary policy, mainly due to that fiscal policy has a larger number of goals and available means than monetary policy. With this taken into consideration, there is still scope to improve communication on how fiscal policy is conducted.

The Swedish government has against this background recently increased fiscal policy transparency by presenting its fiscal policy framework in a special document aimed to work as a code of conduct for fiscal policy.[16] The purpose is not only to increase transparency, but also to strengthen the confidence for the public finances' long term sustainability. Another purpose is to through it comply with the (expected) requirements in the coming EU directive, setting minimum standards for national fiscal policy frameworks. The document is called "The Swedish Fiscal Policy Framework". It contains about 40 pages and is written in a non-technical manner. There are earlier examples of these kind of documents from the United Kingdom and New Zeeland. However, compared to these two examples, the Swedish document gives a more comprehensive description of how fiscal policy is conducted. Some inspiration to the description of the Swedish fiscal policy framework comes from the Riksbank's (2010) monetary policy strategy document. The Code of Conduct is to be seen as a steering-oar for fiscal policy. The Code itself says that if the government for some reason has deviated from the Code, it should motivate these deviations in the Spring Budget Bill (starting in 2012).

The Code of Conduct describes parts of the fiscal framework that are regulated in law, but also used practises and principles. Through the Code, the used practises and principles will be

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[16]   Government Offices (2011).

institutionalised. To keep the content of the Code updated, the intention is that it should be revised if there been major changes. If the Code is revised, the revisions must be clearly motivated in the new version of the Code.

6.1   *Content of the Code*

The Code includes the following six aspects of the fiscal framework:

1) the role of fiscal frameworks in fiscal policy making

2) the medium term budgetary framework (MTBF);

3) external evaluation;

4) stabilisation policy;

5) governmental interventions on financial markets;

6) openness and transparency.

The part of the Code that describes the role of fiscal frameworks in fiscal policymaking gives an account of the main targets for fiscal policy (not to be confused with the budgetary rules and targets). According to the Swedish Government, the main task of fiscal policy is to create the highest possible sustainable welfare by means of high sustainable growth and high sustainable employment (*the allocation target*), well-being for all (*the distributional target*) and economic stability (*the stabilisation target*). A prerequisite for achieving these targets is long-term fiscal sustainability. Since there are several goals for fiscal policy, it is inevitable that there will be conflicts between these goals. These conflicts must, of course, be handled by the elected politicians. In this complicated decision process, where the final decision often is a result of compromises, the Fiscal Policy Framework (as described by the Code of Conduct) work as a steering oar that promotes fiscal discipline and transparency.

The section in the Code covering the MTBF describes the different parts of the framework in a similar way as Section 4 above.

In the part of the Code covering External evaluation, the government emphasises the importance of "fiscal watchdogs", both at the international and national level. Since there is no formal enforcement procedure based on mandating corrective action in the Swedish Fiscal Policy Framework, external evaluation contributes to a high reputational cost of not taking action in case of slippages from the fiscal targets. At the international level, the EU, OECD and the IMF are examples of fiscal watchdogs, where the EU-commission surveillance is particularly important. The evaluation by the EU commission is expected to be intensified over the next coming years with the proposals discussed for a new EU economic governance. On the national level, there are also several governmental agencies that monitors different parts of fiscal policy, *i.e.*, the Swedish Audit Office, The national Institute of Economic Research and the Swedish Fiscal Policy Council. In the Code, the government clarifies that the Fiscal Policy Council has a special responsibility in this monitoring.

Regarding stabilisation policy, the Code describes the different roles for monetary and fiscal policy as well as principles for how fiscal policy is used for stabilisation of the economy. The Riksbank (monetary policy) is regarded to have the main responsibility for stabilisation policy as Sweden has a flexible exchange-rate. Fiscal policy contributes to stabilisation policy foremost through maintaining confidence for the sustainability of the public finances. During normal business cycle fluctuations, fiscal policy also contributes to stabilisation through the automatic stabilisers and semiautomatic stabilisers (*i.e.*, active labour market policies). When there are very large swings in the business cycle (due to large demand or supply shocks), fiscal policy also may need to support monetary policy and the automatic/semiautomatic stabilisers through discretionary

measures. The Code says that if such discretionary measures are taken, they must be consistent with long-term sustainability of the public finances. Experience shows that many temporary measures often are difficult to reverse. The Code therefore stipulates that temporary measures that are difficult to reverse, should be avoided. If there is a scope for reforms, discretionary policies should instead focus on bringing forward structurally sound permanent measures.

The part of the Code covering governmental interventions on financial markets, describes the responsibilities of different governmental agencies as well as principles for governmental interventions. Even with good institutions, Sweden will not be immune to global financial crises. However, clearly defined mandates for different governmental agencies, as well as clear principles for governmental interventions in financial markets, are essential in preventing nationally induced financial crisis, and contribute to an effective handling of financial crises once they have occurred. In certain situations, governmental interventions can be motivated to prevent a financial system meltdown. The Code says that such interventions must be constructed in a way that minimises the long-term costs of the tax payers as well as moral hazard problems.

The part of the Code covering openness and transparency, describes principles for how fiscal policy is to be accounted for in the documents the government submits to parliament. It also provides general principles for forecasts and calculations of the effects of different reforms. For example, the Code stipulates that, if a reform is assumed to have significant economic effects, the government must reports its effects on GDP, employment and income distribution. The Code also stipulates that the government must present long-term sustainability calculations at least once a year.

7   Concluding remarks

In this paper, we have discussed, with reference to Swedish experience, how a well-designed fiscal policy framework can help to promote sound public finances. We have shown that the Swedish framework fulfils most of the criteria of what constitutes an effective framework. Furthermore, we have argued that the Swedish experience indicates that a fiscal policy framework can be essential for maintaining surpluses in good years. We have also shown that, on the whole, the framework has been respected. Our conclusion is that the framework has made a significant contribution to the enhancement of confidence in the long-term sustainability of public finances, which has kept risk premia small and enabled an effective stabilisation policy. We have also argued that the Swedish framework has contributed to Sweden, as one of a few European Union countries, being able, despite the financial crisis, to adhere to the SGP's numerical fiscal rules. This supports the view that national fiscal policy frameworks are likely to improve the performance of the SGP.

We have, however, also argued that a well-designed fiscal policy framework on paper is not a sufficient condition for fiscal sustainability and a responsible fiscal policy over the business cycle. Several countries, which prior to the crisis had a fiscal policy framework that ranked high *on paper,* performed badly during the financial crisis. For a fiscal policy framework to work properly, there must be a strong political belief that such frameworks actually matter, and a political commitment to respecting them. Such political commitment is likely to be stronger in countries, such as Sweden, with recent experience of fiscal crises. Seen from this perspective, in many countries today's fiscal crisis is likely to be a loud "wake-up call".

As recognised in the economic literature, there is a trade-off between fiscal rules that tie politicians to the mast, and rules that are sufficiently flexible to cope with changes in economic conditions. We have argued that countries with a good track record, where the memory of recent fiscal crises has contributed to strong political support for the fiscal policy framework, can rely on reputational cost to a greater extent than other countries. It is also likely that this allows a more

qualitative and flexible approach to the assessment of potential deviations from targets. However, *if* the memory of earlier fiscal crises fades and this gives rise to deliberate deviations from fiscal targets, it may be necessary to introduce a stronger corrective arm.

Finally, we have described the content of the Swedish government's Code of Conduct for fiscal policy, which serves to institutionalise and strengthen the fiscal policy framework further. This Code does not only contain the MTBF, but also describes the main targets of fiscal policy, the importance of external evaluation, responsibilities and principles for stabilisation policy measures, principles for governmental interventions on financial markets, responsibilities of the different agencies involved, and principles for openness and transparency in the accounting of fiscal policy.

We hope that this paper – which has described the Swedish fiscal policy framework, its background, our mainly positive experiences and recent improvements of it – can serve as an inspiration to countries that are in the process of introducing a fiscal policy framework.

REFERENCES

Ayuso-i-Casals, J., D. Gonzáles Hernández, L. Moulin and A. Turrini (2009), "Beyond the SGP: Features and Effects of EU National-level Fiscal Rules", in J. Ayuso-i-Casals. S. Deroose, E. Flores and L. Moulin (eds.), *Policy Instruments for Sound Fiscal Policies – Fiscal Rules and Institutions*, Palgrave Macmillan.

Boije, R. and J. Fischer (2009), "The Swedish Budget 'Model': A Genuine Beauty or in the Need of a Face Lift?", in J. Ayuso-i-Casals. S. Deroose, E. Flores and L. Moulin (eds.), *Policy Instruments for Sound Fiscal Policies – Fiscal Rules and Institutions*, Palgrave Macmillan.

Boije, R., A. Kainelainen and J. Norlin (2010), "The Swedish Fiscal Policy Framework", *Nordic Economic Policy Review*, No. 1, Nordic Council of Ministers.

Broesens, T. and P. Wierts (2009), "The Surplus Factor", in J. Ayuso-i-Casals. S. Deroose, E. Flores and L. Moulin (eds.), *Policy Instruments for Sound Fiscal Policies – Fiscal Rules and Institutions*, Palgrave Macmillan.

Calmfors, L. (2010), "The Swedish Fiscal Policy Council – Experiences and Lessons", Swedish Fiscal Policy Council.

Debrun, X., D. Hauner and M.S. Kumar (2009), "Independent Fiscal Agencies", *Journal of Economic Surveys*, Vol. 23, No. 1, pp. 44-81.

Debrun, X., L. Moulin, A. Turrini, J. Ayuso-i-Casals and M. Kumar (2008), "Tied to the Mast? National Fiscal Rules in the European Union", *Economic Policy*, pp. 297-362, April.

Eichengreen, B. and C. Wyplosz (1998), "The Stability Pact: More than a Minor Nuisance", *Economic Policy*, No. 26, pp. 65-113.

European Commission (2006), "Public Finances in EMU 2006", *European Economy*, No. 3.

——————(2009), "Public Finances in EMU 2009", *European Economy*, No. 3.

——————(2010a), "Exit Strategies for the Real Economy: Guiding Principles for the Withdrawal of Temporary Crisis Support Measures in Labour and Product Markets", note to the Economic and Financial Committee and the Economic Policy Committee in view of the ECOFIN meeting of 16 March 2010.

——————(2010b), "Proposal for a Council directive on Requirements for Budgetary Frameworks of the Member States", COM(2010) 523.

Federal Ministry of Finance (2009), *Reforming the Constitutional Budget Rules in Germany*, Berlin.

Finansdepartementet (2010a), "Översyn av överskottsmålet (Evaluation of the surplus target)", Ds 2010:4.

——————(2010b), "Vårpropositionen 2010 (Spring Budget Bill)", prop. 2009/10:100.

Finanspolitiska rådet (2008), "Svensk finanspolitik (Swedish Fiscal Policy)", Report of the Fiscal Policy Council 2008.

Fiscal Policy Council (2009), "Swedish Fiscal Policy", Report of the Fiscal Policy Council.

Government Offices (2011), *The Swedish Fiscal Policy Framework*.

Haugh, D., P. Ollivaud and D. Turner (2009), "What Drives Sovereign Risk Premiums? An Analysis of Recent Evidence from the Euro Area", OECD, Economics Department, Working Paper, No. 718.

Holm-Hadulla, F., S. Hauptmeier and P. Rother (2010), "The Impact of Numerical Expenditure Rules on Budgetary Discipline over the Cycle", ECB, Working Paper, No. 1169.

Iara, A. and G. Wolff (2010), "Rules and Risk in the Euro Area: Does Rules-based National Fiscal Governance Contain Sovereign Bond Spreads?", European Commission, *Economic Papers*, No. 433.

IMF (2009), "Fiscal Rules – Anchoring Expectations for Sustainable Public Finances", IMF, Staff Paper.

————— (2010), "Fiscal Monitor – Navigating the Fiscal Challenges Ahead", World Economic and Financial Studies.

Joumard, I. and C. André (2008), "Revenue Buoyancy and its Fiscal Policy Implications", OECD, Economics Department, Working Paper, No. 598.

Leeper, E. (2009), "Anchoring Fiscal Expectations", NBER, Working Paper, No. 15269.

Ljungman, G. (2009), "Top-down Budgeting − An Instrument to Strengthen Budget Management", IMF, Working Paper, No. WP/09/243

OECD (2009), *Economic Outlook Interim Report*, OECD.

Reinhart, C. and K. Rogoff (2009). "The Aftermath of Financial Crises", *American Economic Review*, May.

————— (2010), "Growth in a Time of Debt", *American Economic Review*, May.

Riksrevisionen (2007), "Regeringens uppföljning av överskottsmålet (The Government's Monitoring of the Surplus Target)", *RiR*, 2006:27.

FISCAL PERFORMANCE AND DECENTRALIZATION
IN EUROPEAN UNION COUNTRIES

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This paper assesses the evidence on the impact of fiscal decentralization on overall fiscal performance in the European Union, taking into account fiscal institutional arrangements. We find that spending decentralization has been associated with sizably better fiscal performance. In contrast, revenue decentralization has had a negative impact, at variance with the normative literature. Intriguingly, transfers appear to weaken the improvement in fiscal performance associated with expenditure decentralization. We conjecture that resource rationing may have been used by the center to impose discipline on subnational governments. If so, the fiscal gains from expenditure decentralization may not be sustainable.

1   Introduction

Many European countries have embarked on fiscal decentralization programs over the last decades. They have reassigned spending and revenue collection responsibilities from the center to subnational (local and regional) governments. As a result, the spending carried out at the subnational level in the European Union (EU) has increased from 23 per cent of general government spending in 1995 to 26 per cent in 2009 with the revenue share increasing to a lesser extent.

The economic case for decentralization relies essentially on efficiency arguments. Subnational governments have more information and hence can better match policies with citizens' preferences (Oates, 1972). Another argument is that competition between jurisdictions limits the local tax burden and encourages cost-efficient provision of local public goods (Brennan and Buchanan, 1980). Finally, decentralization is likely to increase accountability and transparency in the delivery of public goods and services.

Yet decentralization could have drawbacks. In particular, subnational governments may not fully internalize the cost of local expenditure when spending decentralization is financed through a "common pool" of transfers from the center. In this case, they are more likely to overspend and lower their tax effort. This effect is aggravated if subnational authorities anticipate that their financing gap will be covered by the center, with bailout expectations "softening" the budget constraint felt at the local level (Rodden *et al.*, 2003). However, some institutional arrangements – e.g., fiscal rules – could in principle help overcome coordination problems between levels of government and strengthen fiscal discipline by correcting incentives, enhancing accountability and anchoring economic agents' expectations.

The empirical literature is inconclusive as to the impact of decentralization on fiscal performance. The purpose of this paper is to assess empirically this impact in the EU, examining explicitly the role of institutional arrangements covering subnational governments. This question

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may now be timely given that many European countries are facing the challenge of restoring fiscal sustainability and financial markets are questioning whether consolidation efforts may be derailed by coordination problems in decentralized countries. Our findings suggest that spending decentralization has in fact been associated with stronger fiscal performance, especially when transfer dependency of subnational governments was low. On the other hand, revenue decentralization can create challenges as it limits the central government's ability to control subnational slippages.[1]

The paper is organized as follows. Section 2 briefly reviews the literature on the costs of fiscal decentralization. Section 3 describes the institutional features of subnational governments in the EU. Section 4 presents some stylized facts of decentralization and fiscal performance in the EU. Section 5 approaches these issues through econometric methods and analyzes the results. Section 6 concludes.

2   The economic debate on fiscal decentralization

In this section, we present some results from the literature on decentralization and fiscal performance. Most of the existing literature is of a theoretical nature or is based on case studies. Theoretical or normative contributions generally point to the risks of decentralization, especially where subnational spending is financed through transfers or local borrowing. However, the empirical literature does not yet provide clear-cut results. Possibly owing to data constraints, econometric cross-country work is scarce and focuses mostly on OECD countries.

The challenges of decentralization in terms of macroeconomic stabilization have long been highlighted in the normative literature. The widespread view is that countercyclical policies are more difficult to pursue in a decentralized framework (Ter-Minassian, 1997), because the center is deprived of some tax and spending levers (Tanzi, 1995); and subnational governments usually conduct procyclical policies (Tanzi, 2000; IMF, 2009). From an empirical standpoint, the evidence is scant although there are some case studies illustrating the procyclicality of local budgets (Rodden and Wibbels, 2009).

In addition, decentralization may also affect the capacity of countries to reduce chronic deficits. Subnational governments are often suspected of conducting looser fiscal policies, with coordination failures creating "deficit bias" (Oates, 2006). In addition, decentralization may deteriorate the central government performance. This is clearly the case when central governments bail out subnational authorities that become excessively indebted. It can also take more subtle forms, for instance, when high subnational borrowing or difficulties in implementing consolidation plans in a decentralized framework result in higher risk premia for the central government.

However, the cross-country econometric evidence on the effect of decentralization on fiscal performance is mixed. Rodden (2002) finds that revenue decentralization deteriorates the general government balance whereas Neyapti (2010) finds that revenue and spending decentralizations improve it. Afonso and Hauptmeier (2009) report that a higher degree of spending decentralization worsens the primary balance (for high debt levels) while revenue decentralization does not matter. Thornton (2009) also finds no significant impact of revenue decentralization. Baskaran (2010) adopts a different approach by assessing the impact on debt rather than on the fiscal balance; it

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[1] Subnational spending is local and regional government spending excluding transfers paid. Subnational revenue is defined as the revenues of local and regional governments excluding transfers received, and transfers are net current and capital transfers received from the other levels of government.

finds that expenditure decentralization significantly reduces public indebtedness, while the effect of tax decentralization is insignificant.[2]

The design of the institutional framework seems crucial to reap the benefits of fiscal decentralization. Three institutional features have received particular attention:

- *Transfer dependency*. Rodden (2002) argues that higher reliance on transfers reduces the general government overall balance, in particular when subnational borrowing is not constrained. In addition, subnational spending funded by transfers is found to be additional to central government spending, not a substitute (Fornasari *et al.*, 2000). Transfer growth may become endogenous, with deficits bringing about more grants, which in turn generate higher deficits (De Mello, 2007). Thus, allowing subcentral governments to access own revenue through local taxation is often seen as essential to promoting fiscal discipline.

- *Subnational borrowing autonomy* can also undermine the fiscal discipline of local governments, especially when they resort to "soft" financing – for instance, when bonds are sold to the public banking system or to state-owned enterprises (Oates, 2006). Some studies find that restricting subnational authorities' access to borrowing – either through cooperative arrangements, market discipline, or formal rules – is associated with better fiscal performance (Rodden, 2002; Plekhanov and Singh, 2007).

- *Fiscal rules* may offset some of these negative effects by addressing coordination problems between levels of government (Sutherland *et al.*, 2005; Ter-Minassian, 1997 and 2007, Ter-Minassian and Craig, 1997). However, the empirical literature does not find conclusive evidence that subnational rules affect the general government performance. In particular, Debrun *et al.* (2008) find that rules applying to subnational governments have no significant impact on the cyclically-adjusted primary balance of the general government, in contrast to rules pertaining to the general and the central government. Afonso and Hauptmeier (2009) report the same result with the general government primary balance.

3   Institutional features of european subnational governments

The role of subnational governments varies significantly in the EU. Relatedly, subnational government spending – as a proportion of general government expenditure – ranges widely from less than two per cent in Malta to almost two-thirds in Denmark.[3] The relationship between the center and the subnational governments differs reflecting the distribution of political power, economic functions, and institutional arrangements. We examine briefly some of these features in this section.

3.1   *Subnational government structures and economic functions*

In general, the share of subnational expenditure in total government spending is higher in federal countries, but some unitary countries also have a high level of spending decentralization. The great majority of EU countries are unitary. Only Austria, Belgium, and Germany are organized

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[2]   On a related issue, based on a comparative analysis of successful and failed consolidations, Darby *et al.* (2005) shows that high level of expenditure decentralization reduces the occurrence of successful consolidations; the more decentralized countries rely less on durable expenditure cuts and more on short-lived revenue hikes, probably because decentralization makes coordinated cuts more difficult to achieve.

[3]   Expenditure shares are to date the most common way of describing the spending power of subnational governments. In this paper, fiscal decentralization is measured as the share of subnational spending in total general government spending, unless noted otherwise. Countries are divided in three groups of about equal size according to their degree of decentralization. High-decentralization countries have spending share above 33 per cent; medium-decentralization countries have spending shares between 25 and 33 per cent; while low-decentralization countries have spending share less than 25 per cent.

Features of Subnational Governments

Sub-national Government Tiers	Country	National Government	Decentralization (2009)
One	BUL	Unitary	low
	CYP	Unitary	low
	LUX	Unitary	low
	MLT	Unitary	low
	SVN	Unitary	low
	EST	Unitary	medium
	LTU	Unitary	medium
	LVA	Unitary	medium
	FIN	Unitary	high
	GRC	Unitary	low
Two	IRL	Unitary	low
	PRT	Unitary	low
	SVK	Unitary	low
	AUT	Federal	medium
	CZE	Unitary	medium
	HUN	Unitary	medium
	ROM	Unitary	medium
	DNK	Unitary	high
	NLD	Unitary	high
	SWE	Unitary	high
Three	FRA	Unitary	low
	GBR	Unitary	medium
	ITA	Unitary	medium
	POL	Unitary	medium
	BEL	Federal	high
	DEU	Federal	high
	ESP	Unitary	high

Sources: CCRE-CEMR EU subnational governments: 2009 key figures, Dexia February 2011; authors' calculations.

on a federal basis (see Table 1). While these federal states have a slightly higher level of decentralization, the classification into unitary and federal refers only to the distribution of political power, which does not necessarily coincide with the distribution of economic resources or the level of fiscal decentralization. Hence, there are medium-decentralization federal countries, such as Austria, as well as highly decentralized unitary countries, such as Denmark, Finland, or Spain.

More decentralized countries tend to have more tiers of subnational government (Table 1). About one-third of the EU27 countries have one single level, while the rest have two or three tiers. In general, larger countries with a larger population or surface area tend to have more tiers and a higher number of administrative entities.

The main areas of subnational government expenditure are education, health, and social welfare. While most countries have assigned to the subnational levels at least some responsibility for preschool, primary, and secondary education, universities are mainly in the realm of the center. Nevertheless, in some countries university education is also assigned to the subnational level. Furthermore, some hospitals and basic healthcare are usually assigned to subnational tiers. The same is true for the execution of general social welfare services, such as social housing (see

Figure 1

Trends in Subnational Expenditure Shares, 1995-2008
(number of countries)
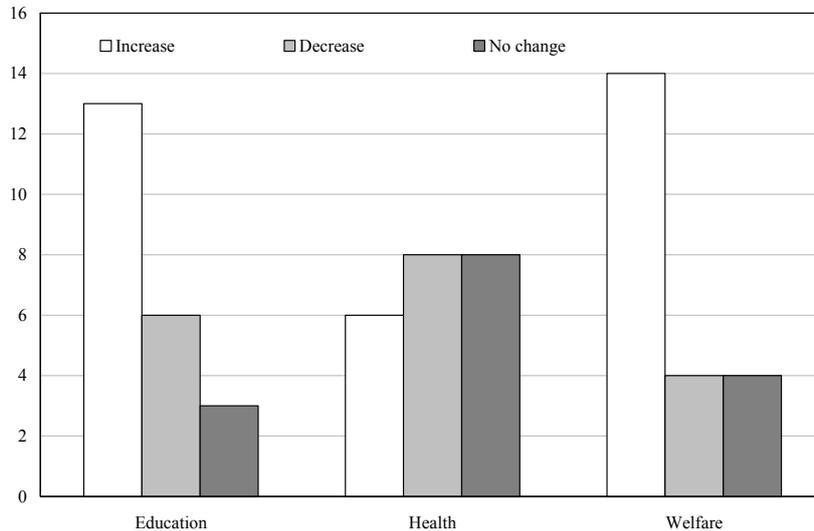
Sources: Eurostat and authors' calculations.

Appendix 1). Between 1995 and 2008, subnational expenditure shares for education and social welfare have risen, while the subnational expenditure share of health has decreased in the majority of countries (Figure 1).[4]

3.2 Control mechanisms

To control subnational government deficits, it is common to find fiscal rules – mainly borrowing or balanced budget rules – applying to subnational entities.[5] The number of fiscal rules has increased substantially at the central and general government levels in the European Union. Nonetheless, the majority of fiscal rules are applied at the local government level (Appendix 2). Budget balance rules are more prevalent in EU15 countries, while debt or borrowing rules are common among the new member states (NMS). Expenditure rules, on the other hand, are rare at the subnational level. In some countries this may reflect that, once budget balance rules are imposed, subnational governments do not have much flexibility on spending as they often depend on grants from the central government. Subnational fiscal rules are more prevalent in countries with higher decentralization and when subnational governments are more reliant on own revenues than on transfers.

Fiscal rules for both the central and subnational governments are stronger in more decentralized economies (Figure 2). Not surprisingly, rules at the central government level are also strong for low levels of decentralization where spending is mostly concentrated at the center. But central government rules are weaker in the case of medium-decentralization economies; in these economies, subnational governments are also more reliant on transfers from the center.

Nevertheless, the strength of these rules does not necessarily reflect their effectiveness. Although most countries have fiscal rules on subnational government levels, sanctions in case of rule infringement are often weak, and the central government retains considerable discretion in addressing a breach in rules. Moreover, breaching of the rules does not preclude a bailout by the central government. In the past, lack of control over subnational governments' fiscal performance has resulted in subnational bailouts in at least nine EU countries (Appendix 2). Subnational bailouts have more frequently occurred in countries with a higher number of administrative tiers.

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[4] Overall, eight countries have reduced the subnational expenditure shares for health, three of which significantly by 15-20 percentage points (Estonia, Hungary, and Romania). In Ireland this trend is particularly pronounced: in 2005 the total health budget was reassigned to the center, causing the subnational expenditure share to drop from 95 per cent to zero. This is consistent with the trends described in Saltman (2008).

[5] The fiscal rule indices used in the paper come from the European Commission Fiscal Rule Index database (European Commission, 2009). Overall fiscal rules comprise all rules applying to either the general, central, or subnational governments.

Figure 2

Fiscal Rule Strength and Level of Decentralization
Central Government Fiscal Rule Index

Subnational Fiscal Rule Index
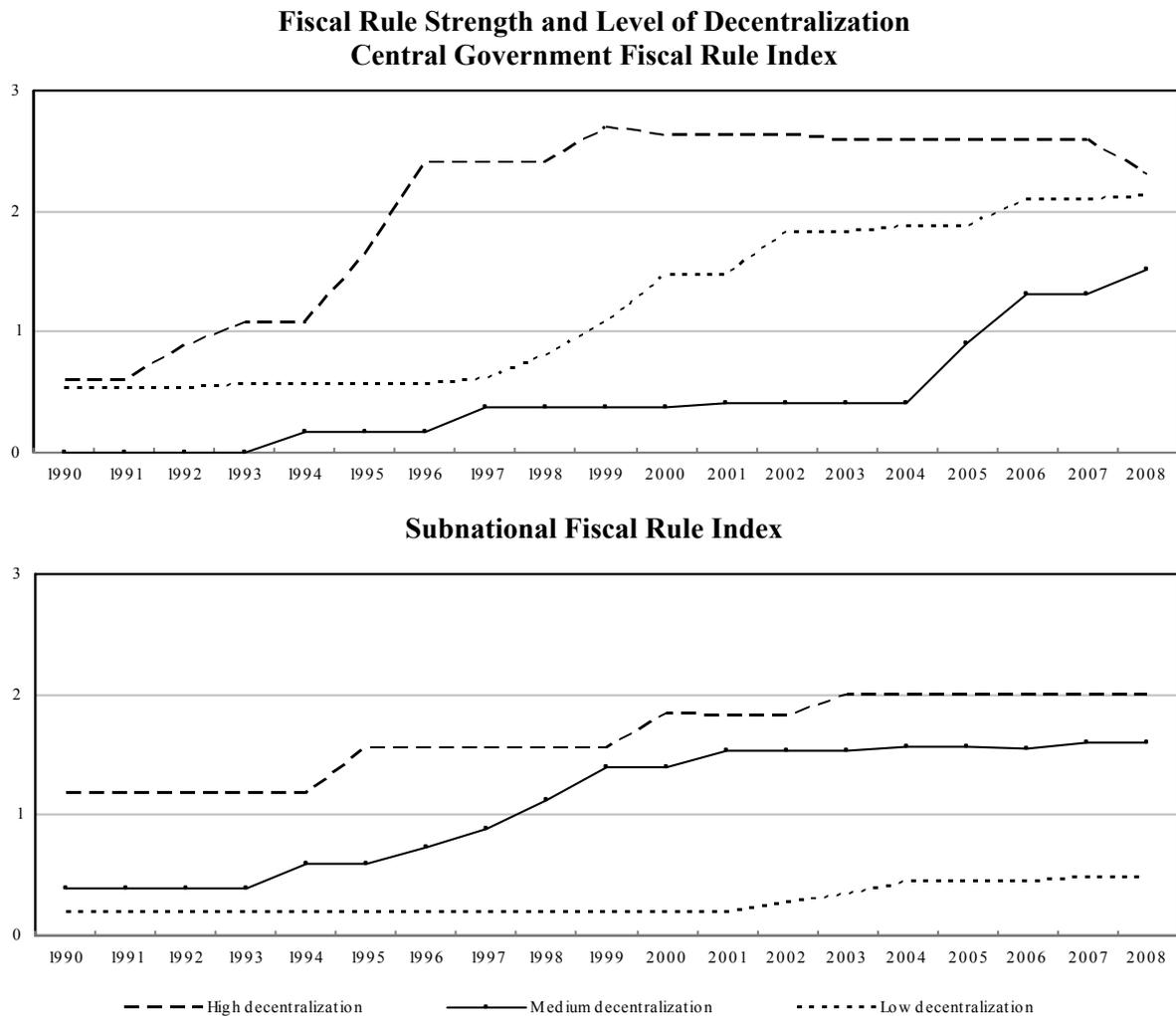
Sources: Eurostat, European Commission and authors' calculations.
Note. The fiscal rule index measures the strength of the rule based on its legal basis, coverage, strictness of monitoring and enforcement (including through sanctions and escape clauses), and media visibility.

Coordination between the central and subnational governments in budgetary procedures is limited. Less than one-third of countries have formal coordination arrangements.[6] Also, in the majority of countries, the budget law only includes fiscal targets for the central government. In only a small proportion of countries, subnational levels are explicitly targeted by the medium-term budgetary frameworks.

4   Stylized facts on decentralization and fiscal performance

In this section, we present some stylized facts regarding the impact of fiscal decentralization on fiscal performance in the EU. In addition, we try to explain what institutional factors – namely

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[6]   See European Commission database on medium-term fiscal frameworks.

the degree of revenue autonomy, transfer dependency, and presence of fiscal rules – affect fiscal performance.[7] We use fiscal data from Eurostat covering the years 1995-2008 and look at different indicators (balance and debt) to assess the performance of the general government.[8] The main findings are as follows:

Stylized fact No. 1. Spending decentralization is associated with better fiscal performance at the general government level (Figure 3).

Over the period 1995-2008, cyclically-adjusted general government fiscal balances were higher among more decentralized countries such as Denmark, Sweden and Spain, and much lower in less decentralized countries such as Greece, Malta and Slovakia (Figure 4, Panel A).[9] Moreover, increases in spending decentralization are not associated with increases in debt (Figure 4, Panel B). Nevertheless, fiscal performance varies considerably among countries with a medium level of decentralization, in particular, among the NMS. For example, several eastern European economies such as Czech Republic, Hungary and Poland have higher deficits, while Estonia and Bulgaria have much lower deficits. On average, overall fiscal balances in countries with medium and low levels of decentralization are respectively 2 and 2½ percentage points of GDP below those of countries with high decentralization.

The relatively favorable general government fiscal performance for more decentralized countries reflects strong fiscal positions at the center. Subnational governments have a close-to-balance fiscal position irrespective of the degree of decentralization (Figure 3). This low deficit is not surprising as subnational governments are often constrained in their ability to borrow – either due to fiscal rules or market rationing – and are generally reliant on transfers from the center with spending being closely related to the availability of transfers. Given this, fiscal indiscipline at the subnational level would be reflected in higher deficit at the center as a result of transfers. However, this is not borne out by the data: on average, central government fiscal performance seems stronger in highly decentralized countries.

How can the central government control overall fiscal performance in the context of decentralization? We explore two potential channels: first, through unfunded mandates whereby more spending responsibilities are assigned to subnational governments but are not matched by commensurate resources (transfers or own revenues) and second, through the use of fiscal rules.

Stylized fact No. 2. Expenditure decentralization has outpaced the decentralization of resources to subnational governments (own revenue and transfers).

Subnational spending rose by 3¾ percentage points as a share of general government spending between 1995 and 2009, whereas the average increase in subnational own revenues and transfers accounted for only 2½ percentage points (Figure 5). Since rising own revenue sources did not kept up with the increase in subnational spending, vertical imbalances – measured by the gap between spending and revenue decentralization – increased over time. While transfers also generally increased, they fell behind the widening vertical imbalances, resulting in larger subnational deficits. This suggests unfunded mandates and rationing of resources to subnational governments. That is, subnational governments would have been forced to implement expenditure savings – particularly if borrowing was constrained. In turn, decentralization of spending responsibilities without commensurate transfers and reassignment of tax instruments may have improved the fiscal position of the center and thus, of the general government.

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[7] Revenue autonomy is measured by the share of subnational own revenues (*i.e.*, adjusted for central government transfers) in general government revenues; transfer dependency is measured by the share of transfers received by subnational governments in total subnational revenues.

[8] For a description of the data and definitions, see Appendix 3.

[9] This positive relationship is also evident when measured against overall balance or cyclically-adjusted primary balance.

Figure 3

Average Fiscal Balances by Level of Decentralization in the European Union, 1995-2009
(percent of GDP)
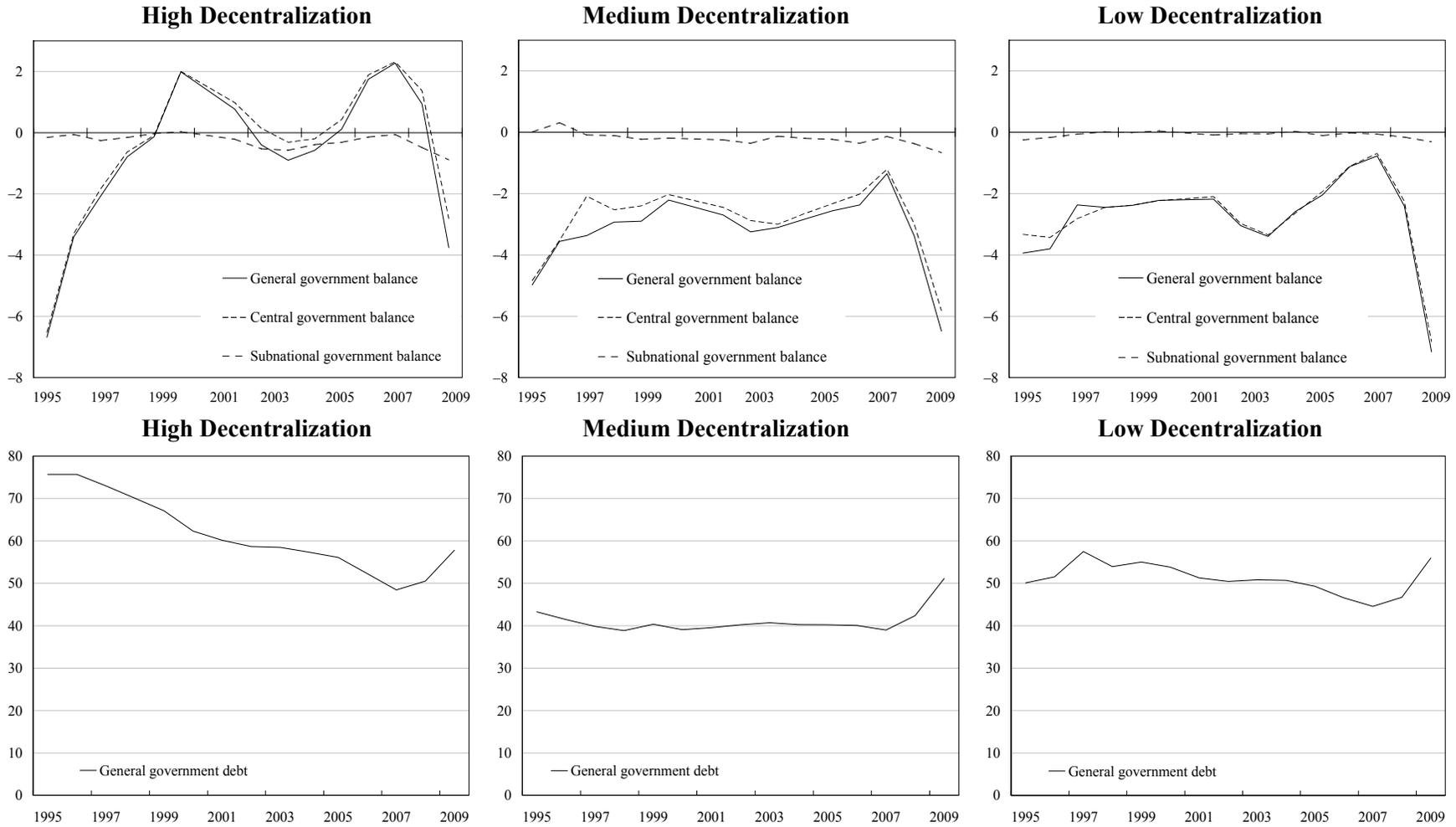
Sources: Eurostat and authors' calculations.

Figure 4

Fiscal Performance in the European Union, 1995-2008
Panel A   **Panel B**
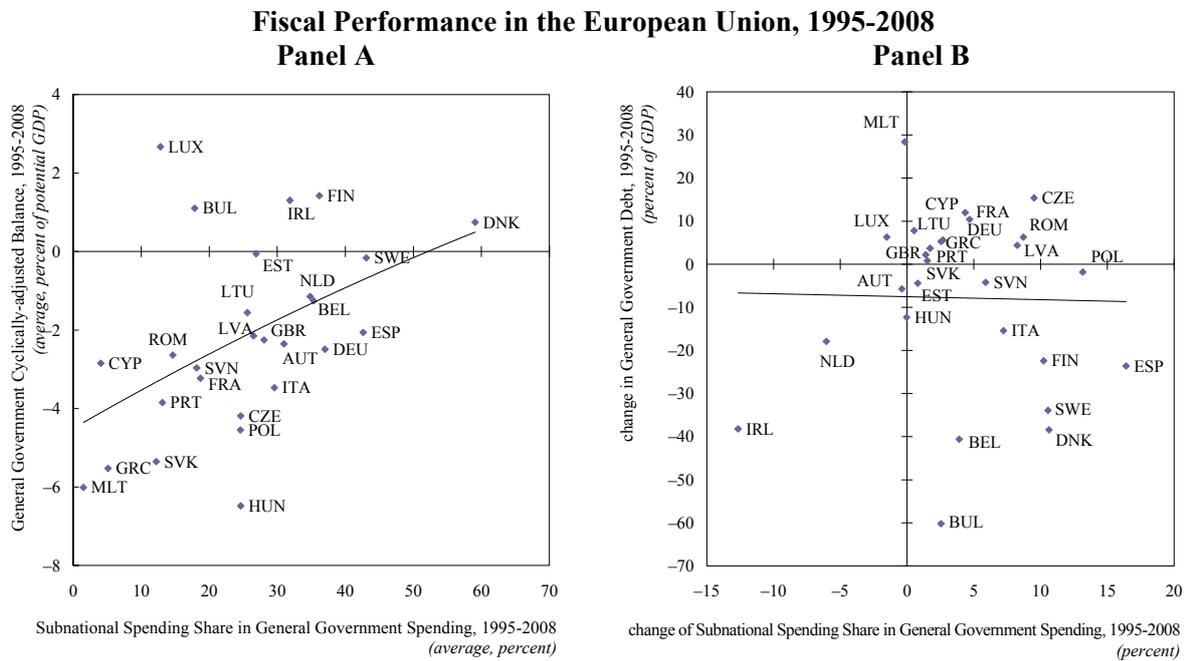
Sources: Eurostat; European Commission, IMF and authors' calculations.

Stylized fact No. 3. Subnational rules do not appear to have an effect on fiscal performance.

Although the overall fiscal rule index[10] has a positive relationship with the general government balance, the subnational fiscal rule index does not show a clear relationship (Figure 6). The absence of a strong correlation between the strength of subnational fiscal rules and fiscal performance could also indicate that the rules are not always effective due to weak implementation and bailouts as mentioned earlier.

5   Econometric evidence

To assess more formally the effect of decentralization on fiscal performance, we estimate a fiscal reaction function. This specification follows Bohn (1998) and Debrun *et al.* (2008). In this model, a country's fiscal policy can be described as the response of the general government primary balance to (1) cyclical fluctuations; (2) general government debt; and (3) institutional and political determinants. The estimated equation is:[11]

$$PB_{it} = \alpha_0 + \beta\, PB_{it-1} + \gamma\, d_{it-1} + \phi\, gap_{it-1} + Dec_{it}{}'\delta + x_{it}{}'\lambda + \eta_i + \varepsilon_{it},\tag{1}$$

where the indices *i*, *t* denote countries, and years, respectively; *PB* is the primary balance to GDP; *d* is the debt-to-GDP ratio; *gap* is the output gap;[12] *Dec* is a vector comprising, depending on the

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[10]   The overall fiscal rules index includes all rules on the general, central, or subnational governments.

[11]   We use EU27 data for 1990-2008 constituting an unbalanced panel (reflecting data availability).

[12]   The output gap is defined as actual GDP less potential GDP as a percent of the latter. In particular, positive gap values indicate that the economy is operating above potential.

Increase in Spending and Revenue Decentralization
(percent of general government spending)

Change in Share of Subnational Spending, 1995-2009
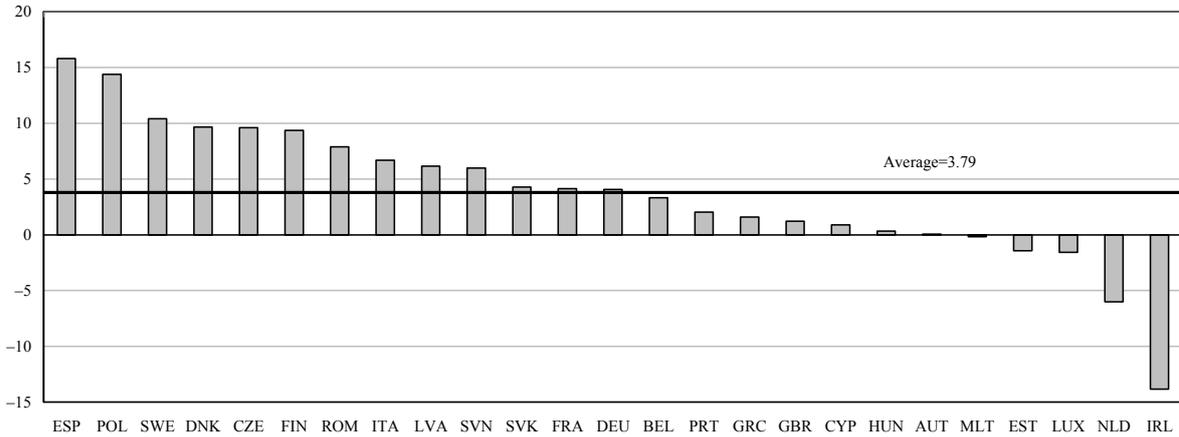
Change in Share of Subnational Revenue, 1995-2009
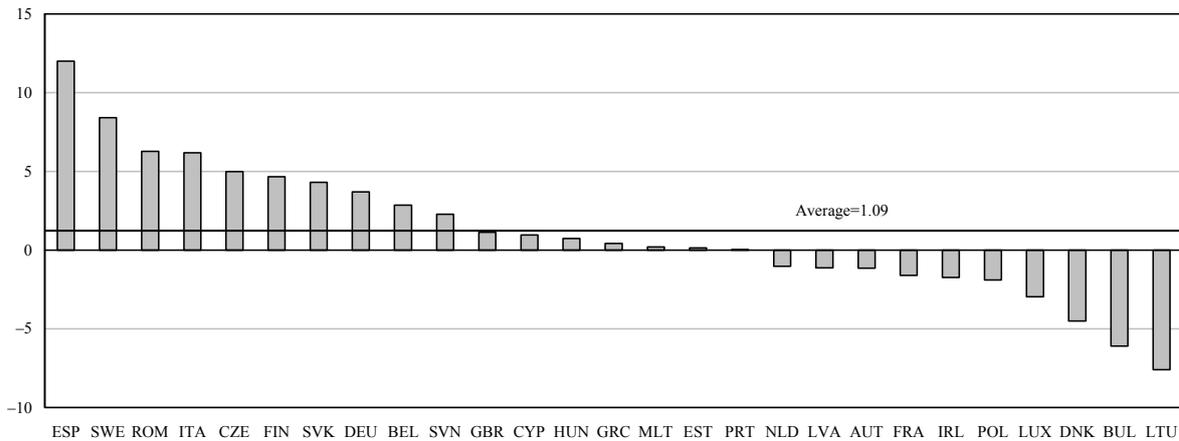
Change in Share of Net Transfers, 1995-2009
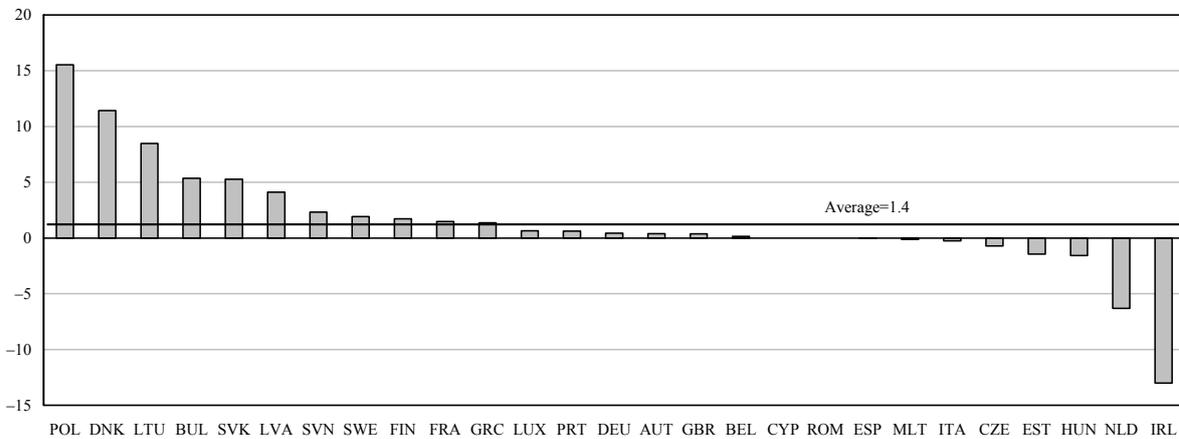
Sources: Eurostat and authors' calculations.

Figure 6

Fiscal Rules Indices and Fiscal Performance, 2008
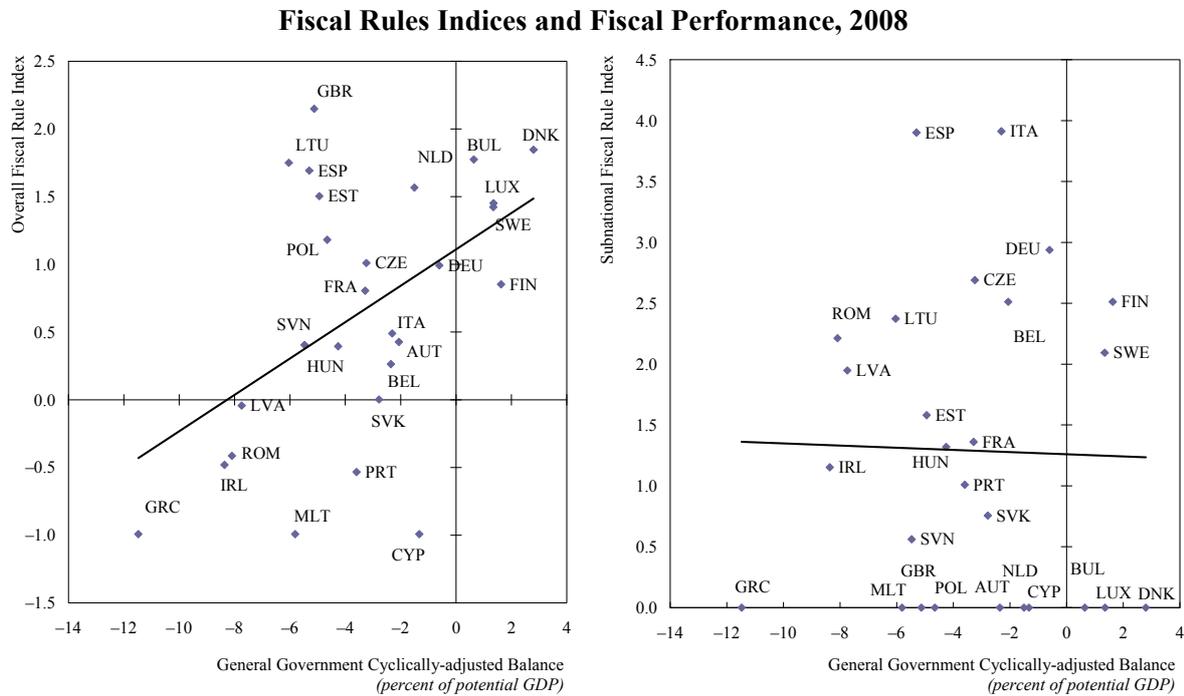
Sources: Eurostat; European Commission and authors' calculations.

specification, spending decentralization (subnational spending as a ratio of general government spending), revenue decentralization (subnational own revenues as a share of general government revenues), transfer dependency (transfers to subnationals as a share of total subnational revenues), and interactions among these variables; *x* denotes other control variables, including relevant political and fiscal institutions; η_i represents country-specific fixed effects; and ε_{it} is a time- and country-specific error term. In line with Galí and Perotti (2003), we use the cyclically-adjusted primary balance as the dependent variable to capture a country's discretionary fiscal policy. In this model, we expect γ to be positive as long as the government reacts to the existing stock of debt to ensure long-run solvency. A positive (negative) value for ϕ would indicate fiscal policy is countercyclical (procyclical). The impact of fiscal decentralization is, however, ambiguous ex ante (as discussed before). A positive (negative) value for the estimated coefficients in δ would indicate that decentralization improves (hampers) fiscal performance.

The model is estimated using the bias-corrected Least Square Dummy Variable (LSDVC) estimator proposed by Bruno (2005). With standard estimation methodologies, the inclusion of fixed-effects in dynamic panels creates a bias. In particular, even though the within transformation eliminates the η_i, by construction the transformed error term ($\varepsilon_{i,t} - \frac{1}{T}\sum_{t=1}^{T}\varepsilon_{i,t}$) is still correlated with the lagged dependent variable. The bias (which affects all variables) is a function of *T*, and only as *T* tends to infinity will the within estimators be consistent. To correct for this problem, we use the LSDVC estimator which approximates the bias to construct a consistent estimator. This method is superior to Instrumental Variables (IV) and Generalized Method of Moments (GMM) in narrow samples (small time dimension relative to the number of units in the panel) as it is the case here.

Table 2

Fiscal Decentralization and Fiscal Performance[1]

Estimator	LSDVC (1)	LSDVC (2)	LSDVC (3)	FE (4)
Lagged dependent variable	0.575***	0.552***	0.504***	0.336***
	(0.0515)	*(0.0532)*	*(0.0516)*	*(0.0402)*
Lagged government debt	0.0455***	0.0448***	0.0563***	0.0083
	(0.0134)	*(0.0134)*	*(0.0136)*	*(0.0105)*
Lagged output gap	−0.263***	−0.270***	−0.304***	−0.282***
	(0.0423)	*(0.0419)*	*(0.0416)*	*(0.0356)*
Spending decentralization	0.0730**	0.165***	0.562***	0.801***
	(0.0366)	*(0.0539)*	*(0.146)*	*(0.115)*
Revenue decentralization		−0.203***	−0.563***	−0.685***
		(0.078)	*(0.152)*	*(0.116)*
Transfer dependency		−0.0337		
		(0.0206)		
Spending decentralization *x* Transfer dependency			−0.00485***	−0.00651***
			(0.00154)	*(0.00119)*
Parliamentary election	−0.479**	−0.492**	−0.445**	−0.445***
	(0.193)	*(0.192)*	*(−0.19)*	*(0.171)*
Constant				−5.882***
				(1.008)
Number of observations:	322	322	322	322
Number of countries	27	27	27	27
Fixed effects (*F*-test)				8.48***

Robust standerd errors in parentheses. *** $p<0.05$, * $p<0.1$
[1] Dependent variable is the General Government primary cyclically-adjusted balance. LSDVC accounts for the fixed-effects small sample bias in dynamic panels.

5.1   Baseline results

Overall, the estimates suggest that decentralization improves fiscal outcomes. In particular, spending decentralization seems to improve fiscal performance irrespective of the model specification (Table 2), in line with stylized fact 1. As expected, there is significant degree of persistence in the CAPB and our results are consistent with the stabilization response to debt developments. However, in contrast with other studies (see Debrun *et al.*, 2008; and Galí and Perotti, 2003), there is evidence of a procyclical fiscal policy, as indicated by the negative coefficient of the output gap. Concerning political variables, the results suggest that there is an electoral cycle in Europe, as fiscal performance worsens on election years.[13]

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[13]   Other political and institutional variables were originally included in the regression (different measures of government and political fragmentation; government stability; ideology; existence of autonomous regions; euro entry; and EU accession). The size of the economy was also included in the regression. However, since none of these variables were significant they were dropped to keep a parsimonious specification.

Nevertheless, not all aspects of decentralization are positive. First, transfer dependency diminishes the positive impact of spending decentralization on fiscal performance (Table 2, column 3). A possible reason for this result is that subnational governments do not fully internalize the costs when an increase in spending is financed through transfers from the center. Second, the fiscal position deteriorates with the degree of revenue decentralization (Table 2, column 2-3). Given our results, it is natural to ask how is it possible that higher spending decentralization improved overall fiscal performance, but own revenue decentralization or transfers did not. The results would be consistent with the idea that, once spending is decentralized, the only lever the center has left to maintain fiscal discipline at the subnational level is controlling the resources available to subnational governments; losing this lever could hurt the fiscal position. While the results do not provide a verdict on this issue, we conjecture (as discussed above) that tight subnational government resource constraints (own revenue and transfers) were used as rationing mechanisms by the center, contributing to better overall fiscal performance – and that when they were not used in that manner, overall fiscal performance improved to a lesser extent or deteriorated.

To assess whether these results vary with the institutional setup, we analyze the role of fiscal rules and the importance of coordination among different levels of government.

- First, we include an *overall fiscal rule index* measuring the stringency of rules-based fiscal governance in our baseline specification. Although our estimates show that the overall fiscal rules improve performance in line with the results of the literature (Table 3, column 1), *central and subnational fiscal rules* do not matter when considered separately (Table 3, column 2), consistent with stylized fact 3. The positive effect of overall fiscal rules may not be very robust, however, as discussed below. This could potentially reflect that rule implementation is weak, or that rules are introduced where fiscal performance is weaker in the first instance.[14]

- Second, we test whether the effect of spending decentralization depends on the *existence of rules constraining borrowing* at the subnational level. We do not find any significant impact (Table 3, column 3). One potential explanation is that subnational entities are constrained in their access to market irrespective of rules and, thus, spending decisions (and the corresponding impact on overall fiscal performance) are not determined by the their statutory ability to borrow. Similarly, *budget-balance rules* at the subnational level do not seem to matter either.

- Finally, to assess the importance of vertical coordination, we add an interaction between spending decentralization and a dummy variable that takes value 1 if there is a *formal coordination mechanism* with the subnational governments in the medium-term budgetary framework. This interaction effect turns out not to be statistically significant.

5.2   Robustness checks

In this section we discuss several sensitivity analyses which were performed to check the robustness of the key results reported above (Table 4). We begin by estimating the model with the general government balance as the dependent variable, and find a similar message as in our baseline specification. Next, we use changes in general government debt as a measure of performance. This variable may be more accurate in capturing the true fiscal performance, as debt increases in many European countries exceeded their fiscal deficits after the introduction of the Stability and Growth Pact (Buti *et al.*, 2007), possibly indicating the use of accounting loopholes to circumvent fiscal rules. The latter would be consistent with a loss of significance of the fiscal rules

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[14]   Our results should be interpreted with caution since we do not take into account explicitly the potential endogeneity of fiscal rules (*i.e.*, governments with stronger preference for fiscal discipline are more likely to adopt stronger fiscal rules). Debrun *et al.* (2008) finds negligible the potential estimator bias introduced by reverse causality in a similar model.

Table 3

Do Fiscal Institutions Matter?[1]

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Lagged dependent variable	0.498*** (0.0514)	0.504*** (0.0516)	0.508*** (–0.052)	0.505*** (0.0519)	0.504*** (0.0519)	0.505*** (0.0519)	0.500*** (–0.051)
Lagged government debt	0.0585*** (0.0137)	0.0537*** (0.0145)	0.0565*** (0.0136)	0.0559*** (0.0135)	0.0563*** (0.0136)	0.0562*** (0.0136)	0.0580*** (0.0136)
Lagged output gap	–0.320*** (0.0431)	–0.312*** (0.0444)	–0.301*** (0.0427)	–0.303*** (0.0419)	–0.304*** (0.0425)	–0.304*** (0.0414)	–0.319*** (0.0438)
Spending decentralization	0.529*** (0.148)	0.567*** (0.147)	0.583*** (0.152)	0.567*** (0.144)	0.562*** (0.146)	0.560*** (0.147)	0.534*** (0.154)
Revenue decentralization	–0.555*** (0.152)	–0.556*** (0.158)	–0.559*** (0.153)	–0.566*** (0.149)	–0.564*** (0.152)	–0.561*** (0.151)	–0.558*** (0.156)
Spending decentralization Transfer dependency	–0.00462*** (0.00155)	–0.00497*** (0.00155)	–0.00504*** (0.00159)	–0.00490*** (0.00151)	–0.00486*** (0.00154)	–0.00484*** (0.00153)	–0.00466*** (0.00158)
Parliamentary election	–0.466** (0.191)	–0.458** (0.192)	–0.446** (0.192)	–0.446** (–0.19)	–0.443** (–0.19)	–0.445** (0.193)	–0.467** (0.191)
Overall fiscal rule index	0.349* (0.195)						0.345* (0.204)
Central fiscal rule index		0.0835 (0.118)					
Subnational fiscal rule index		–0.212 (0.247)					
Spending decentralization *x* Subnational debt rule			–0.00902 (0.0112)				
Spending decentralization *x* Subnational budget balance rule				–0.0162 (0.0555)			
Spending decentralization *x* Central debt rule					–0.00268 (0.013)		
Spending decentralization *x* Central budget balance rule						0.00000211 (0.00749)	
Spending decentralization *x* Coordination dummy							–0.0221 (0.144)
Observations	322	322	322	322	322	322	322
Number of countries	27	27	27	27	27	27	27

Standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

[1] Dependent variable is the General Government primary cyclically-adjusted balance.

Table 4

Robustness Checks

Dependent Variable	General Government	Change in debt	CAPB	CAPB	CAPB	CAPB	CAPB
			EU15	NMS	Before 1999	1999-2008	Excl. 2008
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Lagged dependent variable	0.403***	0.373***	0.533***	0.433***	0.0617	0.549***	0.485***
	(0.0462)	(0.0598)	(0.0588)	(0.0808)	(–0.105)	(0.0661)	(0.0463)
Lagged government debt	0.0367***	–0.176***	0.0415***	0.0714***	0.076	0.0606***	0.0583***
	(0.0124)	(0.0326)	(0.0161)	(0.0258)	(0.0632)	(0.0192)	(0.0147)
Lagged output gap	–0.123***	0.277***	–0.379***	–0.305***	–0.225	–0.288***	–0.296***
	(0.0417)	(0.0922)	(0.0704)	(0.0732)	(0.177)	(0.0419)	(0.052)
Spending decentralization	0.948***	–1.086***	0.699***	0.392	0.761**	0.844***	0.489***
	(0.1380)	(0.322)	(0.157)	(0.306)	(0.325)	(0.172)	(0.148)
Revenue decentralization	–0.901***	0.820***	–0.728***	–0.388	–0.678**	–0.881***	–0.502***
	–0.142	(0.315)	(0.169)	(0.263)	(0.328)	(0.174)	(0.147)
Spending decentralization x Transfer dependency	–0.00847***	0.0102***	–0.00684***	–0.00311	–0.00646**	–0.00808***	–0.00429***
	(0.0014)	(0.00348)	(0.00161)	(–0.0028)	(0.00316)	(0.00173)	(0.00151)
Parliamentary election	–0.509***	0.109	–0.39	–0.536	0.49	–0.671***	–0.421**
	(0.1840)	(0.46)	(0.245)	(0.38)	(0.357)	(0.252)	(0.185)
Overall fiscal rule index	0.464**	–0.0994	–0.164	0.889**	0.583	0.785**	0.351
	(0.1920)	(0.609)	(0.269)	(0.415)	(0.391)	(0.312)	(0.225)
Observations	322	300	195	127	65	235	295
Number of countries	27	27	15	12	22	27	27

Standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

variable when the change in debt is used as left-hand side variable – since the deficit, rather than the debt, was typically considered the most binding constraint in showing compliance with fiscal rules. Indeed, overall fiscal rules turn out to be no longer significant. Consistent with our previous results, we find that spending decentralization reduces debt accumulation and that this benefit is reduced when transfer dependency is high. Also, revenue decentralization induces higher debt increases (or lower debt reductions).

The panel approach raises the question of whether the results hold for different subsamples. Thus, we explore whether the impact of fiscal decentralization in the countries that joined the EU in 2004 or thereafter (NMS for short) is similar to the remaining 15 countries (EU15). In this case, we find that the decentralization variables lose their significance in the sample of NMS countries although results still hold for the EU15 (Table 4, columns 3-4). As a flip-side, fiscal rules only matter in NMS countries. Nevertheless, these results should be interpreted with caution as the NMS sample is too short and there is not as much variation in the measures of decentralization among those countries (all highly decentralized countries are EU15 members).

To control for the stability of our estimates over time, we split the sample in 1999 – the first year of the Stability and Growth Pact (SGP). No major difference emerges between the two sample periods except for the role of fiscal rules that lose significance before the introduction of the SGP. This result is clearly driven by the EU15 countries and could possibly indicate that, in the run up to the euro, fiscal discipline was observed even in the absence of rules. To eliminate the potential effect of the recent crisis we exclude the year 2008 from our sample and find that all results remain unchanged. Finally, excluding one country at a time to control for possible outliers does not significantly alter our estimates except for fiscal rules that are not significant in most cases.[15]

6   Conclusions

This paper provides new evidence on the impact of decentralization on fiscal behavior, focusing on the EU. Our paper contributes to the literature in two main respects. First, we look at different dimensions of fiscal decentralization (expenditure and revenue decentralization, as well as transfer dependency) and their interactions. Second, we take into account whether fiscal institutions geared toward maintaining budgetary discipline among subnational entities can offset the potential fiscal risks of decentralization.

Our results show that fiscal decentralization may improve fiscal performance. First, we find that spending decentralization improves the fiscal position of the general government. This is consistent with the efficiency arguments in favor of spending autonomy. Nevertheless, high transfer dependency reduces the positive effect of spending decentralization. Moreover, revenue autonomy tends to significantly weaken fiscal performance at the general government level. As discussed below, these results could be evidence that resource rationing by the central government has been used to ensure budgetary discipline on subnational governments.

Results on subnational fiscal rules suggest that they have not played a material role on fiscal performance. A possible explanation is that fiscal rules in the EU might be relatively weak since the center has considerable discretion in addressing breaches to the rule. To the extent that rules are being breached due to politically sensitive spending that is difficult to control (e.g., health care), the central government may need to compensate the subnational governments – thus rendering the rules nonbinding. These findings are, however, subject to caveats as the numerical fiscal institutions' indicators used in the econometric analysis may not capture well the complexities of interactions between the center and the subnational levels of government.

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[15]   Results are not reported here in the interest of brevity.

Our findings appear consistent with the hypothesis that decentralized countries in the EU were able to improve fiscal performance by rationing the resources of subnational governments. This, if proven the case, could call into question the medium-term sustainability of fiscal gains obtained by decentralization. There are at least two problems with this fiscal consolidation "model". First, by transferring spending responsibilities to subnational governments without increasing their revenue autonomy, the center cannot credibly commit not to bail them out in the future. And second, the success of resource rationing in prompting subnational budgetary discipline rests on the existence of de facto or de jure limits to subnational government borrowing. Thus, the effectiveness of rationing is likely to erode over time as borrowing becomes easier due to increasing financial sophistication of subnational governments and financial market development. Also, statutory borrowing ceilings (or tight transfers from the center) could also come under pressure as unfunded mandates become politically unsustainable.

APPENDIX 1

Table 5

## Expenditure Assignments to Subnational Governments in the European Union

ONE TIER

	BUL	EST	LTU	LUX	LVA
EDUCATION	• Preschool education • Primary and secondary education • Vocational training	• Preschool education • Primary and secondary education	• Primary and secondary education (except teachers' wages)	• Primary and secondary education • Vocational training • Higher education	• Primary and secondary education (except teachers' wages)
HEALTH	• Hospitals • Public health • Tertiary care and psychiatric hospitals • Polyclinics • Some primary care and drugs	• Public health • Polyclinics • Municipal hospitals • Primary care	• Hospitals • Primary health care, ambulance services	• Hospitals • Personal health	• Tertiary care • Polyclinics medicine • Some primary care
WELFARE		• Welfare services • Care for the elderly • Other social assistance	• Temporary social benefits • Day care • Care for the elderly • Care for the homeless • Care for the handicapped	• Welfare homes	• Care for the homeless • Care for the disabled • Care for orphans

TWO TIERS

	AUT	CZE	DNK	HUN	IRL	NDL	PRT	ROM	SWE
EDUCATION	• Preschool education • Primary and secondary education • Vocational training • Adult education	• Preschool education • Primary education and (executive function only for) secondary education	• Preschool education • Primary education and secondary education • Adult education	• Preschool education • Primary and secondary education	• Making nominations to vocational education committees and harbours • Processing of higher education grants	• Primary and secondary education • Vocational training • Higher education • Adult education	• Primary and secondary education	None	• Primary and secondary education • Vocational training • Higher education • Adult education
HEALTH	• Hospitals • Personal health	• Hospitals • Public health	• Public health • Hospitals • Personal health	• Basic healthcare	• Veterinary services only	• Hospitals • Personal health		None	• Hospitals • Personal health
WELFARE	• Family welfare services • Welfare homes	• Social welfare services	• Social welfare services • Family welfare services • Welfare homes	• Family welfare services • Welfare homes • Care for the elderly • Care for the disabled • Care for the homeless • Social housing		• Family welfare services • Welfare homes			• Family welfare services • Welfare homes

THREE TIERS

	BEL	DEU	ESP	FRA	GBR	ITA	POL
EDUCATION	• Preschool education • Primary and secondary education • Vocational training • Adult education • Higher education	• Preschool education • Primary and secondary education • Adult education • Higher education	• Cooperation increation, building and maintenance of schools	• Preschool education • Primary and secondary education • Vocational training • Higher education • Adult education	• Preschool education • Primary and secondary education • Vocational training • Higher education • Adult education	• Preschool education • Primary and secondary education • Vocational training • Adult education	• Preschool education
HEALTH	• Hospitals • Personal health	• Hospitals • Personal health	• Primary care	• Hospitals • Personal health	• Hospitals • Personal health	• Hospitals • Personal health	None
WELFARE	• Family welfare services • Welfare homes	• Family welfare services • Welfare homes	• Promotion and social rehabilitation	• Family welfare services • Welfare homes		• Family welfare services • Welfare homes	

Sources. World Bank Database of Qualitative Decentralization indicators; Monasterio Escudero and Suárez Pandiello (2002), McLure and Martínez-Vázquez (2000), Vigvari (2008) and OECD (2010).

APPENDIX 2
FISCAL RULES AT THE SUBNATIONAL LEVEL IN THE EUROPEAN UNION

Figure 7

Fiscal Rules in the EU Member States by Type of Rule and Level of Government, 2008
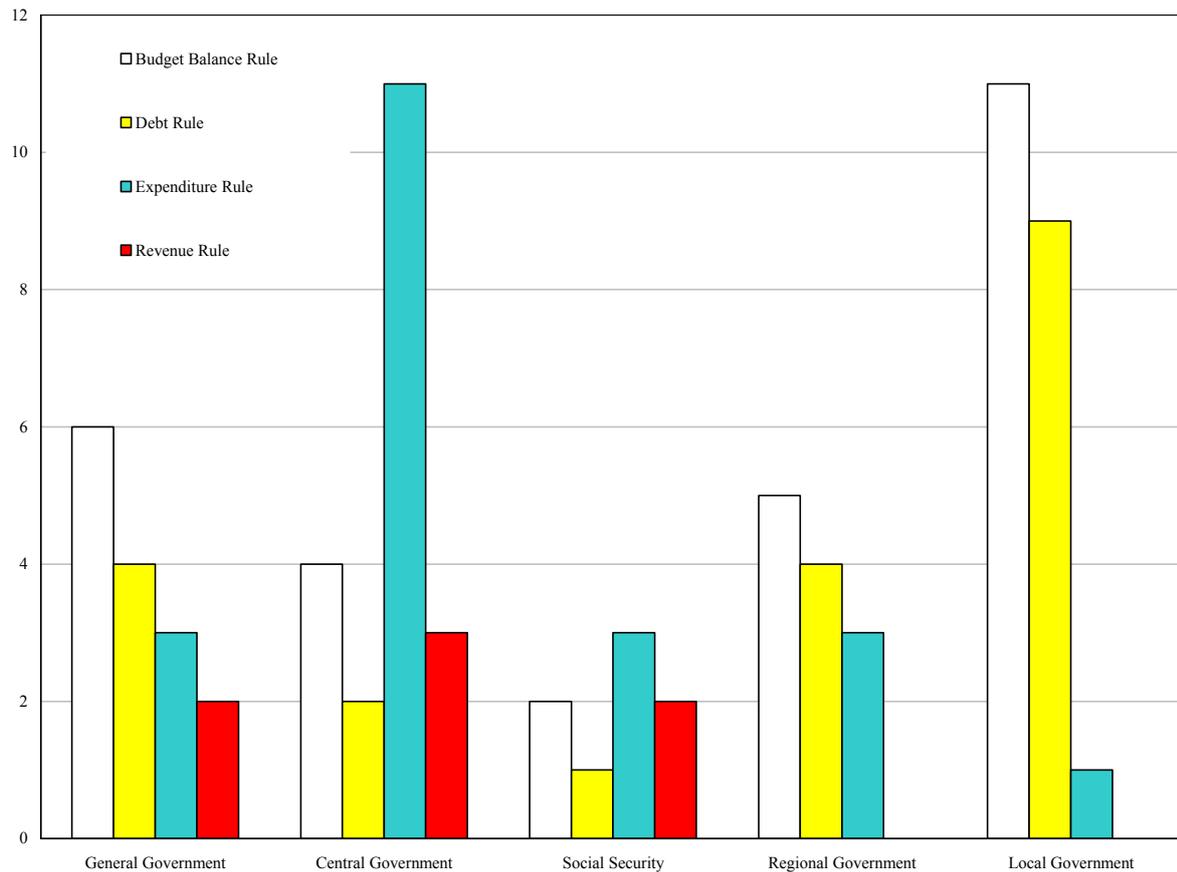
Source: European Commission Services.

Subnational fiscal rules are mainly budget balance rules or debt rules (Figure 7). Both of these rules have nearly doubled between 1990 and 2005. Budget balance rules are the most common for both sub-national governments as well as for the total general government. But, in contrast to that of central government level, expenditure rules are uncommon at the sub-national level. Subnational government rules appear to be more prevalent in countries with higher decentralization and lower transfer dependency.

The proportion of countries imposing sanctions on sub-national governments' non-compliance with a fiscal rule varies significantly by the type of rule in question. In more than one fifth of the countries there are no predefined sanctions at all. While the infringement of a budget balance requirement is sanctioned by more than three quarters of the countries, barely two thirds of those featuring a borrowing constraint, and only a third of those with expenditure or tax limitations penalize non-compliance. Moreover, a large proportion of the possible sanctions are fairly weak or provide a wide margin for discretion – such as giving the central government the option to "recommend actions".

Table 6

Sanctions and Escape Clauses by Type of Fiscal Rule
(percent of total rules in the sample)

Sanctions[1]

Rule type	Impose Financial Sanctions	Sanction Officials	Mandate Actions	Constrain Actions	Other	Not Predefined
BBR	0.26	0.04	0.26	0.35	0.26	0.22
BC	0.21	0.05	0.37	0.26	0.21	0.26
EL	0.27	0.00	0.18	0.27	0.18	0.55
TL	0.00	0.00	0.11	0.00	0.22	0.67

Escape Clauses[2]

	Shock to Local Economy	Shock to Local Revenues	Natural/Other Disaster	No Escape	Other	Not Predefined
BBR	0.13	0.09	0.30	0.30	0.13	0.35
BC	0.05	0.05	0.26	0.26	0.05	0.47
EL	0.00	0.00	0.18	0.18	0.00	0.64
TL	0.00	0.00	0.00	0.00	0.00	1.00

[1] applies to 26 countries.

[2] applies to 24 countries.

Note: BBR = Budget Balance Rule; BC = Borrowing Constraint; EL = Expenditure Limit; TL = Tax Limit.

Source: European Commission Fiscal Rules Questionnaire.

Only a few countries have absolutely no "escape clauses" allowing for the sub-national government's (temporary) infringement of fiscal rules. Escape clauses mainly apply in cases of natural or other disasters, or shocks to the subnational government's revenues or to the local economy (Table 6). Less than a third of the countries imposing a budget balance requirement do *not* allow for its temporary infringement under any circumstances. In contrast, this is the case for only about a quarter of countries when it comes to borrowing constraints. In six other cases, escape clauses are not predefined and decided upon on an *ad hoc* basis.

In recent times, subnational governments had to be bailed out by the higher level of government in at least nine EU countries. When a subnational government is faced with a large deficit, it has to either raise taxes to increase its revenues or drastically cut expenses. Due to the common lack of tax autonomy and the high proportion of expenditures mandated by law, subnational governments often do not have much room for maneuver and often turn to – ultimately unsustainable – debt financing. Subnational bailouts have more frequently occurred in more decentralized countries with a higher number of administrative tiers. While only one quarter of the countries with one level of sub-national government have experienced a subnational bailout, the share rises to 44.4 per cent for countries with two tiers and to about two thirds for countries with three tiers of subnational government. Examples include the German federal government's bailout of two Länder and the bailout of Swedish municipalities in the 1990s (Table 7).

Table 7

Selected Episodes of Subnational Bailouts in the European Union

Country	Bailout Details	Consequences
DEU	• 1992: German Constitutional Court upheld claims of Bremen and Saarland for financial assistance from federal government • 1993: 5-year contract stipulating annual payment of additional grants to the two states (earmarked for reduction of public debts) • States committed to keep annual expenditure growth below 3 per cent and had to deliver regular reports on progress of fiscal consolidations to federal and other state governments • The target of reducing debts from DM 16 billion in 1992 to DM 11.5 billion in 1998 was missed (debts remained at 16 billion); 1999 extension of the grants until 2004 (but declining annually); further transfers after 2004 excluded	• No differences in credit risks of German states; Germany cannot rely on market discipline to enforce fiscal prudence on state governments
ESP	• When democracy was restored in Spanish city councils in the late 1970s, initial public finance system largely remained in place; its low tax collection capacity and the rising demands of citizens led to overspending and over-borrowing • 1980: The center assumed 50 per cent of the local authorities' debt burden without solving the systemic problem • 1983: Central government covered by grants the current deficits; granted local governments an absolute freedom for setting tax rates	• Spanish constitutional court declared anti-constitutional the rule granting local government tax autonomy to this extent • Local governments had to return the tax revenues thusly collected, again, aggravating their financial position • In 1988, wide ranging reform of local finances was enacted
HUN	• 1999: one-third of all localities applied for deficit grants, which are available for local governments who have deficits through no fault of their own or local governments that go bankrupt; • Even though grants are made only to assist governments in covering mandatory tasks, deficit grants provided for a soft budget constraint in the system, as local governments are able to increase their grant revenues through behavioral changes	• Since 1996-1997, the central government has improved transparency and strengthened audit procedures
ITA	• 1977: Increase of transfers from the center by 300 per cent; simultaneous introduction of fiscal rules, e.g., expenditure limitation and borrowing constraints • 1978: center assumed responsibility for debts accumulated by municipal governments before 1977	• Tight control of local expenditures did not solve the soft budget-constraint problem • Public finance reforms in the 1990s reduced the role of transfers and increased revenue and spending autonomy of local governments to induce responsibility
SWE	• 1992 city of Haninge turned to the central government for financial assitance because it was was unable to take care of the debts of the city-owned housing company • 1995 central government assumed responsibility for the debt owed by housing company and extended an extral loan the company • Central government gave an extra grant to the city to pay back the remaining debts of the housing company • The city lost almost all its shares in the company to the center and was mandated to raise its local tax by one percentage point	• Haninge case found numerous imitators: in 1998, 87 of a total 288 municipal governments had applied at least once for financial assistance

Sources: Ter-Minassian and Craig (1997); von Hagen *et al.* (2000); Monasterio Escudero and Suarez Pandiello (2002); Jourmand and Knogsrud (2003); Wetzel and Papp (2003); Pettersson-Lidbom and Dahlberg (2005); Plekhanov and Singh (2007).

APPENDIX 3
DATA SOURCES AND DEFINITIONS

Fiscal data

We use fiscal data from Eurostat covering the years 1990-2008. The data set is an unbalanced panel including all EU27 countries for which data for the period were available. This yielded a sample with about 12 observations per country on average. The number of countries is substantially lower at the beginning of the sample, particularly for NMS as coverage for subnational fiscal statistics has only improved over time. Throughout the paper all subnational measures are calculated by aggregating the regional and local government subsectors (S1312 and S1313 in ESA95). The following variables are used in the econometric analysis:

Spending decentralization. Subnational spending (excluding transfers paid) in percent of general government spending.

Revenue decentralization. Subnational revenue (excluding transfers received) in percent of general government revenue.

Transfer dependency. Subnational net transfers received (both current and capital) in percent of subnational revenue.

CAPB. General government cyclically-adjusted primary balance calculated as follows:

$$capb = r\left(1+gap\right)^{-\left(\varepsilon_r-1\right)} - g\left(1+gap\right)^{-\left(\varepsilon_g-1\right)}$$

where *r* is primary revenue in percent of GDP; *g* is the primary expenditure in percent of GDP; *gap* is the output gap; ε_r the is the elasticity of revenue with respect to the output gap; and ε_g is the elasticity of expenditure with respect to the output gap.[16]

Debt. Gross general government debt in percent of GDP.

Macro data

The macroeconomic data needed to calculate the output gap were taken from the IMF's *World Economic Outlook* database.

Political data

Data on political institutions are based on the World Bank Political Database (see, Thorsten *et al.*, 2001).

Fiscal institutions

Data on fiscal rules and medium-term budget frameworks come from the European Commission and are available at: http://ec.europa.eu/economy_finance/db_indicators/ fiscal_governance/fiscal_rules/index_en.htm

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[16]   Where available, elasticities are taken from Girouard and André (2005). In other cases, revenue elasticity is assumed to be 1 and expenditure elasticity is assumed to be 0.

Fiscal rules

The overall fiscal rule index used in the paper comes from the European Commission Fiscal Rule Index database (see EC, 2009). The strength of the rule is constructed based on its legal basis, coverage, strictness of monitoring and enforcement (including through sanctions and escape clauses), and media visibility.

Based on the indices available for the central, social security, regional and local government level rules, we construct two series for the *central* (combining central and social security) and *subnational* (combining regional and local) government levels. The aggregation technique seeks to use the same methodological principle as Debrun *et al.* (2008), placing a higher weight of 1 on the strongest rule and a weight of ½ on the remaining rules.

Medium-term budget framework

For the econometric analysis we construct a dummy variable that takes value 1 if there is coordination with subnational levels of government in the preparation and status of the Stability and Convergence Program.

REFERENCES

Afonso, A. and S. Hauptmeier (2009), "Fiscal Behavior in the European Union. Rules, Fiscal Decentralization and Government Indebtedness", ECB, Working Paper, No. 1054, Frankfurt, European Central Bank.

Baskaran, T. (2010), "On the Link Between Fiscal Decentralization and Public Debt", *Public Choice*, Vol. 145, pp. 351-78.

Bohn, H. (1998), "The Behavior of US Public Debt and Deficits", *Quarterly Journal of Economics*, Vol. 113, pp. 949-63.

Brennan, G. and J.M. Buchanan (1980), *The Power to Tax: Analytical Foundations of a Fiscal Constitution*, Cambridge, Cambridge University Press.

Bruno, G. (2005), "Approximating the Bias of the LSDV Estimator for Dynamic Unbalanced Panel Data Models", *Economics Letters*, Vol. 87, pp. 361-66.

Buti, M., J. Nogueira-Martins and A. Turrini (2007), "From Debt to Deficits and Back: Political Incentives under Numerical Fiscal Rules", CESifo, Economic Studies, Vol. 53, No. 1, pp. 115-52.

Darby, J., V.A. Muscatelli and G. Roy (2005), "Fiscal Consolidation and Decentralization: A Tale of Two Tiers", *Fiscal Studies*, Vol. 26, Issue 2, pp. 169-95.

Debrun, X., L. Moulin, A. Turrini, J. Ayuso-i-Casals and M. Kumar (2008), "Tied to the Mast? National Fiscal Rules in the European Union", *Economic Policy*, Vol. 23, No. 54, pp. 297-362.

De Mello, L. (2007), "Local Government Finances: The Link Between Intergovernmental Transfers and Net Worth", OECD, Economics Department, Working Paper, No. 581.

European Commission (2009), "Public Finances in EMU", *European Economy,* No. 4, 2008.

Fornasari, F., S.B. Webb and H. Zou (2000), "The Macroeconomic Impact of Decentralized Spending and Deficits: International Evidence", *Annals of Economics and Finance*, Vol. 1, pp. 403-33.

Galí, J. and R. Perotti (2003), "Fiscal Policy and Monetary Integration in Europe", *Economic Policy*, Vol. 18, No. 37, pp. 533-72.

Girouard, G. and C. André (2005), "Measuring Cyclically-adjusted Budget Balances for OECD Countries", OECD, Economics Department, Working Paper, No. 434, Paris, Organization for Economic Cooperation and Development.

International Monetary Fund (2009), "Macro Policy Lessons for a Sound Design of Fiscal Decentralization", IMF, Board Paper, No. SM/09/208, Washington (D.C.).

Jourmaud, I. and P. Kongsrud (2003), "Fiscal Relations Across Government Levels", OECD, Economic Department, Working Paper, No. 375.

McLure, C. and J. Martínez-Vázquez (2000), "The Assignment of Revenues and Expenditures in Intergovernmental Fiscal Relations", World Bank Institute, *Core course on Intergovernmental Relations and Local Financial Management*, No. 1995, Washington (D.C.), World Bank.

Monasterio Escudero, C. and J. Suárez Pandiello (2002), "Local Government Financing and Borrowing: Spain", in B. Dafflon (ed.), *Local Public Finance in Europe: Balancing the Budget and Controlling Debt*, Cheltenham (UK), Edward Elgar.

Neyapti, B. (2010), "Fiscal Decentralization and Deficits: International Evidence", *European Journal of Political Economy*, Vol. 26, pp. 155-66.

Oates, W.E. (1972), *Fiscal Federalism*, New York, Hartcourt Brace Jovanovich.

——————(2006), "On Theory and Practice of Fiscal Decentralization", IFIR, Working Paper, No. 2006-05, Lexington, Institute for Federalism & Intergovernmental Relations.

OECD (2010), "The Interface Between Subnational and National Levels of Government", in OECD (ed.), *Better Regulation in Europe: Ireland*, Paris, Organization for Economic Cooperation and Development.

Pettersson-Lidbom, P. and M. Dahlberg (2005), "An Empirical Approach for Estimating the Causal Effect of Soft Budget Constraints on Economic Outcomes".

Plekhanov, A. and R. Singh (2007), "How Should Subnational Government Borrowing Be Regulated? Some Cross-Country Empirical Evidence", IMF, Staff Paper, Vol. 53, No. 3.

Rodden, J. (2002), "The Dilemma of Fiscal Federalism: Grants and Fiscal Performance Around the World", *American Journal of Political Science*, Vol. 46, No. 3, pp. 670-87.

Rodden, J., G.S. Eskeland and J. Litvack (2003), "Fiscal Decentralization and the Challenges of Hard Budget Constraint", The MIT Press.

Rodden, J. and E. Wibbels (2009), "Fiscal Decentralization and the Business Cycle: An Empirical Study of Seven Federations", *Economics and Politics*, Vol. 22, No. 1.

Saltman, R.B. (2008), "Decentralization, Re-centralization and Future European Health Policy", *European Journal of Public Health*, Vol. 18, No. 2, 104-06.

Sutherland, D., R. Price and I. Joumard (2005), "Fiscal Rules for Sub-central Governments: Design and Impact", OECD, Economics Department, Working Paper, No. 465, ECO/WKP(2005)52.

Tanzi, V. (1995), "Fiscal Federalism and Decentralization: A Review of Some Efficiency and Macroeconomic Aspects", in M. Bruno and B. Pleskovic (eds.), *Annual World Bank Conference on Development Economics*, pp. 295-316, World Bank, Washington (D.C.).

——————(2000), "On Fiscal Federalism: Issues to Worry About", unpublished manuscript.

Ter-Minassian, T. (1997), "Decentralization and Macroeconomic Management", IMF, Working Paper, No. 155, Washington (D.C.), International Monetary Fund.

——————(2007), "Fiscal Rules for Subnational Governments: Can They Promote Fiscal Discipline?", *OECD Journal on Budgeting*, Vol. 6, No. 3, Paris, Organization for Economic Co-operation and Development.

Ter-Minassian, T. and J. Craig (1997), "Control of Subnational Borrowing" in T. Ter-Minassian (ed.), *Fiscal Federalism in Theory and Practice*, Washington (D.C.), International Monetary Fund.

Thornton, J. (2009), "The (Non)impact of Revenue Decentralization on Fiscal Deficits: Some Evidence from OECD Countries", *Applied Economics Letters*, Vol. 16, No. 14, pp. 1461-66.

Thorsten, B., G. Clarke, A. Groff, P. Keefer and P. Walsh (2001), "New Tools in Comparative Political Economy: The Database of Political Institutions", *World Bank Economic Review*, Vol. 15, No. 1, pp. 165-76, September.

Vigvari, A. (2008), "Facts and Figures of the Hungarian Subnational Government System", Budapest, Local and Regional Monitoring Institute.

Von Hagen, J., M. Bordignon, B.S. Grewal, P. Peterson, H. Seitz and M. Dahlberg (2000), "Subnational Government Bailouts in OECD Countries: Four Case Studies", IADB Research Network, Working Paper, No. R-399.

Wetzel, D. and A. Papp (2003), "Strengthening Hard Budget Constraints in Hungary", in J. Rodden, G.S. Eskeland and J.I. Litvack (eds.), *Fiscal Decentralization and the Challenge of Hard Budget Constraints*, pp. 393-427, Cambridge and London, MIT Press.

COMMENTS ON SESSION 2
FISCAL RULES AND INSTITUTIONS IN THE EUROPEAN UNION

Carlo Cottarelli[*]

I have been asked to comment on three papers. Two of them – the one by Barnes and the one by Larch, Pench and Frayne – are very similar in terms of coverage, dealing both with the reform of the EU fiscal governance system, while the third deals with the progress in strengthening fiscal sustainability in Greece under the program supported by EU and IMF financing.

Let me start with a few words on the paper on Greece. It is a very useful description of the progress made so far and of the challenges faced by the Greek authorities. Several implementation risks remain and my IMF colleagues working on Greece from the IMF's European Department or those from the IMF's Fiscal Affairs Department dealing with technical assistance to Greece in the fiscal area would perhaps be in a better position to comment on this. Here the point that I want to raise relates to what I would call the elephant in the room, an elephant that the paper does not address but that is in the mind of all investors. The elephant is the question: all these reforms are fine but can some form of default or debt restructuring be avoided?

My answer to this question is: yes. I have already expressed this view in the past but I would like to reiterate briefly why I think this is so:

- First, debt is high, but the extent to which this is a problem depends on the interest rate that is being charged on debt. Unlike countries that defaulted in the past, the average interest rate on Greek debt is not high at present. The high interest rates on the secondary market are irrelevant as Greece is not borrowing at those rates. Moreover, the maturity of Greek debt before the crisis was the second longest maturity among advanced countries (after the U.K.), so Greece is still benefitting from low pre-crisis rates. Finally, the support from the IMF and the EU allows Greece not to go back to the market for some time. This should give time to investors to revise their expectations if they see the program being implemented successfully.

- Second, the problem of Greece is a large primary deficit, which would have to be corrected even if a large haircut were applied on existing debt. One can do the math and see that, even assuming a haircut of 50 per cent, the correction in the primary balance would not be much lower with respect to a scenario in which there is no default.

- Third, while defaulting would reduce somewhat the extent of fiscal adjustment needed, default also has costs for the economy. First, access to markets for several years would be much more difficult for Greece. Second, default is a tax and has negative implications for the income and wealth of bondholders. About 30 per cent of central government debt is held domestically and this is not a trivial percentage. Moreover, even taxing the foreign bondholders is not without costs both economically – for example, bank problems in the rest of Europe caused by a Greek default would spill over to Greece as well – and politically – as other countries could complain.

There are several other reasons why I do not regard default as inevitable, but if you are interested you can read a paper on this issue that we published a few months ago in the IMF Staff Discussion Note series.[1]

Let me move to the other two papers, both dealing with EU fiscal governance. All agree it needs to be fixed, although I believe that in the absence of the SGP, things could be much worse: there has been perhaps too much SGP-bashing recently.

Both papers describe developments and express views on the quality of the SGP reforms. So I guess I will have also to express views on what is happening in this area.

In general, the reforms are an important step forward but it is not a secret that they fall short of what the Commission itself had initially supported. In some respects, they also complicate significantly the monitoring of policies, although this was in part inevitable to make the monitoring more meaningful.

I support many aspects of the reforms and here I will focus only on what I find more problematic. Let me start with some relatively technical points.

To fix the preventive arm, the EC proposes to address the tendency to spend revenue windfalls in good times by introducing a cap on total expenditure growth, corrected for changes in taxation. This makes sense. However, the remaining difficulty is to assess potential growth and this is a key issue. It is in my view likely that a good chunk of the extra spending that took place in the pre-2008 good times was due primarily to an overestimation of potential growth, rather than to non-growth related revenues. It is therefore critical to estimate how much of the temporary revenue buoyancy would have been captured if the new approach were followed, using the potential growth estimates existing at that time.

On the corrective arm, operationalizing the debt criterion is a priori a good idea. However, I have three concerns about the specific approach followed ($1/20^{th}$ of the excess debt). First, nobody will achieve the 60 per cent target following this rule, as it works only asymptotically, and it is not clear why this approach was followed as simple alternative formulations could be found (for example, reductions specified in percentage points for various debt brackets). Second, for countries starting with very high debt and facing a sizable interest rate growth differential, the implied primary level would be initially huge. For example, for a country with a debt-to-GDP ratio of 150 per cent and facing a growth-adjusted interest rate of 300 basis points, the new debt rule requires an initial primary surplus of 9 per cent of GDP. Third, and this is my main problem, the targeted decline in debt is unadjusted for cyclical factors, which is inconsistent with the attention to cyclical considerations underscored in the paper. Moreover, I do not understand the explanation given in the paper for this shortcoming, namely that there are no good ways to cyclically adjust the debt ratio. Well it may be difficult but is not impossible. The U.K. Treasury did it: it is basically enough to find a year, far back in time, when the cyclically adjusted and the headline debt ratio could be regarded as close. Moreover, and more importantly, here the issue is to cyclically adjust not the level of the ratio but the change in the debt ratio, which depends primarily (although not exclusively) on the deficit which can be easily cyclically adjusted. The debt stock also enters the formula but it can be shown that only very large mistakes in assessing the initial level of the debt ratio would affect the results. It is therefore much worse to disregard this issue altogether than to have a less-than-perfect treatment.

Also on the corrective harm, it is not clear what the Commission intends to do regarding systemic pension reform that affect the intertemporal distribution of pension deficits, for example the creation or the elimination of a fully-funded component. This is a key issue at the moment and we have recently published a paper to discuss possible solutions to this problem.[2]

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[2]   See *A Fiscal Indicator for Assessing First and Second Pillar Pension Reforms*, by Mauricio Soto, Benedict Clements, and Frank Eich. Available in http://www.imf.org/external/pubs/ft/sdn/2011/sdn1109.pdf.

But these are relatively technical points. The two key issues that have weakened the SGP are:

- First, that the enforcement of the SGP has been subject to political capture by the Council. This by the way led the Commission to adopt a legalistic approach to fiscal surveillance narrowly focused on fiscal deficit numbers. Economic judgment was often left aside by fear of a clash with the Council, a fact that is implicitly acknowledged by the authors when they argue that surveillance was incomplete. And a fact that explains why the new SGP involves more parameters than the old (for example a numerical target for the decline in the debt ratio), thus adding complication.

- The second is the absence of crisis management and resolution capabilities: even the safest buildings and aircrafts have emergency exits... but not the SGP. This issue is not really discussed at length in the paper.

We know that reforms have been implemented to address these issues. But how effective are they?

Here my main concern relates to the enforcement mechanism. It is clear that the key issue is the role of the Council. The reverse majority rule is one interesting approach but it is not extended to all decisions taken by the Council, in particular to the critical decision to place a country under Excessive Deficit Procedure (EDP). So the decision to start the EDP itself would still be governed by the old qualified majority process. Altogether, it remains to be seen whether the implementation of the SGP – including of the critical parts that have not been reformed – will in the future be more effective than in the past.

COMMENTS ON SESSION 2
FISCAL RULES AND INSTITUTIONS IN THE EUROPEAN UNION

Vítor Gaspar[*]

Discussion of "Bond Yield Spreads and Numerical Fiscal Rules at the National Level" by Anna Iara and Guntram B. Wolff, and of "Crisis Prevention, Crisis Management and Sovereign Debt Restructuring" by Werner Ebert and Christian Kastrop

The economic constitution of the euro area assumes that macroeconomic stability is a necessary condition for sustainable growth and employment creation. For most advanced economies public finances are threatened by long run developments, associated with the demographic transition and the prospect of population declining. The global crisis and the policy response it entailed led to an immediate accumulation of public debt to unprecedented levels in peace time. In this context fundamental fault lines in the Maastricht architecture were revealed. Specifically, Maastricht rested on three key features: first, fiscal sovereignty; second, the impossibility of sovereign default; third, the absence of a crisis management mechanism. Unfortunately, once the second element is questioned the full triangle falls apart: national sovereignty, no bail out and no default cannot simultaneously hold up under stress.

At the time of the Public Finance Workshop (31 March-2 April, 2011) sovereign risk was a salient feature of euro area bond markets, dominating everything else in the cases of Greece, Ireland and Portugal. The rules and procedures for budgetary discipline in the euro area, agreed at and after Maastricht, aimed at supplementing market discipline. The Delors Report famously stated that market discipline could not be fully relied upon because it was likely to be too slow and weak (in tranquil times) and too sudden and disruptive (under stress). A chart displaying bond yield differentials, for euro area sovereigns, during the last decade one illustrates the empirical phenomenon that the rules and procedures in place were designed to avoid. The failure of governance in the euro area is, therefore, undeniable.

Relevant policy questions include:
- Will the euro area and its Member States successfully overcome the crisis?
- Will rules and procedures in the euro area deliver sound fiscal policies in all Member States?
- Will it prove possible to reconcile financial integration and financial stability?

These questions imply looking at:
- National frameworks for budgetary discipline and financial stability;
- European rules, procedures and organizations involved in crisis prevention; and
- International and inter-governmental mechanisms for crisis management and resolution.

The presentations by Anna Iara and Christian Kastrop address fundamental aspects of these issues.

The paper by Iara and Wolff brings new evidence to bear on the European Commission's traditional view that numerical fiscal rules are instrumental for achieving sound budgetary outturns (see, for example, European Commission, 2006). The new twist, explored by Iara and Wolff, is to look at the question of how have numerical fiscal rules influenced the evolution of sovereign debt yields? Given the central role of bond yields and bond yield differentials in the context of the

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[*]   Banco de Portugal.

sovereign debt crisis in the euro area, the policy relevance of the question does not require further elaboration.

The authors rely on a wonderful database on national fiscal governance compiled and made available by DG-ECFIN (European Commission).[1]

Iara and Wolff conclude that national numerical rules matter and that they have a significant quantitative impact. Specifically they find that the effect can be up to 100 basis points on sovereign yield differentials, in periods of elevated risk and risk aversion. As already said, the research is perfectly timed and it is highly relevant from a policy viewpoint. The results are totally in line with my prior opinions. In other words, the authors' findings are in line with my prejudices.

The interpretation of the empirical results is, however, difficult. The difficulty comes from joint endogeneity. To be concrete, consider the following two questions:

• Do markets assess the authorities' commitment to budgetary solvency on the basis of numerical fiscal rules?
• Does market credibility reflect some other institutional and political fundamentals that correlate with the existence of numerical fiscal rules?

The point is that if a country is serious about budgetary discipline, and, in particular, about budgetary adjustment and consolidation, it will set itself numerical budgetary targets. However, in the absence of such serious commitment, the setting of targets *per se* is unlikely to help very much. The identification of the effect of numerical fiscal rules requires the control of all other possible influences. The attempt to control for these effects requires that the possibility of endogeneity be considered when choosing the estimation method. Equally important, the results will depend on the information set used (as relevant control variables). It is very hard to draw a complete list. It would suggest that a natural starting point would be a list of determinants of systemic risk.

In the end, I think that the authors already contribute significantly to a central and timely policy debate. I am looking forward to further progress in their important research.

The focus of Werner Ebert and Christian Kastrop is even broader. Their presentation provides a critical overview of the comprehensive package of legislative initiatives, laying the foundations for the new architecture for fiscal and financial stability in the euro area. The relevance of their question cannot be overstated. The task of building new foundations for lasting stability while the crisis is ongoing makes Otto Neurath's image apt (paraphrasing): it is like rebuilding a boat, on the open sea, while floating on it. Ebert and Kastrop argue that the proposals on the table constitute significant improvements on the current framework. I agree. They also ask whether the next version of the Stability and Growth Pact (they label it SGP 3.0), as complemented by the European Stability Mechanism and Financial Market regulation and supervision is up to the task of preventing and managing systemic financial risk in the euro area. They also comment on broader issues at European and global level but I will not consider these aspects in my comments.

My own thinking on these issues has been influenced by Jean Tirole (2010). One of his punch lines is: "Crisis resolution is never pretty. The choice is between the bad and the ugly." Avoiding such unpalatable trade-offs requires careful institutional design *ex ante*. Unfortunately it is the case that political rewards associated with careful long term institutional design are meagre. If this is true it follows that some of the main difficulties are political. It may, however, be the case that in order to make it possible to sustain official creditors' involvement in current crisis management, a fundamental redesign of the overall framework is necessary.

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[1] The database is available at: http://ec.europa.eu/economy_finance/db_indicators/fiscal_governance/index_en.htm

Figure 1

Soverign Debt Contracts
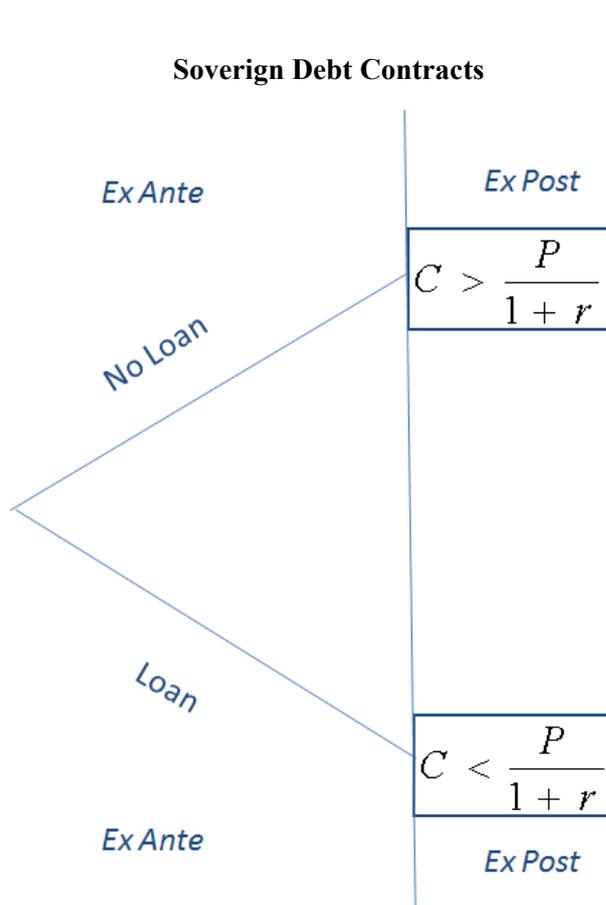
Following Jean Tirole, it is natural to start by looking at a loan contract. The enforcement of a standard loan contract between private entities is relatively straightforward. Often private lending relations involve the pledging of collateral. If the borrower defaults it is then relatively straightforward for the lender to obtain control over the agreed collateral. Enforcement, if necessary, is ensured through the national court system. Irrespective the pledging of collateral defaults in advanced economies are regulated by bankruptcy law. In some countries the specificities of these cases are recognized as justifying the organization of special bankruptcy courts.

Interestingly this leads us to a major difficulty in the area of sovereign debt. Sovereignty gives to each country supreme legal authority within its borders. Sovereignty implies that foreign governments cannot impose the fulfillment of contractual obligations, within the boundaries of a state, without the collaboration of the relevant national authorities. In particular, sovereignty denies creditors the right to exercise their rights, inside national borders, by, for example, seizing assets or interfering with revenue flows. This leads to two related questions:

• How do lenders induce the sovereign ever to repay?

• How is it possible that sovereign borrowers can tap substantial amounts of funds?

Let us consider a very simple framework, used by Schulz and Weingast (2003) – see Figure 1. Assume that in case of no-repayment the sovereign incurs a penalty, P (we disregard for the time being what such a penalty may be). If we further assume a one-shot credit relation, it must be the case that a rational sovereign will repay if the penalty exceeds the principal plus interest $[C(1+r)]$. Otherwise the sovereign will default.

Our question above suggests that it is up to the creditors to devise a penalty that will induce the sovereign to repay. However, assuming that there is competition in the credit market and that alternative opportunities for investment exist, the opposite is true. The problem of devising an appropriate penalty is the sovereign's. In its absence the sovereign does not have a commitment mechanism and, therefore, no credit will be granted. The stronger the penalty, the more effective the commitment mechanism, the greater the sovereign's borrowing limit. In the extreme case where the penalty is zero, no rational sovereign will ever repay a loan, and no rational lender will ever

Figure 2

Debt Adjustment and Private Sector Involvement

provide one. This explains the fundamental insight emphasized by Jean Tirole: institutions are about making credible to investors that they will recover their investment (in addition to a competitive return). In these conditions it is borrowers who benefit from investors' protection. Investor protection allows borrowers to access financing in competitive terms. Otherwise financing will not be available.

Figure 1 illustrates a number of important points. Let us focus on only two. First, in order to be able to understand a credit relation it is necessary to think about the end game and to work out the implications for credit transactions by backward induction. Second, the architecture of Maastricht, assuming national competence for budgetary policy, no crisis management mechanism and the impossibility of sovereign default is inconsistent. The potential for inconsistency to create havoc is unleashed as soon as the risk of sovereign default becomes a salient driver of trends in bond markets. Even a superficial and sloppy examination of developments in bond markets, since the beginning of 2010 (and even earlier), leads to the conclusion that this is the case.

Figures 2 and 3 are inspired by a diagram from Tirole (2010).[2] My reading of Jean Tirole suggests that, despite important differences, there are a number of important common features and policy principles that apply similarly in the case the borrower is a country or a systemically important bank. The sequencing in Figure 2 is straightforward. *Ex ante* borrowing occurs. In the contract stage it is possible to agree on debt covenants, including liquidity and solvency requirements and also to specify transparency requirements, in order to facilitate monitoring. After the *ex ante* stage a disturbance may occur that signals potential liquidity or solvency problems. For substantial disturbances liquidity and solvency become dominant concerns triggering a crisis. Under these conditions it is necessary to enter crisis management and resolution mode, including macroeconomic adjustment, liquidity provision, financial support, debt restructuring and private

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[2]   Many versions of the diagram are included in Tirole (2006).

Figure 3

European Stability Mechanism

sector involvement. As in Figure 1, only the specification of the end game allows one to work out whether a credit relation is viable (and on what conditions).

Figure 3 makes it clear that the European Stability Mechanism addresses the standard questions raised in mechanism design. First, the ESM is able to deal with liquidity shortages. The ESM has the ability to provide loans and to buy bonds in the primary market. Second, the ESM will operate under strict conditionality and will cooperate with the IMF. Therefore the requirements for macroeconomic adjustment will be in line with standard IMF practices. The disbursement of financial assistance in tranches provides incentives for the country to comply with conditionality. Third, the pricing of loans by the ESM will also follow standard IMF practices. Rates will be above the ESM funding costs and will include a mark-up. The second and third elements aim at controlling sovereign moral hazard. Fourth, ESM financing decisions will be based on a judgment on whether the sovereign is facing a problem of liquidity or a problem of solvency. If, according to the best judgment possible, based on preparatory work by the European Commission (in a procedure involving the European Central Bank) and the IMF, the problem is of liquidity, the government of the country concerned will be asked to endeavor to obtain commitments by private creditors that they will not diminish financing amounts outstanding. In contrast, in case of solvency problems, orderly private sector involvement is called for. Losses to private creditors provide incentives for proper monitoring on the lenders' part. Fifth, the ESM will enjoy preferred creditor status (junior only to the IMF). Preferred creditor status on the past of official creditors matches private sector involvement. In the Conclusions of the March European Council, private sector involvement is to be considered on a case-by-case basis. Such an approach may be called a contractual approach.

I think it is fair to say that the European political system delivered answers to key policy questions. It did address head-on the inconsistent trilogy underlying the Maastricht architecture.

However the question: "Are the answers any good?" remains relevant. Ebert and Kastrop argue that an overall systemic approach would be called for. In such an approach, the excessive deficit procedure, the excessive imbalances procedure, systemic risk, regulation and supervision of financial markets and organizations and crisis management would be much more than mere complements – they would be designed as integral parts of the same framework. Clearly, in this context, the interdependence between the domestic banking system and the general government finances is a major source of macro-systemic risk. The authors' point is very well taken, though, I think, the presentation is lacking in details.

There are two points that I think can be elaborated further. Both explore parallels and differences between private and sovereign bankruptcy. In the early 2000s, the IMF (IMF, 2002 and 2003 and Krueger, 2002) proposed the creation of an international bankruptcy procedure for sovereigns. The starting point is to start from laws, regulations and practices for corporate reorganization. The reason is that liquidation of a sovereign state cannot be foreseen from a legal point of view. Sovereign default is fundamentally different from corporate default, on three accounts:

First, there is no legal code (in domestic law) foreseeing liquidation of sovereigns debtors. Corporate recovery proceedings take place under the shadow of possible liquidation. There is no international recognized process for handling sovereign defaults or restructuring operations.

Second, the concept of sovereign immunity protects the sovereign's assets even if held outside the territory.

Third, the idea of reorganization proceedings is to maximize the value of the firm as a going concern. That may entail transfer of control to creditors through debt-equity swaps. No such a mechanism is available for sovereigns.

Nevertheless it may be useful to look carefully at a well ordered corporate reorganization procedure. It involves mainly four features:

- First, a stay on creditor enforcement pending the negotiations – to preserve the value of the firm as a going concern and to solve creditors collective action problems.
- Second, provisions protecting creditors during the stay.
- Third, mechanisms facilitating new financing during the proceedings – seniority clauses for new financing.
- Fourth, Provisions binding all creditors to an agreement acceptable to some well-defined majority.

The two points I want to stress are as follows. First, the combination of an announcement that no debt issued before 2013 would be restructured and that private sector involvement would be sought after that date violates principle 3 for a well-ordered scheme and makes market access difficult for countries under an adjustment program (or countries that may fall under such program). Clearly access to fresh market financing is difficult to make compatible with the possibility of sovereign default, uncertainty about the implications of such an event, sizable official support and seniority of official financing. It is difficult to imagine a rational investor engaging in such a game. Second, there are reasons to believe that given potential systemic implications from sovereign restructuring and other complications it is highly uncertain that a contractual case-by-case approach will be enough to anchor expectations about the end game. Neurath's boat applies.

As I have argued in the discussion, open questions going forward include at least the following:

- Will the emerging permanent architecture prove effective and enduring? Will it make sovereign debt crisis less likely? Will it help contain systemic and contagion effects in the event of a crisis?
- Will it facilitate adjustment and contain financial stability spillovers in the context of the current crisis?
- Will the process lead to sound, prudent and robust national budgetary frameworks in all Member States?
- Will politics in Europe deliver this time?

Positive answers should underpin the success of the euro area going forward. It was very fortunate for me to be asked to comment on two papers that motivate such a comprehensive reflection on the governance of the euro area for macroeconomic and financial stability.

REFERENCES

Bini Smaghi, L. (2011), "Eurozone, European Crisis and Policy Responses", speech at the Goldman Sachs Global Macro-Conference.

Cottarelli, C., L. Forni, J. Gottschalk and P. Mauro (2010), "Default in Today's Advanced Economies: Unnecessary, Undesirable and Unlikely", IMF, Staff Position Note, SPN 10/12.

Darvas, Z. and J. Pisani-Ferry (2011), "A Comprehensive Approach to the Euro-Area Debt Crisis", Brussels, Bruegel.

Delors Report (1989), Committee for the Study of Economic and Monetary Union, *Report on Economic and Monetary Union in the European Community*, Luxembourg, Office for Official Publications of the European Communities.

Eaton, J. and R. Fernandez (1995), "Sovereign Debt", in G. Grossman and K. Rogoff (eds.), *Handbook of International Economics*, Vol. 3, Amsterdam, Elsevier – North-Holland.

European Commission (2006), "Public Finances in EMU", *European Economy*, No. 3, Brussels.

European Council (2001), Conclusions of 24-25 March, 2011.

Gianviti, F., A. Krueger, J. Pisani-Ferry, A. Sapir and J. von Hagen (2010), "A European Mechanism for Sovereign Debt Crisis Resolution: A Proposal", Brussels, Bruegel.

Gros, D. and T. Mayer (2011), "Debt Reduction Without Default", CEPS, Policy Brief, No. 233, February.

International Monetary Fund (2002), "The Design of the Sovereign Debt Restructuring Mechanism – Further Considerations", November 27, available from the IMF's website.

—————— (2003), "Proposed Features of a Sovereign Debt Restructuring Mechanism", February 12, available from the IMF's website.

Leipold, A. (2011), "Thinking the Unthinkable: Lessons from Past Sovereign Debt Restructurings", Brussels, The Lisbon Council.

Krüger, A. (2002), "A New Approach to Sovereign Debt Restructuring", International Monetary Fund.

Schultz, K. and B. Weingast (2003), "The Democratic Advantage: Institutional Foundations of Financial Power in International Competition", *International Organization,* Vol. 57, No. 1, Winter, pp. 3-42.

Tirole, J. (2006), *The Theory of Corporate Finance,* MIT Press.

—————— (2010), "Monitoring the Indebtness of Banks and Countries: Reflections on Regulatory Reforms and International Institutions", presentation at Banco de Portugal's *V Conference on Portuguese Economic Development in the Euro Area*, Lisbon, May 14, available at: http://www.bportugal.pt/pt-PT/EstudosEconomicos/Conferencias/Documents/2010DEP/jeantirole.pdf

Trebesch, C. (2010), *Sovereign Default and Crisis Resolution*, Ph.D. Dissertation, Free University of Berlin.

COMMENTS ON SESSION 2
FISCAL RULES AND INSTITUTIONS IN THE EUROPEAN UNION

Philipp C. Rother[*]

Discussion of "The Importance of Fiscal Policy Frameworks – Swedish Experience of the Crisis" by Robert Boije and Albin Kainelainen (Ministry of Finance, Sweden), "Implementing Germany's New Constitutional Fiscal Rules" by Jürgen Hamker (Bundesbank) and "Fiscal Performance and Decentralisation in European Union Countries" by Julio Escolano, Luc Eyraud, Marialuz Moreno Badia, Juliane Sarnes and Anita Tuladhar (IMF)

The three papers share a favourable characteristic, which is that they are well-written and highly informative for the discussion of the importance of fiscal rules for fiscal performance at the national level. The following discussion is structured by three questions that are addressed in the papers: What can fiscal policies do? How can fiscal rules help? What can we learn for other countries?

What can fiscal policies do?

Looking at the first question, history provides interesting examples of how the correction of fiscal imbalances can contribute to macroeconomic stabilisation. For 1993, fiscal data for Sweden point to severe imbalances. The deficit ratio amounted to 11.2 per cent of GDP, the expenditure ratio was close to 20 percentage points of GDP above the average of the current euro area countries and the debt ratio had risen by almost 39 percentage points of GDP over the preceding three years. This had happened in an adverse economic environment of a financial crisis requiring substantial government intervention in the financial sector and with real GDP contracting by more than 4 per cent over the same period. According to these parameters, the situation in Sweden in 1993 was not much different from that of today's crisis countries in the euro area.

A look at the current situation in Sweden shows how much appropriate fiscal policies, in combination with wide ranging structural and institutional reforms, can achieve. According to the European Commission Spring 2011 forecast, Sweden will be the only EU country showing a fiscal surplus (excluding one-off measures) and rank fifth in terms of its debt ratio. It achieved primary fiscal surpluses in excess of 5 per cent of GDP over the period 1997-2001. These remarkable achievements rest on the foundation of a sound and comprehensive set of fiscal rules that is constantly being adapted.

How can national fiscal rules help?

The paper by Boije and Kainelainen provides and excellent overview of the beneficial impact that sound and well-implemented fiscal rules can have on the fiscal situation. In this regard, three elements appear of particular importance.

• First, such rules can ensure the conduct of sound fiscal policies in economic good times, leading to a safer starting position in terms of fiscal balance and debt when the economic cycle turns. And, indeed, the recent crisis has shown that many of the fiscal problems were caused not only by the sharp downturn of fiscal balances in response to the economic and financial crisis, but importantly also by weak fiscal positions at the start of the crisis, reflecting inappropriate policies during the preceding boom. Somewhat differently from the paper, I would not see a major impact of fiscal rules on the performance of public finances during the crisis. The data

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[*] European Central Bank.

suggest that the existence of fiscal rules does not explain to a major extent differences in the increases in deficits in the crisis. Moreover, it should be noted that several countries effectively suspended (parts of) their fiscal rules during the crisis to give government more flexibility to react on the crisis.

- Second, appropriate rules instil a political cost for policy makers planning to deviate from the given guidance. In this regard, while the paper clearly lays out the implications of Sweden's rules-based framework for the considerations of decision makers, it would be interesting to learn more about the reasoning behind the envisaged greater formalisation of the rules. Intuitively, while a greater formalisation of fiscal rules (e.g., putting them in the constitution instead of in conventional laws; setting up legally binding sanctions) should be expected to ensure greater compliance, experience suggests that some of the countries with successful fiscal rules had a framework of a relatively vague and legally non-binding nature.

- Third, and in my view importantly, transparent rules invite outside scrutiny of the government's behaviour. While this additional effect may be relatively small in countries where transparency of the public accounts is well enshrined, the effect may indeed be quite important where this is not the case. Eventually, policy makers can be held to account only if there is transparent information on the costs and benefits of their actions complementing fiscal rules with accounting and reporting obligations, possibly combined with independent monitoring agencies.

One question arising from this paper is whether fiscal rules should stay unchanged over time or whether they need to be adapted on an ongoing basis. The experience described in the paper suggests in the case of Sweden a constant adaptation of the rules was useful and perhaps even necessary to ensure their effectiveness. Further research could investigate if these ongoing changes reflect a process of convergence towards an optimal set of rules or if a constant evolution of rules is a necessary ingredient for a successful rules-based fiscal framework.

What can we learn for other countries?

The paper by Hamker may serve as a very detailed and comprehensive reminder that even when fiscal rules are established with the best intentions and with broad political support loopholes will always remain and risk to be exploited. Overall, the paper gives a wide-ranging overview of the new set of fiscal rules in Germany, which are enshrined in the constitution and apply at the federal as well as the state level. It is indeed most interesting to read about all the possible ways to circumvent the spirit of the rules while remaining nominally in compliance. Of note, such manoeuvring will most likely generally precede any outright violation of the rules, which can eventually not completely be ruled out.

These considerations lend support to one of the key findings of the fiscal rules literature that is also reflected in the paper by Boije and Kainelainen: to be of value, fiscal rules need to be simple enough to allow the general public (including the media) real time monitoring of the government's performance relative to the rules. Given that enforcement of the rules via the legal channel is generally difficult and certainly in most countries very time-consuming, an immediate sanction for divergent government behaviour can most likely come only via public opinion. In this regard, a possible lesson from the German approach is that setting up an effective framework may be more difficult the more dispersed is the implementation of fiscal policies across different layers of government.

With regard to learning from country experiences, in particular regarding the impact of expenditure decentralization to lower levels of government, the paper by Escolano *et al.* provides further food for thought. Based on an empirical analysis for the EU member states, the paper finds that (i) a higher share of spending decentralisation is associated with higher general government primary balances whereas revenue decentralisation has a negative impact on general government fiscal positions; (ii) higher transfer dependency tends to reduce the positive effect of expenditure

decentralisation (interaction term) and (iii) neither the central government fiscal rules index nor the subnational fiscal rules index have a statistically significant effect on the primary balance whereas a higher score in the overall rules index tends to improve the primary balance.

These results suggest that fiscal rules at the subnational level seem to contribute little to overall fiscal performance, while the arrangements on the (non-) devolution of revenues and expenditures play an important role. Looking ahead, the paper interprets the findings as pointing to an unsustainable trend in fiscal decentralisation as the transfer of expenditure obligations without commensurate revenue sources will hit limits.

From an econometric angle some issues could be addressed in more detail in the paper. Most notably, the issue of endogeneity and possible reverse causality in the regression would deserve some attention. Governments with strong fiscal positions may find it easier to devolve expenditure to lower levels of government which could enable them to cater better for local preferences. Thus, the strength of the general government fiscal position would drive the amount of expenditure decentralisation and not vice versa as conjectured in the paper. More on the technical side, the coefficient on the interaction term of spending decentralisation with transfer dependency, while statistically significant, appears to be very small. Here, an economic interpretation of the size of the impact of the coefficient on overall fiscal outcomes would be useful.

From a policy perspective, the results seem to support the old wisdom of "divide and rule": with expenditure devolution, a strong central finance minister faces a potentially wide range of spending ministers who may find it difficult to form coalitions among themselves and thus have relatively weak negotiating power. In such an environment, rules at the subnational level may indeed be unnecessary. In this regard, an interesting direction for further research could be the question to what extent revenue devolution combined with encouraging tax competition at the subnational level could bring further economic benefits. After all, regional and local authorities could compete with each other not only with respect to expenditure policies but also with regard to taxation with a possibly overall beneficial effect on the economy.

Session 3

NEW DEVELOPMENTS:
INDEPENDENT AUTHORITIES AND EXPENDITURE RULES

CAN FISCAL DISCIPLINE BE RECONCILED WITH FISCAL SOVEREIGNTY?

George Kopits[*]

1   Introduction

In times of acute fiscal stress, a government often feels pressured from abroad by international organizations, foreign governments, and especially investors. Often the initial response from political leaders, almost by reflex, is an expression of outrage at outside *diktat* to undertake an unpalatable budgetary correction.

Criticism of speculators, credit rating agencies, and the International Monetary Fund (IMF) has been a hallmark of recent crisis or near-crisis episodes. Ironically, when political leaders engage in this blame game – which usually plays well with domestic audiences – instead of focusing on the inevitable adjustment task, the country becomes even more dependent on foreign private and official financing of sovereign debt.

Loss of fiscal sovereignty is not new, though its manifestation has shifted significantly over the past century. Four very distinct historical examples may be worth noting: the Ottoman capitulations in the early 1900s; the mandate under the League of Nations loan to Hungary in 1924; the IMF stand-by arrangement with Indonesia in 1998; and more recently, the EU-IMF financial rescue operation for Greece. All four episodes illustrate dramatically how national pride suffered, as foreigners were seen to dictate the conduct of fiscal policy.

Although most public debt crises do not climax in such an outcome, the perils of eroding fiscal sovereignty should not be ignored by any government. This view was expressed rather convincingly by a former Swedish government official, reflecting on his country's crisis and subsequent fiscal consolidation in the first half of the 1990s:[1]

"A country with [public] deficit and debt problems is constantly monitored by the financial markets, by international organizations, by other countries…. Being closely monitored by the financial markets means that power shifts from the open chambers of the people's elected representatives to the closed rooms of the financial markets in London and New York…. Some people argue that it is undemocratic that markets have this power over elected representatives. This is a view I do not share. A country that each and every day has to borrow money, either to service the debt or to finance the deficit, is in the hands of its creditors".

In fact, the high degree of capital mobility does not spare even the economically most powerful nations from dependence on the bond market.[2]

This paper reviews the pre-crisis trends in government financing which may explain the resilience or vulnerability of various countries when facing the repercussions of the recent global financial crisis. The crisis underscores the importance of the sovereign bond market and the need for anchoring expectations by signaling a credible fiscal adjustment. It is argued that this requires a rethink in fiscal policymaking especially by heavily indebted governments. The paper concludes

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[1]   See Henriksson (2007).

[2]   As expressed eloquently by James Carville, former U.S. President Clinton's chief political strategist: "I used to think that, if there is reincarnation, I wanted to come back as the president or the pope or a 0.400 baseball hitter. But now I want to come back as the bond market. You can intimidate everybody".

with implications with a view to adopting a permanent rules-based fiscal framework by these governments on the basis of internationally accepted good practices.

2   Pre-crisis trends

2.1   Patterns of sovereign financing

Well into the 20th century, government deficits were financed primarily by central banks and external creditors. However, with the advent of central bank independence and the decline in inflation, public debt was held increasingly by the domestic private sector. Italy provides a classic illustration of the evolution of financial innovations in the l970s and 1980s that led to commercial bank intermediation of private savings to meet sizable government borrowing needs in the form of securitized debt. As a result, an active domestic secondary market in government bonds became the main source of financing public sector deficits. Curiously, until recently, much like in Japan, Italy's private savings exhibited a "home bias" as the bulk of a staggering public debt stock, in excess of GDP, remains in the hands of residents. In other advanced economies, absent such a bias, sovereign paper has been held by both residents and non-residents, driven by cross-country financial arbitrage.

In developing economies, lacking access to private sector financing, government debt was monetized (often in the form of non-securitized loans) by the central bank. This was supplemented with general and project-related financing from external bilateral and multilateral official sources, as well as private banking sources. For the most part, foreign lending to local governments and state-owned enterprises, and even to private banks, was explicitly or implicitly viewed as government-guaranteed, which was confirmed in the event of a financial crisis.[3] In addition, eligible governments relied directly or indirectly (through central banks) on balance-of-payments financing from the IMF.

Since the 1990s, with the onset of external liberalization and financial integration, in an increasing number of developing economies, governments satisfied their financing needs with sovereign paper issued both at home and abroad. As they gained access to the secondary bond market, they became known as emerging-market economies.[4] Instead of tapping well-identified bank and official sources, sovereign bonds were issued to anonymous resident and non-resident holders, as in the case of advanced economies. This trend characterized private corporate borrowing as well, although often to a lesser extent than sovereign borrowing. Figure 1 illustrates the shift in the shares of gross debt financing (that is, excluding equity flows) from abroad. However, the rise in the proportion of bond to loan financing for governments has been far more pronounced than shown – especially if government bonds issued in domestic currency to residents were included.

The evolution of emerging markets was accompanied by a host of complex issues that distinguished them from the well-established markets prevailing in advanced economies. With increasing access to the secondary bond market, emerging-market economies became subject to scrutiny by credit rating agencies, which at the outset lacked sufficient information about this novel investment environment. More generally, the ebb and flow of capital movements often followed procyclically the busts and booms in the price of commodities, which for many countries constitute the most important collateral.

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[3]   In this regard, the Chilean banking crisis, documented by Diaz Alejandro (1985), suggests a *déjà-vu* for much of the Asian crisis and the recent Irish crisis.

[4]   See Mussa and Richards (2000) on the pull factors and push factors that help explain the rise of emerging markets.

Figure 1

Emerging Markets: External Debt Financing
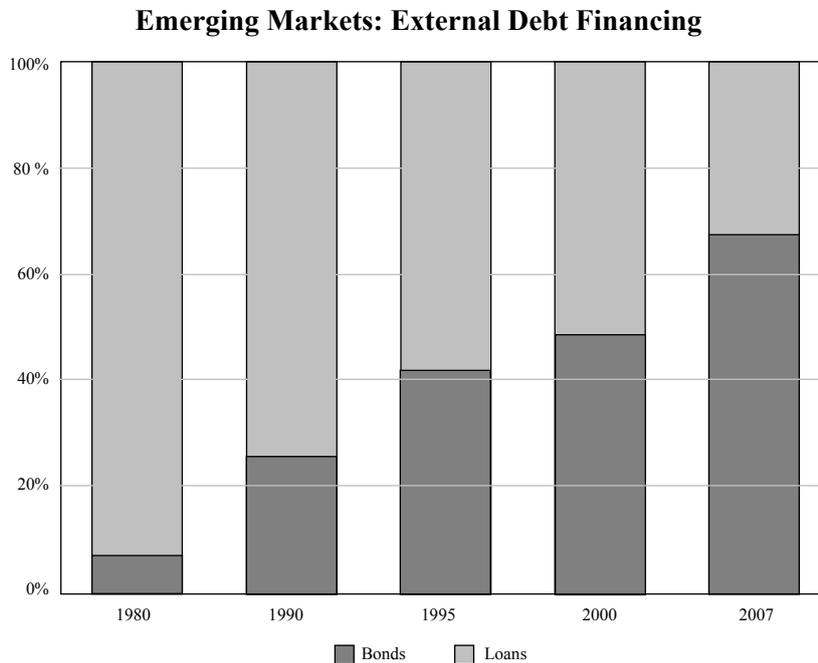
Source: International Monetary Fund.

Lured by the search for yield, coupled with understated risk, investors flocked to vulnerable emerging-market economies until halted by financial crises. Lack of sophistication and adequate information were reflected in correlated spreads among countries, notwithstanding prevailing cross-country differences. As a result, several debt crises were followed by contagion, including in distant countries. Occasionally, advanced economies were also exposed to shifts in investor sentiment, as shown by the European EMS crisis, in some cases due to underlying policy inconsistency.

Credit rating agencies were seen to discriminate between advanced and emerging-market economies; sovereign bonds were assigned more favorable ratings in the advanced economies even when their debt-GDP ratios were much higher. This was attributable mainly to the structure of the debt and various macroeconomic indicators.[5]

Nevertheless, over time, the differential treatment of emerging-market sovereign paper vanished to some extent, in spite of the massive Argentine default in 2001. The fear that this crisis would leave a lasting scar that, along with the proliferation of so-called collective action clauses (to induce bondholders into crisis-related debt restructuring negotiations), would inhibit capital flows to emerging markets, did not materialize. Apparently, such inhibiting factors were overwhelmed by abundant world liquidity during the Great Moderation.

2.2 Role of international institutions

Traditionally, the IMF played a key role as chief disciplinarian over macroeconomic policies, earlier in postwar Europe and later mainly developing countries. This role was exercised through two basic functions: surveillance of member government policies and support of adjustment programs associated with balance-of-payments financing. As the agent of major shareholder governments, the Fund prescribed fiscal, monetary and structural policy measures to correct severe external imbalances, which often reflected sizable fiscal deficits of a given member government. In turn, the government received financial and technical assistance, but more important, through the Fund's catalytic role, it gained leverage for much larger voluntary financing from private investors.

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[5] See Hausmann (2004).

The Fund supported programs in the context of not only stand-by arrangements over a relatively short time horizon, but also extended arrangements that included conditionality incorporating a variety of structural policy measures – often accompanied with policy-based lending from the World Bank – that entailed a longer implementation period. Adjustment programs became choreographed into almost a routine process, frequently involving official debt rescheduling in the Paris Club, and in some instances private debt rescheduling in the London Club, with the activation of the Fund arrangement and financing from official and private sources.

However, the Fund's role changed in tandem with the shift in the composition of financing from official and bank loans to bond issuance. From the second half of the 1990s, with the evolution of sovereign bond financing that could not be rescheduled or restructured (with haircuts) in an orderly fashion, it became increasingly difficult to rein in private lenders to support an adjustment program, as the robustness of Fund arrangements could be questioned by a large number of anonymous bondholders. Market support could no longer be taken for granted. Stand-by arrangements with Russia and Brazil became unraveled in 1998 and 1999, respectively, a few months after they were launched, as markets lost confidence in these governments' capacity to comply with fiscal policy conditionality. The Argentine sovereign default in 2001, in the midst of a Fund supported program, was spectacular in both scale and impact. The Fund's catalytic role was damaged[6] and resolution of the default remained pending, as many bondholders refused to agree to the terms offered by the authorities.

In a regional dimension, the European Union, through ECOFIN and the Commission, relied on the EU Stability and Growth Pact as a disciplinary means of prevention and dissuasion regarding fiscal misbehavior by member countries. Euro area members were required to submit for review multiyear stability programs and non-euro members convergence programs. Members whose fiscal performance was deemed inconsistent with the Pact (upon surpassing the budget deficit limit of 3 per cent of GDP without mitigating circumstances) were subject to the Excess Deficit Procedure. Although nominally liable to financial penalties upon non-compliance, violation by Germany and France was left unpunished, and in 2005 the Pact reinterpreted accordingly. In fact, oversight and peer review proved inadequate as a disciplining instrument and enforcement was lacking.

2.3   Fiscal policy stance

Through the end of the past century, discretionary fiscal policy did not fulfill the role of macroeconomic stabilization. Largely because of political economy reasons, in both advanced and developing countries, the conduct of fiscal policy was more often pro-cyclical than not.[7] This was particularly the case in developing economies, where sharp commodity-led real output volatility was exacerbated by capital movements, and on top of that, by fiscal policy.[8]

However, during the decade of the Great Moderation, fiscal stance varied widely across countries. Several advanced governments, as well as some peripheral euro member governments, adopted an expansionary stance, which in certain cases was encouraged by speculative asset bubbles in financial markets and a largely accommodating monetary policy.

Fiscal policy in many emerging-market economies, especially in Asia and Latin America, reflected lessons learned during the financial crises in the previous decade. An upshot of the

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[6]   See the assessment in International Monetary Fund (2004).

[7]   European Commission (2000) and Taylor (2000) provide evidence on pro-cylical policies in the European Union and the United States, respectively. Auerbach (2002) also found little evidence of effective countercyclical policy in the U.S.

[8]   See Kaminsky, Reinhart and Végh (2004).

learning process was that, with increased credibility, governments shed the so-called "original sin",[9] and were gradually able to shift to longer-term borrowing in domestic currency both at home and abroad, thus reducing vulnerability to possible shifts in investor sentiment.

In much of Asia, governments opted for a relatively prudent discretionary stance, underpinned by an aggressive export-oriented strategy that led to a massive accumulation of foreign exchange reserves and reduction in public sector indebtedness. Record-high household propensity to save and active official foreign-exchange intervention permitted maintenance of an undervalued exchange rate while containing inflationary pressures. The war chest of reserves provided ample protection against possible swings in market conditions.

In Latin America, something close to a paradigm shift in fiscal behavior had taken place. At least a half a dozen countries introduced fiscal policy rules at the national and subnational levels of government.[10] Perhaps most remarkable was the case of Brazil where newly promulgated fiscal responsibility law helped stave off a pending crisis in the run-up to the 2002 presidential elections; more important, it ushered in a change in the political culture toward fiscal discipline, unprecedented in the country's modern history. Eventually, the paradigm shift helped mitigate significantly the impact of the recent global crisis in the region.

In Europe, contrary to its anticipated disciplining benefits, the Pact failed to correct an ingrained deficit bias and debt bias in some member countries. In particular, several peripheral euro members incurred growing fiscal imbalances.[11] In a few cases, budget deficits were masked by asset bubbles and accompanied by private dissaving, as well as erosion in competitiveness, all resulting in large external imbalances.

Fiscal laxity in these countries was attributable in part to conflicting signals from EU institutions. The European Central Bank valued uniformly as collateral, in the highest category, sovereign bonds issued by all EU members, without regard to risk differentials due to differences in fiscal performance.[12] Also, as mentioned, the Excess Deficit Procedure was practically ignored, including by major members, without incurring penalties from ECOFIN. In these circumstances, the no-bailout provision prescribed by the Treaty remained untested and not really credible in the markets. Not surprisingly, assuming an implicit official guarantee, credit rating agencies awarded very favorable sovereign ratings for all euro members.

Although to a lesser extent, EU membership was also seen as some sort of guarantee for non-euro members that had just graduated from post-socialist transition. While some of the new members were intent in meeting the criteria for adopting the euro, including the deficit limit, others maintained an attitude of fiscal indulgence.[13] In these countries, much like in the peripheral euro area, market sentiment was numbed by the assumed implicit guarantee by EU institutions. In sum, investors, along with host governments, indulged in moral hazard under the umbrella of EU membership and the protection of a prudent monetary stance.

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[9] Until the turn of the century, most of the borrowing by emerging-market governments was in the form of short-term foreign-currency-denominated paper, a practice called the "original sin" by Eichengreen and Hausmann (1999).

[10] Argentina, Ecuador, and Venezuela chose a markedly expansionary path, insofar as permitted by the rise in commodity prices.

[11] Prior to EU accession by former socialist economies, markets attributed a favorable impact to membership, as compared to Latin American economies that would not be able to reap such benefits – as revealed by cross-country differences in yields on sovereign paper, as shown by Kopits (2002).

[12] See Buiter and Siebert (2006).

[13] In the pre-accession period, there was a marked contrast between the fiscal discipline in the Baltic countries and the fiscal indulgence in Central Europe. Eventually Slovakia and Slovenia joined the Baltics and gained entry in the euro area; see Berger, Kopits and Székely (2007).

Figure 2

Latin America: Sovereign Default Risk
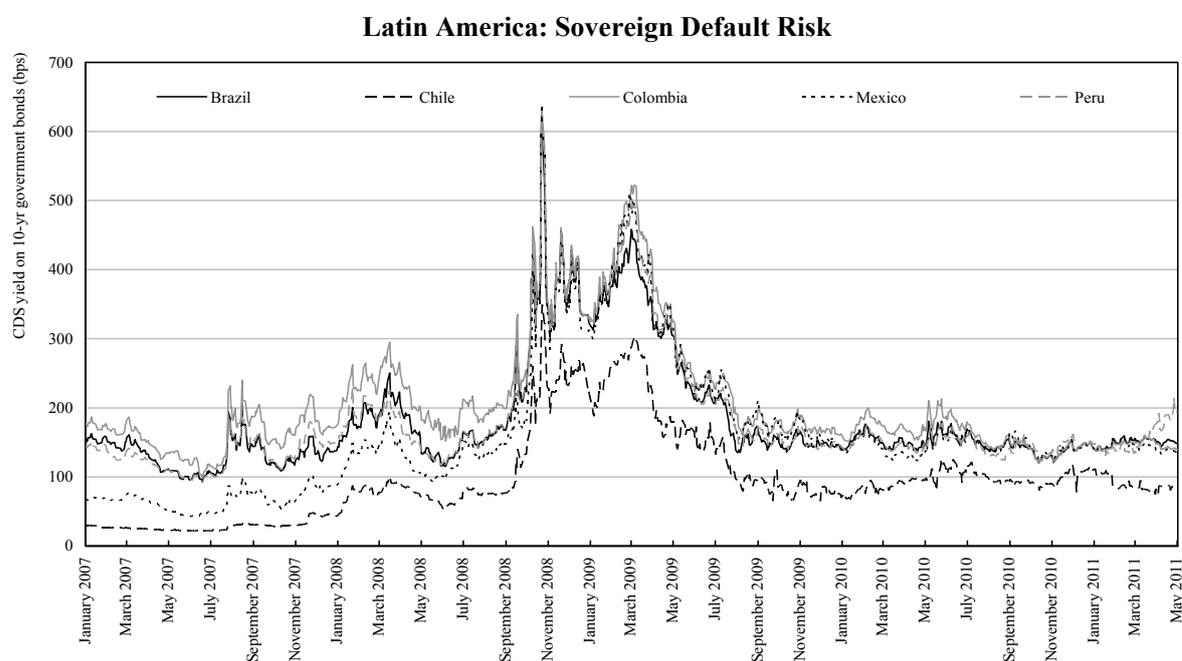
Source: Reuters.

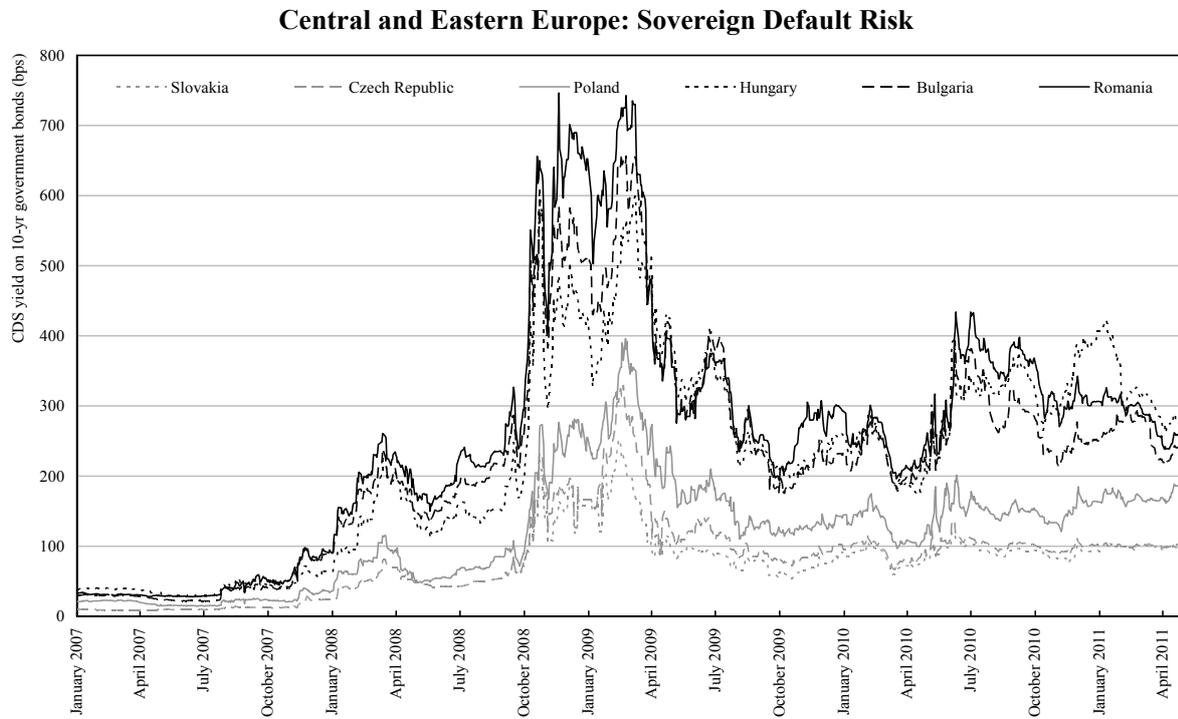## 3   Consequences of the financial crisis

3.1   Immediate repercussions

Despite some initial spikes in spreads on sovereign bonds and on their derivatives (measured by CDS spreads), markets were relatively calm until the collapse of Lehman Brothers in October 2008. Thereafter, vulnerable new non-euro EU members, led by Hungary, that suffered a sudden stop in capital markets, applied for IMF-EU financial assistance. In mid-2009, markets were spooked and reacted adversely to the revelation by the newly elected Greek government of a much larger than earlier estimated budget deficit. Ireland was next in suffering a loss of market confidence, following a banking crisis that imposed a significant burden on public finances. In the course of 2010, the governments of Greece, Ireland and Portugal had practically lost access to private financing and secured large-scale IMF-EU assistance. It is noteworthy that, unlike in previous crisis episodes, in Latin America, none of the "usual suspects" from the past made recourse to IMF financial assistance.

By and large, the earlier distinction between advanced and emerging-market economies had practically disappeared. Figures 2, 3 and 4 depict the sovereign default risk during the crisis (as measured by CDS yields). Whereas in Latin America, and Central and Eastern Europe, the default risk had been somewhat rversed, in the peripheral euro area it has kept soaring.

As it became evident that the no-bailout provision in the Maastricht Treaty was being interpreted in a rather fitful manner by the EU authorities, credit rating agencies reacted with sharp downgrades and jolts in risk premium on these countries' bonds. The IMF-EU rescue operations could only be maintained with augmented commitments of official resources and stricter conditionality, in response to market dissatisfaction with the initial terms of the packages. The markets demonstrated yet again their dominant disciplining role, as compared with the Fund and the European Commission.

Figure 3

Central and Eastern Europe: Sovereign Default Risk

Source: Reuters.

Figure 4

Peripheral Euro Area: Sovereign Default Risk
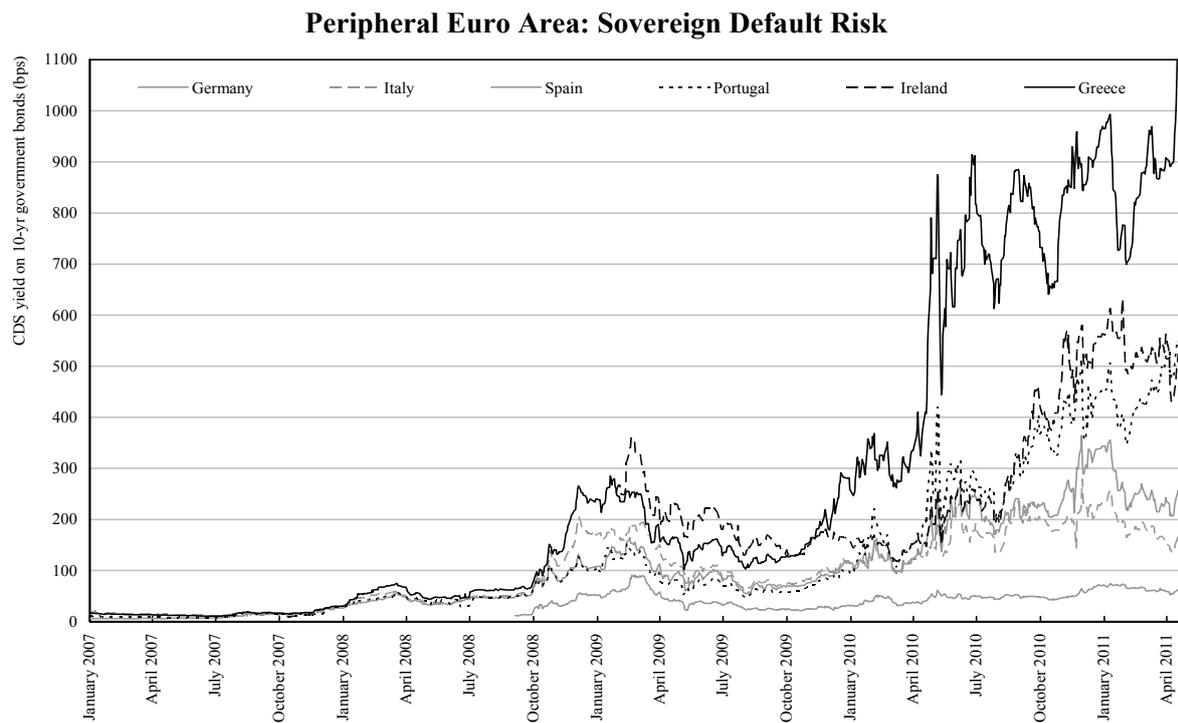
Source: Reuters.

3.2   Need for anchoring expectations

Capital account crises – whether precipitated by weaknesses in an overleveraged banking sector, a currency misalignment, revelation of a worsening budgetary position, or some outside event – that are rooted in a public debt sustainability problem require commitment to a bold fiscal correction. As the capital outflow (or sudden stop) is induced in the first place by perceptions of fiscal vulnerability, strong policy signaling through an unequivocal pledge to phasing in structural measures over the medium term is far more convincing than immediate one-off measures, likely to be reversed in the future. In other words, legislative enactment of a public pension reform – even though implementation is scheduled to be phased in over several years – is far more valued by financial markets than a wage freeze that is bound to be temporary.[14] The goal should be to anchor fiscal expectations over a medium-term horizon, much like for monetary policy the base interest rate is set with the objective of anchoring inflation expectations in the near term.[15]

An effective approach to anchor expectations consists of adopting a permanent rules-based fiscal framework, which represents a commitment technology analogous to an inflation targeting framework for monetary policy practiced in more than two dozen countries. In essence, such a fiscal framework can help anticipate imbalances much before the markets or credit rating agencies – notorious for their lagged response to a deterioration or an improvement in fiscal performance – do, and thus provide useful feedback and alert policymakers at an early stage.

Key elements of the fiscal framework are (numerical) policy rules, procedural rules, transparency norms, and an independent monitoring authority. Not all these elements are present to a uniform extent in a fiscal framework: in some countries (New Zealand) an independent monitoring institution is obviated by high standards of accountability and transparency; or in others, instead of a statutory constraint on fiscal performance, the government sets a fiscal target for its term in office (United Kingdom) subject to surveillance by an independent authority. Indeed, for the most part, a fiscal framework is to be designed taking into account the country's political culture and legal traditions. Contrary to earlier belief, a supranational framework, such as the EU Stability and Growth Pact, can serve merely as an envelope for national fiscal rules, but cannot be a substitute for them. This is, incidentally, the approach being formalized in the EU draft directive on national budgetary frameworks.[16]

Therefore, to be convincing, a rules-based fiscal framework should be home-grown rather than imported (often reluctantly) from an international institution. Inasmuch as possible, it should also be home-owned, that is, based on a broad consensus among political parties. Well-designed policy rules and independent watchdogs, supported by broad-based political ownership, are key ingredients for the success of such a framework in the Netherlands or Sweden in Europe, and in Brazil or Chile in Latin America.

It is for the above reason that since the onset of the crisis, a number of countries, mainly in Europe, have introduced their own fiscal rules or independent agencies or both – but all consistent with the Pact.[17] Following a politically-polarized debate, in late 2008, Hungary enacted the fiscal responsibility law that incorporates a set of fiscal rules and a fiscal council charged with surveillance of fiscal management and compliance with the rules. Slovenia, Romania, and the United Kingdom have followed suit, while Australia, Ireland, and Portugal are about to establish

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[14]   See Kopits (2004).

[15]   See, for example, the comparison between monetary and fiscal policies in the U.S. by Leeper (2010).

[16]   Both the Van Rompuy Task Force report (2010) and the Council of the European Union (2011) draft directive outline the basic requirements of a comprehensive national fiscal framework for member states. Regrettably, unlike the report, the draft directive excludes any reference to the desirability of establishing independent fiscal institutions, as part of the national frameworks.

[17]   See Kopits (2010a).

independent fiscal institutions. Interestingly, in the United States, with the oldest fiscal monitoring institution (the Congressional Budget Office) in place, there are legislative initiatives to introduce fiscal policy rules (a balanced-budget requirement and an expenditure limit) as well.

3.3   An illustration

Contrasting recent episodes that illustrate the influence of policy signaling on market expectations can be found in Hungary and the United Kingdom. Although both countries' recent experience can be viewed as comparable, they provide no more than stylized facts for this purpose – leaving aside a myriad of other features that differentiate them. Features in common include the concurrent general election, held April 2010, of a center-right government, succeeding a center-left government notorious for fiscal indulgence over an extended period.
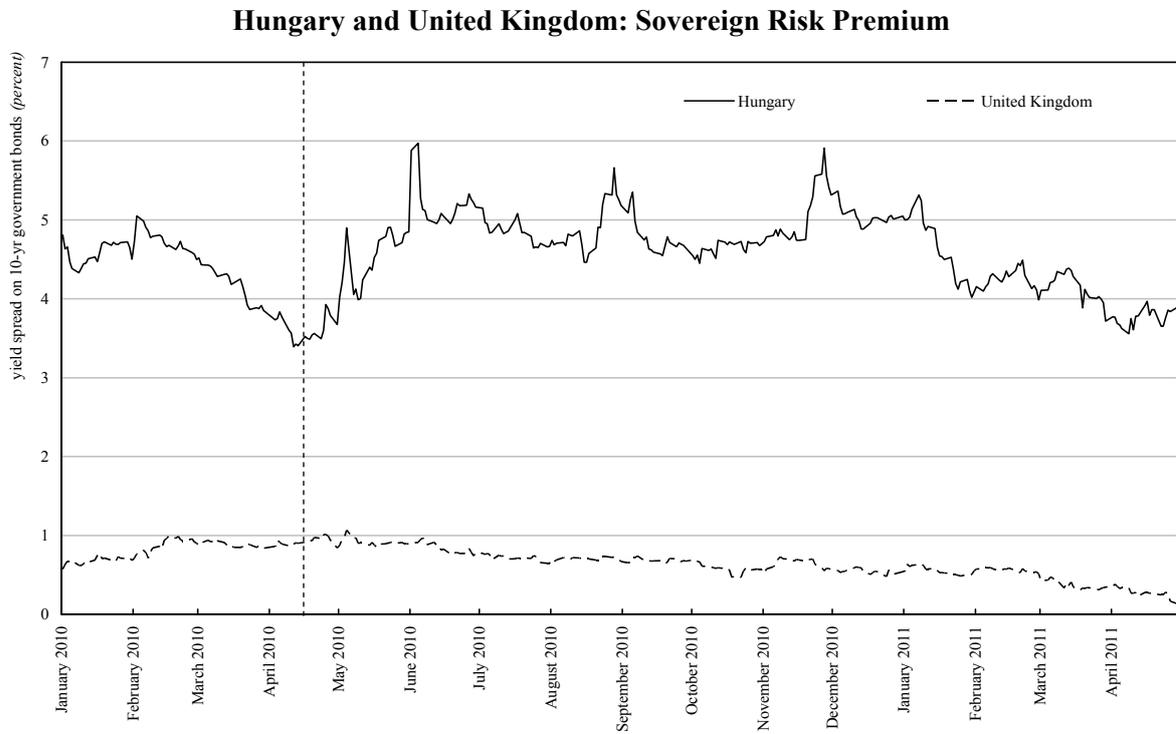
In the United Kingdom, shortly after assuming power, the new coalition government set an ambitious balanced-budget target (named the fiscal mandate) for the end of its term. In addition, the government established an interim Office for Budget Responsibility (OBR) that was succeeded by a permanent OBR. The OBR is charged primarily with monitoring fulfillment of the mandate, preparation of macro-fiscal forecasts (a task taken over from the Treasury) and analysis of debt sustainability. These steps were followed by a number of tangible measures such as pruning welfare entitlements and raising the value-added tax rate. In all, these measures were designed to meet the mandate.

In Hungary, the new government, in command of a two-thirds parliamentary majority, inherited a rules-based fiscal framework which it chose to ignore. Instead of continuing with the Fund- EU supported adjustment program, it communicated a set of mixed signals to the market as to its willingness to contain the sharp rise in indebtedness. The government dismantled several modest structural measures and imposed distortionary asset taxes on selected activities, which were followed by amalgamation of defined-contribution government-mandated private pension funds into the traditional defined-benefit pay-as-you-go system. None of these measures contributed to reducing the structural budget deficit. Further, the government weakened significantly institutional checks-and-balances in the oversight of fiscal policy (including as regards the constitutional court and the state audit office). In particular, by the end of the year, it abolished the staff of the Fiscal Council and de facto eliminated the Council's independent monitoring role.

Although the above policy shift had no immediate impact on macro-fiscal trends, the adopted measures influenced market expectations regarding the medium- to long-term fiscal outlook. Markets reacted promptly to the contrasting policy signals in the two countries, as reflected in the risk premium on sovereign paper (Figure 5). In the UK, sovereign interest rate spreads declined on all maturities. By contrast, in Hungary, following a pre-electoral decline, in anticipation of the change in government which was expected to break with past behavior, the spread bounced back sharply to its level at the beginning of the year, while credit ratings fell to just one notch above junk bond status. Only by early 2011 did the CDS spread on Hungarian sovereign paper began to decline again, after the government announced some structural measures intended to avert a further downgrade to junk status. After a lost decade (reminiscent of Latin America's lost decade of the 90s), Hungary experienced yet an additional lost year under the new government. The disparity in the movement of market confidence between the two countries was reflected even more sharply in the CDS spreads on government bonds (Figure 6).[18]

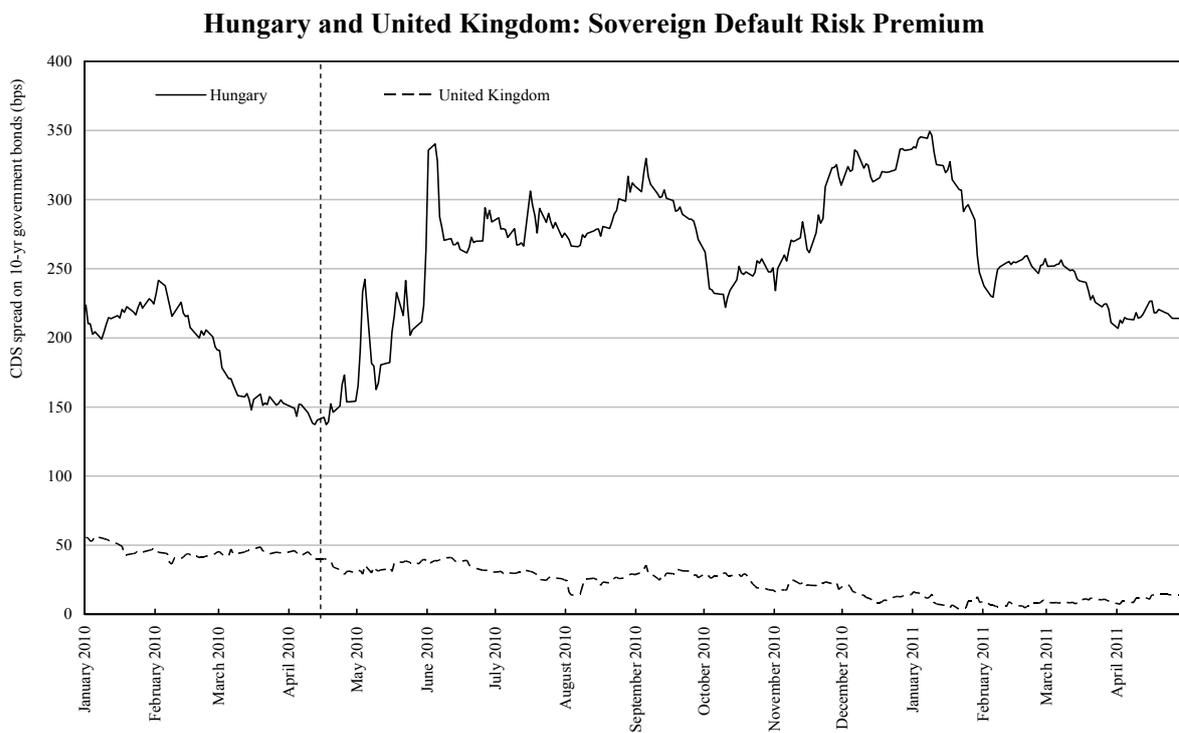[18]   Although more volatile (as they are generated in a thin market for derivatives), CDS spreads provide a more useful gauge for default risk, than plain sovereign spreads which include currency risk as well.

Figure 5

Hungary and United Kingdom: Sovereign Risk Premium

Source: Reuters.

Figure 6

Hungary and United Kingdom: Sovereign Default Risk Premium

Source: Reuters.

4   Progress toward good practices

Over the years, considerable experience has been gathered in both advanced and emerging-market economies in the design and operational aspects of rules-based fiscal frameworks. The accumulated experience provides useful input for deriving internationally accepted good practices, which contribute to regaining or strengthening a country's fiscal sovereignty in the marketplace. Let us focus on key elements of the framework: fiscal policy rules, transparency standards, and independent fiscal authorities.

There are eight criteria that have been widely accepted and applied to ascertain the quality of a fiscal policy rule.[19] These good practices consist of: (a) clarity in the definition of (numerical) performance indicators, time frame and institutional coverage; (b) transparency, especially as regards public sector accounts and forecasts; (c) adequacy of the rules to achieve the objective at hand; (d) consistency among the rules, and with respect to other policies; (e) operational simplicity, for widespread understanding of the mechanics of the rule; (f) flexibility in accommodating economic cycles and shocks; (g) enforceability in practice; and (h) efficiency in application. Admittedly, there is no fiscal rule that can meet all criteria in an equally high degree, as there are tradeoffs among some of them. For example, a simple rule (e.g., annual balanced-budget rule) may be too rigid and prevents operation of automatic stabilizers.

The need for transparency in government operations is universal, with very few exceptions where asymmetric information is warranted in the public interest. These three kinds of exceptions: strategic, for national defense and security; tactical, for preventing the use of insider information on anticipated economic policy decisions (e.g., prospective interest rate action by the central bank) for profit; and as a civil right, for protection of privacy. The importance of transparency is enhanced when the government is subject to certain constraints, including targets or limits in the context of fiscal rules. More generally, there are three broad areas where good practices are necessary: (a) institutions, (b) public accounts, and (c) indicators and forecasts.[20] Institutional transparency implies broad coverage of the public sector and delineation of responsibilities, clarity in budget process, financing, regulation, and tax treatment. Transparency in public accounts involves statistical coverage, recording basis, recognition and valuation conventions, and data classification. Transparency includes reliable analytical indicators, short- and medium-term forecasts, and long-term quantitative scenarios, including realistic underlying macroeconomic assumptions.

Independent fiscal institutions – to be distinguished from state audit offices – are fewer and of relatively recent vintage. Yet, at least on a tentative basis, experience accumulated so far can be useful for formulating a commonly accepted set of good practices.[21] Admittedly, such an institution must be judged within their country-specific context. Nonetheless, six characteristics can be identified as being critical for the effectiveness of an independent fiscal institution: (a) home-grown and home-owned design and operations; (b) independence, non-partisanship, technical competence, and accountability to the legislature; (c) support by a technical support staff, with unlimited access to timely information from the government; (d) remit consisting of assessment of fiscal stance and debt sustainability – including monitoring of compliance with rules or targets – through real-time estimation of the budgetary effects of legislative proposals (while precluding policymaking functions); (d) immediate start-up of operations, in line with the terms of reference; and

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[19]   The criteria formulated in Kopits and Symansky (1998) were discussed and approved by the IMF Executive Board. For applications, for example, to the UK Code of Fiscal Stability, see Kell (2001), the EU Stability and Growth Pact, see Buti and Giudice (2002), and the German Debt Rule, see Kopits (2010b).

[20]   These good practices, in Kopits and Craig (1998), were discussed and approved by the IMF Executive Board, provide the basis of the IMF Code on Fiscal Transparency.

[21]   See Kopits (2011).

(e) effective means of communication to the public, ensuring the highest possible level of transparency.

5   Summary and implications

Over the past decades, with domestic financial liberalization and opening up of the external capital account, financial markets became highly integrated. At the same time, monetary dominance was on the rise, especially in the advanced economies. As a result, governments shifted the financing of budget deficits from the banking sector to the bond market. For developing economies, access to the secondary bond market offered a new source of financing, displacing non-securitized official and bank credits.

Since the second half of the nineties, parallel to the advent of sovereign bond markets, the IMF gradually gave way to financial markets in its disciplining role. Within Europe, the EU Stability and Growth Pact has not yet succeeded in developing a disciplining role over the EU members' fiscal policy, notwithstanding the mandate under the Maastricht Treaty. The shift toward increased financial market power became even more pronounced under the effect of the recent global financial crisis.

Fiscal behavior differed markedly across countries prior to the global financial crisis. Having learned the lessons of past crises, a few EU member countries both outside and inside the euro area and most Latin American countries maintained a prudent fiscal stance, within a rules-based framework. Meanwhile, a number of Asian countries had accumulated massive foreign exchange reserves for protection.

By contrast, some EU members (both inside and outside the euro area) opted for a risky expansionary stance, under the moral-hazard cover of EU membership. In addition to a weakened financial sector, fiscal indulgence had made some of these countries vulnerable to the fallout from the financial crisis. Markets reacted swiftly, with yields on sovereign paper and CDS spreads jumping to record levels. Differences between advanced and emerging-market economies became blurred.

In the face of a surge in public indebtedness and mounting pressures from markets and international institutions in the post-crisis period, efforts are under way in various countries to free themselves from these pressures by establishing a rules-based fiscal framework, inspired by some successful examples. Signaling commitment through such framework can be especially useful in anchoring fiscal expectations, much like a monetary framework is intended to anchor inflation expectations.

Recent policy developments in Hungary and the United Kingdom illustrate the importance of influencing fiscal expectations through policy signaling. Both countries have characteristics in common, including a change from a center-left to a center-right government that inherited a heavy fiscal burden and low credibility. However, each government chose a significantly different fiscal path. While the UK government adopted a frontloaded fiscal adjustment and installed an independent fiscal watchdog, the Hungarian counterpart introduced stopgap measures and disbanded the fiscal council. Not surprisingly, the sovereign risk premium declined in the UK and rose significantly in Hungary.

Several major implications follow from the above discussion. First, ironically, governments with a trail of fiscal profligacy are usually the least independent from market forces. Moreover, international financial organizations, notably the IMF or EU institutions, can extend financial or technical assistance, but cannot confer credibility on the recipient government. Credibility must be earned by every government through its own efforts.

Second, conversely, a government with a proven track record of self-discipline can enjoy fiscal sovereignty in the face of market pressures. In the event, creditors allow sufficient latitude for an active discretionary fiscal stimulus to counteract a recession – as shown recently in a few advanced economies as well as some emerging-market economies.

Third, the most effective way of signaling commitment to self-discipline, and thus to create fiscal space, consists of adopting a permanent rules-based fiscal framework. The framework should be preferably home-grown and home-owned rather than imported from (or seen as imposed by) a supranational authority or international organization. In sum, adherence to the framework should help anchor fiscal expectations among investors.

Fourth, a comprehensive fiscal framework consists of well-designed fiscal rules, a high degree of transparency in the public sector, and an independent watchdog charged with real-time monitoring of public finances, including compliance with the rules. Experience accumulated so far in various advanced and emerging-market economies with such a framework serves as the basis for deriving internationally accepted good practices in this area.

And fifth, by itself, adoption of a rules-based framework is not a magic wand. To be effective in restoring market confidence, the framework must be accompanied by phased-in implementation of policy measures that improve the structural budget balance and fiscal sustainability, possibly in the context of a coherent reform strategy.

REFERENCES

Auerbach, A.J. (2002), "Is There a Role for Discretionary Fiscal Policy?", in *Rethinking Stabilization Policy*, a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole (WY), August 29-31, pp. 109-50.

Berger, H., G. Kopits and I. Székely (2007), "Fiscal Indulgence in Central Europe: Loss of the External Anchor?", *Scottish Journal of Political Economy*, Vol. 54, No. 1, pp. 116-35, February.

Buiter, W.H. and A.C. Siebert (2006), "How the Eurosystem's Treatment of Collateral in Its Open Market Operations Weakens Fiscal Discipline in the Eurozone", in Narodowy Bank Polski (ed.), *Fiscal Policy and the Road to the Euro*, Warsaw, National Bank of Poland.

Buti, M. and G. Giudice (2002), "Maastricht Fiscal Rules at Ten: An Assessment", *Journal of Common Market Studies*, Vol. 40, pp. 823-48.

Diaz Alejandro, C. (1985), "Good-bye Financial Repression, Hello Financial Crash," *Journal of Development Economics*, Vol. 19, pp. 1-24.

Eichengreen, B. and R. Hausmann (1999), "Exchange Rates and Financial Fragility", in *New Challenges for Monetary Policy*, a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole (WY), August.

European Commission, Directorate-General for Economic and Financial Affairs (2000), *European Economy: Public Finances in EMU – 2000*, No. 3, Brussels, European Communities.

Council of the European Union (2011), "Draft Council Directive on Requirements for Budgetary Frameworks of the Member States – Annex", Document No. 11478/2/11, June 21, Brussels.

Hausmann, R. (2004), "Good Credit Ratios, Bad Credit Ratings: the Role of Debt Structure," in G. Kopits (ed.), *Rules-based Fiscal Policy in Emerging Markets: Background, Analysis and Prospects*, London, Macmillan, pp. 30-52.

Henriksson, J. (2007), "Ten Lessons about Budget Consolidation", Brussels, Bruegel.

International Monetary Fund, Independent Evaluation Office (2004), *The IMF and Argentina, 1991-2001*, Washington (D.C.).

Kaminsky, G., C. Reinhart and C. Végh (2004), "When It Rains, It Pours: Procyclical Capital Flows and Macroeconomic Policies", NBER, Working Paper, No. 10780, Cambridge (MA).

Kell, M. (2001), "An Assessment of Fiscal Rules in the United Kingdom", International Monetary Fund, Working Paper, No. WP/01/99, July.

Kopits, G. (2002), "Central European EU Accession and Latin American Integration: Mutual Lessons in Macroeconomic Policy Design", *North American Journal of Economics and Finance*, December, pp. 253-77.

——————(2004), "Fiscal Policy and High Capital Mobility", in G. Kopits (ed.), *Rules-based Fiscal Policy in Emerging Markets: Background, Analysis and Prospects*, London, Macmillan, pp. 66-80.

——————(2010a), "Brussels Can't Monitor 27 Budgets", *The Wall Street Journal*, October 11, p. 13.

——————(2010b), "Views on Germany's Fiscal Policy Rules", in C. Kastrop, G. Meister-Scheufelen and M. Sudhof (eds.), *Die Neuen Schuldenregeln im Grundgesetz*, Berlin, Berliner Wissenschaft Verlag, pp. 121-23.

Kopits, G. (2011), "Independent Fiscal Institutions: Developing Good Practices", *OECD Journal on Budgeting*, November.

Kopits, G. and J. Craig (1998), "Transparency in Government Operations", International Monetary Fund, Occasional Paper, No. 158, Washington (D.C.).

Kopits, G. and S. Symansky (1998), "Fiscal Policy Rules", International Monetary Fund, Occasional Paper, No. 162, Washington (D.C.).

Leeper, E. (2010), "Monetary Science, Fiscal Alchemy", in *Macroeconomic Challenges: the Decade Ahead,* a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole (WY), August 26-28, pp. 361-434.

Mussa, M. and A.J. Richards (2000), "Capital Flows in 1990s Before and After the Asian Crisis", *Greek Economic Review,* Vol. 20, No. 2, pp. 15-42, Autumn.

Taylor, J.B. (2000), "Reassessing Discretionary Fiscal Policy", *Journal of Economic Perspectives*, Vol. 14, pp. 21-36, Summer.

Van Rompuy Task Force (2010), *Strengthening Economic Governance in the EU: Report of the Task Force to the European Council*, October 21, Brussels, available at: www.european-council.europa.eu/the-president/taskforce.aspx

REFORMING FISCAL INSTITUTIONS IN CANADA

Mostafa Askari,[*] Kevin Page[*] and Stephen Tapp[*]

1 Persistent structural deficits and the lead-up to the 1990s fiscal crisis

Canada experienced a fiscal crisis in the mid-1990s. The crisis came to a head due to a confluence of factors, but ultimately occurred because successive governments failed to address significant structural deficits that persisted for decades. Some statistics help convey the gravity of the problem: prior to balancing the budget federally in 1997, Canada ran 27 consecutive deficits (Figure 1). The PBO estimates that the federal government's structural deficit – which attempts to adjust for the fiscal impacts of the business cycle – averaged 5.3 per cent of GDP in the two decades prior to the crisis (Figure 2). With these large deficits, the federal debt-to-GDP ratio rose steadily over two decades, from 18 per cent in 1974 to a post-WWII high of 68 per cent in 1994. As government debt grew, so did public debt charges. At more than 6 per cent of GDP, debt charges represented 38 cents of every dollar in federal government revenue and increasingly crowded out the resources available to deliver public services.

Prior to the fiscal crisis, some partial corrective policy actions were taken that modestly improved the federal government's structural budget balance.[1] However, while government budget forecasts repeatedly predicted falling deficits in the early 1990s, these failed to materialize due to high domestic interest rates (aimed at reducing inflation) and the effects of a lingering recession. Concerns about the credibility of the government's forecasts eventually led to an external review (Ernst and Young, 1994). In addition, financial market's confidence in the ability of Canadian governments to resolve their fiscal problems was also eroding, as bond rating agencies downgraded the credit ratings of some Canadian sub-national governments.[2]

2 Mid-1990s fiscal consolidation and the emergence of budget surpluses

2.1 Fiscal consolidation

Canada's fiscal crisis prompted a decisive fiscal consolidation. While the 1995 Federal Budget is generally identified as a key turning point, many difficult and painful policy measures were taken in a short period of time, including wide-ranging policy reforms (Box 1). As a result, jurisdictions at the federal and provincial levels significantly improved their underlying fiscal positions. Table 1 reports the estimated change in the cyclically-adjusted primary balances (CAPB) of the Canadian jurisdictions with the largest fiscal improvements in the 1990s.

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[1]   These actions included tax changes (partially de-indexing to inflation personal and corporate income tax credits) and the introduction of the Good and Services Tax; and the Federal *Spending Control Act* from 1991-95, which restrained program spending growth.

[2]   A confounding factor adding political uncertainty to Canada's fiscal problem was the potential for the province of Quebec to separate from Canada, which was only narrowly avoided in a 1995 Referendum.

Figure 1

Canadian Federal Budget Balance and Debt-to-GDP Ratio
(percent of nominal GDP)

Source: Finance Canada Fiscal Reference Tables, October 2010.

Figure 2

PBO Estimates of Canada's Federal Government Structural Budget Balance
(percent of potential income)
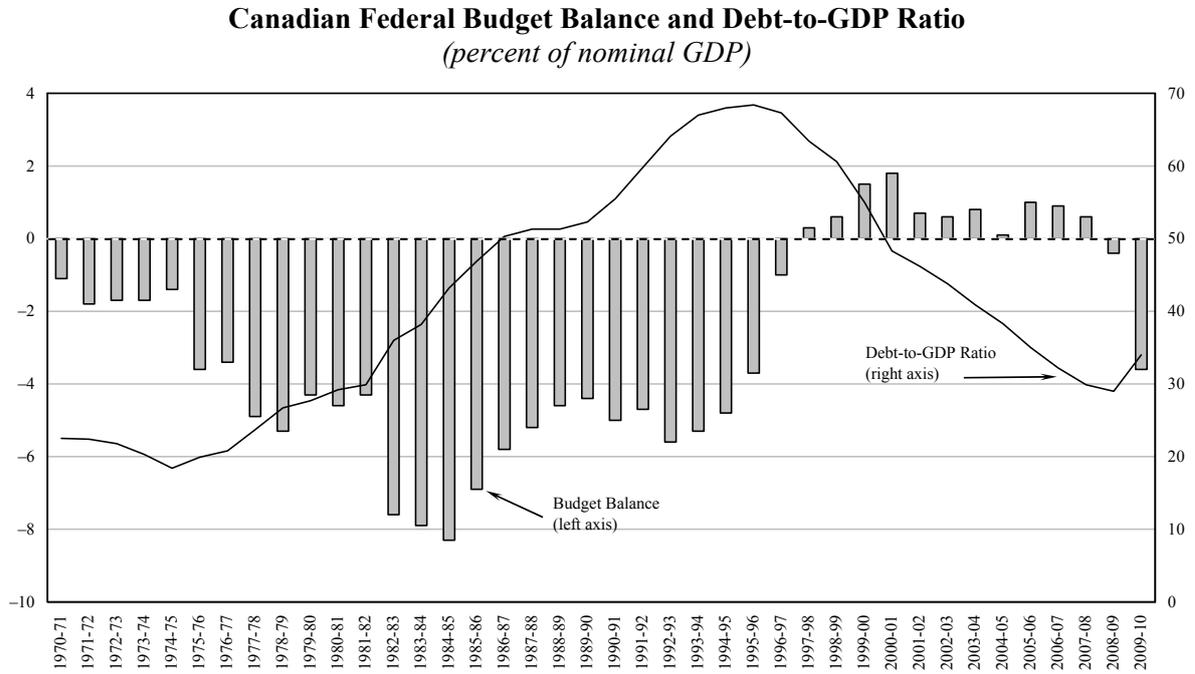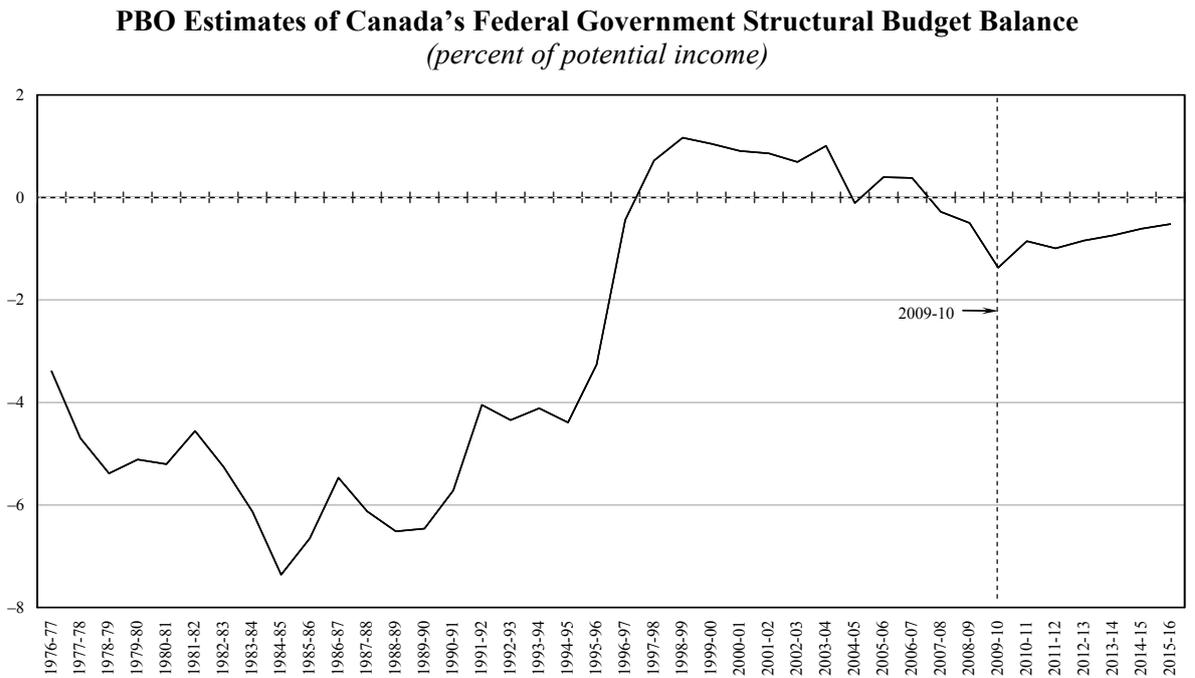
Source: PBO (2010).

BOX 1
KEY FEATURES OF CANADA'S FISCAL CONSOLIDATION IN THE MID-1990s

- *emphasized spending reductions* over revenue increases, with roughly ¾ spending cuts versus ¼ revenues increases (Table 1);

- a federal *government program review*, which reduced public sector employment and involved large cuts in spending for some departments (e.g., transportation; natural resources; regional agencies; industry);

- *reduced and restructured federal-provincial transfers*, effectively down-loading some fiscal burden to the provinces (*i.e.*, a federal cost-sharing transfer for social services was reduced and changed to an unconditional block grant);

- *reformed social assistance* (welfare) in some large provinces;

- *restricted* the generosity of national *unemployment benefits*;

- actions to *make Canada's public pension plan* (CPP) *sustainable* over the long term (featuring steady increases to contribution rates);

- *privatized* some *public assets and activities* (e.g., federal air navigation); and

- *reduced* some *business subsidies* (e.g., transportation and dairy).

Table 1

**Significant Fiscal Improvements
in Canadian Federal and Selected Provincial Governments in the 1990s**

	Jurisdiction	**Episode Timing**	**Δ CAPB**	**Of Which: Δ Revenue**	**Of Which: Δ Program Spending**	**Fiscal Rule**
1	Newfoundland	1994-96	4.9	0.8	−4.0	
2	Saskatchewan	1993-94	4.8	0.6	−4.3	BB 1995; D 1995
3	Nova Scotia	1993-96	4.7	1.9	−2.9	S 1993; BB 1996
4	Federal	1995-98	4.5	1.3	−3.2	S 1991; BB targets 1994
5	Ontario	1993-96	4.1	0.8	−3.3	BB adopted 1999
6	Alberta	1993-94	4.0	0.9	−3.1	S 1992; BB 1993; R 1995; D 1995
7	Manitoba	1993-95	3.6	0.9	−2.6	BB 1995; R 1995; D 1995
8	Quebec	1995-99	3.4	0.7	−2.8	BB 1996
	Average		**4.3**	**1.0**	**−3.3**	

Sources: PBO (2010a); OECD (2010).
Notes: CAPB is the cyclically-adjusted primary budget balance. These episodes featured an improvement of at least 3 percentage points in the CAPB as a share of potential GDP, sustained over 2 years. In fiscal rule column: S represents a spending rule; BB a budget balance rule; R a revenue rule; and D a debt rule. Columns may not sum due to rounding.

In addition to policy changes, there were important changes to Canadian budget processes based on the review of the federal government's budget forecasts and fiscal consolidation plans, including:

- an *increased use of fiscal rules* to constrain discretion: both legislated and non-legislated targets were used by the federal government and many provinces.[3] PBO analysis finds these targets likely played a supportive role in achieving, or attempting to lock-in, fiscal improvements in many of the largest Canadian consolidations in the 1990s (PBO, 2010a).[4]

- an *attempt to increase the distance between the federal government's forecasts and the political process* by basing the government's economic assumptions on a private sector survey rather than the government's internal forecast.

- *basing budget forecasts on prudent assumptions* in two ways: 1) by adding explicit bottom-line contingency reserves and prudence factors; and 2) by making more fiscally prudent economic assumptions than the private sector survey average (e.g., assuming higher interest rates and lower economic growth).

- *some increases in budget transparency*: the federal government began releasing mid-year updates on the economy and its budget forecast.

2.2   *The emergence of budget surpluses and deficit-avoidance*

With these policy actions and budget processes changes, Canada's public finances quickly improved in the late 1990s and into the first decade of the 2000s. Indeed, the mid-1990s fiscal crisis had changed the landscape for Canadian fiscal policymakers and it was now expected that Finance Ministers across Canada would balance their budgets. Deficit avoidance was the order of the day as the political cost of a deficit was high. Canada recorded 11 consecutive surpluses federally (1997 to 2007), which averaged a little less than 1 per cent of GDP. Federal debt-to-GDP ratio fell from 68 per cent in 1995 to 29 per cent in 2008. Public debt charges as a share of revenue similarly fell from 38 per cent in 1990 to 13 per cent in 2008. Canada's international standing was also much improved, moving from one of the worst fiscal positions in the G-7 in the mid-1990s, to being the leader (Figure 3).

Despite this success, there were fault lines developing beneath the surface, as some of the responses to the 1990s fiscal crisis created their own problems. As persistent deficits turned to persistent surpluses, pressure mounted to spend the "fiscal dividend" and lower taxes rather than, or in addition to, reducing public debt. As a result, during expansionary times, taxes were cut (e.g., personal and corporate taxes, and the national value-added tax GST) and program spending, which had been temporarily cut or had its growth slowed, eventually ramped back up. By the time the global financial crisis hit in 2008, structural deficits had re-emerged in Canada (Figure 2).

For several years, despite sizable in year policy measures, the federal government under-estimated the surplus. In attempts to avoid having all excess fiscal room applied to debt repayment, as required by accounting rules, the government made one-off transfers to provinces and

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[3]   While the federal government introduced short-term deficit and budget balance targets, many provinces introduced balanced budget legislation. The federal government began with an interim 3 per cent of GDP deficit target by 1996-97, which later became a target to balance the budget or achieve a surplus. Later specific debt-to-GDP ratio targets over the medium- and longer-term were also chosen. Some provinces used legislation to: limit spending; restrict tax rate increases; and require debt management strategies to lower debt-to-GDP ratios and build up stabilization funds in economic expansions which could subsequently be drawn-down in recessions.

[4]   There were, however, significant differences across jurisdictions in governments' abilities to follow their rules and improve their finances. This suggests that fiscal rules on their own cannot be relied on to improve a government's finances and that other factors are also needed such as: clear policy goals; political will; public support; and a strong budget framework and reporting practices.

Figure 3

G-7 General Government Net Financial Liabilities
(percent of GDP)
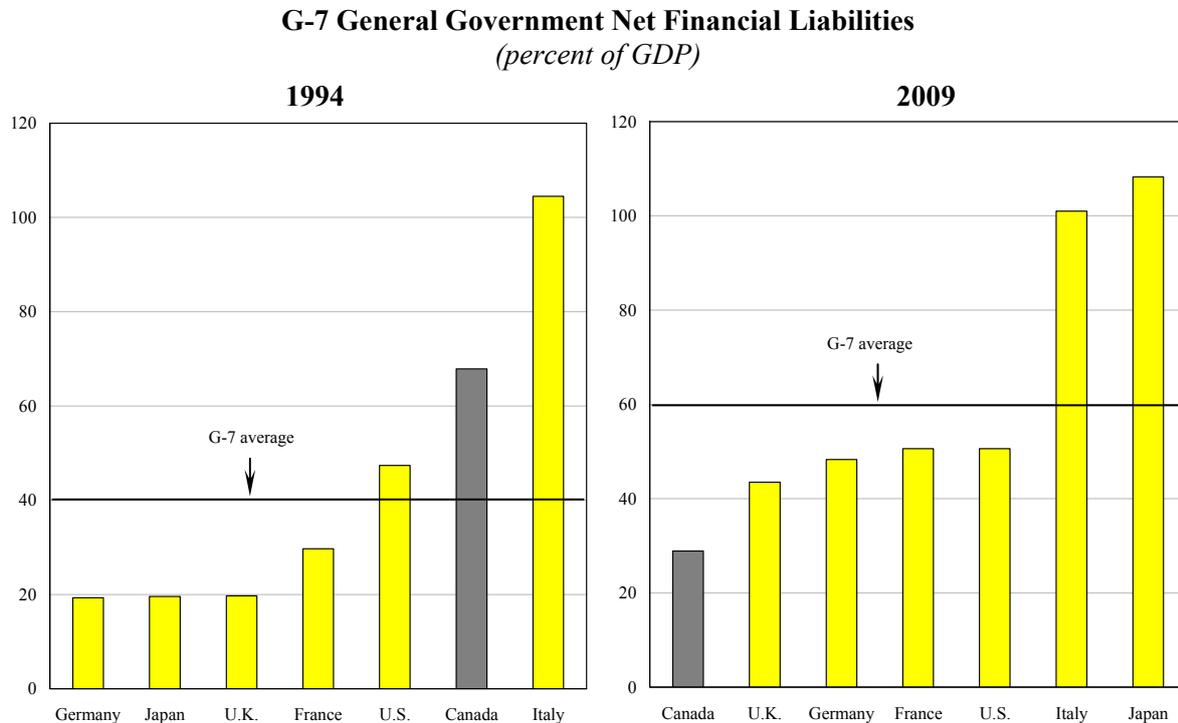
Source: Finance Canada Fiscal Reference Tables, October 2010.

arms-length foundations – where the latter were not under the preview of Parliament.[5] These actions made discretionary fiscal policy pro-cyclical, less predictable and were generally seen as inhibiting debate regarding how additional funds should be allocated.

In 2005, with the surplus under-estimated in eight of the previous nine years, the credibility of the federal government's budget forecasts were again questioned, resulting in another external review (O'Neill, 2005). This review found that the government's forecast had been padded with implicit prudence, over and above the explicit bottom-line contingency reserves. This result was attributed to the annual no deficit target that had emerged, which gave incentives for those producing the fiscal projections to incorporate extra prudence into their forecasts (persistently under-estimating revenues and over-estimating program spending). Finding fault with the fiscal target more than the forecasting process, O'Neill recommended the federal government change its annual budget balance target to instead aim for a surplus, on average, over the economic cycle (as is done in Sweden for example). The rationale was to shift the focus of budget planning away from short-term annual results toward a more medium-term perspective, and to move away from strict deficit avoidance towards the avoidance of *structural* deficits (which would allow for deficits in recessions).[6]

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[5] Between 1997, the year the budget was balanced and 2004, more than $9 billion was transferred to foundations. Auditor General (2005) details the concerns about a lack of accountability (e.g., no performance reports to Parliament and ineffective Ministerial oversight).

The recommendation to change the annual budget balance target was dismissed, and instead, the government proposed (in 2005 but did not pass) legislation that would allocate any unanticipated surplus. The legislation would have allocated any surplus in excess of the $3-billion contingency reserve (which applied directly to debt reduction at year-end) in the following manner: 1/3rd to spending; 1/3rd to tax relief; 1/3rd to debt repayment.

In addition to the larger-than-expected surpluses, public concerns were raised and political debates waged about cost overruns on federal projects (e.g., a new firearms registry program) and a general lack of financial transparency about the cost of programs and proposed legislation. A key argument forwarded was that more financial due diligence by parliamentarians before implementation, possibly with assistance from independent financial experts, might have minimized these cost overruns. At the same time, parliamentarians indicated they had insufficient support to hold the government to account because they required more expertise and resources to assist them in scrutinizing the government's budget projections and estimates (*i.e.*, appropriations).[7]

3   Recent developments in fiscal institutions

3.1   The creation of Canada's parliamentary budget office

In 2006, a new minority conservative government was formed, which brought in a series of measures under the *Federal Accountability Act*.[8] This *Act* created the Parliamentary Budget Officer (PBO), whose mandate can be viewed as an institutional change that attempts to address some of concerns described above. The PBO's mandate as outlined in legislation is to provide independent analysis to Parliament on the state of the nation's finances, the government's estimates (appropriations) and economic trends, and upon request, to estimate the financial cost of matters under Parliamentary jurisdiction. The legislation also includes a provision granting the PBO timely access to the government's economic and financial information.

The PBO began its operation in 2008 and has prepared a number of reports in each area of its mandate that have engaged parliamentary debate, including:

- *State of the nation's finances:* independent budget projections; estimates of the federal government's structural budget balances; budget balance risk analysis (fan charts) and a long-run fiscal sustainability report.
- *Estimates review:* Expenditure analysis tracking the implementation of fiscal stimulus measures including: impact assessment; reporting standards; flow of funds analysis; and lapse forecasting as well as reports on the risk associated with the government's spending restraint.
- *Economic trends:* analysis on a range of issues including: Canada's output gap; labour markets; current economic indicators; Canada's experiences with fiscal rules and consolidations; and the risk of deflation.
- *Financial analysis:* costing of a range issues including: Canada's military engagement in Afghanistan; Aboriginal education infrastructure; crime legislation; military procurement; G8/G20 meeting security; and several Private Member Bills.

During its first few years of operations, the PBO has had a bumpy experience. This has included budget reductions after the release of controversial reports (on the costs of Canada's engagement in Afghanistan and economic and budget projections during the global financial crisis of late 2008) and a subsequent budget reversal with a Parliamentary Committee review of its operations.[9] Nonetheless, the PBO has had an impact and pushed the government to improve its

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[7]   Parliament's most recent comprehensive review of the estimates was undertaken in 2003 by the House Standing Committee on Government Operations and Estimates. At that time, the Committee noted that "while parliamentary committees were intended to be bodies where detailed scrutiny of government spending and performance would occur, this was not being done".

[8]   The *Federal Accountability Act* dealt with lobbying and conflict of interest rules, restrictions on election financing and measures respecting administrative transparency, oversight and accountability.

[9]   A main issue of the PBO review was the office's open publishing model – *i.e.*, openly publishing all of its reports on a public website – an media visibility. This approach challenges a convention of confidentiality and Parliamentary ownership of requested analysis.

transparency. To provide a few concrete examples: the PBO's independent cost estimates have resulted in the government making public (and in some cases significantly adjusting) its estimates of the costs of various legislation and policy measures; the government has abandoned its booking of budgetary revenues from the unspecified future sales of corporate assets after the PBO disputed such claims; and the government has been required to release some details underlying its budget projections that the government had not provided, but had previously been public.

Despite these modest successes, major challenges remain for the PBO. One concern is that the PBO's resources (annual budget of $2.8 million and staff of 14) are insufficient to effectively fulfill its legislated mandate – particularly scrutinizing appropriations. Second, the PBO has been given limited access to government information (highlighted by the government's repeated use of 'Cabinet confidence' to restrict information flow), despite a legislated information provision. Finally, the PBO has had its independence limited by external administrative controls by its inclusion within the Library of Parliament (rather than being an independent office) and a flawed appointment process (the PBO is appointed and works at pleasure for the Prime Minister).

3.2   Comparison with other newly-created independent fiscal agencies

While the main change to fiscal institutions in the 1990s was a move towards fiscal rules, more recently there has been increasing interest and experimentation with independent fiscal institutions as a means to improve fiscal policy making and budget transparency and to complement fiscal rules (Box 2). Such agencies have been advocated by the IMF, OECD and the European Commission. Since 2007, a "second-generation" of fiscal councils has been established in Sweden, Canada, Hungary, the U.K., and Slovenia.

Despite their distinct country-specific situations and mandates, these organizations, like the PBO, have generally experienced a variety of implementation difficulties, ranging from: inadequate resources (Hungary's council was significantly reduced in 2010 after suggesting the government's budget lacked transparency and its assumptions were too-optimistic; similar budget cuts were threatened for Sweden's Fiscal Policy Council after public debates over the appropriate degree of fiscal stimulus); to government criticism of the agency's findings; to concerns about the independence of budget forecasts (in the case of the U.K's Office for Budget Responsibility which relies heavily on Treasury resources).[10]

4   Canada's current economic and fiscal context and looming challenges

4.1   Current context

The 2008 global financial crisis brought about a recession in Canada, which was met with a significant easing of monetary policy and fiscal stimulus. Despite the external nature of the shock and the resilience of Canada's financial institutions, the impact on the economy and the government's fiscal situation has been significant. The PBO estimates that Canada's output remains roughly 3 per cent below potential, and given the modest recovery forecasted, this suggests that the output gap may not close before 2016 (Figure 4). This is the average or mean economic outlook, but the risks are weighted to the downside. Key risks including: the fragile nature of the U.S. recovery, reflecting the continued weakness of households and the labour market; recent political turmoil in the Middle East, which has exacerbated rising commodity prices; sovereign

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[10]   For more on international fiscal institutions and case studies of Sweden's and the U.K.'s experiences, see Calmfors and Wren-Lewis (2011) and Calmfors (2011).

BOX 2
**SOME ROLES AN INDEPENDENT FISCAL AGENCY CAN PLAY**

• *Monitoring* – In the context of fiscal rules and budget targets, a fiscal agency can play a key role in oversight by serving as an independent monitor by analyzing whether the government's fiscal policy has achieved or will likely achieve its key objectives. As another example, a fiscal agency can help assess whether the government's fiscal plan is based on prudent forecasting assumptions.

• *Provider of long-run economic and budget analysis* – To the extent that the political process may place too much emphasis on the near-term and too little emphasis on future generations, a fiscal agency can provide regular analysis of the long-run sustainability of the government's fiscal position, and the sensitivity of the results to alternative assumptions.

• *Actor to improve budget transparency* – To the extent that there is insufficient budget information and understanding in the public domain, a fiscal agency can play a key role is in the public provision of budget information in order to improve budget transparency.

• *Provider of financial analysis and costing* – To support Parliamentary decisions on legislation and large-scale policy initiatives, a fiscal agency can provide financial analysis and cost estimates.

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debt concerns and heightened currency tensions on international markets, which could ultimately raise risk premia and global interest rates; Canada's high level of household debt, which could restrain domestic consumption; and the appreciation of the Canadian dollar, which could hinder Canada's net exports.

In light of these heightened economic risks, an unwelcome fiscal planning development is that since 2009, the federal government has abandoned its use of bottom-line, back-end-loaded contingency reserves that grow over the forecast horizon. Instead,

Figure 4

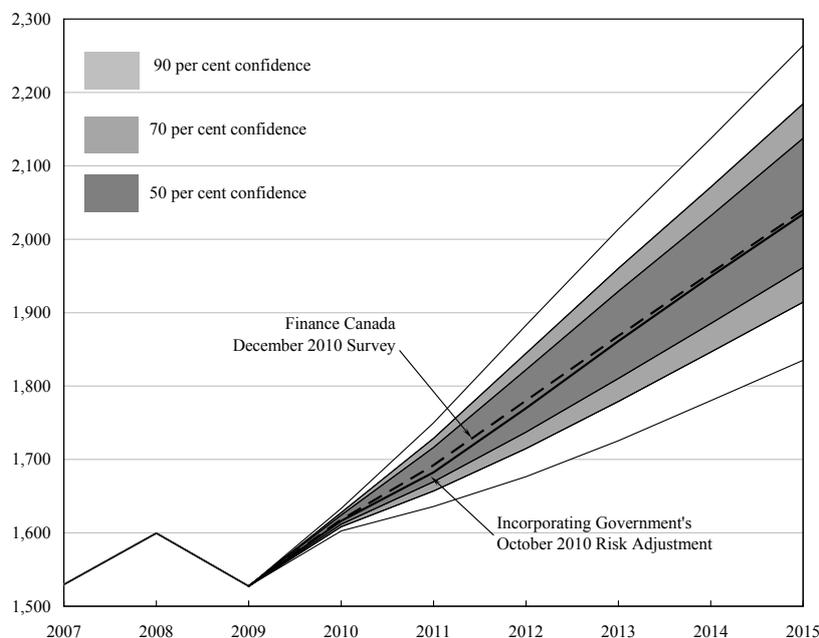**PBO Estimates of Canada's Output Gap**
(percent of potential GDP)
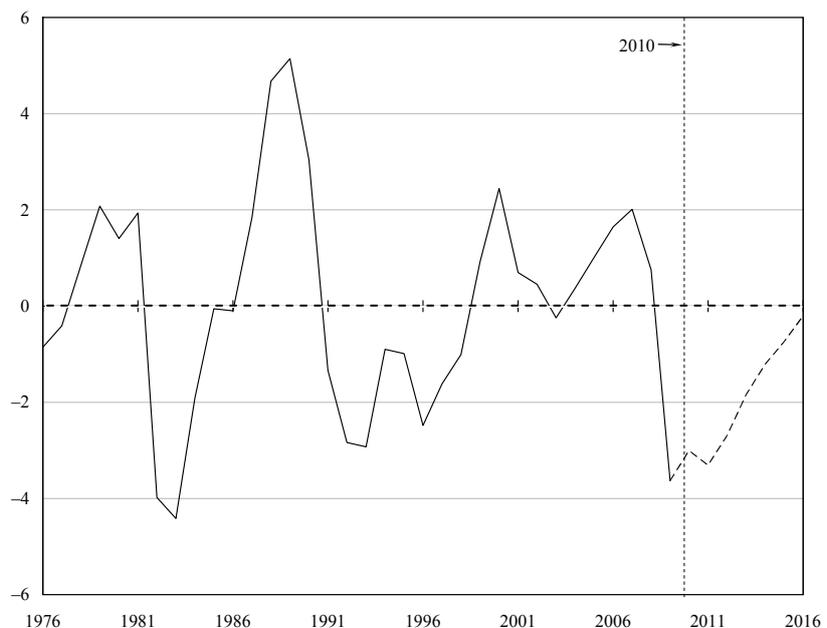
Source: PBO (2011), Statistics Canada.
Notes: Based on Finance Canada's December 2010 survey and PBO's estimate of potential output.

Figure 5

PBO Fan-Chart Nominal GDP Forecasts
(billions of dollars)

Source: PBO (2011), Statistics Canada.

they have opted for minor (front-end-loaded) downward adjustments to nominal GDP in the short-term, relative to the private sector survey average. Figure 5 demonstrates that the size of this most recent adjustment has been trivial, and does not materially represent a more prudent basis for planning than the private sector survey – the approach that was followed in the late-1990s.

Canada's fiscal position has been thrown off track and, absent further policy actions, is likely to remain in deficit over the medium-term. In other words, as a result of the tax cuts and spending increases over the past decade, modest structural deficits have re-emerged in Canada (Figure 2). The PBO estimates that nearly $200 billion will be added to Canada's federal debt between 2008 and 2015. The federal debt-to-GDP ratio is projected to rise to 35 per cent in 2011 before falling, based on the relatively favourable private sector average forecast assumptions. To quantify and illustrate how economic risks affect the fiscal projection, the PBO constructs "fan charts". Figure 6 shows the range of status quo budgetary balance outcomes from PBO's February 2011 projection, which estimates only a small probability of achieving budget balance by 2015.

Canada's fiscal planning environment is part of a broader international shift in fiscal policy that is currently underway, moving from winding down stimulus measures towards constructing and implementing fiscal consolidation plans. While the need for fiscal consolidation is real – and significantly larger in many countries outside of Canada – getting the timing right will be difficult, so as to not upset the economic recovery. As in several other countries, consolidation plans in Canadian jurisdictions remain inadequate and largely incomplete, relying mainly on unspecified spending restraint. Indeed, fiscal transparency in general remains a key concern. Furthermore, clear objectives and policy guidance are largely absent as several of the fiscal rules and targets of Canadian federal and provincial government's have been temporarily abandoned or their status remains unclear (PBO, 2010a).

An additional complication that will arise in the next few years is a looming deadline to renew large federal-provincial health and social transfers and Equalization agreements (the Equalization program transfers funds across the provinces). Casting a shadow over these challenges is a minority federal government political context that is largely short-term focused and appears to lack the required political consensus needed to put Canada on a solid footing for the future.

4.2 *Looming long-term challenges*

Analyzing the sustainability of government finances requires a longer-term perspective, well beyond the current budget planning cycle. In Canada, as in other industrialized countries, a major demographic transition is underway that will strain government finances. During this time, population ageing will move an increasing share of people out of their prime working-age and into their retirement years. Figure 7 shows PBO's long-term projection of Canada's old age dependency ratio (*i.e.*, the population aged 65 and over, divided by the population aged 15-64). Currently, for every person aged 65 and older there are just under five people of working age; by 2020 this is expected to fall to roughly 3.5 people; and by 2050 to just over two people. With an older population, spending pressures in areas such as health care and elderly benefits are projected to intensify. At the same time, slower labour force growth is projected to restrain growth in the economy, which will in turn slow the growth of government revenue.

The PBO's long-term fiscal sustainability analysis brings these demographic and

Figure 6

PBO Fan-Chart Budget Balance Projections Given Economic Uncertainty and Downside Risk
(billions of dollars)
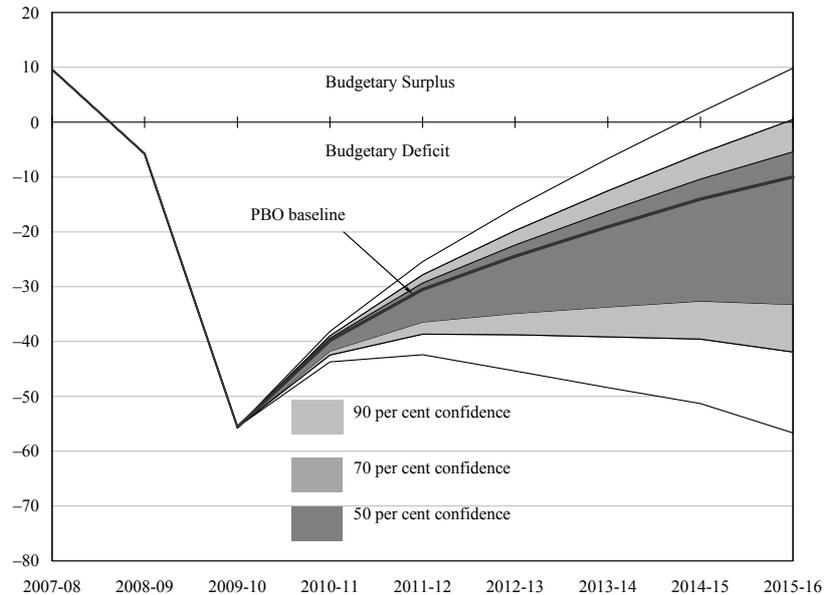
Source: PBO (2010b), Finance Canada.

Figure 7

Population Growth and Old Age Dependency Ratio Projections
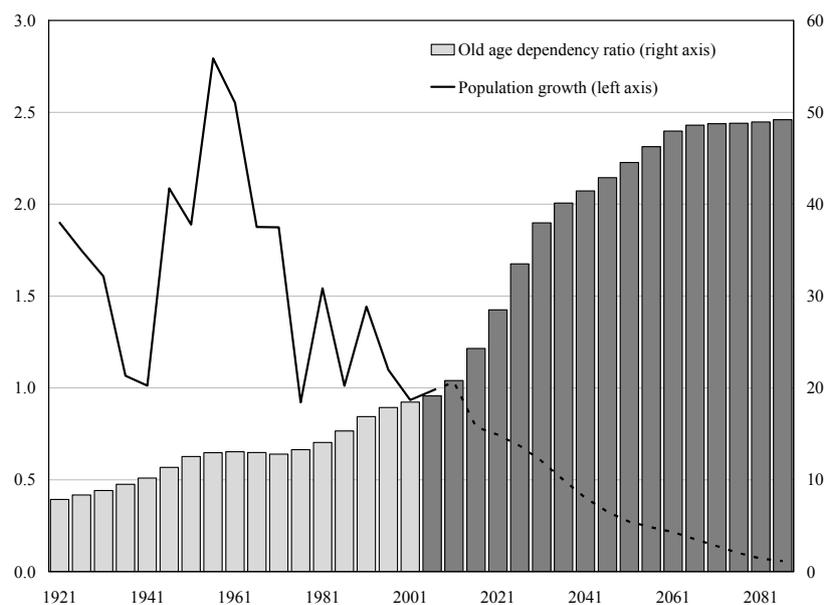
Source: PBO (2010b).

economic projections together into a coherent quantitative framework. This work estimates a fiscal gap of around 1-2 per cent of GDP at the federal level – where the *fiscal gap* is the permanent improvement in the primary balance by tax increases and/or spending reductions required to stabilize the debt-to-GDP ratio (PBO 2010b).[11]

Weak productivity growth is another key long-term policy challenge in Canada, where labour productivity growth has averaged only 1.2 per cent annually over the last 30 years. More troubling is that, over the past 10 years despite a number of policy measures to boost labour productivity, its growth rate has fallen to only 0.8 per cent annually.

5 A path forward

5.1 Advice for establishing an effective independent Budget Office

In our opinion, Canada has made some modest progress recently with the establishment of a legislated budget office, but there remain some key challenges and missed opportunities. The difficult shared experiences of the PBO and other "second-generation" budget offices, suggests the following advice to other countries that are considering creating an independent fiscal agency:

It is imperative to establish the office properly from day one. This means getting the legislation right and hiring the best people because correcting initial mistakes is extremely difficult (or as some senior officials put it to us, "cement dries quickly"). Adequacy of long-term resources and funding and a legislated information provision with consequences for non-compliance are also essential ingredients, as are safeguards for the office's independence from political interference. In this regard, it is particularly noteworthy to compare the unquestioned independence typically afforded to monetary policy institutions, relative to the minimal protections given to newly-created fiscal policy agencies, whose tasks are at least as politicised and controversial. The appointment process and administrative relationships with legislature and executive should be clear and free from potential conflicts of interest. At the PBO, our experiences suggest that a small office can have a disproportionate impact in a short period of time, but lasting progress will ultimately require systemic cultural change within government towards transparency.

5.2 Some principles to improve Canada's fiscal institutions

The following are a set of basic principles to help improve Canada's fiscal institutions, including taking a prudential approach to fiscal policy:

- *Base budget plans on prudent assumptions and have explicit (not implicit) contingencies:* Risk is a four-letter word. Nonetheless, we need to acknowledge risk and the inherent and unavoidable uncertainty of fiscal planning. While Canadian budgets often discuss the sensitivity of their budget projections to changes around central assumptions, none currently used "fan charts" to quantify risk. In our view, attempts to analyze and quantify risk by reporting confidence intervals around budget forecasts and initial costs estimates for major policy proposals and legislation are essential. The reason to quantify risk is to provide governments with guidance to set aside appropriate and explicit risk provisions – as we have learned from experience, implicit risk provisions inhibit budget transparency and debate and can erode the credibility of government budget forecasts. In this area, recent federal budgeting changes which make superficial short-run adjustments to nominal GDP erroneously convey the illusion of real risk-adjustment, but are clearly insufficient, particularly compared with previous approaches in deficit times.

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[11] The fiscal problem may be even larger for some provinces, given that the provinces bear the main responsibility for health spending.

- *Focus on fiscal crisis prevention:* Canadians have learned the hard way that it is better to avoid a fiscal crisis than be forced into a large and painful consolidation. Embedding in our fiscal institutions forward-looking frameworks and/or rules that help restore and preserve fiscal sustainability can improve economic stability and growth and promote inter-generational fairness.

- *Set clear, measurable policy goals at varying time horizons to provide policy guidance and allow progress to be monitored:* Independent fiscal agencies can play a monitoring role in *ex ante* and *ex post* compliance. For example, fiscal projections and plans should provide sufficient details, milestones, and measurable objectives to allow Parliament to hold the government to account.

- *Use structural budget balance estimates for medium-term planning:* Canadian governments should publish estimates of their structural budget balances over their forecast planning horizons to improve understanding and debate; surprisingly none do so at the current time. While such a tool is imperfect, failure to use structural balances means: one cannot operationalize a structural budget balance target (as advocated by O'Neill (2005), for example); one cannot distinguish cyclical from structural fiscal trends – an issue particularly important at turning points in the cycle or when the economy is above potential and temporary cyclical fiscal room can be mistaken for permanent fiscal room; and finally, one cannot assess whether the degree of fiscal consolidation is sufficient to restore budget balance in more normal times.

- *Increase the use of long-term strategic economic and budget analysis and planning:* Despite important long-term fiscal challenges and legislated requirements in other countries, few budgets in Canada include long-term fiscal analysis, plans or priorities. The political process generally puts too little weight on the impacts of current policies on future generations. Budget processes, therefore, need to be reformed to ensure an effective management of the nation's finances on a long-term basis. This could include annual fiscal sustainability calculations that are legislated, and possibly conducted by an independent budget office. Such analysis is essential for effective fiscal management.

- *Improve budget transparency:* In this area there is glaring gap between what was promised in the legislation and what is being delivered. The PBO's legislation contains an information access provision, yet requests are routinely denied and even previously public government information (e.g., details of budget forecasts and cost estimates of major programs) has been declared a "Cabinet confidence". Either legislation or convention should require public government costing on major legislation or policy initiatives. Furthermore, the full range of program activities across government including strategic reviews should be examined by Parliament and supported by quarterly financial reporting to track in-year spending. Such analysis should be made public whether conducted by the government or an independent legislative budget office. This would allow independent scrutiny of the analyses and enhance their credibility. Without budget transparency, accountability and informed public debate are hindered.

- *Return to Westminster roots:* Parliament's fiduciary role over the control of government funds needs to be re-affirmed. Parliamentary scrutiny of appropriations must become a core and time intensive activity – particularly in the context of spending restraint and strategic reviews.

- *Beware of flattery and false comparisons*: Canada's strong relative fiscal position internationally makes complacency and policy inaction a real risk. The appropriate metric, however, is not relative international rankings; it is public finances that are sustainable over the long-term. By this yardstick, Canada has work to do. We must not let our narrative of success through the global financial crisis prevent necessary reforms. Being less unsustainable than other G-7 governments must not be good enough for Canadian fiscal policymakers. Actions are required.

REFERENCES

Askari, M., R. Barnett, J. Danforth, C. Matier, B. Recker and S. Tapp (2010b), "Fiscal Sustainability Report", Parliamentary Budget Office, available at:
http://www2.parl.gc.ca/sites/pbo-dpb/documents/FSR_2010.pdf

Auditor General (2005), "Report of the Auditor General of Canada: Chapter 4 – Accountability of Foundations", February, available at:
http://www.oag-bvg.gc.ca/internet/docs/20050204ce.pdf

Barnett, R., J. Danforth and C. Matier (2011), "Economic and Fiscal Assessment Update", Parliamentary Budget Office, available at:
http://www2.parl.gc.ca/Sites/PBODPB/documents/EFAU_20110215_EN.pdf

Calmfors, L. and S. Wren-Lewis (2011), "What Should Fiscal Councils Do?", Oxford Discussion Paper, No. 537, available at:
http://www.economics.ox.ac.uk/research/WP/pdf/paper537.pdf

Calmfors, L. (2011), "The Swedish Fiscal Policy Council", paper prepared for the *Journal of the Austrian Chamber of Commerce*, available at:
http://people.su.se/~calmf/ViennaJan2011.pdf

Ernst and Young (1994), "Review of Forecasting Accuracy and Methods of the Department of Finance", September.

Gulliemette, Y. (2010), "A Simulation Model of Federal, Provincial and Territorial Government Accounts for the Analysis of Fiscal-consolidation Strategies in Canada", OECD, Economics Department, Working Paper, No. 800, available at:
http://www.oecd.org/officialdocuments/displaydocumentpdf?cote=eco/wkp(2010)56&doclanguage=en

O'Neill, T. (2005), "Review of Canadian Federal Fiscal Forecasting", June, available at:
http://www.fin.gc.ca/activty/pubs/Oneil/PDF/Oneil_e.pdf

Tapp, S. (2010a) "Canadian Experiences with Fiscal Consolidations and Fiscal Rules", Parliamentary Budget Office, October, available at:
http://www2.parl.gc.ca/Sites/PBO-DPB/documents/Fiscal_Rules_Oct_2010.pdf

EVALUATING ELECTION PLATFORMS: A TASK FOR FISCAL COUNCILS? SCOPE AND RULES OF THE GAME IN VIEW OF 25 YEARS OF DUTCH PRACTICE

Frits Bos[*] and Coen Teulings[*]

In some countries – the Netherlands, UK and USA – the expected economic implications of election platforms of political parties are evaluated by independent economic institutions prior to the election. This paper analyzes the merits and limitations of this process, taking 25 years of Dutch experience as a point of reference. In particular in times of financial crisis and unsustainable public finance, evaluation of election platforms can serve as a disciplining device for unrealistic or (time) inconsistent promises by politicians. More in general, it can help political parties to credibly inform voters about the implications of their platforms, to design more efficient policies and to reach consensus on them. It can also create a level playing field for political parties not represented in the government, in particular those with limited resources for economic information and expertise. However, there may be adverse effects, in particular when trade-offs are presented in an unbalanced way or when the rules of the evaluation provide too much room for gaming and free lunches.

1   Introduction

In some countries – the Netherlands, UK and USA – the expected economic implications of election platforms of political parties are evaluated by independent economic institutions prior to the election. We analyze the merits and limitations of this process, taking the Dutch experience as a point of reference.[1]

In the Netherlands, some months before the elections, on request of the political parties, CPB Netherlands Bureau for Economic Policy Analysis (CPB) publishes an economic evaluation of their election platforms. For example, what are the consequences of the platforms for the government budget, economic growth, employment, the purchasing power of various types of households and the environment? In March 2010, CPB compared the election plans of nine Dutch political parties (see CPB, 2010). This comparison and analysis was the seventh evaluation of election platforms in twenty-five years.

In the UK, since the election of 1997, the Institute for Fiscal Studies (IFS)[2] publishes policy briefings during election time. These policy briefings review the policies advocated by the three main UK political parties in their "manifestos". They also discuss the track record of current and previous government and the sustainability of public finance without any change in policy. A wide range of policy issues is covered, like "pensions and retirement", "environment", "living standards, inequality and poverty" and "families and children". The latter includes policy proposals about education, parental leave, child care and relevant taxes and benefits. According to one of the major

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[1]   Previous assessments of the Dutch experience with the economic evaluation of election platforms are Haffner and Van Bergeijk (1994), Don (2003) and the papers in Graafland and Ros (2003).

[2]   The IFS is an independent economic research institute funded by public and private grants. It produces academic and policy related findings on UK taxation and public policy. It was launched in 1971 in order to improve UK tax policy and to make the UK tax debate more informed and rational by bringing together political, legal, accounting and economic arguments. Its first major success was the Meade report published in 1978. This report by a committee chaired by Professor James Meade, winner of the Nobel Prize in economics in 1977, evaluated the UK tax system as a whole, what are the objectives, to what extent are these objectives met by the current UK tax system and what reforms should be undertaken?

UK newspapers, these IFS policy briefings are a great service to voters: "Many voters will have asked themselves why the main parties have been so vague about what they intend to do about the crisis in public finances. But it took the IFS to launch a blunt, impartial and authoritatively damning attack on all three parties, accusing them of not being straight with voters" (*The Independent*, 6 May 2010).

In the USA, the estimates by the Congressional Budget Office (CBO) of budgetary costs and savings of some major policy proposals, e.g., on health care reform, play a major role in elections for president, the house and the senate.[3] CBO traditionally focuses on static scoring of such policy proposals, *i.e.*, including the direct effects and their behavioral responses but without macroeconomic effects. However, since 2003, also the consequences of different macroeconomic assumptions are shown ("dynamic scoring").

Though evaluation of election platforms by independent economic institutes is quite rare, calculating the budgetary costs of major policy proposals or analyzing their macroeconomic consequences are very common all over the world. Such analyses are used in political decision-making in many countries. Also international organizations, like OECD, IMF, the European Commission and the World Bank, make similar analyses. So, introducing independent evaluation of election platforms will generally imply two types of changes. Firstly, such methods currently often used for analyzing official government policy proposals are to be applied to the election platforms of government parties and opposition parties. Secondly, these analyses should be conducted by independent institutions instead of government units subject to political interference, e.g., a Ministry of Finance or research institutes with a clear political signature. This second type of change may turn out to be the most difficult. The abrupt end of the new Hungarian fiscal council shows that independent fiscal watchdogs are most useful when their advice bites most, but then they are also politically most vulnerable.

Economic theory on decision making in a democracy provides a rationale for independent evaluation of election platforms (see Swank, 2003). Decision making under direct democracy is likely based on too little information, because information is an (impure) public good. Collecting such information is costly and when collected also many others can benefit from this information. This raises a free rider problem. An alternative solution to ensure sufficient information for voters is to delegate the making of policy to a number of agents, *i.e.*, introduce representative democracy instead of direct democracy. However, parties are inclined to provide incorrect information. They will adopt a view of the economy that is meant to increase their chances of winning the elections. Voters may also distrust this information for being politically biased, even when it is actually objective. Financing independent institutions for analyzing the economy and policy proposals may help to solve this information problem.

The first ideas for an economic analysis of election platforms in the Netherlands date back to 1972.[4] A national economic journal asked all major political parties to specify their proposals for five policy issues: wage and price policy, redistribution of income, employment, economic growth and spatial planning. Each issue was illustrated with questions, e.g.:

- How should the government fight inflation? Should the wages of civil servants be frozen or should all price increases be forbidden?

- Are you in favour of a maximum income and how high should this be?

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[3] The CBO was established in 1974 to serve the American Congress and plays a major role in measuring the budgetary impact of new legislation and other policy proposals: "CBO's score can doom legislation or smooth the way to passage; it can compel committees and members to modify pending legislation, even after political deals have been negotiated; and it can complicate or thwart the president's legislative ambitions" (Schick, 2007, p. 133).

[4] See ESB, Dutch Journal on Economics and Statistics, No 2874, pp. 1057-79.

- How to avoid that young people do not find a job in line with their education? Should foreign employees continue to work in the Dutch economy?
- Should economic growth be reduced in order to limit pollution and exhaustion of natural resources?
- Should economic growth be reduced in the urban agglomeration in the Western part (the Randstad) and be stimulated in the Northern and Southern part of the Netherlands?

The seven major political parties wrote an essay on these issues and these essays were published three weeks before the elections. The editorial motivated this interrogation of political parties: "Dutch political parties fail continuously in being frank and transparent about their political preferences and policy proposals. For problems like the environment, transport, spatial planning and inflation only ad hoc measures are taken that avoid hurting the voters. ... Political parties try to seduce voters by vague promises instead of by being honest and clear about how to fight inflation and reduce the negative effects of economic growth" (p. 1057).

In this editorial, the idea of an independent evaluation of election platforms is related to the credibility and commitment problem of politics. Since voters have a hard time to evaluate the costs of policy proposals, politicians are tempted to make more promises than is financially viable. Furthermore, politicians are tempted to spend money on specific interest groups today, as to achieve their electoral support, leaving the distribution of the tax burden to finance this spending open for future decision making. All kind of institutions have been designed to resolve these problems,[5] fiscal councils being a rather recent new branch on this tree. Fiscal councils are supposed to provide an independent analysis of the governments' fiscal policy on a regular basis (see Hagemann, 2010, Calmfors, 2011 and Calmfors and Wren-Lewis, 2011 for an overview). The evaluation of election platforms can be interpreted as another branch of this tree or just a new task for fiscal councils.[6]

A major merit of evaluating election platforms is the timing. For a fiscal watchdog to be effective, providing information and policy advice at a very early stage of decision-making is important. This maximizes the time for interaction with policy-makers, reduces conflicts with policy-makers (in particular when such information comes as an unhappy surprise) and reduces the likelihood that policy advice is ignored simply because it conflicts with earlier political statements. According to the IFS "With public attention more focused on policy debates than usual, the election campaign is one of the best opportunities we have to ensure that the sort of rigorous, evidence-based social science research that we undertake has a high impact on policy development and discussion" (*IFS Policy Briefings for the General Election*, 2010).

The structure of this paper is as follows. Section 2 describes the history of the evaluation of election platforms in the Netherlands. Section 3 provides an overview of various approaches to the evaluation of election platforms, varying in scope from just an overview of direct budgetary effects to full-fledged welfare analysis including their general equilibrium effects. Section 4 discusses in greater detail the rules of the "game" in the Netherlands. For example: how do you ensure the quality and neutrality of the evaluation? And how to avoid political parties will manipulate the game? Section 5 concludes.

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[5] Calmfors and Wren-Lewis (2011) distinguish six reasons for deficit bias: informational problems (e.g., due to over-optimism among voters or politicians about future economic growth), impatience, exploitation of future generations, electoral competition, common-pool problems and time inconsistency.

[6] Calmfors (2011) distinguishes six tasks for fiscal councils: 1) Provision of "objective" macro-economic forecasts on which government budget proposals can be based, 2) Costing of various government policy initiatives, 3) *Ex ante* evaluation of whether fiscal policy is likely to meet its medium-term targets, 4) *Ex post* evaluation of whether fiscal policy has met its targets, 5) Analysis of the long-run sustainability of fiscal policy and 6) Normative recommendations on fiscal policy. The evaluation of election platforms should be added as a seventh task.

2   The Dutch history of evaluating election platforms

The evaluation of election platforms in the Netherlands started in 1986. The CPB[7], the government's economic expert institute, had just published the new official macroeconomic forecasts for the new period of government. The three major political parties asked then to investigate the economic consequences of their election platforms. To what extent would these proposals help to increase economic growth and improve public finance? And what would be the consequences for unemployment and the purchasing power of various groups of households? CPB prepared for each party a separate paper. These three papers were published jointly after the election.

Three years later, four political parties requested an evaluation of their election platforms and the results were jointly published a month before the election. As a consequence, since 1989 the results of the evaluation of election platforms have played an explicit role in Dutch elections.

Table 1 provides an overview of the seven evaluations of election platforms in the Netherlands. We report the number of political parties that participate and the number of seats in parliament these parties cover. Furthermore, we report the scope of the evaluation, using exactly the same categories as will be applied in our theoretical discussion in the next section.

Three conclusions can be drawn straight away. First, the number of parties that participate in the evaluation has steadily increased from three to nine. During the past 25 years, the political landscape in the Netherlands has become fragmented. More and more parties participate in the election and more and more parties gain access to the parliament. In 1968, the three major parties had 90 per cent of the seats in Parliament; at present, this been reduced to 55 per cent. Despite this fragmentation, the number of seats in parliament covered in the evaluation has been rather stable and covers now even 99 per cent of all seats. This is remarkable, since CPB only evaluates a program on request of a political party. Hence, parties can refuse to participate in the evaluation. Nevertheless, almost all parties choose to do so.

Apparently, the revelation principle is at work here. Given that the institution of the evaluation of election platforms has obtained a vested position in the Dutch political system, new parties find it indispensable to participate, since non-participation would inevitably send a signal to the voters that the party's election platform is economically unsound. Though the great majority of the voters will not spend a minute in reading the evaluation, many journalists do, and they report extensively on the evaluation in the newspapers and politicians refer repeatedly to the evaluation during their television performances. Moreover, the evaluation plays a major role in the negotiations on a new government that start immediately after the election. Not all parties participate in these negotiations, but a party of which the platform has not been evaluated would become less attractive as a coalition partner and will start the negotiation process with a backlog.

This revelation principle is well illustrated by the participation of the GreenLeft Party since 1994, the Socialist Party and SGP since 2002 and the PVV since 2010. The decision to participate by the GreenLeft Party and the Socialist Party was part of an official change in strategy. Their new strategy was to become regarded as a serious opposition party with a high quality program and to increase their chances for participating in a new coalition government. Following this strategy, it does not suffice to say no to policy proposals by the government. Each time, a realistic and financially sound alternative should be presented. Independent evaluation of their election platform

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[7] CPB Netherlands Bureau for Economic Policy Analysis (CPB) is the oldest fiscal council in the world. It was founded in 1945. CPB is fully independent as far as the contents of its work are concerned. It is publicly funded and part of the Ministry of Economic Affairs, Agriculture and Innovation. Research is carried out on CPB's own initiative, or at the request of the government, parliament, trade unions or employers' federations. Forecasts and analyses by CPB play a major role in the official decision-making process of Dutch economic and fiscal policy (see Bos and Teulings, 2010).

Table 1

Evaluation of Election Platforms in the Netherlands (1986-2010)

	1986	1989	1994	1998	2002	2006	2010
Number of political parties	3	4	5	5	8	8	9
Seats in parliament prior to elections	133	137	131	137	123	139	148
A. Direct budgetary effects during the next election cycle							
- Overview of budget cuts, expenditure and taxes	x	x	x	x	x	x	x
- Detailed overview of policy measures			x	x	x	x	x
- Overview of policy measures by function					x	x	x
- Effect on government deficit and debt	x	x	x	x	x	x	x
- Effect on employment in the government and healthcare sector					x	x	x
B. Economic feedbacks on budget, labour market and bbp during the next cycle	x	x	x	x	x	x	(a)
C. Long-term effects on labour market and bbp		x	x	x	x	x	x
D. Effects on purchasing power of various groups of households	x	x	x	x	x	x	(a)
E. Long-term effects on budget					x	x	x
F. An analysis of the impact on specific sectors							
- Environment and mobility			x	x	x	(a)	x
- Education and innovation						x	x
- Health Care		x			x		x
G. An analysis of the impact on specific sectors using a welfare criterion							x

(a) Absent due to time restrictions following the fall of the government.

fitted well in this new strategy. The SGP (a small right-wing Christian party) was very reluctant to participate, but felt forced to do it because a direct political opponent (ChristenUnie, another small Christian party) decided to join (see van Liedekerke, 2003, p. 142). Since 2005, there is a major new political party: PVV (an anti-Islam party). Last year, it also decided to request for evaluation of its election platform. This party has now become the official supporter of the current minority government. Its success in the elections and its important role in current Dutch government would have been unlikely without such evaluation of its election platform.

A second conclusion is that over time the description of policy proposals and their direct budgetary effects became much more detailed, extended and comparable. In the first decade, only an overview was provided of the major budget cuts, extra government expenditure and tax measures. Since mid 1990s, also a more detailed description of policy measures is provided. Since 2002, changes in government expenditure or taxes are broken down by function, e.g., public administration, defense, education, health care, social security and transfers to corporations. As a consequence, the policy measures of political parties can now be compared by function.

A third conclusion that can be drawn from Table 2 is that the scope of the analysis has increased gradually. The core part of the Dutch evaluation of election platforms consist of four components, all pertaining to the next period of government:[8]

- description of policy measures;

- direct budgetary effects of the policy proposals, *i.e.*, what are direct effects on the government deficit and debt in billion euro and as percentage of GDP without taking into account interactions with the national economy. In practice, this may include some behavioural effects, e.g., evasion of taxes or effects on the labour supply not incorporated in the macroeconomic model;

- analysis with a macro-model showing feedback effects for a core set of macro variables, like economic growth, inflation, employment and the government budget. The direct budgetary effects of the policy proposals are used as inputs for this analysis;

- analysis of the change in purchasing power of various groups of households. This includes the direct effects of policy proposals on household income plus the macroeconomic effects on purchasing power, e.g., via changes in prices and wage rates.

Over the years, the core set of four components has been supplemented with other information. Since 2002, the analysis of direct budgetary effects has been extended with information on the employment effects for the government sector (broken down into, e.g., central government, local government, safety, defense and education) and health care. A major purpose of many policy proposals is to establish long-term effects that become only visible after the next period of government. Long-run labor market effects have been discussed since 1989. The scope of such long analyses has been extended each time. The analysis of the effects on environment, congestion and mobility was included since 1994.[9] Long-term effects on government finance have been included since 2002. Since 2006, also the long-run effects of proposals with respect to education and innovation are being assessed and last year an analysis of the housing market has been added. Last year, an innovation of the analysis of education and innovation was the link with long-term economic growth. A specific feature of the housing market analysis and the analysis of mobility was that an estimate of welfare effects was included. Reform of health care was often a major issue in Dutch policy. Analyses of the major issues involved have therefore been included in 1989, 2002 and 2010. As a consequence of all these extensions, the evaluation provides a very broad overview of the consequences and trade-offs of the policy platforms of Dutch political parties.

This is illustrated by Table 3, which presents a summary of the outcome of the evaluation in 2010 for the two parties with the most special election platforms, the Socialist Party (SP) and the Liberal Conservatives (VVD). The differences in the platforms are clearly visible. The Socialist Party has a much more lenient position regarding the reduction of the budget deficit than the Liberal Conservatives, both by the end of the election cycle in 2015 and in the long-run sustainability gap. Obviously, cutting public expenditure more heavily as done by the Liberal Conservatives implies that purchasing power is reduced more strongly. The Socialist Party cares less about profits and more about the environment and Health Care than the Liberal Conservatives. Liberal Conservatives want to raise housing rents and private contributions in health care and want to introduce market forces in the organization of healthcare. The evaluation of the election platforms offers therefore a clear overview of two entirely different policy views.

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[8] In 2010, due to the unexpected fall of government, time constraints implied that of this core-part of the evaluation only the description of proposals and their direct budgetary effects could be presented. Most of the political parties were not very happy with the absence of effects on purchasing power and medium-term macro-economic effects. For two parties, next time such absence of a politically very important part of effects of might be a reason not to participate.

[9] In 2006 this was not possible due to time constraints resulting from an unexpected fall of government. In 2002, three of the eight participating parties, *i.e.*, 71 seats in parliament, opted out for such analysis. In the evaluation of 2010, such opting out was not allowed anymore: political parties were given the choice either to participate on all issues or not to participate (see Section 4).

The Consequences of the Election Platforms of 2 Dutch Political Parties in 2010: Summary Overview
(changes relative to basis, unless otherwise mentioned; Dutch GDP in 2010 about 600 bln euro)

	SP	VVD
Improvement EMU-balance, 2015 (*euro bn*; *ex ante*)	10	20
Sustainability of public finances (*euro bn*)	16	39
Purchasing power of households, 2015 (*euro bn*, *ex ante*)	+ 1¼	− 1½
Profits of companies, 2015 (including housing corporations) (*euro bn*, *ex ante*)	− 4¼	− 1¼
Structural employment (*percent*)	− 1	5¾
Accessability by public or private transport (welfare gain, *bn euro*)	− ¼	¼
Car usage, 2020 (*percent*)	0	0
Public transport usage, 2020 (*percent*)	+ 5	0
Reduction of greenhouse gases (Mton CO_2)	21	2
Quality of nature, 2020	+	− −
Quantity of nature, 2020	0/−	− −
GDP effect education (*structural*, *percent*)	¼	4
Science/innovation, 2015 (*budget*, *mld euro*)	− 0.06	− 0.1
Housing market (*welfare gains*, *percent of GDP*)	0.4	0.3
Change in house prices, 2015 (*percent*)	− 6	− 2
Change in net rent, 2015 (*percent*)	− 3	10
Health care, employment, 2015 (*thousands*)	+15	− 50
Own risk health insurance, 2015 (*euro*)	0	300
More (+) or less (−) market forces cure	− −	++

There are several mechanisms underlying the gradual increase in scope (see also Section 3). First, a partial evaluation has loopholes. Parties seek the weak points in the evaluation by making proposals of which the benefits are communicated clearly in the evaluation, but of which the cost fall outside the scope of the evaluation, in particular for budgetary cost beyond the end of the next election cycle. An attempt to cover these loopholes leads to a gradual trend towards an increasing scope of the evaluation. Second, political parties have diverging preferences regarding the topics on which they want to focus the election campaign. Green parties want to focus on environmental problems, conservative parties stress issues of law and order, liberal parties put most attention on education. Each party feels set at a backlog by not including (or: treating less extensively) their favorite topic. This yields a strong pressure to cover ever more special topics in the evaluation.

The evaluation of election platforms is fully embedded in the official decision-making process for the next period of government, *i.e.*, in deciding on the new policy plans and new fiscal framework (see Bos, 2008 and Bos and Teulings, 2010). After the election, the evaluation plays a

major role during the formation of a new coalition agreement.[10] The evaluation offers an initial overview of the economic and financial implications of the parties' proposals. It is therefore a good starting point for negotiating the terms of a coalition agreement.[11] This applies not only to the proposals of parties involved in the coalition agreement. In practice, the evaluation serves as a data base on all kinds of policy measures that could be considered during the negotiations; in particular the budget cuts and extra revenue generating measures by other parties are a popular source of inspiration. On request of the political parties involved, CPB commonly provides also analyses of provisional and final coalition agreements.

Measuring the actual impact in the Netherlands of evaluating election platforms is difficult. Its impact should be assessed by comparison to a non-observable counterfactual, *i.e.*, what would have happened without such evaluation? Would the political platforms have been different, would voters have voted differently and would coalition-agreements and actual policy practice have been different? At the start of the 1980s, already before the start of evaluating election platforms, major political parties agreed on drastic fiscal consolidation and restructuring of the Dutch economy. So, what would have been at that time the value added of evaluating election platforms, e.g., when CPB would have decided unilaterally to start such evaluation and publish the results before the elections? Similarly, what would have been the most recent political platforms and coalition agreement without any evaluation of the election platforms?

However, Dutch politicians agree that evaluating election platforms makes a substantial difference. For example, after the unexpected fall of the previous government, the most recent election date was set in such a way to leave just sufficient time for an evaluation of election platforms. According to Dutch politicians, the direct benefits for the general public at large must not be exaggerated (see Liedekerke, 2003). Few voters will read the evaluation report, but fall back upon media analysis of the report. But press reports magnify certain results, sometimes completely forget others that might be just as interesting and could even be seriously flawed. Political parties can play a role in this by framing and spinning the results.

Dutch political parties seem to agree that the major and direct beneficiaries of the evaluation are the political parties themselves. "The calculation effort pushes parties to be clear about their political programme and final options; it confronts them with hard choices that might be left unnoticed if not for the CPB involvement. In short: the calculation disciplines parties and precludes that wishful thinking turns into party politics. ... the content of the political programme cannot be made up of elusive promises.. it pushes the discussion within the political party itself to a higher level, in which people have to think twice before introducing a proposal. Wild politics is weeded out.... cross-party discussion will become smoother, because everybody is constrained by the same analytical framework and used to the same types of ever returning arguments (what will this proposal cost, how effective can it be, et cetera). Political discussion civilizes through the exposure to the calculation effort. ... [It] brings political programmes closer together and therefore simplifies the cabinet formation process" (Liedekerke, 2003, p. 138).

3   What is the proper scope of the evaluation?

From a pure economic theory perspective, the platform of a political party only has to make

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[10]   In the Netherlands, parties usually form governments on the basis of wide-ranging coalition agreements. The coalition agreement plays an exceedingly important role during the government's term in office. It sets out the result of the give and take among the coalition partners on many policy issues.

[11]   So, for this purpose, the overview of the policy proposals by political parties in the evaluation is preferred to the officially platforms published by the political parties themselves. The latter may differ in content and detail substantially from that used in the evaluation, see Section 4.

statements about the preferred welfare distribution within and between generations, since these statements are normative. Conditional on this preferred distribution of income/welfare, the Pareto criterion allows ranking all alternatives according to their efficiency (since income is just one aspect of welfare, we refer to the distribution of welfare rather than income in what follows). This ranking belongs to the domain of positive analysis and can therefore in principle be done by scientists. Since society can be classified in large number of subgroups, each with different attributes and interests, even this relatively simple objective of a preferred distribution of welfare is a multidimensional problem. Since any change of institutions always affects both efficiency and the distribution of welfare and since instruments to redress the distributional effects of institutional change are usually missing, the debate on the appropriate distribution of welfare inevitably spills over into the debate on the efficiency. Hence, even when politicians focus strictly on the welfare distribution, the decision problem remains highly complicated.

However, reducing politics to the problem of a preferred welfare distribution constrains the domain of politics too much. Politicians have views on a much wider set of issues than just the welfare distribution. For example, whether or not healthcare should be privatized invokes a political debate that cannot be reduced to distributional issues alone. Ranking both sides of the debate on a welfare criterion would probably be a misperception of the political content of that debate. Alternatively, one could sketch the effects of various policy options and the tradeoffs that it involves which go beyond the traditional fundamental trade off, that between equity and efficiency. These observations raise the question how to set up an meaningful evaluation of election platforms. If constraining politics to a statement on the proper welfare distribution does not work, what else can be a defendable position about the scope of an economic/scientific evaluation of election platforms without the evaluation itself becoming a political statement?

Table 3 provides an overview of various topics that can be included in the evaluation. The topics are ranked in the order of an increasing scope: an evaluation should at least include topic A and can be gradually extended by including further options, starting from option B. The table provides a summary of the main arguments pro and contra the extension of the evaluation with that topic. Below, each option will be discussed in greater detail. In our discussion of the pros and cons of very alternatives we draw upon the Dutch experience. The first evaluation in 1986 covered the topics A, B, and D. The last evaluation in 2010 covered all topics A till G, except for topic B and D, which were omitted for lack of time (the elections were held prematurely due to the collapse of the previous government).

Topic A. Direct budgetary effect for the next election cycle

The simplest evaluation is just an analysis of the effects of the proposed election platform on the government budget by the end of the next election cycle (each election cycle coincides with the term of a cabinet, which lasts 4 years, unless the cabinet looses confidence in parliament during the cycle). This position links directly to the role of fiscal watchdogs. Parties are evaluated by the effect of their program on the government budget. Anything else is left over to the marketing skills of the political parties and to the imagination of the voters. The advantage of this position is that its modesty is easily defendable. However, the evaluator does not provide the voter any help in grasping the implications of the proposed policies. More seriously, by focusing on the consequences for the budget by the end of the next election cycle, one runs the risk that political parties seek proposals that provide means for the next government and shift the burden for the budget to future governments. For example, parties have proposed to change the fiscal treatment of pension premiums. Currently, pension contributions are tax deductible, while benefits are taxed. Reversing that rule reduces the budget deficit at the end of the current election cycle, but raises it in the future.

Table 3

A Summary of Pros and Cons of Various Approaches to the Evaluation of Election Platforms

Topic	Advantage	Drawback
A. Direct budgetary effects during the next election cycle	1. simplicity 2. close alignment to the role of fiscal watchdog	1. no trade-offs shown 2. implications for deficit in later cycles ignored
B. Economic feedbacks on budget, labour market and bbp during the next cycle	1. shows medium-run economic effects of policies	1. overrates expansionary policies and underrates structural reform
C. Long-term effects on labour market and bbp	1. avoids the trap of overrating the short-run effect on effective demand	1. puts a high burden of proof on the assessment of long-run effects
D. Effects on purchasing power of various groups of households	1. shows implications for a snapshot of the welfare distribution 2. provides insight in the tradeoff political parties face	1. ignores changes in socio economic status 2. ignores lifecycle effects
E. Long-term effects on budget	1. avoids burden shifting to future governments	1. raises a commitment issue: what is the value of early announcement of future policies? 2. how to deal with issues where nobody has a serious plan regarding the future? 3. if combined with alternative D: how to deal with variations in future growth rates? 4. trade off between long-term government finance and long-term household income/profits is not shown
F. An analysis of the impact on specific sectors, e.g., education	1. provides a broader overview of the effect of platforms 2. helps creating consensus on the economic impact of policies	1. choice of sectors to include is arbitrary 2. requires detailed knowledge of these sectors 3. not only of first order, but also of second order effects 4. prior communication with political parties required 5. risk of gaming
G. An analysis of the impact on specific sectors using a welfare criterion	1. allows an integral evaluation of costs and benefits of e.g., market distortions of taxes and subsidies	1. limits the role of political preference beyond what politicians view as their area of competence 2. marginal utilities (prices) to tradeoff various inputs are not always available

Topic B. Economic feedbacks on budget, (un)employment, and GDP

One further step is to include the indirect effects of the election platforms for the budget, the labour market, and GDP by the end of the election cycle. This provides information on the impact of an election platform on the economy. The caveat of including these economic feedbacks at the end of the election cycle is that they are likely to be dominated by medium-run effects of policies on effective demand. For example, suppose that the budget deficit and unemployment have gone up during the past election cycle due to a recession. Suppose one party wants to counter these adverse effects by reducing the replacement rates. In the short run, this reduces effective demand due to the reduction in purchasing power for the unemployed. The positive effect of lower benefits on the budget deficit might therefore be offset by lower consumption taxes. In the long run, the lower benefits and the effect of a lower replacement rate lead to a reduction of the deficit. Similarly, expenditure cuts might reduce the deficit, but raise unemployment due to their effect on effective demand. Since these cuts have to be made anyway to keep the budget balanced, this is merely an issue of timing. As long as the evaluation does not provide the voter a shadow price of a lower deficit by the end of the election in terms of future GDP and future (un)employment, the voter will find it hard to weight short-run benefits agains long-run cost. Establishing this shadow price is therefore a mayor challenge for economic theory, which has not been solved till today.

Summarizing, structural policies proposals are underrated by including only an evaluation of the economic impact during the next election cycle, since the evaluation is dominated by medium-run effects on effective demand, while the structural effects tend to take longer before they are fully realized. For example, according to the evaluation of the election platforms of 2006, the greatest difference in unemployment rate between two parties was 0.4 percentage points. One party proposed a reduction of the replacement rate by 2.5 percentage points. The main positive effect of this measure on labor supply and GDP is realized only after the end of the next election cycle. For this reason, some observers/economists prefer leaving out the medium-run economic effects and concentrating on the structural effects.

Topic C. Long-term effects on (un)employment and GDP

An obvious solution to the problem of overrating the medium-term effects of policies on effective demand is to include an analysis of their structural or long-term effects in the evaluation. However, this puts a large burden of proof on the estimates of long-run equilibrium effects of policies. Moreover, the public find it a hard to believe these long-run effects, while the short-run effects on effective demand have larger credibility in the eyes of the public. From an insider point of view, these judgments are highly debatable. For example, recent studies of the CPB on the effects tax reforms on labour supply reveal that the estimates of their effects are highly reliable, while the effects on effective demand are might be far more debatable. These conclusions are in line with similar evidence of the Institute of Fiscal Studies for the United Kingdom.

Topic D. Effects on purchasing power of various groups of households

One step further is to include the effect of policy proposals on the purchasing power of various subgroups in society during the next period of government. From the point of view that politics most important role is to decide on the welfare distribution, this is obviously meaningful information for the voter. The combination of this topic and topic D. gives a handle on the tradeoff between equity and efficiency.

However, there is a major caveat here. The tradeoff between equity and efficiency stems from policy-makers' inability to distinguish between effort and ability. Hence, redistributive

taxation undermines the incentives for providing effort, or equivalently, it reduces labour supply. A positive evaluation of this trade off requires a broadly shared view on the elasticity of labor supply and the effect of the replacement rate on unemployment. Such an agreement might be hard to achieve.

As argued by Piketty (1995), political parties might be deeply divided on this issue for perfectly understandable reasons. Effort, social background, and income are positively correlated. Left wing parties might explain these positive correlations by arguing that income is determined social background determines income, while right wing parties might stress the role of effort. Since left wing people usually have a lower social background than right wing people, they provide less effort since they think it does not matter anyway, while right wing people think the opposite and therefore provide a lot of effort. These beliefs and the behaviour they induce generate exactly the correlations that we find in the data. Therefore, an econometrician might have a hard time to provide convincing evidence on the benefit of either side. This shows why the classical distinction between positive statements on efficiency and normative statement on the distribution of welfare is not that clear cut in practice.

Remarkably, a generally accepted view on this issue has emerged in the Netherlands. The CPB has modeled the labor market in its MIMIC model (see Gelauff and Graafland, 1994, Donders and Graafland, 2000 and Folmer, 2009). This exercise has generated a view on the relevant elasticities that is broadly accepted by all political parties.

Focusing on the direct effect of policies for purchasing power keeping constant the socio economic status of a person ignores an important aspect of the tradeoff between equity and efficiency. Reducing the replacement rate lowers the purchasing power of an unemployed, but raises the probability for that person to get reemployed. By keeping constant the socio economic status, this aspect is ignored. From the point of view of individual households (see Di Tella *et al.*, 2001 and 2003), losing one's job has much larger implications for well being than slight policy changes regarding tax brackets or replacement rates. Ignoring these implications overstates the negative effects of this type of policies.

A further drawback of this analysis of purchasing power is that it focuses on the current status and ignores future effects. This is a serious limitation when analyzing for example the intergenerational impact on lifetime welfare of increasing the retirement age.

Topic E. Long-term effects on budget

When an economy is approximately in a steady state, there is little need for a separate analysis of the effect of election platforms on future government budgets. As long as a policy leads to a balanced budget today, it will also do so in the future. However, the economies of all OECD countries are not at all in steady state. The ageing of society is a major risk for the long-run sustainability of the public finances. Any policy increasing public pensions or health care for elderly is currently affordable, but might be a nightmare in the future. Hence, it is useful to include a long-term perspective in the evaluation of election platforms. This approach is particularly useful for an evaluation of the level of public debt at the end of the next election cycle. As noted before, the economic discipline has not agreed on a proper shadow price for public debt. In a long-term framework, the intertemporal budget constraint solves this issue. The requirement not to let public debt explode provides a meaningful constraint.

Inspired by generational accounting developed by Auerbach, Gokhale and Kotlikoff (1991), CPB has worked out a set of rules for the long-term evaluation of public finance. We summarize

the main lines below.[12] The growth of labour productivity is assumed to be exogenous and a series of policy parameters are fixed at their current level, like the ratio of the public elderly pension to wages, health care expenditure per person of a particular age divided by the real wage, and tax revenues and public consumption, the latter two as a share of GDP. Using the expected evolution of the demographic composition of the population (accounting for the expected increase in life expectancy), we can calculate the evolution of the primary surplus and public debt. It would be accidental if the debt ratio would converge to a stable path. The expenditure cut required to let the debt ratio converge is called the sustainability gap. The platforms of political parties are evaluated by their effect on the sustainability gap and the distribution of purchasing power across generations. When a party submits a platform that does not close the gap, the CPB arbitrarily closes the gap, e.g., in 2040, by raising the tax rate. In that case, future generations will bear a disproportional share of the burden of implicit public debt. This provides an objective shadow price for public debt: the purchasing power of future generations.[13]

Although this approach is quite effective in dealing with the long-term budget constraint of the government, this approach faces a number of hairy problems. In the simple set up of scenario A that started the whole exercise, the CPB allowed parties to submit proposals that could be implemented during the next election cycle and evaluated these proposals solely by their effect on the deficit by the end of that cycle. Parties were not allowed to submit proposals that had an effect only after the end of the next election. The sustainability analysis opened the way for proposals that were relevant only for their effects on the long run. But what is the credibility of a proposal that is only going to have real effects 20 years from now? Is such a proposal credible in the first place? Fundamentally, politics is not able to commit itself, because there is no outside power that can force politics to live up to its promises, see Acemoglu (2003). Moreover, the politicians that rule 20 years from now are different from those who rule today. Why would future politicians consider themselves to be committed to the proposals done by their predecessors? Hence, the CPB has imposed a number of constraints for a long-term policy proposal to be included in the evaluation of election platforms for the current election cycle. We return to this issue in Section 4 when discussing the rules of the game.

Further complications arise when these long-term projections for the budget are combined with topic D., the long-term effects of policies on (un)employment and GDP. Suppose a party wants to raise future GDP by investing in education. Since many policy parameters are expressed as a share of GDP (or: real wages), an increase in productivity does not have as beneficial an effect on sustainability, since an increase in productivity raises expenditure one-for-one. Here, the stylized representation of policies as a fixed share of GDP, without taking into account the fact that a higher GDP implies more of the policy being available, disrupts the analysis. When these issues arise special attention is required to avoid bizarre conclusions.

Topic F. Including extended analysis of specific sectors

A further option is to include the analysis of the economic effects of policy proposals on specific sectors, and whenever possible also the spillover of these sectors to GDP and (un)employment. The problem is that the choice of what sectors to include is arbitrary. Sectors with a large public involvement are obviously the first candidates. However, the last evaluation of the CPB included education, highways/road pricing, and environment, but did not include the effects of

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[12]   For a more detailed description, see Draper and Armstrong (2009) and Horst *et al.* (2010).

[13]   The interest rate could also be regarded as a shadow price of public debt. However, business cycle effects, specific market circumstances and central bank policies to keep interest rates close to zero in order to stimulate economic growth can invalidate the interest rate as a shadow price of public debt.

changes in the police force and confined the analysis of health care mostly to summarizing the direct budgetary effects. Policy proposals with respect to education were classified into three groups: promising, not promising or neutral. A proposal is promising if its social benefits exceed the social costs. Proposals for which not sufficient empirical studies are available are put in the group "Effects not known". Also a link was made with long-term economic growth. Policy proposals regarded as promising or not promising are then quantified in terms of their effect on long-term GDP volume growth.

In practice, three criteria determine whether or not or how a sector is included:

- an intensive public debate on a sector raises the likelihood of it being included;
- following up on the first criterion, when many political parties have announced proposals for that sector, a sector is likely to be included;
- finally, a sector can only be included when economic science has a well established body of knowledge about it.

The latter criterion is quite important in practice. For example, the economic discipline has spent enormous resources to the analysis of education. This research has provided in great deal of broadly shared insights into the impact of education on the economy. Health care plays a larger role in the current political debate than education, not the least due to the ageing of the society. However, there is no generally accepted body of knowledge on the effect of competition policies for the health care system. Hence, a serious analysis of this issue in an evaluation of the election programs is hazardous. The evaluator can hardly avoid taking a political stance.

Here, the second and the third criterion contradict. Political parties demand the CPB to include healthcare in its evaluation of election platforms, because only by including health care, parties can credibly communicate their policy proposals to the voters. Since health care is at the political front line, it is quite understandable that political parties express this preference. At the same time, the CPB must restrain its judgments on this issue since there is no shared body of knowledge.

A serious complication in the analysis of specific sectors is that one needs to know not only the first order effect of a particular proposal, but also the second order effect. The reason for this necessity is simple. Suppose that a particular proposal has a positive net discounted value per euro spend and can be scaled up to any level. A typical example is raising the skill level of the workforce. Calculations by Hanushek and Woessman (2010) have shown that the net discounted value of investments in human capital is enormous. How should a proposal by a political party to double the expenditure on education be evaluated? Or to triple it, for that matter? Clearly, there must be a limit beyond which further investments no longer have a positive discounted value, the standard economic concept of diminishing returns. But what is that limit? As another example, most research suggests that reducing class size has a negative net discounted value, since it is costly and not very effective (see, e.g., Dobbelsteen *et al.*, 2002 and Woessman and West, 2006). Reversing the argument, increasing class size must have a positive discounted value. What to do when a political party proposes to raise class size to a 1000 pupils? In most cases, the discipline spends a decade to decide on the magnitude of first order effect. Establishing the second order effect is likely to take at least another decade, see Teulings and Van Rens (2008) for a first attempt for investing in human capital.

There is a further reason for worry. If the argument regarding the importance of second order effects is correct, then using cross country evidence on the first order effect is inappropriate for the evaluation of the first order effect in particular country. The magnitude of the first order effect of an investment in education depends crucially on the initial state of a country's education system. The effect of an improvement is likely to be much higher if the system is in a state of disarray than if the system is already functioning perfectly.

Ultimately, the issue is about the proper role of economists. Is their role to give a best judgment on what is a fruitful direction for policy-makers to go, without claiming to have an idea about the optimum, or is their role to classify political parties on how close their proposals correspond to a hypothetical optimum? Given uncertainty on the first question, some restraint in answering the second might be appropriate. Remarkably, political parties press for answering the second, as this is a way for them to communicate the sincerity of their proposals to the voters. For example, the unwillingness of the CPB to assess the effect of a more market oriented organization of health care lead to an uproar among some political parties who made proposals in this area.

The positive way to view this process is that it is a reflection of the gradual emergence of a political consensus on what is an efficient policy. Similar to the way all political parties use the results of the Mimic model as a "true" representation of the tradeoff between equity and efficiency with regard to marginal tax rates, the pressure to include an economic analysis of the education system in the evaluation of election platforms can be interpreted as a process towards a shared view on the effect of education on the economy. This makes clear that the evaluation of election platforms along these lines is only feasible if there is public/scientific debate on the evaluation standards to be applied.

A final issue regarding the evaluation of specific sectors is the question whether political parties should be informed a priori about the evaluation-methods that will be applied. Not informing parties a priori makes the evaluation like a gambling game, where political parties have to guess about the methodology and hence the type of proposals that "score" best. In this way, the evaluation process is unlikely to contribute to sound economic policy. Moreover, the evaluation is allegedly based on scientific and hence reproducible knowledge. It is hard to square the presumption of reproducibility with not informing parties a priori about the methodology that is going to be applied.

However, prior information will induce parties to try to game the system, finding loopholes in the announced methodology that yield an artificially positive evaluation. An escape clause for this type of practices is a minimum requirement for the credibility of the evaluation. However, there is a further complication. Making available the evaluation methodology implies that all parties have equal access to the effects attributed by the evaluator to all kind of policy proposal. What to do if a particular party comes up with a unique proposal not considered by other parties. Should other parties be informed about this proposal and the way in which it is evaluated? Or should this proposal be excluded from the evaluation on the grounds that the methodology for the evaluation of this proposal was not common knowledge among all parties? Stated differently: is a politician only involved in making normative choices on the proper distribution of welfare distribution, or is he also an entrepreneur who gets rewarded on the electoral market for coming up with Pareto improvements? In practice, the CPB has chosen to provide prior information on the methodology, but to allow political parties an advantage who come up with Pareto improvements themselves by not revealing these proposals to other parties.

Topic G. Extended with a welfare criterion

The evaluation under topic F. is restricted to some sector specific outcome, like health status (for health care), congestion (for infrastructure), or skill measures (for the education system) and effects on GDP and (un)employment. One can generalize the evaluation by using welfare criterion instead. The Hicks-Kaldor criterion – just adding up the monetary value of all relevant aspects, whether traded or not – is most convenient. Moreover, it is the only criterion that has an objective legitimate provided offsetting transfers can be implemented or that there are no a priori reasons that the existing welfare distribution is better justifiable than the alternative distribution. The latter might apply for institutional reforms in small sectors, where small groups of insiders capture large

rents. The advantage of using a welfare criterion is that it provides an easy way of aggregating various aspects of people's well being into a single statistic, in particular aspects that tend to be ignored when taking GDP as a criterion. Leisure is an obvious example. An evaluation of proposals according to their effect on GDP implicitly sets the value of a change in leisure equal to zero. A welfare criterion uses the net wage rate as the valuation/price of a change leisure. Using welfare allows a positive integral evaluation of all aspects that are shown to be relevant by applying people's revealed preference for each of these aspects.

However, the logic of the valuation of different aspects of well being by market prices is not easily communicated to the wider public. The paradox of the public perception of economics is that it blames economics for focusing on monetary GDP only and ignoring other aspects of well being. However, at the same time it views the standard approach of economics for including these aspects as an inappropriate intervention in the domain of other social sciences. Economists are imprisoned in the cave of the concept of GDP while at the same time being accused of not willing to leave the cave. It is reflected in the conviction of politicians that increasing hours worked is economically beneficial, irrespective of the value of a reduction of leisure. Though unsatisfactory from an economist's point of view, this is the way it is. One interpretation is that we allow consumers to decide in the tradeoff between for example butter and milk on the basis of market prices, but that we want politicians to decide in the tradeoff between leisure and other consumption, based on politicians' rather than consumers' relative valuations of leisure versus other consumption. One might wonder why, but that being the case, the only option for an evaluation of election platforms is to provide separate information on the effects on GDP and leisure, and leave aggregation of both aspects to the voters/politicians.

In practice, using the welfare concept is therefore appropriate only in small number of special cases. The CPB has applied the concept when evaluating proposals to the reform of the housing market. This market is heavily distorted, both its rental and its private ownership segment. The CPB designed a method to evaluate the cost of these distortions, using the concept of a Harberger triangle (see Hines jr., 1999). In this way, reforms could be evaluated both on their effect on "aggregate" welfare as on the welfare distribution. The welfare concept is the only way to give voters a handle on the size of the distortions implied by prevailing institutions.

4   Which rules of the game?

The evaluation of elections platforms can be regarded as a game in which political parties compete for maximizing the number of votes for their party while respecting their fundamental political preferences. The benefits of evaluating election platforms depend critically on the rules of this game. For example, it is important that the rules give the right incentives to political parties: they should not try to manipulate the game, they should reveal their real preferences and should not adjust their policy proposals for the wrong reasons, e.g., due to an unbalanced or inaccurate presentation of trade offs and effects.

Rules used for evaluating election platforms serve different purposes. Three different purposes of such rules can be distinguished:
• independence of the political process;
• good communication between the political parties and the evaluator;
• good quality of the evaluation and limited room for gaming and free lunches.

Tables 4, 5 and 6 provide for each of these purposes an overview of the rules used in the Netherlands.

<div align="right">**Table 4**</div>

Rules for Independence of the Political Process

1. Election platforms are only evaluated on request of the political party involved.
2. All political parties (likely to be) represented in the parliament can participate.
3. All political parties are treated as equally important.
4. Election platforms are evaluated as if the party is the government and has all seats in Parliament.
5. The evaluator informs the parties in advance about the time schedule, rules, topics and presentation.
6. Political parties do not get information about the policy proposals made by other political parties.
7. The evaluator does not communicate with the press about first results.
8. Policy proposals and results are presented in a uniform way; the text is descriptive and neutral.
9. In text and tables, parties are ranked by the current number of seats in Parliament.

An election platform is only evaluated on request of political parties (rule 1 in Table 4). What are the advantages and drawback of this rule in comparison to the alternative of obligatory participation? The rule of voluntary participation has two drawbacks. Firstly, evaluation will only occur on requested by a political party, even when political and economic circumstances indicate major benefits of such analysis. Secondly, when not all political parties request an evaluation, voters will get an incomplete set of information.

Nevertheless, this Dutch rule has some clear merits. It avoids a conflict with a political party that does not want its political platform being analyzed. Ensuring the cooperation of the political party is also important for a proper interpretation of the policy proposals. Furthermore, the number of parties participating in the analysis of election platforms has gradually increased to nearly all political parties. As a consequence, the evaluation now compares the election platforms of nearly all political parties.

A major reason for this seems to be the revelation principle (see also Lecq, 2003). The parties with the "best" and most solid and honest economic plans have an incentive to participate. But then not participating provides a negative signal to the voters. The revelation principle will also apply in case of obligatory participation, *i.e.*, when an expert institute decides unilaterally to start evaluating election platforms irrespective of whether the political party consents or not. Knowing that their election platform will be analyzed anyhow, political parties may decide to cooperate and provide extra details on their plans in order to avoid negative signaling and publicity.

A major drawback of obligatory participation is that parties do not want to cooperate and do not want to clarify and specify their policy proposals. This limits the quality, detail and scope of the evaluation. However, also for obligatory participation, the revelation principle may work in the longer run and induce political parties to cooperate and provide more information.

During the evaluation process, political parties are not allowed to see the policy plans of the other political parties (rule 6 in Table 4). Similarly, they are informed about the draft and final results of the effects of their policy plans, but they are not informed about those of the other parties. This information is only disclosed after official publication of the evaluation of election platforms.

Rules for Good Communication Between Political Parties and the Evaluator

1. Policy proposals send to the evaluator are regarded as the election platform.
2. Statements by political parties in the press are not the responsibility of the evaluator.
3. The evaluator is transparent about the methodology to be used.
4. The evaluator publishes the baseline projection before the analysis of election platforms.
5. Political parties can change their policy proposals during the game.
6. Political parties can ask the evaluator for advice, e.g., how to meet their targets in alternative ways.
7. Political parties can put forward text proposals for the description of their policy proposals.

Such information may then contain surprises. For example, some party may have innovative proposals that would have also suited their party. It may also turn out that they cut/spend less on a specific policy theme than another party. This may conflict with their political profile, e.g., being the party that is most environmental friendly, champion for education, best for the poor income, best for realizing a smaller government or solid public finance.

The proposals send to the evaluator are evaluated and not the election platforms officially published by political parties (rule 1 in Table 5). This is done for two reasons.

The first reason is that official election platforms do not contain sufficiently clear and well-specified information about the policy proposals. Official election platforms are mostly qualitative, focused on convincing potential voters and without much specification of policy measures proposed. A frequent annex of such official election platforms is a simple budgetary overview. What is needed for the evaluation can be regarded as extended and more detailed version of such a budgetary overview. For example, the simple budgetary overview may show that subsidies are to be cut by 1 billion euro. But in order to assess whether this is practically and legally feasible and to be able to say something about its consequences more specification is needed: which subsidies are to be cut by which amount?

The second reason is the interactive nature of the evaluation (see rules 4 and 5 in Table 5). When the evaluation is published some months after official election platform, this interaction is likely to have resulted in some changes in a party's policy proposals. The analysis of election platforms has therefore much similarities with a mix of topdown- and bottom-up budgeting (see Ljungman, 2009): some general targets in terms of government deficit and debt or other variables like the purchasing power of various groups of households are usually defined at the start and these are then made consistent with the initial set of specific policy proposals after one or more rounds of negotiations and deliberations. This may result in changing or deleting such specific policy proposals or adding new ones, but it may also imply that the level of ambition in terms of general targets is adjusted.

Advantages of this interaction between political parties and the evaluator are that the policy proposals become more realistic, detailed and effective in reflecting and meeting the party's economic and political preferences. Drawbacks are that the evaluation takes more time and resources and may also allow more room for strategic and misleading behaviour by political parties.

More in general, evaluation of election platforms could be regarded as two way interaction between policy-makers and economists.[14] First, it gives economists an opportunity to inform politicians. This is well appreciated by Dutch politicians: "The evaluation of election platforms is one of the most pleasant of our jobs, a real highlight. We have a special team put together for this. You learn a lot, for example how to translate general policy ideas into specific policy proposals. You get a good notion of the major policy tools for the various policy targets". "We often use the booklet. It is well written. The overview comparing the policy platforms does not always provide good news, but gives a fair view of the choices made by the different political parties".[15]

Secondly, the evaluation of election platforms gives politicians also an opportunity to inform economists, e.g., about their political preferences and the issues and trade-offs they are interested in. The evaluation of election platforms can therefore provide important feedback for the economic expert institute involved: by analyzing a broad range of policy proposals from (many) different political parties, the relevance and quality of models, knowledge and skills are tested. Economists involved in the evaluation are also generally very positive: "It is one of the most exciting and interesting jobs for a young economist at CPB and well worth the many extra working hours". "Good for CPB and good for the country".

The evaluator is transparent about the methodology to be used (rule 3 in Table 4). This may include separate publications on the models used, literature surveys on the effectiveness of various type of policy measures (e.g., with respect to education) or studies on the efficiency of national institutions with respect a policy area (e.g., housing market, education, health care or social security).

The evaluator publishes the baseline projection before the evaluation of election platforms (rule 4 in Table 5). Publications on the baseline may also include statements on the consequences of specific policy proposals. For example, a study on the sustainability of public finance may include also an overview of major policy proposals that could be considered to improve sustainability.

Political parties can put forward text proposals for the description of their policy plans (rule 6 in Table 5). However, the text should be neutral and descriptive and should not contain all kinds of unwarranted marketing statements.

Political parties are not allowed to opt out for one or more issues (rule 1 in Table 6); they could only decide not to participate at all or participate on all issues. One political party did not want an analysis of the consequences for the environment, but decided nevertheless to participate. This rule of not allowing opting out for some issues seems to contradict the rule that political parties are free to decide whether to participate.

Analyzing election platforms is quite different from forecasting. Macroeconomic forecasts by CPB and other institutes are indeed not very accurate. The uncertainty of the baseline projection as such is not a problem provided it is not (politically) biased and people are sufficiently aware of the uncertainty of the projection. Furthermore, for analyzing and comparing election platforms the same baseline projection is used for all political parties, e.g., on the macroeconomic development and the sustainability of public finance.

However, the baseline is very important for the framing of policy proposals, e.g., because politicians and voters are myopic and loss-averse (see Tversky and Kahneman, 1986 and Kahneman, 2003). The baseline used is a neutral extrapolation based on unchanged policy. But different macroeconomic assumptions influence the perceptions of the sustainability of public finance and the development of real income of households.

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[14]   A similar conclusion but about empirical models and policy making was drawn by Butter and Morgan (2000).

[15]   Statement during evaluation of last year's evaluation of election platforms.

Rules for Quality and Objectivity of the Evaluation

1. Political parties cannot opt out for one or more topics.
2. The baseline projection is a neutral extrapolation based on the assumption of unchanged policy.
3. Only new policy proposals are included; this excludes policy in the baseline projection.
4. The same methodology is used for evaluating the election platforms of all parties.
5. Only policy proposals are included that are sufficiently clear and well specified.
6. Only policy proposals that can be made (unilaterally) by central government are included.
7. Policy proposals should be legally and practically feasible during the next period of government.
8. Policy measures of which the effects cannot be assessed sufficiently reliably are not included.
9. Policy proposals should have real effects during the next period of government.

Also the definition of unchanged policy is very important for such perceptions. What is unchanged policy, e.g., for taxes, social benefits and expenditure on education, infrastructure and health care? Should a strict legalistic approach be taken or should e.g., the developments during last 5 or 10 years corrected for policy changes and demographic changes be extrapolated? Policy included in the baseline is by definition not included in the evaluation of election platforms. As a consequence, depending on the baseline, a policy proposal can be included in the evaluation or not. Promises by political parties in their election platforms about not raising taxes or guaranteeing the real income of poor households will have a different meaning depending on the baseline. Different assumptions about unchanged policy can also sketch a rather different picture of the problems to be solved by the next government. For example, according to a strict legalistic approach, public finance may be sustainable, but according to a more economic and plausible approach there may be serious budgetary problems to be solved.

The baseline by the evaluator used for the next period of government (see CPB, 2010c) is to a substantial extent legalistic, but is in several respects also quite different from a purely legalistic approach. A major example is health care. The total public and private expenditure on health care are expected to increase by 4 per cent per year in real terms, *i.e.*, corrected for the general price change of GDP. This is more than could be expected due to only economic growth (1 3/4 per cent) and ageing. It is assumed that public expenditure on health care for each age cohort increase in line with economic growth and that the remaining 1 per cent increase per year is financed privately. This would mean a drastic increase of private expenditure on health care that would affect the real income of households substantially. In their election platforms, politicians can decide whether to agree with the assumption of a drastic increase in private health care expenditure, or whether to take supplementary measures, e.g., further increasing social security contributions for health care or find ways to reduce the rise of total health care expenditure, e.g., by efficiency gains.

Similarly, the baseline for the long-term calculations on sustainable public finance assumes constant arrangements, *i.e.*, the same quality of social benefits and public services for the same level of tax rates (see van der Horst *et al.*, 2010, p. 15-17). This assumption is also used by similar studies by the European Commission and OECD. What does this assumption mean? Individual public expenditure, like old age benefits, unemployment benefits and expenditure on health care and education, the expenditure per person/pupil (by age cohort) are linked to the general increase in

wage rates. Collective public expenditure, like that for defense, infrastructure, subsidies to corporations and public administration, are linked to the development of GDP and are therefore assumed to stay constant as a percentage of GDP. Taxes are assumed to remain constant as a percentage of the tax base, e.g., income for the income tax and private consumption expenditure for VAT and excise duties. This is clearly not a legalistic approach. For example, according to Dutch law the major tax bracket for income tax should increase in line with price change and not in line with wage rates. A legalistic approach would mean that in the long run all households become subject to the highest tax rate of 52 per cent. This would solve all problems of the sustainability of Dutch public finance, but would not provide a realistic picture of the future.

Widening the scope of analysis is often important to provide a more balanced picture of the effects and trade-offs of policy proposals (see Section 3). It also helps to avoid free lunches, *i.e.*, policy proposals which seem to have only benefits and no drawbacks. However, in order to avoid free lunches, specific rules are needed to decide which policy proposals should not be included in the evaluation at all. The latter implies to serve no lunch at all for the political party.

Some policy measures amount simply to double-counting, e.g., policy measures already included in the baseline scenario. For example, the future revenues of natural gas and the financial assets of the social security funds are already included in the baseline projection on the government budget. As a consequence, proposals to use future revenue of natural gas or the assets of social security funds to improve the government budget, to reduce tax rates or to finance extra expenditure are not accepted.

Some policy measures are no policy measures, as they are just an alternative estimate of some revenue or expenditure in the baseline.

Other policy measures only amount to a rearrangement of the financial portfolio of the government or a rearrangement of revenue and expenditure between various parts of the general government should also be ignored. For example, the sale of offices and leasing them back. Introducing transfers or financial transactions between various parts of general government without changing the overall budget deficit and net worth will also be ignored, e.g., transferring the substantial financial assets of Dutch provinces to the Dutch central government.

Some policy measures are presented as "magical solutions" for improving government finance. Tanzi's chronicle of the bankruptcy of Argentine (2007) gives some beautiful examples, e.g., tax revenues would be boosted by privatization of tax collection, more sophisticated computers for tax collection or the introduction of a single tax on all transactions while abolishing all other taxes. In general, it is wise to be very skeptic to such magical solutions, to ignore them in scoring and to motivate why it is not only uncertain but also very unlikely that such proposals will solve any of the budgetary problems.

Several specific rules serve also as a filter for accepting policy proposals. A first rule is that policy proposals should be specified sufficiently. For example, a proposal to improve the labour market position of the young, the elderly or the low-educated should be specified further. Not only the amount of money available should be known, but also the design of the specific policy proposals, e.g., via more schooling, less social benefit or a tax credit. Without specification, the efficiency of these proposals and the distributional consequences cannot be assessed.

A second rule is that policy proposals should be (unilaterally) subject to decision-making by the central government. For example, the central government cannot decide how local government, the European Commission or private social housing corporations should spend their money. The government has also a limited influence on agreements between employers and trade unions, e.g., on wage moderation and pension contracts. Only decisions that can be made by the central government are included in the evaluation, e.g., cutting general or specific transfers to local government or changing the tax treatment of pensions. Contributions to the EU cannot be reduced

unilaterally by the government, as this is the subject of negotiations at European level. Similarly, wage rates of civil servants cannot be reduced unilaterally, as this is the subject of negotiations with the trade unions. The outcome of such negotiations depends critically on the labour market.

A third rule is that the policy proposal should be legally and practically feasible during the next period of government. For example, abolishing provinces requires a change in the constitution and can therefore not be realized in one period of government. Similarly, European laws and international agreements on human rights drastically limit the possibilities to further tighten asylum policy.

A fourth rule is that policy proposals whose consequences cannot be assessed reliably are ignored. For example, the economic effects of major reform of the institutions in health care – introducing a free market for hospitals: allowing the free entry of privately funded hospitals and allowing loss making hospitals to go bankrupt – are hard to assess.

The sustainability analysis opened the way for proposals that were relevant only for their effects on the long run. Hence, the evaluator has imposed a number of constraints for the long-term effects of a policy to be included in the sustainability analysis: first, the proposal must have real effects during the current election cycle. Second, the proposal must be logically defendable. For instance, a proposal to raise the retirement age by 1 day by the end of the election cycle, and by 5 years in some 20 years from now, is not viewed as logical proposal. Obviously, the 1 day increase is only included to meet the first requirement. Third, we cut off the effect of gradual changes by 2040, to avoid proposals with effects that are quantitatively important only after 2040. One party proposed to cap mortgage deductibility at 1 million euro and not to index this cap forever. Practically nobody has a house above this cap today, but without indexing that will be totally different 40 years from now. Hence, the big revenues come in the far future. Finally, the evaluator is very reluctant to include proposals that affect tax rates and the like, because tax rates are typically decided upon in a yearly policy cycle. Claiming that you raise the tax rate in 10 years from now is therefore non-credible. To the contrary, raising the retirement age by one month a year over the next 24 years is credible. Societies do not decide on the rules for retirement every year. Hence, such a proposal is credible.

The latter constraint introduces a distinction between institutions with and without commitment value. True as this distinction between credible and non-credible proposals may be, it introduces a large degree of discretion on the side of the evaluator. This is undesirable, since the evaluator can easily be accused of being a politician instead of evaluating political platforms. However, this type of judgments is unavoidable if one wants to include an analysis of the long-term effects of election platforms in their evaluation. Indeed, experience shows that political parties seek the boundaries of the rules outline before. They seek proposals that minimize the impact on purchasing power next election cycle, but that maximize the impact on the sustainability gap. Clearly, these rules are a binding constraint.

Most policy proposals are not free lunches but involve trade-offs or effects that may be difficult to quantify. Two examples can illustrate how the evaluator then nevertheless tries to come up what pragmatic solutions. This can be done quantitatively, but could also be solved by a qualitative analysis or restatement of the proposal or in the description of the proposal in the evaluation. Sometimes, it may also be necessary to introduce an additional rule, e.g., a maximum on the budget cut for civil servants.

A very common proposal is to reduce fraud with taxes and social security benefits by "better inspection and detection methods". Without any specification of the difference with current methods to detect and reduce fraud, no savings are recorded. Also, such new or more intensive methods generally first cost extra money. A practical compromise often used is that the political party "invests" some money (say 300 mln euro) for improving or extending detection methods and

that this leads to a saving of exactly the same amount of money by reducing tax and social benefit fraud.

Our second example refers to proposals for reducing the number of civil servants. This often seems to be a free lunch, as possible negative effects of such budget cuts on quality and quantity of the services provided are difficult to assess in advance. In case of substantial cuts on the tax office, reduction of tax revenue may even seem to be likely, but how to estimate then by how much? However, when political parties have to specify their proposal, these proposals become much less a free lunch. For example, reducing the number of civil servants of the central government by 20 per cent would imply that all major units are cut by this percentage. However, 25 per cent of the number of civil servants of the central government is the tax office, 30 per cent consist of police, prison and administration of justice and 8 per cent work on road maintenance or planning new infrastructure. Political parties are generally not willing to make major cuts in these units of central government; such cuts become also visible in overview table on budget cuts, e.g., in the functions public administration, safety and infrastructure and in the table on employment effects for the government sector. Many of the proposals are often also overlapping, e.g., proposals for a general efficiency cut, a reduction of overhead, a reduction of the purchase of consultancy services, some years no compensation for inflation and many additional cuts for specific units of government. As a consequence, by having to specify their plans they usually also substantially modify and reduce their proposed budget cuts. In the description of such proposals, the evaluator makes also explicit that these budget cuts are generally not or only to a limited extent increases in efficiency.

A new situation occurred last year: in the baseline scenario already substantial budget cuts were included for the central and local government and nearly all political parties wanted on top of that very substantial extra budget cuts. Making the consequences of their proposals explicit via tables and text was not sufficient anymore. In order to keep the proposals realistic for only one period of government, maxima for budget cuts – on top of what was already in the baseline scenario – had to be set by the evaluator. These maxima were partly inspired by just released government reports discussing various alternatives for fundamental reform of the government budget. For central government, the maximum was 9 per cent for some parts and 6 per cent for the rest. For local government, 20 per cent reduction of the general transfer to provinces was accepted and 10 per cent of those to municipalities. On some other parts, more budget cuts were allowed, e.g., for defense a larger percentage is plausible in one period of government considering the high share of short-term contracts, the importance of purchases of military goods and investments and the possibility to obtain substantial revenue by selling military and non-military assets.

Such rules for filtering policy proposals are intended to make the evaluation more reliable and realistic. However, they could also serve as a filter biased against innovative policy proposals. Skepticism of the evaluator regarding the existence of free lunches might in fact favor small groups of insiders who collect large rents that could potentially be extracted to the benefit of the wider public. The skepticism regarding the feasibility of such reforms acts as a conservative force. Changing the rules during the game and inventing rather ad hoc rules, e.g., a maximum on specific budget cuts, introduces a substantial amount of arbitrariness. When this occurs, this should be well motivated by the evaluator. The quality of these arguments in combination with the general reputation of the evaluator is then crucial for retaining the credibility of the evaluation.

5   Conclusions

Summing up, there is a wide variety of approaches to the evaluation of election platforms, each with their own pros and cons. A comprehensive and long-term analysis allows a more balanced presentation of all relevant tradeoffs and implications that are otherwise easily swept under the carpet. However, showing these tradeoffs and implications in a sufficiently reliable and

impartial way may be hard and will demand substantial resources and economic skills. Moreover, the presentation of these tradeoffs by the evaluator must be perceived by an overwhelming majority of the political parties and the voters as being fact based and scientifically justified. If such resources and skills are not available or if a broad agreement on the relevant tradeoffs is absent, then it is preferable to constrain the scope of the analysis. In general, the evaluator should take great care not to become part of the political game. That requires that he constrains himself to positive statements, and that he is aware of the fact that constraining political decision making to a choice of the appropriate welfare distribution is trying to lock politicians up in a far too small domain.

Evaluating election platforms is in many respects not high tech-economic analysis, e.g., based on one very big econometric model with thousands of equations. It is a mixed bag of analyses, assumptions and facts: simple and sophisticated analysis, bookkeeping and behavioural analysis, macro and micro, quantitative and qualitative, assumptions about unchanged policy and use of all relevant information, in particular about the government budget and the national economy, institutions and laws.

Evaluating election platforms could be regarded as a game for competing political parties. The rules of this game should ensure the objectivity and quality of the evaluation, give the right incentives to political parties and limit the room for gaming and free lunches.

Voluntary participation by political parties seems to give voters an incomplete set of information. However, in the Netherlands nearly all political parties request for participation, as they do not want to give voters the negative signal that they have something to hide or fear from such evaluation. This information revelation principle may also apply in case of obligatory participation. Knowing that their election platform will be analyzed anyhow, political parties may decide to cooperate with the evaluator in order to avoid negative signaling and publicity.

Over time the scope of analysis is likely to increase in order to cover the loopholes of more partial evaluation or to better incorporate the major different political preferences and issues. A more encompassing scope of analysis will then also increase the willingness of political parties to participate.

Dutch practice shows that evaluating election platforms can help to reach consensus on policy issues. For example, to what extent are budget cuts needed to improve the health of public finance, to what extent are the budget cuts proposed sufficient for this, what are the consequences of policy measures for the real income of poor households and how effective are the various tools to reduce unemployment?

The credibility and commitment of election platforms depends critically on their link with actual policy, *i.e.*, to what extent will the promises made in the election platforms be reflected in coalition agreements and policy practice? It is therefore very important that the evaluation of election platforms is embedded in the political calendar and decision-making process.

REFERENCES

Acemoglu, D. (2003), "Why Not A Political Coase Theorem? Social Conflict, Commitment, And Politics", *Journal of Comparative Economics*, Vol. 31, No. 4, December, pp. 620-52.

Bos, F. (2008), "The Dutch Fiscal Framework; History, Current Practice and the Role of CPB", *OECD Journal on Budgeting*, pp. 1-48. Also published as CPB Document, No. 150.

Bos, F. and C. Teulings (2010), "CPB and Dutch Fiscal Policy in View of the Financial Crisis and Ageing", CPB Document, No. 218. An earlier version was presented at the *Conference on Independent Fiscal Institutions*, Budapest, March 18-19, 2010.

Butter, F.A.G., den (2003), "An Economic Perspective [on Analysing Election platforms]", in Graafland and Ros, pp. 33-44.

Butter, F.A.G., den and M.S. Morgan (eds.) (2000), *Empirical Models and Policy Making: Interaction and Institutions*, Routledge, London.

Calmfors, L. (2011), "The Role of Independent Fiscal Policy Institutions", CESIfo, Working Paper, No. 3367. Also published as Report of the Swedish Fiscal Policy Council, No. 2010/9.

Calmfors, L. and S. Wren-Lewis (2011), "What Should Fiscal Councils Do?", CESIfo, Working Paper, No. 3382.

CPB (2006), "Charting Choices 2008-2011; Economic Effects of Eight Election Platforms", CPB Document, No. 139.

——————(2010a), "Focusing on Quality"; report from the CPB Review Committee 2010 (M.F. Hellwig, T.M. Andersen, R.W. Boadway, J. Elmeskov, R. Griffith and S. van Wijnbergen).

——————(2010b), *Keuzes in kaart 2011-2015*; *effecten van negen verkiezingsprogramma's op economie en milieu* (*Charting choices 2011-2015; nine election plans and their effects for the national economy and the environment*), joint publication with Planning Bureau for the Environment.

——————(2010c), "Economische Verkenning 2011-2015", CPB Document, No. 203.

Di Tella, R., R.J. MacCulloch and A.J. Oswald (2001), "Preferences Over Inflation and Unemployment: Evidence from Surveys of Happiness", *The American Economic Review*, Vol. 91, No. 1, pp. 335-41.

——————(2003), "The Macro Economics of Happiness", *The Review of Economics and Statistics*, Vol. 85, No. 4, pp. 809-27.

Dobbelsteen, S., J. Levin and H. Oosterbeek (2002), "The Causal Effect of Class Size on Scholastic Achievement: Distinguishing the Pure Class Size Effect from the Effect of Changes in Class Composition", *Oxford Bulletin of Economics and Statistics*, Vol. 64, pp. 17-38.

Don, F.J.H. (2003), "Economic Analysis of Election Programmes: What, How, and Why?", in Graafland and Ros, pp. 21-30.

Don, F.J.H. and J. Verbruggen (2006), "Models and Methods for Economic Policy; 60 Years of Evolution at CPB", *Statistica Neerlandica*. Also published as CPB Document.

Donders, J.H.M. and J.J. Graafland (2000), "CPB Models and Employment Policy in the Netherlands", Chapter 2, pp. 10-25, in Butter and Morgan (eds.).

Draper, D.A.G. and A.M. Armstrong (eds.) (2007), "GAMMA, a Simulation Model for Ageing, Pensions and Public Finances", CPB Document, No. 147.

Folmer, K. (2009), "Why Do Macro Wage Elasticities Diverge; A Meta-analysis", CPB Memorandum, No. 224.

Gelauff, G.M.M. and J.J. Graafland (1994), "Modeling Welfare State Reform, MIMICing Tax Policies and the Labour Market", Amsterdam, Elsevier.

Graafland, J.J. and A.P. Ros (eds.) (2003), *Economic Assessment of Election Programmes: Does It Make Sense?,* Kluwer Academic Publishers, Dordrecht/Boston.

Haffner, R.C.G. and P.A.G. van Bergeijk (1994), "The Economic Consequences of Dutch Politics", *De Economist*, Vol. 142, No. 4, pp. 497-505.

Hagemann, R. (2010), "Improving Fiscal Performance Through Fiscal Councils", OECD, Economics Department, Working Paper, No. 829.

Hanushek, E.A. and L. Woessmann (2010), "How Much Do Educational Outcomes Matter in OECD Countries?", NBER, Working Paper, No. 16515.

Hines, J.R. Jr. (1999), "Three Sides of Harberger Triangles", *Journal of Economic Perspectives*, Vol. 3, No. 2, pp. 167-88.

Horst, A. van der, L. Bettendorf, N. Draper, C. van Ewijk, R. de Mooij and H. ter Rele (2010), *Vergrijzing verdeeld; toekomst van de Nederlandse overheidsfinanciën* [Ageing and distribution; the future of Dutch public finance], CPB Special Publication, No. 86.

Jonung, L. and M. Larch (2004), "Improving Fiscal Policy in the EU: The Case for Independent Forecasts", European Commission, *Economic Papers*, No. 210.

Kahneman, D. (2003), "A Psychological Perspective on Economics", *American Economic Review*, Vol. 93, No. 2, pp. 162-68.

Lecq, F. van der (2003), "Calculated Choices: Who Profits?", in Graafland and Ros, pp. 83-96.

Liedekerke, L. van (2003), "The Views of the Political Parties", in Graafland and Ros, pp. 137-44.

Ljungman, G. (2009), "Top-down Budgeting – An Instrument to Strengthen Budget Management", IMF, Working Paper, No. 09/243.

Piketty, T. (1995), "Social Mobility and Redistributive Politics", *The Quarterly Journal of Economics*, Vol. 110, No. 3., pp. 551-84.

Schick, A. (2007), *The Federal Budget; Politics, Policy and Process*, Brookings Institutions Press, Washington (D.C.).

Swank, O.H. (2003), "A Rationale for Assessments of Election Programmes", in Graafland and Ros, pp. 97-106.

Tanzi, V. (2007), "Argentina: An Economic Chronicle; How One of the Richest Countries in the World Lost Its Wealth", Jorge Pinto Books Inc., New York.

Teulings, C. and T. van Rens (2008), "Education, Growth and Income Inequality", *The Review of Economics and Statistics*, MIT Press, Vol. 90, No. 1, pp. 89-104.

Tversky, A. and D. Kahneman (1986), "Rational Choice and the Framing of Decisions", *Journal of Business*, Vol. 59, No. 4, Part 2, pp. S251-278.

Woessmann, L. and M. West (2006), "Class-size Effects in School Systems Around the World; Evidence from Between-grade Variation in TIMSS", *European Economic Review*, Vol. 50, p. 695-736.

FROM FIRST-RELEASE TO *EX POST* FISCAL DATA:
EXPLORING THE SOURCES OF REVISION ERRORS IN THE EU

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This paper explores the determinants of deviations of ex post budget outcomes from first-release outcomes published towards the end of the year of budget implementation. The predictive content of the first-release outcomes is important, because these figures are an input for the next budget and the fiscal surveillance process. Deviations of ex post *from first-release fiscal figures may arise for political and strategic reasons. In particular, Ministries of Finance control the production of first-release figures, and may have an incentive to be over-optimistic at this stage. Our results suggest that an improvement in the quality of institutions, whether measured by the tightness of national fiscal rules, the medium-term budgetary framework or budgetary transparency, reduces the degree of optimism at the first-release stage, thereby making first-release figures more informative about the eventual outcomes. This supports the European Commission proposals for minimum standards for national fiscal frameworks and amendments by the European Parliament for improving national ownership. It also strengthens the case for a close monitoring by the Commission of the first-release production of fiscal figures.*

1   Introduction

The budget process consists of three stages. The first stage is the planning stage,[1] while the second stage is the implementation stage, which leads to the real-time "first-release" outcomes published towards the end of the year of implementation. Finally, the *ex post* control stage produces the "revised" or "*ex post*" outcomes. These outcomes measure the budgetary situation of a given year most accurately, because they are based on the largest available amount of information and (in the EU) are published by the national statistical office after having been scrutinised by Eurostat. First-release outcomes generally differ from the originally planned or projected values, for example because of unexpected economic events during the implementation stage, discretionary measures taken in response to those events or because policymakers choose to deliberately bias their projections. The result is an *implementation error*. Also *ex post* outcomes often differ from first-release outcomes, giving rise to a *revision error*, for example because of data revisions and the fact that first-release figures are constructed before the end of the fiscal year. In addition, governments may have political or strategic motives to affect the first-release figures. The growing literature exploring fiscal slippages in the EU has largely neglected the different stages at which

slippages take place.[2] This is an important omission, because the sources of the slippages at the various stages differ and, hence, may require different institutional measures to deal with them.

Beetsma *et al.* (2009) extensively explore the determinants of both budgetary plans and the first-release deviations from those plans using data from the EU Stability and Convergence Programs over the period 1998-2008. These programs constitute a harmonised source of data on fiscal plans and outcomes in EU countries. The authors show that fiscal slippages can be mainly attributed to the spending side of the budget. Moreover, they find that economic rather than political factors are major determinants of both stages of the budgetary process. National fiscal rules and medium-term budgetary frameworks also affect the ambition of fiscal plans as well as the degree of adherence to those plans. The importance of the tightness of national fiscal rules is confirmed in work by Abbas *et al.* (2011), who focus on large adjustment plans over a three-year horizon in the EU initiated in the period 1991-2005, and by Holm-Hadulla *et al.* (2011), who show that tighter expenditure rules in the EU limit deviations of actual from planned discretionary spending in response to positive output gap surprises.

In this paper, again using the data from the EU Stability and Convergence Programs we will explore the determinants of the deviations of *ex post* budget outcomes from the first-release outcomes. A systematic analysis of revision biases has been rarely done in the literature,[3] but is relevant for several reasons. First, an assessment of the predictive content of first-release for *ex post* outcomes is important, because first-release outcomes are used for fiscal surveillance and could give rise to policy adjustments. In particular, first-release data may send an early signal of a lack of fiscal sustainability, in which case a tightening of planned fiscal policy could be warranted. Second, because first-release data provide an estimate of the current budgetary situation, they form the basis for the evaluation of the budget implementation for the current year and they are an input into the formulation of the new budget.[4] First-release figures are closest to the information set available to policymakers when they implement their policies and so are most informative about the behaviour of policymakers. However, if governments for political reasons have an incentive to manipulate those figures and institutional arrangements are too weak to prevent this from happening, first-release figures may lose their usefulness as indicators of the eventual outcomes and as an input into the budgetary process.

Related to this paper is De Castro *et al.* (2011), who explore the properties of subsequent revisions in the budget balances of a given year. Our results confirm their finding that preliminary data releases are biased estimators of the final data. At the same time, our analysis neatly complements their approach. While they focus in more detail on the data revision process of the budget balance using Excessive Deficit Procedure (EDP) notifications, in studying errors we cover the whole budgetary cycle from plan to implementation and *ex post* control, although our emphasis is on revision errors. More importantly, in contrast to their work, but also in contrast to Beetsma *et al.* (2009), we provide an explicit framework for decomposing overall errors into their components. This includes the revenue and expenditure side of the budget, but also a further

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[2]   Use of real-time data for fiscal policy analysis has become quite popular recently, an advantage of real-time data being that such data capture more accurately (than *ex post* data) the information set of the policymakers at the moment they take their decisions. These decisions comprise both the fiscal plan and its implementation. See, for example, Forni and Momigliano (2004), Cimadomo (2007), Marinheiro (2008), Bernoth *et al.* (2008), Lewis (2009) and Pina (2009). An early contribution is Strauch *et al.* (2004), who use data on budget balances from the stability and convergence programmes over the period 1991-2002 and find that governments on average predict the future budget outcome fairly well. Brück and Stephan (2006) and Pina and Venes (2011) investigate the political determinants of forecast errors in fiscal policy, while controlling for economic variables.

[3]   Exceptions are Balassone *et al.* (2006, 2007), who compare the quality of alternative indicators for fiscal discipline and conclude that a major shortcoming of deficits in this regard is that they are often subject to substantial revisions. They also argue that consistency cross-checks between deficits and debt changes may offer useful monitoring information. Gordo and Nogueira Martins (2007) provide a descriptive analysis of revisions in EDP debt and deficit data.

[4]   Since the early 2000s such evaluation has become a standard practice in the assessment by the European Commission of the national Stability and Convergence Programmes.

decomposition of errors on each side of the budget. Moreover, we stress the political-economy effects of real-time estimations by the Ministry of Finance versus final data as produced by the statistical office. Finally, we explore the role of budgetary institutions in countering biases. The originality of our approach is mainly in systematically analysing the sources of the revision biases and the components of those revision biases.

The European Commission also applies our decomposition framework in its regular fiscal surveillance of individual stability and convergence programmes. Our approach differs as we apply the decomposition to all countries and all years,[5] in order to identify systematic patterns, and apply it to implementation errors as well as revision errors. This provides the starting point for an empirical analysis that links revision errors and their components to economic, political and institutional variables.

Our main findings are the following. First, while fiscal plans are on average too optimistic relative to the first-release outcomes, a result in line with much of the related literature, first-release figures are in turn overly optimistic relative to the final, *ex post* figures.[6] Given their control over the production of first-release figures, governments may be tempted to be over-optimistic at this stage. We find that while most of the over optimism at the planning stage relative to the first-release stage is driven by expenditures, revision errors are mainly caused by over optimism about revenues at the first-release stage. We find that a substantial part of the over-optimism arises from the base effect, that is, the revision of the previous period's balance in the light of this year's new information. The remainder arises from the so-called "growth effect", which is related to the difference in the growth of nominal revenues versus the growth in nominal expenditures. Further, our regression analysis suggests that economic factors play a limited role in explaining the revision bias and its components, while political factors play virtually no role at all. By contrast, institutional arrangements do seem to be important. An improvement in the quality of national fiscal institutions, whether one measures them through the tightness of fiscal rules, the medium-term budgetary framework or the degree of transparency, reduces the degree of optimism at the first-release stage and makes first-release figures more informative about the eventual outcomes. These findings support the European Commission's (2010) proposal to specify minimum requirements for domestic fiscal frameworks, a proposal that is likely to be accepted by the European Council (Heads of Government or State of the EU). These minimum requirements concern in particular the adoption of properly designed numerical fiscal rules and medium-term budgetary frameworks as well as requirements on transparency. The European Parliament's (2011) amendment proposals on national ownership go even further by requiring euro-area countries to incorporate the objectives of the Stability and Growth Pact into national law and to elaborate national budgetary frameworks that ensure compliance with these objectives.

Our analysis may also shed some light on earlier (seemingly) conflicting results in the literature. Specifically, while it is generally found that fiscal plans tend to be too optimistic relative to the subsequent outcomes, views differ on the origins of the fiscal slippages. One reason for this may be the use of first-release versus *ex post* data. Most, though not all, studies conclude that fiscal slippages in the EU are dominated by slippages on the expenditure side. However, Von Hagen (2010) finds that slippages (in levels over the period 1998-2004) can be attributed to the revenue side of budget, a difference that may at least partly be explained by his use of *ex post* data. An additional reason concerns the measure of fiscal slippages that is used. For instance, in contrast to

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[5] For example, the 2010 macro fiscal assessment (MFA) for Belgium applies the decomposition to 2008 and 2009 for Belgium only. See the formula in footnote 7 on page 11 in http://ec.europa.eu/economy_finance/sgp/pdf/20_scps/2009-10/02_technical_assessment/be_2010-03-31_ta_en.pdf. Since 2008 the Commission applies the decomposition in the MFAs of all the countries.

[6] This result is consistent with De Castro *et al.* (2011), who find that initial releases of government deficits in the EDP notifications are biased predictors of subsequent releases, with later vintages showing larger deficits.

Von Hagen (2010), who explores total errors, Moulin and Wierts (2006) focus on the growth effect in the deviations of *ex post* from planned fiscal figures over the period 1998-2006. They find that slippages in EU budget balances can be mostly attributed to nominal expenditures.

The remainder of this paper is structured as follows. Section 2 provides a conceptual framework for why *ex post* fiscal outcomes may differ from first-release figures. This section also decomposes implementation and revision errors into their components. The regression analysis in Section 3 explores the role of economic, political and institutional factors in explaining revision errors, while Section 4 concludes the paper.

2   Conceptual framework and decompositions

In this section, we first describe how systematic revision errors in fiscal policy may arise, after which we present the formal decompositions of the deviations of the first-release budgetary outcomes from their planned values and the *ex post* outcomes from their first-release outcomes. Finally, we present summary statistics for both stages of the decomposition.

2.1   Sources of fiscal slippages

The budget process consists of three stages, the planning stage, the implementation stage and the *ex post* control stage. To understand implementation and revision biases, we should know (i) who controls and reports the fiscal figures, and (ii) what are the incentives under which these figures are reported?

During the planning stage, it is the cabinet that agrees on the budget and the medium term fiscal plan in the stability program. Beetsma *et al*. (2009) describe why the planned budget balance may be deliberately optimistic. In sum, during planning, fiscal policymakers are required to present an adjustment path as demanded by the preventive arm of the SGP. At the same time, they may also want to signal to the public that they respond to the many spending needs in society. Tools for hiding this trade off include systematic optimism in growth and revenue projections.

At the same time, countries with a better starting position are under less pressure from the EU fiscal rules during planning. National fiscal rules may prescribe cautious or realistic growth projections or fiscal planning, in order to prevent implementation biases later on. This is the case that Beetsma *et al*. (2010) describe for The Netherlands.

Our measure of first-release implementation is the projected value of the budget balance for year *t* as estimated towards the end of year *t*. This is still an estimate produced by the Ministry of Finance during the current fiscal year. Balassone *et al*. (2006) describe the large degree of uncertainty under which real time estimations of the deficit are made, which is partly related to the use of accrual data. We conjecture that the margin for discretion in real time fiscal data may be larger for revenues than for expenditure. During the fiscal year, the Ministry of Finance has a direct control over revenue projections, while expenditure estimations also depend on input from the spending ministries. Its margin for strategic use of revenue projections may also be larger since revenue developments are endogenous to the economic cycle, and depend on seasonal patterns. Expenditure, on the other hand, is more under the direct control of the spending ministries.

The empirical evidence in Beetsma *et al*. (2009) indeed confirms that for the EU-14 countries as a whole, implementation as measured by the first-release outcomes falls short of what was planned. Moreover, biases are concentrated on the expenditure side. Part of the explanation

lies in the systematic shortfalls of real growth relative to projected growth. However, governments may also deliberately deviate from their original spending plans.[7] In line with these findings, regressions show that implementation biases are to a substantial degree predictable. They are related to economic, political and institutional factors.

As indicated already, incentives will be different for countries less under pressure of the EU fiscal rules. For countries with better starting positions, at the planning stage the Ministry of Finance may try to counterbalance the effect of spending pressures on the budget balance by using deliberately cautious revenue projections. This is the pattern that is found in Beetsma *et al.*'s (2010) case study on The Netherlands.

In this paper we follow up on earlier work by investigating the empirical determinants of the deviations of the *ex post* budgetary outcomes from their first-release values. In almost all EU Member States it is the national statistical office that is responsible for compiling the budget balance data once the fiscal year is over.[8] Given the independent position of statistical offices in most countries,[9] we expect *ex post* data to be free from political distortions. However, as indicated, real-time data may be used strategically by the Ministry of Finance.

In this setting revision errors may arise for several reasons. First, *ex post* outcomes may differ from their first-release counterparts if implementation differs from planned fiscal policy for the last months of the year implicit in the first-release estimate. In other words, our findings may be partially determined by implementation biases of the type discussed above.

Second, data revisions may drive a wedge between *ex post* and first-release fiscal outcomes. Revisions may occur for various reasons, such as new information on government transactions, the identification of errors or inconsistencies, changing insights on how to best comply with the accounting rules and changes in the accounting rules themselves (see Gordo and Nogueira Martins, 2007, and De Castro *et al.*, 2011). While one would a priori not expect accounting revisions to produce systematic biases into one or the other direction, De Castro *et al.* (2011) point out that "so-called Eurostat decisions reflect the need to monitor in detail practices by national statistical institutes that tend to be close to the limit of the interpretation of existing legislation at each point in time." Hence, most of the Eurostat decisions result in an upward revision of a deficit figure.

Third, given that it is the Ministry of Finance that produces the first-release figures these figures may be affected by political-strategic motives. In particular, because fiscal data are recorded on an accrual basis, the Ministry of Finance has some margin left in the publication of the first-release revenues figures.

What the control over the first-release data by the Ministry of Finance implies for the revision bias depends also on the budgetary constraints under which the government operates. First, Milesi-Ferreti (2003) presents a theoretical framework in which the first-release fiscal outcomes in period *t* cannot be measured with complete precision, which is a realistic assumption as we explained above. Since externally enforced fiscal rules apply to the *measured* first-release balance, there is an incentive for creative accounting at this stage. Hence, empirically, we expect the chosen degree of creative accounting to depend on the extent to which external fiscal rules are also binding in terms of first-release figures. Governments tend to discount the future at a high rate and may resort to creative accounting at the first-release stage, even though they know that the *ex post*

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[7]   The OECD questionnaire on budgeting practices and procedures (OECD, 2008) suggests that in all EU countries for which this information is available the government is allowed to increase mandatory spending after the legislature has approved the budget. Specifically, the relevant questions are "Q.51.a.1. Increase mandatory spending – is it possible?", "Q.51.a.2. Increase mandatory spending – does it require any approval?", "Q.51.b.1. Increase discretionary spending – is it possible?" and "Q.51.b.2. Increase discretionary spending – does it require any approval?".

[8]   An exception is Belgium, where the national central bank compiles the data for the deficit.

[9]   In Greece, the Ministry of Finance has been involved in the compilation of EDP data for the deficit and the debt.

figures will in the end reveal current fiscal slippages. This discussion suggests the hypothesis of a systematically *negative* revision error (*ex post* minus first-release balance), because during the period under consideration our sample countries have been subject to the Stability and Growth Pact (SGP), which operates partly on the basis of the first-release figures reported by the EU member states.[10] Second, on the basis of the case study by Beetsma *et al.* (2010) for the Netherlands, we may conjecture that tighter national fiscal rules, which serve as a self-enforced commitment device implying that the Ministry of Finance takes more responsibility for "prudent" fiscal outcomes, lead to less over-optimism at the first-release stage and, hence, smaller revision errors in absolute magnitude. Third, under those circumstances when the government has an incentive to resort to creative accounting at the first-release stage, we would expect the degree of creative accounting to be negatively related to the degree of transparency of the budget and thus revision biases to be smaller in absolute magnitude, as more transparency reduces the opportunities for creative accounting.

2.2   The decompositions

Consider some variable *x*, which can be *REV* (revenues as a share of GDP), *EXP* (government spending as a share of GDP) or *BAL* (the budget balance as a share of GDP). The first-release (when $\tau=t$) and *ex post* (when $\tau=f$, where *f* stands for "final") outcome of the variable can be decomposed into its originally planned value and a deviation from the plan (the "implementation error"):

$$x_t^{\tau} = x_t^{t-1} + \left(x_t^{\tau} - x_t^{t-1} \right) \tag{1}$$

A superscript on a variable denotes the vintage (year) when it is published, while the subscript denotes the year to which the observation refers. For example, suppose that *x=BAL*. Then, BAL_t^{t-1} is the balance over GDP ratio planned in the Fall of year *t*–1 for year *t*, BAL_t^t is the first-release figure for year *t* released in the Fall of year *t* and BAL_{t-1}^t is the revised figure for year *t*–1 released in the Fall of year *t*. For convenience, variables are always expressed without a country index.

The decompositions (1) for the balance, expenditures and revenues are linked as follows:

$$BAL_t^{\tau} = BAL_t^{t-1} + \left(BAL_t^{\tau} - BAL_t^{t-1} \right) =$$
$$\left[REV_t^{t-1} + \left(REV_t^{\tau} - REV_t^{t-1} \right) \right] - \left[EXP_t^{t-1} + \left(EXP_t^{\tau} - EXP_t^{t-1} \right) \right]. \tag{2}$$

For *x = REV* and *x = EXP* we can further decompose the (total) first-release (when $\tau=t$) and *ex post* (when $\tau=f$) error $TE = x_t^{\tau} - x_t^{t-1}$ as follows:[11]

$$e(x)_t^{\tau,t-1} \equiv x_t^{\tau} - x_t^{t-1} \tag{3}$$

$$= \frac{1+g_{x,t}^{t-1}}{1+y_t^{t-1}} \left(x_{t-1}^{\tau} - x_{t-1}^{t-1} \right) \qquad \text{base effect}$$

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[10]   Interestingly, Heinemann (2006), who investigates the quality of medium-term fiscal planning in Germany finds that over-optimism in financial projections has increased after the Maastricht Treaty came into effect.

[11]   This decomposition is related to the "growth accounting" procedure in Von Hagen *et al.* (2002), which separates the effects of economic growth and fiscal contraction on fiscal consolidation.

$$+ \frac{x_{t-1}^{\tau}}{\left(1+y_t^{\tau}\right)\left(1+y_t^{t-1}\right)}\left(g_{x,t}^{\tau}-g_{x,t}^{t-1}\right) \qquad \text{growth effect}$$

$$- \frac{x_{t-1}^{\tau}}{\left(1+y_t^{\tau}\right)\left(1+y_t^{t-1}\right)}\left(y_t^{\tau}-y_t^{t-1}\right) \qquad \text{denominator effect}$$

$$+ \frac{x_{t-1}^{\tau}}{\left(1+y_t^{\tau}\right)\left(1+y_t^{t-1}\right)}\left(g_{x,t}^{\tau}y_t^{t-1}-g_{x,t}^{t-1}y_t^{\tau}\right) \qquad \text{residual effect}$$

Here, $g_{x,t}^{t-1}$ is the planned growth rate in the level (in euro's) of nominal revenues (if $x = REV$) or nominal spending (if $x = EXP$) over period t. Further, $g_{x,t}^{\tau}$ is the corresponding actual growth rate over the same period as measured towards the end of period τ (where τ is t or f). Finally, y_t^{t-1} is the projected nominal income growth rate and y_t^{τ} is the actual nominal income growth rate as measured towards the end of period τ (where τ is t or f). The total error for $x = BAL$ and its four effects are calculated by subtracting the decomposition in (3) for spending from that for revenues. This yields the base, growth, denominator and residual effects for the total error in the budget balance.

The base effect *BE* contains new information on the starting (period t–1) position of the fiscal stance and, therefore, when compared with the planning stage it represents a positive or negative fiscal surprise when fiscal measures are implemented. It captures the part of the error that is due to the difference between the outcome (as measured one year later or *ex post*) of a variable in a given year t–1 and its first release for that year. Apart from statistical revisions in fiscal data, it may also arise from statistical revisions that lead to a shift in the level of GDP. For example, if the level of GDP is revised upwards, the revenue and expenditure ratios both move downwards, while the effect on the balance largely cancels out.

The growth effect *GE* constitutes the part of the surprise in budgetary adjustment that arises from deviations of nominal revenue or expenditure growth from their planned values. Those deviations may arise for various reasons. For example, they may be due to unexpected macroeconomic developments and overambitious planning (European Commission, 2007). In the case of revenues, deviations of tax elasticities from their expected values may also play a role.[12] The denominator effect *DE* arises from projection errors in nominal output growth. If the growth rate turns out to be higher than projected, both the revenue and expenditure ratios will fall short of their planned values. However, because both ratios move into the same direction, the denominator effects in the spending and revenue ratios largely cancel out against each other implying that the denominator effect in the budget balance is likely to be small. Finally, the residual component *RE* is usually of negligible size, as it is a second-order term formed by the product of growth rates. It will not receive any further attention in our analysis.

In the following, we will compare the decompositions of the first-release and *ex post* errors. However, we are also interested in the difference between *ex post* and first-release errors. The relationship between these errors is given by:

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[12] Of course, spending elasticities may also differ from their predicted values. However, this is unlikely to be a substantial contributor to the growth effect, because spending elasticities are thought to be relatively small in absolute magnitude as spending contains only few items that are cyclically sensitive.

$$e(x)_t^{f,t-1} = \left(x_t^f - x_t^t\right) + \left(x_t^t - x_t^{t-1}\right) = e(x)_t^{f,t} + e(x)_t^{t,t-1} \tag{4}$$

where $e(x)_t^{t,t-1} = x_t^t - x_t^{t-1}$. In other words, the difference between the two errors is the base effect for variable x in period t. However, as we have argued earlier, we want to dig further into the sources of this new base effect. To study those sources we decompose analogous to (3) the difference between the *ex post* and first-release outcomes for $x = REV$ and $x = EXP$:

$$e(x)_t^{f,t} = x_t^f - x_t^t \tag{5}$$

$$= \frac{1+g_{x,t}^t}{1+y_t^t}\left(x_{t-1}^f - x_{t-1}^t\right) \qquad \text{base effect}$$

$$+ \frac{x_{t-1}^f}{\left(1+y_t^f\right)\left(1+y_t^t\right)}\left(g_{x,t}^f - g_{x,t}^t\right) \qquad \text{growth effect}$$

$$- \frac{x_{t-1}^f}{\left(1+y_t^f\right)\left(1+y_t^t\right)}\left(y_t^f - y_t^t\right) \qquad \text{denominator effect}$$

$$+ \frac{x_{t-1}^f}{\left(1+y_t^f\right)\left(1+y_t^t\right)}\left(g_{x,t}^f y_t^t - g_{x,t}^t y_t^f\right) \qquad \text{residual effect}$$

while the corresponding effects for $x = BAL$ again follow by subtracting the decomposition for spending from that for revenues. Notice that, whereas the total revision error in the first-release observations equals the difference between the *ex post* and first-release errors calculated under (3), this is not the case for the individual effects of the decompositions. However, the differences are of second-order importance.[13]

2.3   The data

Our planning and first-release data are from the EU Stability and Convergence Programs (SCPs) submitted in the years 1998-2008. The SCPs are generally published in November or December. Therefore, the budgetary projections contained in those data should be close to the official budget. The advantage of using the SCPs is that they constitute a harmonised source of data on fiscal plans and outcomes in EU countries. Our *ex post* figures are taken from the November 2010 AMECO dataset. Given that it may take up to four years to arrive at the "truly" final data (see Gordo and Nogueira Martins, 2007, and De Castro *et al.*, 2011), for the latest vintages of our SCP data we do not have the eventual outcomes, although they will likely be close to the final figures. Most of the data revision tends to be concentrated in the first two years after the first release. Indeed, De Castro *et al.* (2011) find very little change on average after these two years. Our sample covers Austria, Belgium, Denmark, Germany, Greece, Finland, France, Ireland, Italy, The Netherlands, Portugal, Spain, Sweden and the U.K. Only the U.K. has a fiscal year that differs from the calendar year. However, in November or December of each year the Chancellor of the

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[13]   For instance, in the case of the base effect, $\frac{1+g_{x,t}^t}{1+y_t^t}\left(x_{t-1}^f - x_{t-1}^t\right)$ differs from the difference between the base effects of the *ex post*

and real-time errors $\frac{1+g_{x,t}^{t-1}}{1+y_t^{t-1}}\left(x_{t-1}^f - x_{t-1}^t\right)$ because in general $\frac{1+g_{x,t}^t}{1+y_t^t} \neq \frac{1+g_{x,t}^{t-1}}{1+y_t^{t-1}}$. However, the difference is usually small.

Exchequer presents the "Pre-Budget Report", which also contains an update of the public finances and proposed new tax measures. In the sequel, the "sample period" will always indicate the years to which the observations refer (*i.e.*, subscript of a variable) as opposed to the vintages from which the data are taken (*i.e.*, superscript of a variable). We also use data on political variables from Armingeon *et al.* (2010), supplemented by self-constructed figures for the year 2009, and on institutional indices from various sources. These are described below. Details on all the data are found in the Appendix A.

2.4 Outcomes of the decompositions

Figure 1 depicts planned budgets and first-release and *ex post* budgetary outcomes for each country and each year in our sample. Clearly, both the implementation errors and the revision errors are often substantial. Moreover, there is no obvious visible difference in their average size. It may be instructive to comment on some specific cases. First, we see that in the case of Greece, in all but two years the first-release balance falls short of the planned balance, while the *ex post* balance is always lower and sometimes substantially lower than the first-release balance. Secondly, we observe large negative spikes for Austria and Belgium in 2004 and 2005, respectively. The spike for Austria is the result of a 1.4 billion euro capital injection into the railway company and a 6.1 billion euro debt assumption of the railway company by the state. Both transactions were reclassified afterwards by Eurostat as deficit-increasing measures. The spike for Belgium is related to a split-up of the Belgian National Railway Company, in which the company's debts were transferred to a separate entity. Eurostat held the view that this should be recorded as a 7.4 billion deficit-increasing capital transfer by the Belgian federal government. While both spikes may capture rather extreme shortfalls of *ex post* from the first-release outcomes, we choose to keep them in our sample, because they are prima-facie examples of the sources of revision errors described above. In fact, leaving out these two observations for Austria and Belgium yields results that are qualitatively and quantitatively very similar to those obtained below.[14]

Before turning to the discussion of our error decomposition for the budget balance and its components, we explore first the corresponding errors in output growth, as those errors may be a driving force behind errors in the budget balance. These errors are reported in Table 1 for nominal output, real output and the GDP deflator. Projections at the planning stage are overoptimistic relative to the first-release stage, but not relative to the eventual outcomes. The over-optimism relative to the first-release is larger for real output than for nominal output, because inflation is projected too low.

Table 2 shows the averages over all observations of the aforementioned decompositions of first-release minus planned budgetary figures, *ex post* minus planned figures and *ex post* minus first-release figures, respectively. While the focus of this paper is mostly on revision errors, *i.e.*, the difference between *ex post* and first-release figures, it is instructive to present the complete decompositions for the various stages. This enables us to compare the sizes of the implementation errors and the revision errors as well as the sources of these errors. It also helps us in reconciling various results in the literature.

We first discuss the decomposition of the first-release and *ex post* errors relative to planned budgetary values reported in panels (A) and (B) of Table 2. Not surprisingly, in view of earlier results from the literature, we see that the total budget balance error is negative and significant in both cases, indicating a systematic over-optimism in budgetary plans. Importantly, the shortfall

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[14]   De Castro *et al.* (2011, Section 2.2) mention examples of major revisions in EDP data. Their Table A.1 lists the Eurostat decisions leading to revision.

Figure 1

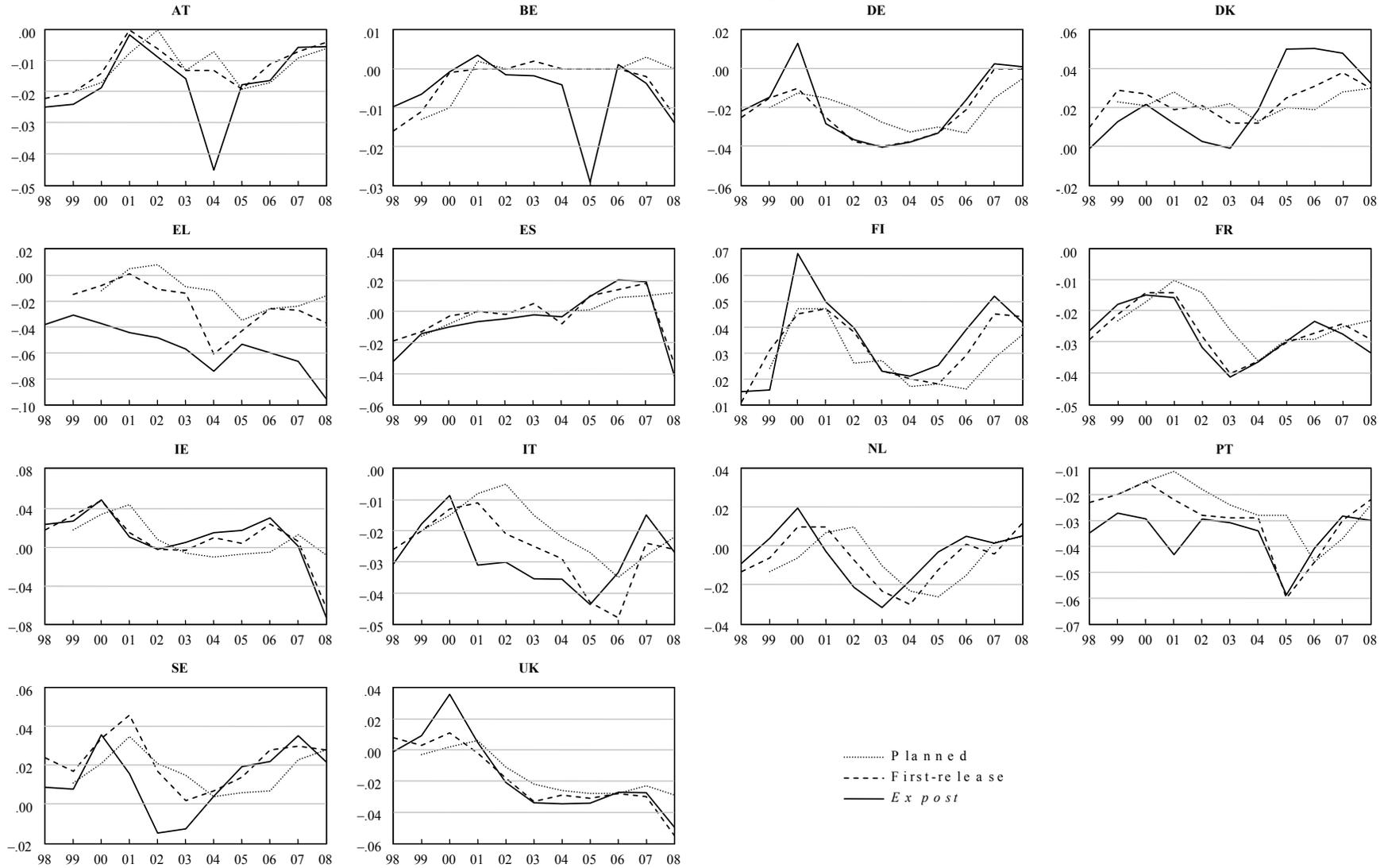## Planned, First-release and *Ex post* Balances

Forecast Errors in Average GDP and the GDP Deflator

	Nominal GDP	**Real GDP**	**GDP Deflator**
First release minus plan	−0.20*	−0.32***	0.11*
	(0.12)	*(0.09)*	*(0.06)*
Ex post minus plan	0.06	−0.07	0.13*
	(0.16)	*(0.13)*	*(0.08)*
Ex post minus first release	0.26***	0.22***	0.03
	(0.09)	*(0.06)*	*(0.05)*

Notes: Forecast errors are expressed in percent. Standard errors (corrected for heteroskedasticity and serial correlation) are reported underneath. Further, * = significance at the 10 per cent level; ** = significance at the 5 per cent level; *** = significance at the 1 per cent level. The sample period is 1999-2008, except for the *ex post* minus first-release errors, in which case the sample period is 1998-2008.

from the planned balance is on average larger in the *ex post* errors, where it is –0.50 per cent of GDP, than in the first-release errors, where it is –0.17 per cent of GDP. Table 2 also reports the percentage of observations below zero in each case. Given that in the case of the first-release errors only around half of the observations lie below zero, the size of the shortfalls of the balance relative to plan tends to dominate the instances in which first-release implementation is better than planned.

The decomposition of the total error into its different components allows us to trace its main source(s). We observe a significantly positive base effect for the first-release errors and a significantly negative (and substantially larger in absolute value) base effect for the *ex post* errors, implying a substantial negative base effect of –0.42 per cent of GDP going from first-release to *ex post* data (see Panel (C) of Table 2, discussed below). The growth effect is significantly negative (–0.25 per cent GDP) for the first-release errors and negative but insignificant for the *ex post* errors. Finally, the denominator effects are essentially zero for both the first-release and *ex post* errors, which is the result of the denominator effects in revenues and expenditures roughly cancelling out.

Next, we split the total errors for the balance into total errors for revenues minus total errors for expenditures. In line with our earlier conjecture, we see that the expenditure side essentially explains the first-release errors, although the expenditure error is not statistically significant, while the revenue side mainly explains the *ex post* errors. This may explain why Von Hagen (2010) attributes slippages to the revenue side, while other authors associate them with the expenditure side.

The total errors in the budget components can also be split into four separate effects each. We find that the base effects in both components are insignificant for the first-release errors and significantly negative and large in absolute terms for the *ex post* data. Here, the base effect in revenues dominates that in expenditures, resulting in an overall negative effect for the budget balance. On the basis of the base effect alone, at the first-release stage governments would appear more disciplined than in their plans, while the *ex post* stage shows that they have been substantially less disciplined than planned. For the first-release errors the growth effect is insignificant in the case of revenues and significantly positive in the case of expenditures. In other words, nominal expenditure growth has exceeded planned growth on average. The *ex post* data reveal a positive and significant growth effect for both revenues and expenditures, with the effect for the latter almost double that for the former. Finally, in the first-release errors the denominator effect is

Table 2

Decomposition of Errors in the Budget and Its Components

(A) Implementation Errors Based on First-release Data Minus Plans					
	TE	**BE**	**GE**	**DE**	**RE**
BAL	–0.17*	0.10*	–0.25***	0.00	–0.01**
	(0.10)	*(0.06)*	*(0.08)*	*(0.00)*	*(0.01)*
	[51%]	[39%]	[59%]	[43%]	[60%]
REV	0.02	–0.05	–0.04	–0.11**	0.00
	(0.12)	*(0.11)*	*(0.08)*	*(0.05)*	*(0.00)*
	[48%]	[45%]	[53%]	[53%]	[47%]
EXP	0.19	–0.15	0.21***	–0.11**	0.02***
	(0.12)	*(0.11)*	*(0.05)*	*(0.05)*	*(0.004)*
	[43%]	[55%]	[36%]	[53%]	[34%]
PEXP	0.25**	–0.10	0.22***	–0.11**	0.02***
	(0.13)	*(0.10)*	*(0.05)*	*(0.05)*	*(0.00)*
	[38%]	[52%]	[31%]	[54%]	[31%]
(B) Implementation Errors Based on *Ex Post* Data Minus Plans					
	TE	**BE**	**GE**	**DE**	**RE**
BAL	–0.50***	–0.32***	–0.17	0.00	–0.01*
	(0.17)	*(0.11)*	*(0.13)*	*(0.00)*	*(0.01)*
	[58%]	[57%]	[56%]	[53%]	[55%]
REV	–0.59***	–0.79***	0.19*	0.01	0.01
	(0.21)	*(0.19)*	*(0.10)*	*(0.06)*	*(0.00)*
	[61%]	[67%]	[39%]	[49%]	[41%]
EXP	–0.09	–0.48***	0.36***	0.00	0.02***
	(0.18)	*(0.16)*	*(0.09)*	*(0.06)*	*(0.01)*
	[52%]	[62%]	[33%]	[49%]	[39%]
PEXP	0.13	–0.29*	0.39***	0.00	0.02***
	(0.18)	*(0.16)*	*(0.09)*	*(0.06)*	*(0.01)*
	[44%]	[58%]	[31%]	[49%]	[37%]
(C) Revision Errors Based on *Ex Post* Data Minus First-release Data					
	TE	**BE**	**GE**	**DE**	**RE**
BAL	–0.34***	–0.42***	0.07	–0.00	–0.00
	(0.11)	*(0.08)*	*(0.08)*	*(0.00)*	*(0.00)*
	[59%]	[71%]	[48%]	[53%]	[48%]
REV	–0.60***	–0.74***	0.22***	0.10***	0.01
	(0.18)	*(0.16)*	*(0.06)*	*(0.03)*	*(0.00)*
	[66%]	[74%]	[34%]	[41%]	[38%]
EXP	–0.26	–0.32**	0.14*	0.10***	0.01
	(0.16)	*(0.15)*	*(0.08)*	*(0.03)*	*(0.00)*
	[58%]	[61%]	[41%]	[41%]	[45%]
PEXP	–0.05	–0.15	0.18**	0.09***	0.01
	(0.15)	*(0.14)*	*(0.07)*	*(0.03)*	*(0.00)*
	[53%]	[59%]	[37%]	[41%]	[47%]

Notes: Mean forecast errors and sources of budgetary slippage are expressed in percent of GDP; standard errors (corrected for heteroskedasticity and serial correlation) are reported underneath. The number in square brackets is the percentage of observations below zero. Further, * = significance at the 10 per cent level; ** = significance at the 5 per cent level; *** = significance at the 1 per cent level. Abbreviations: *BAL* = Budget balance/GDP; *REV* = Revenue/GDP; *EXP* = Expenditure/GDP; *PEXP* = primary expenditure/GDP. TE = total error, BE = base effect, GE = growth effect, DE = denominator effect, RE = residual effect, all in percent of GDP. The sample period is 1999-2008 for Panels (A) and (B), and 1998-2008 for Panel (C).

significantly negative for both revenues and expenditure, implying an increase in the total error for each of the budget components. These negative denominator effects are explained by actual GDP growth falling short of its projection. In the *ex post* data the denominator effect is insignificant for both revenues and expenditures, which is in line with the finding that actual GDP in the *ex post* data does not significantly differ from projected GDP.

Turning to the revision errors reported in Panel (C) of Table 2, we see that the total error is on average negative. While plans are too optimistic relative to the first-release outcomes, the latter in turn are too optimistic relative to the eventual, *ex post* outcomes. This is in line with our discussion that Ministries of Finance may have an incentive to depict their budgetary achievements too positively in real time (recall Section 2.1). The total revision error is largely driven by a negative update on previous period's balance (the base effect). A split into revision errors on the revenues and expenditure sides shows that in line with our earlier conjecture most of the action is on the revenues side. As we argued above, given that our data are on an accrual, rather than cash, basis, there is room for deliberate over-optimism in the first-release revenues data. Indeed, these data overestimate the eventual outcome by 0.60 per cent of GDP on average. This effect is driven by a substantial negative base effect of almost three-quarters of a percent of GDP on average, which is partially compensated for by a growth effect in revenues and a positive denominator effect due to the pessimism about output growth at the first-release stage. Not surprisingly, because the revenues and expenditure shares in GDP are of comparable magnitude, the denominator effect in revenues is wiped out by an equally-sized denominator effect in expenditure, thereby producing a total denominator effect of roughly zero in the balance. Finally, the growth effect in revenues dominates the growth effect in expenditures, but by not nearly enough to offset the difference in the base effects. The negative base effect for both revenue and expenditure is consistent with the systematic upward revisions in GDP that occurred in 2005 (while the effects of this GDP revision on the balance almost fully cancel out). This revision covered all countries in our sample and was applied backwards to even beyond the start of our sample period.[15]

Table 7 in Appendix B (not for publication) repeats all the decompositions when Greece is excluded. Qualitatively the findings are the same as before, although the magnitudes of the averages tend to be smaller. Table 8 in Appendix B takes account of systematic differences in the variances of the implementation and revision errors between the countries and is based on Generalised Least Square (GLS) regressions of all observations on a constant. The resulting figures are qualitatively and quantitatively essentially the same as before and will not be commented on further.

Panel (A) of Figure 2 depicts the average revision errors in the budget balance over the countries for each year in the sample. In seven out of the eleven years the average revision error is negative. Moreover, the negative averages tend to be much larger in absolute value than the positive averages. Next, Panel (B) of Figure 2 splits the revision errors into their four constituent effects, which are also averages across the countries. The denominator and residual effects are always (virtually) negligible and, hence, the revision errors are always the sum of a base effect and a growth effect. Remarkably, in each of our sample years the average base effect is negative and in a number of years it substantially dominates the growth effect.

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[15] See http://epp.eurostat.ec.europa.eu/cache/ity_public/national_2005/en/national_2005-en.pdf. This level increase varies across Member States and years, but roughly ranges between 0.5 and 2.0 per cent. Hence, if the revenue and expenditure ratios were 50 per cent of GDP, the effect on these ratios would be roughly between 0.25 and 1.0 percentage points of GDP. No systematic effect on GDP growth rates is observed.

3   Explaining the revision error and its main components

The analysis in the previous section clearly showed that the first-release budget balance BAL_t^t is a biased forecast for the eventual, *ex post* figure BAL_t^f. It is of interest to investigate the determinants of the revision error, because this may provide directions for institutional or policy adjustments that improve the quality of first-release data as input for the new budget and for regular budgetary surveillance. In our analysis we pay particular attention to the role of economic variables and political and institutional factors in shaping the revision error. In this section we explore first the determinants of the total revision error $\left(BAL_t^f - BAL_t^t \right),$ followed by an analysis of the individual components of the total error. However, we do not analyse the residual effect, because it is only of second order and, given that the denominator effects in revenues and expenditures roughly cancel, we also do not analyse the denominator effect in the balance. Hence, of the terms of the total error we first analyse the base effect

Figure 2

**Average Revision Errors
in the Budget Balance Across Countries**

A. Revision Errors Across Countries for Each Year
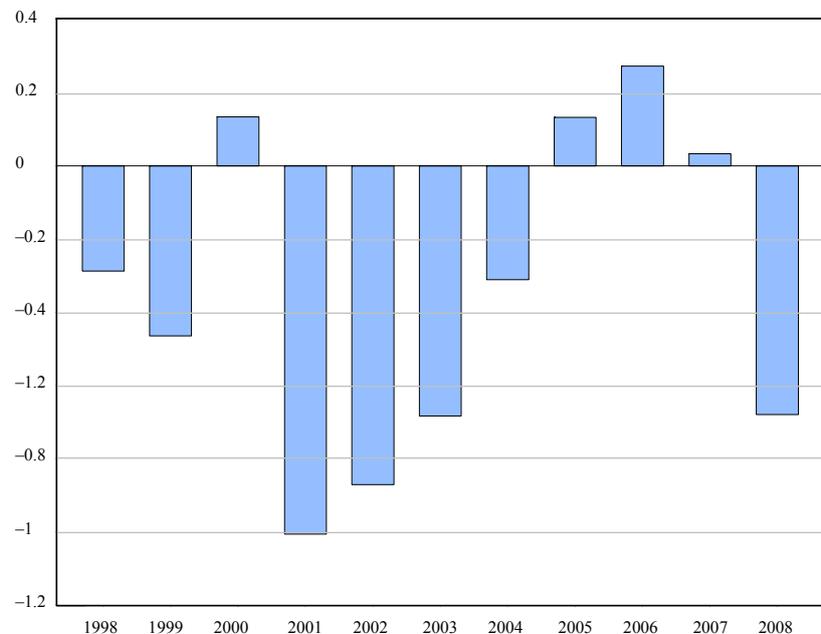
B. Individual Effects Across Countries for Each Year
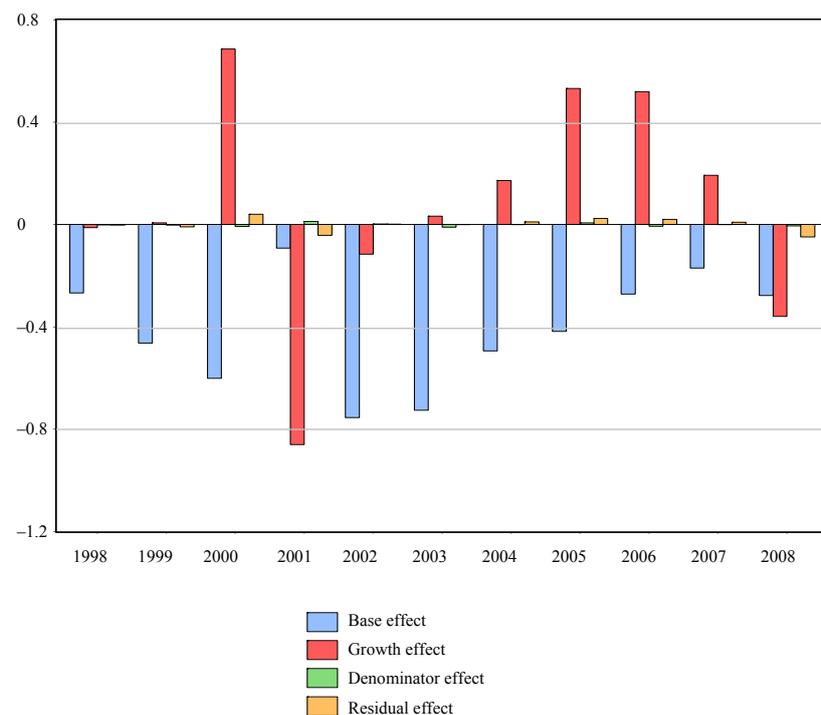
$\left(BAL_{t-1}^{f} - BAL_{t-1}^{t} \right)$, followed by an analysis of the growth effect $\left(g_{REV,t}^{f} - g_{REV,t}^{t} \right) - \left(g_{EXP,t}^{f} - g_{EXP,t}^{t} \right)$, while controlling for the base effect. Notice that in our analysis, we neglect the scalars in front of these effects – see equation (5).[16]

3.1 Analysis of the total revision error

A potentially important economic variable determining $\left(BAL_{t}^{f} - BAL_{t}^{t} \right)$ is the implementation error $\left(BAL_{t}^{t} - BAL_{t}^{t-1} \right)$. The analysis in the previous section suggested that planned balances are on average too optimistic relative to the first-release outcomes, which in turn are on average too optimistic relative to the *ex post* outcomes. Hence, both $\left(BAL_{t}^{f} - BAL_{t}^{t} \right)$ and $\left(BAL_{t}^{t} - BAL_{t}^{t-1} \right)$ are on average negative and based on this unconditional correlation we would a priori expect the latter variable to enter the regression for the revision bias with a positive sign. In our regressions for the revision error we shall include the variables BAL_{t}^{t-1} and BAL_{t}^{t} separately, in order to allow for additional flexibility in our specification. Our specification for the revision error in the budget also includes the revision in real growth $GROWTH_{t}^{f,t} \equiv \left(yr_{t}^{f} - yr_{t}^{t} \right)$, where *yr* denotes real output growth. Given the generally positive relationship between output and the budget balance, we might expect pessimism about real growth at the first-release stage to translate into pessimism about the balance at this stage and, hence, the real-growth revision error to have a positive effect on the revision error in the budget balance.

We consider also political variables to capture the effect of potential political distortions on the budget revision error. A major type of political distortion concerns "size fragmentation", which leads to common pool problems and hampers the correction of fiscal excesses. Each fraction of the government wants to increase spending on its own preferred cause, but only partially internalises the cost in terms of higher taxes. This possibility to shift the costs of targeted spending on the general tax payer creates an incentive for overspending, formally illustrated in, for example, Von Hagen and Harden (1994). The original formulation of the common pool problem (Shepsle and Weingast, 1981) features a spending bias, but not necessarily a deficit bias. Subsequent work has also shown how higher deficits can be the outcome of common pool problems, for example, because they give rise to a voracity effect through which positive output shocks result in more than proportionate redistribution (Tornell and Lane, 1999, and Lane, 2003) or wars of attrition (Alesina and Drazen, 1991). Von Hagen (2006) provides a recent overview of the relevant literature. There is no obvious direction in which we can expect more fragmentation to affect the revision error. More fragmentation may lead to stronger pressures for budgetary optimism in order to depict a situation that justifies more spending in the coming budget. However, the Finance Ministry, being the producer of the first-release figures, may try to ward off claims for more spending by depicting unduly gloomy figures. As a measure of size fragmentation we use the variable $GOVTYPE_{t}$, which is an index running from 1 (single party majority government) to 6 (a temporary caretaker government). A second major type of political distortion is the result of "time fragmentation". More frequent changes in government, which shorten the expected tenure of governments, and a larger degree of political polarisation cause more political instability and effectively raise the rate at which governments discount the future. As a result, they internalise to a lesser extent the

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[16] In fact, if we analyse the effects including the scaling factors, we find very similar results.

(reputational) consequences of *ex post* deviations of budgetary figures from the first-release figures. In other words, with more "time fragmentation" governments may perceive more leeway to be too optimistic at the first-release stage. Ideally on the basis of these arguments, we should include a measure of the *expected* government turnover in period t. However, since we do not have such a measure we try to capture time fragmentation with the variable $GOVCHAN_t$, which measures the number of government changes in year t.

One reason for potential over-optimism at the first-release stage is that ahead of an election the government may want to signal its competence at handling the economy (see also Rogoff, 1990). To capture this effect we include an election dummy $ELECT_{t+1}$, which is one when there is a general election in period $t+1$ and zero otherwise.[17] However, we will also test whether the contemporaneous election dummy $ELECT_t$ has any effect.

It is also conceivable that revision errors differ with the political colour of the government. We measure this aspect through the variable $GOVPARTY_t$, which is an index on the political colour of the cabinet running from 1 (hegemony of right-wing parties) to 5 (hegemony of left-wing parties). Another measure is $GOVGAP_t$, which is the ideological gap between new and old cabinet.

We capture the role of institutions with a variety of indices. The "fiscal rules index" (FRI_t) taken from the European Commission measures the presence and strength of numerical fiscal rules. Earlier versions of FRI_t have been used by Debrun *et al.* (2008), for example. The higher the value of FRI_t, the tighter are fiscal rules. A second index is that for a medium-term budgetary framework ($MTBF_t$). This index captures the procedures for the preparation, execution and monitoring of multi-annual budget plans. This index should be distinguished from that for fiscal rules, which set numerical targets for important budgetary aggregates. We use two indices to capture fiscal transparency. The first transparency index TR_BW_t is the index "Audit" taken from Bernoth and Wolf (2008). This index is based on whether governments are externally audited for their finances, the degree of independence of the auditing and the extent to which the obtained information is disseminated. The second index TR_HSH_t is from Hallerberg *et al.* (2005) and measures the information content of the draft budget. To make the comparison of the sizes of the effects more convenient, we normalise all the indices on a zero-one scale. That is, we assign the minimum value in the sample a value of zero and the maximum value in the sample a value of one and proportionally rescale all the other observations. Table 3 reports the average values of the various (normalised) indices on a country-by-country basis. Notice that Greece always produces a relatively weak score.[18] It is important to have Greece in our sample, because it adds variation in the quality of our institutional indices, thereby increasing the scope for finding evidence of a systematic link between institutional quality and the size of revision errors.

Table 4 presents our panel estimation results for the total revision error. The baseline specification in column (1) includes both country-fixed effects and time-fixed effects. The time effects are highly significant. They capture in particular common (across the countries) economic sources of revisions, for example as a result of unforeseen European-wide movements in the business cycle, and common methodological changes in the construction of the figures.[19] Of the economic variables only the lagged dependent variable is (highly) significant. Its significance may not be too surprising, because revisions of the budget balance reported in the same vintage have a tendency to move into the same direction. Indeed the correlation between BAL_t^f and BAL_{t-1}^f is

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[17]   For refinement in the construction of electoral variables, see for example Mink and de Haan (2005).

[18]   Results based on the use of TR_BW_t should be interpreted with some care, because Bernoth and Wolf (2008) apply a score of zero for missing answers for Greece in the construction of their index. Obviously, the fact that some answers are missing may be a signal in itself of a lack of transparency.

[19]   See also Table 7 in De Castro *et al.* (2011), who explore the role of Eurostat's methodological decisions explicitly.

Table 3

Average Normalized Values of Institutional Indices

Country	*FRI*	*MTBF*	*TR_BW*	*TR_HSH*
Austria	0.37	1.00	0.96	0.53
Belgium	0.47	0.83	0.87	0.53
Germany	0.63	0.83	0.64	0.72
Denmark	0.82	1.00	0.83	0.49
Greece	0.00	0.00	0.00	0.38
Spain	0.61	1.00	0.40	0.62
Finland	0.70	1.00	0.89	0.91
France	0.41	1.00	0.77	0.87
Ireland	0.09	0.17	0.91	0.62
Italy	0.34	0.83	0.66	0.28
Netherlands	0.81	1.00	0.79	1.00
Portugal	0.07	0.00	0.72	0.00
Sweden	0.75	1.00	1.00	0.72
United Kingdom	1.00	0.83	0.62	0.62

0.82. The planned balance BAL_t^{t-1}, its first release BAL_t^t and the real growth revision $GROWTH_t^{f,t}$ are all insignificant. We conjectured that $\left(BAL_t^t - BAL_t^{t-1} \right)$ would exert a positive effect on $\left(BAL_t^f - BAL_t^t \right)$. However, the coefficient of BAL_t^t is negative, while that of BAL_t^{t-1} is positive. Replacing these two variables with their difference $\left(BAL_t^t - BAL_t^{t-1} \right)$ yields an insignificant coefficient though, and, hence, this regression is not reported. The sign on the real growth revision is in accordance with our prior that it would exert a positive effect on $\left(BAL_t^f - BAL_t^t \right)$. Further, none of our political variables (the election dummy $ELECT_t$, the index of the government type $GOVTYPE_t$ and the political colour variable $GOVPARTY_t$) is significant.

Because of the potential feedback effect from the budget balance onto economic growth in column (2) we instrument the real growth revision with the average real growth revision across the other countries in the sample and the lagged real growth rate. The results remain unchanged and, hence, in the remainder of Table 4 we proceed without using instrumental variables. To take account of the potentially systematic differences in the variances of the revision errors across the countries in our sample, we also estimated our baseline regression using generalised least squares. The results were unaffected, however.

Column (3) estimates the baseline specification excluding Greece. We investigate this case, because Figure 1 revealed Greece as the clearest example of persistent over-optimism at the first-release stage. However, the results are essentially unchanged. Only the (individual) growth revision now becomes significant at the 10 per cent level.

One may be struck by the failure to find a significant effect of the revision error in real economic growth on the revision error in the budget balance. However, economic growth in substantial parts of the EU is known to be positively correlated and this may also be the case for

Table 4

Determinants of the Total Revision Error in the Budget Balance

Dependent Variable: $BAL_t^f - BAL_t^t$									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
$BAL_{t-1}^f - BAL_{t-1}^{t-1}$	0.30*** (0.11)	0.30*** (0.11)	0.24** (0.12)	0.29*** (0.11)	0.69*** (0.10)	0.60*** (0.099)	0.64*** (0.097)	0.60*** (0.095)	0.67*** (0.11)
BAL_t^{t-1}	0.088 (0.15)	0.087 (0.15)	−0.056 (0.14)	−0.14 (0.12)	0.17 (0.12)	0.13 (0.12)	0.19 (0.12)	0.18 (0.11)	0.16 (0.12)
BAL_t^t	−0.12 (0.086)	−0.12 (0.087)	−0.03 (0.084)	−0.02 (0.085)	−0.16* (0.092)	−0.18* (0.090)	−0.19** (0.092)	−0.19** (0.087)	−0.17* (0.093)
$GROWTH_t^{f,t}$	0.15 (0.13)	0.10 (0.17)	0.21* (0.13)		0.18 (0.14)	0.21 (0.14)	0.17 (0.14)	0.15 (0.14)	0.17 (0.14)
$GROWTH_t^{f,t} - \overline{GROWTH}_t^{f,t}$				0.09 (0.13)					
$\overline{GROWTH}_t^{f,t}$				0.50** (0.25)					
$ELECT_t$	−0.13 (0.19)	−0.13 (0.19)	−0.14 (0.19)	−0.09 (0.19)	−0.25 (0.21)	−0.26 (0.20)	−0.26 (0.20)	−0.25 (0.20)	−0.24 (0.21)
$GOVPARTY_t$	−0.056 (0.067)	−0.052 (0.067)	−0.066 (0.067)	−0.053 (0.068)	−0.012 (0.053)	−0.089 (0.058)	−0.026 (0.052)	0.0032 (0.052)	−0.013 (0.053)
$GOVTYPE_t$	0.0044 (0.12)	−0.0055 (0.12)	0.059 (0.12)	0.008 (0.11)	0.11 (0.086)	0.097 (0.081)	0.052 (0.085)	0.042 (0.085)	0.11 (0.086)
FRI_t						1.04*** (0.31)			
$MTBF_t$							0.67** (0.26)		
TRA_BW_t								1.32*** (0.49)	
TRA_HSH_t									0.45 (0.29)
Country-fixed effects	YES	YES	YES	YES	NO	NO	NO	NO	NO
Time-fixed effects	YES	YES	YES	NO	YES	YES	YES	YES	YES
Estimation method	OLS	IV	OLS	OLS	OLS	OLS	OLS	OLS	OLS
R^2-adjusted	0.53	0.53	0.23	0.48	0.43	0.46	0.45	0.47	0.43
DW	2.06	2.04	2.09	2.12	2.25	2.20	2.23	2.18	2.21
Sample period ($t = …$)	1999-2008	1999-2008	1999-2008	1999-2008	1999-2008	1999-2008	1999-2008	1999-2008	1999-2008
Country sample	Full	Full	Greece excluded	Full	Full	Full	Full	Full	Full
N	139	139	130	139	139	139	139	139	139

Notes: Estimation as a panel. Standard errors are corrected for heteroskedasticity and serial correlation. Variables referring to the budget balance are in percent of GDP. Further, * = significance at the 10 per cent level; ** = significance at the 5 per cent level; *** = significance at the 1 per cent level; N = number of observations. In column (2), the real growth revision error $GROWTH_t^{f,t}$ is instrumented with the average real growth revision error across the other countries in the sample and the lagged real growth rate.

revision errors in individual countries' growth rates. If this is indeed the case, then at least a substantial part of the potential effect of the growth revision is taken away by including the time effects. Therefore, column (4) excludes the time effects and the individual real growth revision, while it includes both the weighted (by the respective country's GDP level) average real growth revision error $\overline{GROWTH}_t^{f,t}$ and the deviation of the individual revision error from its average. The average growth revision error enters with a positive and significant coefficient. Moreover, its magnitude is quite large: a positive growth error revision by one percentage point leads to a positive revision of the budget balance by half a percent of GDP. The remainder of Table 4 reintroduces the time effects, in order to account for all common factors determining revision errors in a given period.

We also estimated a number of other variants on the baseline for which we do not explicitly report the results. First, we experimented by including a dummy variable that took a value of one (zero) when the current first-release deficit was higher (lower) than 3 per cent, the motivation being that governments might try to limit the chances of entering the Excessive Deficit Procedure by limiting the degree to which their first-release deficit violates the 3 per cent limit. Similarly, we tried a dummy that took a value of unity when the current first-release deficit was between 2 and 3 per cent of GDP, because in order to avoid the EDP governments might try to "push" their first-release balance to just below 3 per cent. Both dummies were insignificant, suggesting little if any role for the European level fiscal restrictions at the point where they become binding. Second, we replaced the real growth revision error by including both the nominal growth revision error and the revision error in the GDP deflator. This specification is slightly more flexible. However, the results are unchanged. We also replaced the contemporaneous electoral dummy with the one-period ahead dummy $ELECT_{t+1}$, the idea being that ahead of elections the government may have an incentive to be over optimistic. However, $ELECT_{t+1}$ turned out to be insignificant, while the other coefficient estimates were unchanged. Of course, not all elections can be foreseen and $ELECT_{t+1}$ may be an imperfect measure of the electoral pressure at the moment that the first release data become available. However, we are not able to indicate in the data which elections were unforeseen, while it seems rather unlikely that such a correction would imply a turnaround of the results. Finally, we also explored the relevance of other political variables. In particular, replacing $ELECT_t$ with $GOVCHAN_t$ or $GOVCHAN_{t+1}$ or replacing $GOVPARTY_t$ with $GOVGAP_t$ yields coefficient estimates for these variables that are far from significant.

Column (5) drops the country-fixed effects. As a result, compared with our baseline in column (1), the coefficient on our lagged dependent variable more than doubles to 0.60 or more and the first-release of the balance becomes significantly negative. The coefficient on the planned balance increases in size, but remains insignificant. The other coefficient estimates remain rather far from significance. In columns (6) – (9) we include one by one our institutional indices into the regression. Because these variables are either completely time invariant or they change relatively little over time, we proceed without the country-fixed effects. Compared with column (5) the coefficients on the other variables remain essentially unchanged, although the significance of the first-release of the balance tends to strengthen somewhat. We would be reluctant to draw strong conclusions about the precise direction in which fiscal frameworks need to be revised when we find that one or more institutional indicators are significant. In fact, our institutional indicators are proxies intended to capture certain aspects of national fiscal arrangements. Nevertheless, if we find that all or most of our indicators enter with significantly positive coefficient, this would be a clear indication that an increase in institutional quality in its various dimensions is conducive to improving the usefulness of first-release budget figures for surveillance and budgeting purposes. After all, as we have seen, compared with the *ex post* figures, first-release budget outcomes tend be over-optimistic. Hence, institutional improvements that reduce the degree of over optimism will be beneficial in this regard. Indeed, we see that all our institutional indicators are estimated with

positive coefficients and three out of the four coefficients are significant. Only TRA_HSH_t is insignificant. The results suggest that the effects of an institutional improvement are also quantitatively important. For example, an improvement in the fiscal rules index from its minimum to its maximum in-sample value reduces the average degree of optimism in the first-release relative to the *ex post* balance outcome by 1.04 percent of GDP.[20]

Of course, the country-fixed effects include all country-specific time-invariant factors affecting the revision errors. Institutional quality along some specific dimension may be only one of them. Hence, an alternative approach is to keep the country-fixed effects in the specification, but to run a regression of the estimates of these effects on our institutional indices. Table 9 in Appendix B (not for publication) reports the results. Again all indices, except for TRA_HSH_t enter with a positive and significant coefficient.

These findings shed some light on some of the conjectures we posed earlier. The outcomes are in line with the hypothesis that more transparency limits the scope for creative accounting at the first-release stage and, hence, that it limits over-optimism at this stage. They are also consistent with the hypothesis that tighter self-imposed national fiscal rules produce smaller revision biases in absolute terms.

3.2 Analysis of the base effect

Now we explore the determinants of the base effect $\left(BAL_{t-1}^{f} - BAL_{t-1}^{t} \right)$. Table 5 reports the results for our baseline specification of this regression. The lagged base effect $\left(BAL_{t-2}^{f} - BAL_{t-2}^{t-1} \right)$ enters with a significant and positive coefficient. This is most likely the result of information about the past business cycle becoming more accurate as time passes by. Given the positive correlation of the business cycle in subsequent years, this tends to push BAL_{t-1}^{f} and BAL_{t-2}^{f} into the same direction. The revision of the previous balance BAL_{t-1}^{t} enters with a significant and negative coefficient. In fact, if we were to rewrite the regression equation and add BAL_{t-1}^{t} to both sides of the equation, then this latter variable would enter with a coefficient of 0.89, which is significantly different from unity, implying a rejection (at the 5 per cent level) of the hypothesis that the first revision BAL_{t-1}^{t} is an unbiased predictor of the *ex post* balance. As in the regressions for the total effect, the political variables do not play any role. If we replace the current electoral dummy $ELECT_t$ with its one period ahead version $ELECT_{t+1}$ this does not affect the results (not reported in Table 5).[21]

Column (2) drops the country-fixed effects. The coefficient of the lagged base effect and its significance increase substantially. However, the coefficient of the first revision BAL_{t-1}^{t} shrinks and loses its significance. Otherwise, the estimates remain essentially unchanged. Columns (3)-(6) of Table 5 include the institutional indices one by one in regressions without the country-fixed effects. Compared with the regression in column (2) the coefficient of the first revision becomes significant again in two instances. All indices enter with a positive and significant coefficient, suggesting that better institutions tend to reduce BAL_{t-1}^{t} relative to BAL_{t-1}^{f}, thereby making the

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[20] In fact, if we drop Greece from our sample, the fiscal rules index remains highly significant.

[21] Note that our baseline regression for the base effect does not include the real growth revision error $GROWTH_t^{f,t}$, as this revision error refers to a period t coming after period t-1 to which the base effect refers. Indeed, $GROWTH_t^{f,t}$ turns out to be insignificant in the regression for the base effect.

Determinants of the Base Effect

Dependent variable: $BAL_{t-1}^{f} - BAL_{t-1}^{t}$						
	(1)	(2)	(3)	(4)	(5)	(6)
$BAL_{t-2}^{f} - BAL_{t-2}^{t-1}$	0.19[*]	0.52[***]	0.47[***]	0.48[***]	0.47[***]	0.49[***]
	(0.11)	(0.11)	(0.10)	(0.10)	(0.10)	(0.11)
BAL_{t-1}^{t}	–0.11[*]	–0.022	–0.063[*]	–0.034	–0.056[*]	–0.048
	(0.063)	(0.030)	(0.032)	(0.029)	(0.030)	(0.031)
$ELECT_{t}$	0.21	0.16	0.16	0.15	0.17	0.17
	(0.15)	(0.17)	(0.16)	(0.16)	(0.16)	(0.17)
$GOVPARTY_{t}$	–0.039	–0.019	–0.078	–0.029	–0.008	–0.020
	(0.058)	(0.046)	(0.049)	(0.046)	(0.046)	(0.046)
$GOVTYPE_{t}$	–0.022	0.031	0.016	–0.007	–0.000	0.041
	(0.089)	(0.062)	(0.060)	(0.062)	(0.062)	(0.063)
FRI_{t}			0.81[***]			
			(0.27)			
$MTBF_{t}$				0.47[**]		
				(0.23)		
TRA_BW_{t}					0.91[**]	
					(0.45)	
TRA_HSH_{t}						0.59[**]
						(0.24)
Country-fixed effects	YES	NO	NO	NO	NO	NO
Time-fixed effects	YES	YES	YES	YES	YES	YES
Estimation method	OLS	OLS	OLS	OLS	OLS	OLS
R^2-adjusted	0.38	0.24	0.28	0.26	0.27	0.25
DW	2.12	2.30	2.26	2.28	2.25	2.25
Sample period (t–1 = …)	1999-2008	1999-2008	1999-2008	1999-2008	1999-2008	1999-2008
N	139	139	139	139	139	139

Notes: See Table 4.

revision bias on average less negative. As in the case of the total effect, we also regress the fixed effects of the baseline regression in (1) on our institutional indices with qualitatively the same results – see Table 9 in the Appendix B (not for publication).

3.3   *Analysis of the growth effect*

Column (1) of Table 6 reports the results of our baseline regression with the growth effect in the revision error as the dependent variable. Neither the revision of real output growth figure over period t, nor any of the political variables is significant. Only the base effect $\left(BAL_{t-1}^{f} - BAL_{t-1}^{t} \right)$ turns out to be significant. We see that a positive revision of the balance in the previous period

Table 6

Determinants of the Growth Effect

Dependent variable: $\left(g^f_{REV,t} - g^t_{REV,t}\right) - \left(g^f_{EXP,t} - g^t_{EXP,t}\right)$								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$BAL^f_{t-1} - BAL^t_{t-1}$	–1.17***	–1.18***	–1.15***	–0.28	–0.49**	–0.43*	–0.51**	–0.35
	(0.28)	(0.28)	(0.27)	(0.27)	(0.25)	(0.25)	(0.23)	(0.28)
$GROWTH^{f,t}_t$	0.014	–0.11		0.30	0.30	0.23	0.15	0.25
	(0.28)	(0.42)		(0.32)	(0.31)	(0.31)	(0.28)	(0.32)
$GROWTH^{f,t}_t -$ $\overline{GROWTH}^{f,t}_t$			–0.01					
			(0.29)					
$\overline{GROWTH}^{f,t}_t$			1.25**					
			(0.48)					
$ELECT_t$	–0.45	–0.44	–0.46	–0.65	–0.69*	–0.64	–0.59	–0.62
	(0.39)	(0.39)	(0.40)	(0.44)	(0.41)	(0.42)	(0.41)	(0.43)
$GOVPARTY_t$	0.010	0.018	–0.059	0.041	–0.13	0.011	0.076	0.039
	(0.14)	(0.14)	(0.14)	(0.12)	(0.12)	(0.12)	(0.12)	(0.12)
$GOVTYPE_t$	–0.25	–0.27	–0.39	0.28*	0.10	0.10	0.028	0.24
	(0.23)	(0.23)	(0.25)	(0.15)	(0.15)	(0.16)	(0.16)	(0.15)
FRI_t					2.40***			
					(0.70)			
$MTBF_t$						1.58**		
						(0.61)		
TRA_BW_t							3.16***	
							(0.94)	
TRA_HSH_t								1.27**
								(0.60)
Country-fixed effects	YES	YES	YES	NO	NO	NO	NO	NO
Time-fixed effects	YES	YES	NO	YES	YES	YES	YES	YES
Estimation method	OLS	IV	OLS	OLS	OLS	OLS	OLS	OLS
R^2-adjusted	0.32	0.31	0.21	0.15	0.22	0.19	0.23	0.16
DW	2.06	2.04	2.05	2.06	2.11	2.06	2.09	2.04
Sample period ($t = \ldots$)	1998-2008	1998-2008	1998-2008	1998-2008	1998-2008	1998-2008	1998-2008	1998-2008
N	145	145	145	145	145	145	145	145

Notes: See Table 4.

lowers the growth effect. The intuition is as follows. Consider for instance the revenues side and assume that the revision error $\left(REV_t^f - REV_t^t \right)$ in revenues is held constant. A fall of REV_{t-1}^f relative to REV_{t-1}^t means that revenues growth between *t-1* and *t* has to revised upwards in order to account for the given revision error in revenues. The reasoning is analogous for spending. We have also run a regression in which we added the fiscal plan BAL_t^{t-1}. However, also this variable turned out to be far from significant, while the other estimates remained unchanged. In column (2) we instrument the output growth surprise. However, the results remain unchanged. Hence, we proceed without using instrumental variables. In column (3) we exclude the time effects and include the cross-country weighted average revision error in real growth and the deviation of the individual revision error from the average as explanatory variables. The average revision error is positive and highly significant. Moreover, it is large in magnitude. A one-percentage point increase in the average revision error in real growth raises the growth effect in the budget balance by 1.25 percentage points. Column (4) drops the country-fixed effects. The base effect loses its significance, while the type of government $GOVTYPE_t$ now enters with a positive and significant coefficient, suggesting that a more fractionalised government with a smaller majority leads to a larger growth effect, thereby contributing to more over optimism about the balance at the first-release stage.

Columns (5)-(8) add one-by-one our institutional indices to the regression in column (4). The size of the coefficient of the base effect increases in absolute value and is significant in three of the four cases. However, it always remains less than half the size of the coefficient in the baseline regression in column (1). Variable $GOVTYPE_t$ loses its significance again, while $ELECT_t$ becomes significantly negative in one instance, a result for which we do not have an obvious interpretation. The other estimates are essentially unaffected. Each of the four institutional indices enters with a positive and significant coefficient, indicating that an increase in institutional quality raises the growth effect in revenues relative to that in expenditures. Better institutional quality reduces over-optimism in the first-release figures, thereby reducing REV_t^t or raising EXP_t^t. This produces an increase in the growth effect $\left(g_{REV,t}^f - g_{REV,t}^t \right) - \left(g_{EXP,t}^f - g_{EXP,t}^t \right)$, thereby reducing the total revision bias in absolute terms. These results are essentially confirmed if we run a regression of the estimated fixed effects from our baseline specification on our institutional indices (see Table 9 of Appendix B – not for publication). All indices come out with a positive coefficient, which is significant in all instances except for TRA_HSH_t. However, the coefficient on this variable is close to 10 per cent significance.

4 Conclusions

There is a growing literature exploring the presence of biases in fiscal plans relative to the fiscal outcomes, which are mostly measured in real time and sometimes *ex post*. However, with a few exceptions the literature has so far been less concerned with potential biases in first-release fiscal figures as predictors of final figures. The quality of the first-release figures is important, because these figures are an input for the next budget. Moreover, fiscal surveillance is based on these figures. For example, they may provide an indication that fiscal policy is on an unsustainable course and, hence, enable policymakers to undertake timely action to correct fiscal policy.

The *ex post* outcomes are the final figures and are the most accurate measure of the budget, because they are based on the largest information set. They are also the most unbiased measure, because their production is removed furthest from the political process. Deviations of *ex post* from first-release fiscal figures may arise for political and strategic reasons. In this paper we have

presented a decomposition of these deviations into its various components, the base effect, the growth effect, the denominator effect and, finally, a residual effect. Exploration of the determinants of these individual components may provide us with leads for our analysis of the factors that determine the overall deviations of *ex post* from first-release fiscal figures. In turn, this may guide the search for institutional adjustments that improve the first-release figures.

Our findings show that, while fiscal plans are on average too optimistic relative to the first-release outcomes, first-release figures are overly optimistic relative to the *ex post* figures. Ministries of Finance control the production of first-release figures and may have an incentive to be over-optimistic at this stage.

For example, better current figures could signal more competence and give more leeway to present an optimistic but seemingly realistic budget for the coming year. In line with our conjectures, we observe that, while most of the over optimism at the planning stage relative to the first-release stage is driven by expenditures, revision errors are mainly caused by over optimism about revenues at the first-release stage. Further, we find that most of the over-optimism at the first-release stage is in the base effect. We also find that an improvement in the quality of institutions, whether measured by the tightness of national fiscal rules, the medium-term budgetary framework or the degree of budgetary transparency, reduces the degree of optimism at the first-release stage and makes first-release figures more informative about the eventual outcomes. This is in line with our earlier conjecture that more transparency reduces the leeway for massaging budgetary figures at the first-release stage and, hence, that it limits over-optimism at this stage. It is also in line with the hypothesis that tighter self-imposed, national fiscal rules have the same effect.

Our results on the role of tight fiscal rules and medium-term national budgetary frameworks for the quality of first-release figures support the European Commission's (2010) proposal to specify minimum requirements for national budgetary frameworks. Also our findings on the role of enhanced transparency support the European Commission (2010), which proposes that "All the operations of extra-budgetary funds and bodies shall be integrated into the regular budgetary process" and "For all sub-sectors of general government, Member States shall publish information on contingent liabilities with potentially large impacts on public budgets, …". Moreover, amendment proposals by the European Parliament (2010, p. 19-20, and p. 35) provide a more general legal basis for the role of national budgetary frameworks in improving the implementation of fiscal policy at the national level. Its proposals on national ownership require that euro area countries incorporate the objectives of the Stability and Growth Pact into national law and elaborate national budgetary frameworks that ensure compliance with these objectives. These amendments also stress the role of independent statistics, national fiscal policy rules or institutes, and realistic and cautious macro-economic and budgetary forecasts. An agreement is planned for the June 2011 summit of the European Council.

While the changes proposed by the European Commission (2010) serve a wider purpose than improving only the accuracy of first-release macro and fiscal data, a more direct way of achieving the latter may be to transfer the responsibility for producing these data to an independent institution.[22] However, to achieve this, both political and practical obstacles may have to be overcome. The main practical complication is that the Ministry of Finance always needs to be relied upon to provide relevant real-time data.

Our analysis finally points to some recommendations regarding the conduct of fiscal surveillance. First, policymakers should focus less on slippages year by year and more on systematic patterns in errors and components of those errors. With first-release and *ex post* data

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[22]   Frankel (2011) in his study of Chilean fiscal policy over the past decade argues in favour of supplementing budget rules with panels of independent fiscal experts that provide official forecasts of the output gap, for example.

becoming available over longer horizons, the scope for such an approach is increasing. Second, by comparing fiscal data across countries, one can extract more accurate signals whether implementation and revision errors can be justified or not. Third, with SGP surveillance based on first-release figures, there is an incentive for governments to bias these figures, which makes them less useful for fiscal surveillance. As our results suggest, to ameliorate this trade-off, it is important that surveillance at the European level be combined with enhanced fiscal transparency at the national level. In particular, judgment of first-release figures should be on a sufficiently comprehensive basis taking proper account of stock-flow adjustments and the risks associated with off-balance items. Finally, as our results showed, revision errors in the budget balance may mask substantial and partially offsetting revision errors in revenues and spending. Therefore, it is important for fiscal surveillance to also focus on the individual components of the budget balance.

APPENDIX A
THE DATA

Sources and description of political variables

The political variables are from the *Comparative Political Data Set* (CPDS), numbers I and III, constructed by Armingeon *et al.* (2010), supplemented by self-constructed figures for the year 2009 (CPDS-I covers 1960-2007, while CPDS-III covers 1990-2008).

ELECT   The dummy is 1, if there is a general election in the year, and 0, otherwise.

GOVCHAN   Number of government changes in the year. Termination of government due to (a) elections, (b) resignation of the Prime Minister, (c) dissension within government, (d) lack of parliamentary support, or (e) intervention by the Head of State.

GOVPARTY   Cabinet composition (Schmidt-Index) on a scale from 1 to 5, where 1 is hegemony of right-wing (and centre) parties, 2 is dominance of right-wing (and centre) parties, 3 is balance of power between left and right, 4 is dominance of social-democratic and other left parties and 5 is hegemony of social-democratic and other left parties.

GOVTYPE   Type of government ranging from 1 to 6, where 1 is single party majority government, 2 is minimal winning coalition, 3 is surplus coalition, 4 is single party minority government, 5 is multi party minority government and 6 is caretaker government (temporary).

GOVGAP   Ideological gap between new and old cabinet ($GOVGAP = \Delta GOVPARTY$).

Sources and description of institutional variables

FRI   In its database about fiscal governance in EU Member States, the European Commission calculates a fiscal rule index (*FRI*) per country,[23] which combines the strength and coverage of all rules in force. Those rules may apply to the various government sectors (general, central, regional, local and social security). Strength is determined on the basis of five criteria: (1) the statutory or legal base of the rule (with a constitutional rule where there is no margin for adjusting objectives achieving the highest score); (2) the nature of the body in charge of monitoring the rule (the highest score assigned in the case of an independent authority or the national parliament); (3) the nature of the body in charge of enforcing the rule (again, the highest score for an independent authority or the national parliament); (4) the enforcement mechanism (highest score in the case of automatic corrections and sanctions in case of non-compliance); and (5) the degree of media visibility. The strength score of each rule is weighed by the share of general government finances covered. Finally, the weighted scores are aggregated over all rules in place, while if more than one rule applies to the same general government sub-sector the weights of all these rules except the strongest are halved.

MTBF   European Commission (2007, p.162-63) computes the index of a national medium-term budgetary framework (*MTBF*) on the basis of five criteria: (1) the existence of such a framework (with the highest score for a framework that covers the entire government); (2) connectedness between the multi-annual budgetary targets and the preparation of the annual budget (with the highest score for a

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[23]   See http://ec.europa.eu/economy_finance/db_indicators/fiscal_governance/index_en.htm

framework that cannot be altered as time passes); (3) involvement of the national parliament (the highest score is when a vote is required); (4) existence of coordination mechanisms prior to setting the medium-term budgetary targets (with the highest score for *ex ante* coordination among all levels of general government); and (5) monitoring and enforcement (the highest score for regular monitoring and well-defined actions in response to deviations from plans).

TR_BW   This is the index "Audit" taken from Bernoth and Wolff (2008). It is based on the answers to an OECD and World Bank survey conducted in 2003. It is higher for countries in which governments are externally audited for their finances, when the degree of independence of the auditing is higher and the obtained information is more widely disseminated. Details on the survey questions are found in Bernoth and Wolff (2006).

TR_HSH   This index is taken from Hallerberg *et al.* (2005). It measures the information content and transparency of the draft budget and is further based on an assessment of transparency by government officials, the importance of special funds in the draft budget, whether government loans are included, whether it is linked to the national accounts and whether it consists of one document.

APPENDIX B
ADDITIONAL RESULTS (NOT FOR PUBLICATION)

Table 7

Decomposition of Errors in the Budget and Its Components Excluding Greece

(A) Implementation Errors Based on First-release Data Minus Plans					
	TE	**BE**	**GE**	**DE**	**RE**
BAL	–0.10	0.16***	–0.25***	0.00	–0.01**
	(0.10)	*(0.05)*	*(0.09)*	*(0.00)*	*(0.01)*
	[50%]	[35%]	[58%]	[41%]	[59%]
REV	0.13	0.05	–0.05	–0.12**	0.00
	(0.12)	*(0.10)*	*(0.08)*	*(0.05)*	*(0.00)*
	[46%]	[42%]	[53%]	[55%]	[47%]
EXP	0.23**	–0.11	0.20***	–0.13**	0.02***
	(0.11)	*(0.10)*	*(0.05)*	*(0.05)*	*(0.004)*
	[42%]	[56%]	[36%]	[55%]	[34%]
PEXP	0.29***	–0.07	0.22***	–0.13**	0.02***
	(0.11)	*(0.09)*	*(0.05)*	*(0.05)*	*(0.00)*
	[37%]	[53%]	[30%]	[56%]	[30%]
(B) Implementation Errors Based on *Ex Post* Data Minus Plans					
	TE	**BE**	**GE**	**DE**	**RE**
BAL	–0.21	–0.13	–0.08	0.00	–0.01
	(0.15)	*(0.09)*	*(0.13)*	*(0.00)*	*(0.01)*
	[55%]	[54%]	[54%]	[52%]	[52%]
REV	–0.28	–0.52***	0.23**	0.01	0.01*
	(0.19)	*(0.17)*	*(0.10)*	*(0.07)*	*(0.00)*
	[58%]	[66%]	[37%]	[50%]	[38%]
EXP	–0.07	–0.40**	0.30***	0.00	0.02***
	(0.18)	*(0.15)*	*(0.08)*	*(0.07)*	*(0.01)*
	[52%]	[62%]	[33%]	[50%]	[40%]
PEXP	0.15	–0.22	0.35***	0.00	0.02***
	(0.18)	*(0.15)*	*(0.09)*	*(0.06)*	*(0.01)*
	[44%]	[58%]	[32%]	[50%]	[38%]
(C) Revision Errors Based on *Ex Post* Data Minus First-release Data					
	TE	**BE**	**GE**	**DE**	**RE**
BAL	–0.13	–0.29***	0.15*	–0.00	0.00
	(0.08)	*(0.06)*	*(0.08)*	*(0.00)*	*(0.00)*
	[56%]	[69%]	[44%]	[54%]	[45%]
REV	–0.34**	–0.51***	0.26***	0.11***	0.01**
	(0.16)	*(0.13)*	*(0.06)*	*(0.03)*	*(0.00)*
	[64%]	[73%]	[33%]	[39%]	[37%]
EXP	–0.21	–0.22	0.11	0.12***	0.00
	(0.15)	*(0.13)*	*(0.08)*	*(0.03)*	*(0.00)*
	[58%]	[59%]	[42%]	[39%]	[47%]
PEXP	0.01	–0.04	0.14*	0.11***	0.00
	(0.14)	*(0.13)*	*(0.07)*	*(0.03)*	*(0.00)*
	[53%]	[58%]	[38%]	[39%]	[49%]

Notes: Mean forecast errors and sources of budgetary slippage are expressed in percent of GDP; standard errors (corrected for heteroskedasticity and serial correlation) are reported underneath. The number in square brackets is the percentage of observations below zero. Further, * = significance at the 10 per cent level; ** = significance at the 5 per cent level; *** = significance at the 1 per cent level. Abbreviations: BAL = Budget balance/GDP; REV = Revenue/GDP; EXP = Expenditure/GDP; PEXP = primary expenditure/GDP. TE = total error, BE = base effect, GE = growth effect, DE = denominator effect, RE = residual effect, all in percent of GDP. The sample period is 1999-2008 for Panels (A) and (B), and 1998-2008 for Panel (C).

Table 8

Decomposition of Errors in the Budget and Its Components with GLS

(A) Implementation Errors Based on First-release Data Minus Plans					
	TE	**BE**	**GE**	**DE**	**RE**
BAL	−0.10	0.13***	−0.24***	0.00	−0.01***
	(0.07)	(0.03)	(0.06)	(0.00)	(0.01)
	[51%]	[39%]	[59%]	[43%]	[60%]
REV	0.01	−0.05	−0.05	−0.05*	0.00
	(0.07)	(0.06)	(0.06)	(0.03)	(0.00)
	[48%]	[45%]	[53%]	[53%]	[47%]
EXP	0.21**	−0.13**	0.19***	−0.05	0.01***
	(0.09)	(0.06)	(0.04)	(0.03)	(0.002)
	[43%]	[55%]	[36%]	[53%]	[34%]
PEXP	0.27***	−0.05	0.18***	−0.05*	0.01***
	(0.09)	(0.06)	(0.04)	(0.03)	(0.00)
	[38%]	[52%]	[31%]	[54%]	[31%]
(B) Implementation Errors Based on *Ex Post* Data Minus Plans					
	TE	**BE**	**GE**	**DE**	**RE**
BAL	−0.37***	−0.11*	−0.23**	−0.00	−0.01**
	(0.12)	(0.06)	(0.10)	(0.00)	(0.004)
	[58%]	[57%]	[56%]	[53%]	[55%]
REV	−0.63***	−0.72***	0.14**	−0.01	0.01**
	(0.10)	(0.09)	(0.07)	(0.05)	(0.00)
	[61%]	[67%]	[39%]	[49%]	[41%]
EXP	−0.16	−0.60***	0.37***	−0.00	0.02***
	(0.12)	(0.09)	(0.04)	(0.05)	(0.00)
	[52%]	[62%]	[33%]	[49%]	[39%]
PEXP	0.08	−0.43***	0.42***	−0.00	0.02***
	(0.11)	(0.09)	(0.05)	(0.05)	(0.00)
	[44%]	[58%]	[31%]	[49%]	[37%]
(C) Revision Errors Based on *Ex Post* Data Minus First-release Data					
	TE	**BE**	**GE**	**DE**	**RE**
BAL	−0.15**	−0.26***	0.04	−0.00*	0.00
	(0.06)	(0.05)	(0.06)	(0.00)	(0.00)
	[59%]	[71%]	[48%]	[53%]	[48%]
REV	−0.56***	−0.60***	0.22***	0.10***	0.00***
	(0.08)	(0.06)	(0.04)	(0.03)	(0.00)
	[66%]	[74%]	[34%]	[41%]	[38%]
EXP	−0.42***	−0.42***	0.17***	0.11***	0.00
	(0.09)	(0.08)	(0.04)	(0.03)	(0.00)
	[58%]	[61%]	[41%]	[41%]	[45%]
PEXP	−0.21**	−0.28***	0.17***	0.10***	0.00
	(0.10)	(0.08)	(0.03)	(0.03)	(0.00)
	[53%]	[59%]	[37%]	[41%]	[47%]

Notes: Generalized Least Square (GLS) estimation. Mean forecast errors and sources of budgetary slippage are expressed in percent of GDP; standard errors (corrected for heteroskedasticity and serial correlation) are reported underneath. The number in square brackets is the percentage of observations below zero. Further, * = significance at the 10 per cent level; ** = significance at the 5 per cent level; *** = significance at the 1 per cent level. Abbreviations: BAL = Budget balance/GDP; REV = Revenue/GDP; EXP = Expenditure/GDP; PEXP = primary expenditure/GDP. TE = total error, BE = base effect, GE = growth effect, DE = denominator effect, RE = residual effect, all in percent of GDP. The sample period is 1999-2008 for Panels (A) and (B), and 1998-2008 for Panel (C).

Table 9

Relationship Between Institutional Indices and Country-fixed Effects

Dependent Variable: Estimated Country-fixed Effects				
	FRI	*MTBF*	*TR_BW*	*TR_HSH*
Total revision error	1.51[***]	1.15[**]	1.98[***]	1.09
	(0.54)	*(0.45)*	*(0.59)*	*(0.76)*
Base effect	1.13[**]	0.85[**]	1.50[***]	1.14[*]
	(0.46)	*(0.38)*	*(0.51)*	*(0.58)*
Growth effect	2.96[**]	2.50[**]	4.49[***]	2.37
	(1.24)	*(0.97)*	*(1.22)*	*(1.64)*

Notes: Entries report the coefficient of the institutional index (averaged over time) in a linear OLS regression of the estimated country-fixed effects from the baseline regression on a constant and the average institutional index over time for each country. Estimates of the constant are not reported. Standard errors are reported in brackets underneath the coefficient estimate. The number of observations is in all cases 14.

REFERENCES

Abbas, S.A., F. Hasanov, P. Mauro and J. Park (2011), "The Performance of Large Fiscal Adjustment Plans in the European Union – A Cross-country Statistical Analysis", IMF, mimeo.

Alesina, A. and A. Drazen (1991), "Why Are Stabilizations Delayed? A Political Economy Model", *American Economic Review*, No. 81, pp. 1170-88.

Armingeon, K., S. Engler, P. Potolidis, M. Gerber and P. Leimgruber (2010), *Comparative Political Dataset*, No. I and III, available at: http://www.ipw.unibe.ch/content/team/ klaus_armingeon/comparative_political_data_sets/index_ger.html

Balassone, F., D. Franco and S. Zotteri (2006), "EMU Fiscal Indicators: A Misleading Compass?", *Empirica*, No. 33, pp. 63-87.

——————(2007), "The Reliability of EMU Fiscal Indicators: Risks and Safeguards", Banca d'Italia, Temi di Discussione, No. 633.

Beetsma, R. and M. Giuliodori (2010), "Fiscal Adjustment to Cyclical Developments in the OECD: An Empirical Analysis Based on Real-Time Data", Oxford Economic Papers, Vol. 62, No. 3, pp. 419-41.

Beetsma, R., M. Giuliodori and P. Wierts (2009), "Planning to Cheat: EU Fiscal Policy in Real Time", *Economic Policy*, Vol. 24, No. 60, pp. 753-804.

Beetsma, R., M. Giuliodori, M. Walschot and P. Wierts (2010), "Fifty Years of Fiscal Planning and Implementation in the Netherlands", CEPR, Discussion Paper, No. 7969.

Bernoth, K. and G. Wolff (2006), "Fool the Markets? Creative Accounting, Fiscal Transparency and Sovereign Risk Premia", DNB, Working Paper, No. 103.

——————(2008), "Fool the Markets? Creative Accounting, Fiscal Transparency and Sovereign Risk Premia", *Scottish Journal of Political Economy*, Vol. 55, No. 4, pp. 465-87.

Bernoth, K., A.J. Hughes-Hallett and J. Lewis (2008), "Did Fiscal Policymakers Know What They Were Doing? Re-assessing Fiscal Policy with Real-time Data", CEPR, Discussion Paper, No. 6758.

Brück, T. and A. Stephan (2006), "Do Eurozone Countries Cheat with Their Budget Deficit Forecasts?", *Kyklos*, No. 59, pp. 3-15.

Cimadomo, J. (2007), "Fiscal Policy in Real Time", CEPII, Working Paper, No. 2007-10.

Debrun, X., L. Moulin, A. Turrini, J. Ayuso-Calsals and M. Kumar (2008), "Tied to the Mast? The Role of National Fiscal Rules in the European Union", *Economic Policy*, No. 23, pp. 98-362, April.

De Castro, F., J.J. Pérez and M. Rodríguez (2011), "Fiscal Data Revisions in Europe", Banco de España/European Central Bank, mimeo.

European Commission (2007), "Public Finances in EMU 2007", *European Economy*, No. 3, Directorate-General for Economic and Financial Affairs, Brussels.

——————(2010), http://ec.europa.eu/economy_finance/articles/eu_economic_situation/pdf/ com2010__523en.pdf

European Parliament (2010/0280), "Draft Report on the Proposal for a Regulation of the European Parliament and of the Council Amending Regulation (EC) No 1466/97 on the Strengthening of the Surveillance of Budgetary Positions and the Surveillance and Coordination of

Economic Policies", Committee on Economic and Monetary Affairs, Rapporteur: C. Wortmann-Kool.

Forni, L. and S. Momigliano (2004), "Cyclical Sensitivity of Fiscal Policies Based on Real-time Data", *Applied Economics Quarterly*, Vol. 50, No. 3, pp. 299-326.

Frankel, J. (2011), "A Solution to Fiscal Pro-cyclicality: The Structural Budget Institutions Pioneered by Chile", NBER, Working Paper, No. 16945.

Gordo, M.L. and J.N. Nogueira Martins (2007), "How Reliable are the Statistics for the Stability and Growth Pact?", European Commission, Economic Papers, No. 273.

Hallerberg, M., R. Strauch and J. von Hagen (2005), "Fiscal Rules in the European Union 1991-2001: Updating the Von Hagen Fiscal Index", mimeo.

Heinemann, F. (2006), "Planning or Propaganda? An Evaluation of Germany's Medium-term Budgetary Planning", *Finanzarchiv*, Vol. 62, No. 4, pp. 551-78.

Holm-Hadulla, F., S. Hauptmeier and P. Rother (2011), "The Impact of Numerical Expenditure Rules on Budgetary Discipline over the Cycle", *Applied Economics*, forthcoming.

Lane, P.R. (2003), "The Cyclical Behaviour of Fiscal Policy: Evidence from the OECD", *Journal of Public Economics*, No. 87, pp. 2661-75.

Lewis, J. (2009), "Fiscal Policy in Central and Eastern Europe with Real-time Data: Cyclicality, Inertia and the Role of EU Accession", De Nederlandsche Bank, Working Paper, No. 214/2009.

Marinheiro, C. (2008), "The Stability and Growth Pact, Fiscal Policy Institutions and Stabilization in Europe", *International Economics and Economic Policy*, Vol. 5, No. 1, pp. 189-207.

Milesi-Feretti, G.M. (2003), "Good, Bad or Ugly? On the Effects of Fiscal Rules with Creative Accounting", *Journal of Public Economics*, No. 88, pp. 377-94.

Mink, M. and J. De Haan (2005), "Has the Stability and Growth Pact Impeded Political Budget Cycles in the European Union?", CESifo, Working Paper, No. 1532.

Moulin, L. and P. Wierts (2006), "How Credible are Multiannual Budgetary Plans in the EU?", in Banca d'Italia (ed.), *Fiscal Indicators*, Banca d'Italia, pp. 983-1005.

OECD (2008), "Budget Practices and Procedures Survey", available at: http://webnet4.oecd.org/budgeting/Budgeting.aspx

Pina, A. (2009), "Elusive Counter-cyclicality and Deliberate Opportunism? Fiscal Policy from Plans to Final Outcomes", Bank of Portugal, Working Paper, No. 6, April.

Pina, A. and N. Venes (2011), "The Political Economy of EDP Fiscal Forecasts: An Empirical Assessment", *European Journal of Political Economy*, forthcoming.

Rogoff, K. (1990), Equilibrium Political Budget Cycles, *American Economic Review*, Vol. 80, No. 1, pp. 21-36.

Shepsle, K.A. and B.R. Weingast (1981), "Political Preferences for the Pork Barrel: A Generalization", *American Journal of Political Science*, No. 25, pp. 96-111.

Strauch, R., M. Hallerberg and J. von Hagen (2004), "Budgetary Forecasts in Europe – The Track Record of Stability and Convergence Programmes", ECB, Working Paper, No. 307.

Tornell, A. and P.R. Lane (1999), "The Voracity Effect", *American Economic Review*, No. 89, pp. 22-46.

Von Hagen, J. (2006), "Political Economy of Fiscal Institutions", in B.A. Weingast and D.T. Wittman (eds.), *The Oxford Handbook of Political Economy*, Oxford University Press, Oxford.

Von Hagen, J. (2010), "Sticking to Fiscal Plans: The Role of Fiscal Institutions", *Public Choice*, No. 144, p. 487-503.

Von Hagen, J. and I. Harden (1994), "Budget Processes and Commitment to Fiscal Discipline", *European Economic Review*, No. 39, pp. 771-79.

Von Hagen, J., A. Hughes Hallett and R. Strauch (2002), "Budgetary Consolidation in Europe: Quality, Economic Conditions, and Persistence", *Journal of the Japanese and International Economics*, No. 16, pp. 512-35.

KEEPING THE LID ON AGGREGATE EXPENDITURE DURING BUDGET PREPARATION: ENFORCING AGGREGATE EXPENDITURE CEILINGS WHILE PRESERVING ALLOCATIVE FLEXIBILITY

Marc Robinson[*]

1   Overview

Aggregate *expenditure ceilings* are increasingly viewed by fiscal policy experts as an effective instrument for ensuring that the budget respects aggregate fiscal policy goals. It is generally (and correctly) held that the aggregate ceiling should be set in an *top-down* manner, which means that the ceiling is set at the start of the budget preparation process prior to any consideration of "bottom-up" spending requests from spending ministries. Once set, the aggregate ceiling should be *firm* – that is, it should essentially not be varied during the budget preparation process.

There is, in addition, growing support for the setting of firm *multi-year* aggregate ceilings, primarily as a means of preventing pro-cyclical increases in expenditure during the upswing of the business cycle.

Once having set aggregate ceilings, the challenge is to ensure that they are adhered to during the budget preparation process. The problem is, in other words, to make sure that *Ministry allocations* – the total amounts allocated to each Ministry – do not exceed the aggregate ceiling. This is no trivial matter. The imposition of the aggregate ceiling is intended to contain the upward pressure on spending arising from large numbers of "bottom-up" spending requests from ministries during the budget preparation process. However, unless processes exist to contain Ministry requests in some manner, budget decision-makers may be tempted to increase the aggregate ceiling during the budget preparation process in order to escape the tough zero-sum constraint imposed by an aggregate ceiling.

A widely-held view is that the solution to this problem is to set *Ministry (or sector) expenditure ceilings* in the same way as the aggregate ceiling. In this view, individual Ministry shares of the aggregate expenditure ceilings also should be set in a top-down manner before Ministry spending requests are considered. During the preparation of the annual budget, these Ministry ceilings should be quite firm, with ministries either barred or heavily discouraged from presenting spending plans which breach the ceilings they have been given.

There is a significant school which goes even further and suggests that firm top-down Ministry ceilings should be set not only for the coming budget year, but for the subsequent two or three years. This view contrasts with what is probably the more widespread position – that multi-year Ministry ceilings should be indicative (*i.e.*, relatively open to change).

This paper calls these views into question. It argues against setting Ministry allocations before ministries have the opportunity to formally present spending proposals. It also suggests that making medium-term Ministry ceilings firm (rather than indicative) is appropriate only in a minority of relatively advanced countries.

The key problem with an entirely top-down process for setting Ministry ceilings is that it can seriously undermine the pursuit of allocative efficiency, by making Ministry shares of the aggregate expenditure ceiling more rigid. These budgeting techniques might appear to score high on the criterion of aggregate fiscal discipline. But budgeting techniques should not be judged solely

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on this criterion, but also on the extent to which they promote improved expenditure effectiveness and efficiency. Microeconomic considerations should be given as much weight as macroeconomic.

In the light of this, the paper turns its attention to the best means of resolving the tension between a purely top-down aggregate ceiling and the bottom-up pressure for spending increases during the budget preparation process. It outlines certain budget preparation techniques which can ensure that Ministry allocations do not in total exceed the aggregate ceiling while at the same time preserving and enhancing flexibility in the reallocation of resources between ministries. In particular, it argues for:

- the use of the top-down approach to setting Ministry *baseline* ceilings – that is, the component of budget allocations designed to cover existing programs and capital projects;

- the treatment of the available *fiscal space* – the funds available for new expenditure policy initiatives or new capital projects – as a government-wide pool, to be allocated during the budget process taking into account Ministry proposals;

- the systematic scrutiny of Ministry baseline expenditure via spending review to increase fiscal space via efficiency savings and the reallocation of funds away from low priority and irredeemably ineffective programs.

The structure of the paper is as follows. Firstly, the scene is set by clarifying the concept of expenditure ceilings, and briefly noting the benefits of setting an aggregate ceiling. After this, the focus shifts to the process for setting Ministry allocations consistent with the aggregate ceiling. The notion of top-down setting of Ministry ceilings is critiqued, and an alternative approach outlined. In this context, brief consideration is given to the situation of less advanced countries which may not be able to fully implement relatively sophisticated budget preparation techniques. The paper then turns to the question of medium-term Ministry ceilings, considering the preconditions for an effective system of firm medium-term ceilings, and the implications of this for countries which do fulfill those preconditions. Concluding remarks follow.

2   What is an expenditure ceiling?

Expenditure ceilings are upper limits on the amount of expenditure which are set for specific years, and which are applied during the budget preparation process. For example, if government decides early in the budget preparation process that aggregate government expenditure excluding interest payments will not exceed $324.05 billion in the coming year, it is setting an expenditure ceiling. Expenditure ceilings should not be confused with the expenditure limits set by parliament when it passes the budget law, which limit expenditure only during the execution of the budget. An expenditure ceiling constrains budget preparation *as well as* budget execution.

An aggregate expenditure ceiling is a limit which covers all or most government expenditure.[1] A Ministry ceiling, similarly, covers all or most of the Ministry's expenditure.[2]

A *firm* expenditure ceiling is, roughly speaking, a ceiling which is intended to be fixed and not open to variation during the budget preparation process.[3] By contrast, an *indicative* ceiling is a

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[1]   It might exclude certain categories of expenditure such as interest payments.

[2]   It might exclude certain categories of ministry's spending such as entitlements expenditure which is determined by law (on the grounds that the ministry has no control over the volume of such payments).

[3]   If we wished to be more precise, we would acknowledge that no ceiling can be absolutely binding, and that the intended firmness of an expenditure ceiling is a matter of degree, referring to how limited or extensive the circumstances are under which the ceiling might be modified. A more precise definition of a firm ceiling would then be a ceiling which policymakers intend to respect other than in very limited or exceptional circumstances, which certainly do not include the presentation by ministries of a large number of attractive new spending proposals.

ceiling which is understood as being open to some degree of modification during budget preparation but which is nevertheless expected to have some constraining impact on the levels of expenditure approved in the budget when it is finalized (otherwise it would not make sense to call it a "ceiling"). Both types of ceilings may be contrasted with expenditure forecasts – also known as *forward estimates* – which are mere projections and are not intended to influence or determine in any way the future evolution of expenditure.

Expenditure ceilings are different from *expenditure rules*, which may be defined as *limits on expenditure which are formulated in such a manner as to have continuing application*.[4] A commitment that government expenditure will not exceed 35 per cent of GDP is, for example, an expenditure rule. Expressed differently, an expenditure ceiling which applies to year *n* implies nothing about the limit, if any, which might apply to year *n* + 1. By contrast, an expenditure rule is formulated in such a manner as to apply to both years and subsequent years.[5]

Any expenditure rule must be given effect through the setting of expenditure ceilings for specific years. So if there is an expenditure rule, there must also be expenditure ceilings. The converse is not, however, true – expenditure ceilings may be set even if there is no expenditure rule.

3   Why aggregate expenditure ceilings?

As noted above, the fundamental rationale for setting aggregate ceilings is to ensure that the Ministry allocations decided in the budget preparation process are consistent with aggregate fiscal policy objectives. In the top-down process, the highest executive budget decision-making institution (which we will call the "Cabinet" as shorthand[6]) sets the aggregate ceiling which reflects macro-fiscal and revenue policy objectives prior to any consideration of Ministry spending requests (Ljungman, 2008).

On the other hand, the main rationale for setting *multi-year* aggregate ceilings is to ensure that expenditure does not rise in tandem with purely cyclical revenue increases during the boom phase of the business cycle – in a way which would be possible if only budget deficit rules applied – leading to the structural deterioration of public finances. Multi-year ceilings can, however, also support medium-term debt reduction or tax reduction objectives (EC, 2010). To achieve these objectives, it is clearly important that the multi-year ceilings are firm rather than purely indicative. The use of firm multi-year aggregate ceilings was pioneered by Sweden, Finland and the Netherlands, but is increasingly now being extended to other countries. Denmark, for example, has a project underway at present to develop such ceilings broadly along Swedish lines. International organizations are also increasingly advocating the use of medium-term expenditure ceilings or rules. In the post financial-crisis world, medium-term aggregate expenditure ceilings are viewed as a potentially useful instrument for fiscal consolidation.

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[4]   This is consistent – subject to one qualification – with the IMF's definition of expenditure rules (IMF, 2009: 5) as "permanent limits on total, primary, or current spending in absolute terms, growth rates, or in percent of GDP", which is in turn consistent with the widely-accepted Kopits-Symansky (1998) definition of a fiscal rule (of which an expenditure rule is one type) as "a permanent constraint on fiscal policy, expressed in terms of a summary indicator of fiscal performance". The qualification is the substitution of "continuing" for "permanent" application. This recognizes that a rule might be intended to apply indefinitely, or for a defined period of time, without necessarily being permanent.

[5]   The distinction between expenditure rules and expenditure ceilings is a matter upon which there is some confusion. For example, while the European Commission defines expenditure rules in accordance with the Kopits-Symansky definition of fiscal rules, it inconsistently treats expenditure ceilings as a type of expenditure rule (see, e.g., EC, 2009: 87, 90, 268-9 and EC 2006: 162).

[6]   Of course, the highest decision-making institution on budgetary matters differs with the political system, and in some cases is not the Cabinet (council of ministers) but, say, the president.

4   Setting Ministry shares of the aggregate ceiling

Once the case for aggregate ceilings is accepted, the question arises of how to operationalise them in the budget preparation process. Within what we might call the public financial management (PFM) technical assistance community, it is widely held that the answer is a two-stage budget preparation process in which, firstly, both the aggregate *and* Ministry ceilings are set by the Cabinet and, secondly, ministries prepare detailed budgets within the ceilings given to them. In Tommasi's words (2010, p. 89), there should be:

• "A 'framework' stage – often referred to as the 'strategic' phase – during which are determined the overall budgetary objectives (total expenditure, deficit, etc.) and the sectoral allocation of resources, including Ministry expenditure ceilings…

• A stage of preparation by ministries of detailed expenditure estimates which respect the Ministry ceilings which were set … during the strategic phase."

In this formulation, the determination of Ministry ceilings becomes, like the setting of the aggregate ceiling, a top-down process in which ministries are quite deliberately excluded from presenting spending proposals before the Ministry ceilings are set. The "bottom up" part of the budget preparation process is entirely or largely restricted to ministries making proposals as to how they will spend their respective ceilings (De Renzio and Smith, 2005; Kim and Park, 2006, p. 88). As this implies, the Ministry ceilings, once set, are entirely or at least "reasonably" firm during the preparation of the annual budget (World Bank, 1998, p. 47).

A variant on this approach calls for firm *sectoral* ceilings, rather than Ministry ceilings, to be set in a top-down manner at the strategic stage. Sectoral ceilings cover several ministries, and in this variant of the process the allocation of each sectoral ceiling between sector ministries is determined in the second stage of the budget preparation process (e.g., Schiavo-Campo and Tommasi, 1999, Chapter 4, p. 8). This model draws its inspiration from the "sector-wide" approach which Canada briefly applied to the expenditure allocation process before abandoning it (Good, 2007, pp. 256-8). For simplicity, this paper focuses on the version of the model which requires the top-down determination of *Ministry* ceilings. However, the problems discussed here apply equally to the sector ceilings version of the model.

This top-down approach to setting Ministry or sectoral ceilings can be traced back to the seminal World Bank *Public Expenditure Management Handbook* (World Bank, 1998, p. 89).

In the standard model of the Medium-term Expenditure Framework (MTEF) originally introduced in the Bank's *Handbook*, top-down Ministry ceilings are set not merely for the coming budget year, but for the following two or more years. The *Handbook* held that such *multi-year* Ministry ceilings should be indicative rather than firm, and that probably remains majority opinion within the PFM technical assistance community – although it has to be said that there is a widespread lack of clarity on just how firm medium-term ceilings are supposed to be.

There are, however, many who believe that not only annual Ministry ceilings, but also outer year Ministry ceilings, should be firm. As Kim and Park (2006, p. 95) put it, many advocates of top-down budgeting consider that "the top-down budgeting system cannot work as expected without an effective medium-term budget framework … [which is] operationalised by establishing *hard* budget constraints for individual ministries and programmes over a span of multiple years" (italics added).

The analysis which follows examines, firstly, the proposition that Ministry ceilings should be set in a top-down manner. It then critically assesses the proposition that medium-term Ministry ceilings should be firm rather than indicative.

5   Top-down setting of Ministry ceilings?

The conventional case for using a top-down process to set Ministry ceilings is that excluding the presentation of Ministry spending proposals prior to the determination of Ministry ceilings

- prevents the Ministry of Finance (MOF) from being overloaded by large numbers of new spending proposals which in aggregate greatly exceed available resources and which it is beyond the resources of the MOF to review properly,

- saves spending ministries from wasting a great deal of effort preparing and costing spending proposals which have no chance of being funded given available resources, and

- greatly reduces the likelihood that the political leadership will succumb to bottom-up pressure during the budget preparation process by deciding to increase the aggregate ceiling.

It is crucial to note that only *firm* Ministry ceilings could be expected to constrain new spending requests in this manner and thus produce the alleged benefits of the top-down ceiling-setting process. If ministries knew that ceilings were indicative and therefore open to modification, they would presumably not hesitate to present additional spending proposals in excess of the ceilings.

As attractive as the case for firm top-down Ministry ceilings might appear to be from point of view of aggregate expenditure control, there is a major downside. This is that determining Ministry ceilings without any consideration of bottom-up Ministry requests must inevitably undermine allocative efficiency. Allocative efficiency means choosing from the available alternative expenditure options those which will deliver the greatest benefits to the community. Choosing the best available spending options requires prior knowledge of what those options actually are, and such knowledge will for the most part not be available to the Cabinet and MOF if spending ministries are barred from putting new spending proposals forward. Expressed differently, the information constraints facing central decision-makers are so great that only with the assistance of extensive bottom-up expenditure proposals can they have any hope of doing a reasonably good job of allocating budgetary resources.

It is true that advocates of the top-down setting of Ministry ceilings envisage that, even though bottom-up requests are to be banned, the ceilings will nonetheless be set "according to policy priorities" (e.g., Kim and Park, p. 88). What this usually means is that during the "strategic" phase of budget preparation Cabinet identifies the areas of government services to which it wishes priority to be given in the allocation of resources – presumably based on the emergence of new policy challenges or on changed views about priorities – and then sets the Ministry ceilings based on these priorities. The problem with this is that the mere identification of priorities to which the budget should pay attention does not provide sufficient information to appropriately determine specific Ministry ceilings. Ministry ceilings can only logically be set in the knowledge of the specific new program/projects options which can give effect to those priorities. Concrete new program/project proposals must, in the main, come from the relevant spending ministries: in other words, they must be bottom-up.

It is undoubtedly good practice for Cabinet to discuss expenditure challenges and priorities during the strategic phase of the budget preparation process, and to inform spending ministries of the government priorities it wishes to see reflected in their spending requests. But it makes no sense for Cabinet to proceed directly from the consideration of priorities to the determination of Ministry ceilings, skipping any intervening consideration of concrete spending proposals.

One should, in any event, be very cautious about the *feasibility* of an entirely top-down determination of Ministry ceilings. In practice, it is not possible to prevent some major new spending proposals from ministries from being put forward during the discussions leading to setting of supposedly "top down" Ministry ceilings. While a top-down process might eliminate the

presentation of *formal* Ministry budget requests prior to the establishment of Ministry ceilings, it would certainly not eliminate the *informal* presentation of major new spending proposals. It is to be expected that in the Cabinet discussions during the strategic phase of the budget preparation process, individual ministers would argue for increased ceilings for their own ministries largely by referring to significant new spending proposals which they would like to see funded. There is also likely to be considerable behind-the-scene lobbying of the president/prime minister, again based in large measure on specific new spending proposals.

What this means is that the supposedly top-down process of setting Ministry ceilings ends up leading to the replacement of *formal* processes for the consideration of bottom-up spending proposals with *informal* processes. This is undesirable. One of the hallmarks of a good budget preparation process is the existence of clear formal routines for the presentation and appraisal of new spending proposals. These routines should include the requirement that all new spending proposals are presented with prescribed supporting information in a standard format, as well as a standard process for the review of such spending proposals by the MOF and other relevant "central agencies" such as the office of the president or prime minister. By encouraging the informal presentation of major new spending proposals during the strategic phase of the budget preparation process, the supposedly top-down process undermines these formal routines. The inevitable result will be the *de facto* approval of major initiatives by Cabinet without the benefit of formal submissions or detailed critical analysis by central agencies.[7] In addition, because the time available for discussion during the Cabinet discussion during the strategic phase of the budget preparation process will inevitably be very limited, it is likely that only a handful of the most powerful ministers will enjoy the opportunity to raise new proposals which influence Ministry ceilings.

6   How firm are the top-down Ministry ceilings?

It is therefore hardly surprising that in practice – as Kim and Park (2006, p. 94, pp. 107-8) make clear – a number of countries with supposedly top-down processes for setting Ministry ceilings in fact permit bottom-up new spending proposals before finalizing the ceilings. A typical example of this is Denmark where, according to Blondal and Ruffner (2004, p. 58):

> *Spending ministries … submissions are [supposed] to be in line with the expenditure ceilings given to them in February. In reality, the amounts are generally in excess – either due to the ministries claiming that the cost of operating unchanged policies is higher than what was assumed, or because they will be making claims for new initiatives. … There are strong procedures in place to justify any bids in excess of the initial expenditure ceilings allocated.*

Sweden is supposedly the poster-boy for top-down Ministry ceiling-setting. In theory the Ministry ceilings are all set at a Cabinet retreat one month into the budget preparation process, prior to any bottom-up input, and these ceilings then remain firm. In practice, however, ministries do present budget requests in excess of their top-down ceilings (Gustafsson, 2004, p. 63).

The advocates of *firm* top-down Ministry ceilings have considerable difficulty with this issue, and cannot be said to present a clear and consistent line. The World Bank's *Handbook* asserts that the "test of these envelopes [*i.e.*, ceilings] is their credibility … It would be expected that they would [be] reasonably firm for formulation of the annual budget". The ambiguity of the word "reasonably" is notable, but it is clear that the emphasis is on firmness. Yet a couple of years later

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[7]   In addition, the resource allocation bias towards the most politically powerful ministers would be exacerbated, because only they would in general have the weight to be able to raise major new spending proposals.

the principle author of the *Handbook* and architect of the MTEF concept (Malcolm Holmes) is to be found quite correctly rejecting the notion

> *… that ceilings should be immutable once set at the outset of budget preparation. On the contrary, a central purpose of the budget preparation process is to ensure that resources are going to priorities and reflect information on what is working and what is not.* (Holmes and Evans, 2003, p. 24).

A similarly contradictory position can be seen in Schiavo-Campo and Tommasi (1999, Chapter 4, pp. 34-5) who, immediately after arguing for a completely top-down process of setting firm sector ceilings ("definite budgetary envelopes") in developing countries, contradict themselves by conceding the possibility that "additional requests from line ministries could be allowed for new programs", in which case only "the principal request [from the Ministry] should be consistent with the notified ceilings".

Holmes and Evans (2003, p. 35) try to square the circle by arguing that "ceilings must be sufficiently fixed … to be credible but sufficiently flexible to accommodate changing economic conditions, changing priorities and new information". But this is surely an impossible balancing act. If there is to be significant flexibility to reallocate resources between sectors or ministries, or if significant new policy proposals outside the initial supposedly top-down Ministry ceilings are permitted, the system is no longer one based on firm Ministry ceilings, but rather one based on indicative ceilings. And no longer is it reasonable to expect that the ceilings will achieve their aim of preventing ministries from putting forward substantial numbers of new spending requests. The supposed advantages of top-down budgeting over bottom-up budgeting disappear.

One searches in vain in the works of advocates of supposedly firm top-down Ministry ceilings for any principles which determine how much money is to be made available for new spending proposals, and how this is to be taken into account when the Ministry ceilings are initially set. One is therefore left without any explicit mechanism for ensuring that the initial Ministry ceilings, plus new policy proposals accepted later in the budget preparation process, are consistent with the aggregate ceiling.

Potter and Diamond (who are advocates of *indicative* Ministry ceilings) explicitly address the question of availability of funds for new policy proposals in excess of initial Ministry ceilings in their classic budgeting manual. They suggest a "planning reserve" of 1-2 per cent of the aggregate ceiling "so the Ministry of finance can assign extra resources later during budget negotiations for the most urgent priorities, without breaching the" aggregate ceiling (Potter and Diamond, 1999, p. 18). They are undoubtedly on the right track here in suggesting a government-wide pool of funds for new policy (see further on this below). However, with a "planning reserve" which is so very small, their proposal remains a recipe for allocative rigidity and incrementalism. The size of the reserve also seems entirely arbitrary, without any clear relationship to the underlying fiscal space available to government.

All these considerations point to the conclusion that the top-down setting of Ministry ceilings, prior to the consideration of formal new spending requests from spending ministries, is in general undesirable and impractical. A sound budget preparation process must preserve channels by which ministries can formally present new spending proposals prior to the finalization of Ministry ceilings, with those proposals being then subject to rigorous analysis and challenge by the MOF and other relevant central agencies. This conclusion is not changed by the fact that the exigencies of a major fiscal consolidation may justify the temporary adoption of a more top-down approach.

7   How to reconcile an aggregate ceiling with allocative flexibility

What type of budget preparation process is capable of reconciling allocative efficiency with aggregate expenditure ceilings? How can the budget preparation process be organized to give effect to aggregate ceilings while retaining maximum flexibility to allocate budgetary resources to where they will deliver the greatest social benefit? There is no single answer to this question which can be applied to all countries. Differences in technical capacity and institutional structure mean that one size does not fit all. Nevertheless, it is possible to draw on the experience of certain leading countries in order to present a stylized best-practice model which can at least provide a starting point for thinking about how to reform the budget preparation process in specific countries.

The model takes as its starting point the distinction between new spending and "baseline" spending on ongoing programs and projects. In respect to the former, allocative efficiency requires a budget preparation process which can allocate the resources available for new spending – the *fiscal space* – to those programs and ministries where they will be most useful. This requires that the resources available for new spending (interpreted to include discretionary expansions of existing programs) are treated as *government-wide pool*, the allocation of which is based on the careful evaluation of the alternative spending options.

As a first approximation, fiscal space can be allocated in this way while respecting the aggregate ceiling through a budget process in which:

- firm baseline ceilings providing funding for existing programs and capital projects are established for each Ministry at start of budget process, in an entirely top-down process;
- a firm government-wide new policy ceiling is set at the same time, equal to the aggregate ceiling minus the sum of Ministry baseline ceilings.

The allocation of the new policy ceiling between ministries would then be determined during budget preparation, based on both government priorities and bottom-up Ministry proposals. The political leadership would provide guidance for the allocation process by considering its overall priorities at the start of the budget preparation, without at that stage setting Ministry ceilings.[8] Ministries would then make detailed formal bottom-up submissions for concrete new spending proposals, which would be subject to searching independent analysis by the central agencies.

In respect to baseline expenditure, this process would, ideally at least, be entirely top-down. That is, the baseline spending requirements of ministries would be calculated by the MOF without any consideration of requests from the spending ministries. "Bottom-up" budget requests would be confined to new policy. Moreover, a clear constraint would have been set on the total value of new spending proposals which could be accepted.

Such a process would score high points for allocative efficiency *in respect to new spending*. This is not, however, enough. Allocative efficiency also requires a capacity to re-examine and reallocate baseline expenditure. A process in which Ministry baseline ceilings were set in concrete at start of the budget preparation process would unnecessarily limit the scope for such re-examination and the allocation. Expressed differently, it would institutionalize budgetary *incrementalism* (Schick, 2009, p. 2).

The "first approximation" process as outlined above has the further disadvantage of being based on the assumptions that fiscal space estimated in this manner will always be:

- positive – *i.e.*, that the sum of Ministry baseline ceilings will always be less than the aggregate ceiling, and

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[8]   What this would mainly mean in practice is that the leadership would identify particular key problem areas which it would like to see addressed via new spending in the budget.

- sufficient to provide scope for those new spending items which government regards as high priority.

If these assumptions do not hold, the only way of respecting the aggregate ceiling and/or giving effect to government priorities is to reduce budget allocations to existing services – that is, to cut Ministry baseline ceilings. This type of situation is particularly likely to arise during phases of fiscal consolidation, when aggregate ceilings will be set at levels which require significant spending cuts.

These considerations point to the need to incorporate into the budget preparation process a mechanism which makes it possible to review and cut baseline funding. An enhanced process consistent with this is one in which Ministry baseline ceilings are subject to possible reduction as the result of a *spending review* process and, more specifically:

- when set at the start of the budget preparation process, Ministry baseline ceilings may already incorporate cuts to existing programs (e.g., as the result of any spending review conducted prior to the commencement of the budget preparation process).

- during the budget process, Ministry baseline ceilings are potentially subject to further cuts – making them firm in the upward direction but flexible downwards.

Any cuts to baseline ceilings will then increase the amount of fiscal space available to fund new policy.[9]

This transforms the new policy ceiling set at the start of the budget process into a *net* ceiling in the sense that it limits *net* new spending – *i.e.*, new spending *minus* any cuts to existing programs decided during the budget process.

This remains a highly top-down process, in which two types of firm ceiling are set right at the start of the budget preparation process prior to Ministry funding requests. At the same time, it is a process which has the advantage not only of avoiding incrementalism, but also of explicitly linking decisions about the amount of new spending to the matching decisions taken during the budget preparation process on cuts in baseline spending. This provides a pressure valve which permits the acceptance, if appropriate, of additional new spending proposals without raising the aggregate ceiling. To make this work, it is necessary for the MOF to maintain throughout budget preparation a running tally of the net impact of new spending and cuts.

Such a system maximizes allocative flexibility while ensuring respect for the aggregate ceiling. The capacity of countries to realize the benefits of such allocative flexibility will depend upon how good they are at spending review and the extent to which they have adopted the principles of performance budgeting.

In summary, this is a budget preparation process based on two key principles. The first is the separation of decisions on net new spending – *i.e.*, new spending initiatives and expenditure cuts – from decisions about baseline funding for continuing programs. The second is the imposition throughout the budget process of the constraint that *net* new spending must not exceed the aggregate expenditure ceiling minus baseline funding.

What about the top-down budgeting objective of preventing spending ministries from over-burdening the budget process with too many new spending proposals? The existence of an explicit new policy ceiling helps, but a government-wide pool for new spending will necessarily attract competing "bids" in excess of the amount available. Particularly important therefore is the rigor of the information and analysis requirements which ministries are required to meet in their formal

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[9]   It should be noted that the potential downward flexibility of ministry baseline ceilings raises significant issues. These are perhaps best resolved in the Danish manner of excluding from the baseline ceilings specific programs which have been identified as the subject of spending review during the budget cycle. This requires a programmatic budget structure.

submissions for new spending proposals. If these are tough, they will significantly reduce the number of new policy proposals. In addition, the indication of the government's priority areas for new spending by the political leadership at the commencement of the budget preparation process should act to discourage – without totally preventing – ministries from presenting new spending proposals outside these priorities areas. Finally, certain supplementary budget process rules – such as an expectation that ministries will fund *minor* new spending proposals through internal savings rather than funding requests – can help to contain the numbers of new policy proposals to manageable levels.

8   Technical capacity and the process for setting Ministry allocations

In its pure form, the process outlined above requires quite advanced technical capacity in one important area: the preparation of reasonably accurate expenditure "forward estimates". Forward estimates are projections of expenditure (and revenue) on a "current policy" basis – that is, projections of future levels of expenditure and revenue on the assumption that there are no new spending initiatives, no changes to tax laws, and all explicit and clear commitments made to future expenditure (including political promises) are taken into account.[10]

The ability to prepare accurate forward expenditure estimates at least one year ahead is essential if Ministry baseline ceilings are, as suggested above, to be set in a purely top-down manner. This is because, if spending ministries are to be denied the opportunity to present their own views about the funding they need to continue "current policy" before Ministry baseline ceilings are set, the MOF needs to be very confident that its own estimates of baseline requirements are accurate.

There are, however, many countries which are unable to prepare accurate forward estimates even one year ahead. Under these circumstances, to set Ministry baseline ceilings in a purely top-down manner is clearly not feasible. Bottom-up representations from spending ministries on their baseline requirements cannot be denied.

In at least some countries, a modified version of the process for setting Ministry baseline ceilings outlined above is, however, practical. In such a process, the MOF initially sets *indicative* Ministry baseline ceilings which are as accurate as it is able to make them, but gives spending ministries the opportunity to formally request the revision of these ceilings. Crucially, however, the MOF tightly prescribes and limits the grounds upon which such revision may be requested. The most important of these would be *mandatory* expenditure requirements of which the MOF was not aware.[11] In such a process, the MOF permits bottom-up input into the determination of Ministry baseline expenditure allocations precisely because it is aware that its expenditure forecasting capacity is not (yet) good enough to permit it to determine those baseline allocations unilaterally. However, with such an approach, MOF expenditure forecasting capacity improves over time, and the setting of baseline allocations can become increasingly top-down.

Such an approach recognizes something which is not acknowledged by most advocates of top-down budgeting – namely, that the degree to which budgeting can be made top-down is in part a function of the technical capacity of the country concerned. It is inappropriate to advocate equally top-down processes everywhere in the world.

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[10]   They are known by a range of other names, such as "annual reference level update" in Canada and "consequence estimates" in Sweden.

[11]   A mandatory expenditure requirement is an obligation to change the volume of services or transfer payments provided to citizens because of a legal requirement or an explicit government policy.

9   Multi-year Ministry ceilings

As noted at the outset, there are those who believe that not only annual, but also multi-year, Ministry ceilings should be firm. Those of this opinion tend to look to the practice of the handful of advanced countries such as the United Kingdom where governments make firm medium-term budget commitments to ministries. Firm multi-annual Ministry ceilings are seen by their proponents not only as tools for expenditure discipline, but as a means of improving performance by providing ministries with certainty about future funding levels. Such certainty allows ministries to plan and manage on a medium-term basis.

The potential benefits of giving ministries medium-term funding certainty are clear, but there are two main obstacles which make this approach impractical in the majority of countries.

The first is, once again, the quality of forward estimates. If firm multi-year Ministry ceilings are to be set, the MOF needs to be able to prepare accurate forward estimates of the "current policy" expenditure requirements of ministries not merely for the coming year, but for several years into the future. If a country is unable to prepare reasonably accurate medium-term forward expenditure estimates, there will be a high risk that the ceilings set for many ministries in the outer years will be either too low or too high. This is not a problem if the ceilings are only indicative, but it is a major problem if they are firm. If the ceilings are too high, the available fiscal space will be underestimated and the capacity to fund new policy commensurately reduced. But if they are too low, the risk will be that, when the outer years arrive, the unrealism of the supposedly firm Ministry ceilings will become apparent and the ceilings will end up being modified upwards. Expressed differently, the ability to make firm multi-year Ministry ceilings stick depends upon the credibility of those ceilings.

Experience has amply demonstrated that poor quality forward estimates undermine the entire medium-term budgeting process. Countries which have attempted to introduce MTEFs without investing significant effort in the forward estimates process tend, unsurprisingly, to have been disappointed with the results. In the absence of a system and capacity to produce quality forward estimates, projections of medium-term aggregate spending and revenue tend to be prepared on the basis of the crudest techniques (e.g., updating based only on the application of a general inflation factor) which fail to capture the dynamics of current policy. And the inevitable consequence is that the medium-term sectoral or Ministry "ceilings" which are prepared on the basis of those forward estimates and approved in the MTEF have little impact on the actual expenditure approved in annual budget.

Arguably, countries which are unable to prepare forward expenditure estimates should not pretend to be setting even indicative ceilings. A better approach for such countries would be to initially focus only on producing medium-term *forecasts*. Only at the point where these forecasts attain an acceptable degree of accuracy should they be used to set indicative ceilings.

The other danger of setting *firm* multi-year Ministry ceilings is that it will greatly increase allocative rigidity. Locking in Ministry ceilings for, say, three years into the future means denying oneself the ability to reallocate resources during that period in accordance with priorities and performance. Unless the country concerned is very good at periodic in-depth reviews of expenditure priorities, the result is likely to be that ministries and programs which should have their funding cut will find themselves more protected from cuts, and ministries and programs which should receive greater funding will find it even harder to attract additional resources. The UK combined its system of firm multi-year Ministry ceilings with periodic in-depth spending reviews. However, spending review – the critical examination of baseline expenditure to identify wasteful and low priority spending which can be cut to free up additional fiscal space – is something which only a minority of countries around the world are good at. Moreover, undertaking a *major* spending

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**POOR QUALITY FORWARD ESTIMATES
AND MTEFS IN THE DEVELOPING WORLD**

Fölscher (2007, p. 5) notes that in Africa: "the quality of forward estimates is poor. They consist far too frequently of the proposed budget for the first year of a multi-year framework, followed by inflation adjusted projections of cost for the outer year ... they pay little attention to, for example, the likely phasing of policy implementation, changes in demand that will effect spending unevenly or the impact of once-off capital spending on the base-year estimates. ... A key aspect of embedding a medium-term perspective therefore is deciding what the rules are for rolling over and adjusting and determining the forward estimates".

Another typical example of the way in which poor quality forward estimates have undermined the value of medium term budgeting in developing countries is Kyrgyzstan, where a 2008 IMF ROSC (fiscal transparency) review noted that "the costs of government policies and programs are yet to be tracked with an acceptable degree of accuracy to serve as the basis for a well-developed forward estimates system and systematic preparation of the Medium Term Budget Framework" (IMF, 2008, p. 16). The following year, a "PEFA" review made the following observation: "starting from 2009 the annual budget law is produced for three years on a rolling basis. It is too early to assess the impact of these changes, but it seems that the budgets for the second and third year are merely projections on the basis of expected inflation" (Shambetova *et al.*, 2009, p. 38).

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review every three years is more demanding that undertaking *some* spending review every year. It follows that developing strong spending review capacity should be seen as a prerequisite (along with good forward estimates) for moving to *firm* multi-year Ministry ceilings.

10   Conclusion

Setting Ministry ceilings in a completely top-down manner and then insisting that they be firm – possibly even on a multi-year basis – is superficially attractive to those who focus solely on aggregate fiscal discipline. However, it is crucial – particularly at a time when the need to restore public finances after the financial crisis and meet longer-term structural fiscal sustainability challenges looms large – not to lose sight of the fact that good budgeting is not only about fiscal discipline, but also about allocative efficiency.

This paper has aimed to show that it is possible to enforce firm aggregate expenditure control via aggregate expenditure ceilings while maximizing the allocative flexibility of the budgeting system. The keys to this are: the baseline/new policy distinction, good forward estimates, a government-wide new policy pool, and spending review. The paper suggests an alternative form of top-down budgeting in which it is not Ministry ceilings which are set at the start of the budget process but rather Ministry *baseline* ceilings and the government-wide new policy pool.

REFERENCES

Blondal, J. and M. Ruffner (2004), "Budgeting in Denmark", *OECD Journal on Budgeting*, Vol. 4, No. 1, pp. 49-79, Paris, OECD.

De Renzio, P. and S. Smith (2005), "Linking Policies and Budgets: Implementing Medium Term Expenditure Frameworks in a PRSP Context", ODI, Briefing Paper, London, Overseas Development Institute.

European Commission, Directorate-General for Economic and Financial Affairs (2006), "Public Finances in the EMU", *European Economy*, No. 3, Brussels, European Commission.

——————— (2009), "Public Finances in the EMU", *European Economy*, No. 5, Brussels, European Commission.

——————— (2010), *Economic Governance Package (1): Strengthening the Stability and Growth Pact*, Brussels, European Commission.

Fölscher, A. (2007), "Overview", in CABRI (ed.), *Are We Asking the Right Questions? Embedding a Medium-term Perspective in Budgeting*, 4th Annual CABRI Seminar, 13-15 December, Pretoria, CABRI Secretariat.

Good, D. (2007), *Politics of Public Money: Spenders, Guardians, Priority Setters, and Financial Watchdogs inside the Canadian Government*, Toronto, University of Toronto Press.

Gustafsson, A. (2004), "MTEF in Sweden", in World Bank/Korea Development Institute (ed.), *Reforming the Public Expenditure Management System: Medium-term Expenditure Framework, Performance Management, and Fiscal Transparency*, conference proceedings, [no publication details].

Holmes, M. and A. Evans (2003), *A Review of Experience in Implementing Medium Term Expenditure Frameworks in a PRSP Context: A Synthesis of Eight Country Studies*, London, Overseas Development Institute.

IMF (2008), *Kyrgyz Republic: Report on Observance of Standards and Codes – Fiscal Transparency Module*, Washington (D.C.), IMF.

——————— (2009), *Fiscal Rules – Anchoring Expectations for Sustainable Public Finances*, Washington (D.C.), IMF.

Kim, J.M. and C.K. Park (2006), "Top-down Budgeting as a Tool for Central Resource Management", *OECD Journal on Budgeting*, Vol. 6, No. 1, pp. 87-127.

Kopits, G. and S. Symansky (1998), "Fiscal Policy Rules", International Monetary Fund, Occasional Paper, No. 162, Washington (D.C.), IMF.

Ljungman, G. (2009), "Top-down Budgeting – An Instrument to Strengthen Budget Management", International Monetary Fund, Working Paper, No. 09/243, Washington (D.C.), IMF.

Potter, B. and J. Diamond (1999), *Guidelines for Public Expenditure Management*, Washington (D.C.), IMF.

Schiavo-Campo, S. and D. Tommasi (1999), *Managing Government Expenditure*, Manila, Asian Development Bank.

Schick, A. (2009), "Budgeting for Fiscal Space", *OECD Journal on Budgeting*, No. 2009/2, pp. 2-18, Paris, OECD.

Shambetova, E., C. Vanderweele and S. Bruni (2009), *Kyrgyz Republic: Public Expenditure and Financial Accountability Assessment 2009*, [no publication details].

Tommasi, D. (2010), *Gestion des dépenses publiques dans les pays en développement*, Paris, Agence Française de Développement.

World Bank (1998), *Public Expenditure Management Handbook*, Washington (D.C.), World Bank.

TOWARDS EXPENDITURE RULES AND FISCAL SANITY IN THE EURO AREA

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The study demonstrates the key role of expenditure policies in explaining fiscal developments during EMU in the euro area, its three largest members and four "macro-imbalances" countries. It compares actual primary expenditure trends with those that would have prevailed if countries had followed neutral policies based on expenditure rules since the start of EMU. Moreover, the implications for debt trends are calculated. Results show that all sample countries except Germany applied expansionary expenditure policies already before the crisis. Consequently, expenditure and debt paths were much higher compared to a counterfactual neutral expenditure stance. Rules-based expenditure policies could have led to much safer fiscal positions much more in line with the EU's Stability and Growth Pact. An empirical analysis of the determinants of countries' expenditure stance confirms the need for stronger fiscal rules and institutions in the euro area.

1   Introduction

The outlook for public finances in the euro area and in many other advanced economies for the second decade of the 21st century is extremely challenging. Euro area public debt exceeded 80 per cent of GDP in 2010 and continued rising as public deficits were above 6 per cent of GDP in that year. Several countries in and outside the euro area experienced fiscal crises starting in 2009. However, this was not only a consequence of the financial crisis: fiscal positions of many euro area countries had already been imprudent at the start of EMU, and they remained imprudent before the crisis struck in 2007 and significant further imbalances were accumulated (Schuknecht, 2009). Returning to sound public finances is, therefore, probably the most important policy challenge for advanced economies in general and the euro area in particular.

This study aims to contribute to mastering this challenge in three ways. First, it analyses in how far public expenditure policies were responsible for the deterioration of public finances before and during the crisis.[1] This question relates to the simple fact that virtually the whole deterioration of the fiscal deficit since the start of EMU of about 5 per cent of GDP was due to an increase in the primary expenditure ratio. The study, therefore, takes an in-depth look at the expenditure stance in the euro area and a number of its member states during EMU. It conducts simulation exercises comparing actual expenditure developments against the benchmark of a neutral fiscal stance defined by a number of expenditure rules.[2] The study focuses on the Euro Area 12, its largest member countries, Germany, France, and Italy, and the countries that accumulated significant macroeconomic imbalances and which have attracted particular attention from financial markets, *i.e.*, Ireland, Greece, Portugal and Spain.

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[1]   A number of studies have pointed to expansionary expenditure policies in many European countries for much of the EMU period (Holm-Hadulla, Hauptmeier and Rother, 2010; Schuknecht, 2009 and 2010; and Turrini, 2008).

[2]   Previous studies already advocated explicit expenditure rules. See Brück and Zwiener (2006) and Mungey (2008) for further information.

The study finds restrictive expenditure policies in Germany contrasting with more or less expansionary policies in the other sample countries, and notably in the "macro-imbalances countries", during EMU. Neutral expenditure policies over the 1999-2009 period in all countries (and with Germany's policies unchanged) would have implied several percentage points (pp) of GDP lower primary expenditure ratios for the euro area. In some of the macro imbalances countries the cumulative expenditure stance was expansionary by about 10 pp of GDP. It is important to note that – for the euro area excluding Germany – more than half of the spending above that implied by neutral policy rules already accumulated in the pre-crisis period up to 2007. For the macro-imbalances countries this share amounted to almost two thirds.

The study also suggests that the deviation from neutral expenditure policies before and during the crisis has contributed strongly to public debt dynamics, notably in the imbalances countries. Public debt ratios in the euro area would not have been much above 60 per cent and in the macro-imbalances countries near or well below 60 per cent at the end of 2009 if a neutral expenditure stance had been pursued. This would have hardly precipitated the fiscal crisis that was experienced in 2010.

Second, the study conducts a tentative empirical analysis of the determinants of euro area countries' expenditure stance during EMU. It finds that the policy stance tends to be pro-cyclical whereas strong budgetary institutions limit this spending bias. Moreover, spending growth above that implied by a neutral policy rule tends to be correlated with the political business cycle and the stability of governments. High public debt and the existence of an excessive deficit procedure in the context of the Stability and Growth Pact (SGP) do not seem to have significantly affected the expenditure stance.

Third, the study raises some important policy lessons. To prevent expansionary biases in public budgets as experienced during EMU, the paper recommends expenditure rules based on potential GDP growth. This should be adjusted down by ½ pp to cater for downward revisions of growth as experienced over the past decade. This provides a benchmark for prudent expenditure growth in the future from which any further needs for consolidation (due to fiscal imbalances or risks of economic overheating) must still be deducted. Finally, the empirical analysis argues in favour of strong national fiscal institutions and a substantially strengthened European fiscal framework that includes expenditure monitoring, a stronger focus on public debt and strong implementation and enforcement.

The next section looks at methodological issues. Section 3 derives the assessment of the expenditure stance and the implications for primary expenditure ratios in the sample economies before Section 4 examines debt developments as implied by the expenditure stance. Section 5 provides an empirical analysis of the factors determining the governments' tendencies to deviate from neutral spending policies. Section 6 derives some normative conclusions for the choice of expenditure rules while section 7 concludes.

2   Methodological issues

The first aim of this study is to analyse what role public expenditure policies have played in getting euro area public finances in the challenging situation of 2010. One way to "measure" the contribution of (expansionary) spending policies is to simulate what would have occurred on the spending side of national budgets if governments had followed "neutral" expenditure policies based on a set of rules and to compare this with actual developments.

Our simulation exercise follows a sequence of steps: *first*, numerical spending rules in terms of predefined growth rates are applied in a recursive manner to country-specific and euro area aggregate spending levels starting with the base year of our analysis, *i.e.*, 1999. This allows us to

compute "alternative" – rule- and country-specific – spending paths for primary expenditure and other major spending categories.[3] These can then be contrasted with actual developments.

In a *second* step, the resulting gaps between actual and "neutral" spending are used to assess the implications of alternative expenditure paths for the accumulation of government debt. Here, we introduce the simplifying and conservative assumption of constant revenue-to-GDP ratios (implying a GDP elasticity of taxes equal to one) to generate alternative rule-specific deficit paths both for the countries in our sample as well as for the euro area as whole.[4] These deficits are then cumulated into government debt levels, also taking into account compound interest effects. In our baseline simulations, we proxy country-specific interest rates with implicit rates, *i.e.*, the interest rate paid on average on the given stock of government debt.[5] Alternative assumptions about multipliers and compound interest effects have been explored in a sensitivity analysis. The conclusions remain broadly unaffected.[6]

Given that our study focuses on euro area countries the choice of using the European Commission AMECO macroeconomic database is straightforward. It allows to recover "real-time" data from different vintages which for our purpose is important to ensure that policies are assessed on the basis of the information set available to policy-makers at the time of implementation of policy measures.[7] Substantial data revisions, which have occurred repeatedly in the past, may result in a different assessment of the underlying policy stance when using *ex post* and real-time data respectively (see Cimadomo, 2008).

Before turning to the computation of alternative expenditure paths, we have to choose the specific policy rules to be applied. In practice, expenditure rules tend to define ceilings or target growth rates, either in real or nominal terms.[8] For the purpose of this study we focus on the latter type of rules. The objective of ensuring neutrality of expenditure policies constitutes the guiding principle for our choice. A natural benchmark that immediately comes to mind in this context is to restrict spending growth to some measure of long-term or potential growth in economic activity. Consequently, the following alternative rules were applied in the context of our simulation exercise:

1) *Nominal Potential GDP Growth (NPG):* The growth rate of spending in a given year is set equal to nominal potential GDP growth using both *ex post* and real-time data.

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[3] Note that, when simulating alternative spending paths, we take into account macroeconomic feedback effects of changes in the expenditure stance. We do this by applying standard GDP multipliers to estimate the effect of deviations from actual spending levels on nominal GDP. For this purpose, we build on Coenean et al (2010) who carry out a model comparison exercise on the basis of various large-scale macroeconomic models. We consider the middle point of the range presented in this study to construct country-specific GDP multipliers, explicitly taking into account the country-specific structure of government spending. Using this approach, the size of the GDP multiplier varies from 0.47 in Greece to 0.57 in the case of Ireland. More detailed information can be received from the authors upon request.

[4] This is a conservative assumption because we do not assume any second-round/confidence/general equilibrium effects that could result in higher long term growth and revenue from less expansionary expenditure policies. However, as a robustness check we also run the simulations with higher or lower tax elasticities (0.8-1.2). The simulation results show very little change compared to the baseline assumption. The results are available upon request.

[5] Note that we assume the interest rate to be exogenous as we do not incorporate feedback effects of changes in debt accumulation on the interest rate level. This is again a very conservative assumption because if lower spending, deficits and debt also implied lower interest rates the impact of a neutral expenditure stance on the debt ratio would have been even greater. In any case, results change little with different interest rate assumptions. The results are available upon request.

[6] Results from a broad set of sensitivity analyses can be received from the authors upon request.

[7] Our real-time dataset is constructed such that the one-year ahead forecast of the Commission's autumn macroeconomic projection in year *t*–1 constitutes the information set available to the policy-makers when setting up expenditure plans for year *t*.

[8] See Chapter 3 in European Commission (2006) for an overview of different types of fiscal rules in EU countries.

2) Real Potential GDP growth + ECB price stability objective (RPECB): The growth rate of spending in a given year is restricted to real potential GDP growth plus the ECB price stability objective.[9] The *RPECB* rule is applied both on the basis of *ex post* and real-time data.

3) Nominal average growth 1999-2009 (AV 99-09): The constant growth rate of spending is set equal to the average nominal GDP growth rate over the time horizon of our analysis.

4) Nominal 10 years moving average growth (10–MA): The growth rate of spending in a given year is set equal to the moving average of nominal GDP growth in the previous ten years using real-time data.

As discussed above, these rules are applied to actual spending levels in a recursive manner in order to compute alternative spending and debt paths both for the individual countries in our sample as well as for the euro area aggregate (see Tables 5 and 6 in the Annex for technical details.)

3   Assessing the public expenditure stance

To gauge the stance of public expenditure policies and the magnitude of fiscal expansion (or restrictiveness) in EMU, this section analyses public primary expenditure developments over the first 11 years for the euro area and the seven selected member countries.[10] As discussed in the previous section, the benchmark is a neutral stance proxied by applying a set of six expenditure rules. Table 1 provides the main findings. Positive figures measure the degree of expansionary policies in percentage points of GDP accumulated over the period 1999 up to 2007-09 compared to a neutral expenditure stance. Negative numbers account for the degree of restrictiveness of policies. This is calculated for the six different rules and the 8 economies (euro area + 7 countries).[11]

When looking, first, at *real time* expenditure rules, the expenditure stance for the euro area average varied significantly depending on the rule applied. Based on the nominal potential growth (NPG) rule, the euro area stance was around neutral (column 1 and 2 of Table 1). This is reflected in an effect of expenditure policies that is slightly restrictive (the primary expenditure ratio was 0.5 pp of GDP lower than with a neutral stance) until 2007 and that turns slightly expansionary until 2009 (0.3 per cent). When capping nominal expenditure growth with the ECB inflation benchmark plus real potential growth (RPECB) rule, the stance was expansionary (column 3-4) as reflected in a primary expenditure ratio increase by 0.6 and 1.7 pp of GDP. Recall that this is because countries with a higher inflation than the ECB objective have a lower neutral expenditure growth path than under the unadjusted NPG rule. The 10-year moving average growth rate (10MA) rule, by contrast, suggests a broadly neutral stance (–0.2 pp) (column 5-6). The less restrictive effect of this rule is straightforward given that the 11-year period under consideration was characterised to a significant degree by favourable economic developments, *i.e.*, nominal GDP growth above that of potential output and very high growth at the end of the boom in some countries.

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[9]   To operationalise the ECB's price stability objective in the context of our simulations we set the annual growth rate of the GDP deflator to 2.0 per cent as an upper bound. The main reason for capping the deflator at the ECB objective is to countervail overheating or competitiveness loss as reflected in high inflation.

[10]   It could be argued that the analysis presented should be conducted on primary expenditure adjusted for unemployment spending as this is the spending item that reacts automatically to cyclical developments rather than discretionary government decisions. We tested the robustness of our results with respect to the exclusion of this spending item within the scope of available. This exercise confirms very similar figures for the expenditure stance across countries and, thus, the validity of our baseline results. These results are available upon request.

[11]   For example, a figure of 1.2 for 2010 implies that expenditure policies were expansionary by roughly 0.1 pp of GDP per annum on average over the 12 year period. However, this can mean that policies were restrictive or neutral in some years.

Table 1

Cumulative Changes to Primary Expenditure Ratios
Compared to a Neutral Expenditure Stance Across Countries and Rules
(percent of GDP)

Panel A: Real-time Analysis

	Nominal Potential GDP (NPG)		Real Potential GDP + ECB Inflation Objective (RPECB)		Nominal Growth 10-year Moving Average (10-MA)	
	2007	**2009**	**2007**	**2009**	**2007**	**2009**
	(1)	(2)	(3)	(4)	(5)	(6)
Euro Area (12)	**–0.5**	**0.3**	**0.6**	**1.7**	**–0.9**	**–0.2**
Germany	–4.0	–3.5	–4.0	–3.4	–6.1	–5.4
France	0.8	1.4	0.8	1.5	0.7	1.2
Italy	1.6	2.0	2.1	2.9	0.5	0.7
Spain	3.6	5.9	6.0	8.9	4.7	6.5
Greece	5.3	6.6	7.8	10.1	2.9	3.9
Ireland	2.5	4.2	5.3	7.8	3.0	2.4
Portugal	1.7	3.3	3.1	5.2	–0.6	0.6
Memorandum: EA(12) - DE	1.1	2.1	2.3	3.6	1.0	1.8

Panel B: *Ex post* Analysis

	Nominal Potential GDP (NPG)		Real Potential GDP + ECB Inflation Objective (RPECB)		Nominal Average Growth 1999-2009 (AV 1999-2009)	
	2007	**2009**	**2007**	**2009**	**2007**	**2009**
	(7)	(8)	(9)	(10)	(11)	(12)
Euro Area (12)	**0.1**	**1.9**	**1.5**	**3.4**	**1.4**	**2.7**
Germany	–2.1	–0.9	–2.1	–0.9	–1.8	–0.2
France	0.8	1.8	1.2	2.4	2.0	2.7
Italy	2.5	3.6	3.9	5.4	3.4	4.3
Spain	1.7	5.2	5.7	9.7	4.0	5.6
Greece	5.0	8.0	7.6	11.2	5.3	6.8
Ireland	3.9	9.5	6.8	12.8	7.8	9.1
Portugal	2.0	5.0	4.6	7.6	3.4	5.1
Memorandum: EA(12) - DE	1.1	3.0	2.9	5.1	2.6	3.8

Memorandum: Cumulative Potential GDP Revisions (ii)

	1999-2007	1999-2009
	(13)	(14)
Euro Area (12)	**–3.0**	**–4.5**
Germany	–3.9	–5.2
France	–3.3	–3.7
Italy	–5.5	–7.5
Spain	1.0	–1.4
Greece	0.5	–3.3
Ireland	–5.7	–9.6
Portugal	–5.1	–6.7
Memorandum: EA(12) - DE	–2.7	–4.3

Notes: (i) Positive (negative) figures indicate that actual path was more expansionary (restrictive) than the corresponding rule. They are expressed as pp of GDP. (ii) Positive (negative) figures indicate that real-time growth rates were lower (higher) than actual figures.

As regards individual countries, real time analysis based on potential growth rules finds huge differences across countries. A strongly restrictive stance in Germany resulted in expenditure restraint of over 3 per cent of GDP accumulated over the 11-year period (columns 1-4). Or in other words, Germany consolidated about ¼ pp of GDP per annum via restrictive expenditure policies since the start of EMU. By contrast, a moderately expansionary stance in France and Italy led to a cumulative expenditure increase of 1½-3 pp of GDP. For Italy, expansionary spending policies had mostly accumulated before the crisis, while policies were more neutral in 2008-09.

A very expansionary stance in the four macro-imbalances countries is reflected in an expenditure increase of up to 10 pp of GDP above neutral, depending on the country and method. The normative rule based on the ECB price stability objective (RPECB) "naturally" shows more expansion in the economies where inflation had typically been higher than 2 per cent. Greece and Spain show the highest figures. Moreover, the expansionary effect had already been accumulated to a significant extent by the end of the good years in 2007. Further expansion during the crisis (2008-09) amounted to around 2 pp of GDP for the macro-imbalances countries.

For the 10MA rule, a very restrictive stance in Germany is almost counterbalanced by expansion in the other countries. Portugal and Italy report an almost neutral stance.

The last line of panel A in Table 1 illustrates how much the euro area expenditure stance in real time is affected by Germany. This selective exercise is justified by the fact that almost all euro area countries were in unsound fiscal positions at the start of EMU and only Germany has exercised determined expenditure restraint in our sample. When excluding this country, the "euro area-De" expenditure ratio had been rather expansionary.[12] It was about 2-3½ pp of GDP higher than if all other countries had followed a neutral stance based on these rules since the start of EMU.

A second general pattern of the findings is that *ex post* rules judge actual expenditure trends as much more expansionary than real time rules. This is because potential GDP was significantly revised down *ex post*, as can be seen in columns 13-14 of Table 1. Cumulative downward revisions during EMU averaged over 4 pp of GDP over the sample economies. The 5.2 pp figure for Germany implies that potential growth had on average been overestimated by almost ½ percentage point of GDP per annum.

On the basis of *ex post rules*, expenditure policies turn out to be much more expansionary (columns 7-12). Depending on the rule, euro area primary expenditure has been 3-5 pp of GDP higher by 2009 than it would have been with neutral expenditure policies since the start of EMU. Only Germany conducted modestly restrictive expenditure policies on balance while expenditure policies were very expansionary across the other countries. According to the NPG rule, French spending should have been about 2 pp of GDP lower and Italian spending about 3½ pp lower if neutral spending policies had been pursued. Figures for the four macro-imbalances countries tend to be significantly higher. When looking at the RPECB rule, Greece and Ireland experienced expenditure growth that was about 1 pp of GDP per annum higher than neutral spending policies would have suggested. Corresponding figures for Spain and Portugal are only modestly lower.

The last line of panel B shows just how expansionary expenditure policies were on average when excluding Germany. On the basis of ex post rules, primary expenditure would have been 3-5 pp of GDP lower if "euro area-De" countries had followed a neutral stance based on these expenditure rules.

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[12] The "euro area-De" figures represented here and elsewhere refer to euro area 12 excluding Germany and thus include the results for the analysis on Belgium, Netherlands, Luxembourg, Austria and Finland.

Figure 1

Euro Area (12): Expenditures Ratios – Actual vs. Rule-based
(percent of GDP)
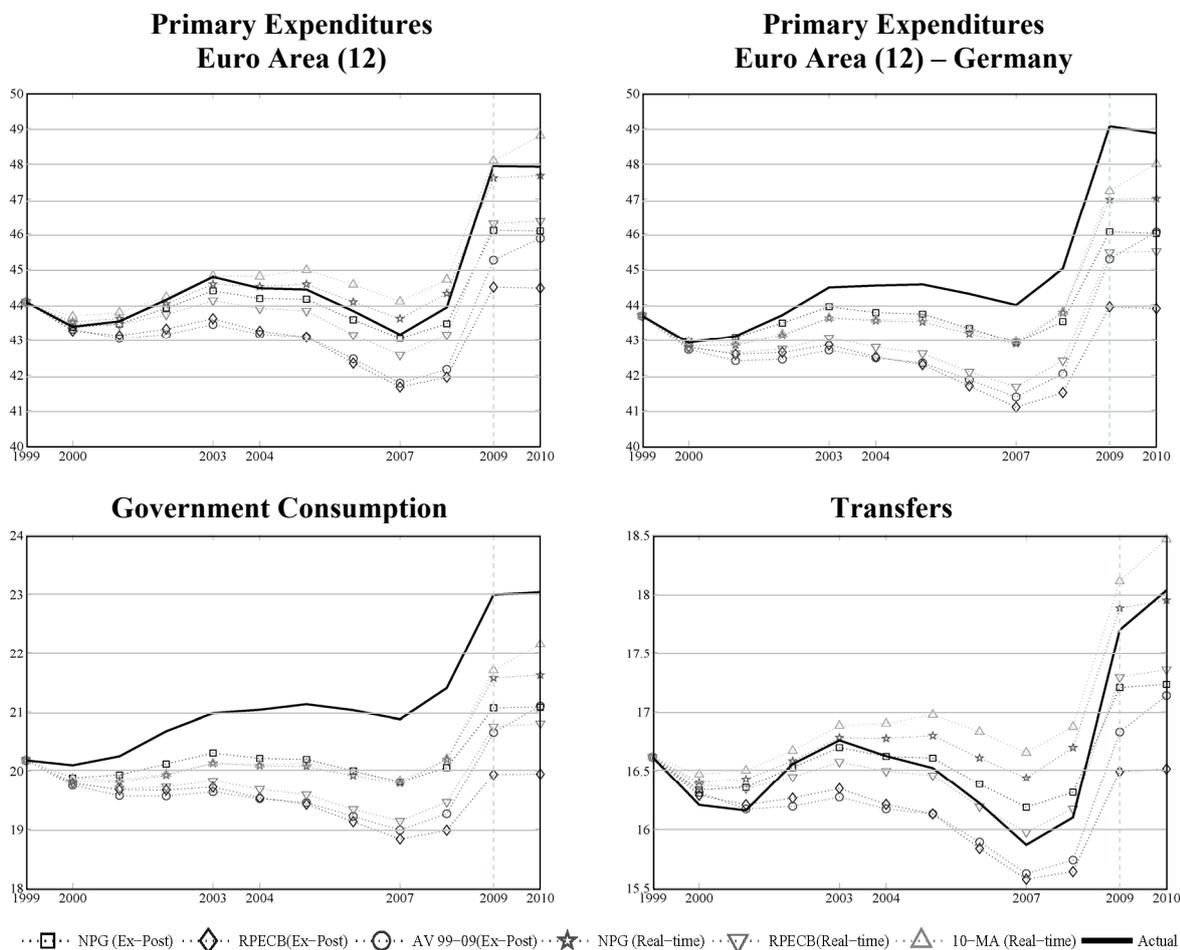
A different way of illustrating the results of this analysis is to compare the evolution of actual expenditure ratios with those that would have resulted from neutral expenditure policies since the start of EMU. Figure 1 presents these results. The thick line reports the actual primary expenditure ratio and the other lines mark the ratio that would have followed from the six expenditure rules. Had all countries followed a neutral expenditure stance on the basis of real time rules, the aggregate euro area primary expenditure ratio would have been between 46 and 48 per cent of GDP in 2010, thus up to 2 pp of GDP lower than the actual ratio. On the basis of *ex post* rules, the expenditure ratio would have dropped much more in good times and would have ended up at between 44.5-46 per cent of GDP compared to 48 per cent of actual spending. The primary spending ratio would then not have been much higher in 2009 than at the start of EMU.

The corresponding results are also reported for public consumption and transfers. We note that neutral expenditure policies on the basis of real time rules would have suggested somewhat lower public consumption ratios and broadly unchanged public transfer ratios. *Ex post* rules would have resulted in 2-3 pp of GDP lower government consumption and about 1-2 pp of GDP lower transfer ratios.

The profile of neutral primary expenditure ratios changes again quite significantly when looking at the euro area excluding Germany. With neutral spending policies, primary expenditure ratios would have been significantly lower in the "euro area-De" already before the crisis and even more so by 2009 on the basis of all rules.

When looking at individual countries, Germany again sticks out (Figure 2). As reported above, *ex post* rules would have suggested a slightly restrictive fiscal stance for the average of the EMU period. As a result primary expenditure ratios were roughly identical around 45-46 per cent of GDP in 1999 and in 2009. On the basis of real time rules, a neutral stance would have implied a higher primary expenditure ratio of 49 to over 50 per cent of GDP by 2009. This illustrates yet again the impact of chronic overestimations of potential growth on the assessment of expenditure paths.

For all other countries the situation is very different, and primary expenditure ratios increased almost continuously since the start of EMU. If a neutral stance had been followed, French primary expenditure ratios would by 2009 have been much closer to 50 per cent of GDP than above 53 per cent. Italian primary expenditure would still mostly be in the 40-45 per cent range. The four macro-imbalances countries would have lowered their primary expenditure to the higher 20s (Ireland) or at most the higher 30s (Portugal) in the period up to 2007. By 2010, primary expenditure ratios would have been much lower in all these countries (except on the basis of the 10MA rule). On the basis of *ex post* rules, primary spending ratios would have been below or at least not much above those prevailing in 1999.

All in all, only Germany employed a restrictive expenditure stance on average since the start of EMU. All other countries would be judged to have applied more or less expansionary expenditure policies. As a result, public primary expenditure ratios in the euro area and its member countries would mostly have been much lower at the start of the crisis and by 2010 and potentially not higher than at the start of EMU if governments had adhered to expenditure rules.

4   Implications for public debt dynamics

The implications of public expenditure policies during EMU for debt developments were significant. Taking into account the assumptions about fiscal multipliers, tax elasticities and compound interest effects discussed in section 2, the counterfactual debt paths that would have emerged if countries had followed neutral expenditure policies, as defined by our six rules would have been typically significantly lower (Table 2).

The pattern of counterfactual debt developments reflects that of expenditure ratios as reported in the previous section, except that the compound effects result in much more diverse figures and trends. Looking again first at real time rules and starting with the euro area, the fiscal stance at the aggregate level reported in the previous section would have also implied not much change in the debt ratio compared to the actual level in 2009. Debt would be broadly unchanged if the NPG rule had been applied. It would have been somewhat lower by 5 pp of GDP if all countries had followed the RPECB rule and 4 pp of GDP higher if they had all followed the 10MA rule. By contrast, the application of *ex post* rules would have resulted in much more restrictive expenditure policies and hence lower debt ratios by 3-13 pp of GDP.
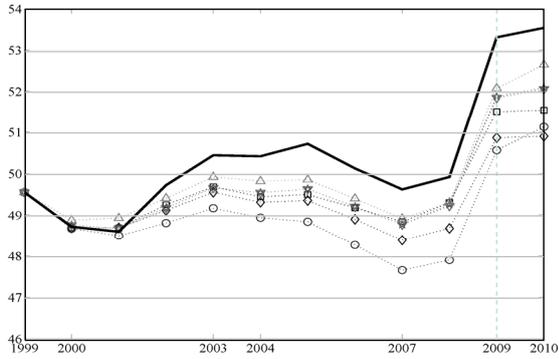
Figure 2

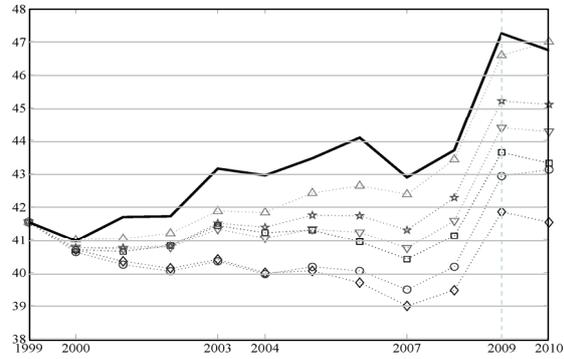**Primary Expenditure Ratios – Actual Versus Rule-based**
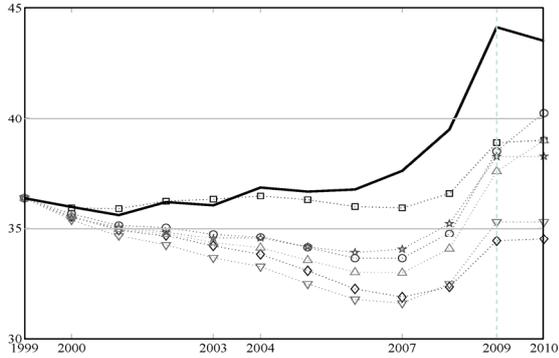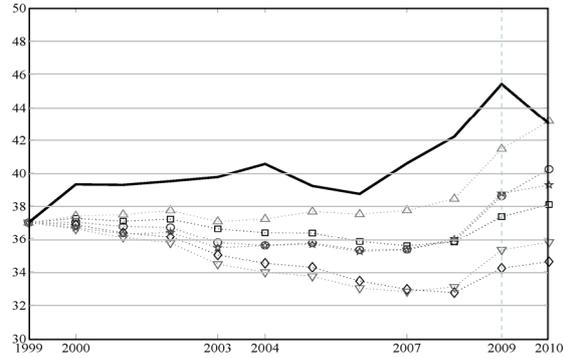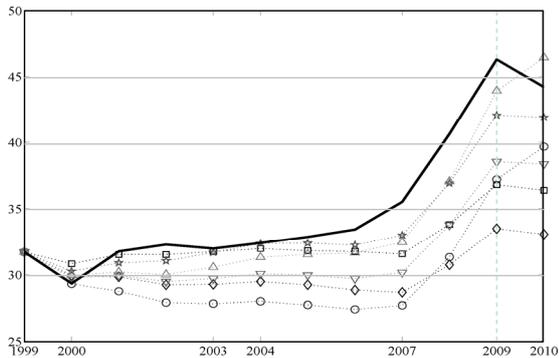

Euro area (12) · Germany · France · Italy · Spain · Greece · Ireland · Portugal
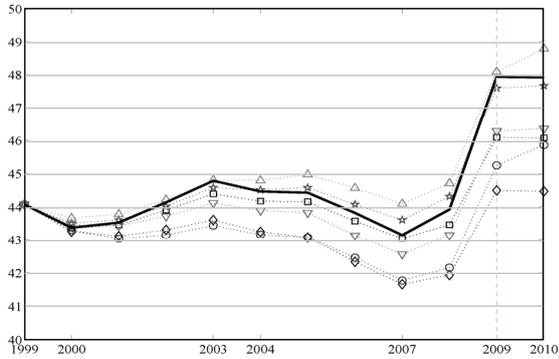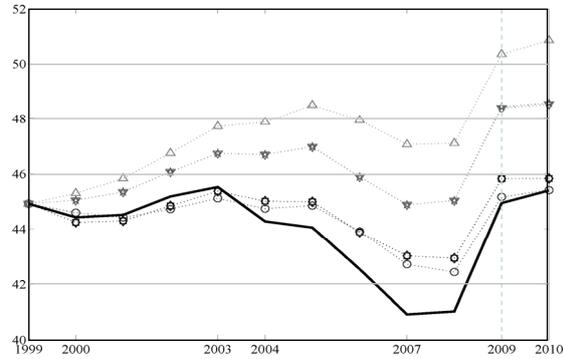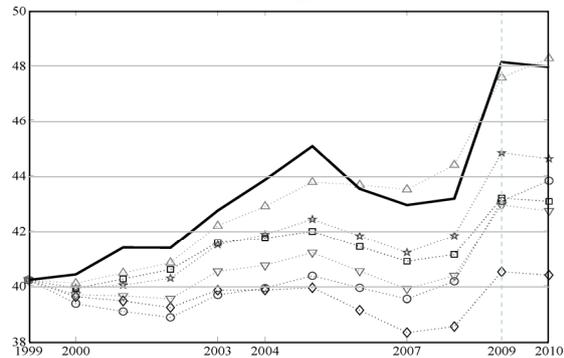
· · ·□· · NPG (Ex–Post) · · ·◇· · RPECB(Ex–Post) · · ·○· · AV 99–09(Ex–Post) · · ·★· · NPG (Real–time) · · ·▽· · RPECB(Real–time) · · ·△· · 10–MA (Real–time) ▬▬ Actual

Table 2

**Cumulative Changes to Public Debt Ratios
Compared to a Neutral Expenditure Stance Across Countries and Rules**
(percent of GDP)
Panel A: Real-time Analysis

	Nominal Potential GDP (NPG)		Real Potential GDP + ECB inflation objective (RPECB)		Nominal Growth 10-year Moving Average (10-MA)	
	2007	**2009**	**2007**	**2009**	**2007**	**2009**
	(1)	(2)	(3)	(4)	(5)	(6)
Euro Area (12)	**–0.6**	**–1.1**	**3.3**	**5.5**	**–2.8**	**–4.4**
Germany	–14.9	–24.3	–14.9	–24.3	–23.5	–38.0
France	4.5	6.8	4.5	6.9	2.9	4.8
Italy	10.1	14.5	11.8	17.8	6.3	7.9
Spain	13.3	24.6	21.7	39.8	16.2	29.7
Greece	26.2	40.2	34.9	55.5	14.8	22.9
Ireland	4.9	14.0	18.1	37.5	10.2	19.2
Portugal	11.9	17.1	18.8	27.9	4.3	3.5
Memorandum: EA(12)-DE	5.5	8.9	10.1	16.8	5.0	8.2

Panel B: *Ex Post* Analysis

	Nominal Potential GDP (NPG)		Real Potential GDP + ECB Inflation Objective (RPECB)		Nominal Average Growth 1999-2009 (AV 99-09)	
	2007	**2009**	**2007**	**2009**	**2007**	**2009**
	(7)	(8)	(9)	(10)	(11)	(12)
Euro Area (12)	**1.6**	**3.2**	**7.4**	**12.8**	**7.7**	**12.4**
Germany	–3.2	–7.0	–3.2	–7.0	–2.8	–5.5
France	4.7	7.1	5.8	9.5	8.6	13.9
Italy	12.1	19.1	18.5	29.6	18.2	27.8
Spain	2.1	9.7	18.7	37.4	13.2	24.9
Greece	21.0	35.5	32.0	53.4	24.7	38.8
Ireland	6.1	23.2	22.0	50.5	30.6	57.4
Portugal	12.4	19.5	24.7	38.6	23.8	33.7
Memorandum: EA(12)-DE	3.8	7.8	11.7	20.6	11.9	19.5

Notes: (i) Positive (negative) figures indicate that the debt ratio would have been lower (higher) with a neutral expenditure stance as the actual path was more expansionary (restrictive) than the corresponding rule. They are expressed as percentage points of GDP.

When looking at individual countries, the diversity of compound effects on public debt ratios is striking. In the case of Germany, it is comforting that the government did not apply the real time rules as the debt ratio would then have been 24-38 pp of GDP higher. This is because *ex post* revisions in potential growth were particularly large but also because initially deficits would have increased significantly further and, thus, contributed to rising debt. On the basis of *ex post* rules, the debt ratio would have been only modestly (6-7 pp) higher given the on average modestly restrictive stance. By contrast, for France and Italy, the debt ratio would have been significantly lower especially on the basis of *ex post* rules (up to 30 pp of GDP for Italy and up to 14 pp of GDP for France). The four macro-imbalances countries would have all reported much lower debt paths with figures up to over 50 pp of GDP lower for some countries and rules.

The impact of neutral expenditure policies on the debt path for the sample economies and across expenditure rules is shown in Figure 3. Consistent with the previous results, real time rules typically lead to higher debt paths than *ex post* rules. The French debt path would have overall been more benign and public debt would have been much closer to the 60 per cent of GDP reference value than was actually the case in 2009. If a neutral spending path had been followed Italian public debt would have been between roughly 80 per cent and 100 per cent of GDP in 2009 (except on the basis of the 10MA rule) rather than near 120 per cent of GDP.

For the macro-imbalances countries, the difference becomes even more drastic. Neutral spending policies in Portugal would have led to debt ratios of 40-60 per cent of GDP in 2009 (again except with 10MA) rather than over 80 per cent of GDP in reality. Spanish debt would have been at a trough of 10-40 per cent in 2007-08 and would have remained well below the reference value in 2009 under all rules. Ireland would have just about eliminated all its debt in good times and thus created significant room for the subsequent rise. Under all rules, debt would have remained below 60 per cent of GDP in 2009. Finally, Greek public debt would have fallen to 60-80 per cent of GDP (rather than remain broadly constant around 100 per cent of GDP until the start of the crisis) and increased much more slowly in the crisis.

All in all, public debt positions in the euro area would have been much sounder at the start of the crisis and in 2009, if euro area countries had pursued at least a neutral expenditure stance on average during EMU. Public debt could have been well around or below the reference value in the euro area in most of its members by 2009 and nowhere above 100 per cent of GDP.

5 Determinants of the expenditure stance

An empirical analysis of factors that influence countries' expenditure stance could provide further information on the reasons and remedies for expansionary expenditure policies. In a first, tentative effort, we apply standard fixed-effects panel estimation techniques on a sample of 12 euro area countries for the 2000-09 period. The measure of the expenditure stance, *i.e.*, the (marginal) deviations of actual spending growth from rule-based or neutral spending (under the NPG and the RPECB rule in *ex post* terms) is used as the dependent variable.

The aim of this empirical exercise is to explain the governments' expenditure stance on the basis of fiscal and macroeconomic factors, relevant institutional characteristics as well as political economy variables. The results of the analysis are presented in Table 3 both as regards our NPG and RPECB rule.[13]

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[13] Results are indicated for the euro area 12 but they are very similar if we limit the sample to just the seven countries. These can be obtained upon request.

Table 3

Determinants of Expenditure Stance
(dependent variable: deviation of primary spending growth from rule-based growth rate)

Panel A: *Ex post* Nominal Potential GDP (NPG) Rule

	(I)	**(II)**	**(III)**	**(IV)**	**(V)**	**(VI)**	**(VII)**
Output gap (based on Potential GDP)	0.525	0.476	0.401	0.463	0.274	0.374	0.476
	(3.78)***	*(3.01)***	*(2.50)***	*(3.04)***	*(1.65)*	*(2.22)**	*(3.00)***
Public debt ratio (t–1)	0.054	0.056	0.035	0.071	0.042	0.033	0.057
	(0.96)	*(1.04)*	*(0.62)*	*(1.20)*	*(0.83)*	*(0.67)*	*(1.03)*
Crisis dummy	3.946	3.649	4.028	3.138	2.241	2.34	3.341
	(2.17)*	*(1.74)*	*(1.64)*	*(1.75)*	*(1.08)*	*(1.13)*	*(1.22)*
Strenght of expenditure framework * Output Gap		–0.262					–0.262
		(2.09)*					*(2.08)**
Surprises in Revenues growth			0.09				
			(0.46)				
Strenght of expenditure framework * Surprises in revenues growth			–0.08				
			(0.86)				
Electoral cycle 1				2.204			
				(3.64)***			
Electoral cycle 2					–0.812		
					(3.66)***		
Government Stability						–2.699	
						(3.26)***	
EDP							0.308
							(0.16)
Constant	–2.941	–2.998	–1.47	–4.148	–0.006	–0.512	–3.079
	(0.72)	*(0.77)*	*(0.39)*	*(0.97)*	*(0.00)*	*(0.13)*	*(0.78)*
Observations	108	108	108	108	90	90	108
Number of countries	12	12	12	12	10	10	12
R-squared	0.1	0.11	0.11	0.14	0.13	0.11	0.11
corr u_i and Xb	–0.76	–0.76	–0.57	–0.79	–0.52	–0.47	–0.77
adjusted *R*-squared	0	0.01	–0.01	0.05	0.01	–0.02	0
R-squared overall model	0.02	0.02	0.05	0.03	0.07	0.06	0.02
R-squared within model	0.1	0.11	0.11	0.14	0.13	0.11	0.11
R-squared between model	0.56	0.53	0.58	0.57	0.49	0.38	0.53

Panel B: *Ex post* Real Potential GDP +ECB Price Stability Objective (RPECB) Rule

	(I)	**(II)**	**(III)**	**(IV)**	**(V)**	**(VI)**	**(VII)**
Output gap (based on Potential GDP)	0.469	0.429	0.299	0.419	0.277	0.377	0.429
	(3.92)***	(2.74)**	(2.39)**	(3.20)***	(1.94)*	(2.58)**	(2.72)**
Public debt ratio (*t*–1)	0.057	0.059	0.031	0.071	0.053	0.044	0.058
	(1.19)	(1.33)	(0.64)	(1.40)	(1.18)	(0.98)	(1.33)
Crisis dummy	2.882	2.634	3.267	2.223	1.685	1.793	2.654
	(1.56)	(1.26)	(1.26)	(1.22)	(0.74)	(0.78)	(0.90)
Strenght of expenditure framework * Output Gap		–0.219					–0.219
		(1.75)					(1.74)
Surprises in Revenues growth			0.172				
			(0.91)				
Strenght of expenditure framework * Surprises in revenues growth			–0.044				
			(0.59)				
Electoral cycle 1				1.798			
				(3.40)***			
Electoral cycle 2					–0.798		
					(4.17)***		
Government Stability						–2.544	
						(3.48)***	
EDP							–0.02
							(0.01)
Constant	–2.808	–2.855	–0.747	–3.792	–0.392	–0.879	–2.85
	(0.75)	(0.82)	(0.22)	(0.97)	(0.10)	(0.23)	(0.83)
Observations	108	108	108	108	90	90	108
Number of countries	12	12	12	12	10	10	12
R-squared	0.08	0.09	0.09	0.11	0.14	0.11	0.09
corr u_i and Xb	–0.82	–0.82	–0.55	–0.83	–0.61	–0.58	–0.82
adjusted *R*-squared	–0.02	–0.02	–0.02	0.01	0.01	–0.01	–0.03
R-squared overall model	0.01	0.01	0.04	0.01	0.07	0.06	0.01
R-squared within model	0.08	0.09	0.09	0.11	0.14	0.11	0.09
R-squared between model	0.61	0.61	0.58	0.62	0.4	0.37	0.61

Notes: Baseline (I), Baseline + Institutional framework (II and III), Baseline + electoral cycle and government stability, (IV–VI) and Baseline + European Institutions (VII).

Figure 3

Public Debt Ratios – Actual vs. Rule-based
(percent of GDP)

Euro Area (12) · Germany · France · Italy · Spain · Greece · Ireland · Portugal

··□·· NPG (Ex–Post)   ··◇·· RPECB(Ex–Post)   ··○·· AV 99–09(Ex–Post)   ··☆·· NPG (Real–time)   ··▽·· RPECB(Real–time)   ··△·· 10–MA (Real–time)   ▬▬ Actual
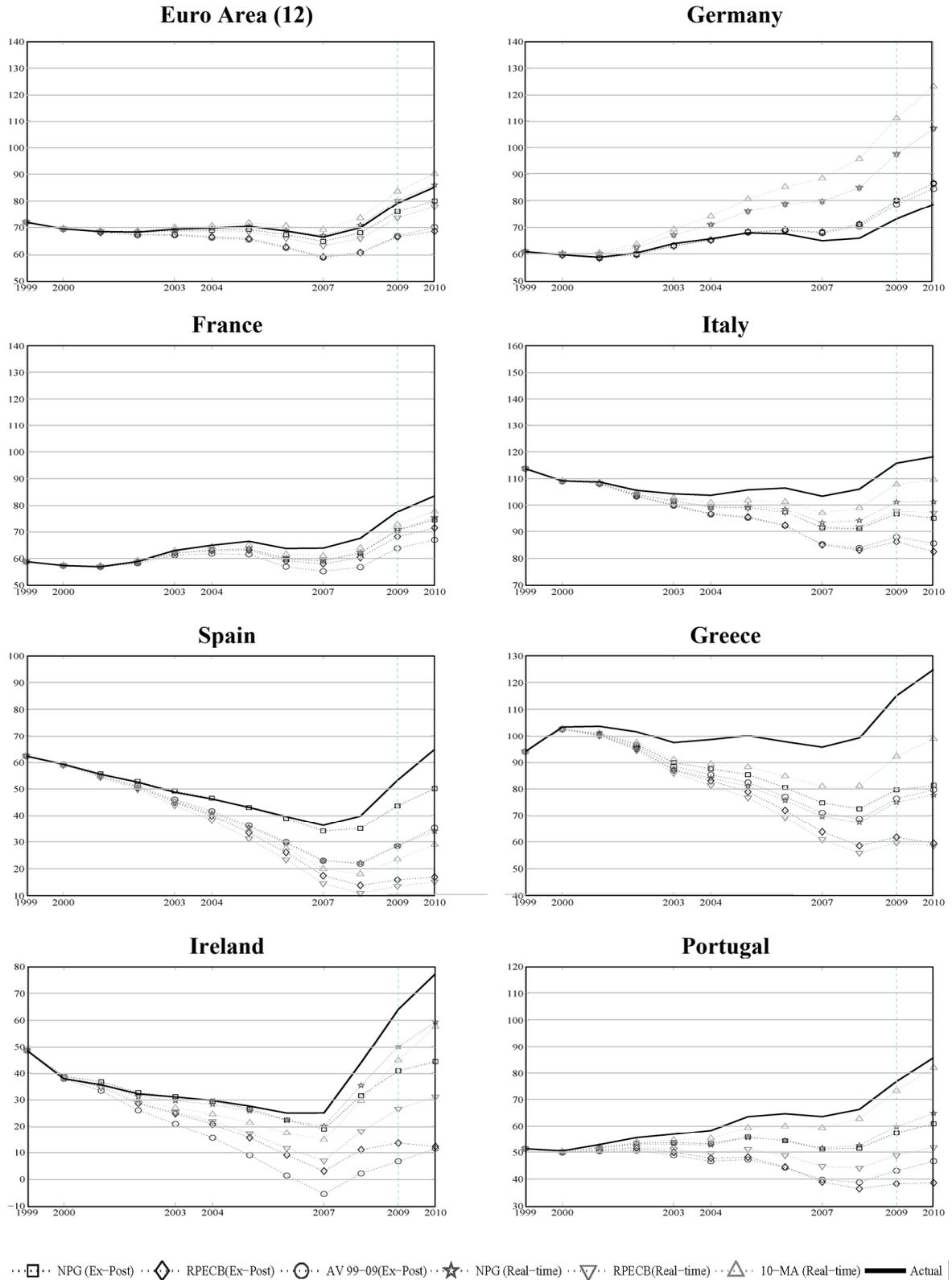
As one would expect, the *macroeconomic environment* measured by the output gap (in percent of potential GDP) constitutes an important determinant of the expenditure stance. We find robust support for a positive correlation between the output gap and the expenditure stance across rules and estimations, suggesting a pro-cyclical spending behaviour.

As regards *fiscal factors*, surprisingly the level of public indebtedness does not seem to significantly affect our measure of the expenditure stance. We also do not find robust evidence for an effect of revenue windfalls that arguably could increase spending profligacy. We capture such windfalls by including the excess revenue growth in a given year relative to previous year's Autumn forecast by the European Commission. However, while we see the expected positive sign the effect is not significant.

We find empirical support for the importance of *political economy factors*. In particular, parliamentary elections at the national level (electoral cycle 1) tend to significantly increase the deviation of actual from rule-based primary spending. The opposite holds true for a second election-related variable (electoral cycle 2) which captures the years left in the current election term. The negative sign on this variable suggests that the incentives for fiscal discipline can be expected to be higher at the beginning of the legislative period. We also control for government stability as measured by the respective index of the World Bank and find that the policy stance on the spending side is less expansionary if a government scores a higher value.

Most interestingly from a policy perspective, our results suggest that the country-specific *institutional framework* exerts a significant effect on the expenditure stance. In particular, we control for the extent to which national expenditure policy faces domestic institutional constraints using the expenditure rules index as developed by Debrun *et al.* (2008).[14] We interact this index with the output gap to analyse to what extent strong institutions reduce spending profligacy and find that, indeed, the strength of the national institutional framework on the expenditure side significantly reduces the pro-cyclicality of the expenditure stance. This finding is along the lines of Holm-Hadulla *et al.* (2010), Turrini (2008) and Wierts (2008). At the same time, the EDP dummy which is included to capture whether a country is facing an excessive deficit procedure (EDP) due to deficits above the 3 per cent of GDP reference value of the Stability and Growth Pact, does not turn up significantly in our regressions.

The results on the impact of fiscal institutions may be put into the perspective of the debate regarding the need to strengthen the European fiscal framework. One of the lessons from past fiscal developments in euro area countries is that the implementation of the Stability and Growth Pact has not been effective in delivering sound and sustainable fiscal positions in Member States. While one has to be careful when interpreting the non-significance of the effect of the EDP procedure dummy, the result is in line with this perception. Moreover, the empirical analysis suggests that national budgetary rules if well-designed can help to effectively reduce spending profligacy and therefore serve as important tools to promote sound and sustainable public finances in line with the European fiscal framework. This reinforces the need for enhancing national fiscal rules and frameworks as had been proposed by the European Commission in the autumn of 2010.

6   Towards an expenditure rule for future fiscal sanity

The findings of this study hold important lessons as regards the design of fiscal institutions and notably expenditure policy rules. The pursuit of expenditure policies based on real time rules in

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[14]   For a definition and a detailed description of the computation of this index see European Commission (2006) and Debrun *et al.* (2008). The index takes into account the share of public spending covered by the rule and qualitative features such as the type of enforcement mechanisms and media visibility.

all countries except Germany would have resulted in sounder public finances. However, these rules provided a too optimistic picture on the state of the economy and public finances as trend growth was typically revised down markedly *ex post*. This made the adverse impact of expansionary policies even more drastic, notably in the macro-imbalances countries. On the basis of these findings, expenditure rules and notably potential growth rules would have resulted in sounder policies than actual expenditure growth. But they would not have been sufficient to prevent policies to be judged expansionary *ex post*.

From this experience, one can derive two approaches that might be fruitful in the context of choosing effective expenditure rules:

The first one is simple: if we broadly expect the past to be the future and expect that potential growth continues to be revised down on average by almost ½ pp of GDP per year, countries would fare well with an adjusted nominal potential GDP rule where expenditure growth is also ½ pp less per annum than suggested by projected nominal potential growth (NPG – ½ pp).

A second approach would be to look at the experience in EMU by type of country and see whether any parallels can be drawn for the future. Our sample countries include four types: 1) Germany where post-unification excesses required economic restructuring and balance sheet adjustment which, in turn, contributed to low growth, 2) France which experienced potential growth revisions but which did not feature particular imbalances, 3) Italy which experienced the largest cumulative growth revisions and very low growth prospects, and 4) the economies of Spain, Ireland, Portugal and Greece where expansionary spending policies coincided with the accumulation of large imbalances.

Looking forward, the following normative lessons may be drawn from this perspective. First, the performance of macro-imbalances countries in the future may resemble Germany in the past. Hence, the application of an NPG rule minus a large margin of prudence would seem to be a reasonable approach. Moreover, within this group, there are still "catching up economies", notably Portugal but perhaps also Spain and Greece to some extent. These may experience a renewed boom and "above-average" inflation. A simple NPG-1/2 pp rule could then be inappropriately pro-cyclical. For these countries, a rule based on real potential growth plus the ECB price stability objective minus a margin of prudence might be appropriate (RPECB-1/2 pp).

It is more difficult to judge which group Italy, France and Germany will belong to. Perhaps the arguments provided above suggest that all three countries will continue to experience low growth with a continuing though hopefully slower trend to even less growth. An NPG rule minus a margin of prudence (e.g., NPG-1/2 pp) would then perhaps be reasonable.

To see what a prudent expenditure rule would have implied in the first 11 years of EMU we conduct a final simulation exercise. We derive counterfactual expenditure and debt trends on the basis of expenditure following the rule of nominal potential GDP growth adjusted for a ½ pp margin of prudence (NPG- ½ pp rule) and the adjusted rule that caps the deflator at the ECB price stability objective (RPECB- ½ pp rule). Table 4 reports the results for primary expenditure and public debt ratios (columns 4-5 and 6-7 respectively). It compares these to actual developments (columns 1-3) and developments that would have resulted from a nominal potential GDP rule based on *ex post* data (NPG *ex post*; columns 8-9).

Table 4

Expenditure and Debt Ratios – Actual vs. Normative *Ex ante* Rule
(percent of GDP)

Panel A: Primary Expenditure Ratios

Country	Actual			NPG (Real-time) – 1/2 pp of Expenditure Growth		RPECB (Real-time) – ½ pp of Expenditure Growth		Ad Memoriam: NPG (*ex post*)	
	1999	**2007**	**2009**	**2007**	**2009**	**2007**	**2009**	**2007**	**2009**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Euro Area (12)	**44.1**	**43.1**	**47.9**	**42.3**	**45.9**	**41.3**	**44.6**	**43.0**	**46.1**
Germany	44.9	40.9	44.9	43.5	46.7	43.5	46.6	43.0	45.8
France	49.6	49.6	53.3	47.4	50.1	47.4	50.0	48.8	51.5
Italy	41.5	42.9	47.3	40.1	43.5	39.5	42.7	40.4	43.6
Spain	36.4	37.6	44.1	33.0	36.8	30.6	33.9	35.9	38.9
Greece	37.0	40.6	45.4	34.2	37.3	31.8	33.9	35.6	37.4
Ireland	31.7	35.5	46.3	32.0	40.6	29.2	37.1	31.6	36.8
Portugal	40.2	42.9	48.1	40.0	43.2	38.7	41.4	40.9	43.2
Memorandum: EA(12) - DE	43.7	44.0	49.1	41.6	45.3	40.4	43.8	42.9	46.0

Panel B: Public Debt Ratios

Country	Actual			NPG (real-time) – 1/2 pp of Expenditure growth		RPECB (real-time) – ½ pp of Expenditure growth		NPG (*ex post*)	
	1999	**2007**	**2009**	**2007**	**2009**	**2007**	**2009**	**2007**	**2009**
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Euro Area (12)	**71.9**	**66.4**	**79.2**	**61.7**	**71.5**	**57.9**	**64.9**	**64.8**	**76.0**
Germany	60.9	65.0	73.2	74.2	88.1	74.2	88.1	68.2	80.2
France	58.8	63.8	77.6	53.6	61.4	53.6	61.4	59.1	70.5
Italy	113.7	103.5	115.8	88.5	92.9	86.8	89.6	91.4	96.7
Spain	62.3	36.2	53.2	18.8	21.5	10.4	6.4	34.0	43.6
Greece	94.0	95.7	115.1	65.3	67.8	56.7	52.7	74.8	79.7
Ireland	48.5	25.0	64.0	16.3	42.6	3.2	19.3	18.9	40.8
Portugal	51.4	63.6	76.8	46.6	51.2	39.7	40.4	51.2	57.4
Memorandum: EA(12) - DE	77.0	66.9	81.4	56.4	63.9	51.8	56.1	63.1	73.6

Notes: (i) NPG = Nominal Potential GDP, RPECB = Real Potential GDP + ECB price stability objective.

On the basis of this rule, public expenditure ratios for the euro area and most countries would have been much lower than actually experienced (2-3 pp of GDP for the euro area and up to 10 pp of GDP for certain countries). It would have also been more prudent than the NPG *ex post* rule. The public debt ratio for the euro area would have been 8-15 pp of GDP lower by 2009 than the actual ratio to stand at 65-71 per cent of GDP and it would also have been significantly below the NPG *ex post* rule.

However, again these findings are strongly influenced by Germany. If all countries apart from Germany had followed the two rules including a margin of prudence, primary expenditure would have been 4-5 pp of GDP lower and public debt about 17-25 pp of GDP lower in 2009. Much lower expenditure ratios (and thus also deficits) would have led to Greek debt of around 60 per cent of GDP, and Portuguese, Spanish and Irish debt in the 6-51 per cent of GDP range by 2009. This would have hardly precipitated the debt crisis that was experienced in 2010.

The counterfactual expenditure and debt paths for the macro-imbalances countries and notably for Spain and Ireland also warrant further discussion. The much lower spending ratios would have also implied much better fiscal balances and even high surpluses. In Spain and Ireland public debt would have almost disappeared. While this might have been difficult to sustain from a political economy perspective it is not unreasonable from an economic one. In fact, high surpluses were the experience of Finland and Luxembourg during the boom so that these countries also report very low gross debt and positive net asset positions. And it is these two countries that "survived" the financial crisis the best from a fiscal perspective up to the writing of this study.

7   Conclusion

The study demonstrates the key role of expenditure policies in explaining fiscal developments during EMU in the euro area, its three largest members and four "macro-imbalances" countries. It compares actual primary expenditure trends with those that would have prevailed if countries had followed neutral policies based on expenditure rules since the start of EMU. It also calculates the implications for debt trends. It finds that, all sample countries except Germany applied expansionary expenditure policies already before the crisis. This resulted in much higher expenditure and debt paths compared to a counterfactual neutral expenditure stance. Rules-based spending policies could have led to much safer fiscal positions much more in line with the EU's Stability and Growth Pact (SGP).

This and the empirical evidence on the determinants of euro area countries' expenditure stance provide a number of policy implications. First, strong national budgetary institutions seem to limit expansionary spending biases. Second, the European institutional framework needs to feature prominently expenditure monitoring and control. A strong implementation should ensure that high public debt and the existence of an excessive deficit procedure in the context of the SGP exert a significant constraining effect on public expenditure so as to re-attain sound public finances.

Third, the paper argues that a potential growth rule with an extra ½ percentage point deduction from the resulting annual expenditure growth targets would be a sufficiently prudent and, thus, advisable expenditure rule for euro area countries. As economic (e.g., population aging) and political economy reasons suggest that overestimating potential growth could also occur in the future, such a rule could provide a reasonably prudent benchmark for a neutral expenditure stance looking forward.

It needs to be kept in mind that there may be two reasons for further deductions from expenditure growth plans: First, capping the deflator (that guides nominal spending growth) at the ECB price stability objective may be warranted for "high inflation" countries so as to prevent

overheating and competitiveness loss. Second an extra margin would have to be deducted to accommodate any consolidation needs on the expenditure side.[15] Given the challenging fiscal environment in the euro area and beyond, such a margin will be warranted for many years to come.

How does the debate on the overhaul of European economic policy governance fare against these conclusions? At the time of completing this study (March 2011), EU member states were nearing an agreement on six legislative proposals which had been tabled by the Commission and which aimed at strengthening budgetary institutions and fiscal and macroeconomic surveillance both at the EU and the national level.

As regards the need for tighter expenditure controls, the legislative package contains two relevant elements. First, the revised regulation on the preventive arm of the SGP plans to assess progress towards medium-term budgetary objectives against a rule that limits spending growth to a *prudent medium-term growth rate of GDP*. The analysis presented above supports the view that such an expenditure rule could lead to more sustainable fiscal developments in the future if "prudent growth" assumptions were really sufficiently prudent. As real time nominal potential growth projections would not have been prudent enough for the past decade, we have argued for a further margin of prudence to be subtracted from expenditure growth.

Second, national budgetary procedures need to be brought in line with the objectives of the European fiscal framework to ensure ownership and compliance at the Member State level. In this context, the planned directive proposes requirements for national budgetary frameworks. Although these fall short of an explicit call for expenditure rules, they contain important elements of strengthening as they demand, amongst others, effective medium-term budgetary frameworks and numerical fiscal rules. A stringent implementation and enforcement of the revised rules could well ensure the necessary break with past expenditure trends and thus also secure sustainable deficits and debt dynamics. However, it remains to be seen whether the main obstacle of the "old framework" – lack of incentives and enforcement – is really sufficiently remedied.[16]

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[15] Moreover, the planned expenditure stance needs to be consistent with underlying policy measures. Note that both adjustments to the expenditure rule, *i.e.*, the ½ pp safety margin and the cap at the ECB price stability objective, imply an in-built "consolidation bias" if either the annual revision to potential GDP growth remains below ½ pp or if the annual growth of the GDP deflator exceeds 2 per cent.

[16] Scepticism is warranted. See, for example, the Opinion of the European Central Bank on economic governance reform in the European Union from 16 February 2011 (downloadable from http://www.ecb.europa.eu/ecb/legal/pdf/en_con_2011_13.pdf).

ANNEX

Table 5

Computation of Neutral Expenditure Paths and the Corresponding Debt Level

Concept	Formula
Expenditure path	$\overline{G}_{1999} = G_{1999}, \overline{G}_t = \overline{G}_{t-1} * (1 + gr_t), t = 2000, 2010$ (cumulative effects) $\overline{G}_{1999} = G_{1999}, \overline{G}_t = G_{t-1} * (1 + gr_t), t = 2000, 2010$ (marginal effects) where: $\overline{G}$, $\mathbf{G}$, and $\mathbf{gr_t}$ are the rule based expenditure level, the actual expenditure level and the growth rule applied according to each of our rules, respectively.
Debt developments (*)	$\overline{D}_t = D_t + \sum_{s=1999}^{t} \Delta G_s + \sum_{s=1999}^{t} \overline{I}_s, t = 1999, 2010$ where: $\overline{D}$, $\mathbf{D}$, $\mathbf{\Delta G_s}$ and $\overline{I}_s$, are the rule based public debt level, the actual debt level, the deviation of public expenditures from rule-based expenditures (*) and the Interest flow generated from the deviations of our rules from the actual levels at each period.

(*) Note that, for the sake of clarity of presentation, we assume in this formula implicitly that GDP elasticity of the tax is equal to 1. Alternative scenarios with values of 0.8, 0.9, 1.1 and 1.2 were considered. Main conclusions remain.

Table 6

Assumptions and Definitions of Multiplier and Interest Rates Effects

Concept	Definition	Scenarios	Assumptions
GDP Multiplier	$\overline{Y}_t = Y_t * \left(1 + \Delta\%G_t * g\right)$ where: $\Delta\%G_t$ and g are the deviation of public expenditures to our rule-based expenditures (in percentage points of GDP) and the estimated effect on GDP after one period.	Weighted average	$g = \sum_j \omega_j g_j$ where: w_j and g_j are correspondingly the weight and the estimated effect of the expenditure components
		Uniform	$g = \dfrac{\sum_j g_j}{J}$ where: g_j is the estimated effect of the expenditure components (Coanen *et al.*, 2010)
		Constant	$g \in \{0:0.1:1\}$
Compound Interest Rate	$\overline{I}_s = \Delta G_s * r_t^N$ where: ΔG_s, r and N are the initial amount (the deviation of public expenditures to our rule-based expenditures at period s), the annual nominal interest rate, and the number of years, respectively.	Implicit interest rate	$r_t = I_t / GCD_t$ where: I_t and GCD_t represent the current interest payments and the Gross Consolidated Debt at period t respectively
		Average interest rate	$r_t = \dfrac{\sum_i r_t^i}{I}$ where: r_t^i (i=1, …, I) is the different maturities each country has ever used
		Uniform	$r_t = r_t^i$ where: r_t^i represent one uniform maturity for all the countries (10 years)
		Fixed-term (short, medium and long term)	$r_t = \dfrac{\sum_i r_t^i}{I}$ where: r_t^i (i=1, …, I) is the maturities at short term (2-5 years), medium term (6-9 years) and long term (10-15 years) respectively.

REFERENCES

Brück, T. and R. Zwiener (2006), "Fiscal Policy Rules for Stabilisation and Growth: A Simulation Analysis of Deficit and Expenditure Targets in a Monetary Union", *Journal of Policy Modeling*, No. 28, pp. 357-69.

Cimadomo, J. (2008), "Fiscal Policy in Real Time", European Central Bank, Working Paper, No. 919.

Coenen, G, C. Erceg, C. Freedman, D. Furceri, M. Kumhof, R. Lalonde, D. Laxton, J. Lindé, A. Mourougane, D. Muir, S. Mursula, C. de Resende, J. Roberts, W. Roeger, S. Snudden, M. Trabandt and J. in't Veld (2010), "Effects of Fiscal Stimulus in Structural Models", International Monetary Fund, Working Paper, No. 10/73.

Debrun, X., L. Moulin, A. Turrini, J. Ayuso-i-Casals and M. Kumar (2008), "Tied to the Mast? National Fiscal Rules in the European Union", *Economic Policy*, Vol. 23, No. 54, pp. 297-362.

European Commission (2006), Public Finances in EMU – 2006, *European Economy*, No. 3, Brussels.

Holm-Hadulla, F., S. Hauptmeier and P. Rother (2010), "The Impact of Numerical Expenditure Rules on Budgetary Discipline over the Cycle", European Central Bank, Working Paper, No. 1169.

Menguy, S. (2008), "A Dynamic Rule Applied to the Threshold Imposed on the European Budgetary Deficits", *Journal of Policy Modeling*, No. 30, pp. 1093-105.

Morris, R. and L. Schuknecht (2007), "Structural Balances and Revenue Windfalls – The Role of Asset Prices Revisited", European Central Bank, Working Paper, No. 737.

Schuknecht, L. (2009), *Booms, Busts and Fiscal Policy. Public Finances in the Future?*, London, Politeia.

—————(2011), "Fiscal Activism in Booms, Busts and Beyond", forthcoming in Banca d'Italia, 2011.

Turrini, A. (2008), "Fiscal Policy and the Cycle in the Euro Area: The Role of Government Revenue and Expenditure", *European Economy*, Economic Papers, No. 323, European Commission.

Wierts, P. (2008), "How Do Expenditure Rules Affect Fiscal Behaviour?", DNB, Working Paper, No. 166.

Van Riet, A. (ed.) (2010), "Euro Area Fiscal Policies and the Crisis", Occasional Paper, No. 109, European Central Bank.

ACHILLES CATCHES UP WITH THE TORTOISE:
AN EXPENDITURE RULE TO BRIDGE THE GAP
BETWEEN FISCAL OUTTURNS AND TARGETS

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> *Achilles runs ten times faster than the tortoise and gives him a start of ten meters. Achilles runs those ten meters, the tortoise runs one; Achilles runs that meter, the tortoise runs a decimeter; Achilles runs that decimeter, the tortoise runs a centimeter [...] and so on ad infinitum, with Achilles never overtaking the tortoise.*
>
> (J.L. Borges, *Other Inquisitions: 1937-1952,*
> *NY Washington Square Press*, 1966)

The implementation of annual and medium-term fiscal plans in Italy over the period 1998-2008 has been less than satisfactory: slippages in the first year were seldom made up for in subsequent years, and targets were seldom attained. Failures were mostly due to higher-than-planned expenditure. Given the already heavy tax burden, future fiscal consolidation will have to rely on expenditure restraint. We argue that the introduction of multi-year expenditure ceilings, in line with best practices in other European countries and with recent proposals to reform European fiscal governance, could improve Italy's fiscal performance.

1   Introduction

Since 1998 Italy's fiscal policy objective has been a budget position close to balance, as called for by the Stability and Growth Pact. Unlike Zeno's tortoise, this target is not moving. Even so, like Achilles with the tortoise, Italy seems unable to catch up with it.

In the last few years, with the global financial crisis and recession, the distance between Italy's fiscal outcomes and its medium-term target has increased. As in many other countries, the crisis has left a legacy of a larger general government deficit and an increasing debt.[1] Unlike other countries, Italy took only limited measures to support the banking system, thanks to its comparative solidity. Together with prudent fiscal policy, this moderated the rise in the debt, but even so its GDP ratio has returned to the peak levels reached during the 1990s, with potentially negative implications for potential economic growth.

Looking forward, the impact of population ageing on the public finances will complicate fiscal consolidation and debt reduction. Thanks to the pension reforms already enacted, Italy is not among the countries whose public finances will suffer the most from population ageing. But there still remain problems. Health-care spending, for instance, does not depend on demographics alone but on other drivers as well (technology, demand elasticity), which are largely overlooked in the official projections. To date, assistance to dependent elderly people has been provided informally

within families, but greater women's labour market participation may bring a significant increase in the demand for public provision or financing and so produce greater-than-estimated spending.

In this context, deficit and debt reduction must rank at the top of Italy's fiscal policy "to do" list. Tax and social security revenue is already very high in proportion to GDP by international standards (in 2009 it was 4 percentage points higher than in the other EU countries) and as compared to past experience. Accordingly, primary spending will have to be significantly reduced in relation to GDP. And as public investment is already close to the lowest level in decades, the cuts will have to bear on current outlays. Strong gains in efficiency will be needed to guarantee the provision of essential public services.

In the decade before the crisis, real general government primary current expenditure rose by about 2 per cent per year, against a real GDP growth rate of 1.5 per cent. The government aims at inverting this trend. The latest official planning document, for 2011-13, posits a reduction of the deficit to 2.2 per cent of GDP, to be achieved primarily via a 2.7-point cut in primary current spending (to 40.8 per cent, from an estimated 43.5 per cent in 2010). This implies a contraction of almost half a percentage point per year in real terms.

If Italy is to attain the medium-term objective of a near-balanced budget, as it reaffirmed in the 2010 update of the Stability Programme, expenditure restraint must continue beyond 2013. Assuming continuing real economic growth of 2 per cent per year as indicated by the government for 2012-13, and stable GDP ratios of capital spending and the fiscal burden, the current primary expenditure ratio would have to be cut by nearly 2 percentage points in 2014-16 to achieve a balanced budget in 2016. The real growth rate of current primary spending would be 0.4 per cent per year (Banca d'Italia, 2010). Overall, current primary spending would remain constant in real terms over the period 2011-16. Bringing the year of budget balance forward would require a negative average annual growth rate; postponing it would permit a positive rate.

On the basis of Italy's poor track record in implementing fiscal plans (Section 2), the reform of European economic governance can provide the opportunity to reform the fiscal rules, procedures and institutions for effective spending control and significant gains in spending efficiency (Section 3). To this end, international best practices are considered (Section 4) and recent changes to Italy's fiscal framework are discussed (Section 5) with a view to designing reforms that can enable Achilles to finally catch up with the tortoise (Section 6).

The paper concludes that the reform of Italy's fiscal rules, procedures and institutions should focus on the main challenge to the public finances, namely to keep public spending under control while making more efficient use of public resources. The establishment of multiyear limits to expenditure growth may prove to be an effective solution.

2   Italy: lessons from past fiscal performance

Italy's implementation of the medium-term plans set out in the Economic and Financial Planning Documents (EFPD) drafted from 1997 to 2005 was quite unsatisfactory.[2] The primary surplus targets set three years ahead became progressively less ambitious. At first they were consistent with Italy's March 1998 undertaking at the ECOFIN Council to rapidly lower the debt ratio toward 60 per cent of GDP, as called for by European agreements, by maintaining a primary

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[2]   This analysis is based on Balassone *et al.* (2011). The plans considered are those post-EMU (insofar as the 1997 plan, *de facto*, assumed Italy's qualification); those presented after 2005 are excluded because of the large impact of the global crisis on their execution.

Figure 1

**General Government Primary Surplus:
EFPD Targets (1997-2005) and Outturns**
(percent of GDP)
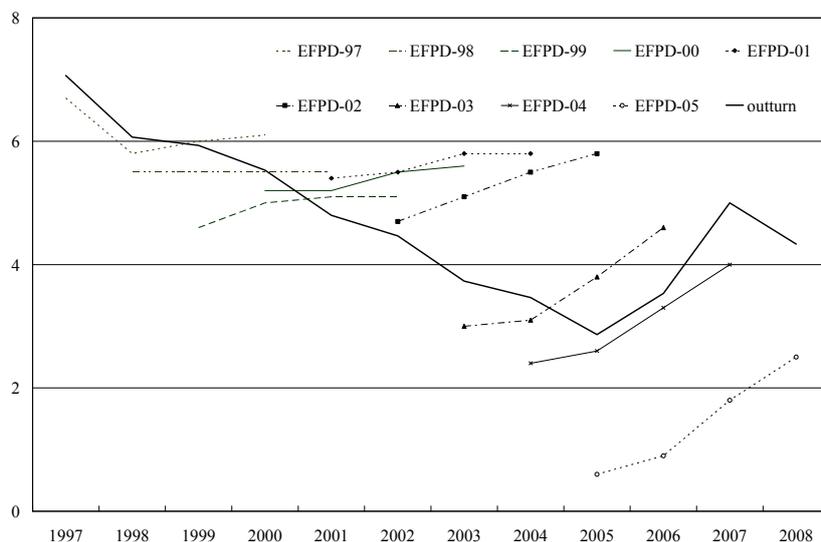
surplus of at least 5 per cent of GDP.[3] Later Planning Documents lowered the three-year-ahead target, down to the 2.5 per cent planned for 2008 in the 2005 EFPD.

Even so, fiscal outturns over 2000-07 fell short of targets by a significant margin (3.1 percentage points of GDP, on average; Figure 1). Only the target set in the 2005 EFPD for 2008 – the least ambitious – was met, thanks chiefly to better-than-expected economic growth. Plans always started with an optimistic view of concurrent fiscal developments. On average, the projected primary surplus for the year in which the plan was drafted was higher than the outturn by almost 1 per cent of GDP.

In other words, a significant portion of the slippage with respect to the medium-term targets came right in the first year, but in general the subsequent EFPDs did not provide for corrective action: the curves in Figure 1 do shift down and to the right over time, but they do not steepen; the fiscal effort planned in year *t* for year *t+1* (the planned improvement in the balance) basically shows no correlation with the gap between the balance in *t* (as assessed that year) and the target set the previous year. The primary surplus shrinks from 6.6 per cent of GDP in 1997 to 0.3 per cent in 2005.

Between 1998 and 2008, the change in the primary balance attained in the first year of each EFPD plan fell short of target by 0.6 percent of GDP, on average: the ratio of expenditure to GDP was 0.8 points and the revenue/GDP ratio 0.2 points more than planned.[4]

Errors in forecasting nominal GDP had only a small impact on the gap. In the period 1998-2008 nominal growth averaged 0.4 percentage points less than projected. Assuming as a rough approximation that in the short run primary expenditure is independent of price and real macroeconomic developments (*i.e.*, its elasticity to GDP is zero), then if GDP had grown as forecast, the expenditure overrun would have amounted to 0.6 points.

Slippages in 1998-2008 depended mainly on nominal primary expenditure. Except for 2002 and 2008, the actual increase in primary spending each year was always greater than had been planned the year before. Over the whole period, the average nominal growth in primary

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[3]   "L'Italia nella moneta unica con sei impegni", *Corriere della Sera*, 22 March 1998. Since interest payments were nearly 5 per cent of GDP, this was broadly consistent with the Stability and Growth Pact objective of budgetary balance or surplus in the medium term.

[4]   This calculation is based on data from the annual Planning and Forecasting Report – the last planning document released each year – since the EFPDs often did not specify targets for revenues and expenditure.

Figure 2

Primary Expenditure Growth Rates: Forecasts and Outturns
(percentages)
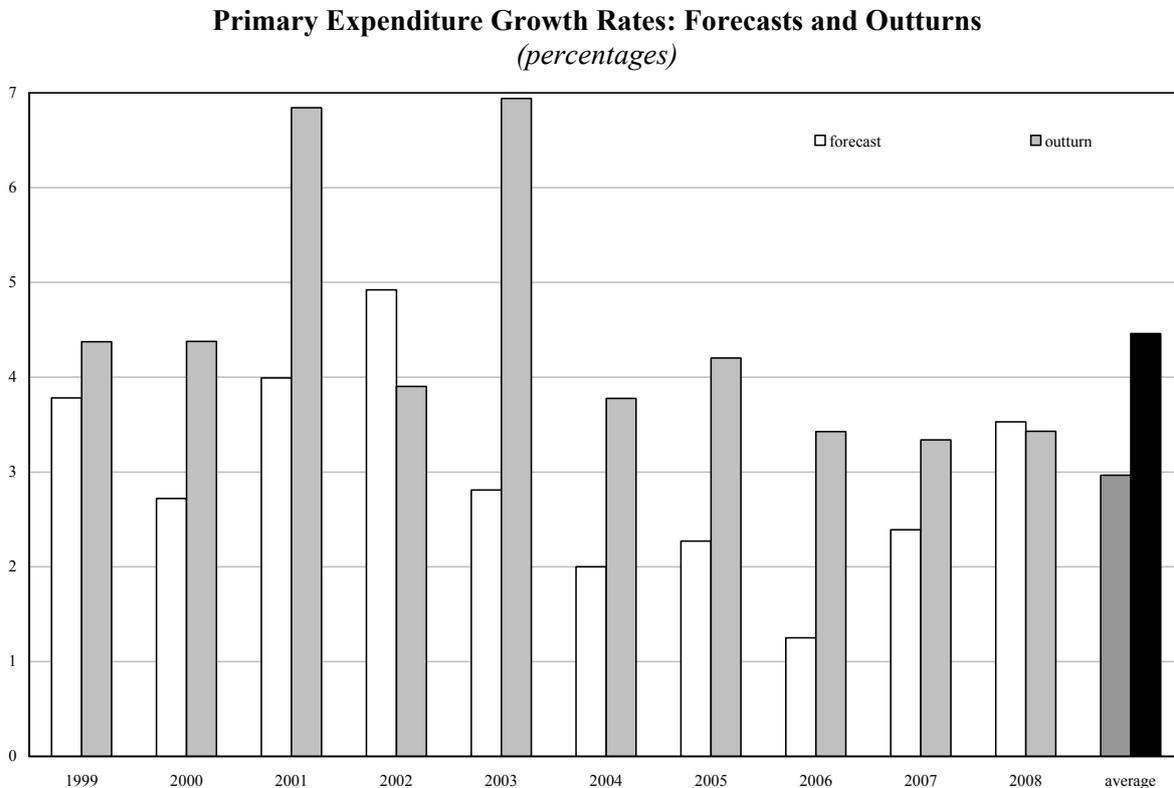
expenditure was 4.5 per cent, just above nominal GDP growth (4.4 per cent), against a target of 3 per cent (Figure 2).

Analysis by expenditure item or level of government is impossible, owing both to changes in the economic classification of expenditure over time and to lack of information in the planning documents.

However, the fastest-rising expenditure component is local government spending: from 1998 to 2008 central government primary current expenditure grew by 5.1 per cent per year (3.3 per cent net of transfers to other public bodies, which increased by 7.2 per cent per year), local government expenditure grew by 7.5 per cent per year, social security institution outlays by 5.4 per cent.

Inertia in public spending also explains the large impact of lower-than-forecast GDP growth, which accounted for about two thirds of the total shortfall *vis-à-vis* the three-year-ahead primary balance targets. Generally speaking, the Documents projected a significant acceleration in economic activity over the planning horizon, with GDP growth in the third year about twice as high as in the first year. In reality, however, growth was often constant over the forecasting horizon (independent forecasters were only marginally less inaccurate; see Balassone *et al.*, 2011).

The data prompt a number of observations.

(a) There may be several factors behind the overoptimistic forecasts of fiscal developments: the general difficulty for both official and independent forecasters in assessing the persistency of low GDP growth after the early 1990s; a possible bias in the official forecasts; and the poor quality of the data on fiscal developments available during the year.

(b) Given the composition of the gap, the focus should be on expenditure control.

(c) The failure to respond to the systematic undershooting of fiscal targets underscores the need for a mechanism for the correction (at least partial) of budget overruns in subsequent years.

(d) The rapid growth of local government outlays calls for better coordination between different levels of government, especially as further decentralization is planned.

Concerning the quality of current fiscal data (point (a)), Law 196/2009 has initiated a programme to harmonize accounting standards at all levels of government and to introduce an integrated financial reporting system for the whole of general government. There is some uncertainty concerning the time frame for the implementation of these provisions, but they should significantly improve the quality and timeliness of the fiscal information available during the current year. Like other countries, Italy might well consider involving independent institutions in macro-fiscal forecasting to reduce the risk of an optimistic bias in the official projections underpinning medium-term plans (Debrun *et al.*, 2007).[5]

Far-reaching reforms of the public financial management system are also needed to deal with points (b) to (d). Again, the experience of other countries can be useful. Concerning point (b), some countries have enacted expenditure rules setting multi-year ceilings for total spending and its main components. The Swedish framework, which includes multi-year ceilings on transfers from central to local governments, is especially important with respect to the issue of coordination between levels of government (point (d)). Concerning point (c), some countries, such as Germany and Switzerland, have introduced automatic mechanisms to offset budget overruns over subsequent years.[6] In the rest of the paper we shall focus mostly on the role of expenditure rules.

3   The reform of European governance

Following the global economic and financial crisis, a clear, broad consensus has emerged on the need to increase and improve economic policy coordination within the EU and to rectify the shortcomings of the present European framework. On 29 September 2010 the Commission presented a proposal for reform of – *inter alia* – the European fiscal framework and – as a complement – national fiscal rules, procedures and institutions.

The role of national fiscal frameworks was already highlighted by the European Council in 2005 when the first reform of the Stability and Growth Pact went into force, but no action followed the statement of general principles.[7] However, the recent Commission proposal does include a Directive setting minimum requirements for national fiscal frameworks in reference to public accounting and statistics, macroeconomic and fiscal forecasting, numerical fiscal rules and medium-term orientation of fiscal planning.

Within the preventive part of the Pact, the European Commission proposes to include expenditure dynamics among the variables for assessing the appropriateness of the path of fiscal adjustment towards the medium-term budget objective. More specifically, the annual growth rate of expenditure is to be considered adequate if it is lower than or equal to a prudent estimate of GDP growth (respectively for countries that have not or have already achieved their medium-term target)

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[5]   The EU Commission also refers to independent institutions as an instrument to enhance transparency in fiscal reporting and budgetary policy.

[6]   See Franco and Zotteri (2010).

[7]   "[… N]ational budgetary rules should be complementary to the Member States' commitments under the SGP" and "domestic governance arrangements should complement the EU framework for fiscal surveillance. National institutions could play a more prominent role in budgetary surveillance to strengthen national ownership, enhance enforcement through national public opinion and complement the economic and policy analysis at EU level" (Council of the European Union, 2005; p. 21).

or if any spending above this prudent estimate is financed via discretionary revenue measures. The prudent estimate of GDP growth should be based on regularly updated projections over a ten-year horizon.

The final report of the Van Rompuy Task Force, released on 28 October 2010, approved the Commission's general approach with reference to the role and characteristics of national fiscal frameworks and suggested supplementing the minimum requirements with further desirable (but not strictly compulsory) features, including top-down budgeting and the introduction of "public bodies (e.g., fiscal councils) tasked with providing independent analysis, assessments and forecasts related to domestic fiscal policy matters" (Van Rompuy Task Force, 2010, p. 13).

The setting of minimum requirements at the European level is intended to guarantee an adequate reference standard and coherence between the European fiscal framework and each national fiscal framework, while allowing for national preferences and characteristics. According to the Commission, national reforms for compliance with the proposed Directive should come into force by the end of 2013. National numerical fiscal rules should be conducive to compliance with the European rules. Mechanisms for effective and timely monitoring should be put in place.

In the light of the developments illustrated in the previous section, two elements of the Commission proposals stand out as crucial for Italy: the key role of expenditure dynamics in the preventive part of the Stability and Growth Pact and the importance of medium-term planning in the national framework.

The provision for an explicit role for expenditure dynamics within the European fiscal framework greatly strengthens the argument for introducing an expenditure rule in Italy, where fiscal slippage depends mainly on the expenditure side (point (b) in Section 2). It is yet not clear which expenditure items will be used, but a broad aggregate for all of general government will presumably be adopted.

Concerning the medium-term orientation of fiscal policy, the Commission suggests a national reference planning period of at least three years. Plans should include both (i) "comprehensive and transparent multi-annual budgetary objectives in terms of the general government deficit, debt, and any other summary fiscal indicator, ensuring that these are consistent with any fiscal rules" introduced at national level and (ii) "detailed projections of each major expenditure and revenue item, by general government sub-sector, for the budget year and beyond, based on unchanged policies" (European Commission, 2010, p. 13). The latter aspect should help enhance coordination between different government tiers (point (c) in Section 2).

Even if this is not included in the Commission proposal, it could be useful for Italy – given the unresolved problems mentioned in Section 2 – to introduce an automatic mechanism for the compensation in subsequent years of slippages in the early stages of the implementation of medium-term plans (point (d) in Section 2).

4   **The control of public spending in other European countries**

Achilles does not run at the same speed in all EU countries. When assessing stability programmes the Commission uses charts similar to that in Figure 1.[8] Among the eleven countries that adopted the euro from the outset, France, Portugal and to a lesser extent Belgium and Germany run into difficulties comparable to those of Italy in implementing medium-term fiscal plans. However, the other members have better records and sometimes even outperform their plans.

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[8]   Available at: http://ec.europa.eu/economy_finance/sgp/convergence/programmes/

The ability to attain national medium-term targets appears to be correlated with the strictness of the fiscal rules, as measured by the Commission's index:[9] from 1998 to 2008 the lowest values of the index are recorded by Ireland, Italy and Portugal; intermediate scores by Austria, Belgium, France and Germany; the highest scores by Finland, the Netherlands and Spain (the first two countries are those that rely most heavily on expenditure rules).

The introduction of expenditure rules is relatively recent.[10] The rationale for them is manifold:[11] (i) government has more direct control over expenditure than over revenues or the fiscal balance; (ii) expenditure rules are easier to explain to the general public and to assess, thus enhancing transparency and accountability; (iii) they leave automatic stabilizers on the revenue side free to operate, which is consistent with tax smoothing and cyclically-adjusted budget targets; (iv) they can restrain the tendency to increase spending during upturns, making them a good companion to the Stability and Growth Pact, which lacks adequate incentives for fiscal discipline in good times, when spending is the main source of pro-cyclicality (Balassone *et al.*, 2010); (v) they can be instrumental in forcing a reduction in the tax burden; (vi) they provide a solid link between the annual budget process and medium-term fiscal strategy.

Some recent studies find evidence of a positive effect of expenditure rules on fiscal discipline.[12] Holm-Hadulla *et al.* (2010) show that fiscal outturns tend to be closer to the Stability Programme targets in the countries that have expenditure rules in place. Turrini (2008) and Wierts (2008) find that expenditure is less procyclical in the EU members that have expenditure rules.

With an expenditure rule, the government announces the maximum level of spending deemed consistent with fiscal sustainability over a medium-term horizon and commits not to exceed it. As a consequence, expenditure rules must be geared to the attainment of a medium-term budget target. Otherwise tax cuts could easily substitute for the extra spending disallowed by the rule, with no net benefit to the government accounts. Concerning the annual budget, under a top-down approach the expenditure ceilings set by the rule enter into budget preparation at an early stage and are the reference first for programme appropriations and then for line items.

When designing an expenditure rule, four issues are especially important.

(a) The rule's effectiveness in promoting fiscal sustainability depends on scope, *i.e.*, the share of public spending that is subject to it. There are reasons to exempt some items: for instance, it can be argued that automatic stabilizers on the spending side (mostly, unemployment benefits) should be left free to work just as much as those on the revenue side; and it may be necessary to exempt those outlays that cannot be controlled over the short term (e.g., interest payments) or that are planned over a longer horizon than the rule (e.g., investment programs). In Finland, the Netherlands and Sweden (the three European countries with the longest experience with expenditure rules) interest payments are not covered (Table 1); Finland excludes automatic stabilizers; in all three countries public investment is given special treatment, though not exempted outright; and in all three the rule applies to central government and covers transfers to other government levels.

(b) The degree of flexibility to be allowed must be given some consideration. Since the purpose is fiscal sustainability, what should be kept under control is the structural level of expenditure. Thus occasional increases in outlays should be allowed. Typically, flexibility is obtained by approving ceilings that are slightly above actual expenditure projections. The need for flexibility

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[9]   See Iara and Wolff (2010).

[10]   See the review in Ljungman (2008).

[11]   Mills and Quinet (2001); Dában *et al.* (2003); Deroose *et al.* (2006); Wierts (2008).

[12]   Control of expenditure can be obtained also without rules. In Germany, for instance, the ratio of primary expenditure to GDP was lowered by 3.4 percentage points between 1998 and 2008, without any expenditure rule. In fact, over that period Germany recorded the slowest expenditure growth in the euro area (Hauptmeier *et al.*, 2010).

Table 1

Expenditure Rules in Finland, the Netherlands, and Sweden: Main Features

Country	Coverage				Time Span *(years)*	Discipline	
	Social Security	Interests	Local government	Percent of Total Expense		Rolling vs. Fixed-Term	Revisions
Finland	in part	no	no	36	4	fixed-term	every 4 years
Netherlands	yes	no	transfers	80	4	fixed-term	every 4 years
Sweden	yes	no	transfers	64	3	rolling	every year

also depends on the coverage of the rule (if automatic stabilizers are included, greater flexibility is needed) and on the way the ceilings are set (nominal ceilings, used in Sweden, require less flexibility than those set in real terms, as in Finland and the Netherlands). Since uncertainty increases with the time horizon, flexibility margins should be wider for the later years of medium-term plans. Of the three countries considered above, Finland has the greatest flexibility margins.

(c) The rule can be set for a fixed term or on a rolling basis. Finland and the Netherlands use the fixed term: at the start of the legislature spending ceilings are fixed for its entire four-year duration. In Sweden, every year the expenditure ceiling to be applied three years hence is set, the ceilings applying before that having already been decided in previous years. Fixed-term systems are more rigid, but they have the advantage of avoiding yearly debate within government coalitions, imposing medium-term planning on government and parliament, and assigning full responsibility for fiscal policy during a legislature to the winning coalition (with rolling ceilings, at the start of the legislature the new government inherits the ceilings set by the previous one).

(d) Finally, the method used to determine the ceilings and the legal status of the expenditure rule also need consideration. The literature on fiscal rules suggests unambiguously that transparency and credible penalties are essential to effectiveness.[13] Yet the method for computing the ceilings in Finland, the Netherlands and Sweden is not disclosed. And in all three countries expenditure ceilings stem from political commitment and have no legal status.

More recently, in 2009, Austria too introduced expenditure limits for the federal government. This followed a sweeping institutional reform in 2007 (Steger, 2010). The limits are fixed by law for four years. They are stated in nominal terms for about three-quarters of federal spending, while for the most volatile items limits are set contingent upon pre-specified indicators. Expenditures are classified in five areas, and limits are set for each area, while the allocation of resources within each area can be revised after the first year.

5 The reform of public financial management in Italy

The Italian fiscal framework has undergone a number of major reforms over the decades, most significantly Laws 468/1978, 362/1988, and 94/1997 and the 2007 reclassification of the state

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[13] See, among others, Kopits and Symansky (1998) and Inman (1996).

budget by missions and programmes. Budgetary procedures are increasingly influenced by the European fiscal framework. In particular, the ESA-based general government budget balance has become the reference variable for fiscal policy, replacing the state sector borrowing requirement. Further changes have been induced by the government decentralization.

These developments have produced a number of positive effects. Deadlines are better observed (e.g., it has been many years now since the budget law was not approved by parliament by the mandated deadline). Forecasts are more accurate. There is greater coordination between levels of government. Medium- and long-term issues are now more prominent in the policy debate. All in all, the changes to the fiscal framework contributed to the success of fiscal consolidation in the 1990s and strengthened the government's control over fiscal developments, avoiding the ample fiscal slippages of previous decades.

There remain some problematic aspects, however (De Ioanna and Goretti, 2008). At the macroeconomic level, notwithstanding the framework designed for fiscal consolidation, it has frequently proven difficult to actually attain the objectives. At times forecasts turned out to be overoptimistic. The room for maneuver created by better-than-expected budgetary developments was not exploited to achieve better fiscal outcomes. The reduction in the debt/GDP ratio was achieved in part through operations on assets that have not improved the net wealth position of government.[14] At the microeconomic level, there is inertia in the allocation of public resources: the spending structure adapts slowly to the changing needs of citizens. Public expenditure analysis has shown that there is a great deal of room for improvement in the efficiency of resource use.[15]

The reform of the fiscal framework at the end of 2009 (Law 196/2009) is intended to strengthen budgetary rules, procedures and institutions for greater consistency with sound and sustainable public finances. The new framework should be more effective in avoiding deficits and should improve the allocation of public resources. As noted in Section 2, Law 196 requires the harmonization of accounting standards at different levels of general government, the creation of a comprehensive data base, and the institution of a new fiscal planning cycle (with specific rules ensuring coordination among levels of government). It also modifies the content of planning documents and envisages an important change in the accounting standard for the state budget (from the current dual cash and accrual basis to cash only).

The introduction of the European semester requires further legislative changes, in particular to the content and the timing of the main official fiscal reports (Banca d'Italia, 2011). In February 2011 new legislation was passed by the Chamber of Deputies and transmitted to the Senate for final enactment.

As to the management of public expenditure, Law 196 moves toward tighter expenditure control. In particular, it envisages ceilings on discretionary expenditures, formalizing the practice introduced in mid-2008 with the new, three-year fiscal package. It also provides that the Ministry of the Economy and other ministries can stipulate agreements concerning the targets to be achieved over the three-year planning period.

The legislation now under discussion moves a step further. It purports to extend the expenditure ceilings beyond discretionary spending, but whether such limits can be modified, and under what circumstances, is not specified.

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[14]   The reduction in the ratio between 1998 and 2007 came mainly from privatization receipts and the restructuring of liabilities (more than 11 out of 14.4 percentage points). The potential of such one-off debt-reduction measures is now much smaller.

[15]   Commissione Tecnica per la Finanza Pubblica (2008) and Ministero dell'Economia e delle finanze (2009).

6   An expenditure rule?

The introduction of a formal rule setting multi-year ceilings for public expenditure would be consistent with the crucial role of expenditure control to fiscal consolidation in Italy. It would make the targets more visible and increase the political penalties for expenditure slippage. An expenditure rule would also be consistent with the European Commission's proposal on the preventive part of the Stability and Growth Pact, namely to make expenditure dynamics one of the variables the Council considers in assessing the adequacy of the adjustment path towards the medium-term objective for the structural general government budget balance.

The main features of such an expenditure rule could be the following.

(a) It should apply to overall current and capital primary expenditure, excluding only outlays directly related to cyclical developments. In Italy such cyclical items are relatively small (unemployment benefits amounted to 0.4 per cent of GDP in 2007 and 0.7 per cent in 2009). It would exclude only interest spending, which depends on factors not directly under government control. It would be useful to specify the ceiling for capital spending, in order to avoid the risk of excessive curbs on public investment in order to achieve compliance with the overall ceiling:[16] past experience, in Italy and elsewhere, indicates that expenditure cuts tend to be concentrated on items that are not protected by powerful interest groups or likely to induce strong opposition by voters.[17]

(b) The rule should apply to the expenditure of central government and social security institutions, including transfers to sub-national governments. Overall, it would cover about 90 per cent of total general government primary expenditure. With the completion of decentralization, a rule on the budget balance would apply to sub-national governments; expenditure control at regional and local level would be the responsibility of each local authority, which would use its own rules and procedures for expenditure planning and control.

(c) In order to reduce uncertainty in implementation, the ceiling should be expressed in nominal terms.

(d) There is a need for safety margins and for mechanisms for correcting overspending or compensating for it after the fact. Specific corrective mechanisms could be designed for certain expenditure items. For instance, overspending on pensions could be offset via adjustments in the retirement age. An overall correction clause should also be considered.

(e) The ceilings should extend over three years. They should be updated on a rolling basis in the course of one legislature and renewed at the beginning of the next.

The government would set the expenditure targets based on the targets for the budget balance and the projected revenues of central government and social security institutions. The government would have to take the measures required to close the gap between expenditure trends and targets.

The expenditure rule should be assigned an important role both in budgetary planning and execution and in the parliamentary process. Specifically, budget voting in parliament should be "top-down": first discussion and approval of the overall level of primary expenditure, next its subdivision between current and capital spending, and finally the allocation of spending to specific programmes and line-items. After the passage of the expenditure ceiling, no amendment increasing

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[16]   Central government capital spending (2.7 per cent of GDP in 2009) includes both direct investment (0.6 per cent) and capital transfers to local governments and publicly owned companies. It is crucial to distinguish transfers for investment from transfers for the settlement of past debts: only the former deserve the same status as central government direct investment.

[17]   Balassone and Franco (2000) and references therein.

the outlay for a specific programme or line-item could be passed without a companion amendment reducing expenditure on other programme or items by the same amount.[18]

Such a rule necessitates spelling out the detailed linkages between the overall expenditure ceiling for central government and social security institutions and the line items in the budget. The introduction of the expenditure rule will require accurate and transparent forecasts, whose quality would have to be systematically assessed. It is crucial to avoid underestimating the resource requirements of core services.

Instituting a macroeconomic rule like the one considered here requires comprehensive revision of the procedures for planning and managing public expenditure. Each department's budget allocation would become a rigid limit within which to operate. As Law 196/2009 mandates, the standard is now cash- rather than accrual-basis accounting. Spending commitments would still have to be monitored in order to assess their consistency with cash ceilings, including on a multi-year basis.

The reforms to tighten expenditure control should be complemented by action for efficiency in resource use, along the lines indicated by Law 196 governing the spending review process. Indicators of performance need to be devised for public administrative and service units, such as schools, hospitals, courts. Zero-based budgeting procedures must be devised for evaluating the adequacy of each expenditure item, regardless of past spending levels. These changes would make the allocation of resources more responsive to the changing needs of citizens. They would help set priorities for resource allocation, so as to keep expenditure control from conflicting with the provision of core public services.

In the framework of multi-level fiscal governance, coordination is crucial.[19] The introduction of a ceiling on central government and social security expenditure would therefore have to be complemented by a budget rule for the sub-national governments. A budget balance rule would apply to regional and local governments, which would be allowed to borrow only for capital spending, as the constitutional amendment of 2001 specifies.[20] Recourse to debt financing would be planned considering the targets for the overall general government balance.[21] The expenditure and revenues of sub-national governments would depend on their own decisions. Linking revenues and spending decisions closely would make the regional and local governments fiscally accountable.

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[18] Currently, the law provides that the budget balance be voted first, and that spending and revenue plans adopted thereafter must be consistent with the balance decided.

[19] Different countries have chosen different ways of ensuring proper coordination between government tiers. Such federal countries as Austria, Belgium and Germany have adopted an approach based on bilateral negotiations and agreements. In Germany there is an ad hoc institution for *ex ante* coordination between the federal government and the Länder (the Finanzplanungsrat). See, among others, Joumard and Kongsrud (2003).

[20] The implications for stabilization policy are not considered here. In any case, pro-cyclicality can be mitigated by appropriate tax bases, central government transfers and rainy-day funds (Balassone *et al.*, 2007).

[21] Bardozzetti *et al.* (2008) point to the need for a more detailed definition of the golden rule that is enshrined in the Italian Constitution (there are two main unresolved issues: the role of amortization and that of non-investment capital spending). All the other rules that now apply to local government debt should be gradually phased out. Strict regulation is needed to monitor opportunistic financial innovation to circumvent the rule.

REFERENCES

Balassone, F., M. Francese and S. Zotteri (2010), "Cyclical Asymmetry in Fiscal Variables in the EU", *Empirica*, No. 37, pp. 63-87.

Balassone, F. and D. Franco (2000), "Public Investment, the Stability Pact and the Golden Rule", *Fiscal Studies*, Vol. 21, No. 2, pp. 207-29.

Balassone, F., D. Franco and S. Zotteri (2007), "Rainy Day Funds: Can They Make a Difference in Europe?", in *The Role of Fiscal Rules and Institutions in Shaping Budgetary Outcomes*, proceedings from the ECFIN Workshop held in Brussels, 24 November 2006, *European Economy – Economic Papers*, No. 275.

Balassone, F., S. Momigliano and P. Rizza (2011), "Medium-term Fiscal Planning Under (Mostly) Short-term Governments: Italy 1988-2008", Banca d'Italia, Occasional Papers, forthcoming.

Banca d'Italia (2010), *La riforma della* governance *economica europea*, testimony of the Vice Director General of the Bank of Italy, Mr. Ignazio Visco, to the Lower Chamber, December 10.

——————(2011), *Indagine conoscitiva nell'ambito dell'esame della proposta di legge C. 3921 di riforma della Legge di contabilità e finanza pubblica*, testimony of the Head of the Structural Economic Analysis Department, Mr. Daniele Franco, to the Lower Chamber, January 18.

Bardozzetti, A., D. Franco and E. Vadalà (2008), "Debito pubblico e decentramento in Italia", *Federalismo Fiscale*, No. 1, pp. 51-106.

Bouthevillain, C., P. Cour-Thimann, G. van den Dool, P. Hernández de Cos, G. Langenus, M. Mohr, S. Momigliano and M. Tujula (2001), "Cyclically-adjusted Budget Balances: An Alternative Approach", European Central Bank, Working Paper, No. 77, September.

Commissione Tecnica per la Finanza Pubblica (2008), *La revisione della spesa pubblica – Rapporto 2008*, Ministero dell'Economia e delle finanze, Rome.

Dabán, T., E. Detragiache, G. Di Bella, G.M. Milesi-Ferretti and S. Symansky (2003), "Rules-Based Fiscal Policy in France, Germany, Italy and Spain", International Monetary Fund, Occasional Paper, No. 225.

De Ioanna, P. and C. Goretti (2008), *La decisione di bilancio in Italia*, Il Mulino, Bologna.

Deroose, S., L. Moulin and P. Wierts (2006), "National Expenditure Rules and Expenditure Outcomes: Empirical Evidence for EU Member States", *Wirschaftspolitische Blätter*, Vol. 53, No. 1, pp. 27-41.

Debrun, X., D. Hauner and M.S. Kumar (2007), "The Role for Fiscal Agencies", in International Monetary Fund (ed.), *Promoting Fiscal Discipline*, Washington (D.C.).

Debrun, X., L. Moulin, A. Turrini, J. Ayuso-i-Casals and M. Kumar (2008), "Tied to the Mast? National Fiscal Rules in the European Union", *Economic Policy*, Vol. 23, No. 54, pp. 297-362.

European Commission (2010), *Proposal for a Council Directive on Requirements for Budgetary Frameworks of Member States*, COM(2010) 523.

Franco, D. and S. Zotteri (2010), "Fiscal Rules: What Lessons from Germany?", in C. Kastrop, G. Meister-Scheufelen and M. Sudhof (eds.), *Die neuen Schuldenregeln im Grundgesetz*, Wissenschaft Verlag, Berlin.

Hauptmeier, S., J. Sánchez-Fuentes and L. Schuknecht (2010), "Towards Expenditure Rules and Fiscal Sanity in the Euro Area", European Central Bank, Working Paper, No. 1266, November.

Holm-Hadulla, F., S. Hauptmeier and P. Rother (2010), "The Impact of Numerical Expenditure Rules on Budgetary Discipline Over the Cycle", European Central Bank, Working Paper, No. 1169, April.

Iara, A. and G. Wolff (2010), "Rules and Risk in the Eurozone: Does Rules-based National Fiscal Governance Contain Sovereign Bond Spreads?", European Commission, *European Economy – Economic Papers*, No. 433.

Inman, R.P. (1996), "Do Balanced Budget Rules Work? U.S. Experience and Possible Lessons for the EMU", NBER, Working Paper, No. 5838.

Joumard, I. and P.M. Kongsrud (2003), "Fiscal Relations Across Government Levels", OECD, Economics Department, Working Paper, No. 375.

Kopits, G. and S. Symansky (1998), "Fiscal Policy Rules", International Monetary Fund, Occasional Paper, No. 162.

Ljungman, G. (2008), "Expenditure Ceilings: A Survey", International Monetary Fund, Working Paper, No. 282.

———————— (2009), "Top-down Budgeting – An Instrument To Strengthen Budget Management", International Monetary Fund, Working Paper, No. 243.

Mills, P. and A. Quinet (2001), "The Case for Spending Rules", in Banca d'Italia (ed.), *Fiscal Rules*, Rome, Banca d'Italia.

Ministero dell'Economia e delle finanze (2009), *Rapporto sulla spesa delle Amministrazioni centrali dello Stato*, Rome.

Steger, G. (2010), "Austria's Budget Reform: How to Create Consensus for a Decisive Change of Fiscal Rules", OECD, *Journal on Budgeting*, No. 1, pp. 7-20.

Turrini, A. (2008), "Fiscal Policy and the Cycle in the Euro Area: The Role of Government Revenue and Expenditure", European Commission, *European Economy – Economic Papers*, No. 323.

Van Rompuy Task Force (2010), *Final Report by the Task Force*.

Wierts, P. (2008), "How Do Expenditure Rules Affect Fiscal Behaviour?", DNB, Working Paper, No. 166.

COMMENTS ON SESSION 3
NEW DEVELOPMENTS: INDEPENDENT AUTHORITIES AND EXPENDITURE RULES

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It is a pleasure for me and my colleagues at Bank of Albania to be able to share our thoughts on two of the papers presented in today's session.

I will first discuss the comprehensive analysis presented by Kopits regarding the idea of reconciliation of fiscal discipline with fiscal sovereignty, both very important topics in a time where fiscal management is very uncertain after the financial crisis.

It is imperative for us economists that to be able to draft adequate policies we must know what are the implications of past events, and knowledge and insights of those interactions ought to be useful for future orientation of our work. Kopits points out early on that loss of fiscal sovereignty usually happens in dire financial times and that, in good times, myopia and short term orientation account for bad policy. To this point, a very revealing question is: can this kind of myopia be a very common rationality failure of the agents? Odds are it will and we believe so as well, but will leave this question opened.

Further on, Kopits mentions that the financial crisis put considerable weight on sovereign bond markets and that expectations of a credible fiscal policy ought to be appropriately anchored. We appreciate this point very much and take the liberty to share with you some of the recommendations that our Governor has made regarding the main criteria that must be satisfied to have a credible working external anchor.

First, a credible fiscal anchor ought to provide motivation to follow sound economic policies in the long run, as well as to fit the final goal of the anchor keeping institution. We believe these are foundational features of the anchor as they provide a back bone to the whole concept.

Second, the anchor must gain validity and urgency by being closely related to some credible threat. If we can envision the peril, we can work to prevent; but otherwise, it is very likely that we will have to cope, and at a very high cost. This relates directly with the preventive and corrective arms of the SGP.

To that same point, anchors should not be put up for negotiations, and governments and central banks should only coordinate the structural benchmarks and policies that condition them. But to keep this process transparent, progress must be really and clearly measured with credible accuracy, which will enable authorities to announce small wins along the way and thus gain validation for future courses of action.

The fifth attribute is goodness of fit of the anchor with the real economy, which is a straight forward criterion, and which relates directly to the point made by Kopits on the need to have home-grown rules for fiscal management. Here we would like to raise a basic but important question: what could have saved the fiscal council in Hungary?

Next, let's go back to the arguments regarding fiscal sovereignty of nations. It is our idea that international fiscal interdependence is unavoidable as long as countries and creditors seek diverse sources of credit for diverse funding challenges. This process has been of a cross-border nature for years and it is only natural to have been so, because there exist different developmental stages of financial intermediation between countries, and Kopits makes sure to mention plenty of examples in his analysis.

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[*] Bank of Albania.

More to this point is the idea of sustainability of fiscal incontinence, which is deliberately stated as an oxymoron, since there can be no sustainable incontinence. However, it seems that nations continue to leave beyond their means, all the while trying to manage fiscal policy with the secondary goal of decreasing borrowing costs so that they can borrow more, and not actually focus on minimizing *the need* to borrow altogether. It seems to us that such an objective would be much more relevant for fiscal rules, and we discussed yesterday the importance of efficiency in public funds management, which we know too well that central governments are not the standard at that. This is not the case, however, for capital investments funding, which given their inter-generational dispersion of benefits, ought to be financed by long term debt.

Next, fiscal sovereignty and international institutions is a topic that hits home, and our idea is that there are still chances to strike a healthy equilibrium between loss of fiscal sovereignty and gain of fiscal guidance in light of emerging, judged, and inexperienced countries. Fiscal guidance for a developing country like Albania, for example, is necessary to build up credibility and creditworthiness because historical inexperience and creditor prejudice put transitory economies at a disadvantage for cross border funding, as was the case for Albania's risk premium on the first Eurobond issue in 2010.

Lastly, we would like to recommend some further steps to complement Kopits measures, in the context of what is said so far and from the viewpoint of our economy.

For countries that aim at a future political and economic integration, it is in their best interest to look out for each other sooner, rather than later, by creating an incentive system for fiscal discipline. We propose to do this by mutual, interest-bearing, debt underwriting, as well as by mutually guaranteeing bond issues. This way we avoid the free rider problem, all the while having given momentum to a cooperative fiscal management process. This is also the case for spreading risk to a much bigger pool, thus decreasing risk per capita, and at the same time increasing the need to behave responsibly under the continuous control of the mutual underwriter. Here we are talking about a kind of checks-and-balance system in fiscal management. The same idea may be applicable between national and sub-national governments acting as mutual underwriters, while not sacrificing political independence between them.

With that said, we move the discussion to the second paper, that of the deviation of *ex post* and first release outcomes, which is a study motivated by the type and timing of information given by first release data as the basis for drafting future budgets, and making decisions about policy.

The paper found that first-release outcomes are overly-optimistic, caused by over-optimism in revenues, and a large amount of this was due to the revision of the previous period's balance in light of new information. Economic factors turned out to have limited role, and political factors no role at all, which is a bit counter intuitive.

To that point, the paper mentions the importance of institutional arrangements, which obviously we concur absolutely. Tighter fiscal rules and higher transparency reduce the degree of optimism at the first release stage. But to this point we have to add that the implementation and enforcement of those rules is vital, and Kopits made a point of this yesterday as well. We can have rules all we want, but no fiscal discipline is achieved until the enforcement system is in place, and political will is important; that is why we also think that externally imposed fiscal rules applied to the measured first-release balances act as good political incentives.

Overall, the paper is revealing of what we have always debated in terms of fiscal data and this debate is much alive in Albania now days. We have discussed these issues from the viewpoint of the credibility lost of the institutions that publish the data, in addition to the problems they create with the empirical analysis. However, we would have liked to have seen further description on the

policy implications of the conclusions derived in this analysis, which might be beneficial to include briefly in the final version.

But, other than that, we can't add any more remarks to the analysis presented.

COMMENTS ON SESSION 3
NEW DEVELOPMENTS: INDEPENDENT AUTHORITIES AND EXPENDITURE RULES

*Ranjana Madhusudhan**

I would like to begin by expressing my thanks to Daniele Franco and the Banca d'Italia for inviting me to participate at the 13th Public Finance Workshop on "Rules and Institutions for Sound Fiscal Policy after the Crisis". Once again Daniele and his staff have done a superb job of putting together another useful research workshop on a topic of interest to policy makers all across the globe at all levels. I also wish to extend my thanks to the staff of S.A.Di.Ba. in Perugia for their kind hospitality.

My primary assignment today is to provide comments on two papers that discussed specific country experiences with fiscal institutions (such as independent budget offices or IBOs). I have enjoyed reading the two papers and it was interesting to find that despite the unique characteristics there are significant commonalities[1] in fiscal institutions across countries. The paper by Bos and Teulings reviews the economic analysis of political platforms by the Dutch fiscal council (Netherlands Bureau for Economic Policy Analysis or CPB) in the last twenty five years. The second paper by Askari, Page and Tapp discusses the Canadian experience with such institutions and identifies potential measures to improve their fiscal efficacy. My approach in the comments to follow would be to highlight major strengths and weaknesses of fiscal institutions in these two countries and indicate potential areas for development.

1   The Dutch and Canadian experiences with Independent Fiscal Councils

I will begin by summarizing the main theme in the Dutch paper, which highlights issues surrounding the evaluation of proposed public policies in election platforms. The merits and limitations of twenty-five years of Dutch experience in analyzing election platforms since it started in 1986 are also discussed in this paper using an economic theoretic perspective. The authors note that such economic analysis "can help to design more efficient policies, reach consensus on economic and fiscal policy and create a level playing field for political parties not represented in the government, in particular those with limited resources for economic information and expertise".

Table 1 presents a good overview of how the CPB analysis of political platforms during the last seven election cycles improved and evolved, including the incorporation of health care and other major current policy issues. It appears that the CPB has been playing a crucial role as a political watchdog over the past twenty-five years through its rigorous, nonpartisan, social science research and analysis, which is critical in the context of growing public interest in policy debates. The tripling of the number of political parties seeking CPB analysis would suggest that the Dutch experience has been quite successful. Table 2 is used to illustrate the economic consequences and trade-offs of the election platforms of two Dutch political parties in 2010. I would suggest some discussion of the results to help with the interpretation of the numeric values presented in the table.

Bos and Teulings raise the important question as to "how far an economic evaluation of election platforms should go without the evaluation being political intervention itself". Table 3 is a

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*   National Tax Association, USA.

    The views expressed are those of the author and do not necessarily represent the views of the New Jersey Department of Treasury or the National Tax Association.

[1]   For instance, the provision of fiscal oversight, conducting financial analysis and costing out proposed policy measures are functions generally common to most fiscal institutions.

very useful table, which highlights the pros and cons of alternative techniques of evaluation and reflects the historical evolution of the Dutch evaluation methods. The table indicates that there is a wide range of methodologies employed in analyzing the election manifestos of political parties but each with its own set of advantages/limitations. Overall it appears that the CPB's function is limited to analyzing the effects of proposed policy measures put forward by different political parties during negotiations for a new government, but staying out of issuing policy advice.

Through its independent assessment of economic and fiscal policies, it assists with the economic decision-making process of Dutch politicians and policymakers. As noted in the paper, the underlying rules are critical in providing effective analysis of election platforms. The paper mentions three different sets of rules to ensure sufficient independence of the political process; generate good communication between political parties and the economic expert institute conducting the analysis; and ensure the quality, transparency and objectivity of the analysis. An overview of different types of rules is presented in Tables 4 to 5, followed by a discussion of the pros, cons and underlying practical problems associated with some of these rules. It is interesting to note that only policy proposals made by the central government are incorporated in the analysis, as such decisions made by sub-national governments may get ignored.

Alternative proposals are ranked by their potential impact on long-term economic growth (or on long-term GDP growth) via a universal baseline effect depending on the specific Dutch situation. Such comprehensive long-term analysis provides an explicit awareness of underlying policy trade-offs and consequences of alternative political platforms. However, as correctly noted in the paper, that quantitative analysis of long-term economic effects and fiscal sustainability is subject to substantial uncertainty and is sensitive to behavioral assumptions about firms and households; life expectancy; and the discount rate. When trade-offs are difficult to quantify, the CPB tries to come up with pragmatic solutions: providing a qualitative analysis, re-stating proposals or introducing additional rules such as designating a maximum on the budget cut for civil servants. Selected examples are provided in this context but some are a bit sketchy. I would suggest that the authors elaborate their discussion of the gross and net effects on long-term GDP growth, particularly, for major programs such as education.

Now I will move on to the second paper. The authors believe that Canada has made some progress with the establishment of a legislated budget office[2] but challenges remain. As they note that it is essential to establish the office properly right from the start by enacting proper legislation, attracting the right talent and ensuring long-term adequacy in funding. They also point out the importance of safeguarding the IBO's independence from political interference. They caution that the appointment process and administrative relationships with the legislature and executive branch be clearly laid out to avoid any potential for conflicts of interest. The overall goal should be to increase transparency. The CPB appears to incorporate most of these suggested characteristics and similar points are also raised in the Dutch paper. For instance, Bos and Teulings emphasize the need to have substantial resources and the right type of economic skill set to undertake a comprehensive and long-term analysis of alternative policy proposals. They also emphasize the necessity of fiscal councils to maintain independence.

In order to improve Canada's fiscal institutions and achieve "fiscal prudence", Askari, Page and Tapp suggest employing prudent underlying assumptions and having explicit contingencies for budget planning purposes. According to them, "…implicit risk provisions inhibit budget transparency and debate and can erode the credibility of government budget forecasts". Even though the Canadian budgets often contain sensitivity analysis of their budget projections to changes around central assumptions to reflect underlying forecast risks, "fan charts" are not used to quantify these risks. According to the Canadian paper, attempts to analyze and quantify risks by

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[2]   In 2006, the Canadian Parliamentary Budget Office or the PBO was created under the Federal Accountability Act.

reporting confidence intervals around budget forecasts and initial cost estimates for major policy proposals and legislations are essential.

From the Dutch paper, it is not clear if the CPB generates any "fan charts" to quantify risks or not? This is particularly crucial for increasing transparency and improving the debate and credibility of government budget forecasts. As noted in the Canadian paper, the danger with having implicit risk provisions is that it may create an illusion of real risk-adjustment. The authors recommend focusing on fiscal crisis prevention since it is better to avoid fiscal crisis than be forced into a large and painful fiscal consolidation. It would be helpful to include a discussion of CPB's analytical framework of how risk analysis is conducted for policy proposals under alternate political platforms. This would enhance the transparency of the evaluation process. I would like to point out that the Dutch paper discusses the significance of ensuring transparency of CPB analysis as part of "rules of the game" in Table 6.

According to Askari, Page and Tapp, incorporating forward-looking frameworks and /or rules that help restore and preserve fiscal sustainability could enhance economic stability and growth and promote inter-generational equity. In this context the question that arises is whether the CPB incorporates such forward-looking rules in its analysis and how does it account for inter-generational equity? Bos and Teulings, for instance, caution that alternative E in Table 3, on long-term finance, does not include the trade-off between long-term government finance and long-term household income/profits.

It is essential to set clear, measurable policy goals at varying time horizons to provide policy guidance that would allow monitoring of progress. IFCs have a monitoring role in *ex ante* and *ex post* compliance. It appears that CPB does not necessarily monitor or track *ex post* compliance. The focus seems to be on *ex ante* political platforms. The accountability goal, according to the Canadian paper, would necessitate the IFCs to provide sufficient details, milestones and measurable objectives to allow Parliament to hold the government accountable. The Dutch focus appears to be mostly limited to the end of the election cycle and during the next period of government.

The authors of the Canadian paper suggest using structural budget balance estimates for medium term planning. In addition, they suggest that IFCs should publish estimates of their structural budget balances over their forecast planning horizons to improve understanding and policy debate but none do so currently. A similar situation was noted in the Dutch paper. Various methodological hurdles were discussed. It is important to understand that even though such a tool is not perfect, failure to employ structural balances implies one can't operationalize a structural budget balance target. For example, one cannot distinguish cyclical from structural fiscal trends, which is very important at turning points in the business cycle or when the economy is above potential and "temporary cyclical fiscal room gets mistaken for permanent fiscal room and finally one cannot assess whether the degree of fiscal consolidation is sufficient to restore budget balance in more normal times".[3] Thus turning points pose serious forecasting challenges with adverse budgetary implications. It was noted that forecasts by the CPB are not always accurate, for instance, it was unable to predict the credit crisis and resulting economic recession in 2009. However, CPB can't be singled out as many forecasters made substantial forecasting errors around this period. I would like to refer you to a new report by the Pew Center on the States and The Nelson A. Rockefeller Institute of Government, which finds that U.S. states have been making more serious errors in estimating their revenues during tough economic times.[4]

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[3] See Askari, Page and Tapp (2011).

[4] See The PEW Center on the States and The Nelson A. Rockefeller Institute of Government Report (March 2011) for details.

Both the Canadian and the Dutch papers discuss the importance of increasing the use of long-term strategic economic and fiscal analysis and planning as the "political process generally puts too little weight on the impacts of current policies on future generations". A long-term budgetary framework is essential to improve long-term fiscal sustainability through effective fiscal management. In this context, it would be useful to include a discussion of indexing methods for key parameters.

Increasing budgetary transparency, which is a key ingredient in keeping the public well informed, is another major feature discussed in both papers.[5] It appears that both systems have room to improve on this front. For instance, the Canadian paper reports that there is a glaring gap between what was promised in the legislation and what is being delivered. From the paper, it is not clear how to grade the CPB in terms of the transparency goal. It appears that discretion is used by the CPB in excluding certain policy alternatives, which lack empirical info on long-term effects by changing the assumptions in their computer model. It is important to make the underlying assumptions of the analytical models and results as clear as possible. I would like to add that transparent budgetary and costing analysis should be conducted for all types of spending, including, both on-budget and off-budget programs and the latter in particular needs to be tracked carefully. During fiscal year 2010, for instance, total expenditures not budgeted accounted for around two-fifths of total expenditures in New Jersey.[6]

The authors point out that the access to necessary data may be restricted in some cases. For instance, despite the PBO's legislation that includes information access provision, requests are routinely denied and even previously published government info (e.g., details of budget forecasts and cost estimates of major programs) has been declared a "cabinet confidence". It is essential to ensure good access of information because the analytical quality is dependent on timely availability and completeness of the data flow. Disclosure and other data issues may be resolved either via legislation or convention. The authors recommend that public government costing of major legislations or policy initiatives be made a requirement. The Dutch practice appears to be meeting this goal at least with respect to ex ante political platforms. Additionally the Canadian paper suggests that such estimates be reviewed by the Parliament and be supported by quarterly financial reporting to track in-year spending. These analyses must be made public regardless of who conducted them (Parliament or IBO). This exercise would allow independent scrutiny of the analysis and enhance their credibility. Without budgetary transparency, informed public debate and accountability would be hindered.

2   Concluding comments

Both the Dutch CPB with its long history and the relatively young Canadian PBO play a critical role and have the potential to promote fiscally sound governments in their respective countries. However, these independent fiscal councils need to evolve further to face the growing challenges of long-term fiscal imbalance and sustainability, unsustainable debt burdens, and the fragile economic recovery in the post Great Recession era. It would serve the public well if policies of *elected* political parties were also analyzed over time, particularly, tracking how actual policies compare with the promised platforms; tracking how alternative party platforms perform over time, over business cycles, and over different election cycles; and checking the track record of a particular party over specific issues over time. Identifying patterns and divergences would be

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[5]   As US Federal Reserve Board Chairman Bernanke mentioned in his Annual Meeting speech on October 4, 2010, that "… By shining a light on the problem and the range of feasible solutions, transparent policy rules clarify the budget choices that must be made, help the public understand those choices …"

[6]   See The Governor's FY12 Budget Summary (New Jersey State Budget document).

important in enhancing the evaluation of public policy considerations in the context of future political and economic cycles.

It is crucial to maintain independence and ensure an adequate resource base for the success of these institutions in providing objective analysis. Fiscal councils in both countries need to focus on developing appropriate methodologies, particularly, for long-term analysis of proposed policy options and evaluating long-term policy implications and trade-offs. Generating proper shadow prices is a case in point. There is definite room to improve transparency and it is also important to emphasize the translation of complex results in plain language. It is essential to keep the public well informed about the underlying assumptions being made, the true cost and benefits of different policy proposals, underlying risks and policy trade-offs, both short- and long-term. I would emphasize a more explicit incorporation of sub-national government activities in the analytical models. It is crucial to recognize the policy implications along with long-term trade-offs once the dynamics of inter-governmental relations have been factored in.

The ultimate goal is to attain long-term fiscal balance and enjoy a sustainable economic prosperity world-wide!

REFERENCES

Askari, M., K. Page and S. Tapp (2011), "Reforming Fiscal Institutions in Canada", paper presented at the 13th Banca d'Italia Public Finance Workshop held in Perugia, Italy, 31 March-2 April 2011.

Bernanke, B.S. (2010), "Fiscal Sustainability and Fiscal Rules", speech delivered at the Annual Meeting of the Rhode Island Public Expenditure Council, Providence, Rhode Island (United States), October, available at: http://www.federalreserve.gov/newsevents/speech/bernanke 20101004a.htm

Bos, F. and C. Teulings (2011), "Analysis of Election Platforms: A Task for Fiscal Councils? Merits and Limitations in View of 25 Years of Dutch Practice", paper presented at the 13th Banca d'Italia Public Finance Workshop held in Perugia, Italy, 31 March-2 April 2011.

The PEW Center on the States and The Nelson A. Rockefeller Institute of Government (2011), "States' Revenue Estimating: Cracks in the Crystal Ball", March, available at: http://www.rockinst.org

State of New Jersey, Office of Management and Budget (2011), "The Governor's FY 2012 Budget: Budget Summary", February, available at: http://www.state.nj.us/treasury/omb

COMMENTS ON SESSION 3
NEW DEVELOPMENTS: INDEPENDENT AUTHORITIES AND EXPENDITURE RULES

Javier J. Pérez[*]

1 Horizontal issues

Setting *ex ante* public expenditure ceilings – so that a top-down budgeting approach is enforced – turns out to be crucial for the efficient design of the expenditure budget and the adherence to pre-determined expenditure and/or public deficit targets, in particular in times of fiscal adjustment. Now, expenditure limits have to be determined by some means. The most recent literature in the field tends to favor the determination of these ceilings or limits by means of expenditure rules, in contrast to the practice of following discretion and political bargaining at the beginning of the budgetary process. Beyond the *ex ante* constraint on public spending, an expenditure rule is typically deemed to be a pre-emptive arm designed to avoid spending *ex post* higher-than-expected revenues (sometimes in the form of the so-called *revenue windfalls*) in good times.

The *ex ante* and *ex post* restraint on public expenditure embedded in that type of rules is increasingly seen by the academic literature on fiscal frameworks as well as the most recent policy developments in the field (like the EU review of national fiscal frameworks conducted over 2011) as a key ingredient of any effective fiscal framework. Why is that the case? As signaled by the authors, the objective is to build up appropriate margins of maneuver for bad times. Thus, the discussion on expenditure rules should necessarily be connected to a debate on country-specific targeted levels of debt (given its role as shock absorber) and its determinants, like the volatility of government revenues. I will come back to these issues in the course of the discussion, because in my opinion the recent policy discussion on expenditures rules has to some extent overlooked this relevant aspect.
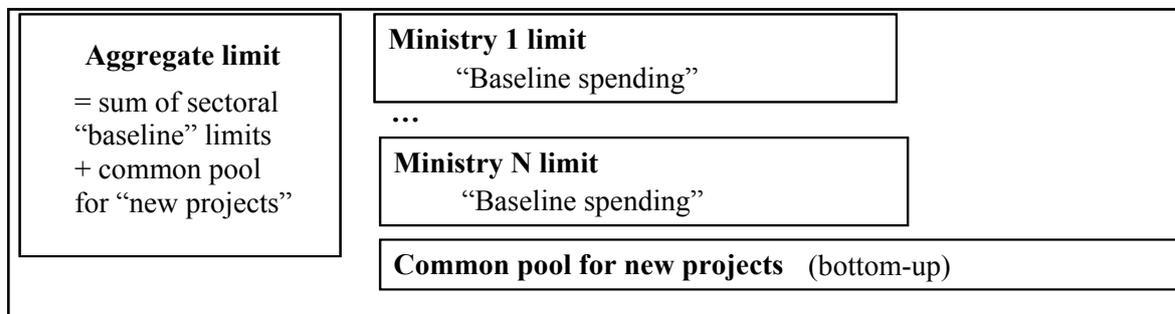
In addition, from a horizontal point of view, after considering the three papers of this session it is clear that the design of a expenditure rule has to pay due attention to at least some of the following issues:

- Should the annual expenditure ceiling/limit be set *ex ante* as a residual from the application of a deficit rule and a given revenue projection? Should it rather be fixed in an independent manner by looking at certain macroeconomic indicators?

- Should the expenditure ceiling/limit be firm or flexible (thus hinging on *ex post* adjustment rather than on-the-run adjustments)?

- On the coverage of the expenditure ceiling/limit: (i) Institutional coverage: should it be applied to the central government only or should it rather encompass additional ceilings for local and regional governments?; (ii) Functional coverage; (ii) Exclusions: should it leave out interest payments? Should it leave out spending on unemployment benefits?

- Practicalities: should the limit be defined in public accounts or National Accounts terms?

- Horizon: should the expenditure ceiling/limit be designed for one year (standard budgetary horizon) or should it be designed to apply to more than one year in a row (multi-annual)?

- It is crucial to consider the derived impact on the quality of public expenditure and the link to considerations related to the efficient provision of public goods and services.

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[*] Banco de España.

Figure 1

Outline of the Expenditure Ceiling Proposal

Aggregate limit = sum of sectoral "baseline" limits + common pool for "new projects"	**Ministry 1 limit** "Baseline spending"	
	…	
	Ministry N limit "Baseline spending"	
	Common pool for new projects (bottom-up)	

- Which is the relevant base-year expenditure level that has to be considered? Which is the potential of rules focused on the growth rates of expenditure items to curb the persistence in existing spending plans? (*i.e.*, how to define the baseline or time zero level).

The consideration of all these issues may indicate that the one-design-fits-all, aggregate approach taken in the European context might not have been the optimal one, even though it may have been a "second best" resulting from necessity.

2   Expenditure ceilings

"Keeping the Lid on Aggregate Expenditure During Budget Preparation: Enforcing Aggregate Expenditure Ceilings while Preserving Allocative Flexibility" by Robinson represents an excellent discussion on the role and design of expenditure ceilings. The type of discussion and messages of the paper has not been present to the extent that, in my opinion, would have been needed in the EU-wide discussion on expenditure rules. The paper outlines certain budget preparation techniques which can ensure that ministry allocations do not in total exceed the aggregate ceiling while at the same time preserving and enhancing flexibility in the reallocation of resources between ministries. It challenges the traditional approach that the ministry-level limits (that aggregate to the overall spending limit) should encompass "baseline spending" plus ministry-specific proposals for new project's spending. The paper proposes, in turn, a scheme that could be summarized as in Figure 1.

The proposal is extremely interesting in that it may help improving efficiency. Nevertheless, some considerations can be done to fine-tune the proposed scheme:

i)   The distinction between "baseline" and "new" spending might not be that evident in certain circumstances, thus creating problems in the design and monitoring of the relevant spending; in addition, it is not obvious which should be the relevant level at which the decision/design of the common pool of new projects has to be done (within each Ministry or by the Ministry of Finance).

ii)   The design of the common pool might be constrained by "political priorities". Would a zero-based budget guarantee full allocative efficiency?

iii) Potential problem: in the limit, the argument of allocative efficiency and "new spending needs" vs. discipline applies to the overall expenditure ceiling.

In this respect it is crucial to clarify which is the objective function of the "spending unit" (Ministry): (i) first case: is it a rational policy-maker/minister that aims at maximizing its own

Figure 2

Debt Reduction and Budgetary Sensitivity in EU-25 Countries
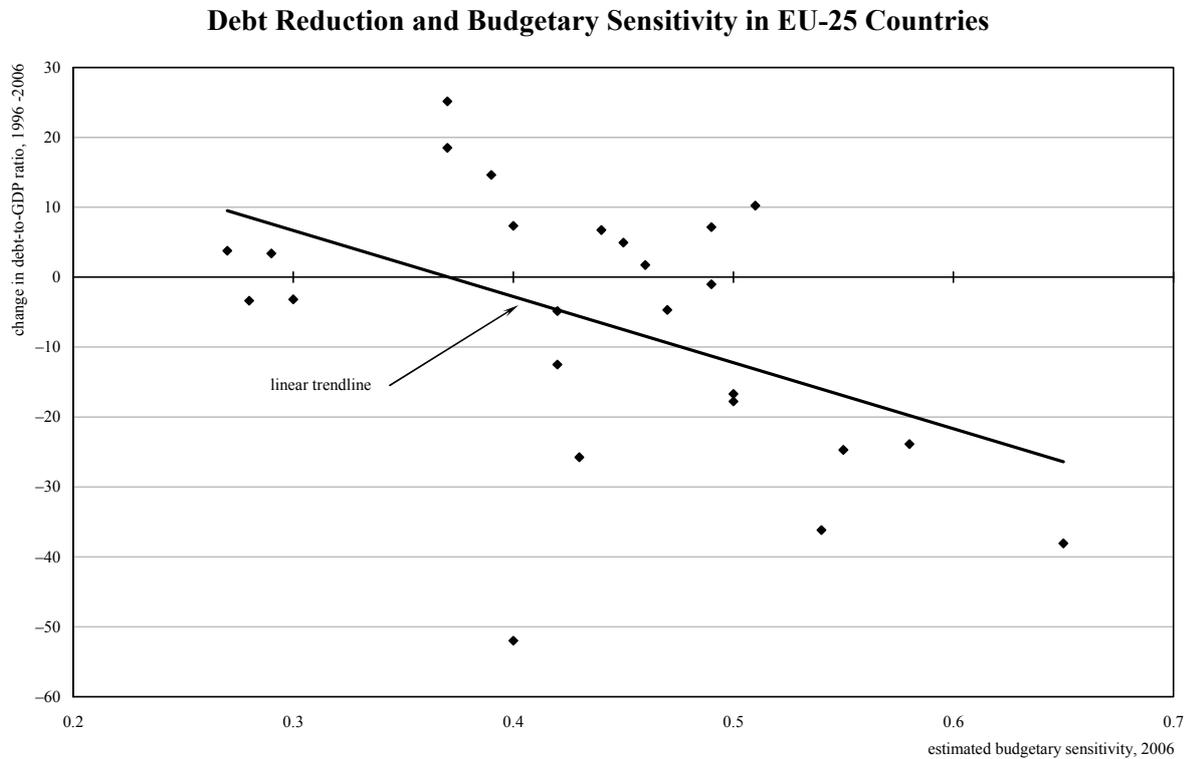
budget? (for good or for bad reasons, it doesn't matter); (ii) second case: is it a benevolent planner ready to compromise with fellow ministers? The political economy literature suggests that in the first case overall aggregate and sectoral ceilings would force an optimal reallocation between "baseline" and "new" spending.

3 Fiscal rules and "fiscal sanity"

"Towards Expenditure Rules and Fiscal Sanity in the Euro Area" by Hauptmeier, Sánchez-Fuentes and Schuknecht presents a number of useful and policy relevant exercises on public spending dynamics. The counterfactual exercises shown in the paper are well designed and exemplify the damage that expenditure overruns had on the deterioration of public finance headline variables (deficit and debt) over the EMU period. Nevertheless, closely linked to the focus of the paper there are two broader relevant issues that are not fully tackled by the authors.

The first consideration is related to the fact that the decision on letting spending grow more or less in a given moment of time should not be just linked to a certain indicator (like potential output growth) but rather be linked to the determination of the buffer that should be built against an adverse fiscal situation in bad times. For instance, which is the size of the shock a government has to be insured against? As an example, the level of public debt as a percent of GDP was below 30 per cent in Ireland in 2007. The succession of adverse shocks has made public debt explode but, *ex ante*, should it have been reasonable for Irish authorities to build up a buffer amounting to some negative debt position? Another example is the case of Spain; public debt was also low, below 40 per cent of GDP, in 2007. Since the start-up of the economic crisis some 50 per cent of the huge deterioration on public finances witnessed between 2007 and 2010 was linked to the revenue side

of the budget, with a major part of the deterioration linked to so-called revenue shortfalls. Would this advice for indicators of potential/neutral spending growth taking into account revenue volatility? In fact, as shown in Figure 2, in the two decades prior to the current crisis there seemed to be an inverse relationship between public debt reduction and the cyclical sensitivity of the budget.[1]

The second consideration, on which I am not going to go very much in detail, is that the focus on expenditure growth contains an implicit message on the optimal size of expenditure/GDP that is not properly addressed in the paper. Take the following example: what if Germany decided to downsize public spending over GDP not because of "virtue" (as implicitly argued by the authors) but because the high level of public debt as a percent of GDP observed in the specific time period considered in the paper was not deemed to be sustainable enough by German authorities?

By exploiting the link between the discussion of the paper on "sane expenditure growth" and the related issues of "optimal/target" public debt and level of public expenditure, the authors could enrich the discussion (by making it much more balanced) and improve the already substantial relevance of the study. The latter is particularly so as regards the selection of countries, the somewhat biased view of expenditure policies as the root of much of the current significant fiscal imbalances, the lack of analysis of revenue developments as the other side of the same coin, and the definition of "neutral" expenditure policies.

4   Fiscal rules and fiscal targets

"Achilles Catches Up with the Tortoise: An Expenditure Rule to Bridge the Gap Between Fiscal Outturns and Targets" by Balassone, Franco and Zotteri provides an excellent overview and summary of all the relevant arguments that advocate that public spending rules are a necessary element in a country's fiscal framework. The authors suggest the adoption of a properly designed expenditure rule in the case of Italy. This is the case because, as shown by the authors, failure to meet fiscal targets was mainly due to higher-than-planned expenditure. In particular, the authors argue that the introduction of multi-year expenditure ceilings.

While agreeing with the main message of the paper, some remarks can be made on specific issues. First, which could be the gains in terms of improved fiscal targets of applying such an expenditure rule in the case of Italy? A preliminary assessment can be made by looking at the simulations of Haupmeier, Sánchez-Fuentes and Schuknecht (the paper included in this volume). If their baseline spending-neutral rules would have been applied over the EMU period (1999-2009), Italian public debt in 2009 would have been situated in the range of 90-110 per cent of GDP. Would this safety margin be considered as safe enough? This level would not have been too far from actual levels, so not much would have been saved with the use of this family of "prudent expenditure rules" over the 1999-2009 period.

This first consideration would call for taking into account some additional elements when designing an expenditure rule for a high-debt country like Italy: (i) would this evidence call for the inclusion of interest expenditure in the rule in a transition period?; (ii) would this evidence call for a spending rule of the type of the one recently suggested by the government of Slovenia? As regards the latter, in addition to prescribing that public expenditure grows with some type of prudent reference growth rate (like potential output), the proposal of Slovenia incorporates some type of additional effort of expenditure reduction while public debt is above some reference value and/or the primary budget balance is below a reference value. This would imply that some type of

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[1]   For further details on this line of argumentation see Hiebert, P., J.J. Pérez and M. Rostagno (2009), "The Trade-off Between Debt Reduction and Automatic Stabilisation", *Economic Modelling*, No. 26, pp. 464-72.

reaction function should apply over a transition period, until public debt reaches a certain prudent target value.

In relation to the best practice cases some countries are typically mentioned, namely Finland, the Netherlands or Sweden. In this regards, it is relevant to mention that expenditure ceilings on those cases do not have a legal status. Would this framework be of application to the case of countries like Italy or Spain? In the latter respect, given the reasons for deviations with respect to public deficit targets reported by the authors in the case of Italy, all issues of design related to the *ex ante* determination, the real-time monitoring and the *ex post* control of expenditure developments, seem to be of special relevance, over and above the minimum denominator standards set up in the recent EU-wide decisions.

Session 4

NATIONAL FISCAL FRAMEWORKS: THE WAY FORWARD

SHOULD LATIN AMERICAN COUNTRIES ADOPT STRUCTURAL BALANCE-BASED FISCAL RULES?

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1 Introduction and overview

As well documented in the literature,[1] Latin America (henceforth LA) has a long history of pro-cyclical fiscal policies, reflecting the region's exposure to a range of exogenous shocks, tight financial constraints and relatively weak fiscal institutions. Pro-cyclicality declined during the last decade, as most countries saved part of the fiscal dividends of stronger growth and high commodity prices. The resulting improvement in fiscal balances and debt positions allowed most of the region to accommodate the decline in revenues induced by the global financial crisis of 2008-09, and in a number of cases to finance active counter-cyclical fiscal expansions. However, fiscal policies remained largely expansionary in 2010, despite a rapid recovery of output and emerging signs of overheating in some countries.

Against this background, this paper discusses the role that structural balance-based fiscal rules (SFRs) could play in moderating pro-cyclicality, ensuring longer-term debt sustainability, and facilitating the coordination of fiscal with other macro-economic policies in the LA region. It also focuses on the necessary ingredients for a sound design and successful implementation of SFRs. The fact that these conditions are rather demanding, and unlikely to be adequately fulfilled in many LA countries at the present time, suggests that a gradualist approach may be more realistic in these countries, beginning with a systematic and transparent calculation and dissemination by the authorities of structural indicators to assess the fiscal stance and inform budgetary policy, and moving to more formal rules over time as the relevant pre-conditions are put in place.

The paper begins with a discussion of pros and cons for SFRs in the LA context (Section 2); it then discusses various issues in their design (Section 3) and implementation (Section 4), including their applicability at the sub-national level (Section 5). Section 6 reviews the experience of Chile with its SFR; and briefly discusses the recently enacted SFR for Colombia, and whether a SFR would be appropriate for Brazil, where reportedly it is currently under consideration. Section 7 presents some concluding thoughts.

2 Pros and cons of structural fiscal rules in the Latin America context

Pro-cyclical fiscal responses to recurring external shocks – such as sudden stops in capital inflows, and boom and bust cycles in commodity prices, that were so endemic in LA during the "lost decade" of the 1980s and in the1990s – entailed a range of costs for the region:

- they aggravated macro-economic volatility, with adverse effects on employment, business climate, and FDI;
- they frequently included cutbacks in social programs during periods of rising unemployment and poverty;

[1] Among the many studies that have documented fiscal pro-cyclicality in LA, see, e.g., Perry *et al.* (2008) and Daude *et al.* (2010).

- they also involved cuts or postponements in planned public investments during crises, contributing to persisting large infrastructure gaps; or sprees on inefficient spending ("white elephants" or overmanned civil services) during booms; and finally,
- due to asymmetric responses (stronger expansions than retrenchments) over the cycle, they undermined debt sustainability in some of the countries.

Fiscal pro-cyclicality during those decades reflected a range of factors, in particular the tightness of financing constraints during adverse shocks; and political and social pressures linked to the democratization process, as well as weaknesses in the institutional frameworks for fiscal policy and management, during "good times".

The first decade of the 2000s saw significant progress in fiscal management throughout the region, as most countries took advantage of stronger revenues to reduce the public debt, improve its structure, and/or accumulate assets. As a result, pro-cyclicality was substantially reduced (albeit not eliminated in most countries), and several were able to respond to the global financial crisis of 2008-09 with substantial fiscal stimulus packages.

However, fiscal policy remained expansionary in most countries in 2010, despite the recovery in activity and the emergence of initial signs of overheating and rising inflationary pressures in some of them. Moreover, although public debt levels in LA are on average much lower than in advanced countries, it is unclear how much capital markets' debt tolerance for the region has increased in recent years. Thus, a timely tightening of fiscal policies would contribute to promoting both near term macro-economic stabilization and longer-term fiscal sustainability.

Against this background, the adoption of well designed and effectively implemented fiscal rules targeting a structural balance (adjusted for the cycle and, in countries highly dependent on commodity revenues, for deviation of the relevant commodity prices from their medium term trend) would help LA countries avoid pro-cyclicality and the attendant macroeconomic, efficiency and social costs discussed above. It would also facilitate better coordination of monetary and fiscal policies, reducing the upward pressures on interest rates and exchange rates that are currently evident in many countries of the region (especially Brazil, Chile, Colombia and Mexico).

However, as the subsequent sections of this paper will argue in more detail, a sound design and an effective implementation of SFRs are no easy tasks, and require a number of demanding political, institutional, as well as economic, pre-conditions, which are only partially (and to varying degrees) met in most countries of the region. Moreover, while a SFR is superior to a rule targeting an unadjusted budget balance in preventing fiscal pro-cyclicality, it shares with the latter the risk of hindering active counter-cyclical fiscal responses to a crisis, even when there exists adequate fiscal space for such responses. Even during boom periods, a SFR may constitute a hindrance to a needed fiscal tightening, if it lulls a government into believing that, by meeting the SFR's target, it has done all it needs to do on the fiscal front to stabilize the economy.

There are a number of possible approaches to combining the benefits of constraining discretion through a SFR with those of maintaining an adequate degree of flexibility in macro-fiscal management:

- The SFR may include escape clauses to deal with unpredictable exogenous shocks. Such clauses should specify as clearly as possible the nature and magnitude of the shocks to be accommodated; the length of the period during which the rule would be relaxed or put into abeyance; a path of return to full observance of the rule; and the responsibility for activating the clause and monitoring its implementation. This specification requires careful consideration of country-specific circumstances, such as the type of shocks the country is most exposed to and the sensitivity of the main fiscal aggregates to such shocks; and the foreseeable fiscal space to accommodate them, or to at least spread the adjustment to them over time. In all cases,

credibility can be enhanced by the use of independent "fiscal watchdogs" responsible for assessing the correct use of the clause, or at least by a stipulation that the activation of the clause must be approved by a qualified majority of Parliament. The recent global financial crisis has highlighted the shortcomings of fiscal rules that do not include adequate escape clauses. According to a survey conducted in 2009 by IMF staff, only about half of countries operating under a fiscal rule were able to accommodate a countercyclical policy response within the rule's framework. The others had to either explicitly modify the rule, or put it into temporary abeyance.

- While escape clauses are intended to deal with the consequences of large but temporary shocks, more permanent ones would require a lasting revision of the rule's target (or, in some circumstances, even of the rule's basis). There would be, in principle, benefits from incorporating *ex ante* provisions for such revisions in the legislation introducing a fiscal rule, not least to avoid reopening political debates on the whole framework of the rule when the need for such revisions materializes. In practice, however, it may be difficult to anticipate from the outset the range of factors that may require a revision of the rule.

- The target for the rule could be specified as a range, rather than a point value. This should be accompanied by a requirement that deviations from the midpoint of the range, to accommodate a counter-cyclical fiscal response during a given phase of the cycle, be recorded in a notional account and be offset by an equivalent deviation in the opposite direction during the subsequent phase of the cycle. This would avoid the above-mentioned common asymmetry in active counter-cyclical fiscal policies.

- Finally, the target could be specified as a function of the phase of the cycle, possibly with a threshold value:

$$T^t = T^* + a*(b*(Y^p - Y)/Y^p)$$

where T stands for the target at time t; T^* for a pre-specified target in cyclically neutral conditions; a takes a value of 0 if the output gap falls below a pre-specified threshold level, and 1 otherwise; b is a parameter between 0 and 1 indicating the desired strength of allowed countercyclical responses to the output gap; Y^p stands for potential output and Y for actual output.[2]

3   Main issues in the design of structural fiscal rules

Countries considering the adoption of a SFR face a number of issues regarding the choice of the basis of the rule and the level of its target.

3.1   *Choosing the basis of a SFR*

The main choices regarding the basis of a SFR are as follows:

i) To use a cyclically-adjusted balance (CAB);[3] a growth-based balance (GBB);[4] or a balance over the cycle?[5]

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[2] This formula is suggested in the recently released report of the Advisory Committee for reform of the Chilean SFR (Corbo, 2011).

[3] A cyclically-adjusted balance (CAB) aims to approximate the budget balance that would prevail if the economy was operating at its full potential, *i.e.*, if the output gap was zero. Therefore, typically it is calculated by excluding from revenues and expenditures those components which are due to a positive or negative output gap.

[4] A variant of the CAB is a growth-based balance (GBB), which excludes from budgetary revenues and expenditures those components that reflect the difference between the actual and the trend growth rate of the economy.

ii) The non-interest (primary) or overall balance?

iii) The current or the overall balance?

iv) To adjust for gaps in absorption, rather than output?

v) To adjust for commodity prices fluctuations?

i) As is well known, obtaining robust estimates of a CAB is not an easy task, as all existing methods of estimation of potential output (HP and other filters; or production functions) suffer from technical problems, especially significant in the presence of structural breaks, limited observations, and/or frequent significant revision in the GDP estimates.[6] The difficulties of obtaining reliable estimates of the output gap in many LA countries may argue for using an (easier to calculate) GBB instead in those countries. However, it should be recognized that a GBB can give misleading signals, e.g., during the early phase of a recovery, when actual GDP may be growing well above trend but still remain below potential.

Both a CAB and a GBB require reliable estimates of elasticities of tax revenues and certain categories of expenditures to the cycle. The well-established methodologies (by the OECD, IMF, and the EC, among others) to carry out these estimations[7] are relatively demanding in terms of data availability. The alternative approach of targeting a given average budget balance over the cycle, while in principle equivalent to a CAB-based one, in practice can give different results if the length and intensity of the cycle is not correctly anticipated at the outset. It is also more prone to political manipulation by, e.g., overestimating the length of the downturn phase of the cycle, thereby pushing forward in time the required fiscal tightening.

ii) As regards the choice between a primary and an overall balance as basis for SFRs, the advantages of the former are that it is more controllable by the fiscal authorities and it better reflects current, rather than past, decisions. It also avoids possible incentives for the authorities to meet an overall balance target through a loose monetary policy. These considerations are especially relevant in most LA countries, given the structure of their public debt (relatively short average maturities, and high proportions of instruments with variable rates) which implies a quick transmission of volatility in interest rates to the overall budget balance. Indeed, most LA countries that already use fiscal rules formulate them in terms of the (unadjusted) primary balance.

However, a primary balance-based SFR would need to include a debt feedback mechanism, to ensure longer term fiscal sustainability in the event of sustained shocks to interest rates or to the debt stock. A complementary debt rule would be useful also when targeting the overall balance, to avoid temptations to use below-the-line or quasi-fiscal operations that do not affect the budget balance but increase the public debt. Such operations are quite common in LA countries. Debt-based rules also have the advantage of requiring the fiscal stance to be adjusted in the event of a lasting shock, such as a devaluation, impacting the foreign exchange-denominated component of the debt. However, they need to be formulated carefully, e.g., by including escape clauses that would allow such adjustments to be distributed over an adequate period of time, to avoid either low quality measures or an outright violation of the rule in the event that the shock is unexpected and large.

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[5]   A further variant of a CAB-based rule is one that targets a given balance (generally expressed as a percentage of GDP) over the cycle. Rules of this type were adopted by Sweden and by the UK during the last decade.

[6]   See, e.g., IMF (2009) and EC (2010) for details.

[7]   See, e.g., Girouard and André (2005); Larch and Turrini (2009); Fedelino *et al.* (2009); and EC, (2010).

iii) As concerns the choice between the current and the overall balance as basis for a SFR, some have argued in favor of the former, given the large infrastructure gaps prevailing in LA.[8] However, golden-type rules do not seem advisable in the region because:

- they may be inconsistent with debt sustainability (still an important issue in several countries of the region);

- they privilege investment in physical over human capital (lack of which is still a major constraint to growth in the region);

- they do not provide incentives to improve the systems for evaluation and selection of public investment program (that are frequently poor in LA); and

- they are open to manipulation through misclassification of spending programs (a not uncommon practice in the region).

Infrastructure spending needs would be better safeguarded through complementing a SFR based on the overall (or primary) balance with expenditure rules and/or the use of medium-term expenditure frameworks.

iv) The EC has recently advocated the use of an alternative fiscal indicator, *i.e.*, a cyclically- and absorption-adjusted budget balance (EC, 2010). Its analysis shows that such an indicator can give significantly different signals about a fiscal stance than the CAB in countries with large current account deficits. Given the high dependence on consumption taxes (more related to absorption than to output) and the volatility of external financing in LA countries, in principle it would be desirable to adjust the fiscal target for cyclical fluctuations in absorption, rather than output. But, the difficulties of estimating and especially monitoring CAABs on a timely basis in most of the region advise against it in practice.

v) Most LA countries are highly dependent on revenues from commodities. The high degree of volatility of commodity (especially energy products) prices makes the overall fiscal balance of resource revenue-dependent countries also very volatile. A rule that would require stabilizing the overall balance at a given level over time would result in large (and often disruptive) swings in public expenditures; moreover, it would be pro-cyclical, as expenditures would rise during boom periods and have to be cut back during commodity price slumps, or during periods of declining external demand that also have adverse repercussions on domestic activity. In contrast, a rule targeting the non-resource component of the fiscal balance (possibly adjusted for the domestic cycle as well) would smooth spending and avoid pro-cyclicality**.**

An alternative approach would be to target the overall balance adjusted not only for the output cycle, but also for deviations of the prices of main resource revenues from their long-term trend, as is done in the Chilean SFR. In contrast to the one targeting the non resource-balance, this approach does not correct for cyclical changes in external demand for the relevant commodities, except to the extent that they are reflected in the commodity price swings. It also requires a transparent and analytically sound methodology for assessing long-term trends in such prices, an especially difficult undertaking in the case of fuel prices, which many experts view as akin to a random walk.[9]

3.2   Choosing an SFR's target

The choice of the target level under a SFR should be guided by a number of considerations:

i)   the country's initial fiscal conditions and its expected medium-term public debt dynamics;

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[8]   See, e.g., Perry *et al.* (2008).

[9]   See Barnett and Vivanco (2003), for a discussion of statistical properties of oil prices.

ii) any long-term savings needs; and

iii) whether the target is fixed or variable over time.

i) In principle, a fixed target for the SB should be set at a level that is expected to be consistent with a desired (declining or stationary) path of the public debt, under a prudent set of baseline assumptions for the relevant macro-economic variables (the growth of trend or potential real GDP, inflation, interest rates, exchange rates, and the probability of realization of contingent liabilities). The choice of the baseline assumptions should be based on a comprehensive sensitivity analysis, and be more cautious the worse the fiscal conditions of the country (higher deficit and debt levels) are at the time of introduction of the rule. Particular focus should be placed on analyzing whether actual (as opposed to structural) deficits may occur during the application of the rule that could not be financed (or could be only at very high interest rates). This analysis requires a careful assessment of the likely amplitude of the cycle in the country in question. It also requires reliable information on the country's public and external debt structure, and its vulnerability to changes in market sentiment (in particular the likelihood of sudden stops in capital flows).

As Figure 1 shows, initial conditions vary widely within the LA region, both as concerns budget balances and public debt. Financing constraints have eased in most countries, but could tighten again in an adverse external scenario. Also, the factors influencing the debt dynamics, in particular growth and interest rates vary significantly across the region.[10] In many countries, however, the average real cost of the public debt tends to exceed the growth rate, pointing to a need to target structural primary surpluses.

Figure 1

Fiscal Balances in Selected LA Countries, 2010
(percent of GDP)

Source: IMF, Western Hemisphere Regional Outlook, April 2011.

ii) Long-term savings needs in the majority of LA countries are less related to population aging than is typically the case in advanced countries. Most countries in the region have still relatively young populations, although some

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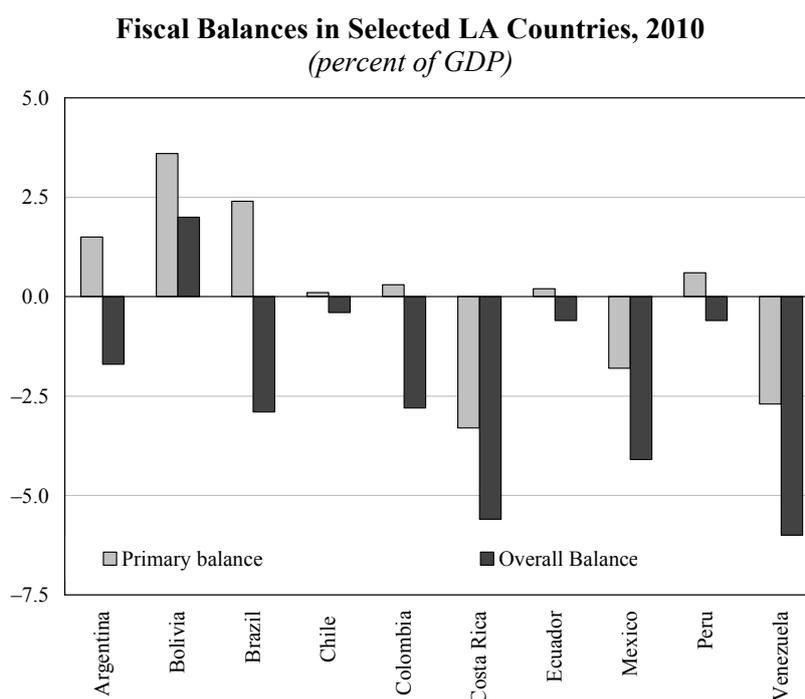
[10] Estimated growth rates in 2010 ranged between –1.3 per cent in Venezuela to over 8 per cent in Paraguay, Peru and Uruguay (IMF WHD REO, October 2010).

Figure 2

Gross Public Debt in Selected LA Countries, 2010
(percent of GDP)
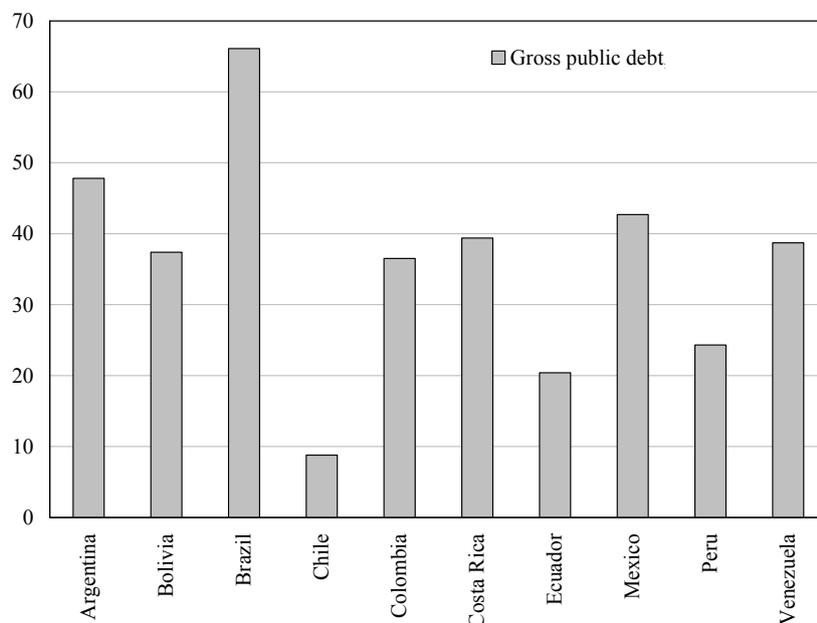
Source: IMF, Western Hemisphere Regional Outlook, April 2011.

(e.g., Brazil and Uruguay) are aging at a faster rate than many industrial countries. In LA countries, the main spending needs relate to investment in physical (infrastructure) and human capital (education and training) and to improvements in the coverage of social safety nets (health, pensions and social assistance). Some countries have also sizable contingent liabilities.

In countries heavily dependent on revenues from non renewable natural resources, the choice of medium-term fiscal targets should be guided by the goal of accumulat-ing sufficient wealth to smooth income and consumption across generations before and after the exhaustion of the resources. However, the translation of this broad principle into operational guidelines is far from simple, and different authors have argued for different rules.[11] One conceptually appealing such rule call for stabilizing the non-resource primary balance (as percent of non-resource GDP) at a level that ensures sufficient assets accumulation by the time the resource wealth is exhausted to allow the same balance to be financed subsequently through the return on the assets (Ossowski and Barnett, 2003). The translation of this principle into an operational rule requires a number of difficult predictions of such variables as the size and speed of depletion of the natural resources, the long-term outlook for their prices, and the rate of return on the financial wealth being accumulated.[12]

Countries may prefer to specify a time-variant path for their SFR target if they need to establish market credibility with a stronger up-front adjustment, or if they can credibly project "structural breaks" (related, e.g., to the coming on stream of substantial natural resource revenues) in their public debt dynamics. In general, however, a rising time path for the SFR target would not be advisable, as it is likely to be seen by markets as a political expedient to postpone adjustment.

Finally, countries facing relatively high uncertainty about the relevant macro-economic factors may choose to limit the time horizon for the specification of the target (to, say, 3 to 5 years), or

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[11] For example, (i) the permanent income model (PIM) calls for equalization of per capita consumption across generations, taking into account both resource and non-resource revenues; (ii) the permanent resource income model (PRIM) argues for redistribution of only the resource wealth across generations; (iii) the so called bird-in-hand rule requires government to limit its non-resource deficit to the annual stream of revenues from accumulated financial assets (See Maliszewski, 2009, for a comparison of such rules).

[12] See Villafuerte *et al.* (2010) for a discussion of fiscal rules and fiscal policies in LA oil-producing countries.

to give it a rolling character (as is the case, e.g., in Brazil).[13] Of course, the disciplining and signaling effect of a rule based on rolling targets would depend very much on the demonstrated commitment of the government to avoid large year-to-year changes in the targets, and to transparently and convincingly motivate them, when unavoidable.

4   Implementing SFRs in the Latin America context

Countries considering the adoption of a SFR face a range of issues in the implementation of the rule, in particular regarding:

i)   the timing of introduction of the rule;

ii) its legal basis; and

iii) its public financial management (PFM) requirements.

i)   As regards timing, SFRs (like all rules) are unlikely to work if introduced in periods of unusual political and economic uncertainty/turmoil. This is not the case currently in LA. A further consideration in favor of the adoption of SFRs in LA at the present time is the current phase of the cycle. Clearly, the credibility of a SFR tends to be greater if it is adopted during a cyclical expansion. Financial markets and other economic agents may view its adoption during a downturn as dictated by political expediency (as a SFR would allow a higher level of spending than an overall deficit target), and question its sustainability under favorable cyclical circumstances. But, as Chile's experience suggests, a country with adequate fiscal space (low debt and low probability of emergence of financing constraints) could more easily gain market acceptance of its accommodation of the automatic stabilizers during a downturn, if at the same time it was committing to allowing them to operate during future expansions.

ii) A strong legislative basis is not necessarily a pre-condition for the introduction of a fiscal rule. A government can in principle announce its commitment to the achievement of certain values for the targeted fiscal variables for an extended period ahead, without seeking to enshrine it into a law. The credibility of such an announcement would be of course greater the longer the expected life of the government, the stronger the role of the executive in the budget process, and (at least in a democratic regime) the broader the perceived political and social consensus on the rule.

That said, a robust legal foundation for a fiscal rule can significantly enhance the prospects for its effective and sustained observance, because it raises the cost of its non-enforcement or abandonment, thereby enhancing its credibility. The question is: how robust should that foundation be? The higher the level of the law establishing the rule, the more difficult it is to change it. There is thus a trade-off between the objective of strengthening the commitment to the rule, on the one hand, and that of preserving an adequate degree of flexibility, on the other hand. While the appropriate balance of these objectives should reflect the specific political, institutional, and economic circumstances of each country, in practice in most countries fiscal rules are established through legal instruments stronger than ordinary laws that could be modified by a subsequent budget law. The experience in this respect with existing fiscal rules varies across LA. Some countries (e.g., Brazil and, since 2006, Chile) have enshrined their fiscal rule in a higher-level Fiscal Responsibility Laws. Others use ordinary laws.

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[13]   The Fiscal Responsibility Law in Brazil mandates fixed ceilings for the public debt and for government payroll in relation to net revenues, but requires the government to set in the annual Law on Budget Directives three-year rolling targets (compulsory for the first year and indicative for the subsequent two) for the (unadjusted) primary balance.

iii) As is well known, sound PFM institutions[14] are important for an effective conduct of fiscal policy, whether rules-based or not. These requirements are made more stringent by a country's adoption of numerical fiscal rules, because of the reputational and possible other costs entailed by a violation of the rule. Moreover, as mentioned above, the adoption of a SFR poses special statistical and computational requirements. At the same time, however, the adoption of a rule often provides impetus for implementing needed reforms in the PFM system, as the experience of Chile demonstrates (see Section 6 below). Thus, the decision of whether to introduce a fiscal rule requires a careful assessment (necessarily country-specific) of whether the existing PFM system conforms to the minimum requirements for an effective implementation of that rule.

Specifically, the preparation of a budget under a SFR requires robust estimates of: potential output; the medium-term trend of relevant commodity prices; and the elasticities of main revenues and selected spending to the cycle and to commodity prices. Several countries in LA have sufficiently developed statistical bases and adequate technical capacity to undertake such estimates. Transparency in the methodology and assumptions used to calculate structural balances is essential for credibility. Delegating the calculations to an independent fiscal watchdog could also strengthen credibility and social acceptance of the rule.

Although the adoption of a SFR does not per se require the elaboration of a full-fledged medium-term fiscal framework (MTFF)**,** lengthening the time horizon of the budget formulation process can be very helpful in promoting effective observance of the rule, particularly by highlighting trends that, in the absence of corrective action, would threaten the achievement of the fiscal targets. At the same time, the existence of a rule can facilitate the formulation of a MTFF by providing more certainty about the medium- term budget balance target. A comprehensive and realistic MTFF can also facilitate a more strategic approach to priority setting among competing demands for budgetary resources, and allow line ministries to plan sectoral policies (and especially investment projects) over a longer horizon, with potentially significant gains in efficiency. In LA, a number of governments are currently working on developing or strengthening MTFFs, although in most cases significant progress remains to be made in this area.

Effective controls of the budget execution process are crucial for the successful implementation of fiscal rules. So are well-developed, transparent and firmly enforced budgetary accounting and reporting rules.

Under a SFR, during budget execution, budget managers need timely and reliable information on all phases of the expenditure process, and on developments affecting the estimates of structural revenues, to identify and appropriately react to risks to the observance of the structural balance target. They also need, however, to monitor developments in actual revenues, to avoid the emergence of financing constraints. Most countries in LA have already developed reasonably effective controls of the budget execution, supported by modern financial management information systems (FMIS), at least at the central government level.

The importance of sound accounting systems cannot be over-emphasized. A number of accounting risks can threaten the effective operation of fiscal rules. Some are common to all types of rules, and basically relate to the boundaries between the parts of the public sector covered and not covered by the rule, and between the public and the private sector.[15] Some of

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[14] These include, among others: a strong role of the ministry of finance in the preparation and implementation of the budget; adequate capacity in the ministry to forecast revenues and endogenous components of expenditures; a transparent and comprehensive documentation of proposed budgets; a parliamentary budget approval process that limits the scope for amendments inconsistent with the overall budget stance proposed by the government; effective expenditure control mechanisms during the budget execution; comprehensive and firmly enforced accounting and reporting requirements, capable of generating timely and reliable fiscal statistics; and sound internal and external auditing procedures.

[15] They include extra-budgetary operations; quasi-fiscal operations; provision of guarantees in lieu of explicit subsidies or capital transfers to public or private enterprises; unfunded mandates for sub-national governments, if the coverage of the fiscal rule is

(continues)

these risks can be mitigated if a country's fiscal responsibility law or organic budget law require that various types of contingent liabilities be disclosed, quantified to the extent possible, and adequately provisioned for in the budget. Other accounting risks are more specific to certain types of rules, e.g., the overestimation of potential GDP growth under a SFR; the above-mentioned misclassification of current expenditures as capital ones under a golden rule; resort to tax expenditures, in lieu of subsidies and transfers, under an expenditure rule; and the accumulation of liabilities (e.g., to suppliers) not recorded in the debt statistics, under a debt rule. Effectively containing these risks is a difficult task, requiring not only the enactment and enforcement of comprehensive and detailed accounting regulations, with appropriate penalties for non compliance for the responsible officials, but also adequate external scrutiny through an independent Audit Court, or an external watchdog/fiscal council.

Finally, a transparent and timely reporting of the accounting information is also important for the effective implementation of fiscal rules. This is needed to facilitate both corrective action by the government, when needed, and the external scrutiny mentioned above. The reporting should be sufficiently detailed to allow interested outside observers to assess not only past compliance with the rule, but also the risks of future non-compliance.

The quality of accounting and reporting systems has improved significantly in recent decades in LA, often with the assistance of international organizations and MDBs. Nevertheless, some of the accounting risks mentioned above remain quite pervasive, and there has been some regress in the more recent years towards non transparent or heterodox accounting practices in several countries, including some like Brazil that had been previously viewed as models of sound budgetary accounting. The effectiveness of a newly introduced SFR in these countries would hinge crucially on eschewing such practices in the future.

5   Structural fiscal rules for sub-national governments in Latin America?

The extent of fiscal decentralization and its potential impact on macro-economic management vary significantly across LA. Specifically:

• In a number of unitary countries (e.g., Chile, Uruguay, and the Central American countries) decentralization is still limited, and does not pose significant macro-economic risks. In Bolivia, Mexico, and Peru, growing decentralization has not significantly affected fiscal sustainability so far, due to relatively tight limits on sub-national borrowing. In Brazil and Colombia, substantial progress has been made since the mid-1990s in tightening controls on sub-national debt and reducing it. Progress has also been made in reducing sub-national debt in Argentina, mainly as a result of bailouts by the federal government, as well as of the buoyancy of the provinces' own and shared revenues.

• In most countries, however, sub-national fiscal responses to shocks have tended to be pro-cyclical, albeit less so in the more recent years. Pro-cyclicality has reflected (to different degrees in different countries) a mix of factors:

  - fiscal rules or other borrowing controls with targets unrelated to the cycle; and even in the absence of such rules, pro-cyclical fluctuations in the availability of financing for most sub-national governments (SNGs) throughout the region;

  - the lack of significant sub-national revenue-raising autonomy in most countries (with the exceptions of Brazil, and to a lesser extent, Argentina) especially at the state/regional level, which has severely constrained the scope to sustain sub-national spending during recessions;

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limited to the central government; and engagement in public-private partnerships (PPPs) not justified by efficiency considerations.

- the (full or partial) assignment to SNGs of some highly cyclical revenues, especially from non-renewable resources, in some countries (e.g., Bolivia, Ecuador and Peru);

- inter-governmental transfer systems based on revenue-sharing formulas invariant over the cycle, which propagate quickly to the sub-national finances cyclical fluctuations in the central government's (CG) revenues (Colombia being an exception in this respect);[16] and finally

- pervasive rigidities (including earmarking of revenues and/ or transfers to certain categories of expenditure) which reduce the scope for reassignment of sub-national resources to changing expenditure needs/priorities over the cycle.

These considerations point to a number of possible options for reforms in the inter-governmental systems of the region that could facilitate less pro-cyclical sub-national fiscal policies, while safeguarding debt sustainability, in the future.

In particular, specifying sub-national rules in terms of cyclically-adjusted budget balances should in principle help avoid pro-cyclicality, while safeguarding fiscal sustainability (provided of course that the rules' targets are chosen on the basis of appropriately cautious debt dynamics scenarios). There are, however, a number of factors that would limit the effectiveness of such an approach in practice, and even advise against its adoption in some circumstances:

- First, the difficulties of estimating cyclically-adjusted fiscal aggregates are even more significant at the sub-national than at the national level. Most countries do not have reliable and timely estimates of regional or local output, even less of output gaps. Using national indicators of the cycle as a proxy can be appropriate when the cyclical shocks are evenly distributed across the national territory, but, as evidenced by the recent global financial crisis, this is not always the case.

  An alternative approach might be to use changes in labor market indicators (such as the unemployment rate, for which timely sub-national-level measures are generally available) as triggers for allowing deviations from the fiscal rule's target up to a pre-specified limit. However, this approach is clearly more suitable for advanced countries, characterized by high degrees of labor market formality, than for the LA countries, where labor market adjustments to cyclical shocks mainly occur in the informal sector and therefore are inadequately captured by changes in the official unemployment statistics.

  Moreover, such an approach would be more effective in avoiding a pro-cyclical fiscal tightening during a large negative output shock, than in avoiding a pro-cyclical fiscal expansion by resource-rich regions during a commodity price boom. For the latter, an alternative approach would be to require adjustments of the target balance for deviations in commodity prices from their medium-term trend. Given, however, the above-mentioned difficulties of obtaining reliable estimates of the medium term trend of commodity (especially oil) prices, it may be preferable to utilize sub-national rules that target the budget balance excluding resource revenues.

- Second, financing constraints tend to be tighter at the sub-national than at the national level, as market access is typically lower and more expensive for SNGs than for their corresponding CG. This suggests that the use of a sub-national fiscal rule allowing cycle-related deviations from a balanced-budget (or other sustainable balance) target should be accompanied by a requirement that SNGs use their budget surpluses during booms to accumulate liquid assets to be drawn down during downturns. This is for example the case in the US, where a number of state constitutions require the accumulation of so-called rainy day funds (Balassone et al., 2006). It is crucial that arrangements for the governance of such funds be very transparent, and that their use be guided by clear criteria, specified in advance of the crisis, leaving little room for

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[16] A transfer reform in Colombia in 2001 stipulated that CG transfers to SNGs would grow at a fixed annual real rate until 2016.

discretion, for example in the decision to start drawing on the fund, and the speed of its rundown.

- Third, consideration should be given to increased use of expenditure rules at the sub-national level. Such rules, while not necessarily avoiding pro-cyclicality during downturns (since they set ceilings, not floors, for public expenditures) help moderate it during upswings and, by promoting sub-national savings and asset accumulation during such periods, can help cushion the impact of subsequent recessions on spending.

- Fourth, broader reforms are likely to be needed in the system of inter-governmental fiscal arrangements, to effectively reduce the risk of pro-cyclicality at the sub-national level. In particular, one criterion for the choice of revenues to be assigned to SNGs should be a low elasticity to cyclical developments. This (as well as equity considerations) argues against the assignment of revenues from natural resources and from company taxes to the sub-national level, as well as against a derivation-based revenue sharing mechanism for such revenues. As regards other shared revenues, it may be desirable to use a sharing formula based on moving averages, rather than current values, of CG revenues, to help smooth cyclical fluctuations of SNGs' resources. Consideration could also be given to the use of automatic triggers for pre-specified changes in sharing formulas (symmetric over the cycle) when cyclical indicators reach certain threshold values. Finally, it would be preferable not to devolve to the sub-national level certain expenditures (such as unemployment benefits) that are both cyclically and socially sensitive (or at least their funding).

- More generally, CGs that want to ensure that their own (passive or active) counter-cyclical fiscal policies are not frustrated by pro-cyclical policies of their SNGs should endeavor to: strengthen the institutional arrangements for policy coordination with the latter; provide incentives (sticks and carrots) to them to build up adequate financial cushions during boom periods to withstand subsequent downturns; and help them improve their capacity to implement CG-funded stimulus measures (whether in the social or the infrastructure area) when needed.

6 Selected country experiences

6.1 Chile

Chile's 10 year experience with a structural budget balance-based rule provides a useful illustration of both the advantages of such a rule, and the relatively demanding pre-conditions for its successful design and implementation.

The rule was adopted in May 2000, at the outset of a new presidential mandate. It called for the achievement of an annual surplus equivalent to 1 per cent of GDP in the budget, adjusted for the effects of both the cycle and deviations of the price of copper from its long-term trend on revenues. All the variables and parameters used in the calculation of the structural balance were initially estimated by the Ministry of Finance, but within a year or so, with a view to strengthening the credibility of the estimates, the government appointed panels of independent experts to vet them.

The methodology of calculation of the structural balance was revised on several occasions in the subsequent years. Some of the changes represented useful refinements (e.g., the exclusion of deviations of actual from trend prices of molybdenum, a significant and volatile source of revenue for the state-owned mining company, CODELCO; a disaggregation of total revenues into main categories, and the estimation of the related elasticities; a separate treatment of tax revenues from private copper mining enterprises; and the exclusion of expenditures of a newly created unemployment fund). However, other changes (such as the inclusion in revenues "above the line" of valuation changes in the financial assets of the Pension and Economic and Social Stabilization

Funds; and the classification "below the line" of some expenditures to support certain public enterprises) were less defensible.

The choice of the initial target (a 1 per cent of GDP structural surplus), despite a low level of the public debt, was justified by a number of considerations, related in particular to: the existence of a significant quasi-fiscal deficit of the Central Bank; the desire to accumulate financial assets, as counterpart to the ongoing gradual depletion of copper resources; and concern about various known or contingent future liabilities. In 2008, the government decided to revise downward the target (to 0.5 per cent of GDP), in line with the recommendations of a panel of experts which had highlighted the significant improvement in the fiscal position since the introduction of the rule, following the recapitalization of the Central Bank and a decline in contingent liabilities. This revision was effected in a transparent and well explained manner, with no adverse repercussions on the credibility of the fiscal management of the country. In contrast, neither the rationale for, nor the planned duration of, a subsequent reduction of the structural surplus target to 0 in early 2009 – in conjunction with the announcement of a substantial (around 4 per cent of GDP) fiscal stimulus package – were spelled out by the government, raising some concern about the future of the rule.

The adoption of the structural rule in Chile gave impulse to a number of institutional reforms, which have improved the statistical base to monitor government operations (with the adoption in 2004 of the GFS 2001 Manual, and of accrual accounting), as well as the quality of the budget process. In particular, the commitment to a multi-year budget target facilitated a more top-down approach to the definition of overall and ministry-by-ministry spending ceilings, in combination with increased freedom and responsibility of budget managers in the allocation of the resources allotted to them. These changes are in line with modern best practices in budgeting and an essential pre-condition for a more performance-oriented public financial management. Various analyses have found evidence that the rule also contributed significantly to reducing spending volatility in Chile, and had beneficial macroeconomic effects, in terms of reduced output volatility and sovereign risk.

In view of Chile's success in the implementation of its SFR, an obvious question is what were the main factors responsible for the success, and to what extent they can be replicated in other countries considering a Chilean-type rule. Clearly, Chile had a number of conditions in place at the outset of the rule that boded well for its success:

- a fairly diversified productive base, and substantial trade openness;
- relatively flexible monetary and exchange rate policies, and a financial sector that had already undergone substantial restructuring and consolidation;
- an extended record of sound macro-fiscal management, as evidenced by the very low level of its public debt;
- a modern and broad-based tax system and a strong tax administration. Revenues from natural resources accounted for less than 10 per cent of total;
- a long tradition of top-down, disciplined budget management, and a relatively centralized system of intergovernmental fiscal relations; and
- a well-developed statistical base that facilitated the preparation of credible estimates of the structural budget balance, the timely monitoring of their realization, and a transparent dissemination of the relevant information.

Nevertheless, as indicated above, the authorities took a number of steps to strengthen the institutional base of the rule, while selecting an initial structural target that was probably more ambitious than would have been required to ensure both short-term macro stability and medium term debt sustainability. This prudent course of action contributed significantly to the success of an

approach which, while already common in a number of advanced countries, had few precedents among emerging markets, and none at all in LA.

The SFR came under some stress during the global financial crisis of 2008-09 that hit Chile quite hard. Given the absence of an escape clause in the rule, the government's decision to support the economy through a large (4 per cent of GDP) fiscal stimulus package (well justified, given Chile's strong fiscal sustainability indicators) inevitably required a violation of the rule in both 2009 and 2010. The new government that took office in 2010 decided to appoint a Commission of experts to carry out a comprehensive review of the rule and recommend any needed revision. The Commission's report was released in June 2011. Its main recommendations include:

- improvements in the methodology of estimation of some of the rule's parameters;
- relating the choice of the target to the cyclical position;
- inclusion of escape clauses; and
- the creation of a fiscal watchdog.

The government has not yet reacted officially to the Committee's recommendations.

6.2   Colombia

Among LA countries where the introduction of a SFR is currently under consideration, Colombia has made the most progress to date, by formulating a new fiscal responsibility law that includes a SFR, approved by the Congress in June 2011.

The law establishes the framework for the rule, leaving significant details to future regulations. Specifically, it establishes a ceiling of 1.5 per cent of GDP for the overall structural deficit of the central government[17]. The budget balance is adjusted for the output gap and for a (not further specified) transitory component of revenues from non-renewable resources. A transition period to 2015 is proposed for convergence of the structural deficit to the target.

The law allows for a temporary deviation from the structural target in case of a shortfall of actual from potential growth, to accommodate active fiscal stimulus of up to 25 per cent of the gap. Excesses over the target have to be corrected within two years, but there are no penalties for non-observance of the rule. The law includes (rather broadly defined) escape clauses, giving to the Government the power to invoke them. It also proposes various changes in the budget process, to facilitate implementation of the rule. Among them is the creation of a Saving and Stabilization Fund and of a mechanism (*Bolsa Concursable para el Gasto Nuevo*) to allocate the "fiscal space" available under the rule for new spending programs. This is modeled on a similar mechanism used in Chile. The law does not envisage the creation of a fiscal watchdog, but it requires the setting up of an independent expert panel to provide inputs into the estimation of the structural balance.

6.3   Brazil

Following decades during which endemic weaknesses and inadequate control of the public finances contributed importantly to macro-economic instability in Brazil, the country embarked in the late 1990s on a sustained fiscal adjustment, marked by high and rising primary surpluses of the consolidated public sector. The adjustment reflected strengthened policies; institutional improvements; and, especially since the mid-2000s, the beneficial effects on the public finances of a favorable external environment (strong external demand, high commodity prices and low

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[17]   As mentioned in Section 5 above, sub-national governments in Colombia are subject to relatively strict (not cyclically adjusted) borrowing limits.

international interest rates) and of increased domestic policy credibility. The resulting moderation in the public debt and the improvement in its structure allowed a strongly countercyclical response to the downturn in activity in the wake of the global financial crisis of 2008-09, in sharp contrast with the typically pro-cyclical fiscal responses to crises in the 1980s and 1990s. As a result, the Brazilian economy emerged from the downturn with remarkable speed and relatively small economic and social costs.

Fiscal policy has remained, however, strongly expansionary during the subsequent cyclical upswing, fueling an unsustainable pace of domestic demand growth, a pick-up of inflationary pressures and a significant deterioration of the external current account in 2010. Arresting and ultimately reversing these trends has become an important short-term imperative for macroeconomic, and in particular fiscal policy in Brazil. The adoption of a SFR could contribute to a more cyclically neutral (and ultimately more sustainable) conduct of fiscal policies in the future.

Brazil meets in principle the main pre-conditions for establishment of a SFR, at least for the federal government:

- no significant short-term financing constraints, and sustainable debt dynamics under a range of plausible scenarios;
- flexible exchange rate and monetary policy frameworks;
- a relatively strong budget framework (albeit marred recently by increasing resort to quasi-fiscal operations)[18] and sound PFM systems;
- a well-developed statistical base, and strong technical capacity within and outside the government.

The adoption of a numerical rule, as opposed to the current rolling three year fiscal framework, would strengthen fiscal discipline and increase pressures to address major structural fiscal reform needs in Brazil. But, to be effective, such a rule would require strong political support, the existence of which is unclear at present. Therefore, it may be preferable for the authorities to begin by systematically calculating and reporting cyclically-adjusted fiscal indicators, to inform the choice of the primary balance targets over the cycle.

This approach could be complemented by a number of other institutional reforms to strengthen fiscal management in the years ahead:

- the announcement by the government of its commitment to declining target paths for both the gross and the net public debt over the medium term, and to primary surplus targets consistent *ex ante* with such paths, with a simultaneous commitment to revisit each year (and adjust as needed) the primary surplus targets to ensure compliance with the debt targets. This would represent a strong signal of commitment to medium-term fiscal sustainability;
- a clarification in the budget document of the nature and amount of quasi-fiscal operations (such as funding of financial and non financial public enterprises not included in the budget; and private-public partnerships), with a systematic and transparent analysis of their future costs and risks for the public finances;
- refraining from (or at a minimum transparently disclosing) one-off revenues and/or anticipations of receipts and delays in expenditures that distort the assessment of the budget stance;
- the early passage of the proposed new organic budget law (*Lei de Responsabilidade Orçamentária*) which has been pending in Congress for over two years, and which would

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[18] In recent years, the coverage of the target variable (the primary surplus of the consolidated public sector) has been reduced through the exclusion of some key public enterprises and of a progressively expanding set of budgetary investments. Also, the meaningfulness of the primary balance as an indicator of the fiscal policy stance has been weakened by a significant use of one-off revenues and quasi-fiscal operations.

significantly strengthen and modernize the budget process; and

- the creation of an independent fiscal council/watchdog responsible for vetting budgetary projections and publicly reporting on a timely basis on the consistency of budgetary developments with the fiscal targets.

7   Conclusions

This paper has argued that, given LA's historical tendency towards pro-cyclical fiscal policies, the adoption of well designed and firmly implemented SFRs could in principle help reduce fiscal pro-cyclicality and promote sustainability in the region. This is supported by the fact that an important determinant of past pro-cyclicality (the emergence of tight financing constraints during adverse external shocks) has been significantly reduced (although probably not eliminated). Chile's broadly successful experience with a SFR witnesses to the benefits of such an approach.

However, the paper has also argued that there are several important prerequisites for the effective adoption and implementation of SFRs:

- first and foremost, a strong political commitment to the observance of the rule;
- a reasonably stable macro-economic environment, especially at the outset of the rule;
- a minimum set of PFM requirements, in terms of capacity to: formulate reliable budgetary projections; monitor the execution of the approved budget and respond on a timely bases to developments threatening the achievement of the rule's target; and appropriately account, and transparently report on the budget execution;
- reliable and timely fiscal statistics, and the capacity to obtain robust estimates of the relevant variables (potential output; trend commodity prices; and budgetary elasticities);
- adequate external scrutiny, not only *ex post* (through the traditional audit institutions), but preferably also throughout the budgetary process, through independent fiscal watchdogs; and
- appropriate enforcement mechanisms, including requirements of timely correction of deviations of budget outcomes from the target.

While several LA countries already broadly meet the main technical requirements for the adoption of a SFR, it is unclear at this time how many of them have the necessary political commitment to make a SFR (or for that matter any numerical fiscal rule) work effectively. It is encouraging that Colombia has recently adopted a fiscal responsibility law including a SFR, although with a number of important details still to be fleshed out; and that reportedly countries like Brazil, Peru and Uruguay are actively considering the adoption of a SFR. In these and other countries of the region, it may be appropriate for the authorities to begin calculating and utilizing systematically structural fiscal balances as indicators of the fiscal stance, to inform the choice of the annual or medium-term budget targets, before moving to enshrine them in a fiscal rule. Some countries could also benefit from shadowing a SFR before adopting it formally (as Chile did during part of the 1990s). This would allow refining the technical aspects of the approach and strengthening the relevant institutions, before committing the credibility of fiscal policies to the observance of a formal rule's target.

REFERENCES

Alesina, A., R. Hausmann, R. Hommes and E. Stein (1996), "Budget Institutions and Fiscal Performance in Latin America", IADB, Working Paper, No. 394.

Balassone, F. and M.S. Kumar (2007a), "Cyclicality of Fiscal Policy", in T. Ter-Minassian and M.S. Kumar (eds.), *Promoting Fiscal Discipline*, pp. 19-35, International Monetary Fund, Washington (D.C.).

Barnett, S. and R. Ossowski (2003), "Operational Aspects of Fiscal Policy in Oil-producing Countries", in J.M. Davis, R. Ossowski and A. Fedelino (eds.), *Fiscal Policy Formulation and Implementation in Oil-producing Countries*, International Monetary Fund, Washington (D.C.).

Barnett, S. and A. Vivanco (2003), "Statistical Properties of Oil Prices: Implications for Calculating Oil Wealth", in J.M. Davis, R. Ossowski and A. Fedelino (eds.), *Fiscal Policy Formulation and Implementation in Oil-producing Countries*, International Monetary Fund, Washington (D.C.).

Corbo, V., R. Caballero, M. Marcel, F. Rosende, K. Schmidt-Hebbel, R. Vergara and J. Vial (2011), *Propuestas para Perfeccionar la Regla Fiscal*, Informe Final del Comité Asesor para el Diseño de una Política Fiscal de Balance Estructural de Segunda Generación para Chile, Santiago (Chile).

Daude, C., A. Melguizo and A. Neut (2010), "Fiscal Policy in Latin America: Counter-cyclical and Sustainable at Last?", OECD, Development Center, Working Paper, No. 291, Paris (France).

Debrun, X., D. Hauner and M.S. Kumar (2009), "Independent Fiscal Agencies", *Journal of Economic Surveys*, Vol. 23, No. 1, pp. 44-81.

DIPRES (2005), "Informe de Finanzas Publicas. Proyecto de Ley de Presupuestos del Sector Publico para el Año 2006", available at: http:www.dipres.cl/572/articles-37447doc pdf.pdf

European Commission (2010), "Public Finance Report in EMU 2010", *European Economy*, No. 4/2010.

Fedelino, A., A. Ivanova and M. Horton (2009), "Computing Cyclically Adjusted Balances and Automatic Stabilizers", IMF, Technical Note, published on the IMF.org website.

Girouard, N. and C. André (2005), "Measuring Cyclically-adjusted Budget Balances for OECD Countries", OECD, Economics Department, Working Paper, No. 434.

Hagemann, R. (2010), "Improving Fiscal Performance through Fiscal Councils", OECD, ECO Working Paper, No. 829, Paris (France).

Kopits, G. (2004), "Overview of Fiscal Policy Rules in Emerging Markets", in G. Kopits (ed.), *Rules-based Fiscal Policy in Emerging Markets. Background, Analysis, and Prospects*, pp. 1-11, Palgrave.

"Low-Income Countries", IMF, Working Paper, WP/05/24.

Larch, M. and A. Turrini (2009), "The Cyclically-adjusted Budget Balance in EU Fiscal Policy Making: A Love at First Sight Turned into a Mature Relationship", *European Economy – Economic Papers*, No. 374.

Larrain, F. (2008), "Chile Menos Volátil?", *El Trimestre Económico*, No. 299, July-Sept.

Lefort, G. (2006), "Política Fiscal con Meta Estructural en Experiencia Chilena", Powerpoint presentation offered at the Second Annual Meeting of the LAC Debt Group in Cartagena, Colombia.

Maliszewski, W. (2009), "Fiscal Policy Rules for Oil-producing Countries: A Welfare-based Assessment", IMF, Working Paper, No. WP/09/126.

Marcel, M. (2009), "La Regla de Balance Estructural en Chile: Diez Años, Diez Lecciones", mimeo.

Perry, G., L. Serven and R. Suescun (2008), "Fiscal Policy, Stabilization and Growth", Washington (D.C.), The World Bank.

Stein, E., E. Talvi and A. Grisanti (1998), "Institutional Arrangements and Fiscal Performance: The Latin American Experience", NBER, Working Paper, No. 6358, Cambridge (MA), NBER.

Sutherland, D., R. Price and I. Joumard (2005), "Fiscal Rules for Sub-central Levels of Government: Design and Impact", OECD, Economics Department, Working Paper, No. 465.

Ter-Minassian, T. (2011), "Main Fiscal Challenges for Brazil", in *CESifo Economic Forum*, No. 1, Munich, Germany.

Ter-Minassian, T. and A. Fedelino (2010), "Impact of the Global Crisis on Sub-national Governments' Finances", in IEB (ed.), *Fiscal Federalism Report*, Barcelona (Spain).

Villafuerte, M., P. Lopez-Murphy and R. Ossowski (2010), "Riding the Roller Coaster: Fiscal Policies of Non-renewable Resource Exporters in Latin America and the Caribbean", IMF, Working Paper, No. 10/251, Washington (D.C.).

PUBLIC INFRASTRUCTURE INVESTMENT AND FISCAL SUSTAINABILITY IN LATIN AMERICA: INCOMPATIBLE GOALS?

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Latin American countries exhibit a significant gap in infrastructure stocks, due to low and in many cases inefficient public investment, which is furthermore not compensated by private sector projects. In this paper we analyse trends in public and total infrastructure investment in six large Latin American economies, in the light of fiscal developments since the early eighties. We argue that post-crisis fiscal frameworks, notably fiscal rules which are increasingly popular in the region, should not only consolidate the recent progress towards debt sustainability, but also create the fiscal space to close these infrastructure gaps. These points are illustrated in a detailed account of recent developments in the fiscal framework and public investment in the Peruvian case.

1   Introduction

Low and volatile public investment in infrastructure is one of the most frequently-cited causes of slow long-term output growth in many Latin American countries. Certainly, fiscal adjustments have been quite sharp following economic crises in the region; have these periodic fiscal contractions harmed long-term infrastructure investment? We find that the evidence for this hypothesis is not that strong. Nevertheless, there are links between fiscal sustainability and public investment in infrastructure. Namely, high financing costs due to weak fiscal sustainability seem to have contributed significantly to low levels of infrastructure investment in Latin America. This finding raises the possibility that fiscal consolidation and public infrastructure investment could be complements, rather than substitutes, given the right policy setting. Accordingly, the paper reviews and discussed how fiscal frameworks in the region can be reformed to create fiscal space for more public infrastructure investment.

Latin America overcame the 2008-09 international crisis with apparently robust macroeconomic health. At the onset of the crisis, most countries in the region had positive budget surpluses, reasonably low debt-to-GDP levels and credible monetary policies thanks, in several cases, to inflation-targeting regimes. As the crisis progressed, policy makers could boast significant fiscal stimulus packages while keeping country risk in check. These solid balances stood in stark contrast to the region's historic performance, in which fiscal fragility had been at the root of protracted crises, including the dramatic debt crisis of the 1980s.[1] Although in the first two quarters of 2009 all countries suffered significant slowdowns – in many cases, recessions – by mid-2009,

[1]   The region's experience of the crisis is summarised and analysed in OECD (2009). Was this success due to greater policy space that allowed the use of effective countercyclical fiscal policy? The limited information on the actual implemented packages, the uncertainty on the size of fiscal multipliers, and the combined effects of other favourable external factors involved make it difficult to provide a clear answer. Moreover, the debate on the cyclical or structural nature of fiscal improvements in several Latin American economies in recent years remains somewhat polarised (ranging from the more pessimistic views in Izquierdo and Talvi, 2008, to the more positive ones in Vladkova-Hollar and Zettelmeyer, 2008, and Daude *et al.*, 2011).

most economies were already showing solid signs of recovery. After a decline in GDP of 1.9 per cent in 2009, the region grew at 5.9 per cent in 2010 and is expected to perform at above trend-growth levels during 2011 and 2012.

Interestingly, with the exception of Brazil, public investment was the primary vehicle of choice for countercyclical fiscal expansions. Governments in the region announced fiscal stimulus packages ranging in size from around 3 per cent of GDP in Chile and Peru, through 1.5 per cent in Argentina and Mexico to 0.6 per cent in Brazil. Infrastructure investment constituted 2 percentage points of GDP in Peru, more than 1 percentage point in Chile and Argentina and more than half a point in Mexico. To put all these figures in context, governments in OECD economies announced fiscal stimulus packages averaging 3.4 percentage points of GDP from 2008 to 2010, with infrastructure investment accounting for one fifth of this.

Now that the bulk of the crisis seems over, the debate – in Latin America as in OECD countries – is turning to the exit strategy from the expansive/accommodative monetary and fiscal stance. This is notably the case in emerging economies given that domestic demand remains solid and negative output gaps have probably been already reversed, so most international institutions are suggesting the need to withdraw stimulus packages (see, for instance, OECD, 2010, and IMF, 2011). In this situation, in countries where currencies have appreciated and capital inflows remain buoyant, as is the case in Latin America, fiscal adjustment is a quite sensible option.

The discussion regarding fiscal policy in this adjustment phase focuses on three main questions: the timing of the process (*when*), the size of the required fiscal adjustment (*how much*), and its composition both in terms of revenues/expenditure, but also by type of taxes and expenditure items (*what to adjust*). A general agreement seems to be emerging with respect to at least two desirable conditions of the fiscal adjustment. First, it should be "growth-friend" in the short run, which directs attention to the *timing* of the consolidation.[2] Second, it should be "development-friendly" in the medium and long run, where more attention is devoted to its *composition*.[3]

This paper contributes to this second, development-friendly, dimension of the debate on fiscal exit strategies. In particular, we stress the relevance not just of maintaining public investment in infrastructure, but creating more fiscal space to increase it for the case of Latin America. The main institutional arrangements of fiscal frameworks and rules in the region are discussed with an emphasis on how they affect public investment. Our conclusions does not stem from the conventional wisdom which holds that fiscal consolidations have typically led to reduced investment, but rather from long-term factors affecting the cost of financing. This has profound policy implications, since the required policy responses differ. According to our analysis, the priority should be to generate more fiscal space in the long-run, beyond immediate cyclical considerations, rather than simply allowing for more discretionary fiscal space during economic slowdowns.

The paper is organised as follows. In the second section we describe investment trends in infrastructure, both public and private, in six large Latin American economies since the early 1980s, linking them with the observed and structural state of public finances. Additionally, we present estimations of infrastructure patterns and their determinants for the region as a whole, in comparison to other emerging economies. In section three we integrate this diagnosis with the current debate on fiscal exit strategies, based on the theoretical and empirical literature on fiscal policy and public investment. We assess the implementation and reform of fiscal rules which take into account public investment in Argentina, Brazil, Chile, Colombia, Mexico and Peru. We pay

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[2]   This discussion ignores for now the possibility that fiscal consolidations have expansionary effects in and of themselves.

[3]   For a comprehensive qualitative and quantitative revision for an extended G20 group, see Bornhorst *et al.* (2011).

particular attention to the case of Peru, as a potential benchmark for other developing countries, since it is one of the countries that exhibit both large infrastructure gaps, and some interesting recent experience in setting up fiscal rules that created space for public investment. The main conclusions and references close the paper.

2   Infrastructure trends in Latin America

Unfortunately, comparable statistics on public or private infrastructure investment in Latin America are not available for a large group of countries. This reflects probably the problem that "what gets attention gets measured and what gets measured gets attention" (Commission on Growth and Development, 2008). Therefore, rather than giving a comprehensive survey of all countries in the region, we focus on those for which data are available from the World Bank's work on infrastructure in Latin America (e.g., Calderón and Servén, 2010): Argentina, Brazil, Chile, Colombia, Mexico and Peru (LAC-6, henceforth). These six countriesrepresent altogether around 85 per cent of Latin America's GDP, and therefore a significant share of total investment in the region. Furthermore, this sample covers a wide range of experiences regarding investment trends, both public and private, as well as budgetary frameworks and fiscal rules.

Latin America exhibits relatively low investment rates in the main infrastructure categories: water, telecommunications (both fixed and mobile lines), land transport (roads and railways), and electricity (generation capacity). While during the 1980s, total investment in infrastructure in the LAC-6 area was on average around 3.3 per cent of GDP, after the adjustment of the 1990s, in the period 2000-06 total infrastructure investment amounted to just 2.0 per cent of GDP (see Figure 1). These investment levels are far below those recommended by the literature to sustain high growth rates. For example, the aforementioned *Growth Report* by the Commission on Growth and Development (2008) highlighted that in fast-growing Asia, public investment in infrastructure accounts for around 5.0 to 7.0 per cent of GDP.

Figure 1

Public and Total Investment in Infrastructure in LAC-6 Countries
(weighted average, percent of nominal GDP)
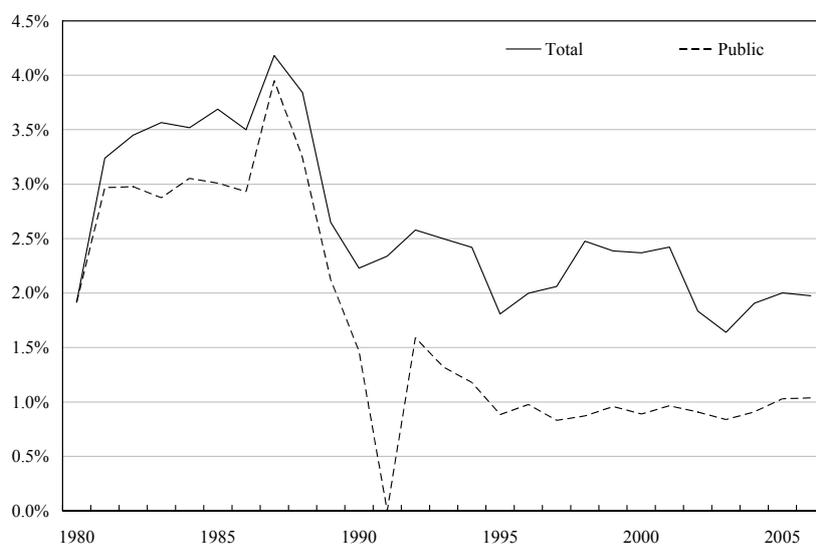
Source: Authors' calculations based on Calderón and Servén (2010).

Most of the reduction in total infrastructure investment was due to a retrenchment in public investment by the general government, from 2.9 per cent of GDP during the 1980s to 0.9 per cent as of 2000-07. This public reduction was furthermore not compensated by the increase in private investment, which rose from 0.5 to 1.0 per cent of GDP in the same period. Thus, despite the fact that the privatisation of state-owned enterprises in several of these

economies during the 1990s explains, or even justifies, the reduction in public investment, it seems that the private sector was unable to fill the gap as it was expected to do. The spread of Public Private Partnerships (PPPs) in strategic sectors has not changed significantly the picture, stressing the need for high-quality institutions (for the procurement and concession processes) and regulations, and more developed capital markets.

However, it is important to note that there are some important differences within the region.[4] The regional trend is largely driven by the largest of these six economies: Argentina, Brazil and Mexico. For these three economies, public investment in infrastructure fell around two percentage points of GDP, while private flows increase one point in the best cases (Figure 2). In contrast, Colombia and especially Chile have managed to compensate the reduction in public investment, with an increase in private infrastructure investment. Peru represents an extreme case, not only for its low level at the start of the period of analysis, but also for the sudden stop in total investment flows in the late 1980s. Indeed, in Peru as in most of the countries in the region, public investment in infrastructure is not only too low, it is also too volatile.

2.1   *Fiscal consolidation and public investment in infrastructure*

The conventional wisdom stresses that, leaving aside the long lasting effects of the balance of payment crisis in the 1990s, Latin-American policymakers have been prioritising fiscal discipline to restore macro and financial stability. As shown in Calderón and Servén (2004), Martner and Tromben (2005), de Mello and Mulder (2006) or CAF (2009), improvements in primary structural fiscal balances achieved since the mid-1980s in many countries in the region did not come from retrenching current expenditure, but rather from revenue hikes and declines in public infrastructure investment. Lora (2007) also confirms the negative correlation between public infrastructure investments with the current fiscal balance in seven Latin American economies, while debt increases are associated with higher public infrastructure investment. In particular, IMF fiscal adjustment loans are associated with lower levels of public investment in infrastructure, according to this author.

A simple graphical approach corroborates, but only weakly, this view (see Figure 3 for a regional weighted average and Figure 4 for the national series). From the mid-1980s to the early-mid-1990s, the reduction of public deficit (cumulatively, 6.3 percentage points of GDP in the period 1987-1992 from for LAC-6) has been accompanied by the reduction in public infrastructure investment (–2.4 percentage points of GDP, while private investment in the same period only rose 0.8 percentage points). In other words, one third of the improvement in fiscal accounts can be effectively attributed to lower infrastructure investment.

A closer look at the evolution of investment rates, headline and cyclically-adjusted budget balances and the business cycle provides a more ambiguous image. In particular, during the whole period of analysis, 1980-2006, it does not seem that fiscal consolidations during crises are the key driver of lower investment rates. The correlation of the variation of fiscal balance and investment retrenchment is low (left panel in Figure 5). This correlation is even weaker when the fiscal stance is measured by the cyclically-adjusted budget balance, a more precise indicator of discretionary fiscal decisions (right panel in Figure 5).[5]

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[4]   It is important to note that significant heterogeneity is also evident among different infrastructures. The described general trends are dominated by the performance in the electricity and land transportation sectors. By contrast, private investment in telecommunications has more than compensated public investment retrenchment. Finally, public investment in the water sector has been fairly stable, with only marginal contributions from private initiatives.

[5]   Similar results are obtained analysing just the episodes of fiscal improvement and investment reduction (first quadrant of these figures). Additionally, results are robust to the definition of the GDP in trends.

Figure 2

**Public and Total Investment in Infrastructure**
(percent of nominal GDP)
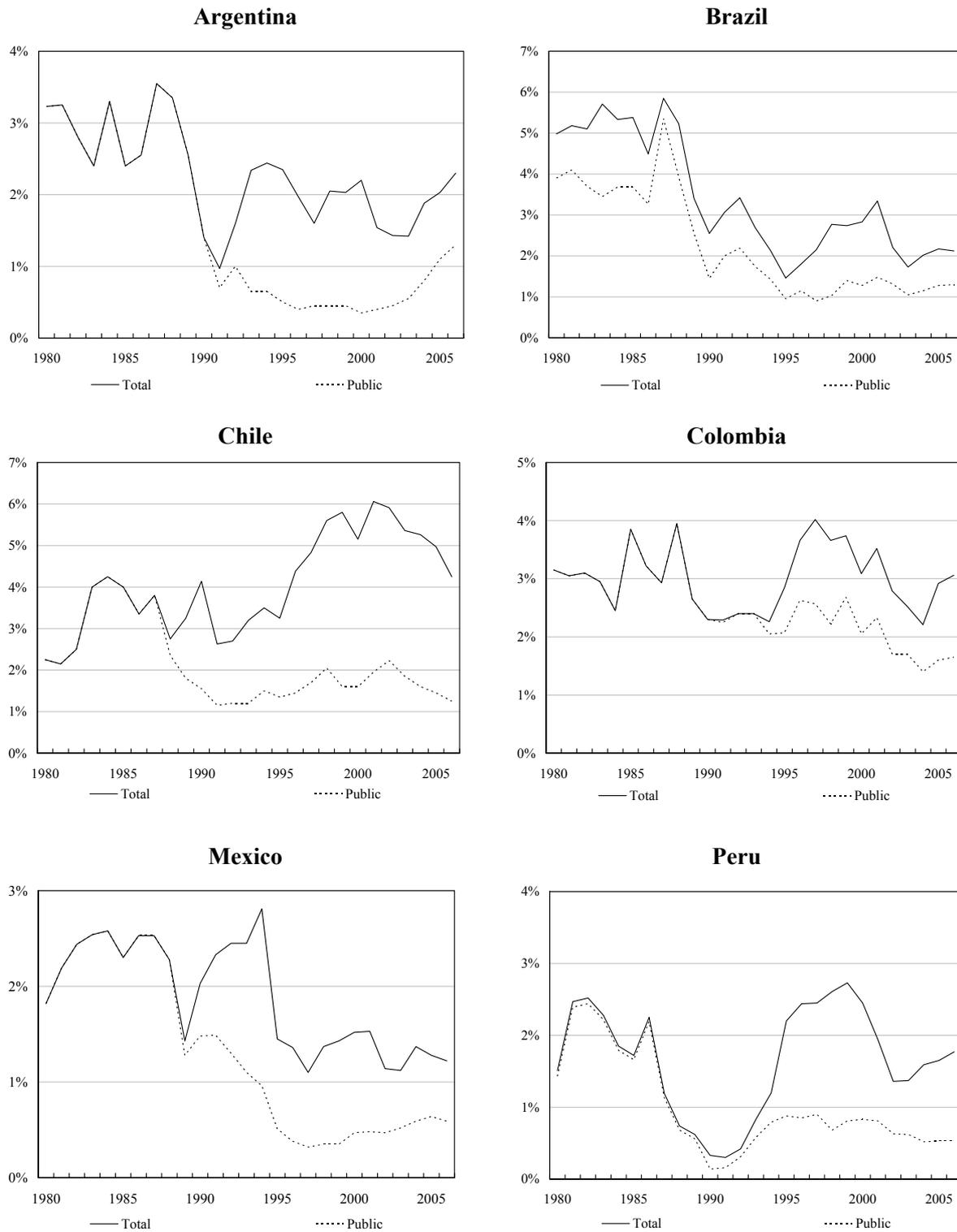
Source: Authors' calculations based on Calderón and Servén (2010).

Additionally, following the exercise by Martner and Tromben (2005), we analysed episodes of sustained fiscal consolidations, defined as those in which budget balance improved for two or more consecutive years. Also for these episodes, irrespective of whether the analysis is done based on observed or on cyclically-adjusted balances, the infrastructure component of fiscal improvements remains limited (Figure 6). For instance, focusing on the latter, only in the cases of Colombia 1999-2004 and Chile 2002-05, and less so Peru 2000-03, investment drove fiscal developments (right panel of Figure 6).

Figure 3

**Public Investment in Infrastructure
and Budget Balance in LAC-6 Countries**

(weighted average, percent of nominal GDP)
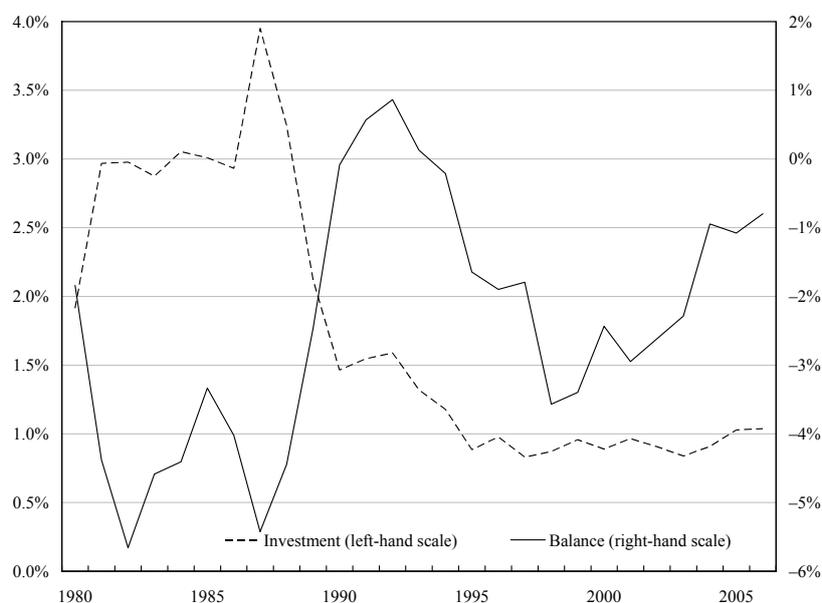
Source: Authors' calculations based on Calderón and Servén (2010), ECLAC and IMF databases.

In spite of this, closing the infrastructure gap remains a fiscal issue, whether done jointly with private firms, or by the public sector alone. In particular, as international and regional experience indicates that, due to a combination of flawed contract design, imperfect regulation, deficient institutions and macroeconomic shocks, private provision of infrastructure often involves renegotiations of contracts and consequent changes in contractual conditions that should be accounted for as contingent liabilities of the public sector (for Latin America, see Guasch *et al.*, 2007, for the sectors of transport and water, and Engel *et al.*, 2003, for highways). Therefore, the emerging consensus is that PPPs should be pursued in sectors and activities where the private sector management and execution add value and efficiency relative to the public sector, but not to create artificial fiscal space to increase infrastructure investment (e.g., see OECD, 2008b). Additionally, countries with higher debt-to-GDP levels also exhibit larger infrastructure gaps, as we show in the next section. All of this supports the generation of a significant fiscal space for the next decades.

2.2   *Infrastructure gaps, debt and governance*

As a consequence of years of low – and probably rather inefficient – investment in infrastructure, many countries in Latin America present significant infrastructure gaps (see Perry *et al.*, 2008; CAF, 2009; or Perroti and Sánchez, 2011). The shortfalls are especially evident in the transportation and electricity sectors. The literature agrees upon the importance of gaps both in quantity and quality of infrastructures in the region.
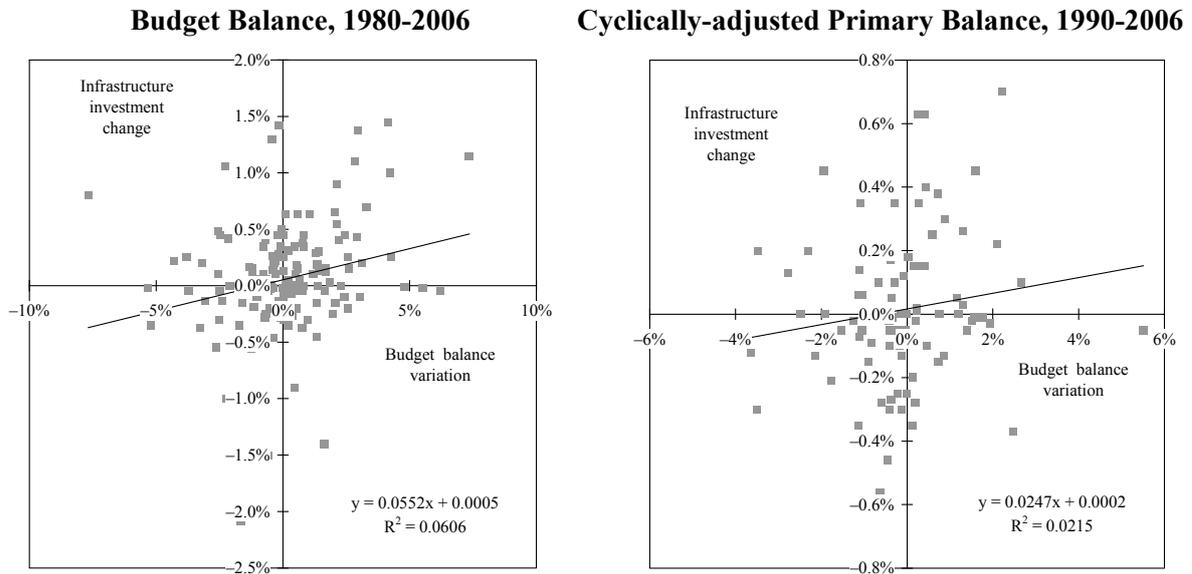
Figure 4

Public Investment in Infrastructure and Budget Balance
(percent of nominal GDP)
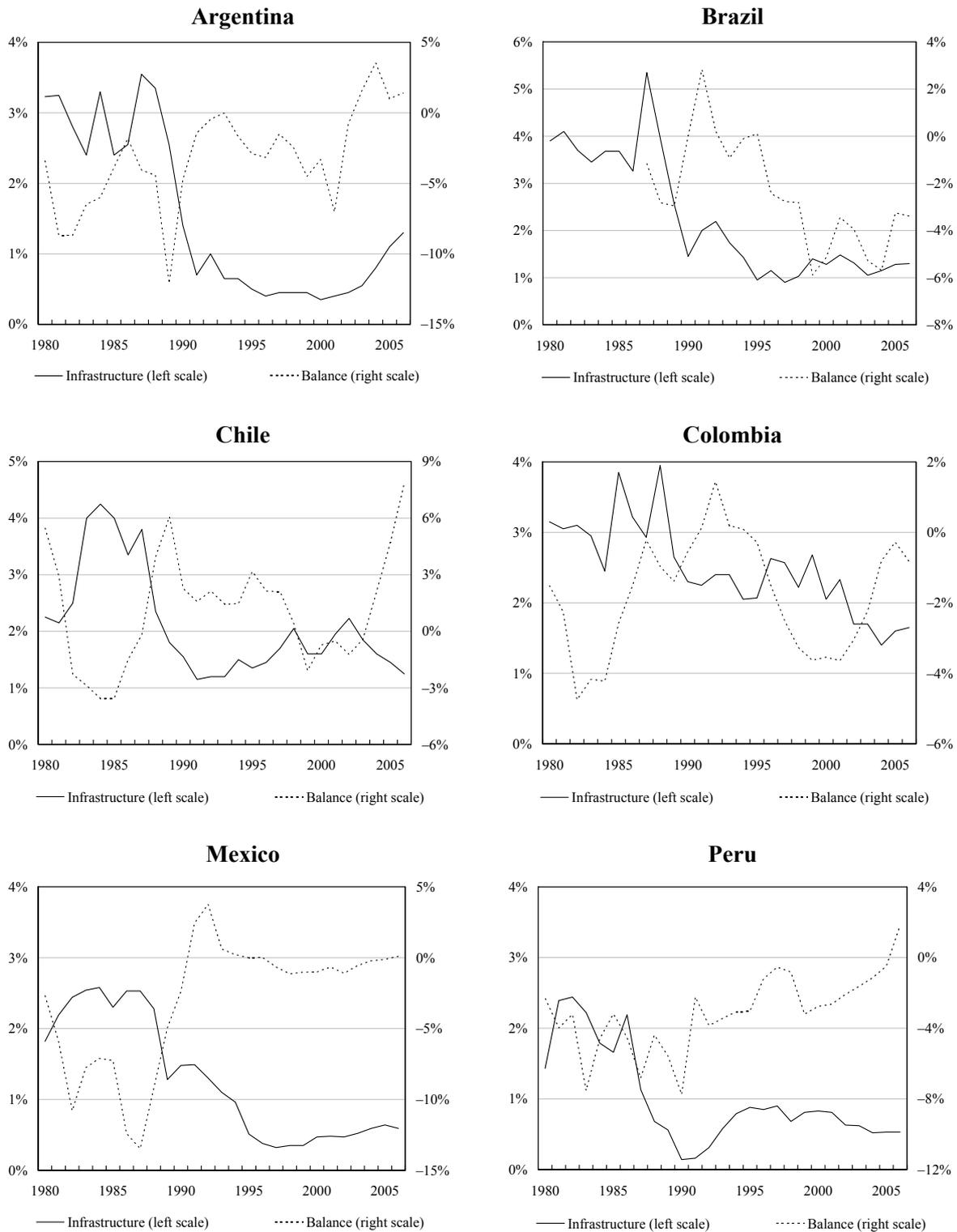
Source: Authors' calculations based on Calderón and Servén (2010), ECLAC and IMF databases.
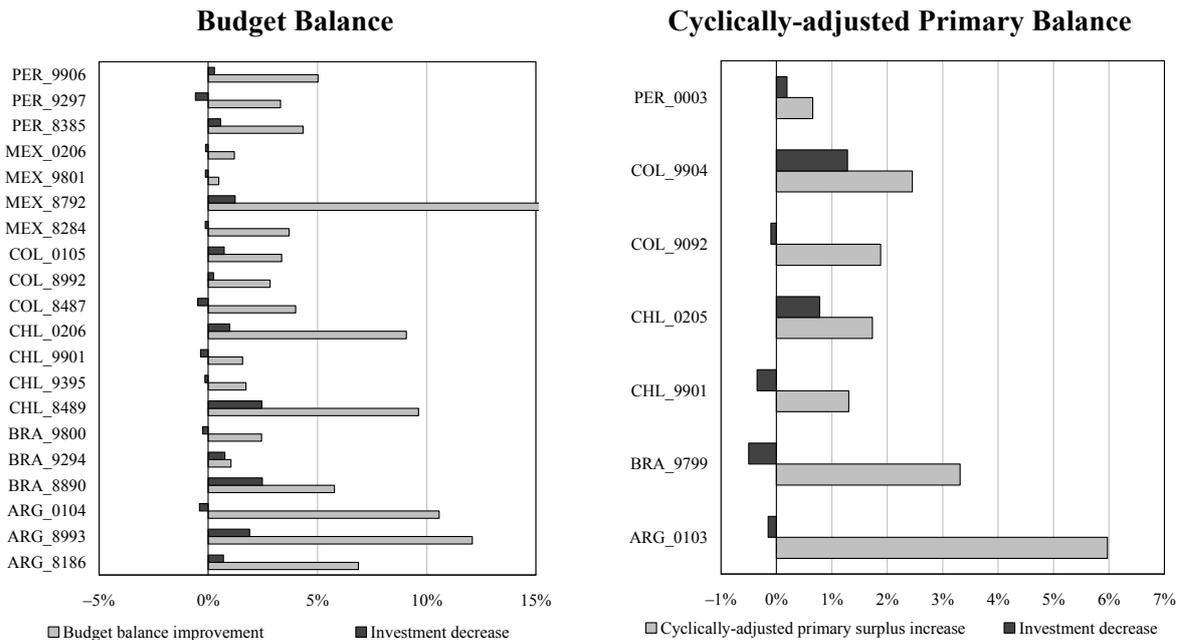
Figure 5

Public Investment in Infrastructure vs. Budget Balance Variations
(surplus increase vs. investment reduction, percent of nominal GDP)

Budget Balance, 1980-2006

$y = 0.0552x + 0.0005$
$R^2 = 0.0606$

Cyclically-adjusted Primary Balance, 1990-2006

$y = 0.0247x + 0.0002$
$R^2 = 0.0215$

Source: Authors' calculations based on Calderón and Servén (2010), Daude *et al.* (2011), ECLAC and IMF databases.
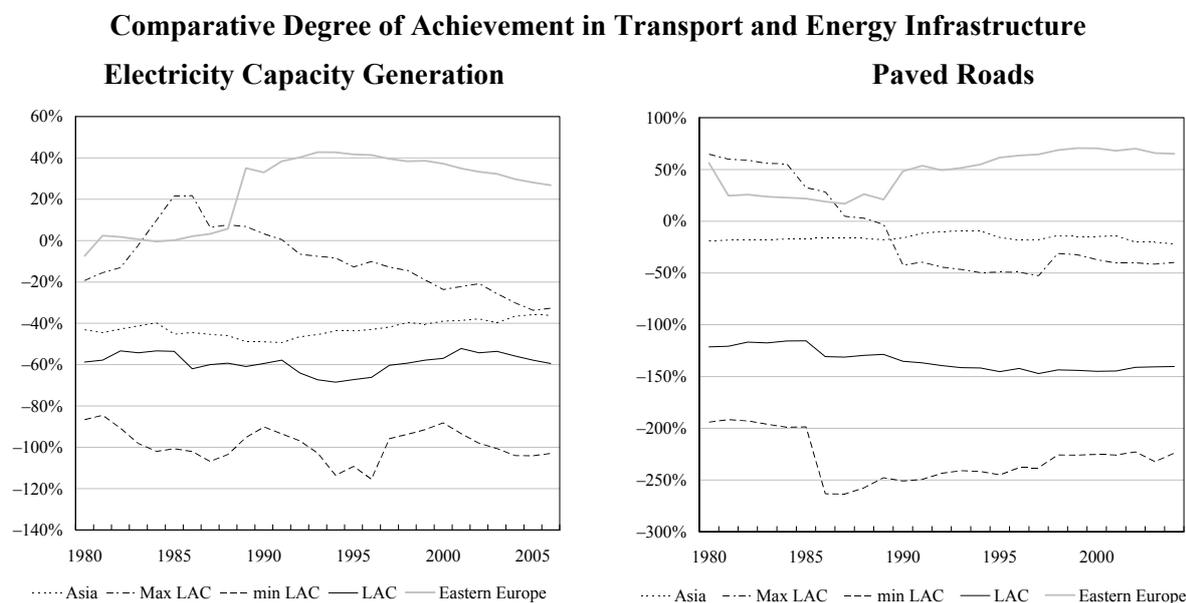
Figure 6

Fiscal Balance Improvement and Investment Reduction
(surplus increase or deficit decrease vs. investment reduction, percent of nominal GDP)

Budget Balance

Cyclically-adjusted Primary Balance

Source: Authors' calculations based on Calderón and Servén (2010), Daude *et al.* (2011), ECLAC and IMF databases.

Figure 7

Comparative Degree of Achievement in Transport and Energy Infrastructure

Electricity Capacity Generation — Paved Roads

Notes: The degree of achievement is the log difference between the observed pattern and the country-specific expected value according to the contra-factual estimated from a regression on the degree of urbanisation, the sectorial composition of output, population density, GDP per capita, country fixed effects and common time effects.
Source: Balmaseda *et al.* (2011)

However, most papers analyse observed infrastructure stocks across countries. This might be misleading as it does not take into account structural characteristics which determine the optimal level of infrastructure. For example, the degree of urbanisation or geographical dispersion of the population determines the optimal and effective amount of roads and other transport infrastructures.

Compared to a counterfactual based on such country characteristics, Latin American economies perform in general below their expected patterns (see Figure 7). As of 2007, a back-of-the-envelope calculation of the cost of closing these gaps shows that they amount well above 30 per cent of the regional GDP (Balmaseda *et al.*, 2011). The weak performance of Latin America is especially worrisome when contrasted to other developing countries and emerging markets (notably Asia and Eastern Europe). Furthermore, there has been little advancement over the last two decades regarding these gaps in the region.

These large shortfalls in key infrastructure categories are often considered one of the factors that explain Latin America's low levels of economic growth and persistent levels of inequality and poverty. As public infrastructure investment in general is assumed to have growth enhancing properties (see Aschauer, 1989; and Fernald, 1999), these low levels of investments in the region are worrisome. For example, Calderón and Servén (2010) estimate that more adequate investment and infrastructure quality in Latin America could accelerate GDP growth significantly. However, there is also evidence showing that public investment does not translate automatically into more infrastructure and economic growth (see, for instance, Pritchett, 2000). An adequate framework – not only for regulating private infrastructure investment but also implementing and evaluating *ex ante* and *ex post* public projects – is important. Otherwise, it is more likely for public investment to simply crowd-out – at least in part – private investment, and have only a reduced impact on economic growth (Cavallo and Daude, 2011).

What explains quantitatively these infrastructure gaps in Latin America? As discussed above, a prominent explanation has been fiscal consolidation programmes that have cut public investment, as other budget items – current expenditures – are less flexible to postpone or reduce fast. In fact, Balmaseda *et al.* (2011) show that a significant fraction of the cross-country differences in the degrees of achievement in infrastructure is explained by fiscal and institutional factors. The results show that countries with higher public debt-to-GDP ratios tend to underperform in terms of infrastructure. Also, a higher budget balance is correlated with less achievement in transport infrastructure (not so for energy). In both cases, the quality of institutions relevant for the management of public infrastructure projects has a positive and significant impact on the degree of infrastructure achievement.

While on average debt-to-GDP levels have declined and the debt composition has become less risky in terms of currency composition and maturity in the past decade in Latin America, these estimates show that countries with high levels of debt could still benefit from fiscal consolidation, as lower debt levels imply lower financing costs for infrastructure investment (either public or private). However, if such a consolidation is based primarily on a reduction of public investment, it will come at a price of increasing further the infrastructure gaps at least in some sectors. The other important result is that in terms of explaining differences across countries in their infrastructure achievements, the institutional dimension is important. Actually, the quality of the bureaucracy explains by its self almost one fourth of the total variation in the observed infrastructure gaps. A one-standard-deviation improvement in this dimension (e.g., passing from Peru's institutional quality to that of Chile), would on average close the gap in paved roads by around 58 per cent and the gap for electricity generation by around 45 per cent. This shows the importance of adopting complementary reforms in public institutions which would raise the efficiency of public investment more generally (a point emphasised by Isham and Kaufmann, 1999; Fedelino and Hemming, 2005; and Cavallo and Daude, 2011, among others). Of course, other drivers are also relevant, in particular the development of financial markets.

## 3   Public infrastructure investment, fiscal perspectives and frameworks

At the same time, there is no doubt that Latin America shares the need to pursue fiscal consolidation. According to standard debt sustainability analysis, fiscal positions in most countries in the region during the 2000s were in line with those needed to stabilise the current debt-to-GDP ratios, and much closer that those exhibited among most OECD countries. However, with the exception of Brazil, Latin America has not completely decoupled in this sense, such that in some cases a considerable fiscal consolidation is needed in the years ahead. According to Daude *et al.* (2011), cyclically-adjusted primary balance should increase between 2 and 4 percentage points of GDP to stabilise debt at pre-crisis levels.[6] In a similar exercise, OECD (2010) estimates that the required fiscal adjustment in industrialised economies is higher than 5 percentage points of GDP (Figure 8).

The main difference between Latin America and other regions, especially developed countries, is that fiscal adjustments in the region tend to be required mostly for cyclical reasons, as its strong recovery and high commodity prices are pushing countries in South America into the expansive phase of the business cycle. For example, while Chile would require an improvement of 3.8 p.p of GDP to stabilise its debt-to-GDP ratio, the highest in our sample, this ratio was just around 13 per cent of GDP as of 2009.

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[6]   Of course, initial debt-to-GDP ratios differ significantly across countries in the region. For example debt levels in Chile in 2009 were around 13 per cent of GDP, while in Brazil it was around 48 per cent of GDP.

Figure 8

**Required Change in Structural Primary Balances
to Stabilise debt-to-GDP Ratios**

(percent of nominal GDP)
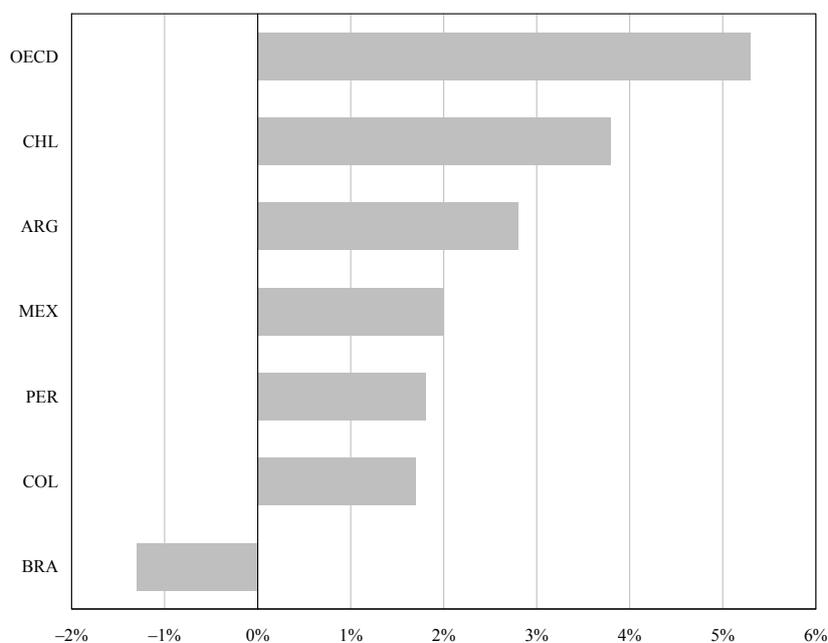
Source: OECD (2010), and Daude *et al.* (2011) for Latin America.

However, as important as the size and urgency of the fiscal adjustment ahead is its composition. The current debate on fiscal frameworks runs the risk of being too limited. This is delicate, since well-defined fiscal frameworks (from budgetary processes and numerical fiscal rules, to fiscal agencies and councils)[7] can both enhance social confidence in the medium-term orientation of fiscal policy and facilitate returning public finances to sustainable positions in the short-term (OECD, 2010). As the IMF clearly put it: "where improvements are needed, reforms to these (fiscal) institutions should be part of the exit strategy" (Bornhorst *et al.*, 2010).

In order to avoid this potential drawback, the debate on fiscal frameworks should complement the usual sustainability focus with at least two other dimensions. First, reforms should address socio-economic challenges in the short-run, leaving enough room for stabilisation policies (automatic and discretionary, at least during severe downturns). And second, they should incorporate medium and long run elements, managing both "assets" (for instance commodity revenues) and "liabilities" (such as poverty reduction, infrastructure gaps, and age-related expenditures).

Focusing on the infrastructure dimension, in order to set an adequate framework in practice, it is important first to review first the trade-off regarding sustainability and public investment. It is often argued that fiscal consolidation programmes based on cutting public infrastructure investments are short-sighted as these investments would increase potential output growth and therefore increase fiscal solvency (Easterly *et al.*, 2008). Thus, if the growth effects would be taken into account in the solvency assessments and the fiscal policy framework more in general, reducing public infrastructure investments would be less attractive.

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[7] Fiscal frameworks, oftentimes regulated though fiscal responsibility laws take into account not only numerical goals, but also procedures, jurisdictional coverage sanctions, escape clauses, and cyclical considerations (see Corbacho and Schwartz, 2007 for a survey). Theoretical and empirical analysis of fiscal rules can be found in Kopits and Symansky (1998) and Kopits (2001). For a recent overview of the experience with independent fiscal councils see Debrun *et al.* (2009) and Hagemann (2010). The relationship between budgetary institutions and fiscal performance in Latin America and OECD countries can be found in Boyer *et al.* (2011). In all cases, the authors stress that each components are necessary but not sufficient conditions for a better fiscal policy, and highlight the need of strong political commitment.

The argument depends on the balance between solvency risks (and probably also liquidity risks) that could trigger a higher financing cost versus the gain in terms of economic growth. In this sense, it is true that public investment reduction during the late 1980s and early-1990s might have set the scene for the low growth performance during the 1990s in Latin America. However, it is also important to remember that most countries were still in default from the 1981-82 debt crisis and that these fiscal adjustments were part of larger packages under the *Brady Plan* to regain access to finance. Clearly, the reliance on privatisation without proper regulation did not create the expected results in terms of private investment in the region. However, it is not clear if at that time countries had many other options given the overall bad state of public finances. Nowadays, especially resource-rich countries in South America are closer to a situation where they have to decide on the optimal mix between reducing debt further – which would allow a lower interest rate and boost private investment – and more public investment in infrastructure.[8]

3.1   Public infrastructure investment and fiscal policy: main policy options

One traditional fiscal framework that in principle allows for more fiscal space to finance public investment are the so-called *golden rules*, which set targets on the current balance and exclude capital expenditures. In theory, they have many advantages if higher public investment translates into higher growth, and therefore more revenues to sustain debt levels (see Blanchard and Giavazzi, 2004). In some sense, this alternative assumes a private-sector approach, in which current revenues finance current expenditures, while borrowing finances capital expenditures. These provisions tend to be used rather often. According to the IMF (2009), around one third of the fiscal rules in emerging and developing countries exclude public investment and other special items from budget targets. However, these paths are not free of practical problems. In addition to the need to run separate (and credible) budgets, the public sector does not usually receive financial returns on its investment, departing from the private sector rationale (Martner and Tromben, 2005).[9] Besides, several authors have pointed out that even if budget policy remains fiscally sustainable (an assumption which is far from evident in this framework) public infrastructure investment has decreasing rates of returns, and that separating the budget may introduce a bias against education, health and other intangible investments (see IMF, 2004; Fedelino and Hemming, 2005; and OECD, 2010 for critical approaches).

Another popular policy option, accepted by several public accounting conventions, is to exclude from the fiscal targets the operations of commercially-run public enterprises. By this means, investment expenditure can be registered along several years. However, once again, it is not straightforward how to identify these public enterprises. The spread of PPPs is a related promising option, if accompanied by good procurement and concession processes, and adequate regulatory frameworks.[10]

Finally, a more general and also promising formula would be to explicitly adopt macro-fiscal rules. They should require, by law, the accumulation of savings during good times, generating the fiscal space to maintain public investment during economic downturns (for a comprehensive analysis of the main issues in defining and implementing structural fiscal rules in Latin America, see Ter-Minassian, 2011). We will devote the next two sections to macro-fiscal rules, adapted to the context of the main Latin American economies.

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[8]   For a framework that deals with these trades-offs for resource rich countries see van der Ploeg and Venables (2011).

[9]   A variation of this rule, also discussed and dismissed for practical problems in Martner and Tromben (2005), would consist in changing the public accounting principles, and record investment as an increase in non-financial assets.

[10]   For an analysis of the different options to increase public investment in Brazil, Chile, Colombia and Peru, see IMF (2004).

3.2   Basic principles for a way forward

Based on previous arguments, fiscal consolidation and infrastructure convergence should be made compatible, taking also into account an additional restriction: the particularly strong association of investment and political cycles in Latin America (OECD, 2008a, chapter 3; Nieto-Parra and Santiso, 2009). A way forward for fiscal policy in Latin American countries (both in the short and the long run) could be based on setting rules and frameworks which incorporate an optimal path towards steady state for an economy with a large infrastructure gap in a very simple way, specifying a debt objective and path, supplemented by a spending and/or deficit rule. A fiscal council could set the scenarios, estimating the gap, defining the deficit/debt and investment trends.

In this context, moving towards a fiscal framework that assesses more the long-term trade-offs between solvency and different government expenditures and investments seem not only feasible, but necessary. Of course, there are many practical questions of implementation to be addressed to achieve a more long-term approach to public finances that includes these growth effects. For example, infrastructure investments are not the only item with potential growth-enhancing effects. Public expenditures on education, health, or public security could also affect growth as well as the reduction of tax expenditures that create misallocations of resources could boost productivity. Furthermore, the estimates of the effects of these growth effects are inherently imprecise and could be subject to manipulation

Nevertheless, these challenges can be resolved and improved through learning-by-doing. For example, advisory fiscal councils can present estimates and simulations of the growth effects of the different budget programmes which could be valuable information for the prioritisation of policies. Estimates provided in a transparent matter by an external council – even if they are not binding – would be subject to less manipulation and could be improved by evaluating existing programmes. Also, reporting tax expenditures in a transparent way might be a helpful by-product of a more sophisticated fiscal framework with emphasis on net worth. In this sense, fiscal rules do not automatically translate in to better fiscal outcomes (see, for instance, Arezki and Ismail, 2010 or Cáceres *et al.*, 2010); they must be accompanied by complementary reforms to the transparency and efficiency of the budget process. A combination of deficit targets and current expenditure limits, supervised by some type of council or independent institutions is probably a good practical option (in a similar line, see Ter Minassian, 2011).

3.3   Infrastructure in fiscal rules in Latin America, with a focus on Peru

Some advances in fiscal policy-making have been significant since the 2000s. According to Daude *et al.* (2011), from a structural perspective, both cyclically-adjusted balances and debt sustainability analysis confirm the better position enjoyed by most countries in Latin America before the crisis. These good practices in the stabilising role of fiscal policy (notably in Chile, Colombia, and Peru), and in general in fiscal sustainability, stem from a combination of well-designed fiscal rules, better institutions, and good policy makers. However, the institutional framework is often weaker than it appears. According to the IMF (2009), only one out of the five countries with fiscal rules during the crisis (Brazil) did not modify the rule (Argentina, Chile, Mexico and Peru did; Colombia is in the process to approve it). In what follows we sketch the treatment of infrastructure investment in Argentina, Brazil, Mexico and Peru.

Chile's fiscal rule (2001) does not include any specific disposition on investment, neither it is discussed (Comité Asesor para el Diseño de una Política Fiscal de Balance Estructural de Segunda Generación para Chile, 2010). In the case of Colombia, the Comité Técnico Interinstitucional (2010) mentions the possibility to earmark royalties to finance high-productivity local infrastructures. Colombia's *Fiscal Responsibility Law* from 2003 does not address explicitly

the issue of targets and the treatment of infrastructure, but it provide budgeting rules for contingent liabilities due to concessions to the private sector.

Argentina's *Fiscal Responsibility Law* (set in 1999) allows excluding social programmes, public investment and projects financed by multilaterals from budget balance requirements. There is also a cap on primary expenditure growth, which should grow less than nominal GDP or remain constant in periods of negative nominal growth. However, the rule has frequently been violated or suspended.

The approach employed in Brazil and Mexico can be thought as a soft version of the golden rule, with all the shortcomings already mentioned. Brazil's *Fiscal Responsibility Law* (2000) allows investment to be excluded from targets for the states. Furthermore, the law imposes certain minimum spending amounts (as a percentage of total revenues and transfers from the federal government) on social issues like heath or education. These earmarked allocations reduce significantly the possibility of changing priorities in the budget, in addition to creating pro-cyclicality in expenditures. In the case of Mexico (the *Fiscal Responsibility Law* was adopted in 2006), the target is set on a cash basis. Since 2009, budget targets exclude investment on behalf of PEMEX, the state-owned oil company. Excess resource revenues can partially be allocated to certain state-level investment projects or to the oil stabilisation fund. If this later fund exceeds 1.5 per cent of GDP, all additional revenue is split between a fund for state-level investment (50 per cent), PEMEX investment (25 per cent) and a fund to finance future pensions (25 per cent) (see Villafuerte and Lopez-Murphy, 2010).

The case of Peru

The case of Peru represents probably one of the best practices in the region. As previously shown, Peru represented an extreme case in public investment in infrastructure, not only for its low level at the start of the period of analysis, but also for the volatility of its infrastructure investment. These characteristics explain the country's very high infrastructure gaps. However, at the same time, recent developments in the design of its fiscal framework may represent a good practice for economies in a similar situation.

At the end of 1999 the *Fiscal Prudency and Transparency Law* was enacted, imposing two numerical restrictions: a ceiling on the consolidated public sector (non-financial public sector plus the central bank) fiscal deficit of 1 per cent of GDP, and a restriction that the annual increase of non-financial expenditures of the general government should not exceed the inflation rate plus 2 per cent. Expenditures included all transfers and credits with government guarantees. For general election years, there were additional restrictions on non-financial expenditures and the fiscal deficit to prevent outgoing administrations from engineering an opportunistic fiscal expansion: the general government's non-financial expenditure during the first seven months of the year could not exceed 60 per cent of the total non-financial expenditure budgeted for the whole year; and the Consolidated Public Sector deficit for the first semester could not exceed 50 per cent of the programmed annual deficit.

The 1999 fiscal law had escape clauses. In case of national emergency or international crisis that may significantly affect the national economy (GDP falling for three consecutive quarters or annual public debt interest payments amounting to more than 0.4 per cent of GDP), the Executive could ask the Congress to suspend for the fiscal year any of the rules described above. Also, given sufficient evidence that real GDP is contracting or could decrease in the following year, based on a report from the Ministry of Economy and Finance, the law authorised a fiscal deficit above the 1 per cent of GDP ceiling, but in no circumstance could it exceed 2 per cent of GDP.

The law also created a Fiscal Stabilisation Fund as a countercyclical expenditure measure. Funding came from the excess of current income (if current income from ordinary resources exceeded its three previous year's average in 0.3 per cent of GDP, the difference would go to the fund) and from privatisation (75 per cent of income from privatisations would go to the fund).

As an accountability and transparency measure, the law mandated the Ministry of Economy and Finance to publish a Multiannual Macroeconomic Framework, which included forecasts for the next three years of the main macroeconomic variables, fiscal balance targets, public investment, public debt, as well as the guidelines for fiscal policy.

As fiscal accounts were still rather weak, especially after the 1997-98 crisis, the law established a convergence process for achieving the 1 per cent fiscal deficit target, imposing ceilings of 2.0 per cent for 2000 and 1.5 per cent for 2001. However, these wider limits were not enough and in 2001 a law was enacted to suppress the limits for the years 2001 and 2002. During the next five years the *Fiscal Prudency and Transparency Law* was modified several times. In 2003, its name was changed to *Fiscal Responsibility and Transparency Law*; the 1 per cent of GDP ceiling for the fiscal deficit was now for the non-financial public sector rather than the consolidated public sector, and the real annual increase of the general government's non-financial expenditure could not exceed 3 per cent using the GDP deflator as the adjustment factor. During electoral years, the limit on the fiscal deficit for the first semester was reduced to 40 per cent, and changed from consolidated to non-financial public sector.

The 2003 modification introduced fiscal rules for regional and local governments as well. They set restrictions for regional governments' debt, such that the ratio of total debt stock over current income should not exceed 1 and that the ratio of annual debt service to current income should be lower than 0.25. Also, the average primary balance of the last three years should not be negative for each local and regional government, and regional governments' debt with state guarantees can only be destined to infrastructure.

Exception rules also changed. Now permission to suspend any of the targets could be granted for a maximum of three years, the maximum allowed fiscal deficit would be 2.5 per cent of GDP instead of 2.0 per cent, and for the years following the exception the fiscal deficit should decrease 0.5 per cent of GDP per annum until it reaches the limit established by the law. Furthermore, the Ministry of Economy and Finance will establish the adequate fiscal rules for regional and local governments.

The Fiscal Stabilisation Fund also went through some minor changes. Since 2001, 50 per cent of liquid income from state concessions would go to the Fund, and the cumulative savings of the Fund could not exceed 3 per cent of GDP. Any difference would go to the Pension Reserve Consolidated Fund or should be used to reduce public debt. Since 2003, the Ministry of Economy and Finance would have to publish a detailed balance sheet of the fund in the official newspaper and on electronic public media.

Thus, during the period 2000-05 fiscal rules had two main achievements: convergence to the fiscal deficit and stabilisation of the debt-to-GDP ratio. However, they failed in limiting public expenditure growth, and Congress always approved waivers solicited by the Executive to increase expenditure above the limits established by law. To worsen the situation, the composition of public expenditure privileged growth in current expenditure (public consumption) rather than public investment.

One of the objectives of the Administration entering in July 2006 was to focus on public investment to close the infrastructure gap. But the rules restrained public expenditure in infrastructure as well, so the Fiscal Responsibility Law had to be adapted. At the end of 2006, the non-financial expenditure limit was modified to exclude maintenance expenses from its calculation, the adjustment factor would now be the price index, and the limit was now over the central

government rather than the general government. In 2007, the 3 per cent real annual increase limit was now put on consumption expenditure – composed by wages and expenditure in goods and services – and the adjustment factor changed to the inflation target set by the Central Bank. By the end of that same year, the rule was modified again by the 2008 Budget Law, as the ceiling was reset to 4 per cent and consumption expenditure included in addition to wages, expenditure in goods and services also pensions. This way, public investment was not restrained, except for the 1 per cent fiscal deficit ceiling.

From 2006 onwards the trends of capital expenditure and current expenditure of the central government changed. While the first increased, the second declined. Public investment over GDP ratio grew significantly, and consumption expenditure was contained, as real growth was zero in 2007 and 2008 (Figure 9). Moreover, between 2006 and 2008 the fiscal balance was positive. There was a political cost though, as during those years wages in the public sector were frozen; however, it was well handled by giving emphasis to infrastructure and its social benefits.

The international crisis hit Peru slightly later and less severely than more advanced economies. However, an economic stimulus plan was designed under which fiscal rules had to be put aside for the years 2009 and 2010. Congress approved the waiver presented by the Executive soliciting a fiscal deficit ceiling of 2 per cent for both years and higher consumption expenditure growth rates. This time the Central Government's consumption expenditure was allowed to grow 10 per cent in 2009 and 8 per cent in 2010, basically in maintenance of roads, schools, and rural infrastructure. The first year the limit was exceeded by 0.2 per cent going up to 10.2 per cent, and the second year expenditure growth was below the limit reaching only 6.4 per cent.

The economic stimulus plan emphasised expenditure in infrastructure mainly for two reasons: first, to encompass a short-term objective of stimulating the economy with a long-term goal of economic and social development by closing the infrastructure gap; and second, because according to studies from the Ministry of Economy and Finance, government expenditure was more effective to stimulate the economy than lowering taxes. Moreover, as it was expenditure in infrastructure, the impact on the output level was permanent and the exit strategy from the stimulus plan was not complicated.

Some caveats remain. The multiyear macroeconomic framework (and consequently the budget planning) is undertaken within the Ministry of Economy and Finance. But the Ministry is also the actor charged with designing and implementing the fiscal policies supposedly regulated by the multiyear framework and the budget planning. Thus there is room for further strengthening of external formal checks-and-balances. (The Central Bank assessment is not binding, and The Budget Committee ultimately rely on Minister's experts).[11] Additionally, improvements are needed in the formal infrastructure policy cycle, ranging from planning and prioritisation stages to investment execution, operation and maintenance, and monitoring and evaluation.

All in all, in the Peruvian case, fiscal rules have been effective in imposing discipline upon governments. However, they had to be fine-tuned along the years, and it is clear sometimes making exceptions and having escape clauses is necessary. Recovering credibility among economic agents and mainly investors was crucial for Peruvian successful economic performance during the last decade – a remarkable one in terms of growth-, and fiscal rules contributed significantly to this purpose.
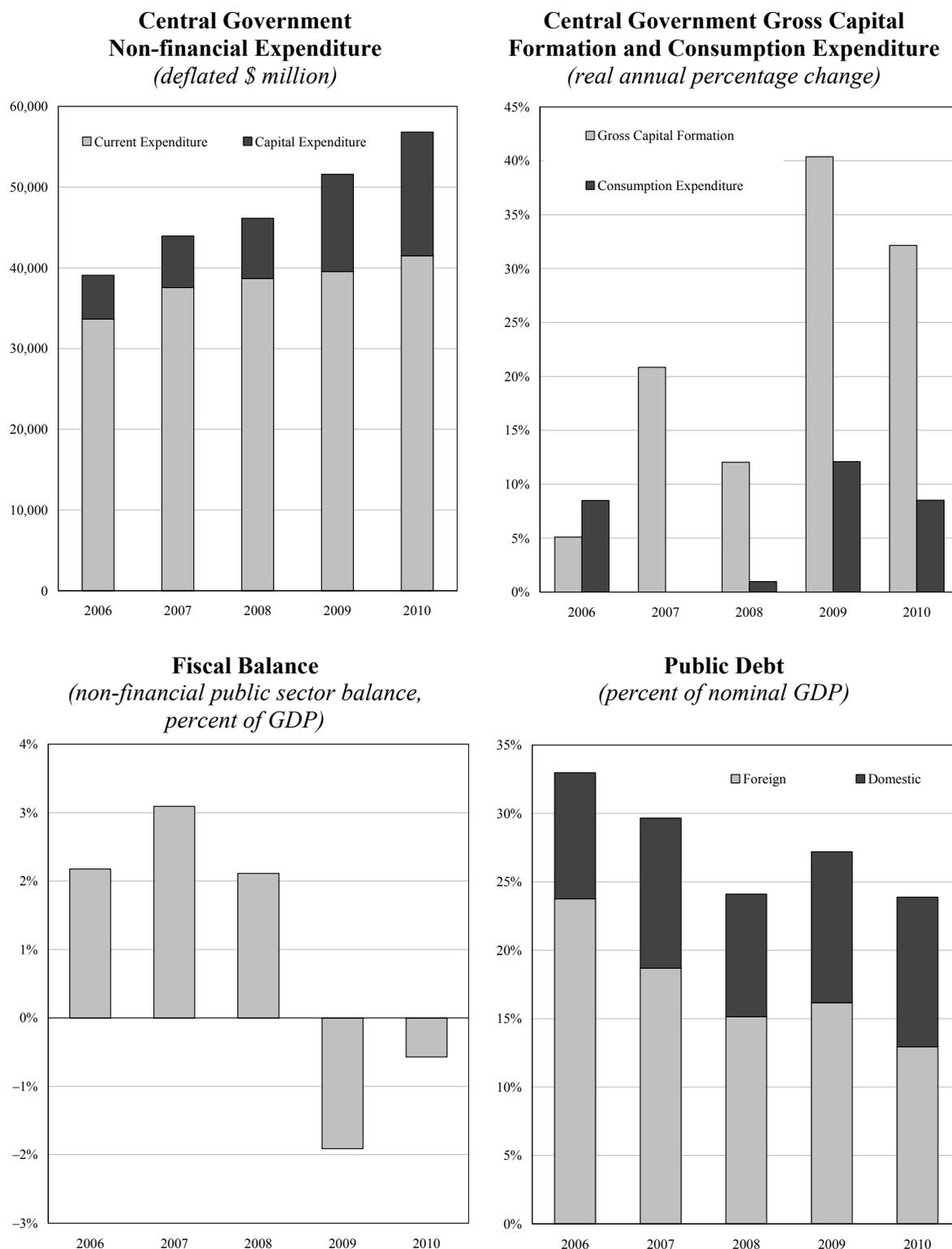
4   Conclusions and policy recommendations

In this paper we documented the size of fiscal consolidation needed in six of the main

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[11]   See Carranza *et al.* (2009) for a detailed political economy analysis of the Peruvian budget process.

Main Macroeconomic and Fiscal Indicators in Peru, 2006-10

**Central Government
Non-financial Expenditure**
(deflated $ million)

**Central Government Gross Capital
Formation and Consumption Expenditure**
(real annual percentage change)

Fiscal Balance
*(non-financial public sector balance,
percent of GDP)*

Public Debt
(percent of nominal GDP)

Source: Author's calculations, based on data from the Peruvian Ministry of Finance and the Central Bank (BCRP).

economies in Latin America, and the infrastructure gaps in the region, based on original research. We took stock of the debate on second-generation reforms of the fiscal rules and frameworks existing in Latin America, with a particular focus on their treatment of public infrastructure investment in Argentina, Brazil, Chile, Colombia, Mexico, and especially in Peru.

We argued that fiscal exit strategies already debated and in many cases under implementation, should incorporate not only a sizable fiscal retrenchment, but also a fiscal framework favourable to public infrastructure investment. Specifically, the case of Peru was chosen as a potential good practice for the region, since the establishment of a simple fiscal rule that combines deficit and current expenditure ceilings seems to be behind the public investment boom in the last five years.

The analysis focused on fiscal rules, but the effectiveness of fiscal consolidation would be eased by a combination of rules, institutions (from fiscal councils to independent fiscal agencies), and better budgetary procedures. Needless to say, higher infrastructure investment, thanks to more fiscal space, should be accompanied by better spending processes.

Several lines for future research are opened. First, a disaggregated analysis of the different types of infrastructure may shed some light on their relationship with budget balance developments (especially of the telecommunications sector vs. electricity and land transportation). Second, depending on data availability, it may be relevant to include more years (covering the last business cycle) and more countries (notably incorporating good practices from emerging Europe and Asia). Finally, the descriptive analysis may be completed by a simple modelling of the trade-offs between public deficits to close infrastructure gaps, and higher interest expenses with imperfect capital markets.

REFERENCES

Areski, R. and K. Ismail (2010), "Boom-bust Cycle, Asymmetrical Fiscal Response and the Dutch Disease", International Monetary Fund, Working Paper, No. 10/94, IMF.

Aschauer, D.A. (1989), "Is Public Expenditure Productive?", *Journal of Monetary Economics*, Vol. 23, No. 2, pp. 177-200.

Balmaseda, M., C. Daude, A. Melguizo and L. Taft (2011), "Infrastructure Patterns in Emerging Markets: An Empirical Analysis with a Focus on Latin America", OECD, Development Centre, Working Paper, forthcoming.

Blanchard, O. and F. Giavazzi (2004), "Improving the SGP Through a Proper Accounting of Public Investment", Centre for Economic Policy Research, Discussion Paper, No. 4220, CEPR.

Bornhost, F., N. Budina, G. Callegari, A. ElGanainy, R. Gomez, A. Lembruger, A. Schaechter and J. Beom Shin (2010), "A Status Update on Fiscal Exit Strategies", International Monetary Fund, Working Paper, No. 10/272, IMF.

Boyer, P., T. Curristine, J. Ponce, L. Recuero and A. Redonda (2011), *Budgetary Institutions and Fiscal Performance: Latin American and OECD Countries Compared*, OECD, forthcoming.

Cáceres, C., A. Corbacho and L. Medina (2010), "Structural Breaks in Fiscal Performance: Do Fiscal Responsibility Laws Have Anything to Do with Them?", International Monetary Fund, Working Paper, No. 10/248, IMF.

Calderón, C. and L. Servén (2004), "Trends in Infrastructure in Latin America, 1980-2001", Policy Research, Working Paper, No. 3401, World Bank.

Calderón, C. and L. Servén (2010): "Infrastructure in Latin America", Policy Research, Working Paper, No. 5317, World Bank.

Carranza, L. (2011), "Politics of Fiscal Reform in Peru", in J. Dayton-Johnson and J. Santiso (eds.), *Handbook of Latin American Political Economy*, Oxford University Press, forthcoming.

Carranza, L., J.F. Chavez and J. Valderrama (2009), "Success in Sustainability? The Case of Peru", in M. Hallerberg, C. Scartascini and E. Stein (eds.), *Who Decides the Budget? A Political Economy Analysis of Budget Process in Latin America*, pp. 191-224, Inter-American Development Bank, Washington (D.C.).

Cavallo, E. and C. Daude (2011), "Public Investment in Developing Countries: A Blessing or a Curse?", *Journal of Comparative Economics*, Vol. 39, No. 1, pp. 65-81.

Comité Asesor para el Diseño de una Política Fiscal de Balance Estructural de Segunda Generación para Chile (2010), *Informe Comité de Balance Estructural*, Santiago de Chile.

Comité Técnico Interinstitucional (2010), *Regla fiscal para Colombia*, Banco de la República, Ministerio de Hacienda y Crédito Público y Departamento Nacional de Planeación, Bogotá.

Commission on Growth and Development (2008), *The Growth Report. Strategies for Sustained Growth and Inclusive Development*, International Bank for Reconstruction and Development and World Bank, Washington (D.C.).

Corbacho, A. and G. Schwartz (2007), "Fiscal Responsibility Laws", in M. Kumar and T. Ter-Minassian (eds.), *Promoting Fiscal Discipline*, pp. 58-106, International Monetary Fund, Washington (D.C.).

Corporación Andina de Fomento (2009), *Economía y desarrollo RED 2009. Caminos para el futuro: Gestión de la infraestructura en América Latina*, CAF, Caracas.

Daude C., A. Melguizo and A. Neut (2011), "Fiscal Policy in Latin America: Countercyclical and Sustainable?", *Economics e-Journal*, under revision.

Debrun, X., D. Hauner and M.S. Kumar (2009), "Independent Fiscal Agencies", *Journal of Economic Surveys*, Vol. 23, No. 1, pp. 44-81.

De Mello, L. and N. Mulder (2006), "Fiscal Adjustment in Latin America: Trends and Stylised Facts", in OECD (ed.), *Challenges to Fiscal Adjustment in Latin America. The Cases of Argentina, Brazil, Chile and Mexico*, pp. 19-41, OECD, Paris.

Easterly, W., T. Irwin and L. Servén (2008), "Walking Up The Down Escalator: Public Investment And Fiscal Stability", *World Bank Research Observer*, Vol. 23, No. 1, pp. 37-56.

Engel, E., R. Fischer, A. Galetovic, E. Schargrodsky and J.P. Montero (2003), "Privatizing Highways in Latin America: Fixing What Went Wrong", *Economia*, Vol. 4, No. 1, pp. 129-64.

Fedelino, A. and R. Hemming (2005), "A Fiscal Policy Framework to Safeguard Public Investment", in Banca d'Italia (ed.), *Public Expenditure*, papers presented at the Public Finance workshop held in Perugia, 31 March-2 April, pp. 499-516, Banca d'Italia, Rome.

Fernald, J.G. (1999), "Roads to Prosperity? Assessing the Link Between Public Capital and Productivity", *American Economic Review*, Vol. 89, No. 3, pp. 619-38.

Guasch, J.L., J.J. Laffont and S. Straub (2007), "Concession of Infrastructure in Latin America: Government-led Renegotiation", *Journal of Applied Econometrics*, Vol. 22, No. 7, pp. 1267-94.

Hagemann, R. (2010), "Improving Fiscal Performance Through Fiscal Councils", OECD, Economics Department, Working Paper, No. 829, OECD.

IMF (2004), *Public Investment and Fiscal Policy*, Fiscal Affairs Department and Policy Development and Review Department, Washington (D.C.).

——————(2005), *Public Investment and Fiscal Policy – Summaries of the Pilot Country Studies*, Fiscal Affairs Department, International Monetary Fund, Washington (D.C.).

—————— (2009), *Fiscal Rules – Anchoring Expectations for Sustainable Public Finances*, Fiscal Affairs Department, International Monetary Fund, Washington (D.C.).

—————— (2011), *World Economic Outlook Update*, January, International Monetary Fund, Washington (D.C.).

Isham, J. and D. Kaufmann (1999), "The Forgotten Rationale for Policy Reform: The Productivity of Investment Projects", *The Quarterly Journal of Economics*, Vol. 114, No. 1, pp. 149-84.

Izquierdo, A. and E. Talvi (2008), *All That Glitters May Not be Gold: Assessing Latin America's Recent Macroeconomic Performance*, Inter-American Development Bank, Washington (D.C.).

Kopits, G. (2001), "Fiscal Rules: Useful Policy Framework or Unnecessary Ornament?", International Monetary Fund, Working Paper, No. 01/145, IMF.

Kopits, G. and S.A. Symansky (1998), "Fiscal Policy Rules", International Monetary Fund, Occasional Paper, No. 162.

Lora, E. (2007), "Public Investment in Infrastructure in Latin America: Is Debt the Culprit", Inter-American Development Bank, Working Paper, No. 595.

Martner, R. and V. Tromben (2005), "Public Investment and Fiscal Adjustment in Latin American countries", in Banca d'Italia (ed.), *Public Expenditure*, papers presented at the Public Finance workshop held in Perugia, 31 March-2 April, pp. 827-58, Banca d'Italia, Rome.

Nieto-Parra, S. and J. Santiso (2009), "Revisiting Political Business Cycles in Latin America", OECD, Development Centre, Working Paper, No. 281.

OECD (2008*a*), *Latin American Economic Outlook 2009,* OECD, Development Centre, Paris.

——————(2008*b*), *Public-private Partnerships: In Pursuit of Risk Sharing and Value for Money*, OECD, Directorate for Public Governance and Territorial Development, Paris.

——————(2009), *Latin American Economic Outlook 2010*, OECD, Development Centre, Paris.

——————(2010), "Fiscal Consolidation: Requirements, Timing, Instruments and Institutional Arrangements", *Economic Outlook*, No. 2010/2, pp. 219-65.

Perry, G., L. Servén and R. Suescun (2008), *Fiscal Policy, Stabilization and Growth: Prudence or Abstinence*, The World Bank, Washington (D.C.).

Perroti, D.E. and R.J. Sánchez (2011), "Measuring the Infrastructure Gap in Latin America and the Caribbean Countries", *Serie Recursos Naturales e Infraestructura*, ECLAC, Santiago.

Pritchett, L. (2000) "The Tyranny of Concepts: CUDIE (Cumulated, Depreciated, Investment Effort) Is Not Capital", *Journal of Economic Growth*, Vol. 5, No. 4, pp. 361-84.

Ter-Minassian, T. (2011), "Should Latin American Countries Adopt Structural Balance-based Fiscal Rules?", paper presented at the 13th Public Finance Workshop of the Banca d'Italia, Perugia, 30 March-2 April, in this volume.

Van der Ploeg, F. and A.J. Venables (2011), "Harnessing Windfall Revenues: Optimal Policies for Resource-rich Developing Economies", *Economic Journal*, Vol. 121, No. 551, pp. 1-30.

Vladkova-Hollar, I. and J. Zettelmeyer (2008), "Fiscal Positions in Latin America: Have They Really Improved?", International Monetary Fund, Working Paper, No. 08/137, IMF.

RUSSIAN FISCAL FRAMEWORK: PAST, PRESENT AND FUTURE. DO WE NEED A CHANGE?

Sergey Vlasov[*]

This study examines Russian public finances system. It provides the description of the main fiscal reforms that were carried out by the Government from the moment of USSR dissolution and allowed to reduce nonrenewable resource dependency of the economy. The study presents the fiscal stabilization analysis. It conducts the fiscal impulse factor analysis as well as the estimation of the degree of the fiscal policy cyclicality for the period of 2000-13. The estimates show that in 2006-08 fiscal policy was procyclical, while over the remaining period it was stabilizing. The study also discusses the fiscal sustainability issues for the period till 2050 under two socio-economic scenarios. The size of necessary fiscal consolidation under the current fiscal strategy is calculated and alternative strategy is investigated.

1   Introduction

Russian public finances system is less than twenty years old. During this period economic conditions and the state of public finances changed substantially several times. As a result of macroeconomic conditions deterioration in 1998 Russian government had to declare itself insolvent. In the succeeding years the government gradually carried out public finances reforms. The following favourable external conditions of the 2000s on the one hand contributed to fiscal policy enhancement, on the other hand made it more dependent on external developments. In order to reduce nonrenewable resource dependency of the Russian economy the government worked out some general fiscal rules. As a result of this policy by the end of the 2000s the state of public finances improved substantially as the Russian government possessed sizeable reserves with small debt liabilities. Still under negative conditions of financial crisis the state of the Russian public finances took a turn for the worse. Thus it seems worthwhile to investigate the efficiency of the Russian fiscal policy by means of stabilizing function and fiscal sustainability analysis.

The remainder of this paper is organized as follows. The second section contains the main facts of the Russian public finances system including brief characteristic of the main fiscal reforms from the moment of USSR dissolution. The third section is devoted to fiscal stabilization analysis. It presents the fiscal impulse factor analysis as well as the estimation of the degree of the Russian fiscal policy cyclicality for the period of 2000-13. The fourth section discusses Russian fiscal sustainability in the medium and long run under two possible socio-economic scenarios. The size of necessary fiscal consolidation under current fiscal strategy is calculated and alternative strategy is investigated. The final section concludes.

2   The evolution of the Russian public finances system

USSR dissolution became a catalyst for moving from planned to market economy and for creating a new public finances system. However, during the 1990s because of a low level of public finances organization and tax discipline the government expenditures were under financed and the

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general budget deficit was from 6 to 10 per cent of GDP (MFR, 2008). This led to a significant increase in the public debt level and in 1998 as a consequence of deterioration of external conditions and considerable reduction of budget revenues resulted in the sovereign default. Until the 2000s under conditions of unstable macroeconomic situation accompanied by high inflation as well as the lack of proper budget legislation there was no opportunity to introduce the medium-term budget forecasting.

Dynamics of the Main General Budget Indicators and the Structure of the Revenues, 2000-10
(percent of GDP)

In the beginning of the 2000s reasonable steps to restore the macroeconomic stability were taken, the external government debt was restructured, required budget legislation was created. For example, in 2000 the Budget code of the Russian Federation was introduced. It allowed to set up the rules preventing excessive government spending, growing budget deficit and increasing public debt (MFR, 2008). At the same time as government continued to pursue a policy of annually balanced budget, the volume of expenditures highly depended as before on the volume of revenues, which in its part more and more depended on nonrenewable resources extraction and exportation revenues (see Figure 1). Presumably, the consequence of this was not just the growing dependence of fiscal policy effectiveness on highly volatile revenues but also facing the negative effects of the so-called Dutch disease.[1]

In 2004 the Russian government established Stabilization fund based on the rule of the base oil price (the revenues under the base oil price are used on spending, the difference is saved). Although at that time only oil revenues were related to nonrenewable resource revenues, it allowed to solve the denoted problems to a large extent as well as to contribute to the equal distribution of nonrenewable resource revenues.[2] Moreover accumulated funds allowed to pay off the most of the external public debt in advance making the level of the Russian public debt one of the lowest in the world.

From 2004 the Russian government also introduced the so-called performance budgeting, which allowed to raise substantially the budget expenditures effectiveness as well as to optimize the structure of budget institutions, especially on the regional level.

From 2007 the budget forecasting time-frame was extended from one to three years and in 2008 the budget strategy for fifteen years was worked out.

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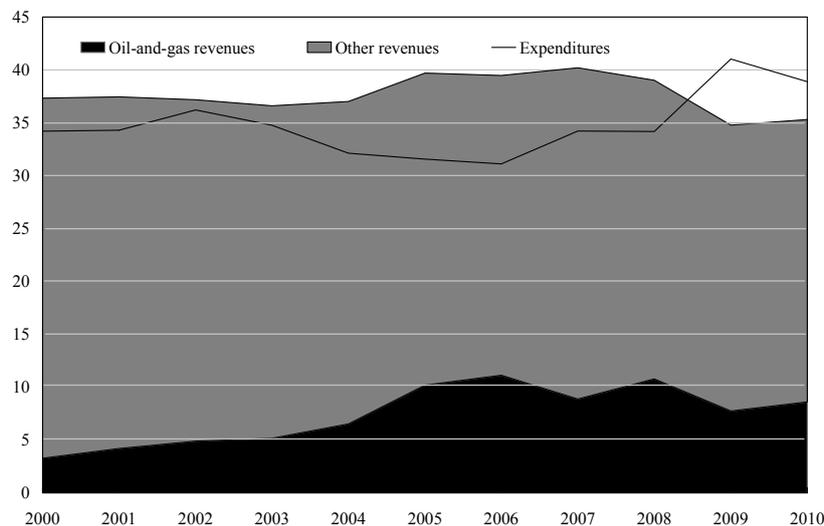
[1] For details see, for instance, Kudrin (2007).

[2] For details relating to Stabilization fund see the Budget code of the Russian Federation, Chapter 13.1 (it lost validity from the beginning of 2008).

From 2008 in accordance with international experience a new conception of non-oil-and-gas budget balance was introduced. This conception brought in the following changes. New fiscal rules imply the separate treatment of oil-and-gas and non-oil-and-gas revenues of the federal budget. The concept of nonrenewable resources was widened to include the revenues from gas and oil products. The spending of the oil-and-gas revenues was to be realized through the mechanism of oil-and-gas transfer fixed as a percentage of GDP in the Budget code of the Russian Federation. The established annual value of the oil-and-gas transfer as well as the limit value of the non-oil-and-gas deficit was based on the estimated long run dynamics of budget indicators. The difference between these two values could be covered by borrowings and/or other sources. Also in accordance with the new concept the Stabilization fund was divided in two new funds: Reserved fund and National wealth fund. The task of the Reserved fund is to minimize the negative impact on the level of government spending of a possible sudden oil price fall while the aim of National wealth fund creation is to save up funds for future generations and to maintain the level of the pensions provisions.[3] New fiscal rules based on the long run socio-economic guiding lines were introduced to solve the problem of the Russian long-run fiscal sustainability. The period of 2008-10 was established as a transitional period (MFR, 2006).

At the end of 2009 because of the necessity to soften substantially current fiscal policy stance in order to cope with crisis consequences the use of fiscal rules was temporary stopped. From 2010 the Russian government has an intention to tighten gradually its fiscal policy in order to return after the transitional period to mentioned fiscal rules.[4]

It is important to note, that the financial crisis consequences revealed the benefits of using the fiscal rules on the nonrenewable resources revenues utilization. Under conditions of substantial decrease of the budget revenues, particularly of the oil-and-gas revenues, sovereign funds accumulated in 2004-08 allowed not just to maintain the level of the government expenditures but also to implement sizeable stimulative fiscal measures almost without the necessity to increase the level of public debt.

3 Fiscal stabilization

3.1 Theoretical aspects

The budget balance is one of the most appropriate indicators for measuring the macroeconomic effects of fiscal policy among those that can be calculated without the use of empirical estimation (Blanchard, 1990). A change in the budget balance, which is called fiscal impulse, is an important indicator to characterize stabilization function of the public finances (see, for instance, ECB, 2009).

The main components of the overall budget balance are cyclical and structural as well as net interest payments. As Russian budget revenues depend considerably on oil-and-gas proceeds, we examine separately oil-and-gas and non-oil-and-gas parts of the budget.

The net interest payments are the difference between interest earnings and interest expenditures. In the Russian general budget interest earnings can be defined as the sum of interest earnings on the Russian government credits and return on the budget funds, including the sovereign funds while interest expenditures are the funds used for debt service.

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[3] For details see the Budget code of the Russian Federation, chapter 13.2.

[4] Initially it was planned to return to the established fiscal rules in the beginning of 2013. In the second half of 2010 one-year extension (probably not the last one) was implemented.

The cyclical component of the non-oil-and-gas budget includes the elements of the budget that depend directly on the changes in economic activity. They raise (reduce) taxes and lower (increase) government expenditures at the time of economic upswing (downturn). In the Russian general budget this component comprises major budget revenues as well as a small part of budget expenditures, such as unemployment benefits.[5] We refer to the changes in the cyclical component of the non-oil-and-gas budget as automatic stabilizers.

The structural component of the non-oil-and-gas budget is the elements that depend not on the changes in economic activity but on the discrete government's decisions. The special part of this component is anti-crisis measures. In the Russian budget system the structural component of the non-oil-and-gas budget comprises all other non-oil-and-gas revenues and expenditures. We refer to the change in the structural component of the non-oil-and-gas budget as discretionary measures.

Although in theory the oil-and-gas budget should contain all revenues and expenditures related to the oil-and-gas sector, we follow the Budget code of Russian Federation defining it as the respective taxes on extracting activities and customs duty.[6] Their size depends on the resources production and export volume, the level of prices and changes in legislation. Production and export volumes as well as changes in legislation are taken to be the part that is under control of the authorities. Taking into account high correlation between oil and gas prices it is possible to divide the oil-and-gas revenues on structural and cyclical components by using the base oil price. Those revenues that are below the base oil price determine the structural component, while the revenues that result from the deviation from the base oil price show the cyclical component of the oil-and-gas revenues (as in Vladkova-Hollar and Zettelmeyer, 2008).

Therefore, fiscal impulse (*FI*) as the changes in overall general budget balance components (*OB*) can be calculated in the following way:

$$
\begin{aligned}
FI = -\Delta OB &= -(\Delta NINT + \Delta NOG + \Delta OG) = \\
&= -(\Delta NINT + \Delta NOG_C + \Delta NOG_S + \Delta OG_C + \Delta OG_S)
\end{aligned}
\tag{1}
$$

where *NINT* is the net interest payments; *NOG* is the non-oil-and-gas primary balance; *OG* is the oil-and-gas revenues; NOG_C is the cyclical component of the non-oil-and-gas budget; NOG_S is the structural component of the non-oil-and-gas budget; OG_C is the cyclical component of the oil-and-gas revenues and OG_S is the structural component of the oil-and-gas revenues.[7]

3.2   Methodology

The cyclical and structural components of the non-oil-and-gas budget were calculated by using the methodology of Fedelino *et al.* (2009). The cyclical component was estimated as:

$$
NOG_C = \sum_{i=1}^{N} T_i \varepsilon_{T_i} gap \qquad\qquad i=1\ldots N
\tag{2}
$$

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[5]   As there is no available data on expenditures that depend on the changes in economic activities as well as because their share in the total expenditures is insignificant, we do not model them in this study.

[6]   Although in theory several other earnings such as the part of profit taxes and excises are related to the oil-and-gas revenues, it is impossible to make such calculations because of the lack of the required data. The data on the volume of budget expenditures related to the oil-and-gas sector are also not available. Moreover these expenditures are insignificant. We therefore do not model them explicitly.

[7]   Here and hereinafter the components of the fiscal impulse are in per cent of GDP.

where T_i is the nominal values of the general budget revenues that depend on the changes in economic activity; ε_{T_i} is the elasticity of the type of revenue i with respect to the output gap and *gap* is the output gap.[8] The output gap was estimated by Kalman filtering in the context of Quarterly projection model (QPM) of the Bank of Russia. The elasticity of the type i with respect to the output gap was calculated in the following way:

$$\varepsilon_{T_i} = \varepsilon_{T_i, TB_i} \cdot \varepsilon_{TB_i, y} \tag{3}$$

where ε_{T_i, TB_i} is the elasticity of the revenues with respect to the tax base and $\varepsilon_{TB_i, y}$ is the elasticity of the tax base with respect to the output gap.

The value of the elasticity of the revenues with respect to the tax base depends on the tax rate scale (in case of proportional taxation the elasticity is equal to 1; in case of progressive taxation is larger than 1; in case of regressive taxation is less than 1). Social taxes are the only one type of not proportional (regressive) revenues in the Russian budget system. Calculations were made for the period of 1999-2008 excepting the crisis years of 1998 and 2009. The values of nominal GDP and of its components were used as proxy variables for the tax bases.[9] Calculations showed the elasticity value of social taxes equal to 0.86. Other elasticity estimates were close to 1 (1.0-1.1) allowing us to set them equal to unity.

The elasticity of the tax base with respect to the output gap was estimated using the methodology of Girouard and André (2005). Using the data for the period of 2000-08 we estimate the elasticity of wages bill with respect to the output gap equal to 0.4 and the elasticity of the gross profit and total income with respect to the output gap equal to 1.73. The elasticity for GDP was set equal to 1.

The Vladkova-Hollar and Zettelmeyer (2008) methodology was also used to calculate the structural and the cyclical components of the oil-and-gas revenues. The structural component was defined as:

$$OG_S = OG \left(\frac{p^*}{p} \right)^{\gamma} \tag{4}$$

where p^* is the base oil price; p is the actual oil price and γ is the elasticity of the revenues with respect to the oil price.

Following standard practice, we assumed that commodity revenues are proportional to commodity prices and set $\gamma=1$.

Following Vladkova-Hollar and Zettelmeyer, we used predicted values as the base oil price. Because of the high volatility of the world oil price as well as for having the opportunity to use comparable values we took the values used in Federal budget laws on the forthcoming years ($p_t^* = E[p_{t+1}]_t$).

As the actual oil price we used the reported annual data on Urals brand oil price for the period of 2000-10 and applied the forecast of the Ministry of economic development of the Russian Federation prepared in January 2011 for the period of 2011-13.

Fiscal impulse components analysis also allows to assess the cyclicality of fiscal policy. Countercyclical or stabilizing fiscal policy requires government to tighten fiscal policy at the time

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[8]   Positive output gap is defined as the volume of the actual output level above the potential.

[9]   For details see Vasilieva *et al.* (2009).

of economic "overheating" and to ease it at the time of economic downturn. Discretionary measures can show the degree of fiscal policy rigidity while the change in output gap can be used as an indicator characterizing the phase of economic cycle (see, for instance, Abdih *et al.*, 2010, Villafuerte *et al.*, 2010).[10] Consequently, the degree of the fiscal policy cyclicality (k_C) can be calculated as the relation between the structural component of the non-oil-and-gas budget and the change in output gap:

$$k_C = -\Delta NOG_S / \Delta gap \tag{5}$$

Positive value of k_C indicates countercyclicality of the fiscal policy, negative value of k_C shows procyclicality of the fiscal policy and the value of k_C close to 0 means that fiscal policy is neutral.

3.3   Results and resume

Figures 2 and 3 present the Russian general budget balance components structure analysis and fiscal impulse structure analysis for 2000-13 (2000-10 is the reported data, 2011-13 are budget projections). The analysis allowed us to come to the following conclusions.

General budget balance is affected mainly by the structural components. The cyclical component of the oil-and-gas revenues, apart from the crisis year of 2009, had the significant positive impact on budget balance value as actual oil price usually exceeded the base oil price. On the contrary, the cyclical non-oil-and-gas component has relatively weak impact. Also it is necessary to underline the strong negative impact of the net interest payments in the first half of the 2000s as a result of large sovereign debt.

Main components affecting the fiscal impulse are discretionary measures and the changes in the cyclical component of the oil-and-gas revenues. Automatic stabilizers are relatively small in Russia what can be explained by proportional taxation and relatively small size of the government. Over the reviewed period the increases of the budget balance value resulted mainly from the growth in the oil-and-gas revenues, while the decreases were the consequence of the discretionary measures. The only exception is substantial tightening of fiscal policy in 2004 resulted from the contraction of government expenditures. In 2008-10 discretionary policy was mainly determined by the anti-crisis measures. In the medium run the reversed situation is expected. The amount of the oil-and-gas revenues in per cent of GDP and their role in the budget balance dynamics is expected to decline while the planned fiscal policy tightening will take place by means of the discretionary measures.

The dynamics of net interest payments was mainly positive during the reviewed period. This was a result of the improvement in the Russian public finances from the early 2000s due to the contraction of the sovereign debt and the accumulation of the reserves mainly in the oil-and-gas funds. In the following years the need to finance the budget deficit will considerably reduce the reserves and increase the sovereign debt what will adversely affect the dynamics of the net interest payments.

Figures 2 and 3 show that financial crisis consequences forced to ease noticeably the fiscal policy and to abandon established fiscal rules. The return to these fiscal rules would take time and demand efforts from the authorities (for instance, to exit from the sizeable anti-crisis measures).

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[10]   The level of output gap can also be used as the indicator of the economic cycle phase (see, for instance, Alberola and Montero, 2006), although we find the estimations of the direction of changes in output gap more reliable.

Figure 2

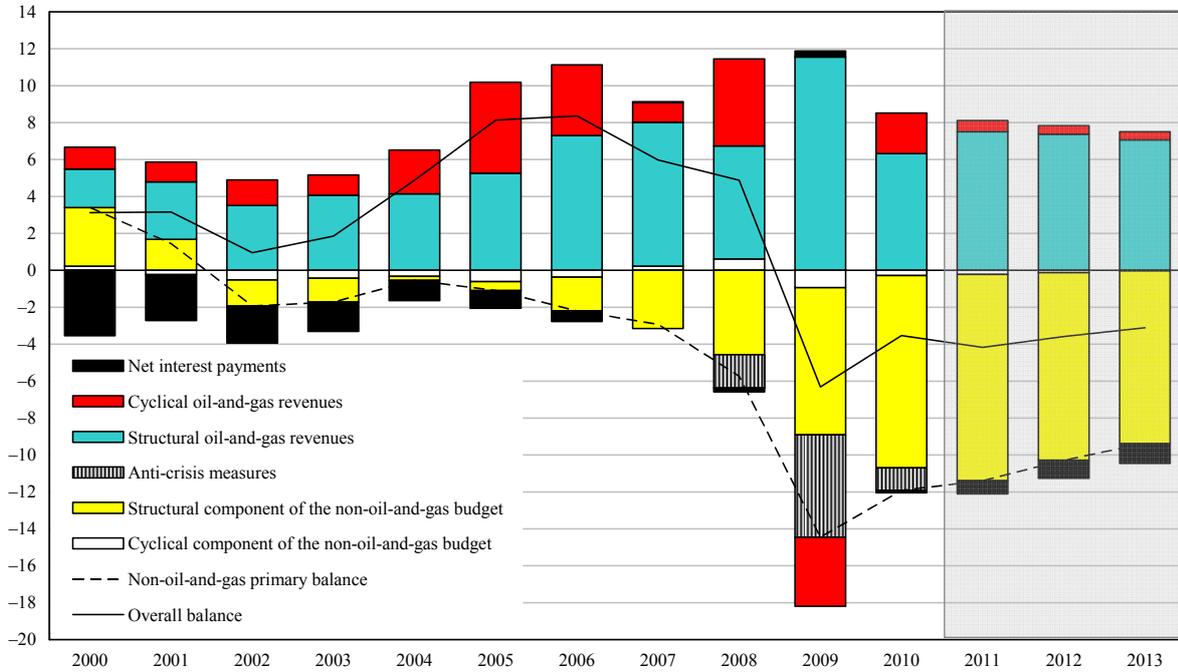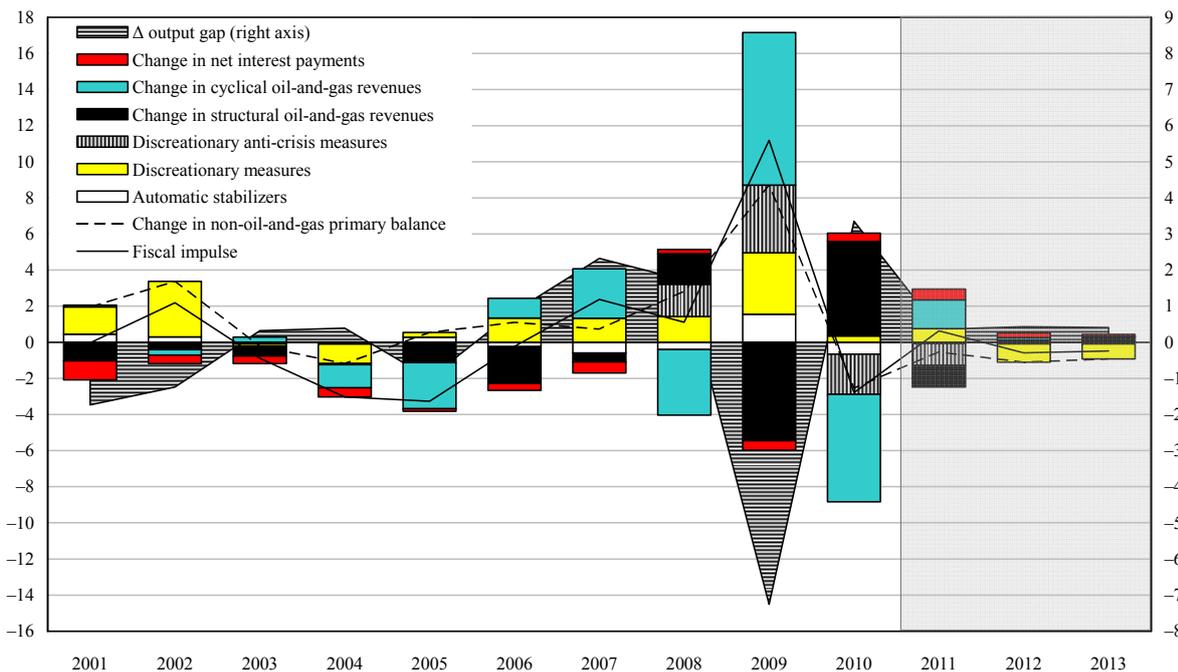**General Budget Balance Decomposition for 2000-13**
(percent of GDP)

Figure 3

Fiscal Impulse Decomposition for 2001-13
(percent of GDP)

Russian fiscal policy cyclicality in 2001-13
(percent of potential GDP)

Also it is important to note that calculations show small decline of the budget balance value in 2011. However this is the result of the fact that in 2010 the actual value of the budget balance substantially exceeded its projection value, partly because of the more favourable economic conditions. Accordingly it is possible to assume that the government would revise the budget projections for 2011-13 towards lower budget deficit indicator.

Figure 4 presents the estimation of the degree of the Russian fiscal policy cyclicality in 2001-13.

Calculations show that Russian fiscal policy was stabilizing in 2001-05. On the contrary, in 2006-08 it was procyclical as discretionary measures contributed to economic "overheating". In 2009 fiscal policy easing was justified and stemmed from the need to mitigate the impact of the financial crisis on the Russian economy. The countercyclical fiscal policy is expected to continue till 2013. As Russia is exiting from the crisis and switching to the sustainable development the government is expected to cut discretionary policy measures.

4   Fiscal sustainability

4.1   *Theoretical aspects*

Sustainability has become one of the most widely used aspects in the fiscal policy assessment. In general by sustainable fiscal policy is meant the policy that can be pursued without any negative impact on the consumption of future generations. Although there is no generally accepted definition of fiscal sustainability (see, for instance, definitions by FASAB, IPSASB, OECD etc.), usually sustainable fiscal policy is illustrated as a standard equation of intertemporal budget constraint (see, for instance, Krejdl, 2006). In the Russian case one part of this equation can be presented as the present value of future budget balances while another one as the difference between the values of government net worth on a given and initial moment of time:[11]

$$\sum_{t=1}^{T} \frac{OB_t}{(1+y)^t} = \frac{N_t}{(1+y)^t} - N_0 \tag{6}$$

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[11]   We define government net worth as the difference between net overall reserves and net overall debt. The use of this indicator instead of the common indicator of public debt is explained by considerable reserves in national and foreign currency possessed by the Russian government that can be used on the deficit financing and should be taken into account.
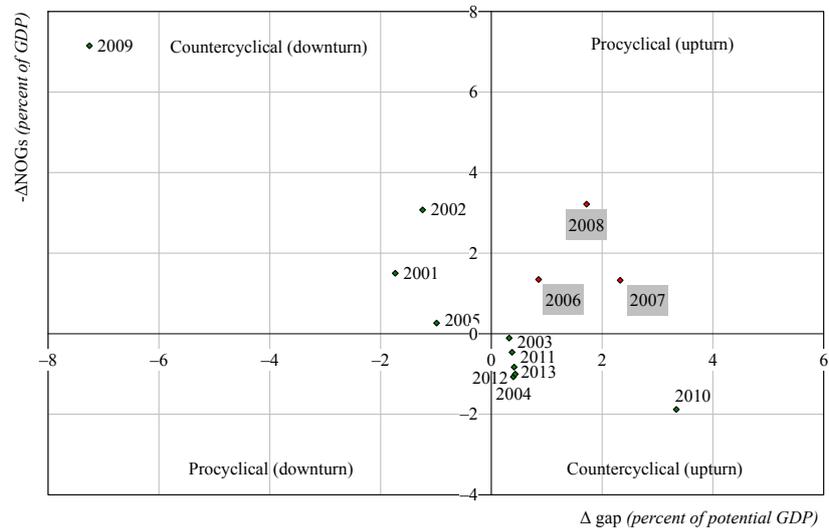
where OB_t is general budget balance of the year t; y is the nominal GDP growth rate; N_0 is the government net worth on initial moment; N_t is the government net worth on a given moment t;[12] T is the projection horizon (in special case $T=\infty$).

Fiscal sustainability analysis implies invariability of the current legal and political framework, *i.e.*, current policies.[13]

The choice of the projection horizon depends on the aim, restrictions and the type of the economy. The longer the period, the more future events are captured, but the less precise and potentially less verifiable the assumptions become.[14] The uncertainty is perhaps particularly high in the case of the economy highly dependent on revenues from the nonrenewable resources.

The fiscal sustainability analysis can be carried out both for the case of the ability for the authorities to have negative value of the government net worth ($N_t<0$) and for the case of no such ability ($N_t=0$). The first case on the conditions that the projection horizon is finite and N_t is on the level of prudent indebtedness is explained by the fiscal policy expansion. The second case is the analogue of no Ponzi game condition.[15] Many regional unions and individual countries adopted the debt ceilings (see Topalova and Nyberg, 2010, p. 8). Although such values should be considered rather as possible reference points they can be used in the analysis as fiscal sustainability criterions.

In order to meet (6) governments develop special fiscal rules. Nowadays because of the negative impact of the financial crisis many countries had to stop for a while the use of these rules (for example, on a period till 2013 the member-countries of the European Economic and Monetary Union temporary stopped the use of Stability and Growth Pact regulations providing a reference value for the annual budget deficit and the national debt). Some countries have developed new fiscal rules or such process is under way (for details see, for instance, IMF, 2010, p. 50). These rules should provide guidance to fiscal policy making and set constraints during the consolidation path.

The main task of the fiscal sustainability analysis is to reveal the risks of the necessity of any major interventions in tax and spending patterns and to estimate the scale of such interventions. Special fiscal sustainability indicators are used for such purpose. Basing on the results obtained for the long run it is possible to determine the tasks of the fiscal policy for the short and medium run.

4.2 Methodology

4.2.1 Initial conditions and prerequisites

Although in accordance with the Russian legislation the oil-and-gas revenues are entirely collected on the federal level and the authorities of different levels of the Russian budget system are independent in the budgetary process decisions and are not responsible for each other's liabilities, we study fiscal sustainability problem for the Russian general budget. Potentially these results can be used for decision making on each level of the Russian budget system.

In this study we assume the invariability of current policies, including all the decisions that have already authorized. So, for the period till 2013 expenditures are assumed in accordance with the budget legislation. Moreover, to avoid any discontinuous hikes of the estimated indicators we assume transitional period of 2014-15, *i.e.*, the budget rules would be fully employed from 2016.

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[12]   Here and hereinafter the indicators are in per cent of GDP.

[13]   For a discussion of definition of the current policies see, for instance, Gokhale (2008).

[14]   See Gokhale (2008) for a detailed discussion of the projection horizon choice problem.

[15]   O'Connell and Zeldes (1988) proved that on an infinite time horizon none of a finite number of the rationally acting economic agents holds government bonds infinitely long.

The period until 2050 was chosen as the projection horizon. This is explained by the desire to consider the limited nature of the oil-and-gas resources. In accordance with the estimates of the Russian Ministry of finance the maintenance of current oil extraction level would lead to the exhaustion of its proved reserves approximately in 40 years (www.minfin.ru). However, as at present the annual growth of the resources reserves is comparable with the extraction volumes and in accordance with the Guidelines for the fiscal policy in 2011 and for 2012 and 2013 the same tendency is foreseen for the medium run, it is possible to assume that the current oil extraction level could be maintained after 2050 as well. Consequently, there is an uncertainty about the ability to extract oil after 2050, which increases with the projection horizon's extension. In any case, the period till 2050 can be considered as a good example to investigate any possible risks for the Russian long run fiscal sustainability. At the same time in this study we attempt to make rough estimates of the Russian fiscal sustainability after 2050 as well.

We examine two scenarios differed by initial conditions. Both scenarios are based on the variants of socio-economic development forecast prepared by the Russian Ministry of economic development in January 2011. The so-called resource-dependent scenario assumes the maintenance of the high dependency on the oil-and-gas extraction and exporting, while the so-called innovative scenario assumes the balanced development of the national economy sectors. Switching to the innovative scenario should allow to raise the growth rates of the main macroeconomic indicators. Under the innovative scenario the most part of the projection horizon is characterized by the real GDP annual growth of 4-5 per cent, while under alternative scenario by 3-4 per cent growth. Anyway the level of the prices for the oil and the gas as well as for other exported goods would continue to influence significantly the socio-economic development of Russia. Both scenarios assume the same level of oil prices and substantial oil price cyclical fluctuations every eight-ten years.

4.2.2 Main fiscal indicators calculation

When calculating the value of the government net worth it is important to determine which assets and liabilities should be taken into account. Economic theory allows to use all financial and non-financial assets held by the government to finance the budget deficit. But in practice non-negotiable financial assets and non-financial assets are difficult to value as well as to use for repaying debt.[16] That is why in the study for this purpose we use only liquid and negotiable financial assets.[17] Basing on this principle the net overall reserves are defined as the government funds in national and foreign currencies at the Bank of Russia and credit institutions with the deduction of the corresponding liabilities. Defining the net overall debt in a similar manner we do not include the value of the quasi-sovereign debt, *i.e.*, the debt of the corporations partly or fully owned by state. The net overall debt is defined as all government net liabilities. However, as according to the international rating agencies estimation the substantial part of the foreign countries debt to the Russian Federation is regarded as a bad debt, its value is taken with the conventional coefficient of 0.2.

The safe value of the Russian government net worth indicator was determined basing on the estimates for the public debt indicator made by IMF and the Russian Ministry of finance experts. IMF studies show that in the developing countries the effectiveness of fiscal policy as a countercyclical tool is smaller with the public debt above 25 per cent of GDP (IMF, 2003,

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[16] For a discussion of the government assets and liabilities that can be used for the public finance sustainability analyzing see Krejdl (2006).

[17] In accordance with the Russian Guidelines for the fiscal policy in 2011 and for 2012 and 2013, in the medium run revenues from the privatization would be an important source of the budget deficit financing. However, this should be rather considered as the exception to the rule.

IMF, 2008). Reinhart *et al.* (2003) found that a critical value of public debt for countries with a history of default is 15 per cent of GDP. In accordance with the estimates of the Russian Ministry of finance the critical value for the Russian public debt is 30-40 per cent of GDP (www.minfin.ru). Basing on these estimates we chose the level of (–)30 per cent of GDP as the safe level of the Russian government net worth indicator on the finite time horizon. Hence:

$$N_t \geq -30 \tag{7}$$

The change in the size of the sovereign funds (the Reserved fund and the National wealth fund) depends on the incoming and the outgoing cash flows. The incoming flows are the oil-and-gas revenues above the value of the oil-and-gas transfer as well as the return on the funds, which depends on the yield indicator. We assume that the yield of the funds in 2011 will remain on the level of 2010 (1.5 per cent for the Reserved fund and 2.5 per cent for the National wealth fund), then it will gradually increase by 2015 (up to 2.0 and 3.0 per cent correspondingly) and after that would not change any more. The reason why we expect the increase of the yield during the first half of the 2010s is the prospective creation of the Russian financial agency and the resulting increase in the financial investment efficiency (www.minfin.ru). The outgoing flow is the amount of funds needed to finance the oil-and-gas transfer in case the current amount of the oil-and-gas revenues is insufficient. The change in the size of the sovereign funds also results from the revaluation of the funds in accordance with the existing currency composition.

To forecast the general budget revenues we apply the spreadsheet-based methodology (see, for instance, Keene and Thomson, 2007). This methodology comprises the following phases: determining the nominal revenue for the last available year (2010); its adjusting by removing any known anomalies to establish the true underlying position; applying the forecast growth rates of relevant proxy variables[18] to forecast with the use of the elasticities if required (for the social taxes); adjusting the forecasts for anomalies such as tax policy changes, including any judgmental forecasting adjustments that may be considered appropriate. We do not assume any additional increases in tax collection for the medium and long run because of its uncertainty.

The value of the general budget expenditures is determined by the fiscal rules, *i.e.*, by the value of the revenues used on spending as well as the borrowings ability.

4.2.3 *Main features of the current strategy*

The current fiscal strategy is based on the fiscal rules stated in the Budget code of the Russian Federation. The use of these rules was temporary stopped. They are to be fully employed again from 2016.

In compliance with the current strategy of public finances total revenues of the Russian general budget (R_t) can be presented as the sum of total revenues of the regions and the extra-budgetary funds ($NOGR_t^{1-f}$), the non-oil-and-gas revenues of the federal budget ($NOGR_t^f$), the oil-and-gas revenues (MR_t) and the return on the sovereign funds (FR_t):

$$R_t = NOGR_t^{1-f} + NOGR_t^f + MR_t + FR_t \tag{8}$$

General budget total expenditures (E_t) are financed by the sum of total revenues of the regions and the extra-budgetary funds, the non-oil-and-gas revenues of the federal budget, the

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[18]   We use the proxy variables from the forecast of the Russian Ministry of economic development made in January 2011. This forecast takes into account all prospective changes in Russian governmental policy.

oil-and-gas transfer[19] (Tr_t) as well as the internal and external borrowings on the federal level (B_t^f) and other levels of the budget system (B_t^{1-f}) within the limits fixed in the legislation:

$$E_t = NOGR_t^{1-f} + NOGR_t^f + Tr_t + B_t^f + B_t^{1-f} \qquad (9)$$

In accordance with the Budget code of the Russian Federation the size of the oil-and-gas transfer is fixed as 3.7 percent of GDP ($Tr_t = 3.7$), while the size of the non-oil-and-gas deficit[20] is not allowed to be more than 4.7 percent of GDP ($NOGB_t = 4.7$). The difference between the values of these indicators can be covered by the borrowings. In this study we use two more prerequisites. The first one is the balanced budgets of the regions and the extra-budgetary funds at the expense of interbudget transfers from the federal level ($B_t^{1-f} = 0$). The second one is the maximum value of the non-oil-and-gas deficit ($B_t^f = B_t = 1,0$).[21]

We examine this strategy's conformance to (6)–(7).

4.2.4 Fiscal sustainability indicators

A good indicator of fiscal sustainability is one that sends clear and easily interpretable signals when current policy appears to be a rapidly growing debt-to-GDP ratio (Blanchard *et al.*, 1990) (in our case government net worth-to-GDP ratio) as well as allows to indicate the magnitude of the adjustment needed, *i.e.*, the gap between the sustainable level of the fiscal variable and its level under current policies.

The set of exploitable indicators depends on the current policies and the necessity to conform to the condition (7). As it was already mentioned above, the Russian budget can be divided on the oil-and-gas and the non-oil-and-gas parts. Spending of the oil-and-gas revenues is regulated by the value of the oil-and-gas transfer in per cent of GDP determined by the purpose of equal distribution of these revenues during the period of nonrenewable natural resources extraction (www.minfin.ru), in our case till 2050. The corresponding sustainability indicator, or the oil-and-gas gap (*OG_gap*), can be determined as the difference between the level of the oil-and-gas transfer allowed to reach this purpose (*Tr**) and the level stated in the legislation (*Tr*):

$$OG\_gap = Tr*-Tr \qquad (10)$$

The ability to spend the funds exceeding the value of the non-oil-and-gas revenues, *i.e.*, the net borrowings[22] in per cent of GDP, determines another part of the budget. Thus, the sustainability indicator for the non-oil-and-gas part of the budget, or the non-oil-and-gas gap (*NOG_gap*), can be determined as the difference between the sustained level of the net borrowings ($B*$) allowing to conform to the condition (7) and the level according to the legislation and the prerequisites made above (B):

$$NOG\_gap = B*-B \qquad (11)$$

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[19]   Oil-and-gas transfer represents the oil-and-gas revenues used on spending in the corresponding year.

[20]   Non-oil-and-gas deficit is defined as non-oil-and-gas revenues minus total expenditures.

[21]   It should be noted that these prerequisites are close to the facts. In accordance with the Guidelines for the fiscal policy in 2011 and for 2012 and 2013 the aggregate deficit of the regions and the extra-budgetary funds would decrease gradually from 0.6 per cent of GDP in 2011 to 0.2 per cent of GDP in 2013. In 2010 the corresponding indicator was positive (0.5 per cent of GDP).

[22]   Here and thereafter we define the net borrowings as the funds above the oil-and-gas transfer value that can be used on non-oil-and-gas deficit financing.

To calculate the budget gap (*BUDG_gap*) we should sum up the oil-and-gas and non-oil-and-gas gaps:
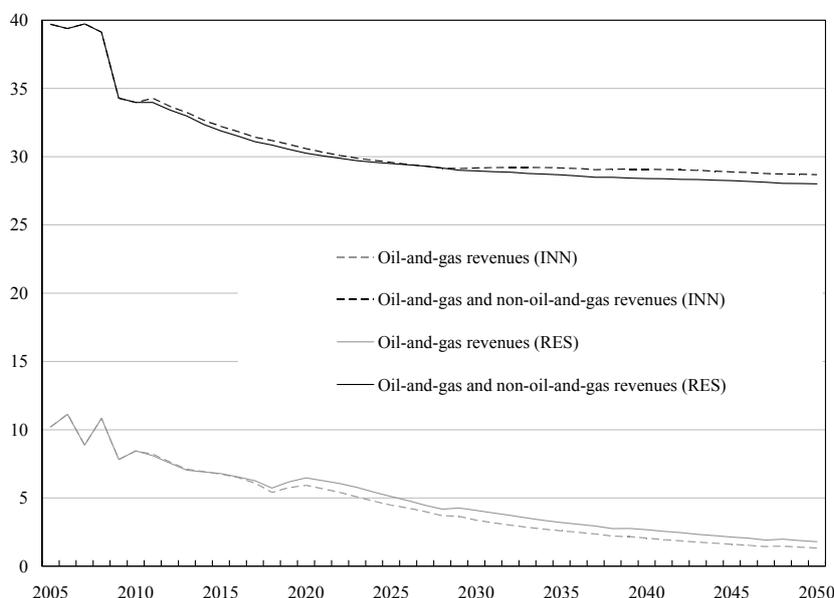
$$BUDG\_gap = OG\_gap + NOG\_gap \tag{12}$$

The budget gap allows to assess the degree of the fiscal sustainability. Negative budget gap shows the necessity to adjust the current policies.

4.3 Results and estimates for the current strategy

4.3.1 General budget revenues forecast

Our estimates show that in the long run the value of the oil-and-gas revenues in per cent of GDP will go down, while the value of the non-oil-and-gas revenues in per cent of GDP should rise. But as the growth rate of the non-oil-and-gas revenues is smaller than the decline rate of the oil-and-gas revenues, the sum of both indicators would decrease. Figure 5 represents this dynamics. Depending on the scenario of socio-economic development the value of the oil-and-gas revenues could fall substantially from 8.6 per cent of GDP in 2010 to 1.3-1.8 per cent of GDP in 2050, the value of the non-oil-and-gas revenues would increase from 26.0 per cent of GDP in 2010[23] to 26.2-27.3 per cent of GDP in 2050 and the sum of both indicators could decline from 34.6 per cent of GDP in 2010 to 28.0-28.7 per cent of GDP in 2050. Thus, over the period of 2010-50 the overall decrease of the oil-and-gas revenues and of the sum of both indicators would amount to 6.8-7.3 and 5.9-6.6 percentage points of GDP correspondingly.

Figure 5

Dynamics of the General Budget Revenues in 2005-50 for Innovative (INN) and Resource-dependent (RES) Scenarios
(percent of GDP)

Considerable reduction in per cent of GDP of the oil-and-gas revenues, especially in 2010-20s, accounts for lower growth rates of the resources production and export volumes and the level of their prices in comparison with GDP growth rate as well as for national currency appreciation. The rise in per cent of GDP in the non-oil-and-gas revenues can be explained by the increase in the share of non-oil-and-gas GDP in total GDP value.

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[23] In accordance with the legislation in 2010-13 non-oil-and-gas revenues include the return on the sovereign funds.

The return on the sovereign funds depends on the chosen strategy. It will be discussed later.

4.3.2 Deterioration during the financial crisis

During the financial crisis the budget balance indicator decreased substantially from the stable proficit to the sizeable deficit. It was the result of the direct financial crisis effects, including the deterioration of external conditions, as well as the changes in the fiscal policy. For example, the pension reform carried out in 2009-10 increased the level of budget spending approximately by 2.5 percentage points of GDP. Mainly, however, fiscal policy easing was the result of the sizeable fiscal stimulative measures implemented in 2008-10.[24] In accordance with the preliminary data, the general budget balance in 2010 in comparison with the pre-crisis year of 2007 decreased by 9.5 percentage points of GDP. Figure 6 shows the composition of the decrease.

Figure 6

Composition of General Budget Balance Decrease in 2007-10
(percent of GDP)

Overall balance decrease is 9.5 percentage points of GDP

- ■ Anti-crisis measures (Revenues)
- ■ Anti-crisis measures (Expenditures)
- □ The rest (Expenditures)
- ▤ The rest (Oil-and-gas revenues)
- ▥ The rest (Other revenues)
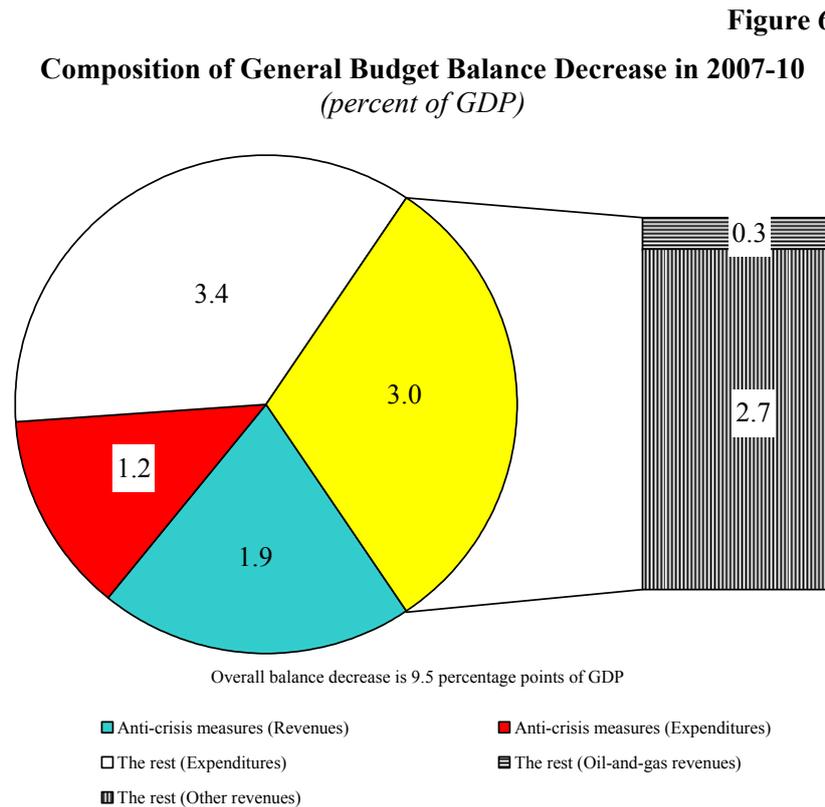
Although fiscal policy easing was justified, it led to the serious fall of the government net worth value. At the end of 2010 as a result of the budget deficit financing the government net worth value amounted to 1.3 per cent of GDP, while during the 2000s it increased gradually: became positive in 2006 and reached its peak of 12.8 per cent of GDP in 2008.

4.3.3 Estimates for the medium run

The medium-term period till 2015 presumably will be characterized by the transition to sustainable development and the return to the use of the fiscal rules stated in the legislation. This should be achieved by the substantial decrease of the budget expenditures from 38.9 per cent of GDP in 2010 to 31.9-32.0 per cent of GDP in 2015 depending on the scenario of socio-economic development as the result of the use of the program of budget spending efficiency increase (see Figure 7). Russia should return to the positive budget balance in 2015. According to the calculations the general budget balance will rise from (–)4.2 per cent of GDP in 2010 to 0.1-0.4 per cent of GDP in 2015, *i.e.,* by 4.3-4.6 percentage points of GDP. At the same time the
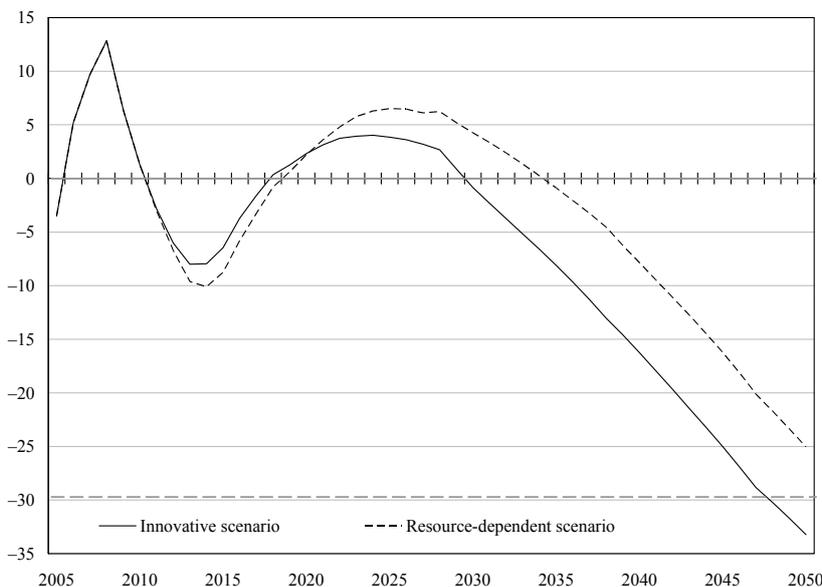
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[24]   For the comparative analysis of the size and the composition as well as the effect on GDP growth of the Russian fiscal stimulus see Ponomarenko and Vlasov (2010).

Figure 7

**Dynamics of the General Budget Expenditures in 2005-50
for Innovative and Resource-dependent Scenarios
Under the Current Strategy**

(percent of GDP)

Figure 8

**Dynamics of the Government Net Worth in 2005-50
for Innovative and Resource-dependent Scenarios
Under the Current Strategy**

(percent of GDP)
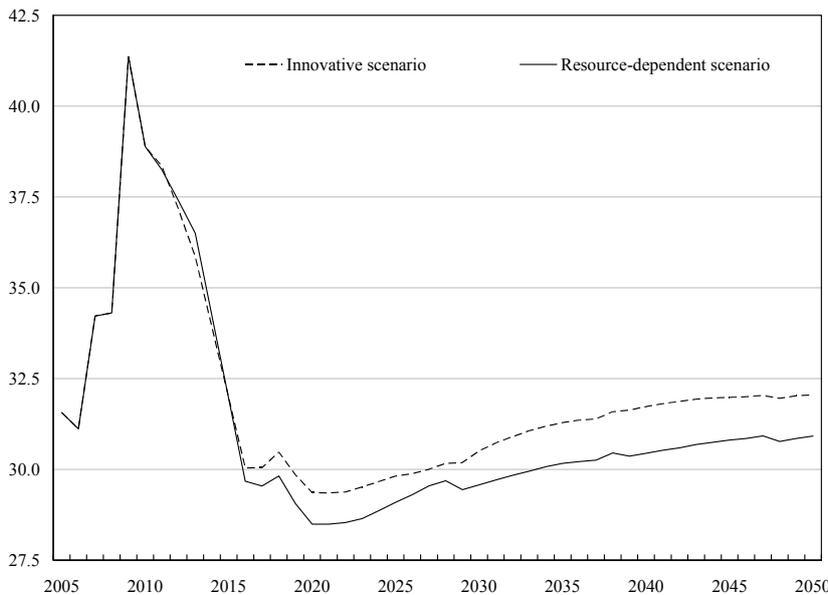
necessity to finance the budget deficit in the first half of the 2010s will further reduce the government reserves and increase the public debt. It would lead to the decrease of the government net worth down to negative values: from 1.3 per cent of GDP in 2010 till (−)6.5-(−)8.8 per cent of GDP in 2015 (see Figure 8). However, the condition (7) will not be violated. Moreover, the level of the public debt should remain one of the lowest in the world. Even taking into account the possible fiscal risks that would be covered in 4.3.5, it is possible to assert the high degree of the Russian fiscal sustainability and the low risk of the default in the medium run.

4.3.4 Estimates for the long run

In the long-term period, the Russian fiscal policy will presumably be based on the fiscal rules stated in the legislation. In accordance with these fiscal rules and the budget revenues forecast, general budget expenditures depending on the scenario will first decrease to 28.5-29.4 per cent of GDP and then gradually rise up to 30.9-32.0 per cent of GDP by the end of 2050 (see Figure 7).

Our calculations show that the level of the oil-and-gas transfer stated in the legislation will not allow to distribute equally on the projection horizon the oil-and-gas revenues. From 2028 under the innovative scenario and from 2033 under the resource-dependent scenario the government will have to spend the oil-and-gas funds in order to finance fully the oil-and-gas transfer. Depending on the scenario the funds will be fully depleted in 2038 or 2045. Therefore, from this period the government will have to use borrowings of more than 1.0 per cent of GDP to co-finance the non-oil-and-gas deficit. It would lead to the substantial decrease of the government net worth indicator. Under the fiscal rules at the end of 2050 the government net worth will amount to (–)33.2 per cent of GDP in case of the innovative scenario and (–)25.0 per cent of GDP in case of the alternative scenario (see Figure 8).

Thus, on the period till 2050 under the current fiscal rules the condition (7) is maintained in case of the resource-dependent scenario and the deviation is within the reasonable error in case of the innovative scenario. At the same time it should be noted that the value of the government net worth will admittedly continue to decrease after 2050 and will stabilize noticeably below (–)30 per cent of GDP. Moreover, additional fiscal risks should be taken into account. This allows to conclude that the levels of the oil-and-gas transfer and the net borrowings stated in the legislation have to be corrected in order to raise the Russian long run fiscal sustainability.

4.3.5 Additional fiscal risks

There are several fiscal risks that can deteriorate the Russian fiscal sustainability on the medium and long run and, therefore, should be taken into account. The main risks relate to the budget spending. They are caused by the necessity to maintain the fiscal policy efficiency under conditions of coming negative tendencies:

- Considerable increase in the social budget spending. The Russian government has the firm intention to meet fully its social obligations as well as to increase them annually by the rate of no less than the inflation rate. However, with the rate exceeding on average the nominal GDP growth rate (what is observed in the recent years) the social spending will rise as per cent of GDP as well. Moreover, additional risks will create the coming population ageing;

- Substantial increase in the interest expenditures as per cent of GDP and as the share of the overall budget expenditures. The main risk is related to the dynamics of this indicator in the long run, which will depend on the government policy and its ability to restrain the growth of the debt value;

- Rise in the spending related to natural disasters and extraordinary emergency situations. The recent climate developments in Russia allow to suggest that in the long run this part of the budget expenditures could rise greatly;

- Decrease in the budget spending efficiency or increase in the budget expenditures value. In the medium run and in the long run as well the government has the intention to reduce gradually the budget expenditures, mainly by increasing their efficiency (The program of budget spending efficiency increase on a period till 2012, 2010). However, if the steps that will be taken by the authorities do not bring the expected result, partly because of the risks mentioned above, partly because of the coming reforms,[25] the government will have to choose either to target the expenditures value at the expense of the efficiency decrease or to target the efficiency level by increasing the expenditures value. In the second case there will be an additional decline of the government net worth.

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[25] The reforms of the army and of the Ministry of Internal Affairs are planned on the following years. According to the preliminary estimates this would increase the level of the budget spending in comparison with 2010 approximately by 1.0 percentage point of GDP.

The main risk for the budget revenues value is related to the reduction of the prices on exported goods, mainly on oil. Although the government is trying to reduce such risk by using for the budget projections the conservative mineral resources price forecast, the effectiveness of the fiscal policy still highly depends on these revenues. At the same time on the long run as the share of the oil-and-gas GDP in total GDP value decreases this risk loses its significance.

Finally, it is important to emphasize the possibility of a new wake of the crisis. It is mostly dangerous in the short and medium run under the conditions of unsustainable development. This could lead to a new fall in the budget revenues and increase in the budget spending as well as the necessity to implement new fiscal stimulative measures.

4.4 Fiscal sustainability improvement

It is possible to increase the Russian fiscal sustainability both under the current strategy and by moving to alternative strategy. The degree of necessary adjustment can be estimated with the use of fiscal sustainability indicators.

4.4.1 Current strategy adjustment

In order to estimate the fiscal sustainability indicators under the current strategy it is necessary to determine the sustainable levels of the oil-and-gas transfer (Tr^*) and the net borrowings (B^*). For this purpose the following system of the equations based on (6), (8) and (9) under the condition (7) should be solved:

$$\begin{cases} \sum_{t=1}^{T} \dfrac{MR_t + FR_t - Tr_t - B_t}{(1+y)^t} = \dfrac{N_t}{(1+y)^t} - N_0 \\ Tr_1 = Tr_2 = ... = Tr_T = Tr^* \\ B_t = B_2 = ... = B_T = B^* \end{cases} \tag{13}$$

The results show that in order to distribute the oil-and-gas revenues equally during the period till 2050 the value of the oil-and-gas transfer should be set equal to 2.6 per cent of GDP under the innovative scenario ($Tr_{INN}^* = 2.6$) and 3.3 per cent of GDP under the resource-dependent scenario ($Tr_{RES}^* = 3.3$). Therefore, in comparison with the stated in the legislation ($Tr = 3.7$) the value of the oil-and-gas transfer should be decreased by 0.4-1.1 percentage points of GDP ($OG\_gap_{INN} = -1.1$; $OG\_gap_{RES} = -0.4$).

Since the condition (7) is the interval, it allows us to make several estimates for different possible values of the government net worth at the end of 2050. If the government wishes to expand at most its fiscal policy ($N_{2050} = -30$), than the level of the net borrowings could amount to 2.0 per cent of GDP under the innovative scenario ($B_{INN}^{-30}* = 2.0$) and 1.7 per cent of GDP under the alternative scenario ($B_{RES}^{-30}* = 1.7$). Hence, in comparison with the level determined basing on the current legislation and the above made suppositions ($B = 1.0$) net borrowings value can be increased by 0.7-1.1 percentage points of GDP ($NOG\_gap_{INN}^{-30} = 1.0$; $NOG\_gap_{RES}^{-30} = 0.7$).

According to these calculations the budget gap depending on the scenario amount to (–)0.1-0.3 per cent of GDP ($BUDG\_gap_{INN}^{-30} = -0.1$; $BUDG\_gap_{RES}^{-30} = 0.3$). However, as it was already mentioned in 4.3.4., since in this case the value of the government net worth will

admittedly continue to decrease after 2050 and will stabilize noticeably below (–)30 per cent of GDP, this fiscal rule should be corrected.

In case the government chooses the conservative aim for its fiscal policy ($N_{2050} = 0$), *i.e.*, the value of the government net worth by the end of 2050 will return approximately to those of 2010, it has to abstain completely from the net borrowings ($B^0_{INN}* = B^0_{RES}* = 0.0$; $NOG\_gap^0_{INN} = NOG\_gap^0_{RES} = -1.0$).

In this case depending on the scenario the budget gap amounts to 1.4-2.1 percentage points of GDP ($BUDG\_gap^0_{INN} = -2.1$; $BUDG\_gap^0_{RES} = -1.4$).

Figures 9 and 10 represent the dynamics of the general budget expenditures and the government net worth indicators for $N_{2050} = -30$ and $N_{2050} = 0$ for both scenarios of the socio-economic development.

It is possible to surmise that the value of the net borrowings indicator allowing to stabilize in the long run the government net worth on the level above (–)30 per cent of GDP lies within range of those estimated for $N_{2050} = -30$ and $N_{2050} = 0$. At the same time it may be worthwhile to set the most rigid fiscal rule allowing also to take into account the possible fiscal risks covered in 4.3.5.

In the nearest future it seems also worthwhile to switch from the actual budget balancing to the structural budget balancing for the purpose of managing the non-oil-and-gas part of the budget. Targeting the structural budget balance value allows the government to respond automatically to the business cycle as well as to better control the value of the government net worth since it is assumed that in the long run the cyclical component stabilizes symmetrically over the business cycle. Hence, it contributes to the fiscal sustainability more than the current strategy.[26] It

Figure 9

**Dynamics of the General Budget Expenditures in 2005-50
for Innovative (INN) and Resource-dependent (RES) Scenarios
Under the Current Strategy Adjustment**

(percent of GDP)

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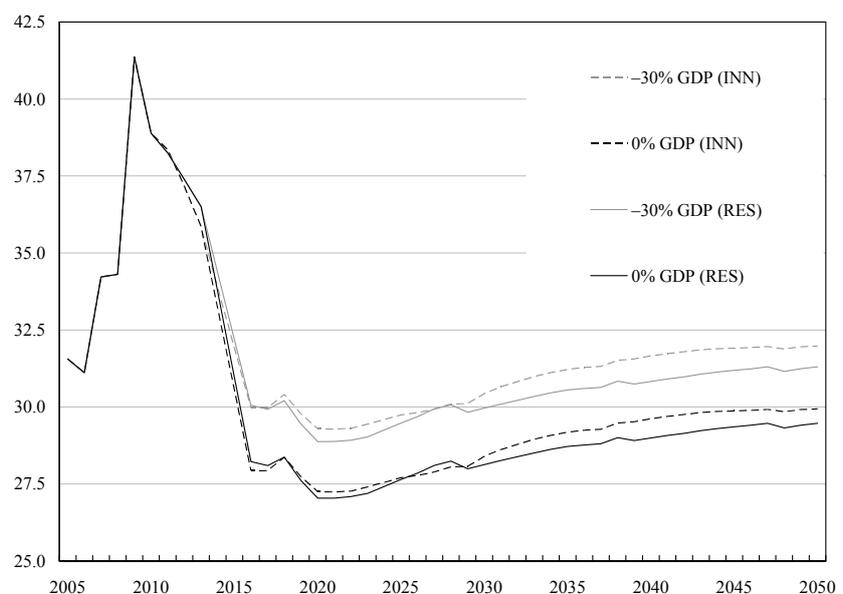
[26]   In the post-crisis period several countries introduced structural balance rules. For example, in 2009 in addition to the restrictions imposed by the Stability and Growth Pact Germany adopted its own national rules that will be fully implemented from 2020 after the transitional period. In accordance with these rules the structural deficit is limited to maximum 0.35 per cent of GDP for the central government (Federation) and 0.0 per cent of GDP for the regions (Länder). This gives sufficient scope for automatic
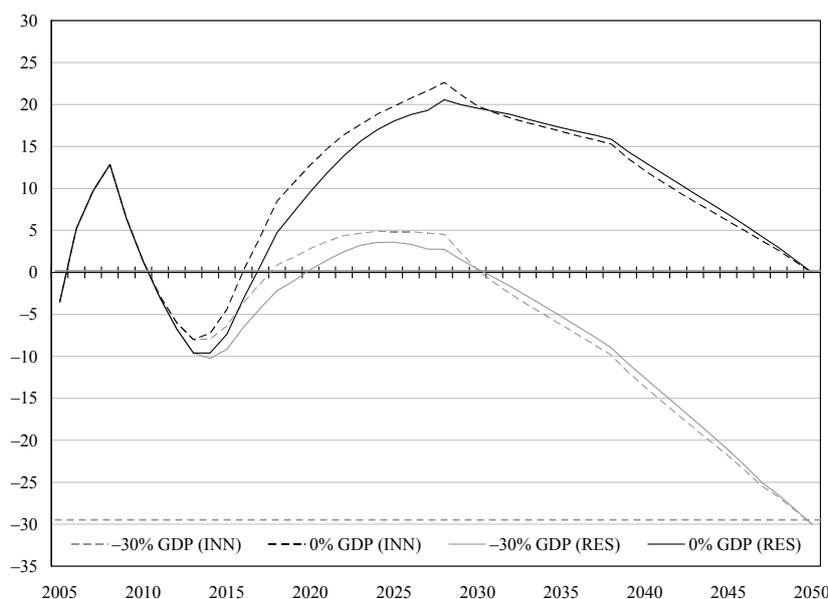*(continues)*

Figure 10

**Dynamics of the Government Net Worth in 2005-50
for Innovative (INN) and Resource-dependent (RES) Scenarios
Under the Current Strategy Adjustment**
(percent of GDP)

is necessary to note that the estimates for the current strategy presented earlier in this section are relevant for the strategy based on the structural balance rules.

At the same time it is important to underline that in order to raise the quality of the non-oil-and-gas budget management it is necessary to fully disentangle the oil-and-gas part of the budget, *i.e.*, all the revenues and expenditures related to the oil-and-gas sector of the economy. Besides the taxes on extracting activities and customs duty it is necessary to take account of the respective part of the profit taxes, excises and dividends of the oil-and-gas corporations as well as the budget expenditures related to the oil-and-gas sector.

However, the methodology mentioned above is not suitable enough for the managing of the oil-and-gas part of the budget. The reason is that it does not pay enough attention to the problem of substantial oil-and-gas revenues decrease in the long run. As it was already mentioned in 4.3.1, because of the relatively lower growth rates of the indicators influencing the value of the oil-and-gas revenues in comparison with the GDP growth rate during the period of 2010-50 the oil-and-gas revenues would fall by 6.8-7.1 percentage points of GDP. Under this methodology it would lead to a similar decrease of the budget spending. Moreover, there is also a challenge of the long run base oil price estimation as well as its regular re-calculation as demonstrated by the Russian experience of 2004-07 and described in Section 2. Thus, for the equal distribution of the oil-and-gas revenues on the long run it is worthwhile to continue using the mechanism of the oil-and-gas transfer.

4.4.2 Alternative strategy assessment

We consider the strategy of "full conservation" as the alternative to the current strategy. It is based on the "bird-in-the-hand" rule, which recommends to target the non-oil-and-gas deficit equal to the real return on the assets accumulated in the sovereign funds by saving fully the oil-and-gas

stabilizers to take full effect and to meet 3.0 per cent deficit criterion in normal cyclical downturns. Also this should allow to decrease considerably the public debt value. With a nominal GDP growth of 3.0 per cent p.a. in the long run the value of the public debt will gradually decrease till 60 per cent of GDP by the end of 2020s, till 40 per cent of GDP by the end of 2040s and will be stabilized on the level below 20 per cent of GDP in the long run (Federal Ministry of Finance, 2009).

revenues. Thus, for the estimation we assume that the oil-and-gas transfer is equal to the return on the sovereign funds and there is no necessity for borrowings:

$$\begin{cases} NOGB_t = Tr_t = FR_t \\ B_t^f + B_t^{1-f} = 0 \end{cases} \tag{14}$$

Accordingly, the equation for the budget expenditures (9) can be determined in the following way:

$$E_t = NOGR_t^{1-f} + NOGR_t^f + FR_t \tag{15}$$

This strategy is an extreme way to deal with the uncertainty about the reserves of oil and gas, their future prices etc. It allows to maintain the long run fiscal sustainability by minimizing the influence on the budget expenditures value and economic development of the possible sudden oil and gas prices fall as well as the scarce resources exhaustion. At the same time the largest possible increase in the oil-and-gas funds allows to get the highest return on the sovereign funds. Since 2001 the "bird-in-the-hand" rule regulates the use of oil revenues in Norway (see, for instance, Bjerkholt and Niculescu, 2004).

According to the calculations this strategy allows to maintain the value of the government net worth highly positive as well as to get the return on the sovereign funds much higher than under the current strategy over the whole projection horizon.

However, switching to this strategy on continuing basis could be found inexpediently. In contrast to Norway, where the size of the oil fund exceeds the GDP value and the return on the sovereign funds is significant (in accordance with the preliminary data for 2010 more than 10 per cent of GDP – www.nbim.no/en/), the size of both oil-and-gas funds in Russia and the annual return are

Figure 11

**Dynamics of the General Budget Expenditures in 2005-50
for Innovative and Resource-dependent Scenarios
Under the "Bird-in-the-Hand" Rule**

(percent of GDP)

relatively small. These indicators amounted to 7.8 and 0.3 percentage points of GDP at the end of 2010 and depending on the scenario of socio-economic development will not exceed 45-55 and 1.0-1.2 per cent of GDP correspondingly on a period till 2050. Moreover, after reaching its maximum value as per cent of GDP by the end of 2030s the size of the oil-and-gas funds will start
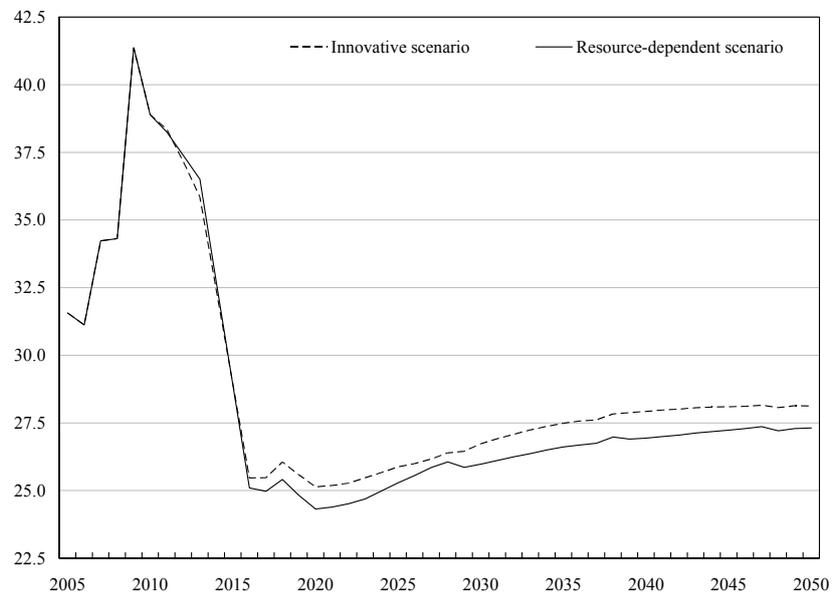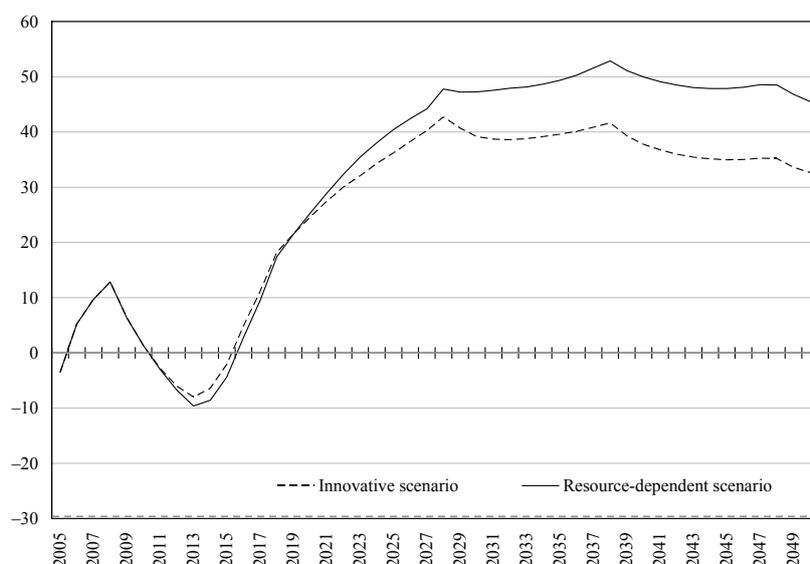
Figure 12

**Dynamics of the Government Net Worth in 2005-50
for Innovative and Resource-dependent Scenarios
Under the "Bird-in-the-Hand" Rule**

(percent of GDP)

to decline as a result of the effect of GDP growth and by the end of the projection horizon will lose approximately 20 per cent of its peak. This tendency obviously will continue after 2050 as well, although the value of the indicator will remain positive. Figure 12 presents the dynamics of the government net worth while Figure 13 shows the government net worth decomposition and the return on the sovereign funds indicator for the innovative scenario.

Switching to the "bird-in-the-hand" rule will also require additional decrease in the budget expenditures value. Depending on the scenario the value of the spending indicator will amount to 25.1-25.5 per cent of GDP in 2016 and 27.3-28.1 per cent of GDP in 2050 (see Figure 11). Under the current strategy the negative budget gap amount to 3.7-4.6 percentage points of GDP in case of the innovative scenario and 3.5-4.6 percentage points of GDP in case of the resource-dependent scenario ($BUDG\_gap_{INN} = (-)3.7 - (-)4.6$; $BUDG\_gap_{RES} = (-)3.5 - (-)4.6$). The budget gaps estimated in section the 4.4.1. will increase correspondingly by 1.6-2.5 percentage points of GDP under the innovative scenario and by 2.0-3.1 percentage points of GDP under the alternative scenario. Moreover, the largest decline of the budget spending and the rise in the budget gap values is expected in the middle of 2010s demanding noticeably greater efforts from the government for the forthcoming budget balance value increase.

Thus, the appropriate way to raise the Russian long run fiscal sustainability is to toughen the current fiscal rules, while switching to the alternative strategy based on the "bird-in-the-hand" rule leads to the additional substantial decrease of the general budget expenditures because of the reduction of the oil-and-gas revenues use efficiency.

4.4.3 Fiscal consolidation measures

The results of the investigation show that in order to maintain the long run fiscal sustainability the government will have to increase considerably on the medium run the general budget balance. There are several examples in the international practice when the authorities were able to raise substantially the budget balance without a significant negative influence on the economic growth rate (for instance, in Denmark in 1983-86 the value of the primary budget

Figure 13

**Government Net Worth Decomposition and Return on
Sovereign Funds for 2006-50 Under the "Bird-in-the-Hand" Rule for Innovative Scenario**
(percent of GDP)

balance was increased by more than 15 percentage points of GDP (see, for instance, CRFB, 2009; Lilico *et al.*, 2009). The Russian government has several sources of budget expenditures decrease as well as revenues increase. Among the spending measures the following should be noted as most effective:

- most full exit from the anti-crisis measures;

- considerable increase of the budget spending efficiency (for example, approximately by 30 per cent in the public health sector and roads construction, by about 15-20 per cent in defense industry) (www.minfin.ru, www.worldbank.org);

- substantial decrease of the government investment spending (approximately by 20 per cent in real terms on the medium run). This measure developed by the Russian Ministry of finance is explained by the weak effect on the economic growth (www.minfin.ru);

- pensionable age rise. In accordance with the Federal budget act for 2011-13 the interbudget transfer on deficit financing from the federal level to the Pension fund of the Russian Federation would amount to 1.8 per cent of GDP. Without a significant reform of the pension system this negative dynamics will remain and even deepen. According to the forecast of the Russian Ministry of economic development the gradual ageing of the population is predicted for the long run. It will lead to the decrease of the overall population, the able-bodied and the employed citizens (over the period of 2010-30 by 1.9, 12.9 and 9.2 per cent correspondingly). Therefore, the expenditures of the Russian Pension fund should rise while the revenues could fall. With all this going on, the balanced budget of the Pension fund should become one of the main tasks for the government on the medium run. In the absence thereof alternative measures the government

will have to raise the pensionable age even it is unpopular. In order to reduce the so-called political costs this measure should be implemented step-by-step.

There are also several revenue measures that can be implemented:

- Income legalization. According to the data of the Russian Federal state statistics service the share of the Russian shadow economy amounted to 17 per cent in 2007 (www.gks.ru);

- Improvement of the tax administration (on the medium run the evaluated effect is approximately 1 per cent of GDP) (www.minfin.ru);

- The highest possible domestic petroleum refining. It should raise the oil-and-gas revenues of the budget;

- Annual indexation of the social taxes regression thresholds. This should allow to maintain the fixed level of the effective tax rate (the tax proceeds to the tax base ratio) and so, avoid the increase in the extra-budgetary funds budget deficit;

- Annual indexation of the dues and fees rates (such as excises) by no less than inflation rate. It will raise the non-oil-and-gas revenues of the budget;

- Working out the program of budget revenues efficiency increase (by analogy with the corresponding program for the budget spending). This program should aim on finding the inefficient tax remissions as well as studying the possibilities to carry out the tax reforms (for example, moving from the property taxes to the real estate taxation);

- Tax rates increase. Although this measure is unpopular, it can substantially increase the budget revenues. Moreover, such step can be explained by the corresponding use of the tax stimulation at the time of financial crisis (the main measure was the decrease of the profit tax rate from 24 to 20 per cent in 2009 on continuing basis).

In addition to the listed above measures it seems possible to use the revenues from the privatization as the source of budget deficit financing. Furthermore, this usually raises the efficiency of the assets managing.

Thus, on the medium and long run the Russian government has enough opportunities for the decrease in the general budget expenditures and the increase in the revenues. Although there is no enough data to estimate the possible effect of every measure separately, the preliminary calculations show that the use of the most of them should allow to maintain the long run fiscal sustainability in Russia. It would most likely demand of a number of unpopular reforms as well. Also it is important to keep in mind the possible fiscal risks that could demand additional measures.

5   Resume

Since the USSR dissolution the Russian government carried out a number of fiscal reforms aimed at contributing to macroeconomic stability and fiscal sustainability increase. These included adoption of the new conception of the non-oil-and-gas budget balance in 2008 in order to reduce nonrenewable resource dependency of the economy as well as to cope with negative effects of the so-called Dutch disease. The negative crisis consequences of the late 2000s forced to stop temporary the use of the fiscal rules. However, in the medium run the government has an intention to return to these rules after the transitional period.

The fiscal stabilization analysis on the period till 2013 allows to come to the following conclusions. The general budget balance and the fiscal impulse are affected mainly by the structural components as well as by the cyclical oil-and-gas component, while the cyclical non-oil-and-gas component has relatively weak impact. The Russian fiscal policy was countercyclical, *i.e.*, stabilizing in 2001-05. On the contrary, in 2006-08 it was procyclical as

discretionary measures contributed to economic "overheating". In 2009 fiscal policy easing was justified and stemmed from the need to mitigate the impact of the financial crisis on the economy. The countercyclical fiscal policy is expected to continue till 2013. As Russia is exiting from the crisis and switching to sustainable development the government is expected to tighten fiscal policy by cutting the discretionary policy measures.

The fiscal sustainability analysis for the general budget on the period till 2050 draws the following main conclusions. In the long run the value of the oil-and-gas revenues in per cent of GDP will go down, the value of the non-oil-and-gas revenues in per cent of GDP should raise and the sum of both indicators would decrease. Under such conditions the fiscal rules stated in the legislation should allow after the necessary fiscal consolidation of the 2010s to raise gradually the budget expenditures in per cent of GDP in the long run. At the same time depending on the scenario of socio-economic development the value of the government net worth will decrease to (–)25.0-(–)33.2 per cent of GDP at the end of 2050. Since this value will admittedly continue to decrease after 2050 and will stabilize noticeably below (–)30 per cent of GDP as well as several additional fiscal risks in the medium and long run exist, the levels of the oil-and-gas transfer and the net borrowings stated in the legislation have to be corrected. The calculations show that depending on the scenario the level of the oil-and-gas transfer should be decreased by 0.4-1.1 percentage points of GDP. The value of the net borrowings can be increased by 0.7-1.1 percentage points of GDP in case the government wishes to expand at most its fiscal policy and to get the government net worth equal to (–)30 per cent of GDP by the end of 2050. On the contrary, if it chooses the conservative aim for the government net worth of 0 per cent of GDP at the end of 2050 it would have to abstain completely from the net borrowings, so, decrease them by 1.0 percentage points of GDP. It seems worthwhile to set the most rigid fiscal rules.

In the nearest future it seems also worthwhile to switch from the actual budget balancing to the structural budget balancing for the purpose of managing the non-oil-and-gas part of the budget. Targeting the structural budget balance value allows the government to respond automatically to the business cycle as well as to better control the value of the government net worth since it is assumed that in the long run the cyclical component stabilizes symmetrically over the business cycle. At the same time managing the oil-and-gas part of the budget via the mechanism of the oil-and-gas transfer may be more efficient as it contributes more to the equal distribution of the nonrenewable resource revenues.

Switching on continuing basis to the alternative strategy based on the "bird-in-the-hand" rule is inexpedient for the Russian case since it leads to the additional considerable decrease of the general budget expenditures because of the reduction of the oil-and-gas revenues use efficiency.

In the following years the Russian government will have to raise substantially the general budget balance. The preliminary calculations show that for this it has enough sources for the decrease in the general budget expenditures and the increase in the revenues. However, it would most likely demand of a number of unpopular reforms.

REFERENCES

Abdih, Y., P. Lopez-Murphy, A. Roitman and R. Sahay (2010), "The Cyclicality of Fiscal Policy in the Middle East and Central Asia: Is the Current Crisis Different?", International Monetary Fund, Working Paper, No. 68.

Alberola, E. and J.M. Montero (2006), "Debt Sustainability and Procyclical Fiscal Policies in Latin America", Bank of Spain, Working Paper, No. 0611.

Bjerkholt, O. and I. Niculescu (2004), "Fiscal Rules for Economies with Nonrenewable Resources: Norway and Venezuela", in G. Kopits (ed.), *Rules-based Fiscal Policy in Emerging Markets: Background, Analysis and Prospects*, chapter 11, p. 164-79.

Blanchard, O. (1990), "Suggestions for a New Set of Fiscal Indicators", OECD, Economics Department, Working Paper, No. 79.

Blanchard, O., C. Chouraqui, R.P. Hagemann and N. Sartor (1990), "The Sustainability of Fiscal Policy: New Answers to an Old Question", OECD, Economic Studies, No. 15, p. 7-36.

Committee for a Responsible Federal Budget (CRFB) (2009), "Deficit Reduction: Lessons From Around the World", Fiscal Roadmap Project, September.

European Central Bank (ECB) (2009), "Euro Area Fiscal Policies and the Crisis", Occasional Paper, No. 109, p. 22-34.

Fedelino, A., A. Ivanova and M. Horton (2009), "Computing Cyclically Adjusted Balances and Automatic Stabilizers", International Monetary Fund, Technical Notes and Manual, No. 5.

Federal Ministry of Finance (2009), "Reforming the Constitutional Budget Rules in Germany", Deficit Rule Reform Team, September.

Guidelines for the Fiscal Policy in 2011 and for 2012 and 2013 (2010), in Russian.

Girouard, N. and C. André (2005), "Measuring Cyclically-adjusted Budget Balances for OECD Countries", OECD, Economics Department, Working Paper, No. 434.

Gokhale, J. (2008), "Reporting on Federal Fiscal Sustainability in the United States", Banca d'Italia.

International Monetary Fund (IMF) (2003), "Public Debt in Emerging Markets: Is It Too High?", *World Economic Outlook*, chapter 3.

——————(2008), "Fiscal Policy as a Countercyclical Tool", *World Economic Outlook*, chapter 5.

——————(2010), *IMF Fiscal Monitor Series: Navigating the Fiscal Challenges Ahead*, Fiscal Affairs Department, May.

Keene, M. and P. Thomson (2007), "An Analysis of Tax Revenue Forecast Errors", New Zealand Treasury, Working Paper, No. 2.

Krejdl, A. (2006), "Fiscal Sustainability – Definition, Indicators and Assessment of Czech Public Finance Sustainability", CNB, Working Paper, No. 3.

Kudrin, A. (2007), "Stabilization Funds: International and Russian Experience", *Problems of Economic Transition*, Vol. 50, No. 1.

Lilico, A., E. Holmes and H. Sameen (2009), "Controlling Spending and Government Deficits: Lessons from History and International Experience", *Policy Exchange*, November.

O'Connell, S. and S. Zeldes (1988), "Rational Ponzi Games", *International Economic Review*, Vol. 29.

Ponomarenko, A.A. and S.A. Vlasov (2010), "Russian Fiscal Policy During the Financial Crisis", BOFIT, Discussion Paper, No. 12.

Reinhart, C., K. Rogoff and M. Savastano (2003), "Debt Intolerance", Brookings Papers on Economic Activity.

The Budget Code of the Russian Federation, in Russian.

The Ministry of Finance of the Russian Federation (MFR) (2006), "The Methodology of Non-oil-and-gas budget balance estimation", in Russian.

——————(2008), *The Budget Strategy of the Russian Federation till 2023*, in Russian.

The Program of Budget Spending Efficiency Increase on a Period till 2012 (2010), in Russian.

Topalova, P. and D. Nyberg (2010), "What Level of Public Debt Could India Target?", International Monetary Fund, Working Paper, No. 7.

Vasilieva, E., S. Vlasov and A.A. Ponomarenko (2009), "Assessing the Fiscal Stabilization and Fiscal Sustainability Aspects of Public Finance in Russia", *HSE Economic Journal*, No. 3, in Russian.

Villafuerte, M., P. Lopez-Murphy and R. Ossowski (2010), "Riding the Roller-coaster: Fiscal Policies of Nonrenewable Resource Exporters in Latin America and the Caribbean", International Monetary Fund, Working Paper, No. 251.

Vladkova-Hollar, I. and J. Zettelmeyer (2008), "Fiscal Positions in Latin America: Have They Really Improved?", International Monetary Fund, Working Paper, No. 137.

www.cbr.ru – home page of Bank of Russia.

www.gks.ru – home page of the Federal State Statistics Service of the Russian Federation.

www.minfin.ru – home page of the Ministry of Finance of the Russian Federation.

www.nbim.no/en/ – home page of the Norges Bank Investment Management (asset management unit of the Norwegian central bank).

www.roskazna.ru – home page of the Federal Treasury of the Russian Federation.

www.worldbank.org – home page of the World Bank.

THE STORY OF ISRAEL'S NEW FISCAL RULE:
THEORETICAL DESIGN MEETS POLITICS

Adi Brender[*]

In 2003, Israel launched a consolidation program that lowered in four years the debt-to-GDP ratio by 20 percentage points, and the share of public expenditure in GDP by 7 percentage points. Following this effort it was decided that the stringent expenditure rule that anchored the stabilization – keeping per-capita real expenditure constant – should be replaced by a more sustainable long-term rule. A new, expenditure ceiling based, rule was designed with these main properties: 1) increasing the ceiling at the long-term growth rate of the economy, calculated as the moving average of growth over the last 10 years; 2) reducing the rate of increase according to the distance of the debt ratio from the intermediate target of 60 per cent; 3) presetting the parameter for the speed of convergence when the rule is adopted; 4) adjusting the ceiling to statutory tax rate changes. In practice, the government decided to exclude taxes from the rule, adopted a long-term plan to cut tax rates and revised the adjustment coefficient to be inconsistent with a prolonged debt reduction. In light of these modifications it was decided to augment the rule by maintaining the existing annual deficit ceilings, hence preserving the pro-cyclicality of the rule that led to its repeated breaching in the past.

1 Introduction and background

In 1991, Israel adopted its first multi-annual fiscal target, which aimed to balance the central government budget by 1995. Despite favorable economic conditions and appropriate initial progress, the rule was soon abandoned, to be repeatedly replaced by new rules. This process continued until the successful implementation of a comprehensive stabilization program during the economic and fiscal crisis of 2003 (Brender, 2008).

Following the 2003 stabilization program, Israel's fiscal position improved markedly. The general government deficit declined from 6 per cent of GDP in 2003 to 0.6 per cent in 2007, the debt-to-GDP ratio fell by 21 percentage points and the share of public expenditure in GDP was reduced by 7 percentage points (Bank of Israel, 2009b). This improvement reflected, for the most part, specific measures that were implemented, or legislated, when the program was launched (Brender, 2009); it was also supported by faster-than-projected economic growth and by increased tax revenues due to the surge of the financial markets. To anchor the consolidation the government adopted, beginning with the 2005 budget, an expenditure ceiling, which restricted the annual real growth of central government spending to 1 per cent in 2005 and 2006. This rate was raised to 1.7 per cent (the population growth rate) since 2007.[1] In parallel, the government maintained a declining deficit ceiling (with a target of 1 per cent of GDP from 2009 onward), although it was not an effective constraint until 2008, due to the faster than projected economic and revenue growth.[2]

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[*] Bank of Israel.

The opinions expressed in this paper are solely mine and do not represent those of the Bank of Israel.

[1] In practice the government augmented the annual expenditure ceilings by "boxes" for special geo-political events that took place during the period. This meant that the expenditure ceiling was effectively raised by 0.4 per cent of GDP in 2005 and grew, more or less, at the rate set by the rule through 2010. In 2011 the expenditure level was reduced to its original path.

[2] The more restrictive of the two rules applies. That is, if the deficit is expected to be below the ceiling the government cannot raise its expenditures more than the expenditure ceiling permits. If the deficit exceeds the target, expenditure has to grow less than the ceiling permits, unless revenues are raised.

Main Fiscal Aggregates, General Government, 2002-10
(percent of GDP)

|	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total general government deficit	5.1	6.0	4.1	2.5	1.1	0.6	2.3	5.3	3.8
Total expenditure	50.4	49.8	47.0	45.1	44.4	43.4	42.8	42.8	42.6
Primary civilian expenditure	36.5	35.6	33.8	32.6	32.3	31.9	32.4	32.8	32.7
Gross public debt	96.6	99.1	97.4	93.5	84.5	78.2	76.7	79.2	76.2
Tax Revenue	35.9	35.1	35.2	35.3	35.6	35.9	33.6	31.2	32.3
Cyclically-adjusted deficit*	2.5	2.6	1.3	0.6	0.4	0.8	2.0	3.6	2.7

* Using the Israeli definition, which is based on real interest payments.
Source: Bank of Israel (2011).

The improved fiscal position raised demands to expand public expenditure and cut tax rates. While the expenditure ceiling contributed to the stabilization, it was perceived by many as too tight for "normal" times, since it was too low to meet the "natural" growth of demand for public expenditure as income rises, especially given the speedy reduction in the share of government spending in GDP. As a result, pressures to circumvent the ceiling mounted, reflected mostly in accumulation of expenditure commitments for future years (Bank of Israel, 2009a). Additionally, statutory tax rates were lowered aggressively, taking advantage of the fact that deficits were below their ceiling. Consequently, when financial assets' prices fell in 2008, the deficit rose substantially and exceeded its ceiling. This was followed by the global crisis in 2009 which led to a further large drop in tax revenues, a surge of the deficit to 5 per cent of GDP and a halt of the decline in the debt-to-GDP ratio (Table 1). These developments highlighted the need for a policy framework that will reflect a sustainable long-term fiscal strategy and will guide policy both in peak and in recession periods.

The negative development of the fiscal aggregates during the global crisis (from the 2008 level), *per se*, was not expected to harm the credibility of the government's commitment to reduce the deficit and return to a declining path of the debt ratio, especially against the background of the successful fiscal effort since 2003. The deficit expansion was moderate compared to most OECD countries (Figure 1) and clearly attributable to the automatic stabilizers.[3] Moreover, most of the statutory tax cuts were announced well in advance and were not suspected to reflect a breakdown of fiscal discipline during the crisis. Nevertheless, maintaining credibility when the debt and deficit are high and rising is not trivial; markets and the public need to be assured that when the recession ends the deficit will return to a level which is consistent with the long-term needs of the economy and that the government will not exploit the recovery to adopt programs that will decelerate the deficit reduction. The need to create this confidence added further motivation to adopt a fiscal rule

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[3]   The 2009 and 2010 budgets did not include significant discretionary measures, and those adopted were offset by tax increases.

Figure 1

Change in the General Government Deficit by the Common International Definitions: Israel and OECD, 2008-10

(percent of GDP)
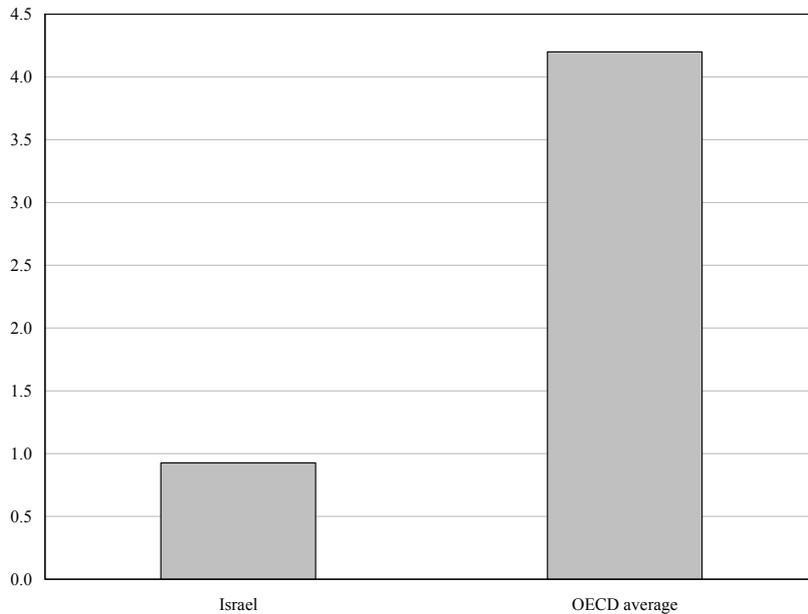
that would serve as a framework for setting fiscal policy.[4] The new rule was intended to clarify the government's policy goals for the coming years and stress the commitment to sustainable fiscal policies while accounting for the initial conditions.

2 The fiscal position at the outset

Israel's relative fiscal position, as reflected in the current deficit and debt dynamics, improved markedly during the recession. However, this improvement was partly due to the mild slowdown in Israel compared to other developed countries, and partly due to temporary expansionary measures implemented by these countries. The cyclically adjusted deficit in 2010 was not much different from the average among OECD countries (Table 2), where it is well recognized that fiscal consolidation is critically needed. Moreover, the absolute size of the cyclically adjusted deficit – 2.7 per cent of GDP, using the Israeli definition[5] – implied little change in the debt ratio over the long run, given Israel's expected medium-term growth.[6] Taking into account that in the last 20 years the economy operated on average at about 2.5 per cent below potential, the current level of the cyclically adjusted deficit implies convergence to a long-term debt ratio of 70 per cent[7] that is deemed to be too high for a country facing geo-political risks like Israel. However, Israel's improved relative position may be conductive for a more moderate pace of reducing the debt ratio. The trade-off between risk and the pace of consolidation is eventually a political decision that the fiscal rule was supposed to reflect.[8]

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[4] For a comprehensive survey of fiscal rules in the developed countries and a discussion of their merits, see Franco and Zotteri (2010), and Kumar and Ter-Minassian (2007).

[5] The Israeli measure of the deficit is based on *real* interest payments. When compared to other countries the figures are adjusted to reflect nominal interest payments.

[6] The drop in tax revenues in 2009 was well beyond the decline explained by the development of the real and financial macroeconomic variables included in the tax models (e.g., Brender and Navon, 2010). A similar process took place in many developed countries – and was often referred to as "unusually high elasticities". This drop probably reflects non-linearity in taxes' response to the unusual economic and financial conditions. In Israel, most of this unexplained gap closed in 2010.

[7] For the purpose of estimating the cyclically adjusted balance, potential output is calculated using the production function approach. Potential GDP is thus a notional ceiling for the level of output. The estimation of the cyclically adjusted balance in Israel is based on the BOI tax model (Brender and Navon 2010) using trend financial assets' price increases.

[8] The IMF (2010) now uses an indicative target for the developed countries in the G-20 to converge to a debt ratio of 60 per cent by 2030, much later than was envisaged before the crisis.

While reducing the deficit was a key motivation for the new rule, an important issue was whether this reduction should continue to be solely based on expenditures. The expenditure rule, used since 2003 as the effective fiscal constraint, brought the expenditure share in GDP to approximately the OECD average (before the global recession). At the same time tax rates were substantially lowered so the tax-to-GDP ratio is well below the OECD average (Figure 2). Moreover, given Israel's

<div align="right">**Table 2**</div>

Fiscal Aggregates: Israel and OECD Average*, 2010

(percent of GDP)

	Israel	**OECD average**
Total general government deficit (international definition)	4.9	5.3
Total expenditure (international definition)	43.8	47.0
Gross public debt	76.2	76.9
Primary civilian expenditure**	32.7	38.5
Tax revenue**	31.2	33.6
Cyclically-adjusted deficit***	3.6	3.6

* Arithmetic average. ** 2009. *** In Israel using the international definition.
Source: Bank of Israel (2011).

high defense and interest expenditures, the primary civilian expenditure (PCE) is among the lowest in the OECD, limiting government's ability to supply public services and intervene in income distribution (Bank of Israel, 2011). Accordingly, persisting with the expenditure ceiling of constant per-capita expenditure over the long run appeared to be politically unsustainable and, perhaps, economically inefficient. As such, expectations for the ceilings' eventual abandonment could create uncertainty about the policies that will replace it, and undermine the policy's credibility.

While the scope for continued erosion of the share of public expenditure in GDP at the rate imposed by the existing rule was limited, some reduction was still possible due to the adoption of a medium-term path for the defense budget, with an annual growth of 1.3 per cent (the Brodet committee), and because interest payments were expected to decline as the debt ratio falls and as old, high-interest, bonds are retired. This left some room for further reduction in total public expenditure relative to GDP, while allowing the ratio of PCE in GDP to stabilize.

The contemplation of the new fiscal rule took place in a much different environment than the design of the 2003 consolidation program. In 2003, the fiscal position was much worse than in comparable countries and the government suffered from low credibility due to repeated failures to meet its medium-term fiscal targets during the 1990s. This required a front-loaded program. In 2010, the expected post-recession deficit was also too large to allow a sufficiently fast convergence of the debt ratio to levels that are appropriate for the Israeli economy in the long run. However, the acquired credibility since 2003 suggested that a fiscal rule, as a commitment device, could support a more flexible short-term policy and by that moderate the consolidation's negative impact on economic growth, especially if the global recovery slows.[9] Hence, the new rule was expected to better balance a sufficiently ambitious reduction of the structural deficit with a flexible response to changing economic circumstances, while accommodating the demand for public expenditure in a way that is more politically sustainable over the long run.

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[9]   Mazar (2010) provides estimates for the effects of fiscal policy measures on GDP growth in Israel.
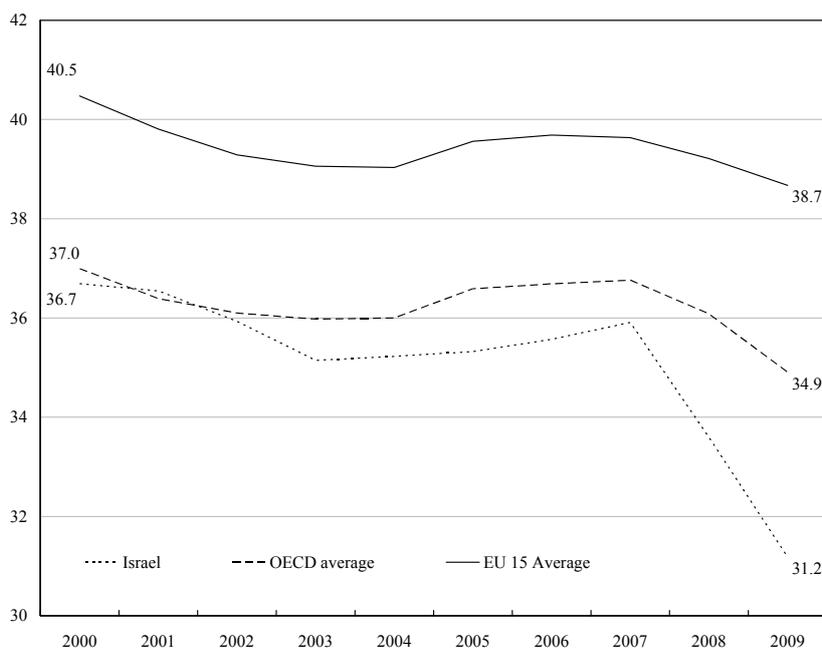
Figure 2

General Government Expenditure: Israel, OECD and EU15, 2000-10

(percent of GDP)

Tax Revenues in Israel, OECD and EU15, 2000-09

(percent of GDP)

Source: Bank of Israel (2011).

3 Key principles of the rule

To fulfill its main function of providing a stable and credible framework for fiscal policy that will anchor expectations and policies, a fiscal rule has to be derived from long-term fiscal targets that are realistic but also sufficiently ambitious (Kopitz and Symanski, 1998). While fiscal discipline used to be anchored in attitudes as "the right thing to do", experience has pushed the focus towards more formal targets (Buchanan, 1997; Balassone and Franco, 2001), where the specific design of the rule depends on the specific goal (Franco and Zotteri, 2010). In light of Israel's fiscal position at the starting point the key fiscal target is preserving and enhancing the credibility of the government's long stated commitment to reduce the debt ratio. Accordingly, the rule should facilitate convergence of the deficit to levels that allow adequately speedy and continuous reduction of the debt-to-GDP ratio in the medium term (Corbacho and Schwartz, 2007). The rule should also be framed in a way that ensures its stability over time by reducing the need for frequent revisions of the target. Such a design enhances

the rule's credibility and transparency and boosts the possibilities for long-term planning of policy measures and reforms.

A possible target is to reduce the debt ratio to 60 per cent within a decade and maintain a sufficiently low deficit thereafter, so that the debt ratio will converge to a pre-specified lower level (see discussion below). Such a target points to a commitment to converge within a pre-specified period to the debt level that is (was?) a norm for the debt ratio among the developed countries, and reflects a commitment to lower the country risk and the burden on future generations. Nevertheless, the rule has to respond adequately to the demand for public expenditure over the medium and long term; otherwise pressures to increase expenditure will lead to its demise. Balancing ambition with political sustainability requires that the rule be based on broad political agreement regarding its targets and the pace of convergence.

An important feature of a fiscal rule is its effect on the response of fiscal policy to cyclical developments in the economy. Rules that lead to pro-cyclical behavior exacerbate business cycles: they accelerate growth in boom periods and depress activity in recessions. Countries that suffer from low credibility are sometimes forced to act in a pro-cyclical form to calm the markets, but in general pro-cyclicality is undesired.[10] Therefore, a fiscal rule that is cyclically neutral – that is, it does not require the fiscal authorities to offset the operation of the automatic stabilizers – is advantageous (Taylor, 2000; Wren-Lewis, 2000).[11] Pro-cyclicality is a characteristic of annual balance targets, a feature that makes them poor candidates to serve as instruments for long-term targets. In the short run, the tax elasticity with respect to GDP is significantly larger than unity[12] so it is possible to raise expenditures or cut tax rates as growth accelerates.[13] However, once these measures are adopted they are politically difficult to reverse, especially during recessions when the economic common-sense calls for fiscal expansion (Hercowitz and Strawczynski, 2004). Therefore, annual deficit targets may build pressures that lead in the medium term to revisions of the fiscal targets and to higher public debt (until a crisis forces a new consolidation). The gained credibility of Israel's policy during the last decade should have allowed avoiding this price.

For a fiscal rule to support credibility it should not only present long-term goals, but also point to road-marks in the convergence process and clarify the correction mechanisms when performance deviates from the planned path. To achieve that, transparency of the rule's targets and of the calculation of the road-marks is essential. Larger reliance on objective calculations and on publicly known figures, rather than on projections and models, increases credibility and clarifies the government's progress towards the preset targets. One way to enhance transparency is to base the rule on pre-announced formulas whose components are final figures published by objective entities, such as the Central Bureau of Statistics. The principal test of a rule's transparency is that bodies interested in tracking its implementation will be able to calculate the fiscal aggregates targeted by the rule and compare them to the published government plans. The recent experience in Israel has shown that even a relatively simple rule may not conform to this criterion when its calculation is based on nontransparent data. The contribution of using known data to transparency would grow should the government act on its intention to begin the budgeting process earlier in the year.

Basing the operational objectives of the rule on predetermined parameters, to enhance credibility, may contrast with sustainability. Too rigid fiscal rules may require repeated adaptations

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[10]   The need of fiscal targets to account for cyclical developments was recognized already by Pigou (1928).

[11]   In principle, a counter cyclical rule is preferable, but in practice fiscal policy's ability to respond timely and effectively to "normal" cycles is questionable (European Commission, 2001), and the job is typically left for monetary policy.

[12]   Brender and Navon (2010) find that in Israel the short-term elasticity of tax revenues to *changes* in the growth rate is about 0.4, in addition to the normal near-unit elasticity of taxes to GDP growth.

[13]   Brender (2001) provides evidence that in Israel statutory tax rate cuts are pro-cyclical.

as economic circumstances change; each modification carries the risk of eroding the rule's credibility. This risk can be alleviated if the rule's operational short-term targets automatically adjust to economic circumstances but in a way that is consistent with achieving the long-term goals. Expenditure rules, like the one that was effective in Israel until 2011 – a constant annual rate of increase – overcome the problem of pro-cyclicality and determine a clear intertemporal path for public spending. Based on assumptions about the future growth of GDP and tax policy, they allow a derivation of the long-term debt ratio. But, if GDP deviates in the medium and long run from the expected path, a revision of the rule may be called for. Therefore, despite their advantages, such rules are not robust (Ljungman, 2008). If GDP grows faster than expected the rule will be too restrictive, and pressures for expanding expenditure will hurt its credibility. If growth is slower than expected, debt reduction will be too slow, if debt is reduced at all. To mitigate these risks, while maintaining stability, the rule has to contain a predetermined adjustment mechanism – conditioned on preset parameters – so that policies will automatically adjust to changes that affect the convergence to the long-term goals.

One way to overcome the excess rigidity of preset targets, as well as the pro-cyclicality of short-term road-marks, is to base the rule on cyclically-adjusted aggregates. However, calculations of potential output and cyclically-adjusted balances are notorious for repeated revisions (Larch and Turrini, 2009; IMF, 1997). While more complex tax revenue models that account for a broad set of variables (e.g., Brender and Navon, 2010) may reduce the scope of this problem,[14] this comes at the cost of lower transparency. This is particularly a problem in countries like Israel where GDP revisions are prolonged and a-symmetric. Even if transparency can be preserved by selecting a single measure of potential output there should also be some professional agreement that the measure is reliable, for the rule to be credible. At least in Israel, this is not the case and the estimates vary substantially.

The pros and cons of the various policy options call for some form of a modified rule. Such a rule can be based on an expenditure ceiling, but should provide a transparent, preferably automatic, mechanism for adjustment should trend growth turn different than expected. The rule should cover a sufficiently broad aggregate, but one that the government is able to monitor and control (Deroose *et al.*, 2006). Finally, and quite critically in Israel, the rule should account for statutory tax rates. The focus on tax rates, rather than tax revenues, is warranted because this is the variable that the government controls.

A relevant characteristic of expenditure-based fiscal rules is whether the ceiling is defined in nominal or in real terms. In the Israeli case, expenditures were determined in real terms, with *ex post* correction in the following budget to the deviation of inflation from the budget forecast. This process undermined the transparency of the budgeting process, although this problem had more to do with the specific practices in Israel and is not an inherent feature of ceilings set in real terms. One way to overcome this issue is setting the target in nominal terms, based on the inflation target. This may be consistent with Israel's inflation being on average around the inflation target of 2 per cent during the last decade. It also makes use of fiscal policy as an automatic stabilizer in high inflation periods and helps anchoring inflation expectations. Furthermore, if inflation is close to the target over time there is no need to "compensate" the budget for short-term deviations because the CPI is not the relevant price index for the government. A large share of the budget is derived from multi-annual nominal wage agreements, purchases based on continued contracts and nominal interest payments on long term debt. Nevertheless, if inflation consistently deviates from the target it may create a gap between tax revenues – that co-move with prices – and expenditures. Hence, for the rule to be sustainable it has to ensure the congruence between the two.

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[14] Morris and Schuknecht (2007) show the important effect of asset prices on tax revenues. The Bank of Israel calculation of the cyclically-adjusted balance, which is based on Brender and Navon (2010), accounts for this factor.

The adoption of a fiscal rule raises the long standing question whether it should be based on total expenditure or only on current expenditure (e.g., the "golden rule"). Poterba (1995) and Robinson (1998) discuss the theoretical arguments in favor of excluding capital expenditure from the coverage of a fiscal rule. However, such a separation raises complicated practical issues, such as the definition of capital outlays, as well as moral-hazard and efficiency considerations. On balance it seems that the credibility and consistency of fiscal rules is better served when they apply to total expenditure (Franco and Zotteri, 2010).

4   The proposed rule: adjusted expenditure ceiling

4.1   Structure

Economists from the Bank of Israel designed a fiscal rule to be adopted beginning with the 2010 budget. Similar proposals, with some technical variations were suggested by the National Economic Council at the Prime Minister's Office and the MOF. The key principle was to base the rule on an expenditure ceiling, adjusted for changes in statutory tax rates.[15] The slope of the ceiling was to be set in a way that is consistent with a continuous reduction of the debt-to-GDP ratio and with meeting an intermediate target of 60 per cent.[16] The precise timing for reaching the intermediate target (and the level of the target) was left to be decided by Parliament[17] (although the year 2020 was the reference scenario used in the process). The (very) long-run debt target was contemplated to be 30-40 per cent, based on a steady state deficit of 1-1.4 per cent of GDP.[18] The key principle was that expenditure growth will be negatively related to the distance of the debt-to-GDP ratio from the target, and positively related to the long-term growth of the economy. In this way the expenditure ceiling would self-adjust if growth turns out to be slower the envisaged.[19]

The adjusted expenditure ceiling was to be calculated in the following manner:

i)   The baseline real growth rate of government expenditure will be equal to the long-term growth rate of the economy, which will be calculated as the average growth rate of GDP over the last 10 years. In order to use only known outcomes rather than projections, and because the budget for year t is prepared at t–1, the relevant growth rate for each budget is for the decade that ended at t–2.[20]

ii) The expenditure ceiling will be adjusted to changes in *statutory* tax rates and exemptions. This characteristic reflected the evaluation that the size of government in Israel is sufficiently small to make the marginal trade-off between tax cuts and expenditure expansions a political, rather than efficiency, issue. As long as decision-makers observe the allowed ceiling for policy measures there was no need to restrict expenditures more than tax cuts, or vice versa – especially given the experience in recent years where tax-rate cuts were responsible for the increase in the cyclically-adjusted deficit. The costing of the effect of these measures will be

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[15]   The adjustment to taxes was a key difference between the proposal of the BOI and the other prposals.

[16]   The annual ceiling was to be determined ex-ante. However, since the baseline for the next year's budget is the current budget, not actual expenditure, there is an automatic self-correction of deviations. In practice, there had been no interim budgets in the past 20 years, so mid-year excess expenditure is not viewed as a significant threat.

[17]   This is consistent with the spirit of Calmfors (2003).

[18]   Israel's long-term potential GDP growth is estimated to be between 3 and 3.5 per cent, based on population growth of between 1.5 and 1.8 per cent annually, and an average GDP per-capita growth of 1.7 per cent. The latter is the average over the last 37 years, and has been quite stable in each of the past four decades. It is also quite similar to the long-term growth rates in Europe and the US.

[19]   This mechanism is a simplified concept of the German and Swiss "control accounts" that specify the need to take "corrective measures" when the "accounts" exceed a predetermined debit level.

[20]   For example, the 2013 budget, to be prepared in 2012, will be based on data for 2002-11.

carried out by an independent professional council.[21] The impact of the tax measures was to be evaluated and factored into the base in the year of implementation. Additionally, modifications in accounting practices were also to be evaluated by the council.

iii) The baseline expenditure growth rate will be reduced in accordance with the distance of the debt ratio at the end of year t-2 from the target of 60 per cent. The rate of reduction will be determined by Parliament (once and for all) in accordance with the desired speed for reaching the medium-term target. Once this target is attained, the adjusted public expenditure will continue to grow at the baseline growth rate.

iv) The real growth rate calculated above will be augmented by 2 per cent annually to compensate for inflation (the center of the inflation target range). If inflation deviates from the target by more than 1 percentage point, the margin will be added to the next budget.

The components of the calculation are presented in the formula:

$$PE_{gr} = GDP\_POT_{gr} - a*((D/Y)_{t-2}*100 - 60) + 2$$

PE is adjusted public expenditure; GDP_POT_{gr} is the estimated long-term growth rate of the economy; *D* is the stock of gross public debt and *Y* is nominal GDP. The parameter *a* reflects the magnitude of the reduction in the growth rate of expenditure due to the distance of the debt ratio from the intermediate target. This parameter (as well as the intermediate target of 60 per cent) is where policy makers were requested to set the political preferences for the adjustment process.

4.2   Technical considerations

i) The estimated long-term growth rate of the economy will be based on a 10 year moving average of the growth rate of GDP. In past decades GDP per-capita grew at a pretty steady rate of 1.7 per cent over periods of 10 years, but population growth fluctuated due to immigration and a decline in the natural growth rate. Therefore, it was contemplated to base the estimate of long-term growth on GDP per-capita, with an addition for the growth rate of the population, as projected by the CBS. This idea was abandoned for the sake of simplicity and transparency, noting that the population growth rate stabilized in the last decade.

ii) The rule will apply to a consolidated expenditure aggregate that includes the central government, the National Insurance institution (social security) and the transfers of the health tax to the Health Funds (non-profit organizations that operate the government-funded public health insurance system). Although the deficits of these organizations are already captured in the central government's budget, the extended coverage is needed to prevent the use of this outlet to increase spending during high-growth periods.[22] The rule will not apply to expenditures that are fully-funded from foreign sources (mostly military imports funded by US government transfers). The reason for this exemption is that it made little sense to force the government to cut other expenditures when such grants are awarded, and due to the large volatility of these transfers.

iii) The rule will not cover the locally funded operations of the municipalities. This reflected a

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[21]   This point was not fully agreed. In practice, the evaluation of policy measures by the MOF is perceived as credible in most years; the average absolute forecast error is similar to the EU average and the bias to over-pessimism is 0.5 per cent of GDP. Buti and van den Noord (2004) report an overly optimistic bias in EU countries. Nevertheless, to enhance the credibility and fairness of the calculations (the MOF is sometimes perceived to exaggerate the evaluated cost of policies), the role of an external body was thought to be useful in line with the findings of Jounung and Larch (2006).

[22]   The current practice is that the total cost of the "health basket" is decided by the government, which supplements the proceeds of the health tax to cover the full cost. In a typical year, higher proceeds are reflected in lower central government expenditure. However, since the ceiling applies only to the central government, it is possible to expand health services in high-growth years, while avoiding increased budgetary spending. If the service expansion is permanent this may then raise the deficit when revenues fall.

practical consideration given the delays in reporting by the local authorities, the fact that they account for only 15 per cent of public expenditure, and since they are subject to a no-net-borrowing constraint. Also, it makes little sense to apply an identical expenditure ceiling to all the municipalities, given their different population trends. In practice during the last decade the debt of the localities has indeed remained constant in real terms. Government transfers to the municipalities, which account for a third of their expenditures, are covered by the rule.

iv) The rule will include escape clauses for wars, natural disasters and periods in which the global economy stagnates or exhibits negative growth rates. In such cases the ceiling can be breached for a maximum of two years, and then return to its original path. At that stage expenditure growth will moderate according to the increase in the debt ratio.

v) The MOF will calculate and publish a five-year trajectory of adjusted public expenditure, calculated according to the rule. This projection will reflect all relevant government decisions, as well as the expected effects of demographic and economic changes. These figures will be compared to the projected expenditure ceiling and corrective measures will be taken as soon as potential overspending emerges.[23] This procedure is needed in order to cut at the bud the development of underlying expenditure dynamics that are inconsistent with the rule, which were a source of missing Israel's previous fiscal targets (Brender, 2008).[24]

5   Characteristics of the rule compared to the theoretical criteria

Consistent with convergence to the targeted debt ratio. The rule ensures that if GDP growth decelerates, expenditure growth will slowdown as well, having a moderate effect on the timing of the debt ratio reduction. Even if growth rates decelerate abruptly for an extended period, compared to the previous decade, the expenditure path will still self-correct and the arrival at the target will not be dramatically delayed (see simulations below). In practice, abrupt continuous decelerations are quite rare in developed economies during peace periods.

Credible during recessions and accelerations. In a recession, the rule ensures an automatic adjustment of expenditures to facilitate a return to a declining debt ratio. In a period of acceleration the rule moderates expenditure growth until it becomes clear whether the acceleration is sustained.

Transparency. Framing the rule in terms of one observable figure (the real increase in public expenditure), which is calculated based on fully observed and highly visible variables (past GDP growth and the debt ratio), makes it transparent and relatively simple to calculate. The extended coverage of the rule compared to the existing targets limits the ability to shift expenditures between the various organs of the public sector. The use of nominal figures, except for periods of high inflation, also makes the rule easy to follow compared to the current system. It also specifies exactly when and by how much the ceiling should be adjusted if inflation accelerates. A simple fixed nominal increase of the ceiling would have been even more transparent, but at the cost of the rule's sustainability.

Politically sustainable. The rule limits the near-term expansion of public expenditure compared to the medium and long run. This property is in line with the need to reduce the deficit quickly when the recession ends, building on the closure of the output gap. In the medium term, as the economy grows, the rule allows public expenditure to respond to the rising demand, and

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[23] The specifics were to be determined before the rule's adoption. It was envisioned that, similar to the PAYGO rule used in the US during the 1990s, once the limit is approached each policy measure will have to be presented with a clear source of financing within the ceiling.

[24] Kopitz and Symanski (1998) stress that fiscal rules need to be supported by consistent reforms.

provides a clear mechanism for policy-makers to share the "fruits of growth". Being dependent on the long-term growth of the economy, the rule also reduces the scope for debates on whether changes in annual growth rates are a "change in trend" or not. If they are, the rule automatically responds with a gradual change in expenditure.

Not pro-cyclical. The pro-cyclical component embedded in annual deficit rules is neutralized for the most part by using an expenditure growth rate that is independent of the economy's current performance, and depends on the lagged debt ratio. By doing so, the rule facilitates the operation of the "automatic stabilizers".[25]

6   Simulations

Figure 3 demonstrates the significance of the political decision about the specific parameters of the rule. The figure is based on three alternatives: 1) setting the a parameter at 0.1; 2) setting it at 0.06; 3) setting a at 0.05 and the intermediate debt target at 50 per cent of GDP, rather than at 60. The trade-off reflected in the first two options is clear: the first reduces the debt ratio faster, reaching the 60 per cent target in 2020 instead of 2025, while the second allows higher expenditure and PCE through the next 15 years. Eventually, after 15 years, the PCE does converge in the two options – due to higher interest payments in the second scenario[26] – but waiting so long is not a trivial decision.

The comparison between the first and third options reveals a different trade-off. The first option forces a stronger initial consolidation through lower expenditure and generates, accordingly, a somewhat faster initial debt reduction (although both reach a debt ratio of 60 per cent by 2020). In return, the third option requires very little initial reduction in the ratio of PCE to GDP. However, this option requires a persistent reduction of expenditures in the long run, so in the next decade it leads to a lower ratio of PCE to GDP and brings the debt ratio to a lower level than the first option.

Figure 4 shows the effects of changes in GDP growth on the fiscal aggregates under option 1 of the rule. The "fluctuating growth" scenario examines a case where GDP growth decelerates by 0.5 per cent for 5 years, then makes up the difference in the next five and returns to the assumed underlying growth rate. The absolute level of expenditure and PCE responds very gradually, leading to an initial increase in the PCE ratio to GDP compared to the baseline scenario ($a = 0.1$); this increase is also reflected in a higher debt ratio. However, as growth makes up the lost ground, the ratio of PCE to GDP also begins to fall and drops below the baseline level in 2017, beginning to close the gap in the debt ratio as well. By 2020 both debt ratios converge at 60 per cent, and then the debt ratio under the "fluctuating growth" scenario falls below the baseline for a few years.[27] Overall, expenditures respond only moderately to slower economic growth and allow a relatively minor adjustment of per-capita PCE to the five years of deceleration. This stability is much more noticeable when shorter decelerations are examined.

The scenario of "lower growth" depicts a case where growth is slower by 0.5 per cent annually, throughout the period 2011-25. In this case the deviation of per capita PCE from the baseline scenario accelerates, on account of the slower GDP growth, the larger distance of the debt ratio from the 60 per cent target, and due to higher interest payments. On the demand side, a substantial part of the slower increase in PCE is accounted for by lower income (assuming that the

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[25]   In Israel the embedded effect of the business cycle on government expenditure is small – about 0.1 per cent of GDP, due to low unemployment benefits. In contrast, estimates of a government reaction function do show a substantial elasticity of public spending to GDP growth (Bank of Israel, 2005; Strawczynski and Zeira, 2009).

[26]   Interest rates are assumed to be identical in all the scenarios, so differences in interest payments reflect only differences in the stock of debt.

[27]   This is temporary, while the slow-growth years are phased-out in the calculation of expenditures. The ratios converge around 2030.

Figure 3

Main Fiscal Aggregates Under the Proposed Rule
(percent of GDP)

a) Public Debt/GDP Ratio, Various Scenarios, 2008-25
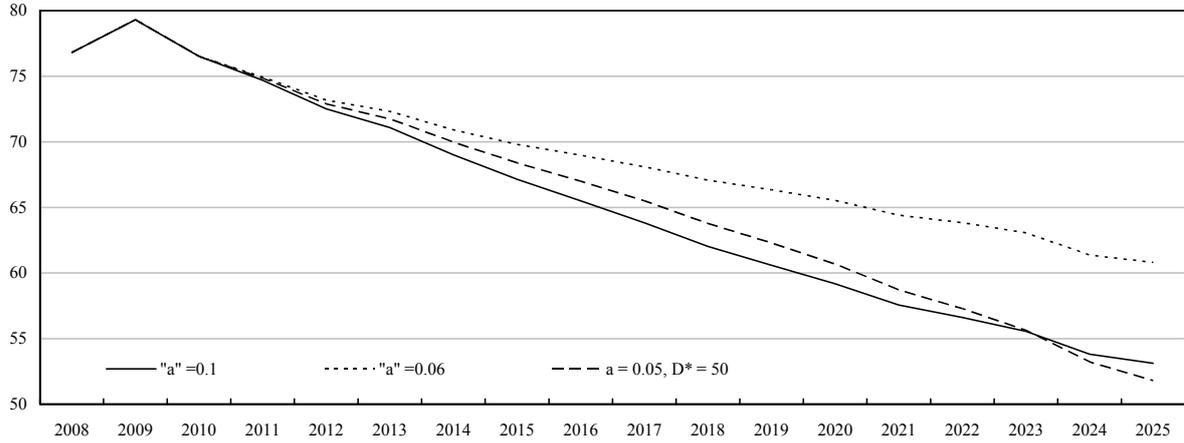
b) Primary Civilian Expenditure/GDP Ratio, 2008-25
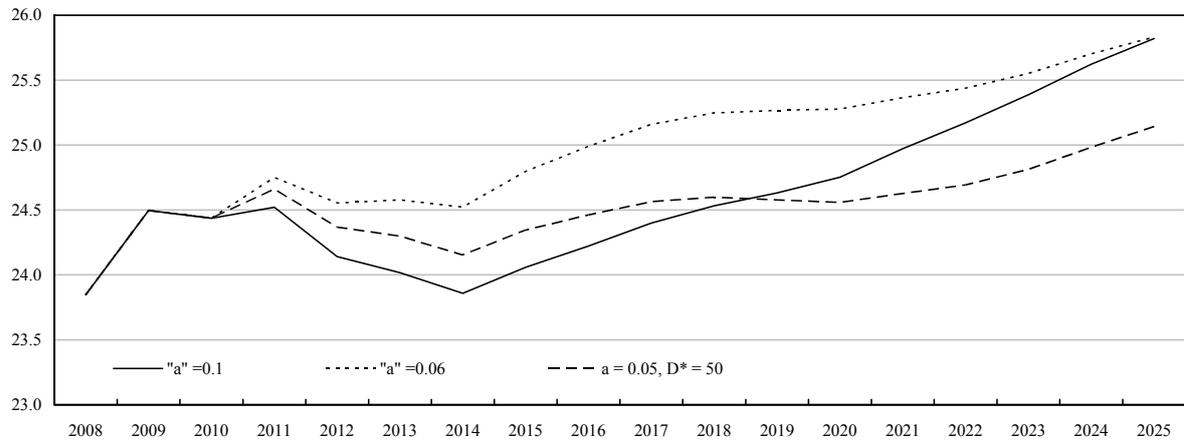
c) Total Expenditure/GDP Ratio, 2008-25
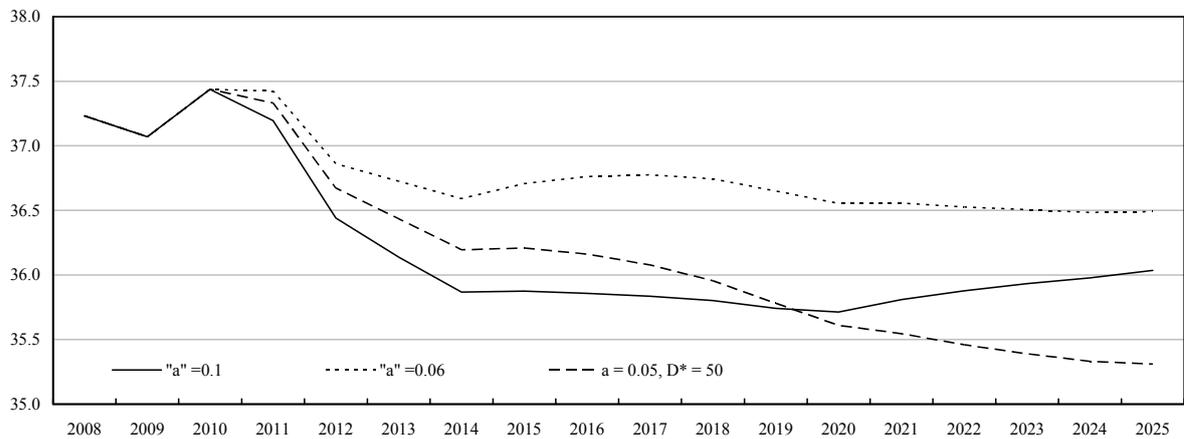
Figure 4

The Sensitivity of the Fiscal Aggregates to Changes in Growth

a) Primary Civilian Expenditure, Various Growth Scenarios, 2008-25
(percent of GDP)
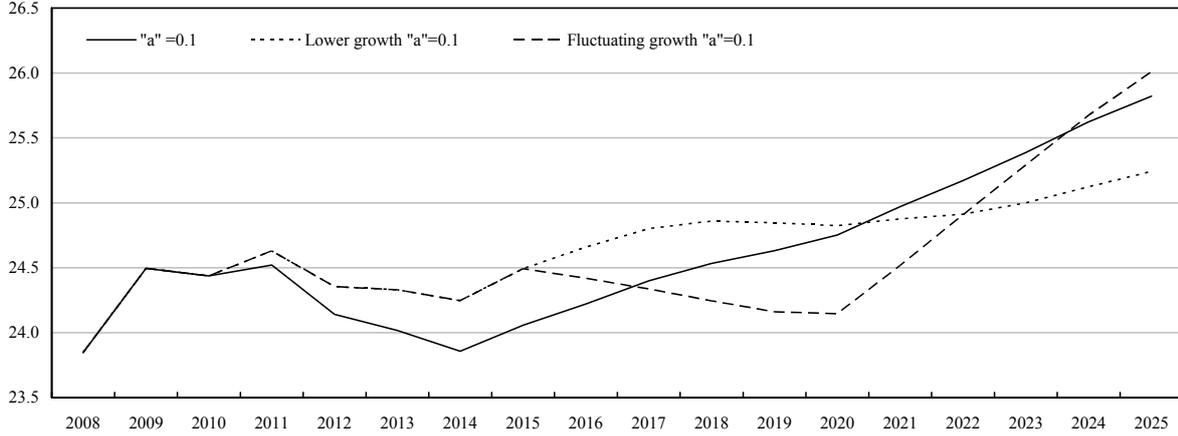
b) Public Debt/GDP Ratio, Various Growth Scenarios, 2008-25
(percent of GDP)
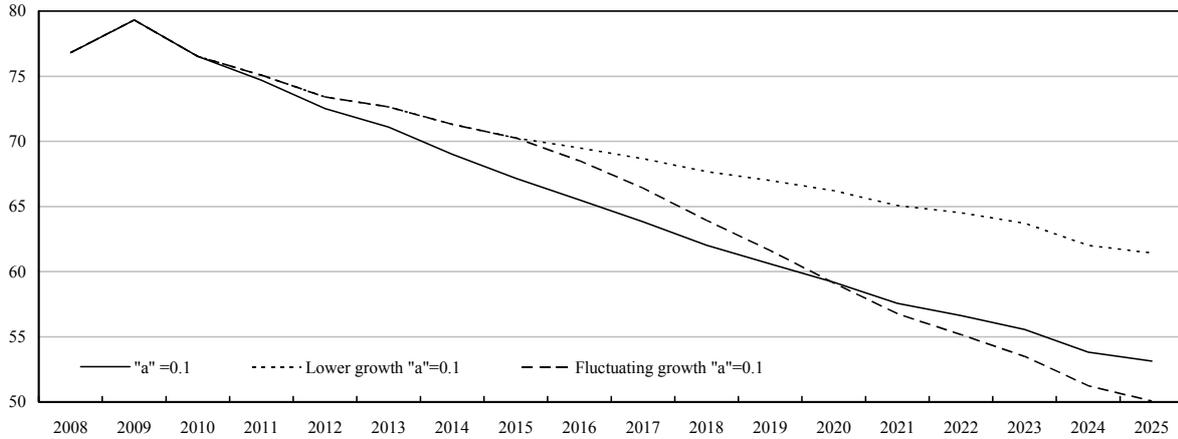
c) Primary Civilian Expenditure Per Capita, 2008-25
(index 2011=100)
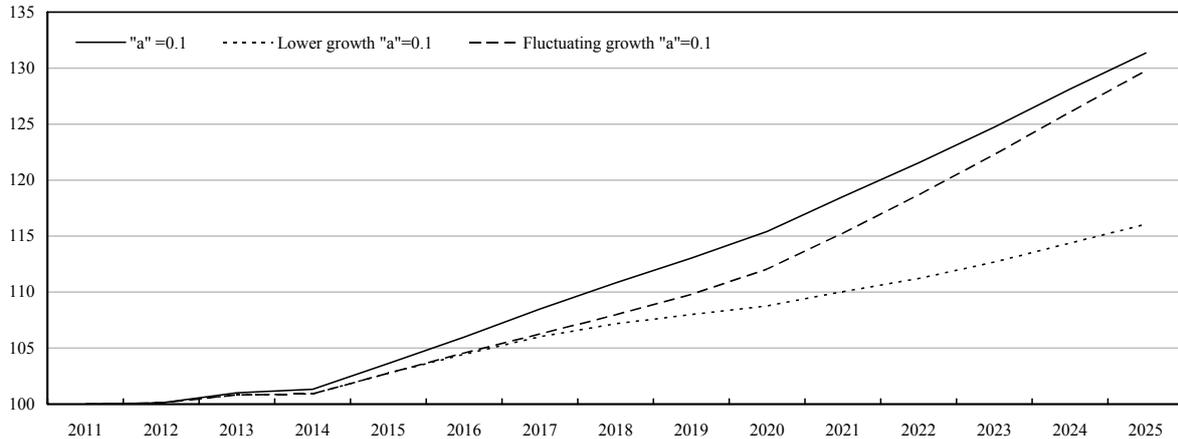
deceleration in growth is due to lower productivity) and only the remainder reflects the additional fiscal effort. Despite the slow growth, the debt ratio converges to the 60 per cent target by 2025, a delay of 5 years, constantly maintaining a declining trend. While the rule is initially "wrong" in identifying the slowdown as permanent, it does automatically adjust as the slowdown prolongs.[28]

7   The political turn of events

Work on the new rule was complete in the middle of 2009, when a new government took office and when it was realized that the effect of the global crisis on Israel was milder that initially feared. The rule was presented in a dedicated international conference hosted by the IMF and to the incoming prime-minister and finance minister. However, at that junction the government faced a constitutional constraint that led to the adoption of a two-year budget for 2009 and 2010. It was decided to approve a fiscal rule independently in early 2010, and prepare the 2011-12 budgets in accordance with the new rule.[29] However, concurrently, the government also adopted a tax reform for the years 2011-16 that, once fully implemented, would reduce annual tax revenues by about 1.3 per cent of GDP.

When discussions resumed in 2010 two issues troubled the political decision-makers: the determination of the adjustment speed (the *a* parameter) and the subordination of statutory tax rate changes to the "adjusted expenditure" ceiling. Additionally, some technical features of the rule were contested by the MOF staff.

The a parameter: the main objection was for leaving the speed of the adjustment to a broad political dialogue. It was argued that the rule should be placed in parliament with pre-fixed figures, otherwise the results cannot be anticipated and the rule may not be sufficiently ambitious. Others argued that *long-term* rules and policies have little significance if they do not reflect broad political agreement and that Israel's past experience shows that the reputational costs of changing an existing fiscal target were ineffective in preserving previous rules; especially if these rules were adopted by prior governments. Eventually the first approach was accepted.

A second comment was that the *a* parameter complicates the formula too much and makes it too cumbersome and less transparent. This approach gained ground once it was decided to present the rule with a pre-fixed *a*, because it became harder to justify why a particular value of *a* is chosen. This difficulty was enhanced as debts and deficits around the developed world surged and the timing of fiscal consolidations around the world postponed. For example, the IMF's proposed fiscal framework for the developed countries was to converge to a debt ratio of 60 per cent by 2030 (IMF, 2010), so presenting a target date of 2020 for Israel as a sole option was problematic.

Accordingly, it was decided to modify the formula:

$$PE_{gr} = GDP\_POT_{gr} * (60/(D/Y)_{t-2}*100) + 2$$

This formula still maintains the key features of the original proposal, but without the *a* factor it lacked the ability to fine-tune the convergence process at the outset and implied a more expansionary policy path.[30] Even if the effect of the new tax reductions is ignored, the new rule

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[28]   The rule was also tested in various other ways including stochastic simulations with 1,000 iterations that were based on the distribution of past Israeli growth rates. The results showed the robustness of the rule with a very high probability of reaching a debt ratio of less than 60 per cent within two years from the target date of 2020.

[29]   Israel adopted a system of two-year budgets in 2009-10 and 2011-12. These budgets are formulated as two separate budgets that are approved simultaneously. In 2009, due to the elections, the budget was approved only in July.

[30]   In fact, the formula embodies an implicit *a*. The derivative of PE_{gr} with respect to (D/Y) is $[-0.6 * GDP\_POT_{gr}/(D/Y)^2]$ and it reflects a decreasing marginal effect of the debt ratio on expenditure growth. At the current debt ratio of 75 per cent and given the
(continues)

implies that the deficit will stabilize at more than 2.5 per cent of GDP until 2020 and the debt ratio will be around 70 per cent. This is a substantially less ambitious consolidation than originally envisaged. Moreover, this expansionary path stressed the significance of the pre-legislated tax cuts for 2011-16, that pushed the deficit to even higher levels (see details below).

Statutory tax rates: Tax reductions are high on the current government's agenda. In 2003 the minister of finance, who is the current prime-minister, promoted this issue when the stabilization program was launched, introducing a lagged and gradual reform that lowered the PIT and CIT significantly. This reform, which was followed by further opportunistic tax cuts as growth exceeded expectations while expenditure growth was constrained by the expenditure rule (Bank of Israel, 2010), placed Israel's tax-to-GDP ratio below the OECD average (Figure 2). In line with this view, the subjection of statutory tax-rate cuts to the new fiscal rule was opposed. This objection reflected the perception that, if included, any attempt to cut tax rates will surface the tradeoff with expenditure and make such cuts politically difficult. This attitude was enhanced by the shift to two-year budgets that provide more room for tax cuts, which would have been curtailed by the rule.[31]

One intermediate proposal was to exclude the already legislated tax cuts from the rule, while subjecting to it only new ones. While this option would have reflected a clear policy commitment for a continued significant reduction in the size of government,[32] it became irrelevant with the adoption of the revised formula, which meant that the deficit and debt levels under this formula – given the tax cuts – are too high to generate a meaningful consolidation (Figure 5).

It was therefore decided that the rule will be applied only to expenditures, which will rise according to the new formula instead of the fixed rate of 1.7 per cent used between 2007 and 2010. However, because that formula does not constrain the revenue side, it was decided to preserve the existing deficit ceiling as well.[33] Hence, the new rule replaces only the old expenditure ceiling, rather than serve as a new comprehensive rule for fiscal policy.

Technical aspects: objections to three of the technical elements of the proposed rule were adopted during the discussions:

1) It was argued that a nominal target would lead line ministries to treat the overall price coefficient as a baseline, and when specific costs increase they will ask for special supplements. It was therefore decided to retain the "flexibility" of the current system where the adjustment to inflation is not transparent.

2) The National Insurance Institute and the health tax were left outside the rule's framework. It was argued that since a committee is working on the long-term finances of the social security system "it is not the right time" to make such an accounting change that will place its entire operation in the budget.

3) The MOF, emphasizing technical difficulties, did not take on the responsibility to calculate and publish medium-term forward-looking analyses of the budget. Hence there is still no formal monitoring of the consistency of government multi-annual expenditure programs with the ceiling. There is also no formal analysis of the medium-term conformity of the tax schedule with the deficit ceiling.

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average growth of 3.5 per cent during the last decade, the value of the implicit a is 0.037 compared to 0.1 in the proposed rule. I thank Philippe Frouté for raising this point.

[31] A budget represents a ceiling on the amounts that the government is allowed to spend during the budget's period. If economic circumstances turn out to be better than expected expenditures cannot be raised but tax rates can be cut. The scope for deviations from the budget projections is increased in a two-year budget.

[32] The proposal implied no change in per capita PCE from 2011 through 2015, and a reduction in the PCE ratio to GDP by 1.1 percentage points.

[33] The deficit ceiling is 3.0 per cent of GDP in 2011, 2.0 in 2012, 1.5 in 2013 and 1.0 thereafter.

Figure 5 shows that, *prima facie*, the combined fiscal rule is consistent with a strong and sustained consolidation. The debt ratio declines very quickly, reaches 60 per cent of GDP in 2019 and continues to decline rapidly thereafter. In the long run, the deficit target of 1.0 per cent is consistent with a debt ratio of 30 per cent. However, given the legislated tax cuts, the target depends on a substantial and speedy reduction in expenditure – by more than 2 per cent of GDP. It also depends on the cyclical development of the economy which is in a close-to-potential position in 2011. Past experience with deficit ceilings does not bode well for achieving the deficit target under such circumstances (Brender, 2009).

Figure 5

Fiscal Aggregates Based on the Adopted Rule, 2008-25
(percent of GDP)

a) Public Debt/GDP Ratio, Various Policy Scenarios, 2008-25

b) Primary Civilian Expenditure, Various Policy Scenarios, 2008-25
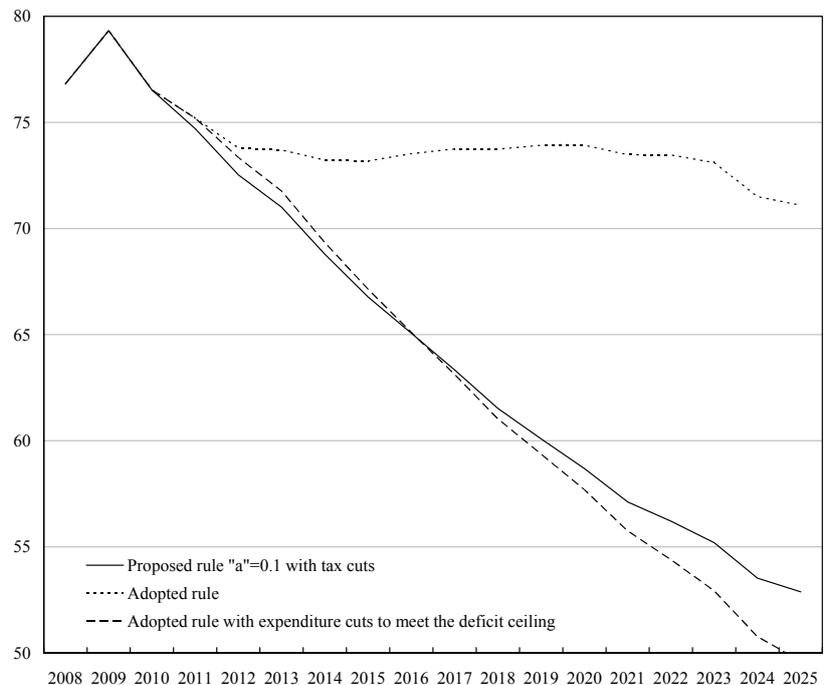

8   Summary

The attempt to develop a new comprehensive expenditure-based fiscal rule was founded on the perception that Israel's fiscal policy gained sufficient credibility following the 2003 stabilization, so further progress could be more gradual and cyclically neutral. This view was further enhanced by the improvement in Israel's
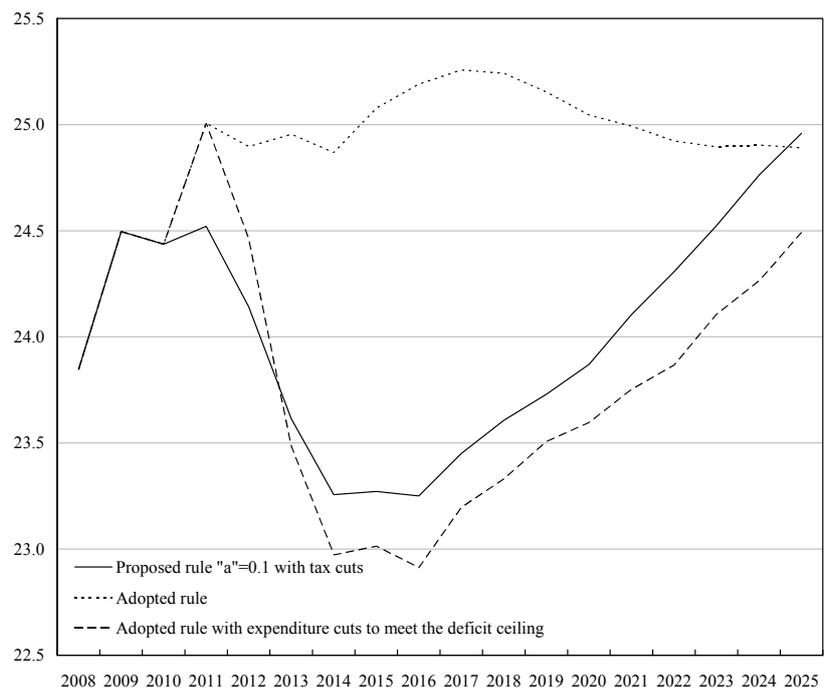
relative fiscal position, due to the mild effect of the global crisis on Israel compared to most of the developed countries.

The proposed rule tried to combine some of the desired properties of fiscal rules discussed in the literature: consistency with a long-term specified target, political sustainability, a-cyclicality, transparency and simplicity. It also accounted for Israel's initial condition with respect to the size of government and the tax burden. Starting in the heat of the global crisis the rule tried to build on a broad consensus that the pace of fiscal consolidation should be moderate, in order to support economic recovery, but with clear and realistic goals.

The rule that was eventually adopted deviates from the original targets in several ways. First, the expenditure rule itself is not consistent with the long-term targets of policy. Second, the deficit rule is based on annual targets and is therefore highly pro-cyclical. Third, transparency is limited given the gap between the deficit and expenditure rules, the use of real variables with backward adjustment to inflation deviations, and the avoidance to track government budgetary decisions on a multi-annual basis. Finally, it leaves important loopholes in the fiscal aggregates that are covered, allowing pro-cyclical expenditure expansions that may undermine the ability to sustain later moderations. Moreover, since the rule was not based on a broad political agreement, and has its dynamics driven significantly by the preemptive reduction of tax rates, its ability to survive political changes is questionable.

What accounts for this result? It appears that political opportunities are rare and passing. Israel's previous two successful medium-term consolidations were launched in times of crises. In the current round the initial position was the opposite – a relative success of the 2003 stabilization. The global crisis provided a sense of urgency to implement a new rule as (once again) the pro-cyclical deficit rule was breached. However, by the time the new government took office it was already clear that Israel escaped the crisis relatively unharmed, so the sense of urgency for collaborative action disappeared.

An ongoing discussion in the fiscal rules literature is whether fiscal rules and their design matter. Ayuso-i-Casals *et al.* (2007) show evidence that fiscal rules support a reduction in the cyclically adjusted primary balance, and so do Guichard *et al.* (2007). Fabrizio and Mody (2006) also show consistent evidence. However, the issue of causality remains open to a large extent (Wierts, 2007): are "good" fiscal rules adopted where there is a strong commitment to consolidation,[34] or do they have an incremental effect? The recent Israeli experience provides some evidence on one aspect of this question: the adoption of "good" rules does depend to a large extent on the political environment, the strength of commitment to consolidation and the initial conditions.

Based on this experience, fiscal rules seem to be less about design; they are predominantly a matter of national consensus on the need to reach common goals and willingness to trust the commitment of others in the country to attain the same goal. Well designed rules can emerge when the surrounding conditions are appropriate for consolidation, but under such circumstances their specific design may be less critical.

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[34] Kopitz (2007) describes fiscal rules as expressing a political will to maintain fiscal discipline.

REFERENCES

Ayuso-i-Casals, J., D. Hernández, L. Moulin and A. Turrini (2007), "Beyond the SGP: Features and Effects of EU National-level Fiscal Rules", in Banca d'Italia (ed.), *Fiscal Policy: Current Issues and Challenges*, papers presented at the Banca d'Italia workshop held in Perugia, 29-31 March, pp. 651-701.

Balassone, F. and D. Franco (2001), "EMU Fiscal Rules: A New Answer to an Old Question?", in Banca d'Italia (ed.), *Fiscal Rules*, papers presented at the Banca d'Italia workshop held in Perugia, 1-3 February, pp.33-58.

Bank of Israel (2005), *Annual Report 2004*, Chapter 6.

——————(2009a), *Recent Economic Developments 124*, July.

——————(2009b), *Annual Report 2008*, Chapter 6.

——————(2010), *Annual Report 2009*, Chapter 6.

——————(2011), *Annual Report 2010*, Chapter 6.

Brender, A. (2001), "Estimates of Israel's Tax Revenue Function", Bank of Israel, Discussion Paper, No. 2001.02, in Hebrew.

——————(2008), "If You Want to Cut, Cut, Don't Talk: The Role of Formal Targets in Israel's Fiscal Consolidation Efforts 1985-2007", in Banca d'Italia (ed.), *Fiscal Policy: Current Issues and Challenges*, papers presented at the Banca d'Italia workshop held in Perugia, 29-31 March, pp. 348-76.

Brender, A. (2009), "Targets or Measures? The Role of Deficit and Expenditure Targets in Israel's Fiscal Consolidation Efforts 1985-2007", *The Israeli Tax and Economics Quarterly*, Vol. 33, No. 129, pp. 7-33, in Hebrew.

Brender, A. and G. Navon (2010), "Predicting Government Tax Revenue and Analyzing Forecast Uncertainty", *Israel Economic Review*, Vol. 7, No. 2, pp. 81-111.

Buchanan, J.M. (1997), "The Balanced Budget Amendment: Clarifying the Arguments", *Public Choice*, Vol. 90, pp. 117-138.

Buti, M. and P. van den Noord (2004), "Fiscal Discretion and Elections in the Early Years of EMU", *Journal of Common Market Studies*, Vol. 42, No. 4, pp. 737-56.

Calmfors, L. (2003), "Fiscal Policy to Stabilize the Domestic Economy in EMU: What Can We Learn From Monetary Policy?", CESifo, Economic Studies, Vol. 49, No. 3, pp. 319-53.

Corbacho, A. and G. Schwartz (2007), "Fiscal Responsibility Laws", in M. Kumar and T. Ter-Minassian (eds.), *Promoting Fiscal Discipline*, Washington (D.C.), International Monetary Fund.

Deroose, S., L. Moulin and P. Wierts (2006), "National Expenditure Rules and Expenditure Outcomes: Empirical Evidence for EU Member States", Wirschaftspolitische Blätter, Vol. 53, No. 1, pp. 27-43.

European Commission (2001), "Public Finances in EMU 2001", *European Economy*, No. 3.

Fabrizio, S. and A. Mody (2006), "Can Budget Institutions Counteract Political Indiscipline?", International Monetary Fund, Working Paper, No. WP/06/123.

Franco, D. and S. Zotteri (2010), "Fiscal Rules: What Lessons from Germany", Banca d'Italia, mimeo.

Guichard, S., M. Kennedy, E. Wurzel and C. André (2007), "What Promotes Fiscal Consolidation: OECD Country Experiences", OECD, Economics Department, Working Paper, No. 553.

Hercowitz, Z. and M. Strawczynski (2004), "Cyclical Ratcheting in Government Spending: Evidence from the OECD", *Review of Economics and Statistics*, Vol. 86, No. 1, pp. 353-61.

International Monetary Fund (1997), *World Economic Outlook*, October, Chapter 3.

——————— (2010), *Fiscal Monitor*, November.

Jonung, L. and M. Larch (2006), "Improving Fiscal Policy in the EU: The Case for Independent Forecasts", *European Economy – Economic Papers*, No. 210.

Kopits, G. and S. Symansky (1998), *Fiscal Policy Rules*, International Monetary Fund, Occasional Paper, No. 162.

——————— (2007), "Fiscal Responsibility Framework", *Public Finance Quarterly*, No. 2, pp. 205-22, Budapest.

Kumar, M.S. and T. Ter-Minassian (eds.) (2007), *Promoting Fiscal Discipline*, Washington (D.C.), International Monetary Fund.

Larch, M. and A. Turrini (2009), "The Cyclically-adjusted Budget Balance in EU Fiscal Policy Making: A Love at First Sight Turned into a Mature Relationship", *European Economy – Economic Papers*, No. 374, Directorate General of Economic and Monetary Affairs, European Commission.

Ljungman, G. (2008), "Expenditure Ceilings – A Survey", International Monetary Fund, Working Paper, No. WP/08/282.

Mazar, Y. (2010), "The Effect of Fiscal Policy and its Components on GDP", Bank of Israel, Discussion Paper, No. 2010.07.

Morris, R. and L. Schuknecht (2007), "Structural Balances and Revenue Windfalls: The Role of Asset Prices Revisited", ECB, Working Paper, No. 737.

Pigou, A. (1928), *A Study in Public Finance*, London, McMillan.

Poterba, J. (1995), "Capital Budgets, Borrowing Rules, and State Capital Spending", *Journal of Public Economics*, Vol. 56, pp. 165-87.

Robinson, M. (1998), "Measuring Compliance with the Golden Rule", *Fiscal Studies*, Vol. 19, No. 4, pp. 447-62.

Strawczynski, M. and J. Zeira (2009), "Cyclicality of Fiscal Policy: Permanent and Transitory Shocks", CEPR, Discussion Paper, No. 7271.

Taylor, J. (2000), "Reassessing Discretionary Fiscal Policy", *Journal of Economic Perspectives*, Vol. 14, No. 3, pp.21-26.

Wierts, P. (2007), "How Do Expenditure Rules affect Fiscal Behavior?", in Banca d'Italia (ed.), *Fiscal Policy: Current Issues and Challenges*, papers presented at the Banca d'Italia workshop held in Perugia, 29-31 March, pp. 781-97.

Wren-Lewis, S. (2000), "The Limits to Discretionary Fiscal Stabilization Policy", *Oxford Review of Economic Policy,* Vol. 16, No. 4, pp. 92-105.

REFORMING ICELAND'S FISCAL FRAMEWORK

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After being struck by a financial crisis of unprecedented scale, in October 2008, the Icelandic government was faced with a tripling of gross government debt and large budget deficit. Expectations of sustainable government finances became unanchored. A fiscal consolidation effort amounting to more than 10 per cent of GDP was required to reestablish the sustainability of government finances. The deficit bias of the budget framework was widely recognised in the years before the crisis and to ensure the success of the consolidation effort, the fiscal framework needed reforming. With technical assistance from IMF's Fiscal Affairs Department, a reform schedule was laid out for the budget frameworks at the national and the sub-national level. The reforms on the sub-national level are quite extensive and will take the framework from being among the laxest in Europe to one of the more progressive ones. Two new fiscal rules with statutory base will be applied in a multi-year budgeting framework that is subject to external financial oversight. External enforcement through sanctions following the principle of earned autonomy is to ensure compliance with the rules. The sub-national budget framework will be enshrined into law. The reforms to the national budget framework are also extensive but are not nearly as progressive. Medium-term fiscal and expenditure frameworks are established with three fiscal rules or objectives, with one of them still being only an interim one. The top-down sequencing of budget formulation and approval is improved upon and budget execution, importantly, is improved in several respects. What the national level reform lacks is a statutory base for the reformed framework in what could be regarded as progressive fiscal responsibility laws. Also lacking is an external body like an independent fiscal council that monitors and assesses fiscal policy. The national reforms are thus less progressive than they could be. IMF has served as an external monitoring body with its reviews under the Stand-by Arrangement with the Icelandic government. Whether or not the post-crisis fiscal discipline exerted by the Government is only an IMF imposed discipline will have to be seen. But if so imposed then there is high risk that the national framework will regress back to pre-crisis status as soon as external monitoring ceases.

1   Introduction

In the first week of October 2008, Iceland's three major banks, representing 90 per cent of Iceland's banking system in terms of total assets, collapsed. The banks' large foreign currency balance sheets and their size relative to their home base proved a key vulnerability that contributed to their demise in the conditions that arose in the autumn of 2008. Prior to the banks' collapse, their balance sheets had expanded to almost 11 times GDP, with the foreign currency part amounting to ⅔ of that total, or almost 7 times GDP.

The Icelandic economy was already on its way into recession when the banks collapsed as a consequence of the subsiding of the huge macroeconomic imbalances that had built up in the economy during the upswing. Furthermore, a currency crisis had hit several months before the banks collapsed, with the króna depreciating by 40 per cent since the beginning of the year.

Following the banks' collapse, the depreciation of the króna continued until capital controls were introduced at the end of November. All in all, the króna depreciated by roughly 50 per cent in 2008, both in trade-weighted terms and against the euro.

With the collapse of the three banks, foreign creditors incurred massive losses, as did the Central Bank of Iceland (CBI) and the Treasury. The sustainability of government finances immediately came into question. The budget balance of the central government went from a surplus of 3.9 per cent in 2007 to a deficit of 13 per cent of GDP in 2008, a reversal amounting to 16.9 per cent[1] of GDP.

Currency reserves had to be increased drastically to stabilise the currency and to prevent sovereign default; thus the government was in urgent need of new foreign funding. At the end of October 2008, the Icelandic government reached an agreement with the International Monetary Fund (IMF) on an economic stabilisation programme, under a two-year Stand-by Arrangement supported by a loan of 2.1 billion US dollars. The Stand-by Arrangement also gave the economic programme increased credibility. The agreement was followed by bilateral loan commitments from other European neighbours.

The three newly established state-owned banks took over domestic activities of the three old banks and needed to be re-capitalised, as did the CBI, which had lost financial assets worth nearly 22 per cent of GDP on collateralised lending to the collapsed banks. The re-capitalisation and the financing of the deficit drastically elevated the gross government debt level.

From 2007 to 2011, general government gross debt rose from 28 per cent of GDP to an estimated peak of 100 per cent of GDP, and the CBI's gross debt rose from 4 per cent of GDP to an estimated peak of 25 per cent of GDP. This increase, however, was due not only to losses on financial assets and deficit spending; it is also attributed to acquisition of financial assets in the form of currency reserves and bank equity amounting to 55 per cent of GDP, leaving net debt to increase by 44 per cent of GDP.

The fiscal impact of all this on the government balance sheet was substantial and, with the budget deficit reaching high single digits as a share of GDP, government finances would have been unsustainable if no action had been taken to return the budget to surplus. To ensure the sustainability of government finances, the Stand-by Arrangement with the IMF required the implementation of fiscal consolidation in excess of 10 per cent of GDP from the fiscal year 2010 to the fiscal year 2013.

Weaknesses in the procedures and controls of the budget cycle had become clear in the pre-crisis years and were most evident in lax budget execution. Therefore, a critical component of the Stand-by Arrangement was a reform of the fiscal framework to ensure successful implementation of the consolidation effort. The government has committed itself to implement a majority of the recommendations made by the IMF in Letters of Intent (LOI) to the Fund's Executive Board. As of May 2011, when more than half of the front-loaded programme schedule has passed, both fiscal consolidation and fiscal framework reforms are broadly on track.

In the years prior to the financial crisis,[2] both the IMF and OECD missions to Iceland had pointed out that the fiscal framework needed stronger reform. Here strength encompasses factors such as (1) the statutory base of fiscal rules, procedures and controls (2-3), the nature of the bodies charged with monitoring and enforcing the rules, (4) enforcement mechanisms and (5) media

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[1] Reinhart and Rogoff (2009) report the largest fiscal balance reversals following financial crises. The reversals show the change in central government deficit from a year before the crisis to the peak deficit in following years. At the top of the list is Sweden (1991), with a reversal of 15.4 per cent of GDP, and Finland (1991), with 11.8 per cent (p. 231).

[2] See, for example, IMF, Working Paper No. WP/07/235, October 2007; "Strengthening the Fiscal Framework", in OECD Economic Survey: *Iceland*, Chapter 3, Vol. 2008/3, February 2008.

visibility of the rules. But the necessary political constituency required to implement the reforms recommended had not been formed.

The last decade's robust economic growth gave rise to unexpectedly strong tax revenues. Additionally, revenues from the privatisation programme carried out from 1998 to 2005 amounted to 15 per cent of GDP. Repeated surpluses despite expenditure overruns and a strengthening balance sheet masked the deficit bias of the budget framework. The government was under little pressure to consolidate. The weaknesses with regard to expenditures were clear to most, but there were also latent weaknesses on the revenue side. At the time, the Icelandic sovereign was highly rated by rating agencies and by credit markets, as many believed that the strong fiscal position rested on strong fundamentals. Many internal and external observers alike regarded Iceland as a model of economic reform characterised by tax cuts, privatisation and free markets.

The revenue buoyancy, however, was predominantly the product of positive balance sheet effects generated by a credit-driven asset bubble. The result was a consumption boom that greatly amplified the pro-cyclicality of tax revenue elasticity. Underestimation of that elasticity resulted in an overestimation of the structural balance, as the cyclical component of revenues was underestimated. Real-time estimation of elasticity is always difficult, especially in the presence of strong balance sheet effects, but with the benefit of hindsight, the extent of the increase in elasticity became clear. As balance sheet effects have now turned negative, expenditure overruns are now a "luxury" that Iceland can no longer afford.

The fiscal framework was reformed in 1992 with the adoption of top-down "frame budgeting" to enhance the policy-making role of the government and to increase fiscal discipline. The frame budgeting was initially only set for the next fiscal year. Although that was a great improvement, it failed to curb the tendency towards expenditure drift. In 2003, the frame budgeting framework was extended to include medium-term plans, setting four-year revenue and expenditure projections and frames for expenditure growth in real terms. Regrettably, it turned out to be more of a forecasting exercise that served only an illustrative purpose. Also adopted in 2003 was a numerical fiscal rule that stipulated that central government public consumption may not grow by more than 2 per cent per year in real terms and that real transfers may not grow by more than 2.5 per cent. This real expenditure growth rule failed miserably, perhaps not surprisingly, as the framework around it was weak. On the five-parameter strength list enumerated above, the framework of the rule scores almost no points.

Political economy factors in Iceland are not markedly different from other countries. The political economy's bias towards expenditure growth and pro-cyclicality of that growth can be explained to a large extent by the common pool problem. A majority of ministers saw revenue windfalls as common property that feed through to higher spending and tax cuts. These increased appropriations and tax cuts always prove difficult to reverse when the economic cycle turns. The main goal of strong fiscal frameworks is to improve the processes and controls of the budget framework so that the common pool externality can be internalised. Iceland is a commitment-type country,[3] and reforms made to the fiscal framework in EU countries of this type over the past two decades have focused on making fiscal rules more stringent and on establishing fiscal councils or committees that are used, for example, to supply independent forecasts and assess fiscal policy (Hallerberg *et al.*, 2004; Annett, 2007).

Having a strong budget framework with regard to formulation, approval and execution of the budget and reporting of budget positions is at the heart of the fiscal framework and is a prerequisite for the success of national and sub-national fiscal rules. Both the OECD and the IMF have

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[3] A country is of the commitment type when different political parties forming a coalition negotiate on a fiscal contract by setting budget targets. The threat of breaking up the government serves as the main enforcement mechanism.

provided instructive reform recommendations to the government. After the crisis and in the context of the Stand-by Arrangement, the IMF has been instrumental in conveying both what the literature says on fiscal framework design and what the experience has been. Budget frameworks that have proven successful in introducing fiscal discipline of the central government most often include three elements that all work in combination. The elements are (1) a medium-term fiscal framework, (2) a medium-term expenditure framework and (3) a top-down approach to budgeting. This should call for a revision of the legal framework as regards the statutory basis for rule-based processes and controls.

Local governments and the central government have reached an agreement about the adoption of sub-national fiscal rules. There is also an agreement on formal procedures in the coordination of general government fiscal policy. The sub-national fiscal rules are two: (1) a three-year rolling balanced budget requirement and (2) a debt ceiling. There are penalties for violating the rules, which are enforced by the Municipal Fiscal Oversight Committee (MFOC). The fiscal rules, the penalties, and their enforcement are to be enshrined in law by June 2011.

At the national level, there is now an interim general government budget balance rule or objective, as well as a debt level ceiling. But in addition to those two rules, central government now has a fixed two-year nominal expenditure ceiling rule that replaces the pre-crisis real expenditure growth rule. Inflation and output volatility are greater in Iceland than in most other countries, so an important factor to consider is the counter-cyclicality of fiscal policy. Nominal ceilings on expenditures add to the counter-cyclicality of fiscal policy because real expenditures decline in periods of unexpectedly high inflation.

Iceland is currently engaged in accession negotiations with the European Union (EU), with the aim of first joining the EU and ultimately joining the European Monetary Union (EMU). The aim is to put the contract to a referendum. If the *yes* vote wins, Iceland hopes to be fast-tracked into the EU, as it is already a member European Economic Area (EEA). This would require that Iceland adopt the supranational numerical fiscal rules stipulated in the Stability Growth Pact (SGP) and the Maastricht treaty. When the consolidation phase is completed in 2013, Iceland will be in a good position to adopt the supranational fiscal rules.

While no formal governmental policy statement regarding the adoption of fiscal responsibility laws (FRLs) enshrining the entire fiscal framework has been issued, the government has made a formal statement declaring that the Ministry of Finance (MoF) is to dramatically increase its reporting and accountability to the Parliament. This is at the centre of FRL objectives, in addition to elevating rules, procedures and controls to a statutory base. But progressive FRLs are very unlikely to result, and this may prove to be a major weakness.

Iceland's ministers and members of Parliament are still at the early stages in debating the merits of creating an independent fiscal council. The topic has not been put on the government's agenda.

This paper is structured as follows. Section 2 reviews the conduct of fiscal policy in the years leading up to the crisis. Section 3 identifies the major weaknesses that became evident in the pre-crisis period. Section 4 lists the recommended reforms and describes how they have been adopted. Section 5 discusses what is missing from the reform agenda and describes the merits of fiscal councils. Section 6 contains the conclusion.

2   The pre-crisis fiscal policy experience in Iceland

In the months before the financial crisis, the Icelandic sovereign was still highly rated by rating agencies, as it had been for many years. Owing to a strong fiscal position compared to other European countries, fiscal policy was – despite some criticism – regarded as broadly prudent.

Iceland's fiscal position owed its strength primarily to two factors. First, as a result of its privatisation programme, assets worth approximately 15 per cent of 2009 GDP were sold. The proceeds of privatisation were allocated towards reducing government debt and government-funded pension liabilities and building up a cushion of deposits in the CBI amounting to over 10 per cent of GDP. Second, during the boom years, the central government was run with a substantial surplus, as revenues repeatedly exceeded both the MoF's and external observers' projections. As a result, central government net debt declined from roughly ⅓ of GDP in the mid-nineties to zero in the years before the crisis.

Record surpluses generated by revenue buoyancy caused politicians to turn a blind eye to the need to rectify the deficit bias of the budget framework. The Icelandic National Audit Office (INAO) repeatedly reported on spending overruns relative to budgeted values.[4] Despite existing regulations, ministries and agencies frequently overspent their budgets with few repercussions. The counter-cyclicality of fiscal policy, however, was dependent on firm execution of the budget while allowing automatic stabilisers to play their role. The full effect of automatic stabilisation was never realised, as tax rates were discretionarily lowered. However, despite tax cuts and spending overruns, budget surpluses were larger than ever, complicating the debate on the overall fiscal policy stance.

But what was the source of the revenue buoyancy? The pro-cyclical response of tax revenues to the change in real activity was greater than could be expected unless revenue elasticity changed in a pro-cyclical manner at the same time. Estimating the cyclical component of revenues at fixed elasticity would lead to an overestimation of the structural balance. Estimating elasticity in real time is difficult, especially when the source of the pro-cyclicality is, to a large extent, positive balance sheet effects. Morris and Schuknecht (2007) found strong asset price effects on revenue elasticity in Europe; more specifically, they found that a 10 per cent increase in asset prices added half a per cent of GDP to revenues. Earlier, Jaeger and Schuknecht (2004) had found that, in a European context, the cyclical responsiveness of the budget balance doubles in asset price-driven economic cycles. These effects are quite substantial and were undoubtedly prominent in Iceland as well in the pre-crisis boom years.

The appreciation of asset prices in Iceland was sizable. House prices rose by 75 per cent from 2004 to 2008, and stock prices rose by 150 per cent. The asset price-driven real growth, which was fuelled by massive credit expansion, led to a consumption boom. Consumption as a percentage of potential output rose from 53 per cent in Q1/2002 to 66 per cent in Q4/2005. In addition to value-added tax revenues, a large share of consumption consisted of imports subject to excises, as the real exchange rate had risen substantially. Because the ratio of indirect taxes relative to direct taxes was among the highest in Europe, this consumption boom helped produce record tax revenues. But there was also a credit-driven boom in income, which caused direct taxes to jump to record levels as well.

Research shows that there was a much stronger relationship between the private consumption ratio of potential output and total tax revenues than between the output gap and total tax revenues.[5] So, with the change in consumption ratio of potential output being greater than the change in output

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[4]   A number of INAO reports touch on this subject: most recently, for example, Implementation of the 2007 Government Budget and Annual Plan for 2008, INAO May 2008. See also Suppanz, H. (2003), "Controlling Public spending in Iceland", OECD, Economics Department, Working Paper, No. 360, June, and "Strengthening the Fiscal Framework", in OECD Economic Survey: *Iceland*, Chapter 3, Vol. 2008/3, February 2008.

[5]   A regression model of differenced total tax revenue *(Δtax)* on a constant plus the differenced consumption ratio of potential output *(Δc_ratio)* and the output gap *(gap)* shows that the *c_ratio* is highly significant, while the gap is not, at the 5 per cent significance level.

$$\Delta tax = 0.022 + 0.558 \, \Delta c\_ratio - 0.194 \, gap; \, R\text{-squared is } 0.53$$

t-stat: (5.80) (9.36)   (–1.84)

Prob.: (0.000) (0.000)   (0.0689)

gap, tax revenue elasticity turned highly pro-cyclical with respect to the output gap. The elasticity of tax revenues relative to the output gap thus jumped in a highly pro-cyclical fashion.

During the boom years, many argued that the source of revenue buoyancy rested on strong fundamentals of positive supply-side effects of tax cuts in preceding years and the structural reform of the economy. But even though this may have played a part, the main source of revenue buoyancy was the positive balance sheet effects from a credit-driven asset price boom. The cyclical component of the tax base caused by these effects was underestimated, leading to an overestimation of the structural balance and to the belief that the fundamentals of the budget balance were stronger than they actually were.

In the boom years, there was a pro-cyclical stance on the expenditure side that was mostly driven by fundamentals explained by political economy factors. An upward drift in expenditure was caused by a combination of spending overruns, in-year discretionary initiatives, and excessive reliance on supplementary budgets. Insufficient spending discipline can also be found, in that frame budgeting was not extended to cover binding multi-year budgeting, which would, for example, help address the problem of expenditure base drift. Medium-term plans existed, but they were not discussed in Parliament and were often taken as a projection exercise by the MoF that served an illustrative purpose rather than existing as a firm budget. The budget framework did not hold.

Annett (2007) examined the cyclical properties of the expenditure side in Iceland during the period 1980-2005. Following Lane (2003), the log differenced government expenditure items were regressed on a constant plus a log differenced real GDP on a country-by-country basis. The expenditure variables are translated into constant prices using the GDP deflator. The results are reported in Table 1, where a positive value signals pro-cyclicality. The results show that Iceland's expenditure side is more pro-cyclical than the EU average, except with regard to non-wage consumption. Government wage consumption and transfers have the greatest effect on the policy stance.

Government transfers are highly pro-cyclical in Iceland, while they are intuitively counter-cyclical on average in the EU; the same applies to the government wage bill, which is much more pro-cyclical than in the EU. This indicates that the budget cycle – the execution in particular – is subject to politically motivated expenditure pressures. Government employees and transfer recipients have well-represented constituencies, while non-wage government consumption, the only counter-cyclical expenditure item, has a weak constituency. Thus the common pool problem has been unchecked to some extent in Iceland. Annett (2007) finds, in data from the World Bank, three proxy measures of the intensity of common pool pressures. First, the data show that Iceland's government fractionalisation,[6] a measure of divisions within the government, is high or 0.52 compared to the EU average of 0.30. Second, Iceland's legislative fractionalisation,[7] a measure of divisions within the legislature, is somewhat higher or 0.76 compared to the EU average of 0.69. Most often there is a strong government majority in Iceland, which boosts the value of becoming part of the governing coalition, increasing the potential for politically motivated distortions in fiscal policy. Iceland's coefficient for government majority[8] is 0.64, while the EU average is 0.55. Thus the need to internalise the externalities of the common pool problem is greater in Iceland than in most EU countries. Tying politicians to the mast by reforming the fiscal framework is vital in order to anchor expectations of the sustainability of government finances.

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[6] The probability that two members of Parliament drawn at random from governing coalition members will be from the same political party.

[7] The probability that two members of Parliament drawn at random from the legislature will be from the same political party.

[8] The fraction of seats held in Parliament by the government.

Regression-based Cyclicality Coefficients: International Comparison

	Total Expenditure	Primary Current Expenditure	Wage Government Consumption	Non-wage Government Consumption	Government Transfers	Government Investment
Iceland	**0.40**	**0.58**	**1.38**	**–0.31**	**0.60**	**1.51**
Austria	0.16	0.17	0.59	–0.02	–1.18	0.48
Belgium	–0.37	–0.13	0.37	–0.06	–0.22	1.28
Denmark	–0.60	–0.44	–0.36	–0.50	–0.53	1.04
Finland	–0.67	–0.55	–0.05	0.26	–1.39	1.06
France	–0.33	–0.63	–0.30	–0.72	–0.05	1.75
Germany	0.69	0.79	0.39	0.50	–0.52	2.00
Greece	–0.17	0.18	0.86	–0.90	0.16	1.47
Ireland	0.17	0.05	0.24	0.98	–2.53	2.41
Italy	0.32	0.25	0.65	0.41	–0.18	1.04
Netherlands	–0.20	–0.13	0.04	0.05	–0.21	0.75
Portugal	0.83	0.77	1.53	0.83	0.61	2.22
Spain	–0.48	0.08	0.40	0.08	–0.27	0.65
Sweden	–0.54	–0.08	0.29	–0.31	–0.59	1.37
UK	–0.70	–0.66	–0.23	0.06	–2.73	1.58
EU mean	**–0.14**	**–0.02**	**0.32**	**0.05**	**–0.69**	**1.36**
EU standard dev.	0.50	0.46	0.51	0.54	0.96	0.58

Source: Table 3 in Annett (2007).

3 Weaknesses in the pre-crisis fiscal framework

3.1 The consumption rule failed

Perhaps the best evidence of the weakness of the pre-crisis fiscal budget framework is the way in which the numerical fiscal expenditure rule adopted in 2003 was honoured. The rule stated that real growth of public consumption should not exceed 2 per cent per year. It came close in 2004, the first year the rule was in effect, when it grew by 2.1 per cent, but after that the growth rate kept increasing each year (see Table 2) until, in 2008, it was completely off the mark, growing at 3.7 per cent.

There were two factors contributing to the failure of the rule. First, the budget framework from formulation to execution was too lax. There were many weaknesses that had been identified by both internal and external observers such as the INAO, OECD and IMF mission teams. Second, the framework of the rule itself was extremely weak. The rule had no statutory foundation; no one outside of the MoF was in charge of monitoring and enforcing it. Those in charge of budget formulation and execution within the MoF were also responsible for monitoring and enforcing the rule. There was no formal reporting requirement to Parliament if the rule was violated, and no extra enforcement or control mechanism was available. Last but not least, media visibility of the rule was

Table 2

Real Growth of Public Consumption and Transfer Payments

	2003	2004	2005	2006	2007	2008	2009
Treasury and social security	2.7	2.1	2.7	2.7	3.2	3.7	−0.7
Local governments	1.2	0.1	5.1	6.4	5.7	6.2	−3.7
General government	1.8	2.2	3.5	4.0	4.1	4.6	−1.7
Transfer payments	5.9	−7.3	1.6	−3.2	7.0	517.4	−79.4

Source: Statistics Iceland.

virtually non-existent. Educating the public and the media about the merits and purpose of the rule was not a priority when the rule was adopted, and consequently, it actually functioned more like an internal rule of the MoF. As a result, violations of this firm numerical fiscal rule received little or no media attention, and not even the political opposition in Parliament made an attempt to enforce the rule by, for example, "naming and shaming". They had no appetite for playing the role of enforcer of the rule. Instead, they even proposed stepping up spending of windfall revenues, as most opposition politicians do.

3.2   Transfer growth held

But the public consumption overshooting is not the whole story as the expenditure fiscal rule also stated that the real growth of transfer payments should not exceed 2.5 per cent each year. This part of the rule did hold on average between 2004 and 2007 (see Table 2). To what extent that can be credited to the fact that transfers payments generally go down during economic booms is not explored here but this rule should ideally be applied to cyclically-adjusted transfer payments or be averaged over a long period of time to see if it holds. Year-by-year growth can fluctuate too much. This can be seen in that transfers skyrocket in 2008 because of the financial crisis as massive transfers to for example the CBI were realised.

3.3   The beginning of the framework: 1992 – frame budgeting

Returning to the weaknesses of the budget framework, it would be best to begin by providing some background information so as to foster a fuller understanding of how the budget framework has progressed in the last two decades while needed reforms are identified. With the aim of enhancing the control and effectiveness of public spending, the fiscal framework has undergone substantial changes since the beginning of the 1990s.

In 1992, in line with fiscal framework reforms in other Nordic countries, a frame-budgeting approach was introduced. A top-down orientation to fiscal policy was adopted which served the purpose of emphasising the policy-making role of the government and increasing overall fiscal discipline. Each year, early on in the budget formulation phase, expenditure frames or ceilings for the following year were to be set for each ministry by a special cabinet committee, led by the prime minister. Each minister was then held responsible for appropriating the allocated funds to the ministry's agencies and projects. Each October, the budget is presented to Parliament for amendment and approval.

In 1997 the Government Financial Reporting and State Guarantee Acts were passed into law with the aim of improving the quality of information by shifting from traditional cash to modified accrual budgeting, accounting, and reporting.

In 2003 the frame-budgeting arrangement was amended by introducing frames for expenditure growth in real terms. At the same time, the numerical expenditure rule discussed above was adopted. The MoF also began presenting a medium-term plan by publishing four-year revenue and expenditure projections. These projections were not binding cabinet-approved four-year expenditure frames.

3.4   Auto-acceptance of spending overruns

The INAO and the technical assistance missions from the OECD and IMF have identified and reported on the main weaknesses in the budget framework. At the heart of it, many find that the national budget lacks credibility because its legitimacy is undermined by extensive use of supplementary budgets. Operational spending overruns and discretionary spending decisions are routinely legitimised *ex post* by supplementary budgets. Furthermore, agencies can borrow from future appropriations, creating an upward drift bias. Budget transparency and discipline are further jeopardised by earmarking of revenue and allowances for carryovers of unspent appropriations to the next year.

The decentralised public finance management (PFM) system adopted in 1992 did not have proper checks and balances, nor did it provide for sanctions for non-compliance with rules on budget execution and control. This has contributed to spending overruns.

Overspending against published medium-term expenditure projections had consistently been very high since the projections were introduced in 2003. Upward expenditure base slippage results when each annual budget presents an update of the previous medium-term plan starting from a higher level. The fact that the medium-term plan is the MoF's projection rather than a commitment and that it is not the result of bottom-up aggregation of spending agencies' long-term budget plans matched by top-down political engagement makes it ill-suited to ensure multi-year expenditure discipline and fiscal sustainability. The medium-term fiscal framework must be integrated with the budget cycle itself rather than being an extension of it.

Better definitions of the relative roles and responsibilities of key actors in the budgeting cycle are needed. Budget formulation lacks discipline, and the legal framework needs revision. Importantly, the INAO's reports should be taken more seriously, and recommendations should be acted upon more aggressively by Parliament and the MoF.

3.5   Weaknesses at the local government level

There are two levels of government in Iceland. Local government expenditure amounts to 14 per cent of GDP in 2009, while central government expenditure amounts to 38 per cent of GDP in the same year. There are 78 municipalities, 30 of which have fewer than 500 inhabitants. They have a high degree of autonomy regarding their spending, which often translates into weak fiscal policy coordination between the two levels of government. In the boom years leading to the crisis, local governments let their spending rise in tandem with buoyant revenues to a great extent. Over the 2004-2008 period, local government public consumption increased by an average of 4.7 per cent per year in real terms, or at a rate of growth 60 per cent higher than that of the central government. With local government expenditure constituting nearly one-third of general government expenditure, this had a noticeable effect on the overall general government fiscal stance.

Many municipalities were running deficits even in the boom years, as they were not subject to a firm deficit rule or to a limit on their borrowing. However, the Local Government Act from 1998 contains a weakly phrased balanced budget requirement stipulating that municipalities' revenues should match expenditure *as far as possible*. Phrasing the restriction so loosely renders it ineffective, as was evidenced by lax budget formulation and execution on the part of many municipalities. Furthermore, many municipalities do not view the required three-year budget plan as binding, which weakens the medium-term fiscal framework. When fiscal discipline was found lacking, few sanctions for non-compliance were available short of a takeover by the central government in the case of a municipality's imminent default on debt. Municipal finances need to be subject to closer scrutiny from an independent external body.

4   Reforms to the fiscal framework

The fiscal impact of the financial crisis and the size of the necessary fiscal consolidation that followed helped to build the political constituency required to implement the reforms recommended, in the context of the Stand-by Arrangement, by the IMF's Fiscal Affairs Department (FAD) in January 2009.[9] Recommended reforms emphasised the need to reform the budget framework. The budget framework must strike a balance between achieving broad political representation and maintaining fiscal discipline. Importantly, the aim is not to depoliticise fiscal appropriations but rather to subject politicians to fiscal discipline when they are prioritising appropriations according to their political agenda.

In IMF's Stand-by Arrangement with the Icelandic authorities, a proposed reform schedule was laid out. The reforms were to be front-loaded. The reforms are broadly on track but have not yet been fully adopted as only two budget cycles out of four under the Stand-by Arrangement have passed. The reform recommendations can be divided into six categories. The full adoption of three of them has already been agreed upon and one of them is in the process of being passed into law with minimal political opposition. In the other three categories some progress has been made. Some reform recommendations will not be fully adopted but there are still some reforms scheduled for adoption or are being considered for adoption in the 2012 budget cycle.

The six categories are listed below. The first three concern reforms at the national level, and the next two concern reforms at the sub-national level and the coordination between the two levels of government. The last category concerns the legal framework regarding the statutory foundation of the rule-based processes and controls of the fiscal framework.

A) A medium-term budget framework (adopted)

It integrates and quantifies fiscal objectives and rules into a binding multi-year budget that sets out the medium-term fiscal path. Three fiscal rules are adopted:

- a budget balance rule or objective (still interim),
- a debt level ceiling rule, and
- fixed two-year nominal expenditure ceilings.

The medium-term budget framework is to provide a medium- to long-term anchor or an objective for government finances.

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[9]   A technical assistance mission from the IMF's Fiscal Affairs Department visited Iceland in January 2009 in the context of the IMF-supported Stand-by Arrangement. The mission comprised Messrs. Cangiano (head), Hughes (both FAD), and Balassone and Molander (both experts from the FAD panel).

B) Top-down formulation and approval of budget (partly adopted)

Budget formulation and approval should strictly follow a top-down approach. The budget cycle begins with macro-level discussion that decides on the budget balance in accordance with fiscal rules and objectives. This translates into a decision on how total revenues and total expenditures should evolve. After the ceilings on expenditures have been established, the formulation of the budget on individual appropriations basis can begin. Appropriations must be prioritised, with individual appropriations subject to change or cancellation.

C) Budget execution and controls (mostly adopted)

More stringent supervision of budget execution through various means with an emphasis on restricting the practice of legitimising spending overruns after the fact.

D) Local governments restricted to a rule-based fiscal policy (adopted)

Municipalities are prohibited from running operating deficits over a rolling three-year-period.

A debt-to-revenue ceiling of 150 per cent is to be introduced.

Sanctions ranging from mild to severe can be applied to a non-compliant municipality.

E) Coordination between central and local governments (adopted)

A high-level committee comprising at least three ministers (including the Minister of Finance and Minister of Local Governments) and three representatives of local government (including the mayor of Reykjavík, the capital) is to be formed. It will meet at least three times a year. A lower-level sub-committee will meet more frequently throughout the year and report on fiscal matters to the high-level committee.

F) The legal framework (partly adopted)

Procedures on how Parliament discusses and approves the budget in a top-down manner should be established in a standing order for Parliament. Amendments to the 1997 Budget Act with provisions describing the top-down sequence of formulating the budget are needed. There should also be a formalised procedure of processing audit reports to Parliament. The statutory foundation for the three fiscal rules should be established. Regrettably, at present it seems that the government is going to contend with governmental statements rather than adding to the current FRLs when it comes to the national budget framework. The Local Government Act of 1998 will be amended to provide a legal framework for the sub-national budget framework.

Below is a more detailed discussion of the reforms adopted in these six categories.

A) Medium-term budget framework

Firm formulation, approval, and execution of the budget are a prerequisite for successful rule-based fiscal policy. A medium-term perspective is of the essence. A large part of the IMF economic programme has been to budget for the recovery of government finances. In preparing the multi-year budgets, the budget process has been a combination of the following:

1) *a medium-term fiscal framework (MTFF)* that serves the purpose of anchoring long-term objectives by providing a medium-term rule for fiscal policy that lays out the fiscal path that lines up with the long-term rule;

2) *a medium-term expenditure framework (MTEF)* that, through multi-year expenditure ceilings/frames, quantifies the path towards the fiscal objectives of the government; and

3) *a top-down approach* to budgeting that integrates the MTEF ceilings into the formulation and approval of the annual budget. The top-down approach is the topic of the next section, but is listed here because of how closely these three factors work together in combination.

Iceland's fiscal framework proved not to be a binding restraint on fiscal policy decisions in the pre-crisis period, and it would have been a poor guide out of the fiscal crisis, given the fiscal consolidation needed. Comparison with fiscal frameworks in other countries that have been successful in meeting their goals revealed several important flaws in the Icelandic framework. The main reforms needed regarding the medium-term budget framework are:

- first, a stable fiscal sustainability-type long-term anchor for fiscal policy, such as a ceiling for government debt as a percentage of GDP;

- second, a medium-term rule to ensure that the fiscal policy stance is counter-cyclical and the budget balance is such that the long-term anchor of fiscal policy holds. A medium-term rule like this should provide the necessary fiscal discipline but should be as simple and clear as possible and provide the flexibility to deal with economic cyclicality;

- third, the annual budget should include a multi-year binding cabinet commitment integrated into both budget cycle formulation and approval. Medium-term fiscal policy expectations should be based on a binding multi-year budget. Committing to next year's budget only is not sufficient;

- fourth, there is a need for a transparent agreement on how much headroom to build into the budget so as to ensure that the medium-term rule is met even in the case of adverse fiscal shocks;

- fifth, it should be clear how the medium-term rule translates into a medium-term path of total expenditures according to the fixed nominal expenditure ceilings of the MTEF.

To strengthen the medium-term fiscal framework, a binding commitment in four-year budgeting has been adopted, starting with the 2009 budget cycle, that quantifies a medium-term fiscal path honouring the two main objectives or rules of the MTFF. The two main objectives are first of all that government debt should not exceed 60 per cent of GDP by 2020[10] which calls for a declining debt path. Secondly, the general government primary balance is to show a surplus of close to five per cent of GDP in 2013, leaving the overall balance to also be in surplus with a comfortable margin.[11] The fiscal rules are very specific rather than general because they must be both ambitious and stringent enough to support the consolidation effort. The second rule or objective is still only an interim rule that stipulates the primary surplus needed to get the debt level on a sufficiently steep declining path to be consistent with the long-term rule. After the successful completion of fiscal consolidation, Iceland will be in a position to adopt a permanent, more general and perhaps less stringent budget balance rule. No statement has been given about the continuation of the budget balance rule but current fiscal projections predict that the five per cent surplus will hold from 2013 to 2016. For the same reason that the 60 per cent debt ceiling was no accident, the most likely budget balance rule in the future is an EU-type maximum deficit rule of 3 per cent. Preferably complemented with a numerical structural primary surplus rule that accommodates the economic cycle by allowing the automatic fiscal stabilisers to play their role. Both are less stringent than the interim rule currently used.

According to the current cabinet-approved multi-year budget, the interim budget balance objective is to be upheld as stipulated. This means that the general government's primary budget will have gone from a 5.6 per cent surplus in 2007 to a deficit of 6.6 per cent in 2009 and then back into a 5.3 per cent surplus in 2013. This requires quite an effort if implemented successfully and should qualify for fiscal discipline. General government gross debt is expected to peak at

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[10] The debt ceiling rule was declared in a governmental policy statement in Febuary 2011. See: http://eng.forsaetisraduneyti.is/media/ 2020/iceland2020.pdf and http://eng.forsaetisraduneyti.is/iceland2020/

[11] The medium-term rule or objective was set up at the beginning of the consolidation effort in the first LOI (in the Memorandum of Economic and Financial Policies by the authorities of Iceland), see: http://www.imf.org/external/pubs/ft/scr/2009/cr09306.pdf. At the time the debt level was still uncertain but as time passed it turned out more favourably than expected raising demands to lower the primary surplus requirement since the declining debt path would still be steep enough compared to the initial one. So this objective may come under pressure.

100 per cent in 2011, but as early as 2015, gross general government debt is forecast to total 72 per cent of GDP, compared with the 2020 goal of 60 per cent. Successfully restoring the health of the budget and putting the gross debt level on a declining path.

To further ensure the success of the MTFF, it must be complemented by a credible MTEF. Expenditure rules have proven to be great complement to a budget balance rule. This decreases the risk that expenditures will rise, for example, in tandem with unexpectedly buoyant revenues. By setting expenditure ceilings in nominal terms in a medium-term perspective, line ministries and agencies know better what to expect with regard to budgeting. It encourages longer-term ministerial budgeting that translates into agencies' adopting longer-term budgeting as well. This, coupled with stringent execution of the budget, enforces medium-term expenditure discipline. To minimise uncertainties regarding the nominal budget, expenditure ceilings are to be set in nominal rather than real terms, so that changes in inflation do not lead to revisions of targets. This keeps the MTEF transparent and relieves monitoring of the rules from the problem of having to estimate the deflator. Also, nominal rules are beneficial if economic stabilisation is a goal because unexpectedly high inflation leads directly to lower real expenditure in a counter-cyclical fashion. The expenditure rule should cover as much expenditure as possible, and the list of irregular items excluded from the expenditure ceiling should be limited to highly irregular and non-discretionary items only. Still, it will always be necessary to set escape clauses.

Therefore in addition to the two fiscal rules of the MTFF, a medium-term expenditure rule that fixes expenditures below a two-year nominal ceiling has been adopted. The expenditure ceiling covers ¾ of total expenditure. Items excluded are debt interest, pension liabilities, tax write-offs, capital income taxes, unemployment compensation, and the Municipal Equalization Fund (MEF).[12] Like the budget balance rule of the MTFF, the expenditure rule is not set as a general numerical expenditure growth rule while consolidation is ongoing. It is set as a specific rule that stipulates how much nominal expenditure must be cut to ensure the success of the consolidation effort. As the four-year budget rolls on, the nominal ceilings that are not fixed are updated on a rolling basis from one budget year to the next, so as to eliminate planning surprises. In this way, line ministries are given an early indication of the savings required, if any, to stay within the aggregate expenditure ceiling.

B) Top-down formulation and approval of the budget

Top-down sequencing of budget discussions is of paramount importance in achieving fiscal discipline. Medium-term fiscal policy is set at the macro level using aggregated fiscal data. The success of the medium-term framework requires that bottom-up ministerial input into the budget process is matched by structured top-down political engagement in the frame budgeting process.

The common pool problem is well known when it comes to appropriations. The budget cycle often has more to do with political than economic factors. So can the autonomy of ministers and members of Parliament be restricted? Won't self-interested politicians always find a way to nullify the effectiveness of budget procedures if left to their own devices? International evidence[13] shows that, to a large extent, strong fiscal frameworks are effective in controlling the common pool problem and introducing fiscal discipline.

The budget cycle must start with the cabinet deciding on the medium-term fiscal policy path with respect to the long-term debt ceiling rule, budget balance rule, and two-year nominal expenditure rule. After the cabinet has decided to honour the rules of the medium-term framework

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[12] The purpose of the Municipal Equalization Fund is to equalise differences in economies of scale with regard to size.

[13] See, for example, Alesina and Perotti (1999).

and a multi-year budget plan has been decided on, the IMF FAD recommended that Parliament be given a chance to vote on that plan in order to endorse it. The voting should take place early in the budget cycle; for example, in May. After that, it is up to a strong MoF to enforce the ceilings implied by the agreed four-year fiscal path. The ceilings would then be integrated into the remaining formulation phase by quantifying the cabinet and Parliament's policy discussion. Ministers would prioritise individual appropriations within ministerial frames.

Previously, the multi-year budget frames were generated internally by the MoF, with limited input from the line ministries they were intended to constrain. The lack of bottom-up technical assistance from line ministries was compounded by a lack of top-down political engagement from both cabinet and Parliament in determining binding ministerial medium-term expenditure frames.

In the budget discussion of the 2011 budget cycle, the cabinet followed a top-down sequence. Introduction of a spring budget orientation debate in Parliament, where the cabinet's medium-term fiscal strategy is subject to parliamentary scrutiny and endorsement, is under consideration for the 2012 budget cycle. It is very likely to happen, but the procedure would be that the cabinet reports to Parliament on a medium-term fiscal path to be debated but not voted on. Also under consideration is the adoption of a top-down sequence to budget debating and voting on the annual budget in Parliament.

C) Budget execution and controls

The key objective of any budget execution and control system is to ensure compliance with the budget as approved by Parliament. Apparently, this has not been a priority in Iceland over the last decade, as expenditures exceeded original appropriations by an average of 6 per cent a year from 1998 to 2008. The INAO has repeatedly reported on this, but managers exceeding their appropriations have not been held accountable. This has undermined budget discipline.

In the execution phase of the budget cycle, the dominant role is played by the MoF. At the heart of it, the MoF needs to take a firm stand on how to react to non-compliance and also how to deal with proposals for budget supplements by members of Parliament, and even ministers. Numerous recommendations aimed at improving execution came from the INAO, OECD and IMF FAD mission teams.

On top of the list was the need to restrict the use of supplementary budgets to exceptional situations, so as to halt the legitimisation of spending overruns after the fact. The authorities have acted on this. Since the 2010 budget cycle, supplementary budgets have not been used to address spending overruns or to fund new policies; thus they have remained expenditure-neutral. This is quite a change, as deviations between the budget and outturns in the past reflect entrenched use of supplementary appropriations (Suppanz, 2003; OECD 2006).

This change in supplementation of the budget called for the introduction of a contingency reserve of at least 1 per cent of total expenditure to cope with unforeseen, unavoidable, and non-absorbable pressures arising during budget execution. So far, access to this reserve has been limited to genuine contingencies.

The abolition of borrowing from future appropriations was also essential, as was the need for a quantitative limit on the carry-forward of unspent appropriations from one year to the next. Borrowing from future appropriations was abolished in the 2010 budget cycle, and the carry-forward was limited to 4 per cent of turnover per year, with the maximum total carry-forward set at 10 per cent. Reduction of earmarking of revenue to specific expenditures is under consideration for the 2012 budget cycle.

Real-time monitoring of budget execution is now carried out on a monthly basis instead of a quarterly basis. It is also no longer restricted to MoF staff, as the cabinet and the Parliamentary Budget Committee have been receiving monthly reports on budget execution. This began with the 2010 budget cycle.

D)   *Local governments restricted to rule-based fiscal policy*

Reforms at the sub-national level are quite extensive. First, two numerical fiscal rules are adopted which provide a long-term anchor and a medium-term fiscal path that is quantified in a required multi-year budget. Second, municipalities will be subjected to a three-tiered approach to financial monitoring based on the principle of earned autonomy. Third, there are sanctions, ranging from mild to severe, for violating the fiscal rules. Fourth, there is an independent external body, the MFOC, which has the authority to penalise municipalities that are in breach of the rules.

Thus, in one step, the budget framework of local governments goes from being one of the laxest in Europe to one of the more progressive ones. These reforms are the product of joint work done by representatives from central and local governments, with technical assistance from the IMF FAD. The reforms are not forced upon local governments, as they have come to recognise that the old framework was not sufficiently stringent.

The two fiscal rules are clear and simple, a balanced budget rule and a debt ceiling rule that extend to both A and B sections[14] of the budget. The first rule is that municipalities are prohibited from running operating deficits within a rolling period of three years. This means that the next year's budget balance is a function of both the current and the previous year's budget outcomes. The second rule is that municipalities are subject to a maximum debt-to-revenue ratio of 150 per cent. Municipalities whose debt-to-revenue ratio already exceeds 150 per cent are only allowed to borrow in local currency from the Municipal Credit Iceland (MCI) loan fund. Municipalities whose debt-to-revenue ratio exceeds 250 per cent are only allowed to refinance. A complementary general expenditure growth rule was considered, but differences in the municipalities' growth rates made it impractical; therefore, it was not adopted.

Municipalities will be subjected to a three-tier monitoring where municipalities are classified into one of three categories based on whether, and by how much, they are in breach of the rules. Both the autonomy and the degree of external monitoring to which a municipality is subjected vary depending on its category. A municipality that is not in breach of either rule is in category 1; it has full autonomy within the limits of the rules and is subject to minimum monitoring. A municipality that is in breach of either of the rules is in category 2. It loses autonomy in that a five- to ten-year fiscal adjustment path must be quantified in a MFOC-approved multi-year budget that maps out the return to compliance. A municipality with a debt-to-revenue ratio in excess of 250 per cent is placed in category 3. The same restrictions apply to category 3 municipalities as to those in category 2, but additionally, all major revenue and expenditure decisions including investments must be approved by the MFOC. The municipality has *de facto* lost its autonomy and is only responsible for daily operations.

Further sanctions, ranging from mild to severe, are available to the MFOC in order to enforce compliance. They can "name and shame" violators in public reports, or they can go as far as withholding payments from the MEF.

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[14]   In the A section are activities operated directly through the the Treasury or Municipal account while in the B section are the operations of government owned companies.

E)   Coordination between central and local governments

The coordination between central and local governments in deciding on general government fiscal policy was insufficient in the past. To put these communications in a formal setting that is mutually favourable to both levels of government, a contract has been agreed upon that is soon to be signed. This contract draws from what has been done in other Nordic countries.

A high-level committee that is in charge of the coordination of fiscal policy will be set up. That committee comprises three ministers and three local government representatives. The three ministers are the Minister of Finance, the Minister of Local Governments and the Minister of Economic Affairs; the representatives of local government are the mayor of Reykjavík, the Chairman and the Director of the National Association of Local Authorities (NALA). The committee will meet at least three times a year.

A lower level sub-committee meets much more frequently and reports to the higher-level committee on matters such as the fiscal policy stance, macroeconomic forecasts, and MFOC rulings. Also, various research projects are directed to this committee. This sub-committee, for example, came up with the recommendations that were used in reforming the budget framework of local governments.

F)   The legal framework

What will be the statutory base of the reformed rules, procedures and controls, and increased reporting? The numerical expenditure rule introduced in 2003 had no statutory foundation and utterly failed. That should be a lesson learned. Also, the laws must not be weakly phrased and open to interpretation, such as the current *as far as possible* phrasing of the balanced budget requirement in the Local Governments Act.

At present, it is not clear what changes will be made to the legal framework of the national budget. At this point in time, the changes are not likely to be extensive. The revisions will probably be limited to top-down sequencing of budget formulation with amendments to the 1997 Budget Act. A standing order on how Parliament discusses and approves the budget in a top-down manner must also be established when the exact procedures have been decided.

It is not likely, however, that fiscal rules and reporting requirements will be elevated to have a firm statutory base. So instead of adding to the current FRLs, formal governmental statements will probably be the instrument of choice. The existing legal framework is said to be adequate. That, however, does not mean that there is not a case for a progressive FRL-type legislation with laws to regulate fiscal transparency, accountability, and a rule-based fiscal policy aimed at macroeconomic stabilisation. The main argument used against increased legislation is that without cabinet commitment to fiscal discipline, the FRLs may not be sufficient to enforce compliance with fiscal objectives and rules. But although laws alone are not sufficient, they provide agreed main parameters of fiscal policy against which every cabinet can be measured.

Changes to the legal framework for local government finances, on the other hand, are clear and are expected to be passed into law by Parliament late in the spring session. There is little or no political opposition, and the NALA has already agreed to it. The new law will stipulate (1) the fiscal rules to be applied to budgets, (2) the restrictions on municipal borrowing, (3) surveillance modalities, (4) sanctions for non-compliance to the rules, (5) the mechanisms for dealing with revenue volatility, (6) multi-year budgeting, and (7) coordination mechanisms. Thus the law is quite progressive and promises to provide a firm framework around the budget cycle.

5 Fiscal council?

The creation of an independent fiscal council reporting to Parliament is not part of the IMF-supported fiscal framework reform. In the MoF's July 2009 report[15] to Parliament, an invitation was given to widen the scope of the INAO's audits by having it report on the achievement of fiscal policy targets at the end of each budget year. Sadly, such procedures and controls, which are at the centre of progressive FRLs, have still not been adopted.

The establishment of an independent fiscal council would have many benefits, which can be summed up in terms of two factors: depoliticising assumptions made in the budget, and providing external monitoring of fiscal policy. A factor of critical importance is that a fiscal council could help strengthen the top-down approach further by keeping the focus on the medium-term fiscal path, through reporting on whether the budget accords with the fiscal rules and objectives of the medium-term fiscal framework. Optimally, the fiscal framework setup is transparent enough to reward politicians for achieving fiscal objectives and to impose political costs for failing to achieve them. But an independent fiscal council would be of great benefit to the political opposition, the media, and the public – and even the cabinet – by enabling a more effective gauge of the fiscal policy stance and by providing an objective opinion on compliance with the rule-based fiscal framework. Furthermore, it could also serve as an objective body that assesses proposals from members of Parliament and ministers on fiscal matters; for example, by estimating revenue effects of changes to the tax code.

Regarding the source of budget assumptions made then both OECD and IMF missions to Iceland have repeatedly suggested that an independent non-political body should prepare the macroeconomic and tax revenue forecasts on which the budget is based. Depoliticising these forecasts is critical.

Such independent body that would greatly add to Iceland's institutional strength. Regrettably, although under discussion, it is not on the Government's agenda. The fiscal framework reforms are not as progressive as they could be. In the literature, such independent bodies have been shown to contribute to fiscal discipline by acting as arbiters of fiscal policy, especially when they are well respected, credible, and visible in the public debate (European Commission, 2006a; Fabrizio and Mody, 2006). For example, there is evidence within the EU that independent forecasts can eliminate systemic forecast biases that could otherwise feed through to deficit biases (Jonung and Larch, 2004).

Although fiscal consolidation has proven successful so far, partly because of reforms to the budget framework, to some extent it also has been accomplished because of the IMF's role acting as an "independent fiscal body" – an enforcer, as it were. IMF missions prepared reviews under the Stand-by Arrangement where the fiscal policy path was assessed in comparison to fiscal objectives, and if divergence was detected, compliance was enforced through effectively reducing the autonomy of the MoF by threatening to withhold lending. The MoF has thus been subjected to external monitoring of fiscal policy. How the new national budget framework will fare without an external fiscal body such as a fiscal council remains to be seen.

There is considerable risk that the national budget framework will regress back to pre-crisis status because the reformed rules, procedures and controls lack statutory status. The reformed fiscal discipline can be here today and gone tomorrow if commitment to fiscal discipline evaporates. Especially if no external agency has been set up to monitor and gauge fiscal policy as the political opposition cannot be counted on to be an enforcer of fiscal discipline.

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[15] In June 2009 the Minister of Finance submitted a report to Parliament regarding measures to achieve a balance in government finances. The purpose was to report on the goals and measures in government finances that were decided in accordance with the plans under the Stand-by Arrangement with the IMF.

6   Conclusions

Years of revenue buoyancy masked the deficit bias of the pre-crisis budget framework. After the sustainability of government finances came into question, fiscal framework reform was needed to ensure successful completion of the fiscal consolidation effort. The sustainability of government finances will be re-established. The reform agenda called for a rule-based medium-term fiscal framework at both national and sub-national levels.

At both levels of government, budget balance rules and debt level ceilings will be adopted as a part of an MTFF, albeit interim at the national level. Finalising the reforms to the budget framework in general terms in the middle of a consolidation effort is not necessarily the most opportune time (Cottarelli, 2009). Additionally, at the national level a fixed two-year nominal expenditure rule was adopted as a part of an MTEF. The nominal expenditure rule will probably be instrumental to fiscal policy in establishing the medium-term fiscal path. It will serve to curb politically motivated expenditure pressures and increase the counter-cyclicality of fiscal policy where automatic fiscal stabilisers play the leading role. The rules adopted will serve as guides quantifying the medium-term fiscal path in binding multi-year budgets. Multi-year budget formulation has been elevated to a cabinet-approved budget with input from line ministries. In formulating these multi-year budgets, a strict top-down approach has been adopted.

A Parliamentary endorsement procedure where, in a report, the cabinet gives the main parameters of medium-term fiscal policy in a spring session will very likely be adopted in the 2012 budget cycle. This enforces top-down sequencing in setting out the fiscal path. There is a Nordic precedence for such a parliamentary process of endorsing the main parameters of medium-term fiscal policy. Norway's Cabinet Budget Conference (CBC) serves such a purpose successfully.

Budget execution has progressed greatly, as can be seen in increased compliance with the budget. Most of the recommendations given have been adopted while others are still being considered.

The sub-national budget framework is changed in a progressive manner. Fiscal discipline is controlled through an independent MFOC with the authority to enforce the rules by penalising municipalities in breach of the rules by reducing their autonomy and increasing financial monitoring.

The reforms are a big step forward that will likely serve their purpose well in the future. Reforms at the sub-national level are quite extensive, but those at the national level are not nearly as progressive as they could be. Progressive FRLs and the creation of a fiscal council are not on the Government's agenda. The literature has shown that commitment countries like Iceland benefit from rule-based frameworks with external agencies that aid in the entire budget cycle (European Commission, 2006a; Annett, 2006). Belgium and the Netherlands are commitment countries like Iceland, and missions from both the IMF and the OECD have suggested that Iceland emulate their external fiscal agencies.

Thus the fiscal impact of the financial crisis has evidently served us in building the necessary political constituency to implement a somewhat extensive reform of the fiscal framework, but not enough to place Iceland on an equal footing with the most progressive countries in this respect. The conduct of successful fiscal policy always begins and ends with commitment to fiscal discipline. This does not mean, however, that strong progressive fiscal frameworks are not necessary, as international evidence[16] shows that, to a large extent, strong frameworks are effective in controlling the common pool problem and introducing fiscal discipline.

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[16]   See, for example, Alesina and Perotti (1999).

In the introduction to this paper, five parameters of the strength of a fiscal framework were given as (1) the statutory base of fiscal rules, procedures and controls, (2-3) the nature of the bodies charged with monitoring and enforcing the rules, (4) enforcement mechanism, and (5) media visibility of the rules. The sub-national framework scores high on each parameter. The national framework does not because it lacks progressive FRLs and external monitoring. One had hoped that the 2003 budget framework reforms were a lesson learned, but at present it is not at all clear.

REFERENCES

Anderson, B. and J.J. Minarik (2006), "Design Choices for Fiscal Policy Rules", paper for OECD's Working Party for Senior Budget Officials, GOV/PGC/SBO (2006), No. 4.

Annett, A. (2006), "Enforcement and the Stability and Growth Pact: How Fiscal Policy Did and Did Not Change Under Europe's Fiscal Framework", IMF, Working Paper, No. 06/116, Washington (D.C.).

——————(2007), "Towards a Robust Fiscal Framework for Iceland: Motivation and Practical Suggestions", IMF, Working Paper, No. 07/235.

Ayuso-i-Casals, J., D.G. Hernandez, L. Moulin and A. Turrini (2006), "Beyond the SGP – Features and Effects of EU National-level Fiscal Rules", paper prepared for the workshop organized by the European Commission on *The Role of National Fiscal Rules and Institutions in Shaping Budgetary Outcomes*, Brussels, 24 November.

Balassone, F. and M.S. Kumar (2007a), "Cyclicality of Fiscal Policy", in T. Ter-Minassian and M.S. Kumar (eds.), *Promoting Fiscal Discipline*, pp. 19-35, IMF, Washington (D.C.).

Buiter, W.H. (2003), "Ten Commandments for a Fiscal Rule in the E(M)U", *Oxford Review of Economic Policy*, Vol. 19, No. 1, pp. 84-99.

Cangiano, M., R. Hughes, F. Balassone and P. Molander (2009), "Strengthening the Budget Framework", IMF, Fiscal Affairs Department Report.

Corbacho, A. and G. Schwartz (2007), "Fiscal Responsibility Laws", in T. Ter-Minassian and M.S. Kumar (eds.), *Promoting Fiscal Discipline*, pp. 19-35, IMF, Washington (D.C.).

Cottarelli, C. and IMF FAD Staff (2009), "Fiscal Rules-anchoring Expectations for Sustainable Public Finances", IMF, SM/09/274.

Debrun, X., D. Hauner and M.S. Kumar (2009), "Independent Fiscal Agencies", *Journal of Economic Surveys*, Vol. 23, No. 1, pp. 44-81.

Debrun, X. and M.S. Kumar (2007a), "Fiscal Rules, Fiscal Councils and All That: Commitment Devices, Signaling Tools or Smokescreens?", in Banca d'Italia (ed.), *Fiscal Policy: Current Issues and Challenges*, papers presented at the Public Finance workshop held in Perugia, 29-31 March 2007, pp. 479-512.

——————(2007b), "The Discipline-enhancing Role of Fiscal Institutions: Theory and Empirical Evidence", IMF, Working Paper, No. 07/171.

Debrun, X., L. Moulin, A. Turrini, J. Ayuso-i-Casals and M.S. Kumar (2008), "Tied to the Mast? National Fiscal Rules in the European Union", *Economic Policy*, pp. 299-362, April.

Deroose, S., L. Moulin and P. Wierts (2006), "National Expenditure Rules and Expenditure Outcomes: Empirical Evidence for EU Member States", *Wirtschaftspolitische Blaetter*, No. 1, pp. 27-42.

European Commission (2006a), "Public Finance Report in EMU 2006 – Part III: National Numerical Fiscal Rules and Institutions for Sound Public Finances", European Commission, *European Economy*, No. 3, Brussels.

——————(2006b), "Public Finances in EMU 2006", European Commission, *European Economy*, No. 3, Brussels.

——————(2007), "Public Finance Report in EMU 2007 – Part IV: Lesson from Successful Fiscal Consolidations", *European Economy*, No. 3.

European Commission (2009), "Public Finance Report in EMU 2009", European Commission, *European Economy*, No. 5, Brussels.

Fabrizio, S. and A. Mody (2006), "Can Budget Institutions Counteract Political Indiscipline?", *Economic Policy: A European Forum*, Vol. 21, pp. 689-739.

————— (2007), "The Value and Reform of Budget Institutions", in Banca d'Italia (ed.), *Fiscal Policy: Current Issues and Challenges*, papers presented at the Public Finance workshop held in Perugia, 29-31 March 2007, pp. 557-66.

Fletcher, K. and R. Benelli (forthcoming), "Simple Countercyclical Fiscal Rules that Avoid Output Gap Estimates", IMF, Working Paper.

Girouard, N. and C. André (2005), "Measuring Cyclically-adjusted Budget Balances for OECD Countries", OECD, Working Paper, No. 434.

Guichard, S., M. Kennedy, E. Wurzel and C. André (2007), "What Promotes Fiscal Consolidation: OECD Country Experiences", OECD, Economics Department, Working Paper, No. 553.

Honjo, K. and B. Hunt (2006), "Stabilizing Inflation in Iceland", IMF, Working Paper, No. 06/262.

IMF (2009), *Iceland: First Review under Stand-by Arrangement*, Country Report, No. 9/306.

————— (2010), *Iceland: Second Review under Stand-by Arrangement*, Country Report, No. 10/95.

————— (2010), *Iceland: Third Review under Stand-by Arrangement*, Country Report, No. 10/305.

————— (2011), *Iceland: Fourth Review under Stand-by Arrangement*, Country Report, No. 11/16.

Jaeger, A. and L. Schuknecht (2004), "Boom-bust Phases in Asset Prices and Fiscal Policy Behaviour", IMF, Working Paper, No. 04/54, Washington (D.C.).

Jonung, L. and M. Larch (2004), "Improving Fiscal Policy in the EU: The Case for Independent Forecasts", European Commission, *Economics Papers*, No. 210, Brussels.

Kopits, G. (2001), "Fiscal Rules: Useful Policy Framework or Unnecessary Ornament?", IMF, Working Paper, No. 01/145.

————— (2004), "Overview of Fiscal Policy Rules in Emerging Markets", in G. Kopits (ed.), *Rules-based Fiscal Policy in Emerging Markets. Background, Analysis, and Prospects*, pp. 1-11, Palgrave.

Kopits, G. and S. Symansky (1998), *Fiscal Rules*, IMF, Occasional Paper, No. 162.

Kumar, M.S., D. Leigh and A. Plekhanov (2006), "Fiscal Adjustments: Determinants and Macroeconomic Consequences", in Banca d'Italia (ed.), *Fiscal Policy: Current Issues and Challenges*, papers presented at the Public Finance workshop held in Perugia, 29-31 March 2007, pp. 247-82.

Lane, P.R. (2003), "The Cyclical Behaviour of Fiscal Policy: Evidence from the OECD", *Journal of Public Economics*, Vol. 87, pp. 2661-75.

Larch, M. and A. Turrini (2008), "Received Wisdom and Beyond: Lessons from Fiscal Consolidation in the EU", European Commission, *European Economy – Economic Papers*, No. 320.

Larch, M. and A. Turrini (2009), "The Cyclically-adjusted Budget Balance in EU Fiscal Policy Making: A Love at First Sight Turned into a Mature Relationship", European Commission, *European Economy – Economic Papers*, No. 374.

Morris, R. and L. Schuknecht (2007), "Structural Balances and Revenue Windfalls: The Role of Asset Prices Revisited", ECB, Working Paper, No. 737, Frankfurt.

Mulas-Granados, C., J. Onrubia and J. Salinas-Jiménes (2007), "Do Budget Institutions Matter? Fiscal Consolidation in the New EU Member States", in Banca d'Italia (ed.), *Fiscal Policy: Current Issues and Challenges*, papers presented at the Public Finance workshop held in Perugia, 29-31 March 2007, pp. 613-48.

OECD (2006), *Economic Survey: Iceland*, (Paris).

——————(2008), "Strengthening the Fiscal Framework", OECD, Economic Survey, *Iceland*, Chapter 3, Vol. 2008/3, February.

Rogoff, K. (1990), "Equilibrium Political Budget Cycles", NBER, Working Paper, No. 2428.

Sighvatsson, A. and G. Gunnarsson (2011), "Iceland's Financial Disaster and Its Fiscal Impact", in *Managing Risk in the Financial System* (forthcoming in 2011), Edward Elgar.

Suppanz, H. (2003), "Controlling Public Expenditure in Iceland", OECD, Economics Department, Working Paper, No. 360, Paris.

MAKING FISCAL POLICY MORE STABILISING IN THE NEXT UPTURN: CHALLENGES AND POLICY OPTIONS

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Recent years have seen a gradual resurgence in the emphasis given to fiscal policy as a tool for achieving macroeconomic stabilisation. For many countries this reflects the limitations of monetary policy (e.g., zero interest bound in the US and Japan; unavailability of country-specific monetary policy in EMU). For other economies it reflects renewed recognition of the impact of fiscal policy on the macro policy "mix", and therefore on the real exchange rate and macroeconomic imbalances. Everywhere questions are being asked about what role fiscal policy could have played in limiting the build-up of imbalances in the run-up to the global financial crisis. However, making fiscal policy less pro-cyclical in economic upturns is very difficult, in large part because of the political economy challenges of running large surpluses during prolonged economic upturns. This paper draws lessons for New Zealand from the last economic cycle and surveys the options for making fiscal policy "more stabilising" in future economic upturns. Options considered include: revising the Public Finance Act so as to increase the importance that is placed on avoiding pro-cyclical fiscal policy; more focus on sticking to ex ante *spending plans; or a stabilisation fund to safeguard revenue windfalls. The potential role of an independent fiscal council is also touched on.*

1 Introduction

The macro-stability objective of Fiscal Policy has received a lot of attention within New Zealand in recent years, motivated by concerns that pro-cyclical fiscal stimulus over the 2005-08 period may have exacerbated the interest rate and exchange rate cycles, and contributed to a widening of New Zealand's external imbalances. This focus is notably different from the international debate on the macro-stability role of fiscal policy, which has tended to focus more on the role that fiscal policy can play in stimulating demand during downturns, particularly in countries facing the zero interest rate bound.

In recent decades, the stabilisation role of fiscal policy in New Zealand has been predominantly focused on passive use of the automatic stabilisers. However, the counter-cyclical impact of the automatic stabilisers is often not sufficient to offset pro-cyclical discretionary fiscal policy. In a small open economy like New Zealand, with a floating exchange rate, pro-cyclical fiscal stimulus is unlikely to have much impact on aggregate demand (because of leakage into imports and the offsetting impact of tighter monetary policy), but it does have a significant impact on the *mix* of macro-economic conditions. Higher real interest rates, and associated exchange rate appreciation, is unhelpful to an economy already suffering from significant macroeconomic imbalances.

This paper documents the extent to which overall fiscal policy was pro-cyclical over the past cycle, and discusses changes to the fiscal policy framework that could help to either reduce the

Figure 1

Degree of Stabilisation Provided by Fiscal Policy

Low　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　High

Tools	Passive use of automatic stabilisers only	Fiscal institutions that help keep discretionary policy less pro-cyclical	Fiscal institutions that encourage more counter-cyclical discretionary policy and/or active use of counter-cyclical tax policies
Outcomes	Likely to mitigate pro-cyclicality but not eliminate it	Could result in more neutral fiscal policy and not exacerbate monetary policy	Could result in counter-cyclical fiscal policy and thus help dampen interest rate cycles

probability of pro-cyclicality in future, or encourage more counter-cyclical discretionary policy. As indicated in Figure 1, this distinction may be somewhat artificial as most of the policies that aim for "counter-cyclical" fiscal policy are the same policies that could be used to aim for more "neutral" fiscal policy, just used to a greater degree.[1] How far we decide to move along this spectrum should depend on the importance attached to a dampening of the interest rate and exchange rate cycles, together with an assessment of any costs that could be incurred in implementing more active fiscal measures. One of the goals of this paper is to present more detail on specific policy options so that such a judgement can be made.

Section 2 begins with a review of what the economic literature has to say about the stabilisation role of fiscal policy, and how this has changed over time. It also discusses the reasons why fiscal policy stabilisation may be more important for New Zealand than for most other economies. Section 3 examines fiscal policy outcomes in New Zealand over the past decade and concludes that fiscal policy appears to have behaved in a substantially pro-cyclical fashion for several years. Section 4 looks more closely at the specific policy options for permitting fiscal policy to play a greater role in macro stabilisation. Section 5 concludes.

2　International trends and literature review

After the Keynesian activism of the 1940s to 1960s, the general trend within economics through the 1970s, 1980s and 1990s was to move away from promoting *active* counter-cyclical fiscal policy, and towards greater reliance on the monetary authorities for stabilisation, with spending and tax policy aimed more towards longer-term structural goals (see Blinder, 2004, for a brief history of events in the United States). This tendency was supported by theory (a perceived increase in the effectiveness of monetary policy under regimes of central bank independence and inflation targeting) and encouraged for practical reasons (related to political economy concerns about lags in the design and implementation of fiscal policy).

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[1] The distinction becomes more meaningful if one advocates fiscal policy counter-cyclicality by use of more activist tools, such as temporary tax rate changes. However, this paper does not recommend such activist tools, due to substantial efficiency and compliance costs (see discussion in Section 4.6).

Even during this period, economists widely agreed that pro-cyclical fiscal policies should be avoided. But despite an on-going focus on ensuring that automatic stabilisers were permitted to function, relatively little attention was given to whether or not this was sufficient to prevent pro-cyclical fiscal policies overall. In fact, a bias towards pro-cyclicality during economic upturns has been documented in a number of countries (e.g., Balassone *et al.*, 2007; also see survey in European Commission, 2006). The evidence suggests that this is generally due to expansionary discretionary policy offsetting the workings of the automatic stabilisers during upturns. Balassone *et al.* (2007) argue that it is open to debate whether this asymmetry is due to political economy reasons or from genuine mistakes in assessing cyclical conditions.[2] The discussion in Section 3 of this paper suggests that pro-cyclicality in New Zealand is likely to be due to a combination of these factors.

More recently – *i.e.*, over the past decade or so – both macroeconomic theory and policy practice have been moving back towards greater recognition of the stabilisation role of discretionary fiscal policy. This shift has been driven by three factors: first, in some countries, by the revealed limitations of monetary policy imposed by the zero interest bound problem; second, by a debate in Europe about the greater role that fiscal policy could play in stabilising the cycle in euro-zone countries (who no longer have flexible exchange rates); and third – post crisis – by a refocusing on whether fiscal policy could and should have played a greater role in "leaning against the wind" to prevent the build up of sectoral or external imbalances over the last cycle.

It is this third issue that is of relevance for New Zealand. In particular, significant concerns have emerged about New Zealand's external imbalances and the over-valued exchange rate (see further discussion in Section 3.1), which has, in turn, focused renewed attention on the role that fiscal policy has played in contributing to the path of the exchange rate. Compared to other industrialised countries New Zealand's level of public debt is not particularly high, so fiscal sustainability is not considered an immediate challenge (gross public debt in New Zealand is around 35 per cent of GDP vs. over 90 per cent for the average OECD position). However, New Zealand's net foreign asset (NFA) position is around –80 per cent of GDP, which is in a similar ballpark to those of Greece, Ireland, Portugal and Spain, and significantly worse than those of most other OECD countries. Moreover, the New Zealand dollar is considered by many (such as the IMF, as discussed in more detail on pages 8-9) to be persistently over-valued, dampening export sector competitiveness. This paper is concerned with the role that fiscal policy has played in contributing to these outcomes. Essentially, the issue is one of monetary and fiscal policy coordination, or bringing about the best "mix" of macroeconomic conditions.[3]

Unfortunately, there are few other economies with similar concerns, which means that much of the international economics literature on the stabilisation role of fiscal policy is not very pertinent to New Zealand's challenges. For example, despite the evidence that fiscal policy tends to be most pro-cyclical during economic upturns rather than during recessions,[4] most discussions about the stabilisation role of fiscal policy, refer exclusively to the role of fiscal policy in providing macroeconomic stimulus during downturns (e.g., Lindh and Ljungman, 2007). Since this is not the focus of this paper, a literature summary is not provided, other than to note that to date there is no clear consensus about the extent to which downside fiscal stimulus should be advocated. For

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[2] Given the significant fiscal tightening that is taking place in many European countries right now, while output gaps are still negative, pro-cyclical contractions are likely to be documented for the current period. This can be attributed to a failure to pay down sufficient debt during the upturn of the 2000s.

[3] This paper does not discuss other tools – such as macro-prudential policies – that may also be able to influence the mix of macroeconomic conditions.

[4] Most cases of pro-cyclicality during downturns can be traced back to excessively loose fiscal policy during the previous upturn, which left insufficient fiscal space for offering stimulus during the ensuing downturn. Many OECD countries provide good illustrations of this.

example, see Auerbach and Gale (2009) who argue in favour, versus Taylor (2009) who argues against.

Rather, the focus of this paper is on the upside of the cycle; *i.e.*, how to make fiscal policy less expansionary when economic growth is strong. This focus is motivated not so much by the question of how to improve the sustainability of fiscal policy during upturns so as to be able to afford stimulus during downturns (although this may also be a benefit), but rather by the New Zealand-specific concern about the "mix" of macroeconomic conditions, and thus the influence that fiscal policy has on the level of interest rates and the exchange rate. To the extent that this concern is more important for New Zealand than for other countries, the case for making fiscal policy more stabilising during upturns may also be stronger in New Zealand than elsewhere.

2.1 *Influencing the "mix" of macroeconomic conditions*

Famously, Charlie Bean has used lessons from game theory to describe the nature of the fiscal policy-monetary policy interaction in an economy with a floating exchange rate and an independent inflation-targeting central bank. The basic argument is that since the central bank has the clear mandate of setting monetary policy in order to achieve price stability, the fiscal authority sets fiscal policy knowing that the Bank will then adjust monetary policy to keep inflation within the target range. Thus the fiscal authority is a Stackelberg leader and the Bank is a Stackelberg follower. Under these circumstances, the mix of macroeconomic conditions should be optimal from the perspective of the fiscal authority, so long as the fiscal authority knows the Bank's assessment of the economic conjuncture and of the short-run output-inflation trade-off (Bean, 2009). In practice it is the government, and not the Treasury that makes fiscal policy decisions, and so it should be considered the government that has the greatest degree of control over the mix of macroeconomic conditions.

This point may not be widely understood by the public, many of whom may consider the Reserve Bank fully responsible for the level of interest rates and not fully appreciate that while it is indeed the Bank who *sets* the official cash rate, it does this in response to inflationary pressures, many of which are directly influenced by government decisions.

The idea of policy "optimality" from the perspective of the government (fiscal authority) has also been highlighted by other economists. For example, Allsopp and Vines (2005) point out that while fiscal policy "does not matter" for the course of inflation and the output gap (the stability of which is the focus of the monetary authority) fiscal policy should be seen as responsible for the general level of interest rates and – in an open economy – the exchange rate. Recent Treasury work exploring the drivers of New Zealand's high real interest rates has reached similar conclusions, *i.e.*, that New Zealand's high real interest rates reflect domestic demand conditions, and in particular New Zealand's low rate of saving relative to investment (Labuschagne and Vowles, 2010). To the extent that the fiscal authority has greater control of policies that affect saving and investment, this implies that it is the fiscal authority, rather than the central bank, who should be seen as most responsible for the general level of interest rates and the exchange rate. Of course there will always be some exogenous influences on interest rates and exchange rates as well. The point here is simply to emphasise the relative impact of domestic policy makers.

Empirical work also provides support for a relationship between fiscal policy and the exchange rate in New Zealand. For example Fielding *et al*. (2011) show that positive shocks to government spending have a large and persistent effect on relative prices, causing real exchange rate appreciation. This exchange rate appreciation is accompanied by a fall in investment, and in the medium term the capital stock is diminished, depressing output. These relationships are consistent with the hypothesis that government spending crowds out the tradable sector.

The fact that the immediate impact of higher government spending on output is very close to zero in the Fielding *et al.* model, is consistent with the well known fact that fiscal policy is relatively ineffective at stabilising *output* over the cycle in small open economies. International evidence finds that estimated fiscal policy multipliers are often indistinguishable from zero in countries like New Zealand that are both open and have a floating exchange rate, whereas they are typically greater than unity for more closed economies or for economies operating under fixed exchange rates (Ilzetzki *et al.*, 2011, and Beetsma and Giuliodori, 2011).[5] Both the Fielding *et al.* (2011) results and the Claus *et al.* (2006) results are generally consistent with results from empirical studies for other small open economies with monetary accommodation. The much smaller multipliers in open economies with floating exchange rates reflect the interest rate and exchange rates' reaction to the fiscal shock.

From a theoretical perspective, the policy implications of this literature are clear. First, it does not challenge the standard view that the central bank should have the dominant role in stabilisation policy, as long as stabilisation policy is defined relatively narrowly in terms of reducing the variance of output around trend (and indirectly, stabilising inflation).[6] Second, it implies that for a *given* output gap the government (fiscal authority) chooses the *policy mix* between the level of interest rates and the level of taxes and spending. To the extent that interest rate differentials have a significant impact on the exchange rate (Mabin, 2010), this also implies that the fiscal authority has considerable influence over the path of the exchange rate (see Section 3 for further discussion of this).

The perspective that fiscal policy can contribute to superior macro-economic outcomes by helping to influence the level of interest rates and the exchange rate often does not feature in the international literature, which is dominated by the experiences of large economies with higher levels of debt, and smaller European economies without fully floating exchange rates. For example, OECD (2010a) acknowledges that the challenges of stabilisation policy are more severe in small, open economies, and that this often requires relatively more support from fiscal policy. However, relatively greater emphasis is given to the potential for fiscal policy to directly stabilise aggregate demand, rather than to stabilise the exchange rate.

One exception is Lane (2010) who – drawing on Blanchard (2007) – focuses on the role that expansionary fiscal policies played in exacerbating the economic cycle during the 2000s. Lane draws attention to the macroeconomic risks of a contraction in tradables output during a period of high domestic expenditure, and argues that fiscal policy should play a more important role (alongside monetary policy) in "leaning against the wind", in order to limit the scale of such external imbalances. This argument is highly relevant to New Zealand, where tight monetary policy during the last upturn exacerbated New Zealand's already high interest rates, pushing up the exchange rate and hurting the tradables sector. Lane points out that such a contraction in tradables output during a period of high domestic expenditure may not be easily reversed once the economy needs to make the transition towards greater net exports (*i.e.*, a hysteresis argument). As a result, he

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[5] There is a particularly wide range of results for the United States which is a large economy (*i.e.*, relatively closed) but with a floating exchange rate. Recent evidence for the United States has highlighted that fiscal multipliers are often small (and sometimes even negative) in economic upturns, but can be very large in recessions, especially when the monetary policy response is impeded by nominal interest rates at the zero bound (e.g., Auerbach and Gorodnichenko, 2010).

[6] Solow (2005) has drawn attention to some circumstances in which fiscal policy may be a *more suitable* policy instrument for stabilisation than monetary policy. His argument rests largely on the idea that real disturbances can move the economy away from its long-run equilibrium growth path for significant periods of time. Because fiscal policy *directly* involves changes in the demand for goods, whereas monetary policy operates more indirectly through changes in inter-temporal relative prices, he argues that fiscal policy may be a more useful tool for stabilisation when disturbances are durable. But under normal circumstances, it is widely agreed that monetary policy is best suited to the job of macro stabilisation. Even under more exceptional circumstances, such as those discussed by Solow, there is nothing under current institutional arrangements to prevent the fiscal authorities – as Stackleberg leader – from taking advantage of their knowledge of the monetary policy reaction function, to bring about a superior mix of policies, than that which might have eventuated if the job of stabilisation was left solely to monetary policy.

emphasises the importance of using both macro-prudential policy, and fiscal policy, as complements to the stabilisation role of monetary policy.

While there are a number of arguments in the academic literature *against* a greater stabilisation role for fiscal policy, none of these are really applicable to the challenge of making fiscal policy less destabilising during the *upside* of the economic cycle, with the exception of the political economy argument, which is discussed below. For example, it is commonly argued that fiscal policy as a stabilisation tool may be ineffective. The key idea here is that temporary discretionary fiscal actions could be fully, or mostly, offset by private sector agents. This idea has spawned a large body of literature which largely provides support for the effectiveness of fiscal policy (e.g., Blinder, 2004; and Solow, 2005), despite evidence for partial Ricardian-type offsets. However, none of this literature has much relevance for the topic addressed in this paper, for two reasons. First, because this literature is almost exclusively focused on the impact of fiscal policy stimulus during downturns, largely ignoring the impact of fiscal policy prudence during upturns. Second, and more importantly, it does not attempt to measure the size of the interest rate and exchange rate multipliers, which – from the perspective of a small open economy – are more important to questions about the appropriate stabilisation role of fiscal policy.[7]

In the academic literature, it is also sometimes argued that fiscal policy *lags* are too long, although again this is a critique applied to the use of expansionary policy during downturns, rather than to the use of contractionary fiscal policy during upturns. What is needed during upturns is normally just the "will power" – or institutions that foster support for such a will – not to spend fiscal windfalls, rather than the introduction of any specific new policies.

In the policy world, however, there are strong political economy constraints that work against the fiscal authority consistently choosing the optimal policy mix from the perspective of maintaining macroeconomic stability. While governments are normally happy to provide counter-cyclical fiscal stimulus during downturns, the political difficulty of sustaining large ongoing actual and structural budget surpluses tends inevitably to lead to pro-cyclical fiscal expansion during boom years (Alesina, 2000). The normally small impact of the automatic stabilisers can thus easily be swamped by such pro-cyclical discretionary actions.

In other words, while it is now widely accepted that the job of central bankers is to take the monetary punchbowl away just as the party is getting underway, political processes in democratic countries don't readily support holding back the fiscal punchbowl that is typically wheeled out by the fiscal authorities just as the party gets into full swing. This constraint is not new as this quote from Condliffe (1959) illustrates:

> *"In a period of rising export prices such as NZ enjoyed after the war, it would have been sound policy to add fiscal restraint to monetary pressures designed to reduce domestic inflation. This would have involved both a reduction in current expenditures and a slowing of capital investment, so that budget surpluses might be applied to a reduction of debt. Such policies are not popular and may be regarded as politically impossible; but the risks involved in not following them are substantial".*

Any serious attempt to make fiscal policy less pro-cyclical needs to directly address these political economy considerations, with particular attention paid to ways of injecting more discipline during the upside of the economic cycle. Price *et al.* (2008) provide a good discussion of the strategies available for maintaining favourable fiscal positions during economic upturns. In addition, there are the examples of a few economies that have already made some progress in this

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[7]   Other critiques of using fiscal policy for stabilisation purposes also fail to consider the open economy dimensions. For example, Lucas (2003) argues that the welfare benefits from using fiscal policy to stabilise consumption are negligible, but does not consider the impact on exchange rate cycles in small open economies.

direction, such as Chile, which has adopted fiscal institutions explicitly designed to encourage public saving in good times.

Nevertheless, it is likely that much more sophisticated fiscal analysis will also be needed in future, if the stabilisation role of discretionary fiscal policy is to be exercised with the degree of sophistication of monetary policy (Leeper, 2010). The fact that most OECD countries are currently focussed primarily on returning fiscal deficits to balance or surplus should not distract attention from the importance of putting in place fiscal institutions that can also facilitate better macro-economic outcomes during the next economic upturn.

3   Fiscal policy in New Zealand over the past economic cycle

3.1   The link between fiscal policy and macroeconomic imbalances

With the benefit of hindsight, it is widely argued that fiscal policy was insufficiently supportive of low interest rates and tradable sector activity over the 2005-08 period.[8] Because monetary policy was the primary tool for cooling the booming economy, higher interest rates ensued and the exchange rate was pushed up to unsustainably high levels, adversely affecting the tradable sector and exacerbating external vulnerabilities.

The positive correlation between the exchange rate and interest rate differentials is illustrated in Figure 2. While this figure illustrates only one cross-rate, a similar relationship can be observed if the trade weighted exchange rate index (TWI) and G3 interest rates are used instead (Mabin, 2010).

Clearly, interest rate differentials are not the only driver of the exchange rate. But they are one of the most important drivers. As discussed by Mabin (2010), different explanatory factors can play more or less of a role at different times such that the precise relationship is not stable over time. However, in both theoretical and empirical models of the exchange rate, the interest rate differential consistently ranks as one of the most important drivers, including in the New Zealand case. For example, Cassino and Wallis (2010), using a regime switching model of the New Zealand dollar, find that currency traders focus on relative interest rate differentials around 50 per cent of the time on average, making interest rates, via the carry trade, the most important driver of exchange rate movements (the other two drivers are commodity prices and risk appetite). However, the attractiveness of the carry trade breaks down when market conditions are stressed, which helps to explain the weaker relationship between the interest rate differential and the exchange rate in more recent years.

Since the equilibrium exchange rate cannot be observed, there will always be significant uncertainty about estimates of exchange rate valuation. Nevertheless, a number of different analytical frameworks all support the idea that the New Zealand exchange rate has been persistently overvalued for a significant period of time. IMF staff have captured the uncertainty by providing a range of estimates; for example, their assessment in March 2010 was that the NZ dollar was 10-25 per cent over-valued on a trade-weighted basis (IMF, 2010a). Given that the TWI is currently at a broadly similar level to March 2010 these estimates should still be broadly representative. The Treasury view of over-valuation is probably closer to the upper end of this range, given concerns about the macro-economic vulnerabilities that will persist if the NFA ratio is

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[8]   For example, this point was made by a number of participants in the Workshop "The business cycle, housing, and the role of policy", hosted by the Treasury and the Reserve Bank in Wellington in December 2007.

Figure 2

NZ$/US$ Cross-rate and Short-term Interest Rate Differentials
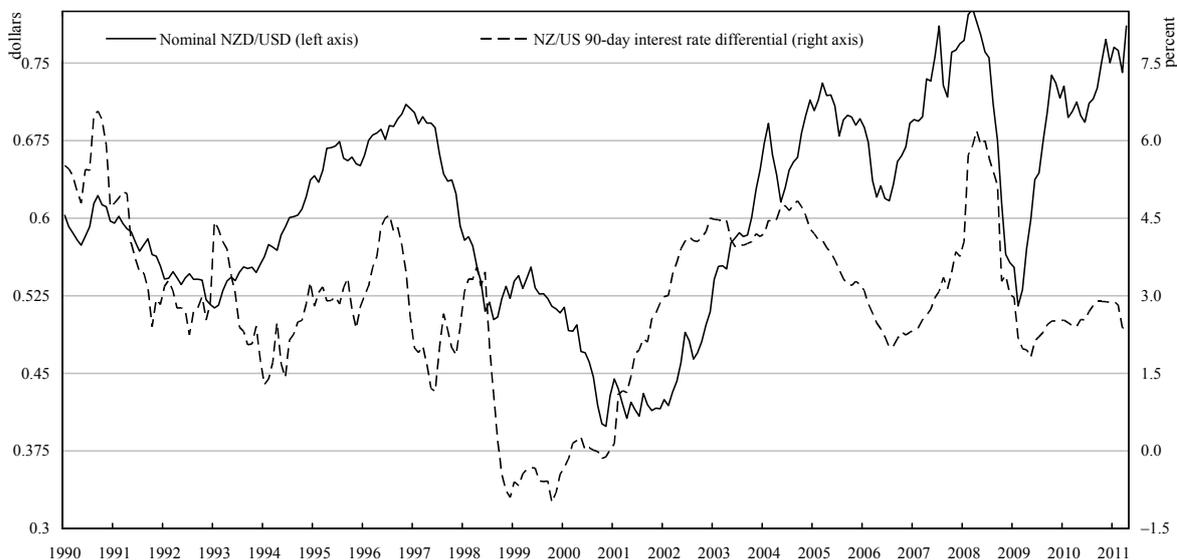
Source: Reserve Bank of New Zealand, Datastream. Data is monthly from January 1991 to October 2010.

not stabilised.[9] Thus, while it is apparent from Figure 2 that the nominal exchange rate has been above its average level since around 2004, the true extent of over-valuation is likely to be significantly greater than indicated by that chart, since even at its average historical level New Zealand would be likely to still be running an unsustainably large current account deficit. Moreover, it seems reasonable to assume that there is a causal relationship between the fact that the real exchange rate over the second half of the 2000s was at its highest five-year average since the 1960s and the slowdown in export and tradable value-added growth over that period (not shown).

Not only does it seem that expansionary fiscal policy in New Zealand over 2005-08 contributed to higher interest rates and the overvalued exchange rate, but there is also an important link to the current account deficit and external imbalances. This link is partly through the real exchange rate channel, as discussed above, but also more directly via the direct impact on demand. Abbas *et al*. (2010) summarise the evidence from econometric studies on the relationship between fiscal policy and the current account, and find that the association between fiscal policy and the current account is particularly strong when the output gap is positive. A likely interpretation of this result is that when output is above its potential, a fiscal expansion is more likely to result in additional imports rather than be met by increased production of domestic goods and services, which is more likely in an economic downturn. The additional imports would result either because the government imports goods itself, or because it consumes resources that other domestic agents would have consumed themselves, prompting them to import more. Abbas *et al*. (2010) also find that the relationship between fiscal policy and the current account is significantly stronger in economies that are more open to international trade. Again, this can be explained by the leakage from fiscal expansion into higher imports.

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[9] The upper end of the 10-25 per cent range is derived from a model that focuses on stabilising the net foreign asset (NFA) position (Edison and Vitek, 2009).

**New Zealand Has Had Persistent Current Account Deficits
and a Growing Net Foreign Liability Position**
(percent of GDP)
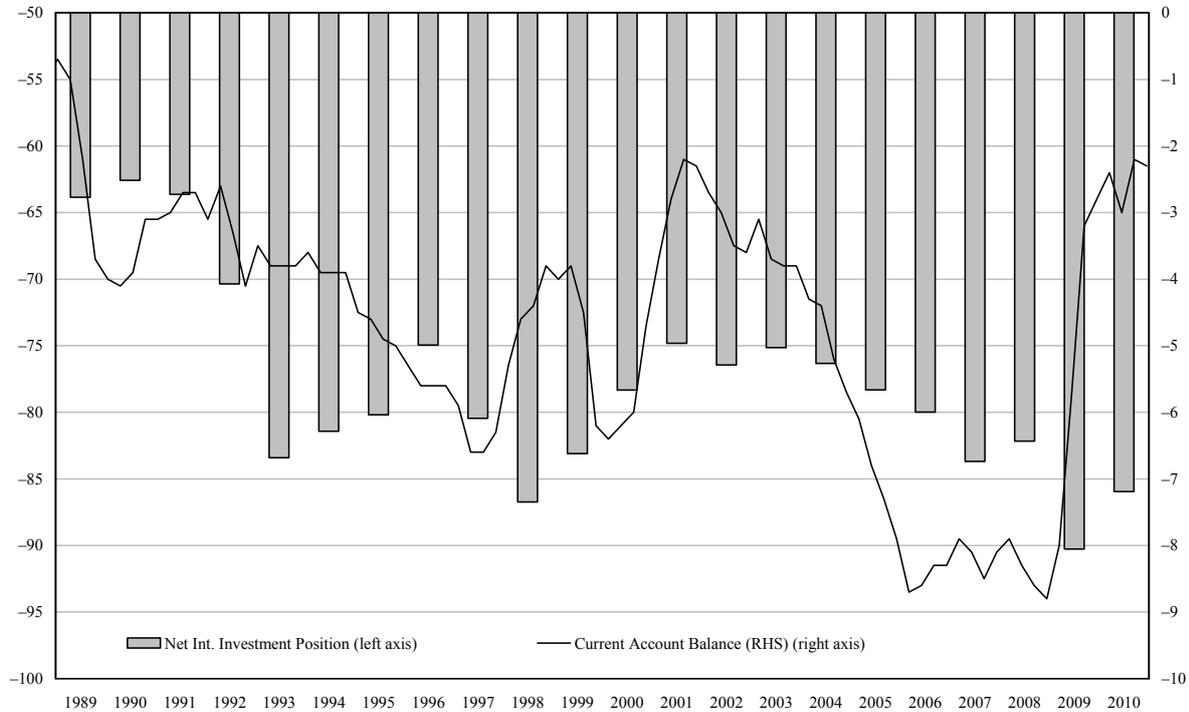
Source: Statistics New Zealand.

Given the background of an overvalued real exchange rate, and expansionary fiscal policy at a time of positive output gaps, the widening in New Zealand's persistent current account deficits in the mid-2000s (Figure 3) should not be considered surprising. In turn, this has contributed to New Zealand's growing net foreign liability position and is exacerbating New Zealand's macroeconomic vulnerabilities, as discussed in André (2011).

Returning to a discussion of the factors that underpinned exchange rate appreciation through the 2000s, high New Zealand interest rates through that period are attributed to a combination of both high average real interest rates and strong domestic inflationary pressures. New Zealand's high average real interest rates largely reflect New Zealand's low rate of saving relative to investment (Labuschagne and Vowles, 2010). However, this has probably been more or less stable (at a high level) for a reasonable period of time. So, while high average real interest rates might help to explain the high level of the exchange rate, they do not provide much of an explanation for movements over time. By contrast, the general upward trend in the interest rate differential between the early 2000s and 2008, which contributed to a persistent episode of exchange rate over-valuation, reflects both low global interest rates (as discussed by Dunaway, 2009) but also strong domestic inflationary pressures. These inflationary pressures were driven not only by expansionary fiscal policy, but also by many other factors – such as a significant housing cycle, and high net immigration. The fact that this paper focuses only on the contributory role of fiscal policy should not be interpreted as downplaying the significance of these other drivers.

The link between fiscal policy and interest rates has also been highlighted by the Reserve Bank, which has cited fiscal policy as one of several factors that stimulated demand over the mid-to-late 2000s, contributing to higher real interest rates and a higher exchange rate. For example, the Reserve Bank's submission to the 2007 Parliamentary Finance and Expenditure Committee (FEC) Inquiry into the Monetary Policy Framework noted that:

"What makes the current fiscal stimulus unique is that it comes at a time when the economy's productive resources have been severely stretched for several years. To cope with additional government spending without adding to inflation, some other spending must be crowded out. Higher interest rates and a higher exchange rate are part of the mechanism for making that happen ... if the economy faces additional demand pressures from whatever source, when resources are already stretched, then monetary policy has to be tighter than otherwise if inflation is to be kept in check. Even measures that improve the economy's long-term growth potential can exacerbate excess demand pressures in the near-term".

And the Bank's Monetary Policy Statement in the same year noted that:

"We do not have a view on the merits of the fiscal choices themselves. But it is important that the cyclical macroeconomic consequences of those choices are widely recognised: despite the continuing high operating balance, putting additional fiscal pressure on demand means that interest rates and the exchange rate have to be higher than they otherwise would have been; in the past couple of years, both interest rates and exchange rates have already been above long-term average levels".

The goal of the following sections of this paper is to document the evolution of fiscal policy outcomes in New Zealand over the past decade, so as to illustrate the above trends. It is noted that much of the pro-cyclicality of fiscal policy that resulted was unintended, highlighting the importance of the uncertainty around estimates and forecasts of the structural balance. It is also clear, however, that political economy factors played a key role, as most of the substantial increases in spending were political initiatives, many of which were not supported by Treasury advice. This discussion should provide a suitable backdrop for going on to consider (in Section 4) possible policy responses, or alternative institutional frameworks, that could help to ensure less pro-cyclical fiscal policy in the future.

3.2   To what extent has fiscal policy been pro-cyclical in New Zealand?

Unfortunately, there is no single indicator that we can look at to evaluate the impact of fiscal policy on the economy. Instead, this section discusses what we can learn from a range of different fiscal indicators: measures of fiscal balance; measures of fiscal impulse; and separate measures of the expenditure and revenue components.

While this paper focuses specifically on the stabilisation role of fiscal policy, the importance of fiscal sustainability and fiscal structure is taken as given.[10] Certainly, the focus of this paper on fiscal stabilisation should not be interpreted as suggesting that fiscal stabilisation take priority over fiscal sustainability. Broadly speaking, the tools discussed in this paper for ensuring better fiscal stabilisation during economic upswings would also contribute to improved fiscal sustainability. There may at times, however, be a trade-off between fiscal stabilisation and the *structural* role of fiscal policy (since it is sometimes argued that advantage should be taken of economic upturns to introduce growth-enhancing tax cuts, even if the macro-economic impact would exacerbate aggregate demand, and thus interest and exchange rate cycles). This point is touched on again in Section 3.4.

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[10]   Barker, Buckle and St Clair (2008) set out an analytical framework for viewing the impact of fiscal policy on growth through these three lenses: fiscal sustainability, fiscal stability and fiscal structure.

3.2.1 Structural fiscal balance measures

Figure 4 illustrates the unadjusted headline operating balance (the Operating Balance before Gains and Losses) together with two alternative Treasury measures of the Structural Balance. The first of the structural balance measures (labelled the CAB) adjusts only for the effects of the economic cycle while the second also adjusts for the terms of trade effects (see Parkyn, 2010, for more details).[11]

The trickiest part of estimating a structural balance (also referred to as the cyclically adjusted balance or CAB) is distinguishing between the cycle and trend. Similarly, significant uncertainty also stems from the need to make a judgement about whether terms of trade increases are transitory or permanent, or whether there is some other systematic component of tax revenues that we may have missed.

Broadly speaking, counter-cyclical fiscal policy would require running increasingly large fiscal surpluses during upturns, followed by shrinking surpluses or increasing deficits during downturns. Thus it is helpful if improvements in the structural balance coincide with a positive output gap.[12] Figure 4 illustrates that this was broadly the case between 2001 and 2005, consistent with avoiding pro-cyclical fiscal policy in those years. Between 2006 and 2008, however, the fiscal surplus fell, while the output gap became more positive. These swings suggest that fiscal policy has sometimes been counter-cyclical, and sometimes pro-cyclical.

Figure 4 also illustrates that the structural (or cyclically-adjusted) fiscal balance moved through a cycle that is only slightly smaller than that of the unadjusted balance, which tells us that the historical swings in the operating balance have been driven more by changes in the *structural* balance than by cyclical influences. This cyclicality in the structural balance could, to some extent, reflect an imperfect separation from trend from cycle. Even to the extent that the structural balance correctly captures the trend, however, it should not necessarily be interpreted as representing changes in discretionary fiscal policy (such as policy-induced changes to taxes or spending). This is because the structural balance is also affected by some non-discretionary economic factors (e.g., changing demographics or trend growth).[13] To the extent that these changes are relatively minor or slow-moving (such as demographics), changes in the structural balance are probably a reasonable proxy for changes in discretionary fiscal policy. But changes to trend growth can be quite significant and occur quite quickly, reinforcing the need to be very careful in our interpretation of the structural balance.

The problems with using structural fiscal balance measures for fiscal surveillance are also highlighted by a number of international researchers. For example, Hughes Hallet *et al*. (2007) find that data revisions are so great that real time measures of the structural balance have very little power in detecting fiscal slippages as defined by the *ex post* data (the same caution also applies to the fiscal impulse, discussed below). Romer and Romer (2007) also discuss the fact that structural revenue increases during economic upturns are typically overstated. This is partly because fiscal revenues tend to be boosted by high commodity prices or a booming equity market (especially in the presence of a capital gains tax or property transaction taxes) and the cyclical dimension of these is very difficult to identify. This is reflected in the tendency of forecasters to revise trend growth estimates upwards during economic upturns and then down again after it becomes apparent that that rate of growth was not in fact sustainable.

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[11] Parkyn (2010) also tests for the importance of equity price movements but (unlike some of the international literature) finds them insignificant in New Zealand. This is consistent with the fact that New Zealand does not have a comprehensive capital gains tax.

[12] This discussion implicitly assumes that the above-trend growth underpinning the output gap is unsustainable.

[13] See Boije and Fischer (2006) for a taxonomy of fiscal indicators that discusses this in further detail.

Figure 4

Fiscal Balance and Output Gap
(percent of GDP)
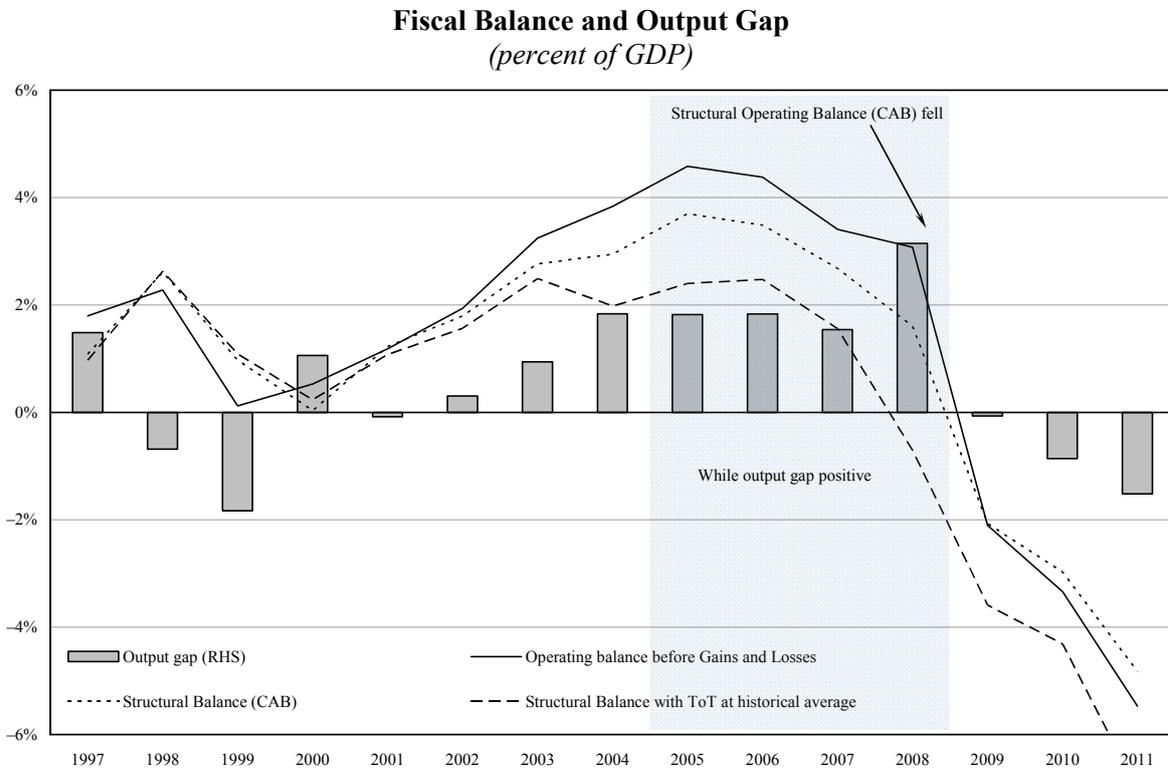
Source: Budget 2011 calculations.

While it is not recommended that New Zealand adopt a formal structural balance target, structural balance measures remain a useful tool for fiscal policy analysis.

3.2.2 *Fiscal impulse indicator*

The other key budgetary indicator is the Treasury's fiscal impulse indicator. This indicator attempts to measure whether the net effect of changes to government revenues and expenditures in any one year adds to, or subtracts from, aggregate demand pressures in the economy. It is calculated as the *change* in the structural fiscal balance, where the structural balance is calculated from primary structural net cash flows from operations (excluding spending on kiwisaver), less capital spending (see Philip and Janssen, 2002, for more details).[14] This indicator is plotted on the vertical axis of Figure 5.

As the most-commonly-referred-to indicator of the extent to which fiscal policy is adding to or subtracting from domestic demand in New Zealand, the traditional fiscal impulse indicator is also often used to assess the extent to which discretionary fiscal policy has been pro-cyclical or counter-cyclical. A very simple way of doing this is to plot the fiscal impulse measure against the output gap, as done in Figure 5.

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[14] A key difference with the Treasury's CAB indicator, therefore, is that the fiscal impulse indicator incorporates the effects of capital expenditure. By contrast, the structural balance measures shown in Figure 4 are based on the operating balance, and so do not capture the effects of capital expenditure.

Figure 5

The Cyclicality of Fiscal Policy from 1999 to 2009 According to the Traditional Fiscal Impulse Measure
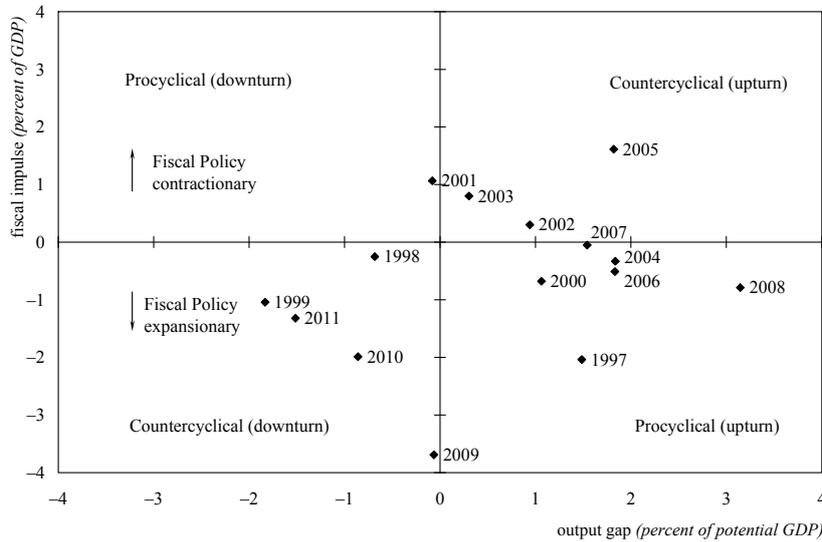
Source: NZ Treasury, BEFU 2011.

Ideally we would like to see outcomes in the top right and bottom left quadrants of Figure 5. That is, when the output gap is very negative, it would be good to have expansionary fiscal policy, and when resources are stretched (a positive output gap), it would be good to have contractionary fiscal policy. What we observe is that there have, indeed, been a number of years in which this indicator suggests that fiscal policy was counter-cyclical (both during upturns and downturns). However, the results also demonstrate a tendency towards asymmetric Keynesianism over the 1997 to 2011 period, in the sense that pro-cyclicality was successfully avoided during downturns, but not so consistently during good times (too many outturns in the bottom right quadrant).

Two main drawbacks with fiscal impulse measures have, however, been identified. First, as discussed above, it is very difficult to distinguish trend from cycle and therefore to isolate discretionary policy changes. Second, the measure does not take account of second round effects, the composition of the fiscal balance or the way private expectations affect responses to a fiscal impulse. These effects can be very important. To illustrate, consider the data for the year 2005. As shown in Figure 5, 2005 saw a very positive output gap and significantly contractionary fiscal policy, as measured by the traditional fiscal impulse measure. A decomposition of the fiscal impulse reveals that although cash expenditures increased by a very significant $2.8b in that year (1.9 per cent of GDP), cash tax receipts increased by a much greater $5.9b (4.1 per cent of GDP). Because this fiscal impulse measure does not take account of second round effects, changes in the composition of the balance, or expectations effects, it simply assigns equal weights to the demand effects of one dollar increase in expenditure versus one dollar increase in tax revenues. Thus, since revenues increased by so much more than expenditures in that year, a contractionary impulse resulted.[15] This gives a misleading picture for the following reasons:

- *Revenue effects may not have been very contractionary*: the biggest source of the rise in revenues in 2005 was a big jump in company tax, driven by a significant increase in bank profitability. While there will be exceptions, corporate tax revenue buoyancy that is underpinned by high profitability should be much less contractionary than revenue buoyancy driven by tax rate increases. This may be particularly true in the case of the banking sector, whose shareholders are predominantly foreign.

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[15] Of course, other factors also influence the impulse, including the cyclical adjustment and adjustment for capital spending. However, these effects were very small, and dwarfed by the changes in cash payments and receipts.

- *By contrast, the growth in government expenditure may have had very significant demand effects*: the growth in government expenditure in 2005 came at a time when equity markets were performing well, commodity prices and the terms of trade were high (although they moved even higher later), capacity utilisation and business confidence were high, and unemployment was very low. Moreover, most of the increases in spending were in areas where a significant demand impact could be expected, such as government consumption of non-traded goods and services, wages of public sector employees and transfers to low and middle-income households (many of whom would have high average and marginal propensities to consume).

It is also worth keeping in mind that strong messages of long-term fiscal prudence were being delivered by the government throughout this period (reinforced by the partial pre-funding of future NZ Superannuation expenses), despite the large increase in spending. In this environment it seems likely that the demand impulse of higher government spending could have been *at least as large* in effect as the contractionary impulse of the much higher government revenues that were collected that year.

In other words, despite the fiscal impulse suggesting a significant (>1.5 per cent of GDP) contraction in fiscal policy in 2005, it is entirely possible that the overall impact of fiscal policy could have been stimulatory in that year.

The limitations of the fiscal impulse measure were well recognised by Philip and Janssen (2002) who put a significant health warning on the unqualified use of fiscal impulse indicators and suggested that their use should be augmented with assessments derived from other analysis and models.

The vector-autoregressive (VAR) modelling work by Claus *et al.* (2006) was developed to provide such a complement to the fiscal impulse measure. The VAR approach still only captures the initial (first round) effects of fiscal policy on GDP but it does take account of composition effects by allowing GDP to respond separately to changes in government expenditure and government revenue. It also accounts for dynamic private sector responses and response lags.

In contrast to the traditional fiscal impulse measure, the Claus *et al.*'s VAR approach finds that fiscal policy was close to neutral in 2005, rather than contractionary, and more expansionary in other surrounding years (see Figure 6).[16]

More generally, a comparison of the two different fiscal impulse measures shows that the magnitude of the VAR fiscal impulse is significantly lower and less volatile than that of the more traditional Philip and Janssen impulse. The sign and size of the impulse measures also differ significantly in some instances (2001, 2005, 2009 and 2010). These differences highlight the importance of composition effects and private sector responses, as the underlying measures of the fiscal balance are approximately equal.

A number of other VAR models have also been developed (e.g., Dungey and Fry, 2009; and Fielding *et al.*, 2011). These models also help to shed further light on the impact of fiscal policy on the New Zealand economy. For example, as discussed earlier, Fielding *et al.*'s (2011) model provides support for the idea that positive shocks to government spending have a large and persistent effect on relative prices, causing real exchange rate appreciation and depressing output in the medium term the capital stock is diminished, depressing output.

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[16]   Barker, Buckle and St Clair (2008) note that when the expenditure and revenue components of the traditional fiscal impulse indicator are weighted by the multipliers derived from the structural VAR model, the size of the traditional fiscal impulses tend to be smaller, but the direction of changes still differ from the fiscal VAR impulses in some periods. The difference between the two measures can thus not all be attributed to the fact that the VAR approach puts different weights on the expenditure and revenue impacts on domestic GDP. Private sector responses and expectation effects (captured by the VAR but not the traditional fiscal impulse measure) are likely to also be very important.

Figure 6

**Comparison of VAR-based and Traditional Measure of Fiscal Impulse
to New Zealand GDP Growth**
(percent of GDP)
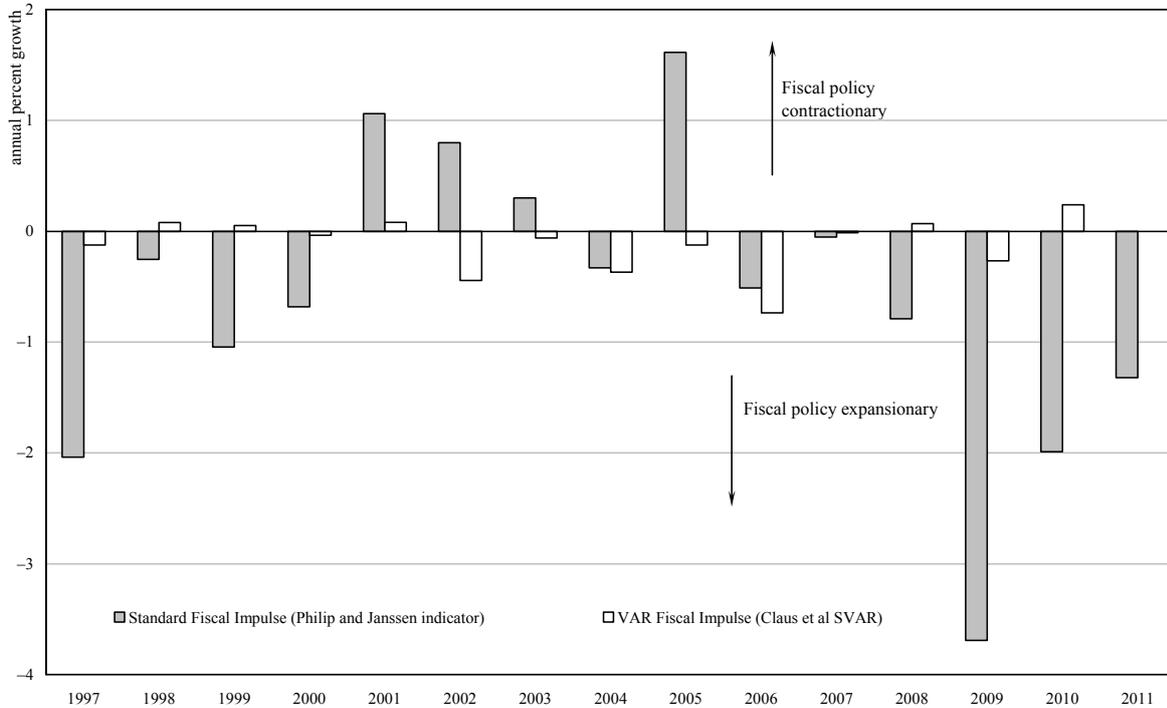
Source: Claus *et al*. (2006), updated with recent data.

Given the importance of composition effects, it makes sense to supplement the above fiscal impulse measures with information on the separate revenue and expenditure components and with more direct indicators about the extent to which a growing government sector may be crowding out private sector activity. It also pays to have a strong awareness of the uncertainties inherent in estimates of fiscal indicators, as discussed next.

3.2.3 *Operating in real time: Fiscal Policy in a cloud of uncertainty*

A comparison of *ex post* with *ex ante* outcomes suggests that the pro-cyclicality of fiscal policy over the 2006-08 period was not intended. This can be seen from Figure 7 which compares *ex ante* projections, real time estimates, and *ex post* outcomes for both the output gap and the fiscal impulse indicator for these years.[17] The figure illustrates that stronger than expected GDP growth (especially for 2007) and downward revisions to Treasury's estimate of potential GDP after the global financial crisis, resulted in output gap estimates that were more than 2 percentage points greater than originally anticipated.[18] This had the effect of moving the outcome from the bottom left (counter-cyclical) quadrant into the bottom right (pro-cyclical) quadrant.

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[17] A similar analysis could also be undertaken using real time CAB estimates.

[18] The forecast team also attribute some of the forecast error to changes in modelling techniques, which highlights a further source of uncertainty surrounding economic projections.

The magnitude of such forecast errors is not Treasury specific[19] or New Zealand-specific. Large output gap forecast errors have been found to contribute to fiscal policy errors in a number of countries (Frankel, 2011). More generally, it is well known that empirical estimates of the output gap are subject to significant and highly persistent revisions for all economies. This is why Lane (2010) talks about fiscal policy decision-making taking place "in a fog of uncertainty". In the field of monetary policy, this sort of uncertainty normally leads central bankers to move interest

Figure 7

Figure 7

Ex ante, Real-time, and *Ex post* View of Cyclicality
of Fiscal Policy, 2006-08

□ *Ex ante* (1 year ahead of BEFU)   ◆ Real-time (same year as BEFU)   ● *Ex post* (BEFU 2011 estimates)

Source: NZ Treasury, BEFU 2011.

rates more gradually and to be prepared to reverse policy if real economic developments turn out to be different from expectations. But reversals in fiscal policy are more costly and less feasible (Box 1). So the best strategy for the fiscal policy maker – especially once fiscal policy sustainability issues are also taken into account – is probably just to take a more conservative stance, holding back on spending increases and tax cuts until the economy turns down.

Even though Figure 7 suggests that pro-cyclicality was not anticipated in real time on the basis of the fiscal impulse indicator, policy makers were aware that the fiscal impulse was stimulatory: *i.e.*, that the growth in government spending was putting pressure on the real economy and exacerbating the mix of monetary policy and the exchange rate cycle. For example, a Treasury report in the lead up to Budget 2005 (Treasury, 2005) noted that:

> *"The estimated scale and timing of the fiscal impulse in 2005/06 suggest more tension between fiscal policy and monetary policy than has been the case for some time, potentially adding to continued pressure on the exchange rate and tradable sector. To reduce these pressures at the margin the Government could consider options to reduce or defer spending in 2005/06".*

3.2.4 The evolution of government revenues

Looking at the revenue side of the operating statement, Figure 8 shows that at the time of Budget 2005 (BEFU05), Treasury's estimate of structural revenues had picked up over the previous few years by around 1 percentage point of GDP. Looking forward (from 2005) it was expected that structural revenues would fluctuate around 31 per cent of GDP over the following four years.

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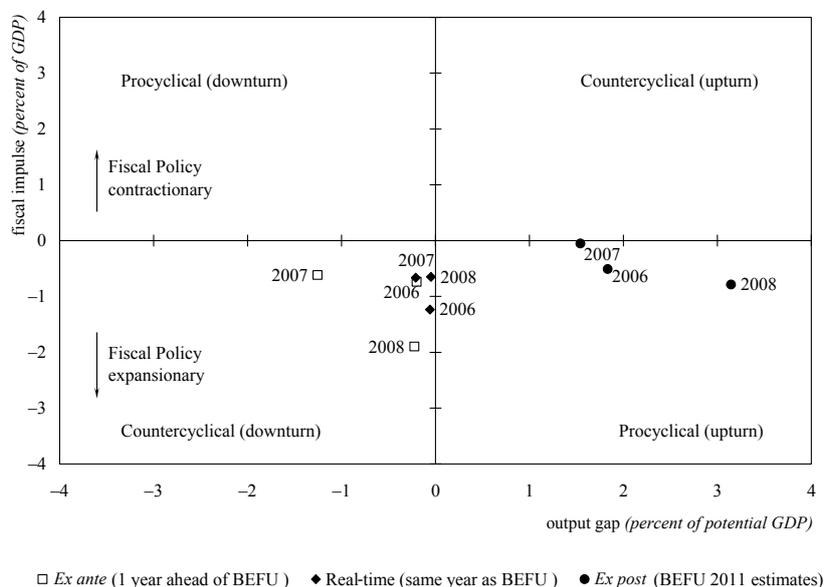
[19] Since mid-2002 the Treasury has undertaken periodic analyses of its economic and tax forecasting performance and Treasury scores above average relative to other forecasters although all have been poor at picking turns in the cycle. For more information on Treasury's forecasting performance see: http://www.treasury.govt.nz/publications/informationreleases/forecastingperformance/reviews

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BOX 1
DEALING WITH UNCERTAINTY: LESSONS FROM MONETARY POLICY

In the field of monetary policy, a significant literature has emerged about the implications of output gap uncertainty (e.g., Orphanides and van Norden, 2003) as well as uncertainty more generally. Most famously, Brainard (1967) showed that if monetary policymakers are uncertain about the potency with which policy actions affect the economy, then they should move interest rates only gradually, thus "feeling their way" with small policy changes. However, situations have also been identified where it may be sensible for monetary policy to respond *more* forcefully, such as if policy-makers are uncertain about how much an unexpected inflation fillip will spill over into generalised inflation. Overall, the conclusion is that uncertainty cannot be incorporated into the policy-making process in a mechanical or rigid fashion; so policy-makers must inevitably exercise judgement, and ensure that the issues are looked at from a range of perspectives. See Conway (2000) for further discussion of the literature on monetary policy making under uncertainty.

In the field of fiscal policy there has been much less exploration of these issues, probably because the objectives of fiscal policy are more complex than those of monetary policy and so fiscal policy is less easily proxied by a simple policy rule, making model-based analysis much more difficult. In addition, both policy reversals, and gradualism, are much more costly, and less politically feasible, for the fiscal policy maker. For example, while the 2008 tax cuts could have been scheduled to be phased in more slowly (see discussion of tax cuts in following section for more details), more gradualism would have made it more difficult to ensure that the tax cuts were structurally beneficial (since the biggest efficiency gains are often achieved by restructuring the composition of taxes, which is often more easily achieved in one big hit than gradually).

At that time, the increases in revenues that had been seen were considered persistent enough to be judged to be permanent, as this quote from the 2005 Fiscal Strategy Report (FSR) illustrates:

"We have been cautious not to spend what may have been cyclical increases in operating surpluses. This has enabled us to make faster progress on our debt and NZS Fund objectives over the past four years. However, the persistence of these surpluses and their composition have made us more confident that structural factors have been at work".

Over the following three years (2006-08), estimated structural revenues were revised upwards by around a further 1 percentage point of GDP in each year (relative to earlier projections). By Budget 2008 the level of cyclically-adjusted tax revenue (adjusted for policy changes) was thought to be as high as 33-34 per cent of GDP. Although unadjusted revenues (not shown) were expected to fall by around 2 percentage points of GDP over the following few years, this was due to the 2008 tax cuts, rather than to an expected fall in structural revenues. Rather, the increase in structural revenues was thought to be "permanent", in the sense that the projected path for structural revenues (adjusted for policy change) did not anticipate any significant reversals in the new higher level of revenues as a percentage of GDP. This view is reflected in the following comment from Barker and Philip (December 2007):

"... as higher revenue became a persistent phenomenon it became clear that a large part of the improvement in revenue since 2000 is permanent. This allowed the Government to make several upward revisions in operating allowances over recent years".

Figure 8

Structural Tax Revenue Estimates and Forecasts, Adjusted for Policy Changes
(four years ahead, percent of GDP)
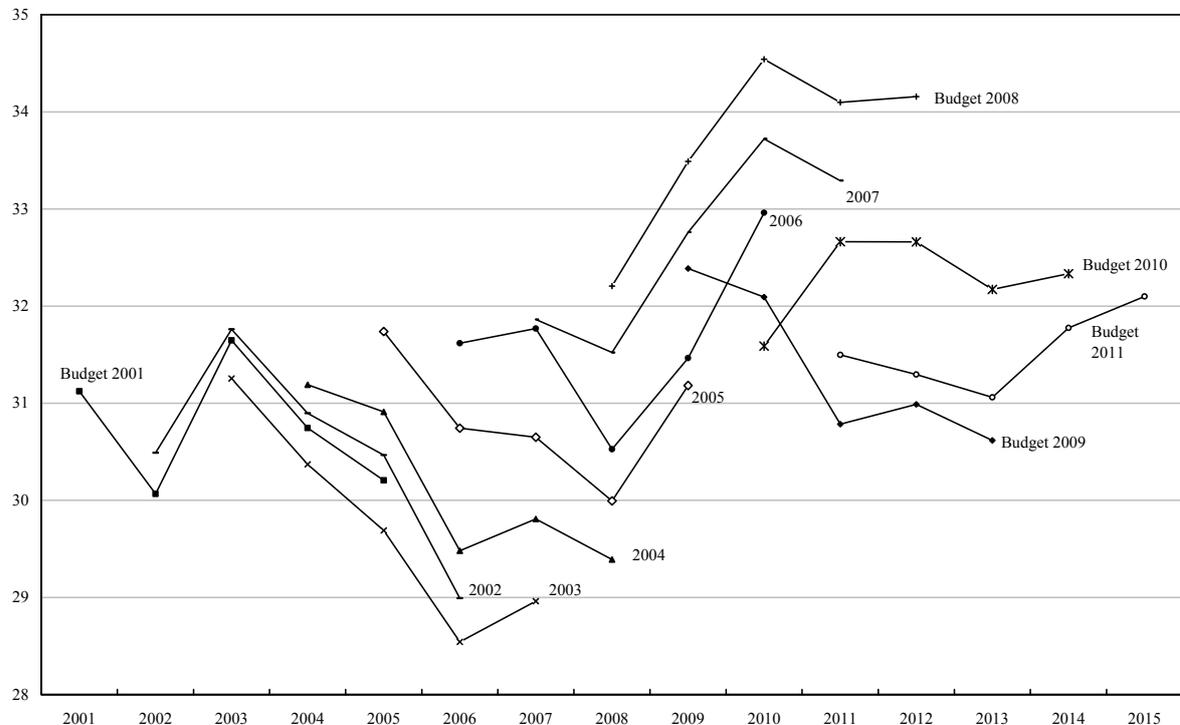
Source: Based on cyclically-adjusted nominal tax revenue data from Treasury CAB model, various years. Data have been adjusted for the estimated cost of policy adjustments, extrapolated using GDP growth.
NB: In order to facilitate historical comparisons, adjustments have been made to corporate tax receipts and GST to make historical data more consistent with International Financial Reporting Standards (IFRS).

Skipping ahead to the Budget 2009 data, it is clear that the "permanent" conclusion was reached too hastily, since estimated structural revenues (adjusted for policy change) were revised back down substantially.

3.2.5 The evolution of government expenditures

Under the Government's current budget management process, expected new spending is captured by the Operating Allowance concept.[20] Originally, operating allowances were expected to be set with a view to achieving the Government's medium-term operating balance and debt objectives, and they were not expected to be revised frequently. However, in practice through the mid-2000s, the Government tended to use any positive revenue surprises and lower-than-expected levels of other expenses to increase the size of the Operating Allowance (Barker, Buckle and St Clair, 2008). The Operating Allowances were typically revised, usually upwards, twice yearly

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[20] Operating allowances are the amounts included in the Budget forecasts and the Fiscal Strategy Report as an assumption for future spending initiatives, including spending and cost pressures. The operating allowance concept has also sometimes been used to capture revenue initiatives. See Mears *et al.* (2010) for a more detailed discussion of the evolution and operation of the Fiscal Management Approach.

Figure 9

Operating Allowances: Final Forecast Year Impact of Budget on Operating Expenses
(millions of dollars)
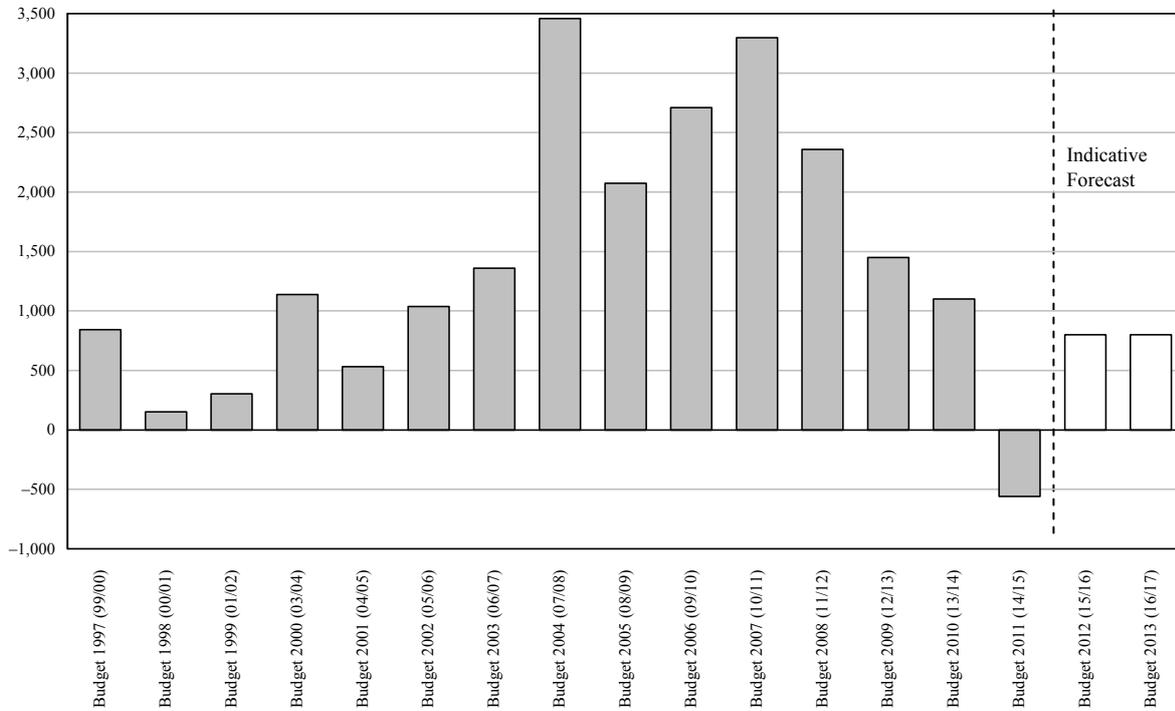
Notes: These amounts are GST (Goods and Services Tax) exclusive. The three-year forecast horizon was extended to four years in *Budget 2000* (final forecast year is shown in parentheses). Note also that the negative operating allowance for Budget 2011 reflects the fact that savings were greater than new spending (as expenditure relating to the Canterbury earthquakes was managed outside the operating allowance).
Source: New Zealand Treasury.

when the economic and fiscal forecasts were updated. Figure 9 illustrates the increases in the operating allowances from 2004 onwards. The cost of revenue-side initiatives is not captured by Figure 9, which shows changes to operating expenses only.

The upward revision to spending through this period allowed significant new funding to be allocated to flagship projects such as Working for Families (Budgets 2004 and 2006), changes to the Student Loans scheme (2006), Kiwisaver (2007) and (on the revenue side) tax cuts (2008).[21]

As a result, primary core crown expenses outstripped GDP growth, pushing the ratio up from well below 30 per cent of GDP in the early 2000s to around its current level of around 32-33 per cent of GDP. A similar magnitude increase is visible in government consumption (Figure 10). As discussed earlier, this increase in government spending came at a time when the productive capacity of the economy was already stretched, including as a result of strong net migration and a buoyant housing market. In this context it is easy to see how fiscal policy could have provided a more significant fiscal stimulus than suggested by the fiscal impulse measures shown in Figures 6-8.

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[21] The cost of revenue-side initiatives is not captured by Figure 9, which shows changes to operating expenses only.

Figure 10

New Zealand Government Consumption and Investment Expenditure
(percent of nominal GDP)
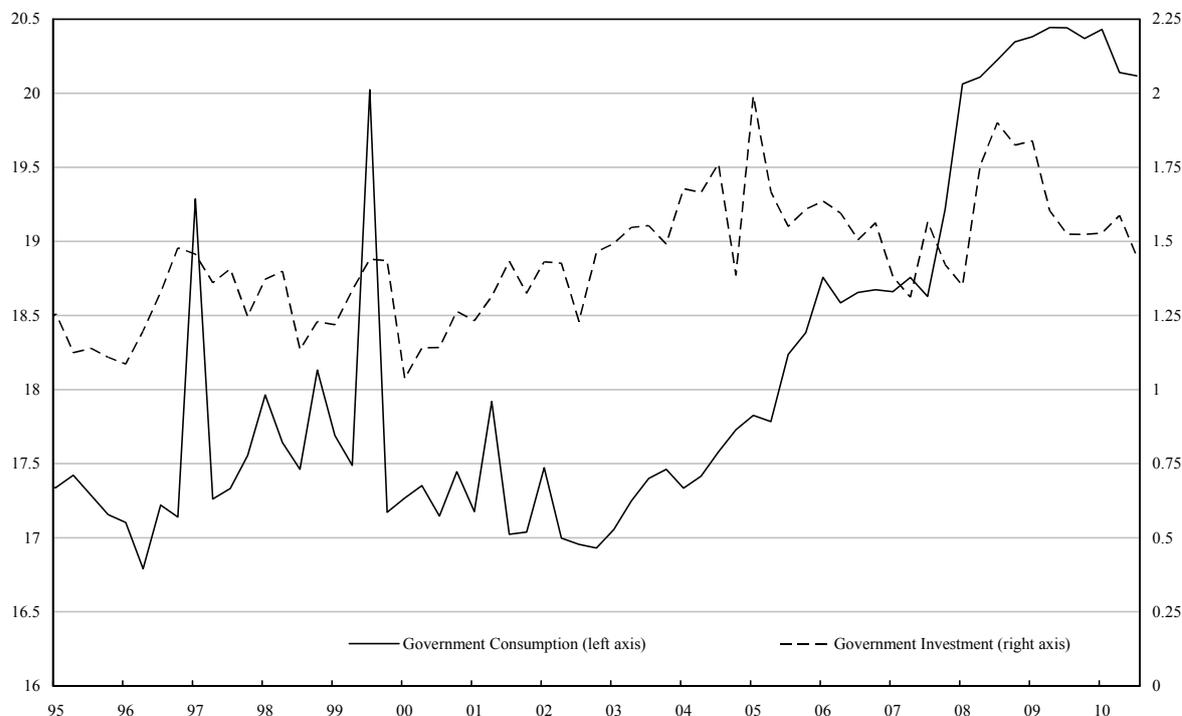
Source: Statistics NZ National Account's nominal government consumption seasonally adjusted and nominal total central government non-market investment with Treasury seasonal adjustment.

The government's decision to increase government spending through this period was generally done against a backdrop of Treasury warnings about the implications for macroeconomic stability. For example, Treasury's advice in the lead-up to Budget 2005 (Treasury, 2005) noted that:

"The estimated scale and timing of the fiscal impulse in 2005/06 suggest more tension between fiscal policy and monetary than has been the case for some time, potentially adding to continued pressure on the exchange rate and tradable sector".

This same report recommended that the Minister:

"consider options to scale back spending in the forecast period or defer spending from 2005/06; and consider reducing the indicative allowance for Budgets 2007 and 2008 from the stated current intentions".

Although these recommendations were not followed, the government was concerned to minimise the stimulatory impact on the economy. This concern contributed to the development of, and subsequent expansion of, Kiwisaver,[22] as spending on Kiwisaver was considered to be less stimulatory than other expenditure priorities or tax cuts.[23]

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[22] Kiwisaver is a voluntary long-term savings scheme, supported by employer contributions and an annual tax credit funded by the government. The original version of Kiwisaver was announced in May 2005 with a significantly lower fiscal cost than the extended version announced in 2007. The scheme came into operation in July 2007. Note that Treasury advice in relation to the extension of

(continues)

Overall, however, the government's concern to minimise the stimulatory impact of fiscal policy on the economy had to be managed against political demands for higher spending. This was exacerbated by the fact that as the debt burden fell the prudent debt target was revised to a target of *maintaining* gross sovereign-issued debt broadly stable at around 20 per cent, as specified in the 2006 and 2007 Fiscal Strategy Reports (Barker *et al.*, 2008).[24] Soon, it became clear that running larger surpluses would have implied significantly undershooting this 20 per cent prudent debt level target (based on forecasts at the time).

Getting closer to the prudent debt target, not only made it harder for the government to resist demands for higher spending or tax cuts, but it also influenced Treasury advice, which (perhaps reflecting the focus in the Public Finance Act, as discussed later) tended to put relatively little weight on the stability objective of fiscal policy, unless it was also supported by the sustainability objective.

For example, an October 2007 Treasury report advising the minister on the fiscal position and options for budget 2008 (Treasury, 2007) noted that:

> *"...the preliminary HYEFU fiscal forecasts will show a materially stronger fiscal position than at BEFU.... our current assessment is that preliminary fiscal forecasts and projections will show the government overachieving on its long-term fiscal objectives, particularly with respect to gross debt. This opens up additional fiscal policy choices with respect to operating spending, taxation and capital expenditures while continuing to deliver on the existing fiscal strategy".*
> (emphasis added)

While the stability implications of using the additional revenues for tax cuts or spending increases were acknowledged with this comment: "...*in this environment it is not clear that extra tax revenue could be used without a monetary policy response*", the report did not conclude with a strong case against further fiscal stimulus.

Overall, this suggests that Treasury's advice to restrain fiscal stimulus during the upturn was based largely on an assessment of the sustainability objective. Once a "prudent" level of debt was obtained, Treasury found it more difficult to argue for continuing fiscal restraint.[25] Macro-stability concerns were considered but dominated by fiscal sustainability considerations.

3.3 Policy response following the onset of recession

By the time it became clear that the strength of structural revenues had been misjudged, it

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Kiwisaver in 2007 emphasised the importance of maximising national saving gains by ensuring ongoing government surpluses and debt sustainability. The subsequent reduction in the tax credit to kiwisaver announced in Budget 2011 was thus prompted by a reassessment of fiscal sustainability following the downturn that occurred from 2008 onward.

[23] Despite the fact that spending on Kiwisaver was excluded from the expenditure measure used to calculate the Fiscal Impulse indicator, it was acknowledged that Kiwisaver spending would still be stimulatory to the extent that private sector saving would fall in response. As discussed earlier, the literature generally concludes that the Ricardian offset to greater government savings is less than one half.

[24] Previously, (*i.e.*, in the 2004 Fiscal Strategy Report) the objective was framed in terms of a downward trajectory (with debt expected to pass through 20 per cent of GDP by 2015). The change in the 2006 FSR to a constant 20 per cent target thus represented a general loosening in the fiscal objectives. The 20 per cent gross debt objective was arrived at on balance, as a level that was considered sufficient to provide a buffer to insulate the economy against economic shocks and to prepare for future fiscal pressures, such as those arising from population ageing. More recently the debt target has been further revised to a long-term *net* debt target of 20 per cent of GDP.

[25] Some commentators would argue that even based on the sustainability objective alone, that Treasury should have argued more forcefully against spending increases, on the grounds that 20 per cent gross debt was not sufficiently prudent. For example, Price *et al*. (2008) suggest that New Zealand's fiscal surpluses and net asset positions in the mid-late 2000s should have been seen in the context of relatively sharp prospective increases in public pension and health care expenditure. However, it also should be noted that net debt was reduced by more than gross debt, due to the accumulation of financial assets.

was too late to reverse the permanent discretionary increases in expenditures that had been made over the 2004-08 period, and the first tranche of the significant tax cut package of 2008 (implemented on 1 October 2008). While it was clear that a significant global financial crisis was underway by the time the new government took office toward the end of that year, aspirations to limit the deterioration in the structural balance were not announced until Budget 2009.[26] At that time the remaining tranches of tax cuts that had been announced in Budget 2008 were cancelled, and efforts were made to restrain expenditure growth in the projection years by making a small cut in the operating allowance for 2009/10 and by further limiting the operating allowance to $1.1 billion per annum from 2010/11.[27]

It is sometimes observed that the timing of the 2008 tax cuts turned out to be very appropriate, given the economic downturn that began that year. This was more a result of good luck than good design, as the extent of the downturn was not known when the package was announced. The tax package was also not designed as a stimulus package, most importantly because the tax cuts were permanent, rather than temporary – and so did not meet the standard TTT (temporary, targeted and timely) criteria for stimulus spending. Figure 8 makes it clear that, at the time the tax package was announced, structural revenues were estimated to be very high. If the extent of deterioration had been anticipated the tax package would have been judged to be unaffordable. Overall, the large structural deficits that New Zealand is experiencing today can be considered as due to a combination of the spending increases of 2004-08, the 2008 tax cuts, plus the downward revision to estimates of structural revenues.

3.4   Lessons from the last cycle

New Zealand's fiscal framework worked relatively well over the first part of the 2000s, when revenue windfalls were used to make faster progress on the debt objective, thus contributing to good fiscal sustainability and fiscal stability outcomes.

The longer the upturn lasted, however, the easier it became to interpret the revenue increases as permanent rather than cyclical. As debt levels fell, this led to a ratcheting up of government spending. The available indicators of fiscal stance suggest that this led to a pro-cyclical fiscal impulse over the 2006-08 period, which put pressure on resources and exacerbated the interest rate and exchange rate cycles.

This failure of fiscal policy to prevent pro-cyclicality seems to reflect three factors. First, the Public Finance Act's principles for responsible fiscal management are focussed on fiscal sustainability rather than stability. While there is nothing in the Act that would *prevent* macro-stability considerations from being given weight in policy advice, it is not *required* that such

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[26] The bulk of the tax cuts announced in Budget 2008 came into effect on 1 October 2008. This first tranche of cuts involved a reduction in the bottom tax rate from 15 to 12.5 per cent and an increase in all tax rate thresholds. Budget 2008 estimated that the cost of this first tranche was $8b over 4 years. After the election later that year, the new government announced a further increase in the tax threshold for the 21 per cent tax rate, which came into effect in April 2009. The cost of this was a further $3.3b over 4 years, although almost all of this cost was funded by expenditure cuts (to Kiwisaver incentives and the R&D tax credit). The second and third tranches of the Budget 2008 tax cuts, which would have involved further (smaller) increases in the top two thresholds (33 and 39 per cent) in 2010 and 2011 was originally estimated to cost around $2.7b over the same time period. The new government tweaked these two tranches slightly in the December 2008 BPS before cancelling them in Budget 2009.

[27] Soon after election, the new government announced a further increase in expenditure in the form of an increase in the capital allowance from $0.9b to $1.45b per annum for the following four years, and a further increase to $1.65b for the two years following that (BPS, December 2008). However, this was more than offset in the projection years by reductions in the Operating Allowance (from $1.75b to $1.1b) that were announced in Budget 2009. (The operating allowance consists of *additions* to new spending, which cumulate each year, making these cuts much more significant over time than the increases to the capital allowance, which is *total* spending on capital rather than *new* spending).

considerations be considered, and so they tend to be underweighted.[28] Second, the uncertainties inherent in the data in real time make it very difficult to evaluate the stance of fiscal policy with any certainty. With the benefit of hindsight it is now clear that the economic upturn was much stronger and more persistent than anyone expected, with the result that Treasury (and others) under-estimated the impact of the fiscal stimulus that was delivered during the 2004-08 period. Third, when the economy is performing well and fiscal revenues are strong, there are inevitably strong calls to "spend" the surpluses (either on tax cuts or spending increases). Insufficient effort has been made to address these political economy challenges by looking at policy options to help achieve more stabilising fiscal policy.

Looking ahead, the lessons from the last cycle suggest that we will need to:

- *Do more to address political economy challenges:* Politically, it is very difficult for governments to keep running large surpluses over long periods of time. A debt target that is perceived to be a floor only exacerbates this problem, as witnessed by reluctance over the last cycle to "overachieve on the debt target". This means that fiscal stimulus is most likely to become pro-cyclical towards the end of an extended economic upturn. New Zealand's fiscal institutions need to be designed to explicitly safeguard against pro-cyclicality during long-lasting upturns. At a minimum this is likely to require a higher profile for the macro-stability role of fiscal policy, which could be achieved by revising the PFA as discussed in Section 4.1. Some of the other policy options discussed in Section 4 could also help to address this challenge.

- *Improve reporting of fiscal policy and its impacts:* It is well known that distinguishing between trend and cycle is very difficult. This is true for both GDP (potential GDP, output gap) and for government revenues (structural vs. cyclical). This suggests that Treasury should: (i) expand the repertoire of indicators so that advice on the fiscal stance is less reliant on any single measure,[29] with particular care taken to augment fiscal impulse measures with separate measures of government revenues and expenditures; (ii) strengthen our understanding of the macro-economic impact of the fiscal stance and the macro-economic impact of increases in spending during upturns; (iii) be more cautious than in the past about judging persistent upward revisions to revenues as being permanent; this will require more work to characterise uncertainty and communicate it, including the implications of over- vs. under- estimating structural revenues; and (iv) be reluctant to introduce fiscal institutions that rely on an accurate decomposition of trend from cycle (such as a structural budget target – discussed further in Section 4.5).

- *Put more emphasis on getting the* timing *of stimulus right:* A fiscal policy framework that is able to guard against pro-cyclicality across a range of circumstances will need the flexibility to accommodate the political preferences of different governments during times when there is an extended economic upturn. This suggests that, in the context of a government which is inclined to increase the size of the government, Treasury's policy advice should focus on seeking the best *timing* for the desired fiscal stimulus. Essentially this means that tax cuts or spending increases need to be avoided (or minimised) during periods of high capacity utilisation. A number of the policy options in Section 4 could help to refocus fiscal policy in this way.

While the focus of this paper is on the stabilisation role of fiscal policy, the sustainability goal remains of primary importance. It is vital that any additional attempts to make fiscal policy

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[28] This is true for New Zealand's Public Finance Act, but also for other countries. For example, Barker and Philip's (2007) review of the fiscal frameworks of other countries found that the only component of other countries' formal fiscal rules directed toward fiscal stabilisation was support for the operation of the automatic stabilisers (*passive* stabilisation). However, as discussed earlier, there is no reason to expect passive stabilisation to prevent pro-cyclical fiscal policy, as changes in discretionary fiscal policy can easily be larger than, and work in the opposite direction to, the automatic stabilisers.

[29] A particular indicator could be chosen from this set to serve as the *leading indicator*. However, regular monitoring of the full set of indicators would minimise the risk of misinterpretation.

more stabilising do not compromise the sustainability of the long term fiscal position. Fortunately, there is no trade-off during the upturn of the economic cycle (the focus of this paper), when greater fiscal prudence has benefits for both stability and sustainability. As long as the government's net worth position is built up sufficiently during upturns, fiscal sustainability should not be put at risk during downturns either.

There may, however, be a trade-off between the stability and *structure* objectives of fiscal policy.[30] This is true during both upturns and downturns. During upturns, for example, it is often argued that policy-makers should take advantage of the strong fiscal position to implement growth-enhancing tax cuts, even if they will exacerbate domestic demand and the mix of macroeconomic conditions. However, the evidence reviewed earlier (e.g., Abbas *et al.*, 2010), suggesting that the stabilisation cost of fiscal policy is larger when the output gap is positive, tells us that it would be better to wait until the downturn. An exception may be if there is only a narrow political economy window of opportunity for implementing such structural reforms (*i.e.*, if not implemented right now the opportunity will be lost).

The nature of the trade-off during downturns is different, with the main concern being that the *quality* of fiscal stimulus could deteriorate if the focus shifts excessively towards cushioning the impact of the downturn, rather than toward implementing good structural reform. This highlights the potential inappropriateness of using the standard TTT (timely, temporary, targeted) criteria for discretionary fiscal stimulus in such a context. To the extent that politicians are persuaded to delay permanent tax cuts or spending increases when the economy is operating above capacity, the passage of such permanent fiscal stimulus should be permitted during downturns. In other words, the T for *timely* should be given the greatest weight. In contrast, the traditional focus on *targeting* expenditure to those areas where the fiscal multiplier is thought to be the largest may be less appropriate, at least as long as monetary policy does not hit limits of effectiveness (such as by hitting the zero interest bound). Likewise, depending on the strength of the government's net worth position, the traditional focus on ensuring that stimulus is *temporary*, may also be inappropriate as some permanent reforms may be affordable (*i.e.*, those that were delayed during the upturn so as not to exacerbate macroeconomic conditions at that time).

4   Policy options

Policy options for making fiscal policy "more stabilising" generally fit into one of two camps. One camp consists of policies that would raise the profile of the stabilisation objective of fiscal policy. This could be done by revising the principles of the Public Finance Act (PFA) so as to increase the importance that is placed on avoiding pro-cyclical fiscal policy. Alternatively – or in addition – an independent fiscal council (IFC) could be introduced, to promote informed public discussion of the impacts of fiscal policy. A structural budget balance target would also fit in this camp, although this option is not recommended, as discussed in Section 4.5.

The second camp consists of policies that seek to credibly de-link expenditure decisions from revenue windfalls in a way that will be politically sustainable even through a long period of strong growth. Options include rules to better control expenditures (e.g., a spending cap) or institutions for quarantining revenue surprises (e.g., a stabilisation fund).

The following discussion of these policy options builds on the abundant literature that has developed on the theory and practice of fiscal rules. Organisations such as the IMF have developed best practice principles for the design of such rules (e.g., IMF, 2009). The general consensus is that a well-designed fiscal rule *can* have a positive impact on fiscal outcomes, by placing some durable

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[30]   See Barker, Buckle and St Clair (2008) for a discussion of the Sustainability, Stability and Structure roles of Fiscal Policy.

constraints on fiscal discretion through e.g., numerical limits on expenditure, revenue, the budget balance and/or public debt (Kumar and Ter-Minassian, 2007). However, such positive impacts are by no means guaranteed, since no rule can be assumed to permanently suppress or contain discretion. It follows from this argument that a credible solution to biased policies cannot be to suppress discretion but to find mechanisms through which it could be exerted more wisely (Debrun and Kumar, 2007).

This section also takes as given the relatively good fiscal outcomes in New Zealand to date. There is general agreement that New Zealand's principles-based framework works well, with only a few enhancements required, rather than wholesale reform.

With that background, Table 1 provides a brief summary of the pros and cons of the main policy options to ensure less discretionary fiscal policy stimulus during the next upturn. Option A (discussed in more detail in Section 4.1) considers the role that a revision to the principles of the PFA could play. Options B and C consider, respectively, a multi-year cap on expenditure growth, and a more medium-term target for the level of government spending as a percentage of GDP (see Section 4.2). Spending caps have been adopted in a number of countries in recent years and are quite commonly advocated by the OECD and IMF. However, the main benefit of spending caps is to improve the quality of spending and to increase control over total spending, rather than to reduce the chance of pro-cyclical fiscal policy. Greater macro-stability benefits could be obtained, however, if combined with other tools (such as option A).

Option D is more focussed on the revenue side of the ledger; specifically, a stabilisation fund that would facilitate the "banking" of windfall revenues, so as to "pre-commit" governments to run large fiscal surpluses during booms. A stabilisation fund would be designed to build up funds over economic upswings and then run them down again during downturns (see Section 4.3). Compared with an expenditure cap, the main benefit of this approach is that it would better address the political economy barriers that get in the way of conducting more stabilising fiscal policy. It would do this by re-focussing attention on *when* and *how*, rather than *whether* fiscal surpluses should be spent. However, significant judgement would be required to determine contributions to and withdrawals from the fund.

Option E involves establishing an independent fiscal council (IFC), whose purpose would be to monitor the compliance of fiscal policy with the stated objectives, raise the quality of the public debate around fiscal policy in New Zealand, and enhance the credibility of any other fiscal policy institutions (e.g., a stabilisation fund, if one were to be created). See Section 4.4 for further discussion.

Finally, Options F and G describe two possible policy tools that are *not* considered a good option for New Zealand at present. A structural balance target (discussed in Section 4.5) is dismissed largely because it relies too heavily on the ability to accurately distinguish structural from cyclical revenues. Such a rule could also lead to excessive focus on that single indicator and/or encourage circumvention of the rule. Active tax policy tools (Section 4.6) are also dismissed, due to concerns about the significant efficiency and compliance costs that they would entail. It is also noted that there are other (non-active) tax policy tools – such as a capital gains tax or a land tax – that would improve macro-stability without these accompanying costs, and these should be introduced before considering more activist tools.

All of the policy options discussed are potentially complementary (*i.e.*, it would be possible to adopt elements of all, simultaneously).

4.1   Option A: revise the Public Finance Act

The Public Finance Act (1989), which was amended in 2004 to incorporate the Fiscal Responsibility Act (1994), sets out – among other things – the principles for responsible fiscal management and the requirements for regular reporting on the extent to which the Government's fiscal policy is consistent with those principles. While the principles for responsible fiscal management pay considerable attention to fiscal sustainability issues, the PFA is silent on the importance of conducting fiscal policy in a way that best helps to stabilise the macro economy.

Indeed, the principles of responsible fiscal management may unintentionally encourage pro-cyclical discretionary fiscal policy in certain circumstances. At present, the principles of responsible fiscal management note that "once prudent levels of total debt have been achieved, [the Government must] maintain… those levels by ensuring that, on average, over a reasonable period of time, total operating expenses do not exceed total operating revenues". While the *over a reasonable period of time* formulation is clearly intended to permit the operation of the automatic stabilisers, the current formulation may not provide a sufficiently strong mandate for continuing to run down debt levels, or build up the government's net worth position *for macroeconomic stability reasons* (*i.e.*, even when long-run fiscal sustainability appears sound).[31]

To increase policy-makers' focus on the stabilisation role of fiscal policy, the PFA could be revised to include an additional principle relating to playing a macroeconomic stabilisation role. Alternatively, the existing principles and departure clauses could be reworked to provide a clearer mandate for building up the government's net worth position for macro stability reasons.

Of course it is important to also consider the implications of such a change for other fiscal policy priorities, such as fiscal sustainability. As discussed in Section 3.4, however, there is little reason to think that a greater focus on fiscal stabilisation in the next economic upturn would have anything other than positive implications for fiscal sustainability, particularly if the increased focus on fiscal stabilisation encouraged a more rigorous assessment of the conditions under which permanent expenditure increases, or tax cuts, should be made.

4.2   Options B and C: spending cap or spending/GDP target

Setting a cap on the government's spending is probably the most obvious way of de-linking expenditures from revenue windfalls. Expenditure rules have become increasingly popular in recent years, supported by a growing body of empirical evidence suggesting that well-designed expenditure rules can be useful devices to limit spending profligacy (e.g., see Haumptmeier *et al.*, 2007). While there is a correlation between spending rules and fiscal prudence, some critics point out that it is difficult to establish causality, given that countries are more likely to adopt spending rules if they are already inclined towards fiscal prudence (e.g., Debrun and Kumar, 2007).

Given the focus of this paper it is important to note that expenditure control alone does not automatically prevent pro-cyclicality, since during boom periods governments are often tempted to cut taxes or increase tax expenditures, both of which also stimulate the economy. Even if this temptation is resisted, the effectiveness with which a spending cap would achieve our macro-stability objectives would depend on its design.

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[31]   While the principles of responsible fiscal management do not actively *mandate* a running down of debt levels below what is considered a prudent level for macro-stability reasons, neither does the PFA *prevent* the government from taking macro-stability considerations into account.

Table 1

Main Policy Options for Making Fiscal Policy More Stabilising

Options Worth Considering

Policy	Pros	Cons
Option A Revise PFA	- Relatively easy to revise PFA to make macro-stability a principle of responsible fiscal management - Would strengthen rationale for running surpluses during upturns even when debt is low	- May not be sufficient to prevent pro-cyclicality given difficulty of measuring fiscal stance
Option B Multi-year expenditure cap	- Would improve quality of base spending by forcing trade-offs - Would introduce a lag between increases in revenue and higher spending, which *could* help reduce pro-cyclicality - Would assist the government in better managing future spending pressures/ facilitate a smaller size of government (lower taxes) if desired	- Complicated to explain (eg, Operating Allowance interactions; accruals) - If lag short, pro-cyclical spending increases could still easily occur, especially given difficulty of distinguishing trend from cycle - Even if lag long, incoming governments could reset cap - Would not constrain fiscal stimulus on revenue side - Could reduce flexibility to respond to recessions - Could be perceived only as a tool to control the size of government
Option C Medium-term spending/GDP target	- Better transparency of government's view of desirable long-term level of spending and taxes - Could improve focus on macro stability if combined with option A	- By itself would not be sufficient to prevent pro-cyclicality
Option D Stabilisation Fund	- Idea of saving for a rainy day easy to explain to the public Importance of not exacerbating er cycles would be emphasised Would ease political economy challenge of running large surpluses in good times	- Could be difficult to determine contributions to and withdrawals from fund - May not be sufficient to prevent pro-cyclicality given difficulty of distinguishing structural from cyclical revenues - Some fiscal cost from investing in lower yield securities rather than paying down domestic debt during good times (partially offset by gains on currency movements)
Option E Independent Fiscal Council	- Could help to address political economy challenge by raising awareness of the risks of pro-cyclicality - Could support other options (eg, advise on appropriate contributions/withdrawals for a stabilisation fund)	- No guarantee that fiscal council would offer better advice or that advice would be heeded - Could become a source of political tension - Resourcing cost

Options Not Recommended

Policy	Pros	Cons
Option F Structural Balance Target	- Makes focus on stabilisation explicit	- Relies on being able to distinguish structural from cyclical revenues - Could lead to excessive focus on single indicator and/or encourage circumvention of the rule
Option G Active tax policy instruments	- Would strengthen the automatic stabilisers	- Efficiency and compliance costs could exceed benefits (cf other tax policy reforms which would have macro-stability benefits without these costs) - Stronger automatic stabilisers could still be offset by discretionary policy

Consider, for example, the multi-year expenditure cap that was proposed (and rejected by the government) in early 2010 (Mears *et al.*, 2010).[32] The main benefit of such a spending cap (Option B) is that it would reinforce the existing limit on new discretionary spending initiatives (specified in terms of the annual Operating Allowance) and also place a limit on other forecast expense increases that occur via the six-monthly Baseline Update process. With such a spending cap in place, the significant upward revisions to the Operating allowances that are shown in Figure 9 would not have been permitted. The main benefit of the proposed cap would thus be to permit better control of aggregate expenditures and to improve the quality of base spending (by increasing attention on the relative trade-offs between different spending pressures).

However, a spending cap also has some limitations. Most importantly, it could not guarantee an avoidance of pro-cyclical spending increases. This is due to the relatively short duration of the cap (*i.e.*, the Mears *et al.*'s proposal envisaged a rolling budget year plus two out-years). So, although upward revisions of fixed allowances would not be permitted under the cap, the allowances could still grow over time as the rolling out-year is set (potentially responding to in-year-revenue windfalls). Thus, while introducing a lag between unexpected increases in revenue and higher expenditure *could* contribute to better macro stabilisation, there would be a significant risk that pro-cyclical fiscal policy would still eventuate. For example, a planned increase in expenditure for year $t+3$ might be justified by an expected slow-down in the economy in that year. But this could inadvertently result in pro-cyclical fiscal policy in that year if economic growth remained unexpectedly strong.

One way of addressing this problem could be to combine a revision to the PFA as discussed above (*i.e.*, Option A: a requirement to include macro-stability as a principle of responsible fiscal management) with Option C: a requirement that the Minister of Finance also specify a medium term (five to ten year) target for future real government expenditure as a share of GDP and subsequently report publicly on progress relative to that goal.[33] This would not restrain the freedom of any government to pursue the size of government of their choosing. However, it would improve transparency of expenditure trends, by forcing governments to focus on the question of the desirable long-term level of spending, while also paying greater attention to the macro-stability implications of the transition path to a higher level of spending, if that was chosen. The requirement to specify a medium term target would be accompanied by a requirement to account for progress relative to the stated goal and to explain the macro stability implications of expenditure trends.[34]

A potential disadvantage of a multi-year spending cap is that it could give the impression that the only objective of the rule is to constrain the size of the government. If the macro-stability objective of preventing pro-cyclical spending of revenue windfalls were to be lost, then the rule would be unlikely to address the political economy challenges of preventing expenditure increases during long-lasting expansions. A poorly designed expenditure rule could also limit the ability to

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[32]   Note that the Mears *et al.* proposal was a more ambitious attempt to control New Zealand's total operating spending than any earlier initiatives, which were less binding. For example, in the 1995 *Budget Policy Statement* the Minister of Finance set a long-term objective of reducing operating expenses to below 30 per cent of GDP. However, there was no obligation to set out a binding time path for achieving this objective. In fact the target was never met and eventually abandoned. The Minister of Finance Bill Birch also adopted a cap on "new spending", which was in operation over the three fiscal years 1998 to 2000. However, this cap did not apply to the majority of spending, which was captured in the fiscal baselines and formula-driven indexed items.

[33]   This was proposed in the first report of the 2025 Taskforce (2025 Taskforce, 2009).

[34]   A variant on the idea of a multi-year expenditure cap would be a more permanent expenditure cap, such as that in the ACT Party's Spending Cap (People's Veto) Bill. The formula determining the cap would be codified in legislation, in contrast to the Mears *et al.* (2010) cap, which would have been chosen by the government-of-the-day. As a means to shrink the size of the government, and increase transparency, the Spending Cap (People's Veto) Bill could be effective. However, it would reduce flexibility to stabilise the macro economy in recessions (by reducing governments' ability to engage in counter-cyclical spending). It also may not prevent pro-cyclicality on the upside of the cycle, as fiscal stimulus could still be implemented on the revenue side. In addition, referenda-driven policy changes could result in quite abrupt changes to the fiscal stance.

implement stabilising expansionary fiscal policy during a downturn. These difficulties could be partially avoided by combining a spending rule with a revision to the PFA (Option A).

4.3 Option D: stabilisation fund

Instead of restraining spending, an alternative approach is to lock away revenue surprises. Stabilisation funds (SFs) normally aim to save *temporary* increases in revenue in order to finance deficits in later years. A stabilisation fund is thus an alternative or complement to using changes in debt to manage volatility in revenues. In some countries (e.g., Chile), a stabilisation fund has been used to save only those revenue increases that are not judged to be structural. However, if the estimated level of *structural* revenues is often found to be cyclical – as is the case for New Zealand (see Section 3.2) – then a more conservative approach should be used, so that some or all increases in estimated structural revenues would also be saved.

Compared to the current approach (where changes in debt are used to manage volatility), a stabilisation fund would have the following advantages:

• the "prudent" debt objective (currently articulated as 20 per cent of GDP) would be less likely to limit additional savings in the event of better-than-expected fiscal outcomes. This is because a stabilisation fund would shift the focus of fiscal policy towards the goal of fiscal stabilisation;

• a stabilisation fund would assist in communicating the goal of fiscal stabilisation to the public, and therefore help to overcome the political economy challenges of not spending revenue windfalls during protracted upturns. The focus on "saving for a rainy day" is easy to understand and by separating the fiscal stabilisation goal from other fiscal policy objectives (such as the size of government and the partial prefunding of demographic pressures), ongoing expenditure restraint during prolonged upturns should become more politically acceptable;

• given the difficulty in distinguishing temporary from permanent increases in revenue, a stabilisation fund could facilitate a deliberately conservative approach by making funds withdrawal conditional on a clear economic downturn;

• as well as preventing pro-cyclical increases in expenditure during upturns, the fund would also serve a stabilisation role during the downside of the economic cycle by making it easier for governments to raise expenditure (above and beyond the impact of the automatic stabilisers) or reduce taxes at a time when the long-term sustainability objective is under increased pressure. Clear rules would need to be set to ensure that funds withdrawn during downturns be used only to fund deficits resulting from efficient stimulus expenditure or tax cuts.

The big downside of a stabilisation fund is that significant judgement would be required to determine the appropriate level of contributions to/ withdrawals from the fund. This may not be an appropriate role for either the government to play (who on average may have a bias towards not quarantining an upsurge in revenues in a Stabilisation Fund) or the managers (presumably a Crown entity) of the Stabilisation Fund (who may have a bias towards maximising the amount held in the Fund). Determining these matters may therefore be best done by some sort of independent fiscal council or regulator with sufficient autonomy and status that its decisions would be respected (see Section 4.4 for further discussion).

Rules would also be needed to specify how any excess build-up of funds be used, e.g., if the economic cycle was asymmetric so that assets in the fund reached a particularly high level. Whether or not this would eventuate would depend very much on the design of the Fund. In principle the macro-stabilisation role of the Fund could be designed to be symmetric, with the build-up of funds at above trend output fully offset by deficit funding when output is below trend. However, if there are more years when the output gap is negative than positive, then the funds could be exhausted too soon. Alternatively, if draw-downs of the funds were restricted to years

where the economy is in recession, draw-downs could be relatively rare, resulting in a very large build-up of assets in the Fund. In such a case options could include using the funds to pay down debt, or pre-fund other objectives. One option would be to make additional contributions to the New Zealand Super Fund at such times. Some of these considerations are also discussed by Price *et al.* (2008).

There would likely be some trade-off between the degree of prescription of the rules governing the fund and extent to which judgements and flexibility should be permitted. To ensure that the fund be used as intended, an independent expert committee to oversee the fund would probably be needed (discussed further in Section 4.4).

4.3.1 Experiences of other countries with stabilisation funds

Most countries with so-called stabilisation funds use them to insulate their domestic economy from large influxes of revenue (normally from oil or some other commodity). By doing so they maintain a more steady level of government revenue in the face of major commodity price fluctuations (hence the term stabilisation), while also avoiding inflation and minimising the risk of the so-called "Dutch disease".[35] Injections to Stabilisation Funds are normally used to purchase foreign denominated securities, especially if a goal is to prevent overheating in the domestic economy. Many of these countries' *stabilisation funds* are conceptually similar to *sovereign wealth funds,* although some also play a short-term macro stabilisation role. For example, Norway's *Government Pension Fund Global*[36] was established to smooth the effects of fluctuations in oil prices and fund pension liabilities in the future as income from the petroleum sector declines. It is funded from taxes on both private and public oil companies, and payments for exploration and production licenses for petroleum and natural gas. The fund's economic stabilisation objectives are primarily long-term, and there has been no drawdown from the Fund, which makes it similar to a sovereign wealth "saving" fund.[37] At the same time, however, the fund also has an implicit counter-cyclical role, as transfers from the fund to finance the non-oil budget deficit are permitted to vary across the cycle (thus permitting larger deficits during downturns and smaller deficits during upturns). Most other "stabilisation funds" around the world are also primarily sovereign wealth "saving" funds – existing to cope primarily with unusually high economic returns from non-renewable resources.

The best example of a stabilisation fund whose *primary focus* is to stabilise fiscal policy over the cycle, rather than over the longer-term, is Chile's Economic and Social Stabilisation Fund (ESSF). This fund – originally established in 1985 as the Copper Stabilisation Fund – has played an important role in contributing to macroeconomic stability in Chile. Contributions to the fund are made when copper prices are high and withdrawals (during periods when copper prices decline) have been used to finance fiscal deficits and reduce Chile's foreign debt. In 2009, withdrawals were also used to fund a fiscal stimulus plan. The ESSF is a key pillar of Chile's fiscal institutions, which also comprise a structural budget target, the outsourcing of key technical assumptions to

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[35]   The term Dutch disease refers to the negative impact on the manufacturing sector that can result from an exchange rate appreciation driven by an increase in revenues from the sale of natural resources. The term was coined in 1977 by *The Economist* newspaper to describe the decline of the manufacturing sector in the Netherlands after the discovery of natural gas in 1959.

[36]   Prior to 2006 this was known as the Petroleum Fund of Norway. As of mid-2010, the fund is valued at around US$450b, and holds around 1 per cent of global equity markets. Regulations of the management of funds have changed from time to time. E.g., the proportion of the fund that can be invested in international equity markets has been increased over time (currently 60 per cent). Most of the rest is invested in fixed income securities. Recently the government decided that up to 5 per cent of the fund should be invested in real estate.

[37]   This characterisation of the fund as primarily a "saving" fund is supported by the fact that the fund was designed to be invested for the long term, as a tool to manage the financial challenges of an ageing population and an expected future drop in petroleum revenue.

independent expert panels, and a sovereign wealth fund. Together, these fiscal institutions have been credited with greatly smoothing the macroeconomic impact of copper price fluctuations, with positive effects on the real exchange rate and on government revenues (Medina, 2010).

Despite these many positive impacts, fiscal policy in Chile has still been pro-cyclical at times, most recently when a series of upward revisions to the Chilean expert panel's estimate of the long-term copper price during the 2004-08 period, allowed for significant spending increases.[38] The panel of experts may have been correct in its assessment that copper prices are likely to stay higher for longer. However, the resulting additional impulse from public spending was not warranted when the economy was already booming. Chile's experience is not surprising, given evidence that it is easy to overestimate trend growth and thus underestimate the cyclical budget component during long-lasting asset price booms (Jaeger and Schuknecht, 2004).

The key features of the ESSF and related fiscal institutions in Chile are summarised in Annex 1, including proposals to strengthen the framework to reduce the pro-cyclicality in future. One lesson to be learned from other countries' experiences is not to put a cap on the size of a stabilisation fund as this can risk a pro-cyclical blow-out in spending if the cap is reached during an unexpectedly strong upturn (e.g., Finland, Russia).

While the Chilean approach is a potentially useful model, it is not directly applicable to New Zealand, primarily because of the greater cyclicality of estimated structural revenues in New Zealand. As illustrated in Figure 11, Chile not only ran much larger peak fiscal surpluses than New Zealand during the mid-2000s (over 8 per cent of GDP at its peak, compared to about half that in New Zealand) but Chile's estimated structural balance has also been significantly less cyclical than ours. There are two main reasons for this.[39] First, New Zealand's exposure to commodity price volatility is nowhere near as great as Chile's exposure to copper prices.[40] Second, the impact of high commodity prices on tax revenues in New Zealand is much more difficult to identify, as the impacts are more dispersed throughout the economy, unlike Chile where the impacts show up more directly as higher profits in the state-owned copper company Codelco. Since the copper industry in Chile is easily identifiable, it has been relatively easy (*i.e.*, credible and transparent) for the government to ear-mark a proportion of tax revenues and profits from Codelco to the Stabilisation Fund (ESSF). By contrast, it would be much less straightforward to strip out the "cyclical" component of revenues in New Zealand, although not necessarily impossible.[41]

The fact that there is no easy way of earmarking, for New Zealand, commodity-driven tax revenues, highlights why the Chilean model could not be applied directly to NZ. However, an extension of the Chilean approach could see the development of a stabilisation fund for New Zealand which would save windfall gains in *all* sources of government revenue. This would require the estimation of the long-term level of structural revenues, a task that would not be easy (see further discussion below). Nevertheless, if such an approach would make it easier to run budget surpluses of up to 8 per cent of GDP – as in Chile in 2006 and 2007 – it is worth considering.

The key to success in Chile was a set of fiscal institutions which facilitated communication of the fact that if high fiscal revenues were fully spent in real time, they would have put pressure on

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[38] Public spending growth accelerated from 3.5 per cent in real terms during 2000-03, a period of rather sluggish growth and low copper prices, to 7.5 per cent during the copper price boom of 2004-08 (OECD, 2010b).

[39] Another potential explanation for New Zealand's more cyclical path of structural revenues could be a more cyclical evolution of discretionary fiscal policy in New Zealand.

[40] Between 2003 and 2008 Chilean commodity prices more than quadrupled, while New Zealand's commodity prices less than doubled.

[41] In theory it could be possible to estimate the proportion of taxes paid by various sectors that is attributable to commodity prices. However, much of the stimulatory effects of high commodity prices in New Zealand infiltrate gradually into private sector demand (e.g., via higher investment by dairy farmers) rather than always showing up as higher tax revenues.

Figure 11

Actual vs. Structural Fiscal Balances: New Zealand vs. Chile
(percent of GDP)
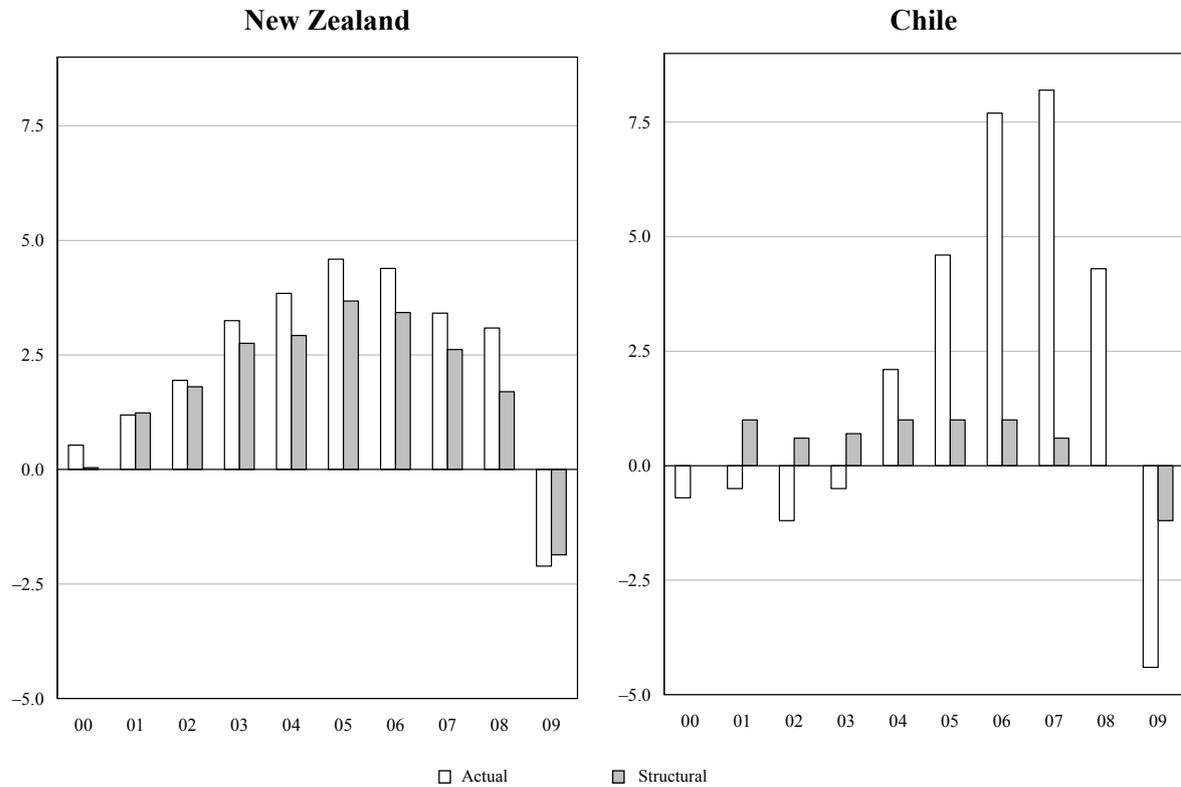
absorptive capacity and triggered a sizeable appreciation of the real exchange rate (Chan-Lau *et al.*, 2010).

4.3.2 *How would a stabilisation fund work in practice in New Zealand?*

In the case of New Zealand, there would be two main options for determining contributions to a stabilisation fund. One option would be to save some general definition of "revenue windfalls", rather than simply actual fiscal surpluses in excess of the structural surplus target (*i.e.*, largely cyclical revenues), as is done in Chile. The other option would be to earmark a specific type of tax for the fund – e.g., a capital gains tax (CGT). Since capital gains taxes tend to exhibit a highly cyclical pattern, ear- marking them to be quarantined in a stabilisation fund would reduce the risk of them being "spent", such as occurred in Ireland during the 2000s. It is also possible that linking CGT revenues to a stabilisation fund could make a CGT more politically palatable, depending on how draw-downs from the fund would be spent.

The "terms of reference" of a macro stabilisation fund for New Zealand could include the following features:

- contributions to the stabilisation fund would consist of all revenue surprises. Surprises could be defined as all actual government revenues in excess of the estimated long-term level of government revenue (*i.e.*, the revenue that would be received if commodity prices were at their long-run sustainable level and the economy was growing in line with trend);

- draw-downs would be permitted when actual revenues are lower than the long-term estimate (OR when the economy is in recession OR in certain other circumstances on recommendation of an independent fiscal council);

- funds would be invested offshore in low-risk liquid assets (e.g., high-rated sovereign debt);

- offshore assets would be held on an un-hedged basis. This may help to stabilise the exchange rate (to the extent that investments would be typically made when the economy is performing well, which normally correlates with a stronger exchange rate, while assets would be sold when the economy is weak, which normally correlates with a weaker exchange rate);

- the implied cost for the Crown Balance Sheet would need to be acknowledged (return on high-rated international sovereign debt < cost of holding additional domestic debt). This cost *could be* partly offset by gains on currency movements (see above bullet) but this could not be guaranteed.

In considering the pros and cons of a stabilisation fund, the following considerations should be kept in mind. First, a stabilisation fund means that cyclical fluctuations of the Crown balance sheet would be managed through the asset side of the balance sheet rather than the liability side. Alternative ways to manage balance sheet variation could include a better-specified net debt target (*i.e.*, in a way that would avoid reaching a "floor" during good times) or having a "notional" account on the balance sheet. These options would avoid the fiscal cost (due to the interest rate spread) of investing in high-rated international debt rather than paying down domestic debt. However, these other options may not have the same political economy benefits as a stabilisation fund.

Second, more work would need to be done to explore the challenges of ensuring that draw-downs from the fund be spent efficiently. In particular there is a danger of misallocation if spending programmes were to become conditional on stabilisation fund resources becoming available. To mitigate this risk, it could be specified that draw-downs be used only to finance fiscal deficits, rather than to fund stimulus programmes. This would keep the path of expenditure in line with that of long-term revenue, and prevent the need for borrowing during recessions. However, large or persistent deviations in government revenues from the estimated long-run level could lead to prospects of an indefinite accumulation of funds or the prospect of the fund being exhausted, as discussed in RBA (2011). If facing the prospect of exhaustion, a downward adjustment would need to be made to the estimated level of long-term revenues. The prospect of an indefinite accumulation of funds could open the door to one-off injections of funds to pay down debt or contribute to the New Zealand Superannuation Fund (NZSF).

Finally, it is worth noting the distinction between a stabilisation fund and a saving fund, such as the NZSF. Whereas the NZSF is used to accumulate revenues for the purpose of funding future pension liabilities, a stabilisation fund would be used to insulate the domestic economy from the volatility in government revenues by accumulating revenues when they are strong, and injecting the accumulated funds back into the budget when revenues are weak. As such the investment objectives of the two funds would be quite different. Since savings funds aim to earn a real return they are typically invested in more risky asset classes than stabilisation funds, which should be invested in very liquid and low-risk assets such as government bonds.

In this light it is worth noting that the NZSF already plays a broadly equivalent role to the Chilean Savings Fund (the PRF - see Annex 1 for more detail), although the two funds differ significantly in their risk profile. The creation of a macro stabilisation fund in New Zealand would be complementary to the NZSF in that its purpose would be to run assets up and down over the economic cycle, rather than to save for the longer-term, as is the purpose of the NZSF. As in Chile, contributions to the macro stabilisation fund could be defined as those in excess of those required to fund the NZSF.

4.4   Option E: an independent fiscal council

The political economy challenge of running large fiscal surpluses during an economic upturn is well recognised, and in response, it is now commonly recommended that aspects of fiscal policy be delegated to some kind of Independent Fiscal Council (IFC). However, since each country has different fiscal policy challenges, an IFC may not be appropriate in all cases.

While a few countries have had IFCs for several decades, most IFCs around the world are relatively new. Where the mandate is to provide relatively technical input to the fiscal policy decision-making process (such as in Chile), the role of IFCs seems very clear. However, political independence makes less sense if the choice of fiscal policy actions includes choices among different expenditure programmes or among different taxes. As Solow (2005) points out, part of the reason why intelligent discretionary fiscal policy is so difficult in a democracy, is because there is no perfectly "neutral" fiscal package. Every expenditure change and every change in tax rates has distributional and allocation effects. If choice is left to the democratic process, stabilisation issues will tend to be fought out in terms of distribution and allocation, and the stabilisation results will tend to be delayed and may sometimes be perverse.[42]

In many other countries, the lack of independence of the economic forecasts is considered a significant problem impeding quality fiscal policy analysis. This problem underpinned the recent creation of the Office for Budgetary Responsibility (OBR) in the UK. In New Zealand, however, where the economic forecasts are signed off by the Secretary to the Treasury rather than by the Minister of Finance, forecast independence is not considered a problem.

Instead, New Zealand's biggest fiscal policy problem is more likely to be related to the *shallowness of the public debate about Fiscal Policy.* New Zealand has no private sector economists, academics or think tanks that specialise in fiscal policy analysis and commentary. If this problem is considered significant, however, there may be other ways of addressing it, rather than through creation of an IFC. For example, it may be cheaper to provide public funding to support Fiscal Policy research and commentaries at Universities or think tanks than it would be to set up an IFC.

IFCs in different countries perform a wide range of functions that vary significantly across countries. For New Zealand the obvious mandate would be positive (rather than normative) *ex post* and *ex ante* commentary on actual and expected Fiscal Policy outcomes relative to objectives. The case for an IFC to undertake costings and evaluations of opposition party policies is less clear-cut.

A more specific role for an IFC would arise if a stabilisation fund were to be established (see discussion above). In this case, thought would need to be given to the design/selection of *macroeconomic triggers*; *i.e.*, the identification of the economic developments that would determine the contribution to/draw down of funds from the stabilisation fund. Regardless of whether the rule determining contributions to/draw downs from the stabilisation fund was mechanistic or flexible, an IFC could enhance the credibility of the arrangement.

An important question is who an IFC should report to. If the IFC were to report to the parliament, a risk is that the council could be seen by the government as a tool of the opposition, resulting in a break-down in cooperation. Askari, Page and Tapp (2011) discuss the Canadian Parliamentary Budget Office (PBO)'s such experiences. This suggests that it could be more successful to have the IFC report to the executive (e.g., following the OBR model), although in that

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[42]   With this potential dilemma in mind, Solow (2005) proposed the idea of an "automated" (expansionary or contractionary) pre-determined fiscal policy package that would come into play when the appropriate economic indicator was triggered. He suggested that the composition of the "standard package" could be adjusted once every 10 to 12 years. At the same time, however, he warned of the risks that too frequent changes to tax rates or to expenditure programmes could be costly in terms of efficiency and effectiveness.

case it would be important to ensure that the executive did not have the power to compromise the IFC's independence. These are issues that would need to be further explored.

One of the issues in the New Zealand context is the potential cost of resourcing an IFC, and also staffing it appropriately, given the relatively shallow pool of suitable economists from which to draw in a small economy. To reduce the resource cost, options could be considered such as utilising Reserve Bank and Treasury staff (e.g., as full-time or part-time secondees). The Reserve Bank is already independent from government, and has a relatively large and highly qualified staff. Like many other central banks around the world, the Reserve Bank has at times seemed reluctant to comment on fiscal policy. However, secondees from the Bank could be well-placed to provide useful independent technical advice and commentary.

Given the importance of ensuring that fiscal policies not exacerbate monetary policy, another option would be to amend the Reserve Bank Act to *require* the RB to explicitly comment in the Monetary Policy Statement on the cyclical dimensions of fiscal policy.[43] This is similar to a recommendation by the UK House of Commons report on the Monetary Policy Committee of the Bank of England that the Bank of England "should monitor fiscal policy, and issue a warning if it was concerned about its effects". (House of Commons Treasury Committee, 2007). Eric Leeper's Jackson Hole paper also suggested that central bankers should "break away from the taboo against saying anything substantive about fiscal policy" and play a more prominent role in debating the role of fiscal policy in macro stability (Leeper, 2010).

Yet another option would be to commission an independent *ex post* review of fiscal policy to be published 3 months out from each election. As long as it were produced by a credible group of economists – the knowledge that such a "report card" were forthcoming could serve as a powerful check on any pressures to behave in a fiscally imprudent manner.

Before making any recommendation on the strength of the case for a IFC for New Zealand, more work needs to be done to investigate the different models of IFC. The best model for New Zealand would be likely to depend on what other fiscal policy tools are adopted to assist with making fiscal policy less pro-cyclical. Treasury will be undertaking further work over the next few months to explore the case for an IFC in New Zealand.

4.5 Option F: the case against a structural balance-based fiscal rule (SFR)

It is commonly argued that a structural balance-based fiscal rule would be the best way of achieving less pro-cyclical fiscal policy. However, as Ter-Minassian (2011) puts it: "… while a SFR is superior to a rule targeting an unadjusted budget balance in preventing fiscal pro-cyclicality, it shares with the latter the risk of hindering active counter-cyclical fiscal responses to a crisis. … Even during boom periods, a SFR may constitute a hindrance to a needed fiscal tightening, if it lulls a government into believing that, by meeting the SFR's target, it has done all it needs to do on the fiscal front to stabilize the economy".

Frankel (2011) also points out that a structural budget rule may not work if it encourages a bias in the official forecasts. He provides evidence for such a bias for official forecasts of growth and budget deficits in European economies subject to the Stability and Growth Pact. However, one would hope that the New Zealand Treasury's forecast independence would prevent a similar bias from developing in New Zealand.

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[43] For example, Section 15 of the Reserve Bank Act could be amended to require the bank to include regular (e.g., at least once a year) commentary in the Bank's Monetary Policy Statement on the stabilisation dimensions of fiscal policy. This would be consistent with Section 10 of the Act, which already requires the Bank to "consult with, and give advice to, the Government and such persons or organisations as the Bank considers can assist it to achieve and maintain the economic objective of monetary policy".

Looking at estimates for the structural balance for New Zealand, one can speculate about what fiscal policy outcomes might have been under a SFR. Of course, the results would depend on what specific SFR was used. As illustrated in Figure 4, New Zealand ran significant structural operating balance surpluses through most of the 2000s, so a rule targeting a structural operating balance surplus of, say, 1 per cent of GDP would have probably made it more difficult to run surpluses much larger than 1 per cent. In this case, we probably would have ended up with even larger spending increases, or tax cuts, through the mid part of the 2000s, implying a further loosening of the fiscal policy stance and putting even more pressure on monetary policy.

A more ambitious target – such as a SFR for a 4 per cent structural operating balance surplus – would have been more likely to avoid pro-cyclicality. However, such a target would probably not have been politically achievable. In addition, unless such a rule had good escape clauses, it also would have prevented much fiscal stimulus during the downturn.

Finally, it is worth noting that a fiscal rule that focuses on a single target may lead policy makers to ignore other policy indicators that suggest a greater level of risk, or to seek to reach the target in ways that circumvent the intention of the rule. Examples of accounting tricks that could be used to circumvent rules are: misclassifying current expenditures as capital ones under a golden rule; overestimating potential GDP growth under a SFR; resorting to tax expenditures under an expenditure rule or shifting spending off the balance sheet, under a debt rule.

These risks strongly support the current approach embedded in the PFA of requiring governments to seek to achieve certain principles of fiscal responsibility, while monitoring a *range* of fiscal variables, rather than a single specific target.

4.6   *Option G: active tax policy*

Another common suggestion is to develop some tax policy tools that can be used actively over the cycle to dampen aggregate demand during upturns and stimulate aggregate demand during downturns. The most common suggestions are for a variable petrol tax or a variable GST (e.g., as suggested by Buiter, 2006).
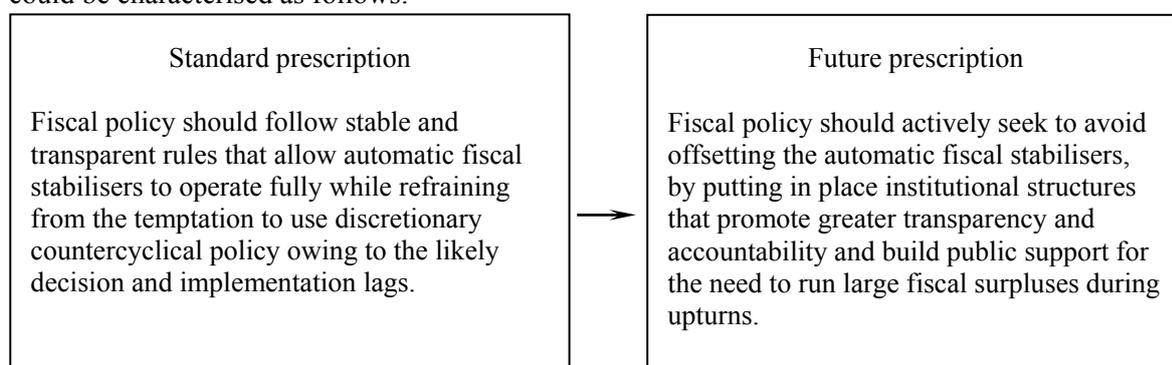
Gaukrodger (2011) discusses the case for using tax policy tools in such an active counter-cyclical way and notes that there would typically be strong political resistance to reversing any temporary tax cuts introduced during economic downturns. This suggests that temporary tax rate changes would be most feasible during the upside of an economic cycle (since there would presumably be little resistance to reversing tax rate increases). Even on the upside, however, using fiscal policy tools in such an active counter-cyclical manner would imply substantial efficiency and compliance costs. Overall, Gaukrodger (2011) concludes that it would be better to maximise macroeconomic stability within the parameters of an efficient tax system – e.g., by introducing a capital gains tax or a land tax, both of which would have some macro-stability benefits – before resorting to such temporary fiscal policy measures.

5   Conclusion

A key problem with the current fiscal framework (which relies on running debt up and down to achieve macroeconomic stabilisation) is that debt can hit the "prudent" debt level target during good times. Even if the prudent debt level is not reached it can be very difficult to persuade the public, and politicians, that revenue windfalls should be saved rather than spent. This contributes to pro-cyclical fiscal policy during the upside of the cycle, exacerbating interest rate and exchange rate cycles.

Looking back at the last economic upturn, a 2-3 year episode of pro-cyclicality can be identified, and this is likely to have contributed to higher interest rates and a more over-valued exchange rate than might otherwise have been the case. The international evidence shows that pro-cyclicality is a common phenomenon during upturns in other countries also, suggesting that it is likely to be a challenge that New Zealand will face again in future. The cause of the most recent pro-cyclicality episode in New Zealand seems to be a combination of: political economy factors; insufficient emphasis on macro-stability objectives; and – with the benefit of hindsight – genuine mistakes in assessing cyclical conditions.

Looking ahead, it is recommended that we modify the fiscal policy framework to facilitate a more active stabilisation focus for fiscal policy, in time for the next upturn. The desired change could be characterised as follows:

Standard prescription		Future prescription
Fiscal policy should follow stable and transparent rules that allow automatic fiscal stabilisers to operate fully while refraining from the temptation to use discretionary countercyclical policy owing to the likely decision and implementation lags.	→	Fiscal policy should actively seek to avoid offsetting the automatic fiscal stabilisers, by putting in place institutional structures that promote greater transparency and accountability and build public support for the need to run large fiscal surpluses during upturns.

While better fiscal policy analysis may be able to help at the margin, the biggest challenge in designing a better set of fiscal rules and institutions is the political economy one. Greater public support is required for the need to run increasingly large fiscal surpluses during upturns (there already seems to be sufficient support for running deficits during downturns). At the same time New Zealand's fiscal institutions need to be able to cope with real-time uncertainty and foster a greater degree of caution in the way revenue windfalls are interpreted.

Features of a future fiscal framework could therefore include:

• increased focus on the macro-stabilisation objective (without diluting the importance of the long-run sustainability objective) and a greater focus on building public support for stabilising fiscal policy. Tools to achieve this may include:

  - a *more explicit mandate* in the PFA relating to fiscal policy stability;

  - better and more regular communication (to both the government and the public) of the fiscal stance and its macroeconomic impact;

• a more explicit de-linking of expenditure decisions from revenue outturns. This could be facilitated by clearer *ex ante* specification of spending plans in fiscal strategy documents, or through use of a well-designed stabilisation fund;

• permanent tax policy reforms such as a capital gains tax that would increase the strength of the automatic stabilisers, while also improving the efficiency of the tax system more generally. Since such a tax would, at the same time, increase the pro-cyclicality of tax revenues, the need for other institutional reforms to de-link expenditure decisions from revenue windfalls would gain further importance. One suggestion has been to earmark capital gains tax revenues for a stabilisation fund;

• consideration of the role that an independent fiscal council could play in raising the quality of public debate and transparency and accountability of key fiscal policy judgments;

• finally, an increased focus on introducing policy changes more *gradually* would also help to mitigate the problems of trying to operating fiscal policy in a fog of uncertainty.

ANNEX 1
FISCAL INSTITUTIONS IN CHILE[44]

Chile adopted a structural surplus rule in 2000. Until 2007 a structural surplus of 1 per cent of GDP was targeted. The target was lowered to ½ per cent as of 2008 and (temporarily) to 0 per cent for 2009. The government calculates structural revenues with the help of two independent expert panels who provide inputs for the long-term reference price for copper and an estimate for potential output growth. Under the rule the government saves all revenues above the estimated structural component of central government revenue. Actual fiscal surpluses in excess of the structural surplus target are allocated to the Stabilisation Fund (ESSF), the Savings Fund (PRF), and the Central Bank of Chile, as described below. In practice, when very large fiscal surpluses were recorded over 2007-08, most allocations were to the ESSF. The fiscal framework enjoys a broad political consensus.

In the face of fiscal surpluses as large as 8 per cent of GDP over the mid-late 2000s (Figure 11), the government was successfully able to communicate that growth of public spending beyond the limit implied by the rule would risk putting renewed upward pressure on the exchange rate. However, the framework has not been foolproof, as evidenced by the fact that upward revisions to the long-term copper price, by the independent expert panel, allowed for pro-cyclical spending increases.

1   Chile has both a Stabilisation Fund (ESSF) and a Savings Fund (PRF)

Chile's 2006 Fiscal Responsibility Law involved the creation of two new sovereign wealth funds. The first of these is the Pension Reserve Fund (PRF) which is essentially a Savings Fund – not dissimilar to the New Zealand Superannuation Fund – (no withdrawals are allowed to be made from the fund for a minimum of ten years). *This fund receives a minimum annual contribution of 0.2 per cent of GDP (to be made even in the case of an overall deficit), which can be increased to up to 0.5 per cent of GDP*, and initially received a one-off sum of $600 million in 2006 to kick-start the fund. In addition, 0.5 per cent of GDP is allocated to the central bank each year, for recapitalisation, provided the central government runs an overall surplus. These recapitalisation payments are expected to cease after 2011.

The other fund, the Economic and Social Stabilization Fund (ESSF), came into existence in 2007 with a one-off payment of approximately US$ 5 billion, (from its predecessor, the 1985 Copper Stabilization Fund). *The ESSF receives each year any positive balance resulting from the difference between the actual and structural fiscal surpluses after the contributions to the PRF and to the Central Bank of Chile have been made.* Resources from the ESSF can be used to fund the contributions to the PRF when the overall central government balance is negative.

2   Contributions to and withdrawals from the ESSF

Contributions to the ESSF since its creation in 2007 total almost US$ 20 billion, and withdrawals just under US$ 10 billion (see Table overleaf).

The assets accumulated allowed the government to implement a US$ 4,000 million fiscal stimulus plan in 2009 to compensate for the sharp drop in private demand associated with the

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[44]   The information in this Annex is drawn largely from the website of the Chilean Ministry of Finance: http://www.minhda.cl/english/fondos_soberanos/index.php. Information on the independent expert panels is drawn from other sources.

	Contributions to the ESSF		Withdrawals from the ESSF		Market Value *(millions of US$)*
	Amount *(millions of US$)*	percent of previous year's GDP	Amount *(millions of US$)*	percent of previous year's GDP	
2007	13,100	8.9	-	-	14,033
2008	5,000	3.1	-	-	20,211
2009	-	-	9,278	5.5	11,285
2010	1,362	0.8	150	0.1	12,720

Note: Approximately US$ 5 billion of the contributions in 2007 were a one-off payment from the fund's predecessor.

global economic and financial crisis. This plan included: a special program of public investment worth US$ 700 million; a capital injection of US$ 1,000 million for the state copper company Codelco to support its investment plans; two special grants of 40,000 pesos (approx US$ 80) per dependent to the country's poorest families; a temporary reduction in stamp tax on loan operations; a postponement of the reversal of part of an earlier temporary cut in fuel tax; and the bringing forward of income tax rebates. In line with the key purpose of the ESSF an additional US$ 4,000 million was withdrawn from the fund to help finance the actual fiscal deficit, US$ 441 million was used to pay down public debt and US$ 837 million was withdrawn for payment into the PRF. As a result total withdrawals from the ESSF in 2009 totalled US$ 9,278 million (approx 5.5 per cent of GDP).

Further significant withdrawals in 2010 were not required since GDP growth returned to a healthy rate. Indeed, contributions resumed in the second half of that year. Government policy minimised the effect of the inflow of dollars from the ESSF on the exchange rate by using domestic borrowing to finance the deficit.

3   Corporate governance, objectives and strategies

Both funds are managed by a Financial Committee, the members of which are appointed by the (independent) central bank. The Committee is responsible for making investment decisions and for the day-to-day running of the funds.

The aim of the PRF is to address an expected future government pension liability shortfall. As a Savings Fund, it takes a longer-term view. This means it has a higher risk profile and can invest in a broad range of asset classes. The ESSF, on the other hand, has macroeconomic stabilisation objectives. It has the aim of accumulating excess revenues when the price of copper is high in order to channel revenues into the budget when the price of copper is low, thereby smoothing out government expenditure. As a Stabilisation Fund, it has a lower risk profile in terms of its investments because it must take a short-term view due to liquidity concerns. Despite the differences in risk profile, both funds are exclusively invested in low-risk asset classes, similar to those used in international reserves. This conservative risk profile for the PRF was initially intended to be temporary, and the Financial Committee has recommended a move to more diversification. The performance of the funds is measured in US dollars and investments are not hedged.

4   The role of the independent expert panels

Chile has two independent expert panels to which key technical decisions are delegated. The "potential output" panel estimates the main parameters that are used for calculating the structural balance. The panel – which consists of about 14 well-known economists from academia and research bodies – meets twice during each budget season. At the second meeting, each member of the panel submits a forecast for each of the inputs required by the model (labour force; real investment; and total factor productivity). Each of the estimates is published anonymously so that each forecaster recognises only his/her own. The two extremes on either side are discarded and then a simple average of the remaining 12 forecasts is used to estimate the output gap from a production function. There is no discussion to achieve a consensus among panel members.

The "copper price" panel is similar to the "potential output" panel, except that it is charged with the job of estimating the average long-term (ten-year) price for copper as the reference price (which serves as an input to the structural balance). The same procedures are followed as for the potential output panel. Panel members are employees of mining companies and related enterprises, or financial analysts in this sector.

Members of both panels are appointed by the Minister of Finance for one year at a time, although they are typically re-appointed every year. Most members have been there since the beginning (approximately 2006). The experts receive no remuneration. The establishment of these independent panels seems to have alleviated fears about the impartiality of the calculations underlying the structural budget surplus, although some commentators have recommended that the independence of the panels be boosted by requiring them to publish some commentary on the fiscal position.

5   Proposals to strengthen Chile's rule-based fiscal framework

Both the IMF and the OECD have noted that Chile's fiscal framework has contributed to very impressive fiscal performance (Dabán, 2011; IMF, 2010b; Chan-Lau *et al.*, 2010; OECD, 2010b). Nevertheless, a key weakness of the framework has been noted: that upward revisions to the long-term assumption for copper prices imparted an unintended pro-cyclicality to government spending over the last upturn. A number of different proposals to address this include:

- Introducing an expenditure growth ceiling, to help prevent pro-cyclical increases in public spending;
- Focussing more attention on the structural non-mining primary balance;
- Adding provisions to handle *ex post* deviations to avoid last-minute fiscal tightening or loosening at the end of the year to comply with the rule;
- Expanding the role of the expert committees to include an *ex post* assessment of the implementation of the rule, or transforming the panel into an independent fiscal council;
- An alternative proposal was to convene the expert committee for the determination of long-term copper prices less frequently, ideally only once a full copper price cycle has been completed.

REFERENCES

2025 Taskforce (2009), "Answering the $64,000 Question: Closing the Income Gap with Australia by 2025", first report of the 2025 Taskforce, New Zealand Government, November.

Abbas, S.M.A., J. Bouhga-Hagbe, A.J. Fatás, P. Mauro and R.C. Velloso (2010), "Fiscal Policy and the Current Account", International Monetary Fund, Working Paper, No. WP/10/121.

Alesina, A. (2000), "The Political Economy of the Budget Surplus in the US", *Journal of Economic Perspectives*, No. 14, pp. 3-19, available at: http://www.aeaweb.org/articles.php?doi =10.1257/jep.14.3.3

Allsopp, C. and D. Vines (2005), "The Macroeconomic Role of Fiscal Policy", *Oxford Review of Economic Policy*, Vol. 21, No. 4, pp. 485-508.

André, J.P. (2011), "Economic Imbalances: New Zealand's Structural Challenge", New Zealand Treasury, Working Paper, forthcoming.

Askari, M., K. Page and S. Tapp (2011), "Reforming Fiscal Institutions in Canada", in this volume, Parliamentary Budget Office, Canada.

Auerbach, A. and W. Gale (2009), "Activist Fiscal Policy to Stabilise Economic Activity", paper prepared for the Federal Reserve Bank of Kansas City conference on *Financial Stability and Macroeconomic Policy*, Jackson Hole (WY), August.

Auerbach, A. and Y. Gorodnichenko (2010), "Measuring the Output Responses to Fiscal Policy", NBER, Working Paper, No. 16311.

Balassone, F., M. Francese and S. Zotteri (2007), "Cyclical Asymmetry in Fiscal Variables", in Banca d'Italia (ed.), *Fiscal Policy: Current Issues and Challenges*.

Barker, F., R. Buckle and R. St Clair (2008), "Roles of Fiscal Policy in New Zealand", New Zealand Treasury, Working Paper, No. 08/02, available at: http://www.treasury.govt.nz/publications/research-policy/wp/2008/08-02/

Barker, F. and R. Philip (2007), "Comparative Approaches to Fiscal Rules", New Zealand Treasury, paper prepared for the workshop *The Business Cycle, Housing, and the Role of Policy*, hosted by the Treasury and the Reserve Bank, Wellington, December.

Bean, C.R. (2009), "The Meaning of Internal Balance Thirty Years On", *The Economic Journal*, Vol. 119, November.

Beetsma, R. and M. Giuliodori (2011), "The Effects of Government Purchases Shocks: Review and Estimates for the EU", *The Economic Journal*, Vol. 121, No. 550, pp. F4-F32.

Blanchard, O. (2007), "Current Account Deficits in Rich Countries", International Monetary Fund, Staff Paper, Vol. 54, No. 2.

Blinder, A.S. (2004), "The Case Against the Case Against Discretionary Fiscal Policy", CEPS, Working Paper, No. 100.

Boije, R. and J. Fischer (2006), "Fiscal Indicators in a Rule-based Framework", in Banca d'Italia (ed.), *Fiscal Indicators*.

Brainard, W. (1967), "Uncertainty and the Effectiveness of Policy", *American Economic Review*, Vol. 57, pp. 411-25.

Buiter, W. (2006), "Stabilisation Policy in New Zealand: Counting Your Blessings One by One", in R. Buckle and A. Drew (eds.), *Testing Stabilisation Policy Limits in a Small Open Economy: Proceedings from a Macroeconomic Policy Forum*, Reserve Bank of New Zealand and the

Treasury, Wellington, October, pp. 37-74, available at: http://www.rbnz.govt.nz/research/workshops/12jun06/2837468.html

Cassino, E. and Z. Wallis (2010), "The New Zealand Dollar Through the Global Financial Crisis", Reserve Bank of New Zealand, *Bulletin*, Vol. 73, No. 3.

Chan-Lau, J.A., T. Dabán, N. Magud and L. Medina (2010), "Chile: Selected Issues", August 27, background information to the IMF Staff Report on the 2010 Article IV consultation discussions with Chile, International Monetary Fund, Washington (D.C.).

Claus, I., A. Gill, B. Lee and N. McLellan (2006), "An Empirical Investigation of Fiscal Policy in New Zealand", New Zealand Treasury, Working Paper, No. 06/08, available at: http://www.treasury.govt.nz/workingpapers/2006/wp06-08.asp

Condliffe, J.B. (1959), *The Welfare State in New Zealand*, George Allen & Unwin Ltd.

Conway, P. (2000), "Monetary Policy in an Uncertain World", Reserve Bank of New Zealand, *Bulletin*, Vol. 63, No. 3.

Dabán, T. (2011), "Strengthening Chile's rule-based fiscal framework", International Monetary Fund, Working Paper, No. WP/11/17.

Debrun, X. and M. Kumar (2007), "Fiscal Rules, Fiscal Councils and All That: Commitment Devices, Signalling Tools or Smokescreens?", in Banca d'Italia (ed.), *Fiscal Policy*.

Dunaway, S. (2009), "Global Imbalances and the Financial Crisis", Council on Foreign Relations, Special Report, No. 44, March.

Dungey, M. and R. Fry (2009), "Identifying Fiscal and Monetary Policy in a Small Open Economy VAR", *Economic Modelling*, Vol. 26, pp. 1147-60.

Dunstan, A., D. Hargreaves and O. Karagedikli (2007), "The Impact of Fiscal Policy on the Business Cycle", Reserve Bank of New Zealand, *Bulletin*, Vol. 70, No. 1, pp. 5-18.

Edison, H. and F. Vitek (2009), "Australia and New Zealand Exchange Rates: A Quantitative Assessment", International Monetary Fund, Working Paper, No. 09/07.

European Commission (2006), "Fiscal Policy in Good Times", Part IV of *Public Finances in the EU – 2006*, available at: http://ec.europa.eu/economy_finance/publications/publication7927_en.pdf and in http://ec.europa.eu/economy_finance/publications/publication423_en.pdf

Fielding, D., O. Parkyn and P. Gardiner (2011), "Explaining some Puzzles in the Estimated Response of New Zealand GDP to Fiscal Shocks", paper presented at the *New Zealand Association of Economists Annual Conference*, Wellington, July.

Frankel, J. (2011), "Over-optimism in Forecasts by Official Budget Agencies and Its Implications", NBER, Working Paper, No. 17239.

Gaukrodger, B. (2011), "Using Tax Policy Instruments as Macroeconomic Stabilisation Tools", New Zealand Treasury, Internal Research Note, Document Ref. No. 1897134.

Hauptmeier, S., J. Sánchez-Fuentes and L. Schuknecht (2010), "Towards Expenditure Rules and Fiscal Sanity in the Euro Area", European Central Bank, Working Paper, No. 1266.

House of Commons Treasury Committee (2007), "The Monetary Policy Committee of the Bank of England: Ten Years On", House of Commons Treasury Committee report on the Monetary Policy Committee of the Bank of England, available at: http://www.bankofengland.co.uk/monetarypolicy/overview.htm

Hughes-Hallet, A., R. Kattai and J. Lewis (2007), "Early Warning or Just Wise After the Event?: The Problem of Using Cyclically Adjusted Budget Deficits for Fiscal Surveillance", De Nederlandsche Bank, Working Paper, No. 124.

Ilzetzki, E., E.G. Mendoza and C.A. Végh (2011), "How Big (Small?) Are Fiscal Multipliers?", International Monetary Fund, Working Paper, No. WP/11/52, Washington (D.C.).

IMF (2009), "Fiscal Rules: Anchoring Expectations for Sustainable Public Finances", International Monetary Fund, Fiscal Affairs Department, Washington (D.C.).

——————— (2010a), "New Zealand: 2010 Article IV Consultation – Staff Report", International Monetary Fund, Country Report, No. 10/144, Washington (D.C.).

——————— (2010b), "Chile: 2010 Article IV Consultation – Staff Report", International Monetary Fund, Country Report, No. 10/298, Washington (D.C.).

Jaeger, A. and L. Schuknecht (2004), "Boom-bust Phases in Asset Prices and Fiscal Policy Behavior", International Monetary Fund, Working Paper, WP/04/54, Washington (D.C.).

Kumar, M.S. and T. Ter-Minassian (2007), *Promoting Fiscal Discipline*, Washington (D.C.).

Labuschagne, N. and P. Vowles (2010), "Why Are Real Interest Rates in New Zealand So High? Evidence and Drivers", New Zealand Treasury, Working Paper, No. 10/09.

Lane, P.R. (2010), "Some Lessons for Fiscal Policy from the Financial Crisis", Institute for International Integration Studies, Discussion Paper, No. 334.

Leeper, E.M. (2010), "Monetary Science, Fiscal Alchemy", paper prepared for the Federal Reserve Bank of Kansas City's Jackson Hole Symposium *Macroeconomic Policy: Post-crisis and Risks Ahead*, August 26-28.

Lindh, Y. and G. Ljungman (2007), "Fiscal Rules and the Scope for Stabilisation Policy: The Case of Sweden", in Banca d'Italia (ed.), *Fiscal Policy: Current Issues and Challenges*.

Lucas, R.E. (2003), "Macroeconomic Priorities", *The American Economic Review*, Vol. 93, No. 1.

Mabin, G. (2010), "New Zealand's Exchange Rate Cycles: Evidence and Drivers", New Zealand Treasury, Working Paper, No. 10/10.

Mears, T., G. Blick, T. Hampton and J. Janssen (2010), "Fiscal Institutions in New Zealand and the Question of a Spending Cap", New Zealand Treasury, Working Paper, No. 10/07.

Medina, L. (2010), "The Dynamic Effects of Commodity Prices on Fiscal Performance in Latin America", International Monetary Fund, Working Paper, No. WP/10/192, Washington (D.C.).

New Zealand Treasury (2005), "Fiscal Assessment Report – Macroeconomic and Fiscal Implications of the 2005 Budget Package", New Zealand Treasury, Budget Report, No. BR2005/24, OIA Release Version (Treasury:753713).

——————— (2007) "Fiscal Assessment – Emerging Position and Options for Budget 2008", New Zealand Treasury, Budget Report, No. BR2007/14, OIA Release Version (Treasury:1108234).

OECD (2010a), "Counter-cyclical Economic Policy", OECD, Economics Department, Policy Note, No. 1, May.

——————— (2010b), "Fiscal Policies for Enhanced Resilience and Equity", chapter 2 in *OECD Economic Surveys: Chile*, Organisation for Economic Cooperation and Development, Paris.

Orphanides, A. and S. Van Norden (2003), "The Reliability of Inflation Forecasts Based on Output Gap Estimates in Real Time", Cirano, Working Paper, No. 2003s-01.

Parkyn, O. (2010), "Estimating New Zealand's Structural Budget Balance", New Zealand Treasury, Working Paper, No. 10/08.

Philip, R. and J. Janssen (2002), "Indicators of Fiscal Impulse for New Zealand", New Zealand Treasury, Working Paper, No. 02/30.

Price, R., I. Joumard, C. André and M. Minegishi (2008), "Strategies for Countries with Favourable Fiscal Positions", OECD, Economics Department, Working Paper, No. 655.

Reserve Bank of Australia (2011), "The Role of Sovereign Wealth Funds in Managing Commodity Revenues", internal document released under the Freedom of Information Act, available at: http://www.rba.gov.au/about-rba/foi/pdf/25032011.pdf

Reserve Bank of New Zealand (2007), *Submission to the Finance and Expenditure Select Committee's Inquiry into the Future Monetary Policy Framework*, July, available at: http://www.rbnz.govt.nz/monpol/about/3074316.html

Romer, C. and D. Romer (2007), "The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks", NBER, Working Paper, No. 13264.

Solow, R.M. (2005), "Rethinking Fiscal Policy", *Oxford Review of Economic Policy*, Vol. 21, No. 4., pp. 509-14, available at: http://oxrep.oxfordjournals.org/cgi/reprint/21/4/509

Taylor, J.B. (2009), "The Lack of an Empirical Rational for a Revival of Discretionary Fiscal Policy", *American Economic Review: Papers and Proceedings*, Vol. 99, No. 2, pp. 550-55.

Ter-Minassian, T. (2011), "Should Latin American Countries Adopt Structural Balance-based Fiscal Rules?", in this book, drawing in part on a chapter for a forthcoming book by the Inter-American Development Bank on the same subject.

IS IT WORTH CONSIDERING NET WORTH?
FISCAL POLICY FRAMEWORKS FOR CENTRAL EUROPE

L'udovít Ódor[*]

The Great Recession has showed very clearly that the Stability and Growth Pact failed to put the budgetary positions of European Union Member States on sustainable footing. Despite the recent attempt to resuscitate the SGP the paper argues that it is necessary to redesign national fiscal frameworks based on country specific circumstances. Central European countries are characterized by relatively low level of debt, chronic deficits, not sustainable pension and healthcare systems, high degree of creative accounting and lack of transparency. Moreover, their growth performance is highly dependent on capital inflows. According to the authors, in this environment shifting the focus from flow variables toward the concept of net worth might be beneficial. The balance sheet approach can increase the public awareness of unsustainable public finances and contrary to the SGP can help to bring to the forefront long-term solutions by not punishing structural reforms. Since the concept of net worth is not yet operational it can serve only as a benchmark for transparency and starting point for budgetary rules. The paper argues that multi-year nominal expenditure ceilings together with independent fiscal institutions are the most suitable frameworks for Central European countries.

1   Motivation

Even before the outbreak of the recent crisis, budgetary positions of many OECD countries were on an unsustainable path. As Kumar and Ter-Minassian (2007) show, fiscal balances of both industrial and developing countries have been negative in each of the past 30 years. Deficit persistence and rising public debt in many countries suggest that deficit bias played an important role. This problem alone would be sufficient motivation to redesign fiscal frameworks,[1] unfortunately, there are at least three other factors calling for changes. First, countries all over the world need credible exit strategy after the huge impact of the recent crisis on their budgetary positions. The deterioration was caused not only by the working of automatic stabilizers, but also counter-cyclical fiscal policy and bail-outs of the banking systems played an important role. Due to changes to the potential output (and possible its growth), the underlying budgetary position is worse than it seems at the first sight. The increase in public debt resulted also in a surge in interest expenditures. Second, unfavorable demographic changes in developed countries are imposing additional burden on budgetary positions. According to the projections of the European Commission (2009) age-related expenditures in the European Union (EU) will rise by 4.3 percentage points of GDP by 2060. Third, some argue that the requirement for greener growth is likely to slow economic growth in the next decades, creating another headwind for fiscal policy. Internalization of negative externalities from greenhouse gases will probably result in higher prices and less consumption.

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[1]   Fiscal framework in this paper refers to the overall institutional set up, including fiscal rules, independent agencies, transparency and procedural rules, etc.

Central European (CE) countries are not an exception. Although their debt levels are lower and growth potential higher than in Western Europe, default risk premiums usually kick off at lower level of public debt than in developed countries (Kopits, 2004).

It is clear that the Stability and Growth Pact (SGP) fails to ensure budgetary improvements in good times (Calmfors, 2005). Moreover, one can argue that it is even harmful in some cases due to discrimination of funded schemes, increased use of creating accounting practices (Milesi-Ferretti and Moriyama, 2006)[2] or postponing market reactions to unsustainable budgetary developments. The European Commission (EC) recognizes the problems with the one-size-fits-all fiscal rules and calls for a supplementary tool, namely strengthening national fiscal frameworks (EC, 2010a). This paper attempts to define the main features of stronger national fiscal frameworks in the context of Central European countries.

After investigating the characteristics of Central European countries relevant for the choice of fiscal frameworks, we propose a general framework suitable for this type of catching-up countries. We see the decrease of the informational asymmetry between the public and policy makers as the most important step against deficit bias. In our view, broadening the scope of analysis from general government to the whole public sector can be very helpful. In this regard, calculating indicative balance sheets and public net worth can help to remove bad incentives coming from the narrow focus on the flow variables. In addition to that, we advocate for expenditure rules, independent fiscal agencies and implicit or explicit debt limits. It is very important to see these suggestions not as individual options, but rather complements, since there are important synergies between them. Our proposal is to implement these in one package, if possible in the form of fiscal responsibility acts, together with transparency requirements and procedural rules.

It is also important to bear in mind that there are no magic solutions without political will. Fortunately, the current difficulties in many periphery countries in the EU and the need for credible exit strategies created (at least *ex ante*) political will to put public finances on sustainable footing in many countries.

The paper is organized as follows. The second section provides a short overview of the possible causes of deficit bias in general and particularly in Central Europe (henceforth CE). The third section highlights the main characteristics of CE countries relevant for the choice of appropriate fiscal frameworks in order to impose commitment technologies on governments with *ex ante* willingness to consolidate. Section 4 builds a general framework based on the requirements identified in section 3. The fifth section describes the recent reform proposal in Slovakia. Section 6 offers conclusions.

2   Deficit bias in Central Europe – theory and evidence

Kumar and Ter-Minassian (2007) and Hagemann (2010) show sustained high deficits and increasing public debt both in developed and developing countries in the last thirty years. High deficit over such long periods can be harmful not only for economic growth, but is also not compatible with optimal fiscal strategies. As Calmfors and Wren-Lewis (2011) show, although there is little agreement on an optimal debt level in the literature, tax smoothing is generally a basic characteristic of optimal policies. Figure 1 shows general government net lending in the OECD and CE.

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[2]   Easterly (1999) shows a tendency to run down government assets instead of structural consolidation in a number of developing countries with IMF programs.

Figure 1

General Government Net Lending
(percent of GDP)
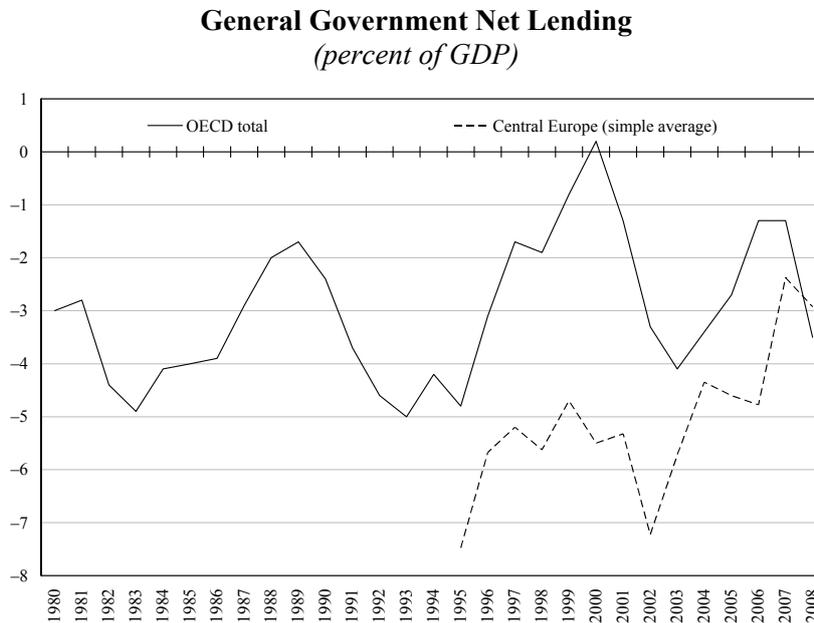
Source: OECD.

Deficits have lead to an increase in gross public debt in the OECD to 100.7 percentage points of GDP in 2011 from 68.7 per cent in 1993 (OECD, 2010). Gross debt in Central Europe is approaching 60 per cent of GDP (simple average) compared to 45 per cent ten years ago. It is well accepted fact in the literature (see for example Debrun *et al.*, 2009), that these sustained deficits and increasing debt levels are to some extent due to the so called deficit bias.

One can find several sources of deficit bias in the literature. Based on Cukierman and Meltzer (1986), Drazen (2004), Debrun *et al.*, (2009) and Calmfors and Wren-Lewis (2011) we can mention at least six possible causes: (i) informational problems; (ii) impatience; (iii) myopia; (iv) common-pool theory; (v) time inconsistency and (vi) electoral competition. We claim that informational problems, myopia and the common-pool theory are the most relevant explanatory factors in Central Europe. In our view the source of the deficit bias is important when designing fiscal policy frameworks.

Deficit bias in principle should not be a long-term problem if financial markets would react to inadequate fiscal policy early enough. However as the literature shows markets seems to penalize unsustainable fiscal policies in a non-linear fashion and only at a later stage. Hauner and Kumar (2006) and Balassone, Franco and Zotteri (2006) show that interest rates and credit ratings usually impose only small costs on governments. In monetary unions with some degree of political integration such as the euro area, the delays can be much longer due to the little credibility of no bail-out clauses.

Another line of defense against deficit bias would be if voters put more pressure on fiscally non-responsible governments. As the experience from the last 30 years shows, to rely solely on this assumption would be problematic. One explanation is that voters themselves discount the future heavily. The other, more important cause is informational asymmetry; it is often hard for voters to distinguish between bad policies and bad luck.

Despite the prevalence of big deficits in Central Europe, according to opinion polls voters and companies usually care about future generations and increasing public debt. According to KPMG (2010), 75 per cent of managers of Czech and Slovak firms were very or extremely concerned about public debt levels – the highest number among the 26 countries polled. Poland ranked 11th, while Hungary only 18th. The high sensitivity to public debt is surprising, because at the time of the survey, gross debt levels in the Czech Republic and Slovakia were below 40 per cent of GDP. Polls among citizens show very similar picture. Around 90 per cent of citizens

considers public debt as a major threat in Hungary and Czech Republic (Nezopont Intezet, 2011 and Ipsos Tambor, 2010). In Poland less than 50 per cent of voters were in favor of increasing the constitutional debt limit (GfK Polonia, 2010). In Slovakia rising public debt was one of the main topics before the 2010 parliamentary elections. It is also interesting to note that despite the short-term negative budgetary impact, three out of the four CE countries introduced fully-funded mandatory pension pillars and other structural reforms with long-term positive impact on public accounts. Voters in Central Europe

Figure 2

Cyclically-adjusted Balances (CABs) in Central Europe
(percent of GDP)

Source: MFSR, NBP, CNB, MNB, CAB – average of the four countries between 2000 and 2007 (9 occasions from which 7 showed higher deficits in election years).

seems to be more willing to support deep structural changes than in more matured democracies.
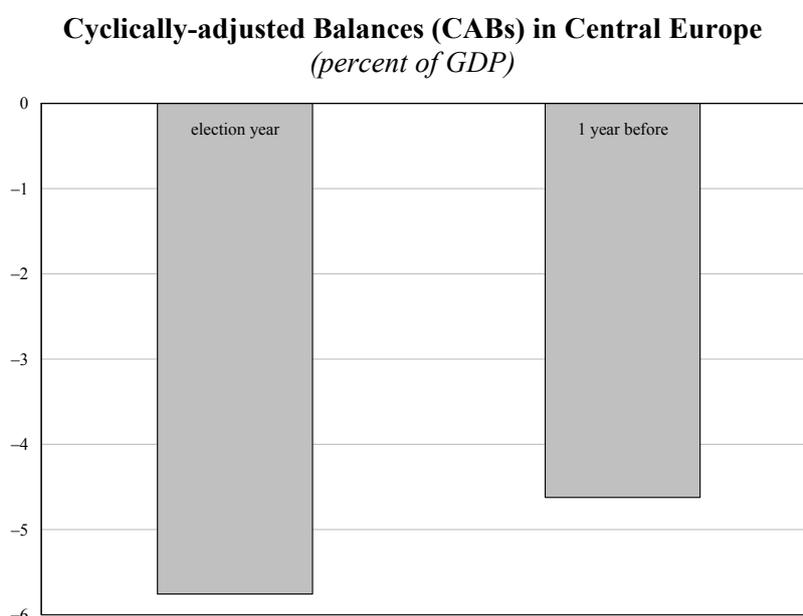
At the same time, transparency of budgets in Central Europe is still – despite many improvements in recent years – below Western European standards. According to the International Budget Partnership (2010), Poland, Czech Republic and Slovakia scored around 60 points on a 100 points scale of budget transparency compared to UK, France and Sweden scoring above 80 points. P. Kiss (2007b) and Horvath and Odor (2009) identify relatively ample room for maneuver for creative accounting in Hungary and Slovakia.[3] This room was extensively used in Hungary in the last several years (P. Kiss, 2011).

The sensitivity of public to high debt and the low transparency of budgets in Central Europe suggest that informational asymmetry has been an important source of deficit bias. Therefore decreasing this asymmetry between the public and the government could have substantial benefits in the form of additional costs imposed on policy makers departing from sustainable policies.

The second major source of deficit bias in Central Europe is myopia. As Figure 2 illustrates structural deficits in election years were on average higher than one year prior elections. Moreover, there were significant upward revisions to deficit because of reclassification of PPP projects (for example highway construction in Hungary, P. Kiss, 2007b) and financial transactions into capital transfers (Slovakia in 2009). It clearly shows that governments often care only about the short-term consequences of their action. Their interest for future is lessened due to the uncertainty over next elections.

The third significant cause of deficit bias in CE is the common-pool theory. Decision makers

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[3]   For the discussion of creating account practices in OECD see Koen and van den Noord (2005).

Pro-cyclicality of Fiscal Policy in Central Europe

	2005	**2006**	**2007**	**2008**	**2009**	**2010**
Czech Republic						
Output gap	**0.0**	**2.8**	5.5	**4.5**	–2.7	**–1.6**
Consolidation effort	**–0.8**	**–1.1**	1.3	**–2.0**	–1.0	**0.6**
Hungary						
Output gap	**3.2**	**4.2**	2.4	1.8	**–4.7**	**–5.5**
Consolidation effort	**–1.9**	**–0.5**	3.1	2.4	**1.7**	**0.5**
Poland						
Output gap	0.1	1.6	3.0	**2.7**	–0.5	–1.3
Consolidation effort	0.9	0.4	0.9	**–1.5**	–2.4	0.0
Slovakia						
Output gap	**–1.6**	–1.2	**1.1**	2.2	–4.9	–2.5
Consolidation effort	**0.7**	–0.3	**–0.5**	0.3	–4.2	–0.5

Source: MFSR, NBP, CNB, MNB; in bold are cases of pro-cyclical policies; consolidation effort is the change in the cyclically-adjusted primary balances net of one-off effects.

under the pressure of various interest groups are unable to internalize the overall costs of higher debt. Tornell and Lane (1999) suggest that this incentive is stronger in good times and leads to substantial pro-cyclicality of policy. Years 2006-08 were especially good for CE countries. According to the estimates of the European Commission (2010b) output gap showed significantly positive values in all four countries. Despite buoyant economic environment, structural primary balances net of one-off effects showed no substantial improvement during this period (Table 1).

The Stability and Growth Pact was unable to impose significant costs on policy makers pursuing pro-cyclical fiscal policy in good times and failed to eliminate the deficit bias. This calls for tailor-made solutions at the national level. European Commission (2011) also encourages national governments to supplement the Pact by strengthening national fiscal frameworks. One of the six legislative proposals is a draft Council Directive on requirement for budgetary frameworks of the Member States. The next section highlights the main requirements for such a framework in Central Europe.

3   Fiscal policy environment in Central Europe[4]

Policy makers in Central Europe face slightly different environment for fiscal policy than their counterparts in more developed countries. This section identifies the main challenges to be taken into account when designing frameworks for fiscal policy in this region. We do not want to

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[4]   We do not want to state that Central Europe is a perfectly homogenous region, however in our view it is possible to distinguish this region from the other EU Member States based on some economic characteristics.

Table 2

Business Cycle Volatility in Central Europe

	Volatility (s.d.)	Volatility of Growth Rate *(quarterly)*	Autocorrelation	Correlation with GER
Czech Republic	1.47	1%	0.78	0.86
Hungary	1.50	1%	0.83	0.78
Poland	2.69	2%	0.73	0.52
Slovakia	1.40	1%	0.75	0.68
Germany	1.29	0.6%	0.91	1.00

Source: author, based on seasonally-adjusted and HP-filtered quarterly data (1995-2010) with parameter 1600.

state, that the features identified are not present in developed countries; however we believe that their importance is higher for catching-up economies.

We have identified seven interrelated characteristics for policy consideration: (1) higher macroeconomic volatility, (2) frequent regime switches and stop-and-go policies, (3) FDI dependence, and high current account deficits, (4) lower tax potential, (5) expenditure pressures, (6) higher corruption and lower law enforcement, (7) relatively low public debt and higher growth potential. It is important to bear in mind that many of these problems are not exogenous to the setting of fiscal policies. We analyze each of them in turn and draw lessons for designing fiscal policy frameworks in CE countries.

3.1   Higher macroeconomic volatility

It is well documented fact in the literature that emerging market business cycles are more volatile than their counterparts in developed economies. For example as Aguiar and Gopinath (2007) show, output volatility in emerging markets is twice as high as in developed markets, current accounts are strongly counter-cyclical and consumption volatility exceeds income volatility. They argue that these characteristics can be explained mainly by shocks to trend growth rather than transitory fluctuations around a stable trend. They conclude that in emerging markets "cycle is the trend." García-Cicco, Pancrazi and Uribe (2010) challenge this explanation and using longer time series show that standard RBC models are not capable of explaining business cycle facts in Mexico and Argentina. According to them, international financial frictions could be the missing element. Balassone and Kumar (2007) also claim that developing countries are facing much more volatile macroeconomic environment and uncertain access to international capital markets. Table 2 shows the estimated business cycle volatility in Central Europe using Hodrick-Prescott filter compared to that of Germany. Apart from regime switches and sensitivity to international capital flows (described below), underdevelopment of financial markets (liquidity constraints), weaker automatic stabilizers, higher share of industry in value added (and higher concentration of exports) or higher risk-aversion might explain the excess volatility.

Fiscal frameworks in CE thus should take into account that it is much harder to assess in real time the cyclical position of the economy and the structural deficit than in developed countries.

3.2 Regime changes

Regime switches are endogenous factors contributing to higher macroeconomic volatility. Frequent changes in political cycles are not unknown also for developed countries (Italy); however political and economic cycles are more intertwined in Central Europe and in developing countries in general. Dramatic reversals of fiscal and monetary policy or substantial changes in structural reform appetite are frequent in catching-up countries. De Ferranti *et al.* (2000) estimates that 15 per cent of excess volatility in Latin American countries has been due to volatility in fiscal policy.

In Central Europe especially large structural breaks are visible mainly in Slovakia and Poland. Their business cycles are the least correlated with that of Germany. In Slovakia there were at least four important structural breaks in the past 15 years, from which three are closely related to domestic stop-and-go policies. The first is related to the expansionary fiscal policy from 1996 till 1998, which increased substantially the current account deficit. The second came after the elections in 1998, when the government had to approve a relatively harsh austerity package to cure the chronic twin-deficit problem. In 2003-05 (again after the elections) a package of very ambitious structural reforms were put in place (see Miklos, 2008), which resulted in a surge in potential output. The fourth break is the result of the financial crisis. Similar breaks are visible in the remaining three countries.

Any fiscal framework which limits the ability of the government to reverse policies or has a built-in bias against structural reforms is probably not politically sustainable. Frameworks should be flexible enough to accommodate government policies, which rest on very different value judgments. Therefore strong normative elements are not recommended for fiscal frameworks in Central Europe.

3.3 FDI dependence and high current account deficits

Recently much attention has been focused on the appropriateness of the FDI-led catching-up growth model for new Member States. Question marks arose mainly after the huge output drop in the Baltic States. Majority of the post communist countries are undercapitalized. Without foreign direct investment the catching-up process would be much longer. On the other hand, business cycles would be probable less volatile. In our view, the roots of the recent problems are not in the basic set up of this growth model, but in the choice of the exchange rate regime before the euro area entry (see Banerjee *et al.*, 2010) and underestimating the signals from the widening current account deficits, which can lead to substantial problems if international capital flows stop.[5] As Giavazzi and Spaventa (2010) argue, an important mistake was made in the downgrading of the problem of current account deficits in the euro area: although monetary union (and partially currency board arrangements) eliminates the threat of currency devaluation, high current account deficits can cause problems if the proceeds of external borrowing are not used for productive purposes. Using external resources to finance investments in non-tradables or domestic consumption can lead to problems in meeting the intertemporal budget constraint. Currently only Slovakia is a member of the euro area out of the four Central European countries. Although it is important in all four countries, especially Slovakia should pay a lot more attention to counter-cyclical fiscal policy to mitigate the possible negative side-effects of the FDI-led catching-up strategy. Pro-cyclical behavior of fiscal policy is of course a general problem highlighted by Balassone and Kumar (2007), but more severe in "good times" and for catching-up countries. According to their estimates for developing countries, procyclical discretionary fiscal

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[5] See Kaminsky, Reinhart and Vegh (2004) for evidence of pro-cyclicality of international capital flows.

Table 3

Tax Systems in Central Europe
(percent of GDP)

| Country	Total Taxes	Income Taxes	Social Security
Czech Republic	36.2	8.6	16.2
Hungary	40.5	10.6	13.8
Poland	34.3	8.6	11.4
Slovakia	29.3	6.4	12.0
Germany	40.6	11.3	15.3
EU27	40.5	13.1	12.8

Source: Eurostat.

policy in good times appears to be stronger than the impact of automatic stabilizers. Table 1 illustrates this problem for Central European countries.

Therefore fiscal frameworks should allow automatic stabilizers to fully operate as a minimum requirement. Since automatic stabilizers in Central Europe are not as strong as in countries with more progressive tax systems and higher share of public expenditures on GDP, fiscal frameworks should send a warning signal if more adjustment is needed beyond the work of stabilizers. This leads to requirement for sufficient flexibility via incorporation of judgments into the fiscal framework. Independent fiscal councils can play this role.

3.4   Lower tax potential

Tax burden in Central Europe is much lower than in the western part of Europe (Table 3). Lower GDP per capita and high openness are obviously among the reasons. Since catching-up economies are FDI-dependent, capital taxation is understandably lower than in more matured economies. Therefore majority of the tax burden falls on consumption and labor, mainly in the form of social security contributions. Moreover, the relatively high taxation of labor creates incentives to move certain activities to the shadow economy. Underreporting of earnings and higher share of self-employment (with minimum reported income) are common in the region. For example in Hungary, Poland and Slovakia the vast majority of self-employed reports net earnings below or at the minimum wage. That is one of the reasons why the macroeconomic effectiveness of the labor taxation is so low (Figure 3).

In the long run it is expected that these tax systems will at least partially converge to western standards, however the immediate challenge is to put in place simple and well functioning tax systems to contain tax avoidance. To achieve these goals, fiscal frameworks should not discriminate tax reforms. This requirement is important also from the political economy point of view. Fiscal frameworks to be sustainable should be compatible with both small and big role of the state in the economy.

Figure 3

Effective Labor Taxation in 2007
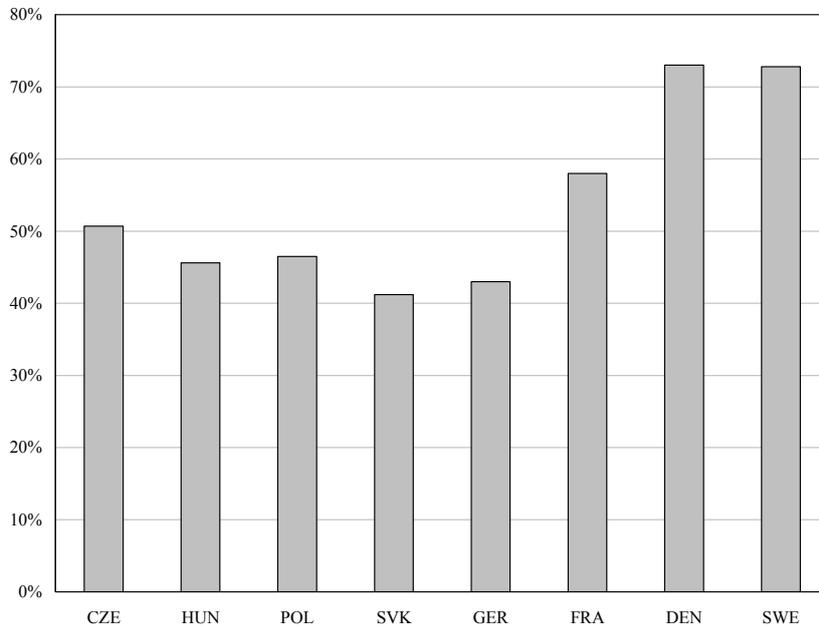
Source: Filko *et al.* (2010), calculated as ratio of actual labor tax revenues (as a percent of their macroeconomic tax base) to effective tax wedge.

Figure 4

Employment Rates in Central Europe in 2009
(percent of the labor force)
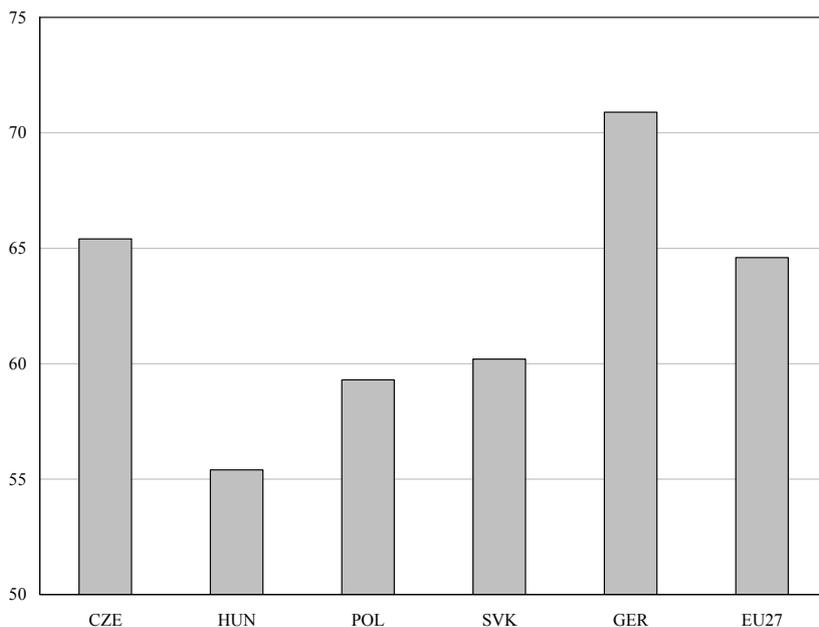
Source: Eurostat.

3.5 Expenditure pressures

Expenditure pressures are also present in Central Europe mainly as a heritage from the past. After the regime change a lot of physical and human capital became obsolete. Moreover the basic infrastructure (roads, communications, railways, etc.) is also underdeveloped compared to western countries. The latter creates a lot of needs for investments in physical capital and infrastructure, while the former represents a challenge for employment policies. In many cases the policies to put these people back to the job market failed and the "lost generation" ended in social safety nets as early retirees or disabled. Employment rate in Central Europe is therefore far lower than for example in Germany (Figure 4).

State companies represent a special case for expenditure pressures. In many cases countries failed to privatize or restructure state companies. Many of them create losses, which have to be covered by the general government from time to time (P. Kiss, 2011).

Aging of the population is another potential source for pressure. While it is not as immediate problem

<div align="right">**Table 4**</div>

Old-age Dependency Ratio

	2010	2025	2050	2060	Change 2060-10
CZE	21.83	33.75	54.81	61.4	39.57
HUN	24.22	33.26	50.83	57.64	33.42
POL	18.98	32.86	55.69	68.97	49.99
SVK	16.95	28.5	55.46	68.49	51.54
GER	31.17	39.53	56.43	59.08	27.91
FRA	25.81	35.85	44.68	45.2	16.39
EU27	25.9	34.23	50.42	53.47	27.57

Source: EUROPOP2008.

for new member states as for Western Europe, its impact will be substantial in the long run (Table 4). Central European countries are expected to stay below the EU average as far as the old-age dependency ratio is concerned at least until 2040. However, the cumulative growth of this indicator between 2010 and 2060 will be enormous in Slovakia and Poland (around 50 percentage points). In this context it is not surprising that the European Commission has classified the Czech Republic and Slovakia as "high risk" countries in terms of fiscal sustainability (EC, 2009).[6]

The good news is that three out of the four Central European countries implemented fully-funded pension pillars to distribute the burden of ageing on next generations more evenly. However recent developments show that since SGP creates distortions toward these kinds of schemes, Hungary and to some extent Poland reduced of the importance of their fully-funded pillars.[7] This is unfortunate if the only objective is to cut the deficit in the short-run.

The implication is that good fiscal frameworks should not discriminate structural reforms with long-term positive impacts in Central Europe and should focus on the entire public sector including state enterprises.

3.6   Corruption and law enforcement

Central European countries rank high as far as corruption is concerned and low in terms of budget transparency (Table 5). As P. Kiss (2007 and 2011) shows the room for creative accounting and off-budgetary operations is significant in Hungary. The situation is not much better in the remaining three countries. One of the major sources of deficit bias is non-transparency of public accounts. Law enforcement is also very low in the region, which in many cases creates bad incentives. For example state organizations and companies do not pay their dues in time, because they know that it will take a lot of time for the courts to decide. Therefore reporting cash outlays is in many cases not sufficient to monitor fiscal performance.

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[6]   Hungary and Poland were classified among "medium" risk countries.

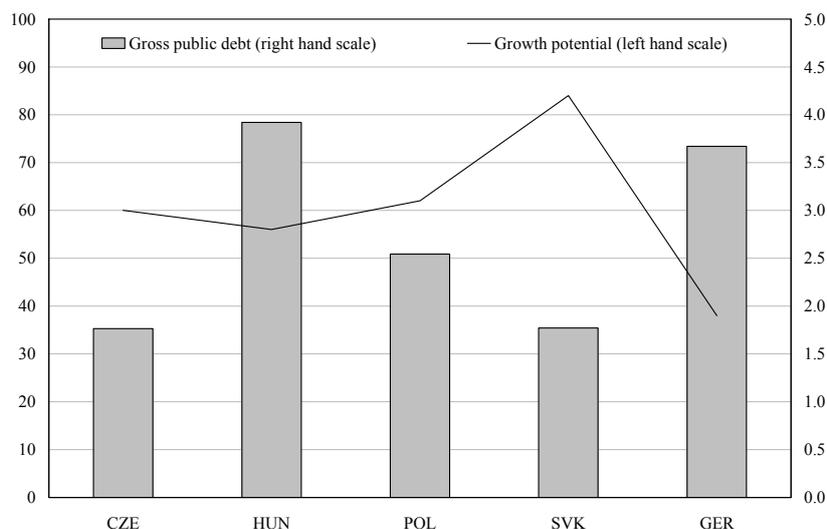[7]   Hungary de facto eliminated the second pillar (only 3% of constributors stayed in the mixed system).

Table 5

Corruption and Transparency Indices

	CPI 2010	**OBI 2010**
CZE	4.6	62
HUN	4.7	NA
POL	5.3	64
SVK	4.3	57
GER	7.9	68
FRA	6.8	87

Source: Transparency International – higher score = lower corruption, www.openbudgetindex.org – higher score = more transparency.

Figure 5

Gross Public Debt in 2009 and Growth Potential in 2015

Source: Eurostat, Sustainability Report 2009.

The conclusion is that any fiscal framework, which improves the transparency of public accounts, can cause substantial efficiency gains in Central Europe. Much more attention should be devoted to activities outside general government and to quasi fiscal operations. Focusing on the whole public sector is a must.

3.7 Low debt levels[8] and higher growth potential[9]

Compared to Western Europe, gross debt levels in Central Europe are lower and potential output estimates higher (Figure 5). This means that Central Europe can in principle face fiscal challenges more easily. The reality is however more complex. Limited tax potential and higher expenditure pressures together with low initial debt levels created an environment for increased deficit bias. Postponing the solution between the lower taxes and higher expenditures through deficit financing is possible if a country starts with a low level of debt. However, this "strategy" can be successful only up to a certain debt level, since as the recent crisis illustrated, financial markets do not accept as high debt levels in emerging markets as in case of developed economies. The prudent debt level is therefore arguably lower for the new Member States. It would be impossible to maintain ratios above 100 per cent of GDP, especially with aging population.

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[8] With the exception of Hungary.

[9] The expected higher growth based on conditional convergence is of course not guaranteed (see for example Greece). It depends also on the choice of economic policies.

Requirements for Good Fiscal Framework in Central Europe

CEE Characteristics	Implications for Fiscal Frameworks
Macroeconomic volatility	Operational target not on structural deficit
Regime changes, policy reversals	Allow for different value judgments, no strong normative elements
FDI-dependence, current accounts	Counter-cyclicality, flexibility, judgments
Low tax potential	No built-in bias against tax reforms
Expenditure pressures	No built-in bias against structural reforms
High corruption, low law enforcement	Maximum transparency possible, focus on the whole public sector
Low debt, high growth potential	Implicit or explicit debt limit

Good fiscal frameworks might consider limiting government debt explicitly or implicitly at much lower level than the harmful limit – 90 per cent of GDP – suggested by the empirical work of Rogoff and Bertelsmann (2010).

4   Designing fiscal frameworks in Central Europe

Today Central European countries operate under the SGP and national fiscal frameworks (Appendix 1). If we look at the fiscal performance of these countries from 2004, it is clear that the current frameworks in place are not sufficient to eliminate deficit bias and place public accounts on a sustainable footing. As Horvath and Odor (2009) show the current environment creates a lot of bad incentives for policy makers (Table 7 and Appendix 2 for more details). The most promising reform to cure these ills was carried out in Hungary, however the initial set-up was not politically sustainable, which illustrates that political consensus is the top priority in every reform proposal.

Many of these bad incentives are come from the fact, that policymakers and the public focus their attention more on flows rather than stocks, on general government rather than the public sector and on explicit liabilities ignoring implicit and contingent liabilities. In principle there are two ways to fix this problem. The first is to identify these shortcomings and to build adjusted budgetary indicators. The proposal of the KESZT advisory body in Hungary (2010) follows this path. Their proposal is to calculate a cash-based budgetary measure of the financial requirement including adjustments concerning: the financial need of public enterprises, PPP projects, overdue bills, big one-off revenues and guarantees. The second option is to broaden the focus of the debate on public finances systematically by calculating indicative intertemporal public balance sheets. In this paper we argue that the concept of net worth in a broad sense could play an important role in this regard.

Analysis of companies and private entities is concentrated on the: (1) balance sheet, (2) profit and loss account and (3) cash-flow. We understand that it is impossible to draw close parallels between public and private entities; however from an analytical perspective missing public sector balance sheet could create a distortive picture of the public sector and can hide important risks.

Bad Incentives in Current Fiscal Frameworks

Bad Incentives	Coming from
Reform postponements or reversals	Ignoring implicit liabilities
Bias toward PPPs	Ignoring implicit liabilities
Sale of assets to decrease debt or deficit	Ignoring changes in assets
Underfinancing maintanence	Missing depreciation
Underfinancing state companies, healthcare providers	Narrow focus on general government
Depletion of natural resources and ignoring environmental impacts	Ignoring changes in assets
Risk taking in legal conflicts	Ignoring contingent liabilities

Source: Horvath and Ódor (2009).

A balance sheet approach (and more focus on the intertemporal budget constraint) has been recommended among others by Buiter (1985 and 1993), Blanchard (1990) and more recently Milesi-Ferretti and Moriyama (2006). As Traa and Carare (2007) argue, studying the accumulated stocks of assets and liabilities of a country and mismatches among them can be a useful supplemental guide to uncover distress. In recent years, the IMF has incorporated analysis of stock variables in its monitoring processes (see for example Allen *et al.*, 2002 and 2007). The OECD definition of creative account practices also relies on a concept of net worth (see for example Koen and van den Noord, 2005).

Our proposal to base fiscal frameworks in CE on the concept of net worth does not mean, that we advocate for an operational target for net worth. Due to valuation and data problems it would be highly problematic. However, good approximations for the *changes* in net worth are available. And these changes should feed through the operational framework. One example of conceptual intertemporal public sector balance sheet is in Table 8.

Estimating the changes in net worth and sensitivity analysis might help on the one hand to remove bad incentives (Annex 2) and on the other hand can serve as better source of information for the public about the effects of fiscal policy. Evaluating fiscal policy based on the balance sheet approach is just a starting point. The next step is to decide over rules and institutions.

Requirements for fiscal frameworks in Central Europe presented in Table 6 are sometimes in conflict; therefore it is not straightforward to design appropriate frameworks. However if we consider the key sources of deficit bias in CE, some basic characteristics emerge. One of the most important problems is the still big room for creative accounting practices and off-budgetary operations (as shown in Annex 2). Therefore rules for transparency and reporting requirement for off-budgetary items can be very useful. Even if a country is formally not calculating net worth, improved reporting requirements can help to contain bad incentives. Adoption of fiscal responsibility acts (FRAs) might be a very useful tool to address these information gaps (see Corbacho and Schwartz, 2007, for review). It can help to broaden the public debate.

Balance Sheet of the Public Sector

ASSETS	LIABILITIES
A1 Buildings, lands, etc.	L1 Explicit debt
A2 Infrastructure	L2 Net implicit liabilities
A3 Net capital stock	L3 Contingent liabilities
A4 Financial assets	L4 Other liabilities
A5 Net worth of the central bank	
A6 Net worth of public enterprises	*Net Worth*
A7 Natural reserves	
A8 Ecological wealth	
A9 Other assets	

The more complicated issue is the question of fiscal rules versus independent fiscal institutions. As Horvath and Ódor (2009) argue, important synergies exist between the two. Rules without councils have to be simple to be understood by the public. Then there is no problem to go around them, especially in a less transparent environment. Councils without rules could end as purely academic debates. So the best way is to combine both: we can have more complicated (and therefore effective) procedures, because the council can serve as an interface between the government and the public. One can combine this way the strictness of rules with the flexibility of councils. P. Kiss (2007b) reached similar conclusion. His reform proposal for Hungary included three basic pillars (expenditure ceilings, golden rule for municipalities and an independent fiscal council) and three additional constraints.

The next issue is the selection of appropriate fiscal rules. Since it is almost impossible to calculate structural deficits in real time – frequent supply shocks, regime changes, etc. – operational target for the structural budget balance would be highly problematic. It would be disputable whether the government has fulfilled its goals or not. Focusing on headline budget balances would be equally wrong: due to high business cycle volatility, it would create significantly pro-cyclical fiscal policy. The remaining options are expenditure limits and debt ceilings. Operational target for the debt level is very transparent, but it also incorporates pro-cyclical bias. So the most appropriate operational framework in our view is employing medium-term expenditure ceilings. If these ceilings are defined in nominal terms, the evaluation is straightforward and if cyclical expenditure items are excluded from the ceiling, it allows automatic stabilizers to operate freely. In addition, if tax expenditures are also included, it reduces the possibilities to go around the rules by creating more loopholes in the tax system. It is also important to have a very broad definition of ceilings, since lot of operations are taking place outside the state budget. Another issue is the inclusion or exclusion of mandatory items. We argue that from a medium-term perspective, mandatory items should be included. Otherwise there is a built-in bias against the most needed reforms, for example in the pension systems.

How to derive expenditure ceilings? The easiest possibility is to introduce some fixed nominal growth rate at least three years in advance. The second possibility isto derive them from some measure of sustainability. Some countries employ cyclically-adjusted balances (Sweden,

Finland), however target for real debt could be another example. All these calculations should be based on cautious macroeconomic assumptions. The difficulty to calculate cyclical positions pops up once again in the derivation of ceilings. However the question here is not whether the government has sticked to its rules or not, but rather to find some prudent rate of economic growth *ex ante*. Using market consensus or forecasts of independent institutions can help to mitigate this problem. It would be useful to include an explicit reserve item (0.5-1.0 per cent of GDP) to absorb unexpected shocks.

The tougher question is the neutrality against structural reforms and tax reforms. How to reward good policies and punish bad ones? Here the concept of net worth can help us. We see an alternative for deriving the expenditure ceilings using the change in net worth.[10] Since net worth in a broad sense incorporates also implicit and contingent liabilities, reforms improving the long-term sustainability of public finances can increase the expenditure ceiling. Fortunately there is a benchmark available for this exercise – the projections of the Ageing Working Group. On the other hand, deriving expenditure ceilings from the changes in net worth (or adjusted CABs) grossly complicates the understanding of such rules. This is the case where independent fiscal institutions can help once again.

How to set up such independent fiscal councils? Frequent policy reversals in Central Europe are more often than not the result of the very different view of political parties on the role of the state in the economy. As Kornai (2010) argues, defining the state role is a political decision, which rests on value judgments. According to him, independent fiscal institutions should keep far away from such decisions. He sees the roles for independent fiscal councils in three broad areas: (1) analysis of effects of political decisions, (2) checking for consistency and (3) transparency. Checking for consistency means in the words of Kornai: "spending heavily and levying high taxes is perfectly legitimate policy…an independent fiscal advisory body should not argue either for or against it… Its role is to keep an eagle eye on whether the big taxes are sufficient to cover the big spending". Similarly, independent institutions should not argue for or against cutting taxes, however they should look carefully at whether the cut in taxes is accompanied by adequate cut in expenditures. One can therefore rephrase the "checking consistency" into checking sustainability. These requirements suggest strictly positive role for such independent fiscal councils in Central Europe. Of course there is no one-size-fits-all recipe; the new institution should fit into the existing framework for every country.

Is there a case for macroeconomic forecasts in the mandate of independent fiscal agencies? In countries where the track record of government projections is not very good probably yes. However we see clear disadvantages. As Kay (2010) notes, the underlying unreliability of economic forecasts can on the one-hand reduce the credibility of such bodies and on the other hand can redirect resources from more important activities of the council. Moreover, the value added of independent councils in macroeconomic forecasting is very limited. Basically, one can use consensus forecasts of private forecasters or international institutions to evaluate the government projections (for example this is the case in Slovakia).

5   Institutional reform proposal in Slovakia

To illustrate a possible reform of fiscal framework in Central Europe, we highlight the main features of the current proposal in Slovakia.[11] This reform proposal tries to integrate in one framework the requirements mentioned above and to maximize the possible synergies between the

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[10] Excluding one-offs, such as valuations.

[11] The current government included all basic building blocks of this proposal in its manifesto.

basic building blocks. The plan is to adopt a Fiscal Responsibility Act, which would incorporate the features shown in Scheme 1. According to the proposal, the most important objective of fiscal policy will be long-term sustainability (*i.e.*, meeting the intertemporal budget constraint).

5.1   Net worth

The whole framework rests on a concept of net worth. It is important to note, that the balance sheet approach is not an operational concept, but rather (1) a benchmark for transparency and (2) starting point for sustainability analysis. Annex 3 illustrates the main differences between our definition of net worth and that of Buiter (1993).

5.2   Expenditure ceilings

There are two types of fiscal rules in the proposal. The main operational targets are medium-term (3-year) rolling expenditure ceilings in nominal terms. The definition of ceilings is relatively broad: consolidated general government expenditures minus expenditures of municipalities plus tax expenditures. The following items are also excluded: interest expenditures, spending European Funds and cyclical items. Of course the government can break down the overall limit into partial limits.

The interesting question is how to derive the overall expenditure ceilings? Since the main objective of fiscal policy in the proposal is long-term sustainability, the starting point should be some measure of fiscal gap. The European Commission uses the well-known S2 indicator (for methodology see EC, 2009). The Slovak proposal defines a new indicator GAP, which is similar to the S2 indicator, however it includes also non-age-related implicit liabilities and financial wealth of

Scheme 1

Proposed Reform of Fiscal Institutions in Slovakia

states companies and the central bank.[12] Annex 4 shows the main differences between the conventional general government balances and changes in the net worth and also highlights which of them affect the expenditure ceilings.

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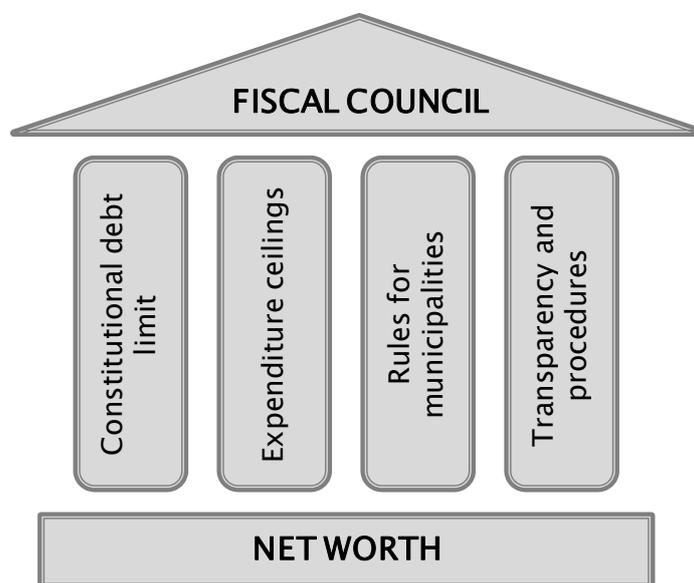
[12]   Cyclical position and prudent growth rates are estimated by the Tax Forecasting Committe, currently in place.

Table 9

Political costs associated with the debt limit
(penalties are cumulative)

Level of Gross Debt	Penalty
45-48%	Open letter of the Minister of Finance to the Parliament
48-50%	Government consolidation package to the Parliament
	Wage freeze for MPs
50-52%	5% savings in the actual budget
	No reserves can be used
	No expenditure growth in the next budget
	No expenditure growth for municipalities
52-55%	Balanced budget for next year (also municipalities)
	No nominal growth of public wages, pensions and social benefits
55%	Non-confidence voting against the government
57%	Resignation of the government

At the beginning of the election period, every government indicates, how much of this GAP would like to erase and by what means: budgetary measures or structural reforms. Both ways have equal implications for the calculation of the ceiling by the fiscal council. Ceilings are updated every year based on adopted structural and/or tax reforms and reduced if there was overspending in the previous year or if some of the revenue or expenditure items were not met. It is important to note that expenditures ceilings are associated only with reputational costs.

5.3 Constitutional debt limit

Expenditure ceilings with reputational penalties will of course not eliminate all kinds of non-responsible fiscal policies. Unexpected large shocks can also cause substantial fiscal deficits. In these cases abandoning the whole fiscal framework would be tempting for policy makers (see for example UK). Therefore it could be helpful, if second line of defense – a kind of emergency break – would exist. Constitutional debt limit in Slovakia would serve exactly this purpose. According to the current proposal, this limit will be set on gross public debt[13] released by the Eurostat at the level of 55 per cent of GDP. In this case not only reputation is at stake, but various sanctions starting from 45 per cent of GDP will be in place. It starts with an open letter of the Minister of Finance to the parliament and ends with a possibility of government resignation.

5.4 Rules for municipalities

There is a golden rule currently at place at the municipal level. Moreover there are two other requirements. Debt cannot be higher than 60 per cent of current revenues from the previous year

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[13]   In Slovakia there is only small difference between gross and net debt figures.

and debt service should remain below 25 per cent of current revenues. There is a proposal to decrease the latter to 15 per cent, to include every PPP project in the debt figure and to impose an automatic financial sanction, if the debt exceeds 60 per cent of current revenues. Moreover if the debt figure exceeds 62 per cent, there can be a new referendum to replace the mayor.

Two other important aspects are worth mentioning. First there is a proposal to have a strict no-bail-out clause in the constitutional law. Second, managed bankruptcy along the lines of the bankruptcy mechanism for citizens is proposed.

5.5   Transparency and procedures

The draft explicitly defines several interesting analytical concepts:

- net worth;
- long-term sustainability;
- baseline (no-policy-change) scenario;
- structural primary balance (for the whole public sector!);
- tax expenditures;
- implicit liabilities.

All these concepts should be included in the basic budget documentation and closing accounts. Moreover, the now informal Macroeconomic Forecasting Committee and Tax forecasting Committee should receive a formal status. All relevant information should be available at least for the two previous and next three years.

As far as the budget procedures are concerned, no law should be passed without fiscal impact assessment. Important feature of the reform proposal is to implement the PAYGO principle.

5.6   Fiscal Council

An independent Fiscal Council with three members and around 15 analysts should operate to monitor fiscal performance. There would be three explicit tasks in the mandate of the Council: (i) to publish a long-term sustainability report, (ii) calculation of expenditure ceilings and (iii) evaluation of the fulfillment of fiscal rules. Apart from these basic functions the Council can prepare fiscal impact assessments and issue recommendations and risk assessments regarding fiscal policy. The Council would be financed by the central bank. An important side-effect of the establishment of the Council can be the improvement of the quality of fiscal analysis and hence more informed policy debate (similar to the development of research capacities at independent central banks).

If one would like to judge the proposal against the Kopits-Symansky criteria (1998) the following would emerge. The proposal contains relatively *well-defined*[14] rules and concepts and is very strong in *transparency* and *efficiency*. By introducing net worth (augmented with basic generational accounting) the room for creative accounting is limited and at the same time benefits of structural reforms can be easily demonstrated. In terms of *flexibility*, the combination of expenditure rules with fiscal council can relatively well cope with unexpected shocks and cyclical movements of the economy. The proposal scores mixed in terms of *adequacy and consistency.* On the other hand, the framework is not *simple, i.e.*, easily understandable to the public and politicians. Therefore the inclusion of fiscal council is key to "translate" the outcomes to the public in an

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[14]   However oen can argue that the derivation of the ceilings is to some extent arbitrary.

accessible way. The last criterion is *enforceability*, where the verdict is again mixed. On the one hand the proposed framework includes important sanctions (in case of the debt limit), breaching the expenditure ceiling is constructed to have only reputational costs.

6 Conclusions

There is no one-size-fits-all fiscal framework. However, based on the characteristics of Central European countries, one can have some recommendation regarding the choice of basic building blocks. The paper argues that for catching-up countries it is very important to decrease the informational asymmetry between the public and policy makers and to broaden the scope of the debate to the whole public sector. The concept of net worth can serve as a useful informational benchmark in this regard.

In countries where the room for creative accounting is relatively large, there are important synergies between fiscal rules and independent fiscal institutions. Among fiscal rules we favor expenditure ceilings and implicit or explicit debt ceilings as a second line of defense. Of course, one cannot forget about appropriate rules for municipalities, whose influence in the region is not negligible. We advocate including all these key ingredients in one Fiscal Responsibility Act together with basic requirements for transparency and procedural rules.

It is however important to bear in mind that reform of the fiscal framework is not a magic solution. Without an ex-ante backing from the major political parties it is probably not viable. The good news is that the current financial crises and the need for exit strategy have created broad political consensus to carry out revisions to the existing frameworks in many countries.

ANNEX 1
FISCAL POLICY FRAMEWORKS IN CENTRAL EUROPE

All four Central European countries are currently operating under the Stability and Growth Pact. This annex highlights the main features of their national frameworks.

	FRA	Fiscal Rules at Central Level	Independent Bodies	Transparency Requirements	Procedural Rules
Czech Republic	No	No	No	Limited	Some
Hungary	Yes	Real debt rule	Fiscal council	Yes	PAYGO
Poland	No	Debt limit	No	Limited	Some
Slovakia	No	Central government expenditure limit in good times	Macroeconomic Forecasting Committee, Tax Forecasting Committee	Limited	Some

Source: NBP, MNB, CNB, MFSR; FRA refers to single fiscal responsibility acts.

The Czech Republic has neither fiscal rules nor independent institutions in the budgetary process. The process rests on a typical medium-term framework with no strict transparency requirements or procedural rules.

Hungary adopted its Fiscal Responsibility Act in 2008. Within this framework a Fiscal Council was established and a medium-term real debt rule put in place. Despite the very promising start and a broad agreement over the necessity of fiscal rules and an independent body, the current government significantly changed the set up of the Council.[15] There are important transparency requirements in the law (PPP, etc.) and a PAYGO rule.

Poland has a public finance act since 1998, which contains majority of regulations on the fiscal framework and fiscal rules i.e. features which would be included in a fiscal responsibility act. It has a Constitutional debt rule (60 per cent ceiling) accompanied by 50 and 55 per cent thresholds, the breach of which induces consolidation measures. Since this year it also has a temporary expenditure rule – as long as Poland is in EDP, the growth of non-mandatory spending of the central government (around 5.2 per cent of GDP in total) may not exceed 1 per cent in real terms. There is no independent fiscal council.

Slovakia has 2 laws concerning the budgetary process of central government and municipalities. There is only one formal rule at the central level: if the revenues in the state budget exceed the budgeted amount, expenditures can increase only at a maximum of 1 per cent (not GDP). Municipalities have golden-type rule. There are two semi-independent bodies evaluating the macroeconomic and tax forecasts of the Ministry of Finance. There are is no detailed list of transparency requirements beyond the publication of the medium-term fiscal framework.

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[15]   The government cancelled the budget of the Council and removed its analytical capacity. Moreover, replaced all Council members.

ANNEX 2
SOME EXAMPLES OF BAD INCENTIVES IN THE CURRENT FRAMEWORK[16]

Let us now mention a few examples of bad motivations for economic-policy makers, if only the budget, and not the net worth, is under public scrutiny. Then scope for creative accounting and fogging is still rather wide. We will show that with correct handling of net worth concept, these tricks would have no meaning.

Motivation No. 1: Sales of some assets

Governments may have a motivation to sell a building or to privatize a state enterprise not because it has economic importance, but for example because they do not want to exceed the 3 per cent of GDP general government deficit or the 60 per cent limit (of GDP) of government debt. It is often the case that a favorable price plays only a secondary role in these reflections.

Example 1a: The government sells a building for half price and in this way will decrease the deficit. The target has been achieved. If it took into consideration the net worth concept, results would be negative. If we assume that all income will be transformed into capital stocks, the net worth decreases. A3 namely grows a half, against the A1 drop.

Example 1b: The government privatizes a state enterprise and decreases its gross debt from the revenues, in order to meet Maastricht Criteria. Although the gross debt drops, the net worth will not change. Both A6[17] and L1 will decrease by the same value (we suppose that the privatization will be performed at market price).

Motivation No. 2: Neglecting repairs and maintenance[18]

With public pressure on saving, it is often the easiest solution for budget-makers to decrease expenditures on repairs and maintenance. Roads will be of lower quality and computers old fashioned, but in the end the point is to decrease expenditures, i.e. savings at first glance. However, if we look at the balance sheet, a problem comes to light very soon.

Example 2: The government decreases expenditures on the repair of schools. A look at the net worth will reveal a negative evolution, as A1 will go down (depreciation).

Motivation No. 3: Too big an emphasis on PPP projects

A real motivation for performing PPP projects should be the fact that in some cases the private sector can be more efficient in delivering a project than the state (e.g., thanks to longer experience in the particular area or a stronger motivation to decrease costs efficiently). Or in the background, there might be reflections about a transfer of a major part of risk to the private sector or about bigger inter-generation fairness: often future generations profit from the current investment too. However, it can be said, and is confirmed by experience, that in fact in most cases

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[16]   Actually 8 out of the 10 reported bad incentives were used in Slovakia to decrease the general government deficit.

[17]   Refers to Table 8.

[18]   It is important to note, that capital expenditures in the public sector are included in the deficit, while in the private sector are not part of the profit and loss account. From a net worth point of view, capital expenditures from government surplus represent just a change in the composition of assets.

the real motivation is lower budgetary expenditures in the short term. As the efficiency question is in these cases secondary, the real effect on tax-payers can often be negative.

Example 3: The government, instead of building a highway from public sources for EUR 1 bil., will conclude a PPP project of total value of EUR 1.5 bil., paying EUR 150 mil. annually (for 10 years). The budget expenditures will drop by EUR 850 mil. in the first year and it looks like a saving. However, a look at the net worth will show that together with the A2, also the L2 will grow. Even with low interest rates, the current net present value of the implicit debt can be significantly higher than the highway's value. In such a case, the net worth of the state will drop.

Motivation No. 4: Saving at the expense of state enterprises

As mainly general government deficit is under the scrutiny of analysts and statisticians, there are often attempts to decrease public finance deficits, and at the same time problems in state enterprises accumulate. In other cases, problems of state enterprises are solved by transactions which, in spite of the high risk of their unsettlement, are declared as financial (guarantees, recoverable financial assistance, or capital increase).

Example 4a: The government will decrease a public enterprise subsidy for actions performed in the public interest. Public finance expenditures will drop, as well as deficit. Looking at the state balance it is clear that the L1 will go down, but at the same time the A6 will decrease too, at least by the same sum, because the enterprise will have to borrow from the market (the risk margin of the enterprise is higher than that of the state).

Example 4b: The government does not deal with the problem of the state enterprise and when there are problems, it simply increases the capital or provides recoverable financial assistance (loans) on paper. Though the impact on the public finance budget is zero, the net worth will decrease by means of the A4 decrease or by means of the L1 rise. When not dealing with the situation, the A6 drops.

Motivation No. 5: Aversion to funded schemes

Although some funded schemes (e.g., in the area of pensions or the health system) can bring higher stability and better results of systems in the long term, current official statistics of public finance discriminate them against pay-as-you-go systems.

Example 5: The government is considering introducing a fully-funded pillar in the pension system. In the end though, it will choose not to carry out the reform because of a negative impact of the change on public finance in the short term, as the reallocation of a part of social contributions to private pension fund management companies means a drop of income and so a higher deficit. A look at the net worth shows that through a higher deficit the L1 will grow, but at the same time the L2 will decrease, and in the end it can even have a positive impact on the net worth of the state.

Motivation No. 6: Asymmetric handling of Central Bank profit/loss

It may happen that if the Central Bank makes a profit, the government will wish to obtain a part of the profit; however, with a loss it will not provide a subsidy to the Bank.

Example 6: Although in the case of strong domestic currency appreciation foreign government debt decreases, the value of foreign exchange reserves of the Central Bank decreases

too. The result is a clear positive impact on the budget, yet a questionable impact on the net worth of the state. The L1 will drop, as will the A5.

Motivation No. 7: Too rapid natural resources depletion

States rich in natural resources can very quickly 'overeat themselves' if they do not have a correct view of the state balance.

Example 7: The government is extracting crude oil quickly and from the revenues finances current expenditures. Though the deficit is all right, net worth is clearly decreasing through the A7. This is the reason why many countries place revenues from crude oil into funds for future generations (the A7 is decreasing, but at the same time for example the A4 is rising).

Motivation No. 8: Tendency for greater risk with legally ambiguous issues

If contingent liabilities are not recorded, motivations for the government may be wrongly set when deciding about some legal issues.

Example 8: For political reasons, the government decides to cancel a contract with a supplier in spite of risks that it will lose the law-suit. The immediate impact on the budget is zero, but the impact on net worth can be negative through the L3.

Motivation No. 9: Ignoring environmental costs

The quality of the environment is part of the wealth of a state (even though its quantification may be rather problematic). State activities may disturb this quality rather significantly.

Example 9: The government cuts down forests and builds a highway. The impact on net worth may be questionable if we also consider environmental costs. The A2 will grow, but the A8 will drop.

Motivation No. 10: Securitization

The government sells assets to a Special Purpose Vehicle, which finances itself from the market. The issued bonds are usually backed by the income stream generated by the purchases state assets.

Example 10: The government sets up a highway company outside the general government without explicit state guarantees, but transfers the highways and the right to collect fees from using these highways to this SPV. The SPV issues debt to finance highway construction. This way the government can finance capital expenditures without increasing the budget deficit and official public debt.

As we have seen, looking at public finance in a more complex way through the net worth prism, the scope for deformed motivations of economic-policy makers and non-transparent accounting is considerable smaller. It would therefore be beneficial to focus on the net worth of the state. We find it important that first state balances start to be disclosed and such should be improved gradually. Apart from that, the net worth concept can serve as a very useful benchmark for evaluating and analyzing real fiscal development. At least it makes economic-policy makers take into account the wider context of their decisions.

ANNEX 3
COMPARISON WITH THE PUBLIC SECTOR BALANCE SHEET IN BUITER (1993)

Assets	Correspondence with Table 8	Liabilities	Correspondence
Social overhead capital	A1, A2, A3	Net debt	L1, A4
Equity in public enterprises	A6	Money stock	A5
Land and mineral assets	A7	Present value of entitlements (implicit liabilities)	L2
Net foreign exchange reserves	A5		
Present value of taxes (implicit assets)	L2	*Net worth*	NW, A8, A9, L3, L4
Imputed net value of cash monopoly	A5		

There are three important differences when comparing the balance sheet in this paper (Table 8) with the concept in Buiter (1993). First, on the asset side we consider also ecological wealth. This item is of course hard to measure, however with the global debate over climate change it will gain on its significance. Second, in our opinion contingent liabilities represent an important item when decreasing the space for creative accounting. The third difference is the inclusion of other assets and liabilities. Here we can consider for example contingent assets or PPP projects.[19]

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[19]   These are in many countries not reported as a part of the explicit debt.

ANNEX 4
CORRESPONDENCE BETWEEN NET WORTH AND EXPENDITURE CEILINGS

One issue is the creation and reporting of public balance sheet *ex post* as an informational benchmark, the other one is the use the concept of net worth as a starting point for fiscal rules. In the Slovak proposal, not all changes in the net worth are used to update expenditure ceilings. The next table shows the main differences between net lending and change in net worth and also how are these treated when updating expenditure ceilings in the Slovak proposal.

Differences Between Conventional Measures of Budget Outcome and Changes in Net Worth	Treatment in the Slovak Proposal (Impact on the Expenditure Ceilings)
Conventional Budget Balance	
+ capital investments	No impact
− depreciation	No impact
+ capital gains and losses	One-off
+ net purchase of assets	One-off
+ change in net wealth of the central bank	Feeds through (except of valuation)
+ change in net wealth of public companies	Feeds through
+ change in ecological wealth	Not yet operational
+ change in natural resources	Not yet operational
+ change in the value of other assets	Feeds through
− change in the value of net implicit liabilities	Feeds through
− change in the value of contingent liabilities	Not yet operational
− change in the value of other liabilities (PPP)	Feeds through
Change in Net Worth	

REFERENCES

Aguiar, M. and G. Gopinath (2007), "Emerging Market Business Cycles: The Cycle Is the Trend", *Journal of Political Economy*, Vol. 115, pp. 69-102, University of Chicago Press.

Alesina, A. and G. Tabellini (1990), "A Positive Theory of Fiscal Deficits and Government Debt", *Review of Economic Studies*, No. 57, pp. 403-14.

Alesina, A., R. Perotti and J. Tavares (1998), "The Political Economy of Fiscal Adjustments", *Brookings Papers on Economic Activity*, No. 1, pp. 197-248.

Allen, M., B. House and C. Rosenberg (2007), "World Economy Balance Sheet Approach/Effects", Princeton Encyclopedia of the World Economy.

Allen, M., C. Rosenberg, C. Keller, B. Setser and N. Roubini (2002), "A Balance Sheet Approach to Financial Crises", International Monetary Fund, Working Paper, No. 02/210, Washington (D.C.), IMF.

Balassone, F., D. Franco and S. Zotteri (2006), "EMU Fiscal Indicators: A Misleading Compass?", *Empirica*, Vol. 33, No. 2, pp. 63-87, Springer, June.

Balassone, F. and M.S. Kumar (2007), "Cyclicality of Fiscal Policy" in M.S. Kumar and T. Ter-Minassian (eds.), *Promoting Fiscal Discipline*, International Monetary Fund.

Banerjee, B., D. Kozamernik and L. Odor (2010), "The Road to Euro Adoption: A Comparison of Slovakia and Slovenia", in M. Beblavý, D. Cobham and L. Ódor (eds.), *The Euro Area and the Financial Crisis*, Cambridge University Press.

Barro, R.J. (1979), "On the Determination of the Public Debt", *Journal of Political Economy*, No. 64, pp. 93-110.

Blanchard, O.J. (1990), "Suggestions for a New Set of Fiscal Indicators", OECD, Economics Department, Working Paper, No. 79, OECD.

Bradbury, S., J. Brumby and D. Skilling (1999), "Sovereign Net Worth: An Analytical Framework", New Zealand Treasury, Working Paper, No. 99/3.

Buiter, W.H. (1985), "A Guide to Public Sector Debt and Deficits", *Economic Policy*, Vol. 1, No. 1, pp. 13-79, November.

————— (1993), "Measurement of the Public Sector Deficit and Its Implications for Policy Evaluation and Design", in I.M. Blejer and A. Cheasty (eds.), *How to Measure the Fiscal Deficit*, International Monetary Fund.

Calmfors, L. (2005), "What Remains of the Stability Pact and What Next?", Swedish Institute for European Policy Studies, No. 8.

————— (2010a), "The Swedish Fiscal Policy Council – Experiences and Lessons", paper presented at the *Conference on Independent Fiscal Institutions*, March 18-19, Fiscal Council, Republic of Hungary, Budapest.

Calmfors, L. and S. Wren-Lewis (2011), "What Should Fiscal Councils Do?", *Economic Policy*, forthcoming.

Castellani, F. and X. Debrun (2005), "Designing Macroeconomic Frameworks: A Positive Analysis of Monetary and Fiscal Delegation", *International Finance*, No. 8, pp. 87-117.

Corbacho, A. and G. Schwartz (2007), "Fiscal Responsibility Laws", in M.S. Kumar and T. Ter-Minassian (2007), *Promoting Fiscal Discipline*, International Monetary Fund.

Cukierman, A. and A.H. Meltzer (1986), "A Positive Theory of Discretionary Policy, the Cost of Democratic Government, and the Benefits of a Constitution", *Economic Inquiry*, Vol. 24, No. 3, pp. 367-88.

Debrun, S., D. Hauner and M.S. Kumar (2009), "Independent Fiscal Agencies", *Journal of Economic Surveys*, No. 23, pp. 44-81.

De Ferranti, D., G. Perry, I. Gill and L. Servén (2000), "Securing Our Future in a Global Economy", World Bank.

Drazen, A. (2004), "Fiscal Rules from a Political Economy Perspective", in G. Kopits (ed.), Rules-based Fiscal Policy in Emerging Markets, Palgrave Macmillan.

Easterly, W. (1999), "When Is Fiscal Adjustment an Illusion?", *Economic Policy*, No. 28, April, pp. 57-76.

Eichengreen, B., R. Hausmann and J. von Hagen (1999), "Reforming Budgetary Institutions in Latin America: The Case for a National Fiscal Council", *Open Economies Review,* No. 10, pp. 415-42.

European Commission (2009), "Sustainability Report", *European Economy*, No. 9.

———————(2010a), "Enhancing Economic Policy Coordination for Stability, Growth and Jobs – Tools for Stronger EU Economic Governance", COM(2010) 367/2, Brussels.

———————(2010b), Autumn Forecasts.

———————(2011), "Proposal for a Council Directive on Requirements for Budgetary Frameworks of the Member States".

Filko, M., S. Kiss, L. Ódor and M. Siskovic (2010), "Structural Policy Challenges in Slovakia", National Bank of Slovakia, Discussion Paper.

Garcia-Cicco, J., R. Pancrazi and M. Uribe (2010), "Real Business Cycles in Emerging Countries?", American Economic Association, *American Economic Review*, Vol. 100, No. 5, pp. 2510-31, December.

GfK Polonia (2010), *Poll Results Concerning the Debt Limit in September 2010.*

Giavazzi, F. and L. Spaventa (2010), "Why the Current Account May Matter in a Monetary Union, Lessons from the Financial Crisis in the Euro Area", in M. Beblavý, D. Cobham and L. Ódor (eds.), *The Euro Area and the Financial Crisis*, Cambridge University Press.

Hagemann, R. (2010), "Improving Fiscal Performance Through Fiscal Councils", OECD, Economics Department, Working Paper, No. 829, OECD.

Hallerberg, M., R. Strauch and J. von Hagen (2009), "The Design of Fiscal Rules and Forms of Governance in European Union Countries", in J. Ayuso-i-Casals, S. Deroose, E. Flores and L. Moulin (eds.), *Policy Instruments for Sound Fiscal Policies*, Palgrave Macmillan, London.

Hauner, D. and M. Kumar (2006), "Fiscal Policy and Interest Rates: How Sustainable is the 'New Economy'?", International Monetary Fund, Working Paper, No. 06/112, IMF.

Holder, A. (1998), "Developing the Public Sector Balance Sheet", *Economic Trends*, No. 540.

Horvath, M. and L. Ódor (2009), "Making Fiscal Commitments Credible", National Bank of Slovakia, Research Department, Working and Discussion Paper, No. 1006.

International Budget Partnership (2010), Open Budget Index 2010, available at: www.openbudgetindex.org

Ipsos Tambor (2010), "Ipsos na VII.Finančním fóru Zlaté koruny", available at: www.ipsos.cz

Kaminsky, G.L., C.M. Reinhart and C.A. Végh (2005), "When It Rains, It Pours: Pro-cyclical Capital Flows and Macroeconomic Policies", NBER Chapters, in *NBER Macroeconomics Annual 2004*, Vol. 19, pp. 11-82, National Bureau of Economic Research.

Kay, J. (2010), "A Fiscal Watchdog Should Not Need a Crystal Ball", *Financial Times*, 22 September.

KESZT (2010), "A Költségvetési Elszámolások Szakértői Testülete (KESZT) javaslataia költségvetési elszámolási szabályok megváltoztatására", mimeo.

Kirsanova, T., L. Campbell and S. Wren-Lewis (2007), "Optimal Debt Policy, and an Institutional Proposal to Help in Its Implementation", in J. Ayuso-i-Casals, S. Deroose, E. Flores and L. Moulin (eds.), *The Role of Fiscal Rules and Institutions in Shaping Budgetary Outcomes*, European Economy Paper, No. 275.

Kiss, G.P. (2007a), "One-off and Off-budget Items: An Alternative Approach", in Magyar Nemzeti Bank (Central Bank of Hungary) (ed.), *MNB Conference Volume*, Vol. 1, No. 1, pp. 18-27, December.

—————— (2007b), "Simulation of Fiscal Institutions: Passport or Pass Partout", Penzugyi Szemle, available at: http://www.asz.hu/ASZ/titkarsagi.nsf/0/68E5F32D781E42EAC1257 40F00391339/$File/PFQ_0702.pdf

—————— (2011), "Moving Target Indication: Fiscal Indicators Employed by the Hungarian Central Bank", manuscript, forthcoming.

Koen, V. and P. van den Noord (2005), "Fiscal Gimmickry in Europe: One-off Measures and Creative Accounting", OECD, Economics Department, Working Paper, No. 417, OECD.

Kopits, G. (2001), "Fiscal Rules: Useful Policy Framework or Unnecessary Ornament?", International Monetary Fund, Working Paper, No. 01/145, IMF.

—————— (ed.) (2004), *Rules-Based Fiscal Policy in Emerging Markets*, Palgrave Macmillan.

——(2007), "Fiscal Responsibility Framework: International Experience and Implications for Hungary", MNB, Occasional Paper.

Kopits, G. and J. Craig (1998), "Transparency in Government Operations", International Monetary Fund, Occasional Paper, No. 158, IMF.

Kopits, G. and S. Symansky (1998), "Fiscal Policy Rules", International Monetary Fund, Occasional Paper, No. 162, IMF.

Kornai, J. (2010), "Introductory Remarks", offered at the *Conference on Independent Fiscal Institutions*, March 18-19, Fiscal Council, Republic of Hungary, Budapest.

KPMG (2010), "Paying the Bill", available at: www.kpmg.com

Kumar, M.S. and T. Ter-Minassian (2007), *Promoting Fiscal Discipline*, International Monetary Fund.

Miklos, I. (2008), "Slovakia: A Story of Reforms", in W. Bienkowski, J.C. Brada and M.J. Radlo, *Growth Versus Security*, pp. 54-88, London and New York, Palgrave Macmillan.

Milesi-Ferretti, G.M. and K. Moriyama (2006), "Fiscal Adjustment in EU Countries: A Balance Sheet Approach", *Journal of Banking and Finance*, Vol. 30, No. 12, pp. 3281-98, Elsevier, December.

Nezpont Intezet (2011), "Az államadósság veszélye", available at: www.nezopontintezet.hu

OECD (2010), *OECD Economic Outlook*, No. 88.

Persson, T. and G. Tabellini (2004), "Constitutional Rules and Fiscal Policy Outcome", *American Economic Review*, No. 94, pp. 25-45.

Rogoff, K.S. and. J.I. Bertelsmann (2010), "The Rationale for Fiscal Policy Councils: Theory and Evidence", paper presented at the *Conference on Independent Fiscal Institutions*, March 18-19, Fiscal Council, Republic of Hungary, Budapest.

Tornell, A. and P. Lane (1999), "The Voracity Effect", *American Economic Review*, No. 89, pp. 22-46.

Traa, B. and A. Carare (2007), "A Government's Net Worth", *Finance and Development*, Vol. 44, No. 2, June.

von Hagen, J. (2010), "The Scope and Limits of Fiscal Councils", paper presented at the *Conference on Independent Fiscal Institutions*, March 18-19, Fiscal Council, Republic of Hungary, Budapest.

Wren-Lewis, S. (2010a), "Macroeconomic Policy in Light of the Credit Crunch: The Return of Counter-cyclical Fiscal Policy?", *Oxford Review of Economic Policy*, No. 26, pp. 71-86.

—————— (2010b), "Comparing the Delegation of Monetary and Fiscal Policy", paper presented at the *Conference on Independent Fiscal Institutions*, March 18-19, Fiscal Council, Republic of Hungary, Budapest.

Wyplosz, C. (2005), "Fiscal Policy: Institutions versus Rules", *National Institute Economic Review*, No. 191.

COMMENTS ON SESSION 4
NATIONAL FISCAL FRAMEWORKS: THE WAY FORWARD

Sergio Clavijo[*]

I want to thank the organizers for giving me the opportunity to share my thoughts on these two interesting papers, in which several relations are established regarding fiscal balances, fiscal rules, and investment in Latin America.

The main link between these two papers has to do with the importance of applying Structural Fiscal Rules (SFRs) in a consistent manner. In particular, the authors emphasize as pre-requisites the following:

- the need to develop sophisticated institutional arrangements;

- gather and maintain comprehensive fiscal information and intertemporal budgeting procedures;

- and, yet, be ready to apply those SFRs with some degree of flexibility in order to accommodate the cycle and the long-term socio-economic targets. In particular, the Carranza *et al.*'s document underscores the target of closing the gap in infrastructure, which explains in an important manner the lagging in growth and gains in total factor productivity in Latin American Countries, especially when compared to Asian countries.

Comments on "Should Latin American Countries Adopt Structural Balance-based Fiscal Rules?" by Teresa Ter-Minassian

Regarding Ter-Minassian's document, I found particularly relevant the following conclusions:

- the crucial role for SFRs in de-coupling phase (2008-10) vs. the re-coupling phase (2011-12). In fact, Latin American countries made excess use of "exit clauses" during the de-coupling phase (4 out of 5 in the large countries) and so did the rest of the world. The IMF reports show that in 50 per cent of the cases where SFRs are used, "exit clauses" were also used. Here my comment to the author is that the reader would benefit if some extensions could be made on how those "exit clauses" were used in the euro zone during the pre-brake of the Maastricht treaty;

- she makes a good case for the use of simple and realistic rules rather stating a "hard" SFRs which later would have to be modified or eluded all together. This false sensation of fiscal discipline through "hard" SFRs does not yield much in the long run. She also provides several examples on how sticking (unrealistically) to "hard" SFRs might hinder other fiscal responses at hand. My comment in this regard is that the profession could extract several useful lessons from the application of the "Inflation Targeting" (IT) strategy in Latin America. I personally understand IT as a "hard-rule" for the long-term, but one that permits flexible and discretionary application in the short-term (including the use of "exit clauses". Furthermore, IT has now evolved into a "comprehensive IT", incorporating many lessons on how the financial bubbles might jeopardize a simplistic IT view, focusing only in the control of goods-and-services inflation (CPI or WSP).

I found interesting and constructive her discussion on how to make more flexible the SFRs. In particular, she recommends:

- adding fiscal watchdogs (not simply committees of experts, like in Chile);

- distinguishing tempo-
  rary from permanent
  shocks;
- introducing fiscal-
  range target, instead
  of point targets.

The thrust of the
paper of Ter-Minassian's
goes into discussing the
taxonomy of SFRs and
its determinants. Regard-
ing the "production gap",
she analyses current vs.
potential growth. Here,
there are several
possibilities, namely,
cyclically-adjusted balance,
growth base balance,
base-line over the cycle.
All of them reveal the
problems of estimating
the output gap.
Regarding the "fiscal
target", the menu
includes: i) the primary
balance (the favorite

Figure 1

Colombia: Decomposition of Required Primary Balance
(percent of GDP)

Source: Confis-DGPM, Ministerio de Hacienda y Crédito Público (MHCP).

choice), but there are problem of creative accounting when considering the effect of quasi-fiscal deficits; ii) the current expenditure balance, which could allow for infrastructure expenditure, but others could argue instead in favor of opening room for human capital; and iii) the overall balance, but this approach phases the problems arising from sub-nationals deficits, which are quite important in the cases of Brazil, Argentina, and Colombia.

Recent experiences worldwide pinpoint to the use of SFRs focused on:

- cyclically-absorption-adjusted balance, which is the main proposal within the OECD countries;
- cyclically-revenue-adjusted, which is now in fashion in Latin American countries, where Colombia is in the process of enacting a rule under this approach.

Finally, Ter-Minassian's paper goes into the discussion of macro long-term targets. Here the alternatives include: growth path, public debt path, and needs regarding infrastructure and savings. All these theoretical discussions are well anchored in first hand experiences, when she was on the staff of the IMF and now as a consultant; particularly those regarding Chile (now a consolidated process), Brazil (in adjusting mode), and Colombia (a nascent case).

My last recommendation for Teresa is that all these experiences could be better understood if graph Illustrations could be added showing the problems of "credibility" arising from the recurrent application of exit clauses. For instance, in the future we should be discussing why was it that the Colombia authorities deviated from the current projections, which I here show in Figure 1. This is not an easy task since one would require detailed "real time" data to be able to make comparisons with the effective paths followed by those countries, but I reckon that (by now) she has an excellent fiscal network that would allow her to pursue this approach (… if not her, who?).
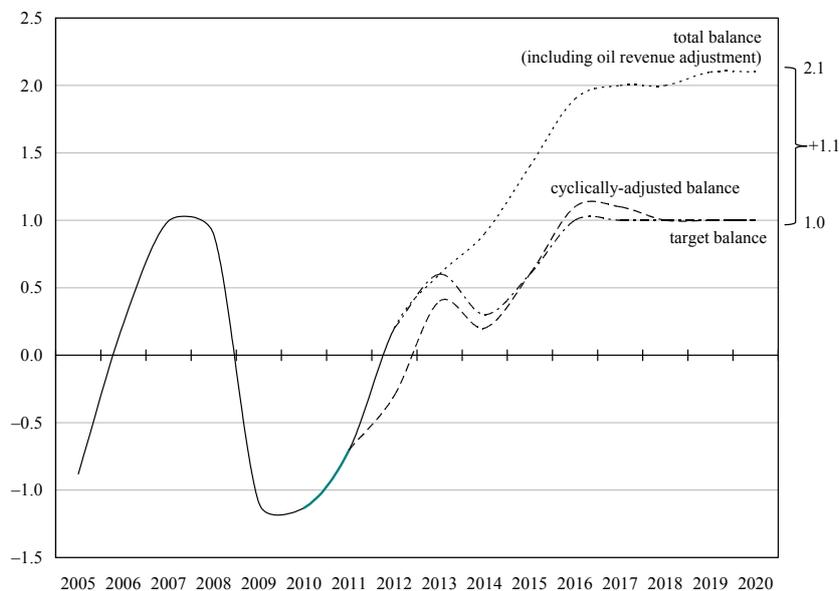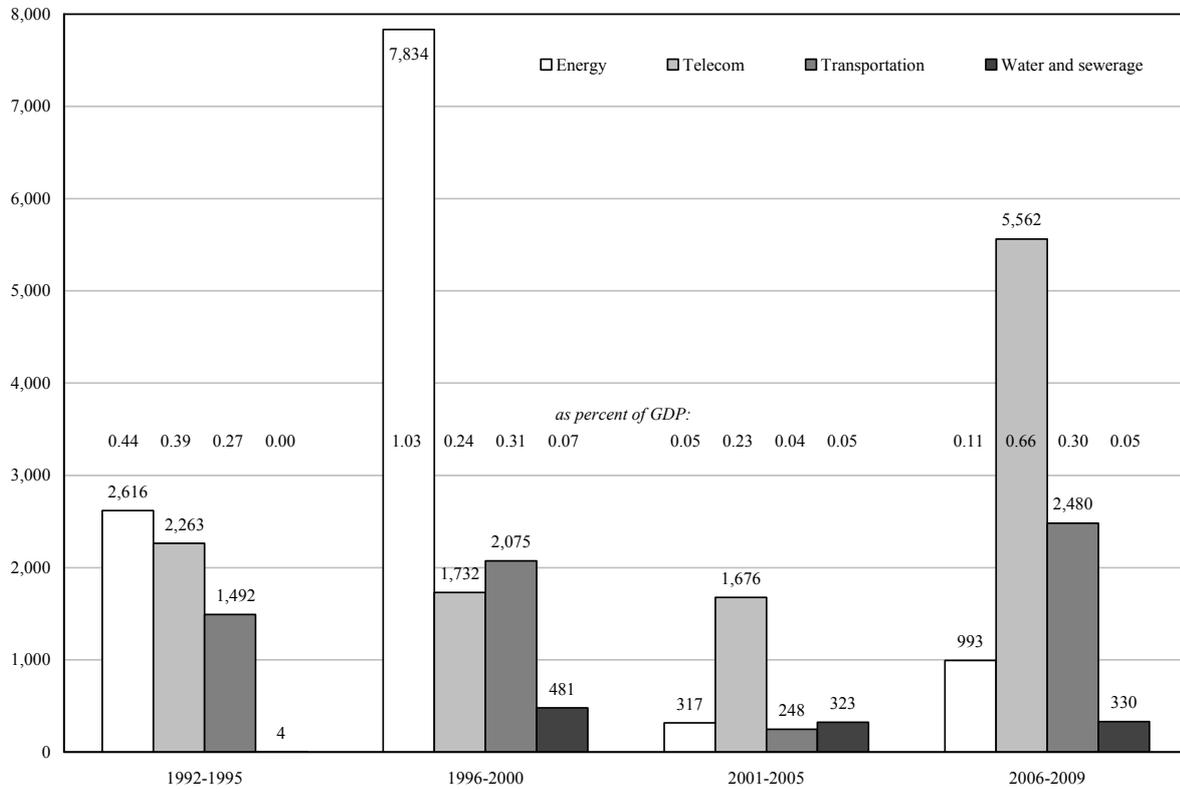
Figure 2

Colombia: Private Investment in Infrastructure
(USD mm of 2010)

Comments on "Public Infrastructure Investment and Fiscal Sustainability in Latin America: Oxymorons or Compatible Goals?" by Luis Carranza, Christian Daude and Ángel Melguizo

Regarding Carranza, Daude and Melguizo's paper, I would like to pinpoint the following conclusions:

- fiscal rules should help in opening space for fixed-capital-investment (FKI), which is lagging in Latin American countries vs. Asia or Eastern Europe;
- counter-cyclical policies helped during decoupling, by adding expenditures between 0.6-3 per cent of GDP in Latin American countries. Out of this additional expenditure, about ½-1/3 was devoted to infrastructure, especially in the case of Peru;
- to unravel fiscal stimulus without retrenching from FKI requires: 1) timing; 2) analysis of expenditure size; 3) work on both fronts revenue and expenditure.

Here my comments to the authors go in the line of emphasizing the role for:

a) solutions that look for solidification of public-private partnerships; and

b) making sure that capital markets are a big part of the solution in supporting additional infrastructure through project financing, toll securitizations, and sovereign fund monies (following the examples of Chile and India). In Figure 2, I illustrate how private investment played a crucial role in the cases of energy and telecom in the case of Colombia, so more

examples in this direction could help the reader understand this expected role of capital markets in Latin America.

The authors present interesting trends of the infrastructure in Latin American countries. This is a significant contribution in region that lacks good historical information in this area. The authors, in my view, are to be praised for their effort in filling this gap. They cast a crucial question: do fiscal adjustments in Latin American countries have implied sacrifices in terms of FKI? Their answer is a yes. For instance, during 1980-90 the ratio FKI/GDP was 2.5 per cent, while the fiscal deficit/GDP ratio averaged 4 per cent, but during the 1991-2006 period these values were 1 per cent for the investment ratio and –2 per cent for the fiscal deficit.

One issue very relevant for the current juncture in Latin America is the discussion of how to open space for FKI in the presence of fiscal rules. The authors discuss the cases of Petrobras (Brazil) and Ecopetrol (Colombia). In fact, both companies now received treatments as private capitals, while the government has taken a more passive view regarding long-term business strategy, while receiving their annual profits as main owners of those firms.

One suggestion for the authors is to make more explicit how SFRs should take into account short-run needs; as they spell it out in the case of the long-term needs (obviously, infrastructure). They recommend assets & liability management and make a constructive discussion regarding "golden rules", excluding FKI.

Finally, the authors make an interesting discussion on how SFRs evolved in the case of Peru. During the period 2000-06, they discuss the use of "exit clauses" and how the sub-national component was included (coinciding with the point made by Ter-Minassian). They close the paper by illustrating the inclusion of the FKI component during the recent years of 2009-10.

COMMENTS ON SESSION 4
NATIONAL FISCAL FRAMEWORKS: THE WAY FORWARD

Philippe Frouté[*]

Comments on "Russian Fiscal Framework: Past, Present and Future. Do We Need a Change?" presented by Sergey Vlasov, "The Story of Israel's New Fiscal Rule: Theoretical Design Meets Politics" presented by Adi Brender and "Reforming Iceland's Fiscal Framework" presented by Gunnar Gunnarsson

These three case studies are dealing with very different topics. All three of them are very pleasant to read and manage to provide very clear and deep insights on local situations that are complex. I took great pleasure in reading all of them. In this comment I will focus on the main points that I find questionable in order to start the general discussion.

The study on the fiscal rule in Russia presents the design of a rule dedicated to find the best use of volatile and non-renewable resources in order to stabilize public accounts: revenues from oil and gas. The second outlines very clearly how the Israelis have chosen to create a fiscal rule in the context of sound budgetary positions. The perspective adopted is that of political economy. The various arrangements that led to the adoption of the rule are presented very clearly. The last paper deals with the case of Iceland and how Iceland has implemented changes to recover from the financial crisis following the recommendations of the IMF.

Although each of the presented papers are very different in terms of countries studied, the economic and budgetary contexts and of the selected analytical perspectives, these three countries share one same pattern: fiscal variables were following a favorable trajectory of debt burden reduction when the 2008 crisis has hit the world economy and has called into question the sustainability of each pattern (see table 1). This led to the postponement of the fiscal reforms underway in the Russian case, to the creation of a new fiscal rule to overcome the crisis in the Icelandic case and to create a new fiscal rule to improve the credibility of the fiscal rules in the Israeli case.

In each case, the 2008 crisis revealed structural breaks hidden by the favorable pre-crisis context: pro-cyclicality of fiscal policy in the case of Russia, consumption boom driven by rising asset prices and privatization in the case of Iceland, unexpected revenue enabling the Israelis government to run unsound expenditure in Israel.

The economic contraction following the financial crisis has put these structural fiscal failures up to front in each of these countries.

Russia recorded high public deficits as shown in the following figure taken from the Russian paper.

Iceland budget balance recorded huge deficits in 2008 and 2009: respectively 13.5 and 9.1 per cent of GDP. In Israel budget balance recorded smaller deficits: respectively 2.8 and 5.6 per cent of GDP.

In the rest of this comment, I will come back to what each of these countries considers being good fiscal rule with respect to these developments.
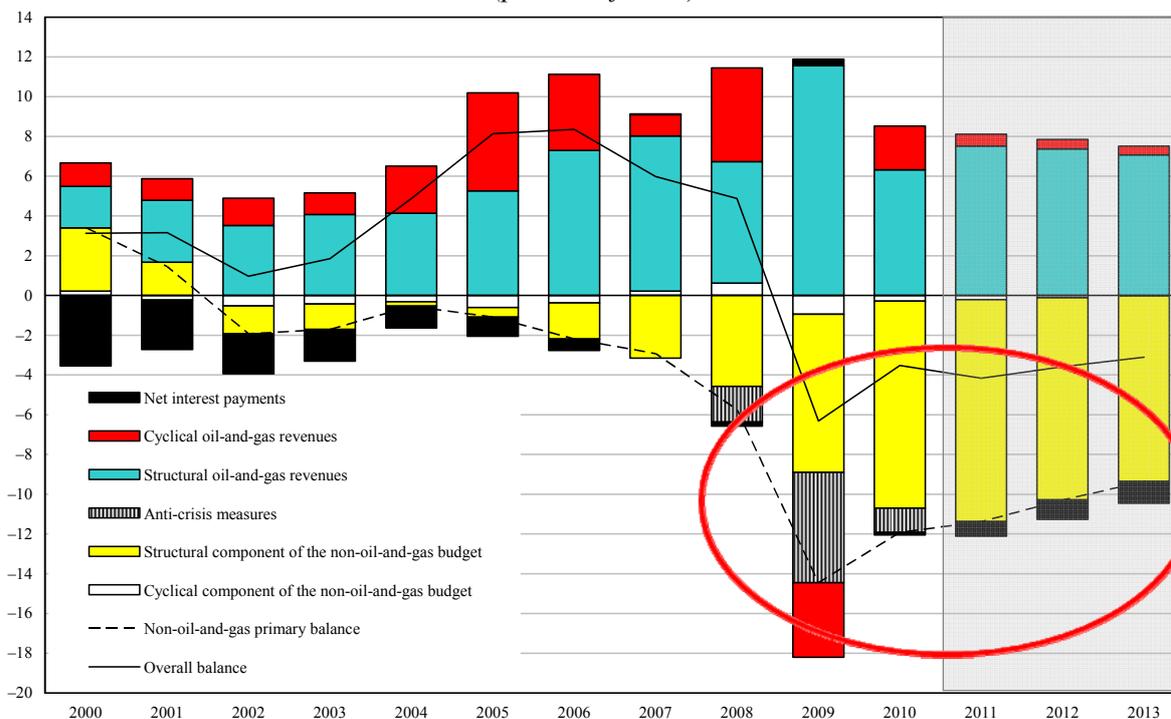
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[*] Banque de France.

Fiscal Developments in Russia, Iceland and Israel Before the Financial Crisis

Country	2006	2007
Budget balance *(percent of GDP)*		
Russia	+8.0	+6.0
Iceland	+6.3	+5.4
Israel	−1.1	−0.6
Debt Ratio *(percent of GDP)*		
Russia	9.1	7.4
Iceland	27.9	29.1
Israel	84.5	78.2

Source: OECD.

Figure 1

General Budget Balance Decomposition for 2000-13
(percent of GDP)

Source: Sergey Vlasov: "Russian Fiscal Framework: Past, Present and Future. Do We Need a Change?", in this volume.

The Icelandic case

In the case of Iceland the crisis has revealed two main weaknesses of the fiscal framework: a deficit bias of the fiscal policy, a banking regulation problem related to the rise in asset prices.

To cope with the first issue the following renewed fiscal framework has been proposed under the influence of IMF stand-by arrangements. I will not enter into the details of this framework which has been extremely well-presented in the paper of my colleague. I will just summarize the main features:

• At the national level the reform proposes the adoption of a medium term budget framework, three fiscal rules (a budget balance rule, a debt level ceiling rule, and a fixed two year nominal ceiling rule). The introduction of a top down formulation and approval of the budget has been partly adopted as well as a more stringent supervision process.

• At the subnational level, municipalities are prohibited from running operating deficits over a rolling three-year-period. A debt-to-revenue ceiling of 150 per cent is to be introduced as well as sanction for non compliance with the rules. A coordination body between central and local governments has been created.

• A modification of the legal framework is in progress with a reform of the Parliament budget power.

The new architecture follows the recommendations of the IMF to correct the deficit bias observed previously. It does not introduce measures destined to tackle the excessive use of credit in connection with the asset prices bubble. This leaves open the question of the policy mix. Can an optimal fiscal rule be built without connections with the implementation of broader prudential supervision of credit? Indeed, in a crisis, the boundaries between the public and private sphere may be blurred in the sense that private debts tend to finally become public ones (through bank rescue mechanisms for instance). How to do it remains an open issue. Have these aspects been mentioned in the case of Iceland?

Another comment came to my mind when reading the following sentence justifying the introduction of the nominal ceiling rule: "Nominal rules are beneficial if economic stabilisation is a goal because higher inflation leads directly to lower real expenditure in a counter-cyclical fashion".

Indeed, almost all of us have been introduced with common economics textbooks mentioning that a rise in growth leads to a rise in inflation. Thus, if the ceiling is defined in nominal terms then, real expenditure should decrease to respect the target. But what happens if growth and inflation are negatively correlated? There had been examples of such correlation in the history for instance in France. In this case, on the contrary, following a nominal ceiling may be procyclical. I think one should keep this possibility in mind and not abandon completely real targets when designing a fiscal rule.

The Israeli case

The paper presents the different discussions that have occurred in Israel on the creation of an expenditure ceiling with a mechanism destined to enable to increase the ceiling at the long term growth rate of the economy. The mechanism was destined to reduce the rate of increase according to the distance of the debt ratio from the intermediate target of 60 per cent with preset parameters for the speed of convergence.

In practice, taxes are excluded from the rule. Nevertheless, a plan has been adopted to cut taxes on a long term horizon. Rules were mainly destined to commit the government not to moderate the pace of tax reduction, at the same time, enabling political sustainability.

A first rule has been proposed by a team of economist from the Bank of Israel. The rule was the following:

$$PE_{gr} = GDP_{POT\,gr} - a\left(\frac{D}{Y_{t-2}} *100 - 60\right) + 2 \tag{1}$$

With PE_{gr} the growth rate of primary expenditure, $GDP_{POT\,gr}$ the growth rate of potential GDP, a the parameter for the speed of convergence to the target of 60 per cent, $\frac{D}{Y}$ denotes the debt-to-GDP ratio.

The rule was formalized that way in order to let the representatives of Israel the possibility to choose the different parameters of the rule. Nevertheless, they prefer to adopt another rule without a "free" speed of convergence parameter to define which was considered as less politically demanding. The new rule was the following:

$$PE_{gr} = GDP_{POT\,gr} * \left(\frac{60}{\dfrac{D}{Y_{t-2}}} *100\right) + 2 \tag{2}$$

This rule set the convergence speed. Nevertheless, Adi Brender shows that this formulation is less stringent that the previous one, thanks to the following simulation exercises:

Figure 2

Fiscal Aggregates based on the Adopted Rule, 2008-25
Public Debt/GDP Ratio, Various Policy Scenarios, 2008-25
(percent of GDP)
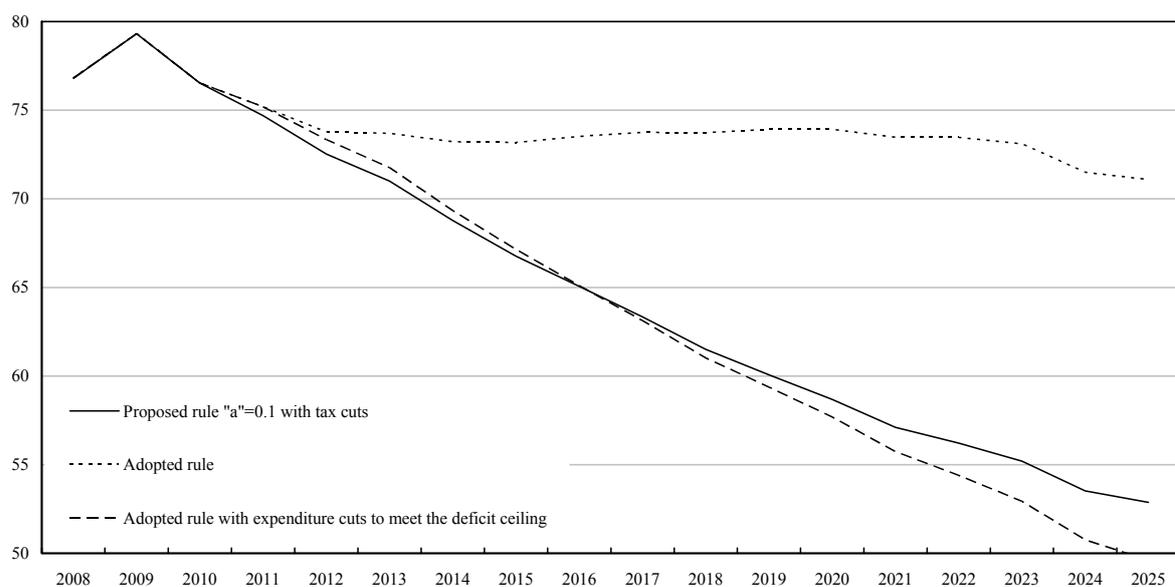
Source: Adi Brender, "The Story of Israel's New Fiscal Rule: Theoretical Design Meets Politics".

Nevertheless, one can go even further. Indeed, the new formula contains an implicit convergence speed parameter a. By equalizing the two equations, one gets:

$$GDP_{POT\,gr} - a\left(\frac{D}{Y_{t-2}} * 100 - 60\right) = GDP_{POT\,gr} * \left(\frac{60}{\dfrac{D}{Y_{t-2}}} * 100\right) \tag{3}$$

This implies that:

$$a\left(\frac{D}{Y_{t-2}} * 100 - 60\right) = GDP_{POT\,gr} - GDP_{POT\,gr} * \left(\frac{60}{\dfrac{D}{Y_{t-2}}} * 100\right) \tag{4}$$

and, finally, that:

$$a = \frac{GDP_{POT\,gr}}{\dfrac{D}{Y_{t-2}} * 100} \tag{5}$$

The following expression means three things:

- First, implicitly the new rule set definitely the convergence parameter. The different governments commit to respect it. One justification of the abandon of the first rule was the will of not having to choose a specific a. In this respect, the result is the opposite.

- Second, if we compare the magnitude order of the different components of the ratio, it means that the chosen a is rather small which confirms the simulation exercise run by the Central Bank team. Indeed, the potential GDP growth rate stands likely somewhere below 10 per cent compared to a debt ratio that may be largely higher than this proportion.

- Third, the rule set the following relation: the higher the debt ratio the lower the convergence speed. Hence, in the new rule a evolves mainly with the value of the debt-to-GDP ratio, the lower this ratio the faster the convergence speed. The chosen convergence pattern postpones the fiscal adjustment.

The Russian case

This paper deals with a very different issue. It investigates the question of how using properly non renewable resources or revenue in a fiscal stability purpose. Since the fall of the Soviet Union political and economic changes have been huge in Russia. Concerning the fiscal framework and the question of the last main two changes are:

The creation of a stabilization fund in 2004 which is financed by the difference between the revenue under the base oil price which are used on spending and the revenue above which are saved. Since 2008 non-oil-and-gas revenue must record a balanced budget.

To summarize, these two rules initiate a separate treatment of oil-and-gas and non-oil-and-gas revenues, create a ceiling for non-oil-and-gas deficits, and put into place a fixed transfer of oil-and-gas revenues to finance the budget the difference being covered by borrowing.

Figure 3
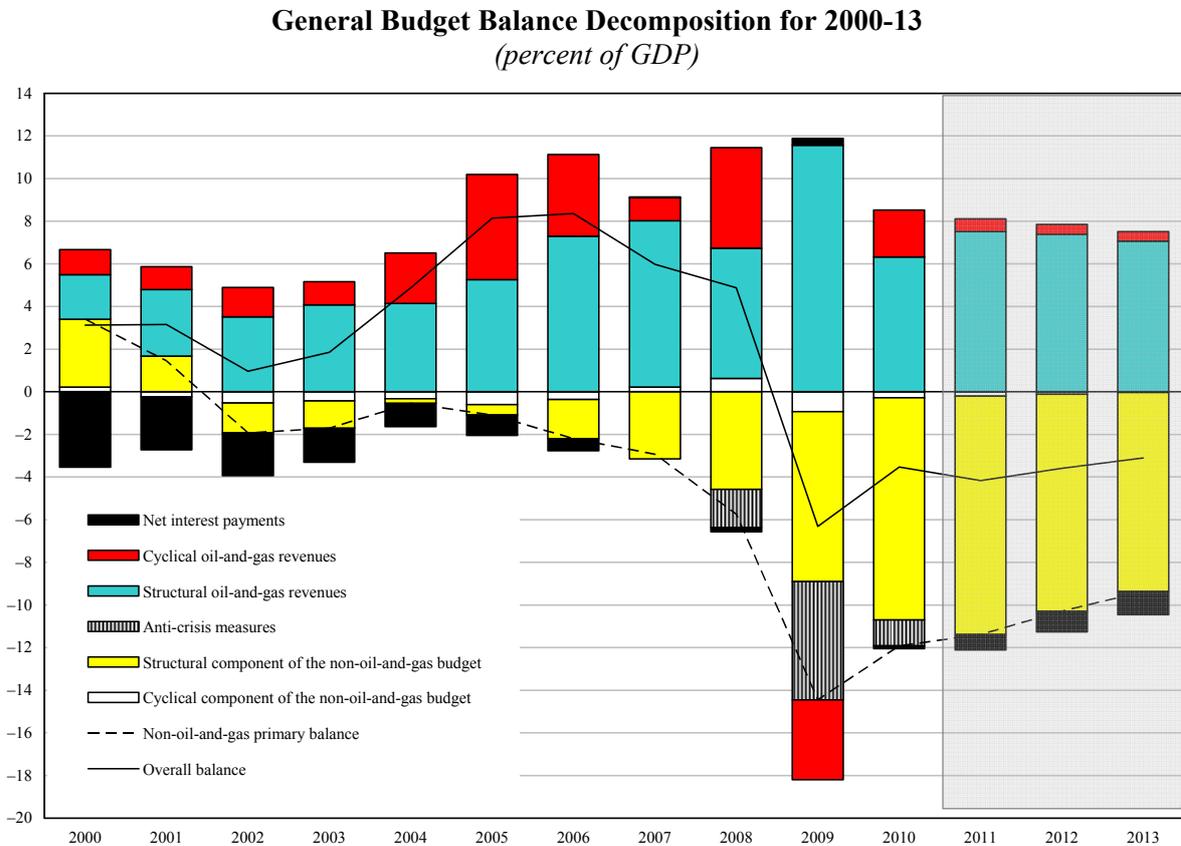
General Budget Balance Decomposition for 2000-13
(percent of GDP)

Source: Sergey Vlasov, "Russian Fiscal Framework: Past, Present and Future. Do We Need a Change?", in this volume.

The rules parameters were the following, oil and gas transfers were set at 3.7 per cent of GDP and the authorized deficit for non oil and gas budget at 4.7 per cent of GDP. The 2008-10 period was supposed to be a transition period. But, the crisis hit and the implementation of the rule has been postponed. For the moment we do not know until when. This raises the question of the absence of guidelines to deal with exceptional circumstances like in the European case. The absence of such mechanisms which submits the rule to the use of discretionary power may hamper the credibility of these rules.

The paper presents some simulation exercises on the way the rule has been calibrated. Different scenarios have been studied. In each case the rule fails to ensure sustainable fiscal developments. To succeed one has to modify the parameters by authorizing less transfers and more borrowing. But in the end, the oil and gas resources vanish and the budget situation is not sustainable any more.

The last studied simulation envisages a situation close to the Norway model: the bird-in-the-hand scenario. In the Norway model almost all non oil and gas deficit are financed by the real return on the asset of the oil fund. But, in Norway the fund value is exceeding the GDP value and the returns are equal to almost 5 per cent of GDP, whereas in Russia the respective figures are 7.8 and 0.3 per cent of GDP. Hence, the conclusion of a necessary decrease in budget expenditure to put fiscal variables into a sustainable path.

We fully agree with this conclusion especially when looking more carefully at the simulation exercises based on governmental figures. Indeed, the volatility of oil-and-gas revenue has been reduced (see the blue component of the shady area of Figure 3, taken from the Russian paper).

As the structural component of oil-and-gas revenues is deduced from it, it may change the results. In our opinion the unsustainable aspect of the fiscal pattern may be reinforced if one takes a higher volatility into account.

All in all, these there papers are very informative and very pleasant to read and I recommend the readers to read them.

COMMENTS ON SESSION 4
NATIONAL FISCAL FRAMEWORKS: THE WAY FORWARD

Walpurga Köhler-Töglhofer[*]

As the last discussant of this workshop, let me on behalf of all participants thank our host for the excellent organisation of this event and for the lavish supply of food for thought and discussion, as well as for our stomachs. The variety of insights presented and the breadth of items discussed have provided an intellectually enriching atmosphere for all of us.

European fiscal policy is guided by the European fiscal policy framework – a framework which was created with the intention of guaranteeing sound fiscal policies. Yet ever since these rules were first introduced, they have been subject to criticism, generating discussions about their usefulness and the lack of a theoretical foundation, about the carrots-and-sticks problem and the problem of missing national ownership and, thus, about their effectiveness. Indeed, the rules have not been able to prevent fiscal policy from being pro-cyclical, in particular in good times. Thus, it should not have come as a surprise after the outbreak of the great recession that there was rather limited room for manoeuvre to stabilise the real economy.

In all likelihood, the EU fiscal framework would be more effective if it were fully reflected in the national institutional settings, *i.e.*, if adequate accompanying fiscal frameworks were in place at the national level. One issue in the current EU policy debate on reinforcing economic governance in the euro area is the idea of implementing specific minimum requirements for national fiscal frameworks, including binding proposals for budget preparation, requirements for medium-term fiscal planning, budget monitoring and numerical fiscal rules. The empirical literature supports these ambitions: empirical findings have highlighted that strong fiscal institutions in countries can foster budget discipline. In other words, well-defined numerical fiscal rules, the centralisation of the budget process, top-down budgeting approaches or the presence of medium-term fiscal frameworks tend to improve fiscal outcomes. What is also relevant, though, is the share of government finances that are actually covered by those rules, whether compliance is monitored adequately and, whether there are effective sanctioning mechanisms.

This year's workshop focuses on rules and institutions for sound fiscal policy after the crisis. The first session discussed past experiences with given national frameworks, followed by the second session about fiscal rules and institutions in the European Union. Whereas the third session kept an eye on new developments with respect to independent authorities and expenditure rules, the last session was devoted to the topic "National fiscal frameworks: the way forward" and thus on the discussion of concrete suggestions for improving the effectiveness of specific countries' fiscal frameworks such as the one for Slovakia and New Zealand, two countries with very different economic history and economic policy backgrounds. In terms of institutional constraints we have got one country (Slovakia, as a member of EMU) that is committed to the European fiscal framework, pitched against a country that is not. In terms of conceptual differences underlying the stimulating papers, the rather complex proposal for Slovakia is aimed above all at improving the long-term sustainability of public finances, whereas the New Zealand paper essentially focuses on the question of how to enhance the stability function of fiscal policy.

Slovakia's fiscal policy still "suffers" from chronic deficits, pro-cyclicality and a steadily rising debt, strong expenditure pressures and an unsustainable pension and health system; moreover, creative accounting, off-budgetary operations and sales of assets as well as the depletion

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of natural resources and the ignorance of environmental damage aggravate the overall state of the public sector; hence, the rules of the Stability and Growth Pact (SGP) together with the national fiscal framework failed to eliminate the deficit bias and place public finances on a sustainable footing. Against this backdrop, the paper makes the case for rules which encompass the broader public sector rather than the general government sector alone and which refer not only to explicit liabilities but also to implicit as well as contingent liabilities. In other words, it advocates switching to a rather complex and highly comprehensive fiscal framework designed to guarantee fiscal sustainability in the future.

Essentially, the Slovakian paper suggests replacing the flow-based concept (which is in compliance with the EU fiscal framework) with a stock-based net worth concept, consisting of a constitutional debt limit, expenditure ceilings, rules for municipalities, transparency procedures and, above all, a newly installed independent fiscal council. Since the author is fully aware of the string of valuation and data problems that come with a net worth approach, his proposal is to use the *change* in net worth as a major building block for determining the concrete expenditure ceilings rather than define an operational target based on a comprehensive net worth approach.

At the heart of the proposal is the idea to replace the conventional budget balance targets with medium-term expenditure ceilings. The expenditure ceilings should be defined in nominal terms and they should exclude interest payments and cyclically sensitive items. The actual ceilings or the specific expenditure path should be derived from the *change* in the net worth. This means that a government would face more generous expenditure ceilings if it implemented reforms that improve the long-term sustainability of public finances (and vice versa). However, neither the net worth per se nor the change in net worth is straightforward to measure. Hence the recommendation to measure the change in net worth with a new indicator, called GAP – which is very similar to the S2 indicator but broader as it includes also non-age-related implicit liabilities and financial wealth of state companies and the central bank.

While replacing the current flow-based concept with a stock-based fiscal rule may have its merits from a theoretical point, the proposal also means abandoning the comparatively simple rules in the European fiscal framework tradition for a rather complex rule. This contradicts the "common understanding" that fiscal rules should be simple, understandable, enforceable and easy to control.

Partly this replacement is based on the "scepticism" about headline budget balance targets and structural budget balance targets – in the first instance mainly because of the cyclical influence on headline budget balances; in the second instance mainly because of the problem of correctly estimating potential growth and, thus, the output gap. However, the proposal cannot circumvent this methodological problem: potential growth is after all a necessary ingredient for determining the expenditure ceilings in the proposal at hand. The paper suggests to use the GAP indicator as the ultimate sustainability target which needs to be based on a measure of potential growth since it is identified within the intertemporal budget constraint. Furthermore, in order to calculate GAP one also needs a methodology to calculate cyclical and structural revenues and expenditures. Thus, from a methodological point of view the proposal doesn't offer a way out of the problems surrounding the estimation of potential growth and output gaps. Besides, the proposal suffers from non-negligible valuation and data problems connected to the calculation of the *change* in net worth since it is based on the assessment of certain assets such as state-owned companies. The value of an asset is equivalent to the net present value of the revenues that may be generated with that asset from now on into the future and is therefore generally difficult to precisely assess.

As sustainability analyses based on the intertemporal budget constraint might have an analytical value in the economic policy discussion, one should be aware of the weaknesses of policy target choices on the basis of sustainability indicators.

Judging from the problems that underlie current fiscal policy-making in Slovakia, such as the common pool problem, information asymmetry, political cycles and creative accounting, the question arises whether the new proposal would indeed be a remedy. With respect to the common pool problem, an expenditure rule might be helpful in preventing overspending in good times in particular. However, it would need to be twinned with a deficit anchor in order to keep the evolution of the tax/revenue side under control as well. As regards the debt rule that would accompany the expenditure rule, strict debt rules may be fraught with problems of their own. In the short run, negative macroeconomic shocks might have a much bigger impact on the evolution of the debt ratio through taxes and via the denominator effect than "bad policies" such as expenditure overruns. Moreover, a strict debt rule per se might be an incentive for bad policies, such as asset sales at low prices or pro-cyclical fiscal policies.

Furthermore, it is questionable whether the new and more complex framework would in fact reduce the asymmetric information problem – even if the suggested new independent fiscal body were to work effectively. Moreover, a more complex rule may perhaps open up more opportunities for creative accounting measures. After all, policy-makers do not resort to creative accounting in response to a specific rule; much rather creative accounting is fueled by a behavioural attitude which is against the spirit of sound and transparent fiscal policy-making.

My comments on the paper on New Zealand's fiscal framework will be more limited and straightforward. As argued by the author, New Zealand has been successful in putting its fiscal policy on a sustainable footing. At the same point, fiscal policy-making in New Zealand has got its weaknesses, too. Essentially, its insufficiency rests with the short-term stabilisation function, as the author has detailed in her interesting paper. The study would, however, benefit from concentrating simply on the main question – namely on how to improve the short-term stabilisation function of fiscal policy, *i.e.*, on how to prevent pro-cyclical fiscal policy or spending of surpluses in good times. In particular the chapter on a "Rule for more activist (countercyclical) tax policy" could be cut since firstly it doesn't offer any option for action and secondly, the analysis is highly disputable from a tax theory perspective.

A great part of the paper is devoted to the discussion of the methodological problems and difficulties in assessing the economic cycle – yet without offering solutions to this problem. The analysis shows that the New Zealand government followed a countercyclical policy in the period 2001-05. Subsequently, however, fiscal policy turned rather pro-cyclical, partly misguided by an inaccurate assessment of the economic cycle. Given a wrong assessment of structural growth, New Zealand's policy-makers were unable to accurately gauge the stage of the economic cycle in the period 2005-08. The overoptimistic assessment of structural revenue developments accompanied by overspending implied a pro-cyclical stimulus to the already overheated economy. The outbreak of the economic crisis in 2009 led to a tremendous revision of structural figures.

The author discusses different options to make fiscal policy more stabilising. One of these options would appear to be particularly promising, namely the introduction of a "stabilisation fund". The idea is to fill this fund with revenue windfalls in good times and to draw down money in periods of negative output gap. Such a stabilisation fund may have the capacity to limit pro-cyclical fiscal policies in good times – in particular for virtuous countries (see Balassone *et al.*, 2007). At the same time, it must be said that the effectiveness of such a tool also rests on an accurate assessment of the economic cycle.

To sum it up: both papers have got their merits and their drawbacks – and the solutions they propose have yet to live up to reality. Nevertheless, they can serve as excellent starting points for further research and policy debate.