Session 3

NEW DEVELOPMENTS: INDEPENDENT AUTHORITIES AND EXPENDITURE RULES

CAN FISCAL DISCIPLINE BE RECONCILED WITH FISCAL SOVEREIGNTY?

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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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Peter Virovácz provided computational assistance.

[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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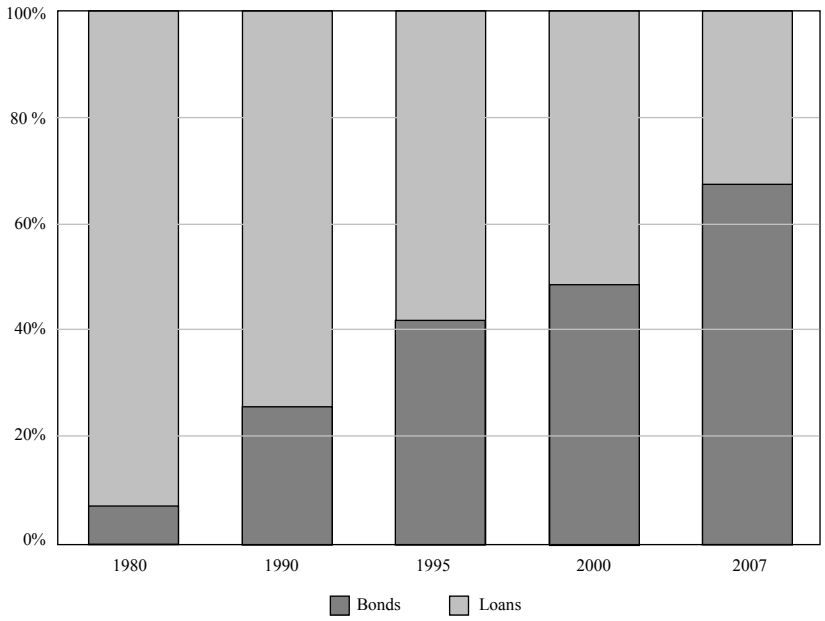
[3] In this regard, the Chilean banking crisis, documented by Diaz Alejandro (1985), suggests a *déjà-vu* for much of the Asian crisis and the recent Irish crisis.

[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.

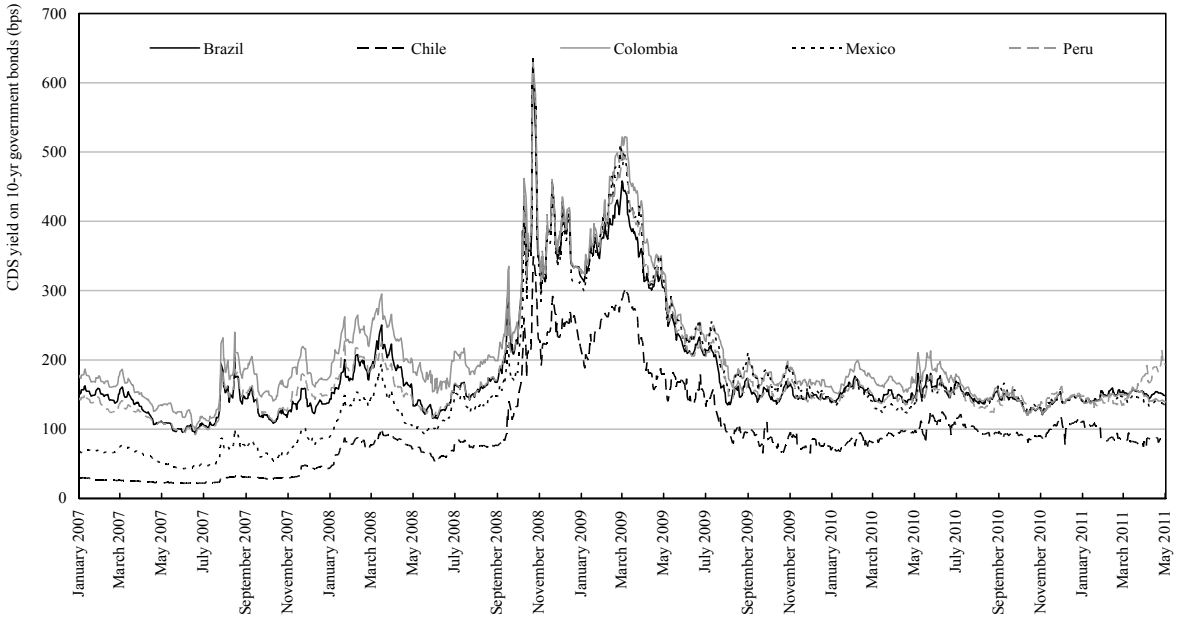
[11] Prior to EU accession by former socialist economies, markets attributed a favorable impact to membership, as compared to Latin American economies that would not be able to reap such benefits – as revealed by cross-country differences in yields on sovereign paper, as shown by Kopits (2002).

[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

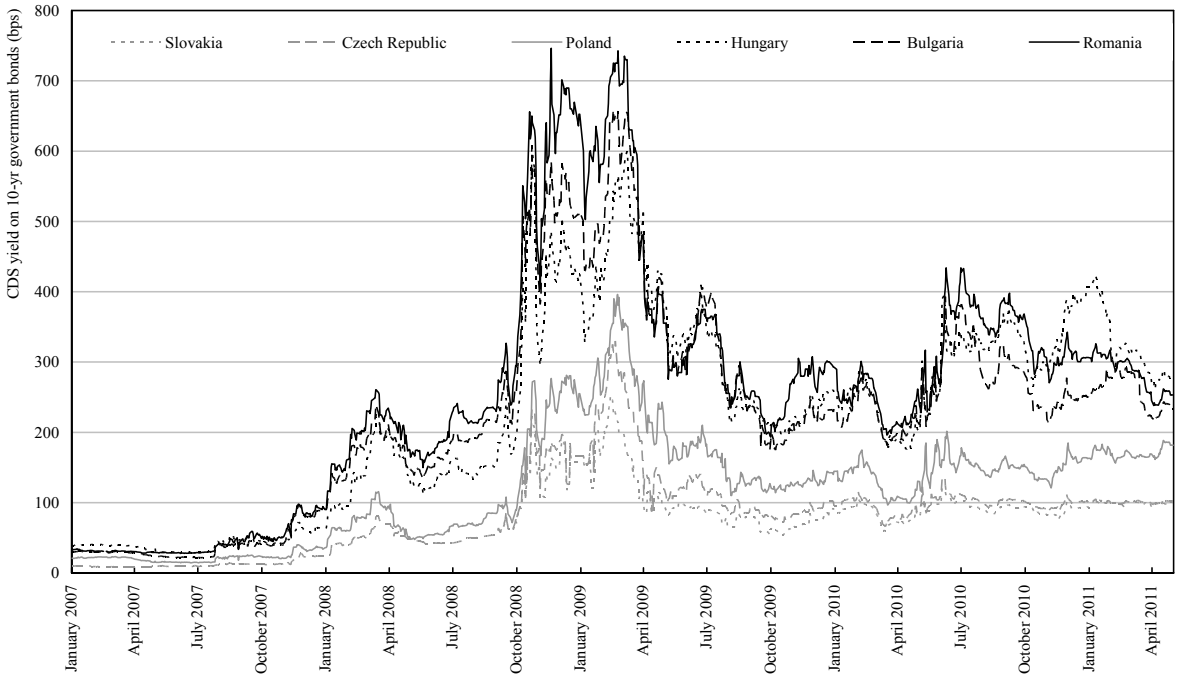
Despite some initial spikes in spreads on sovereign bonds and on their derivatives (measured by CDS spreads), markets were relatively calm until the collapse of Lehman Brothers in October 2008. Thereafter, vulnerable new non-euro EU members, led by Hungary, that suffered a sudden stop in capital markets, 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

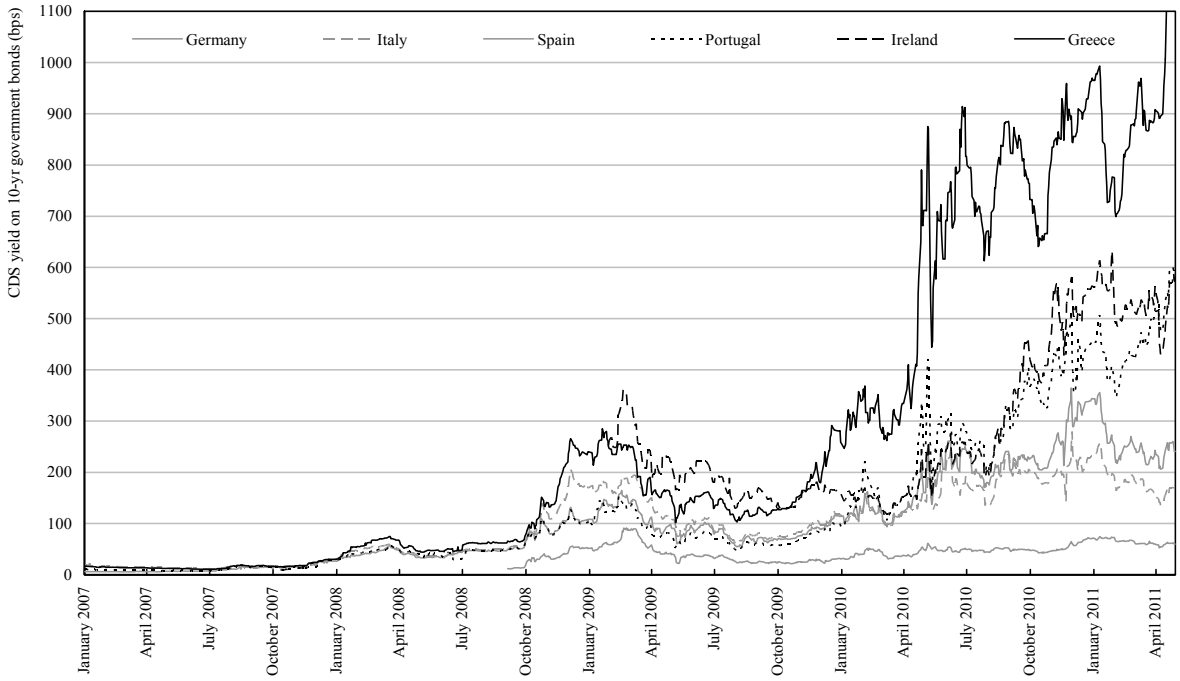
Central and Eastern Europe: Sovereign Default Risk



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]

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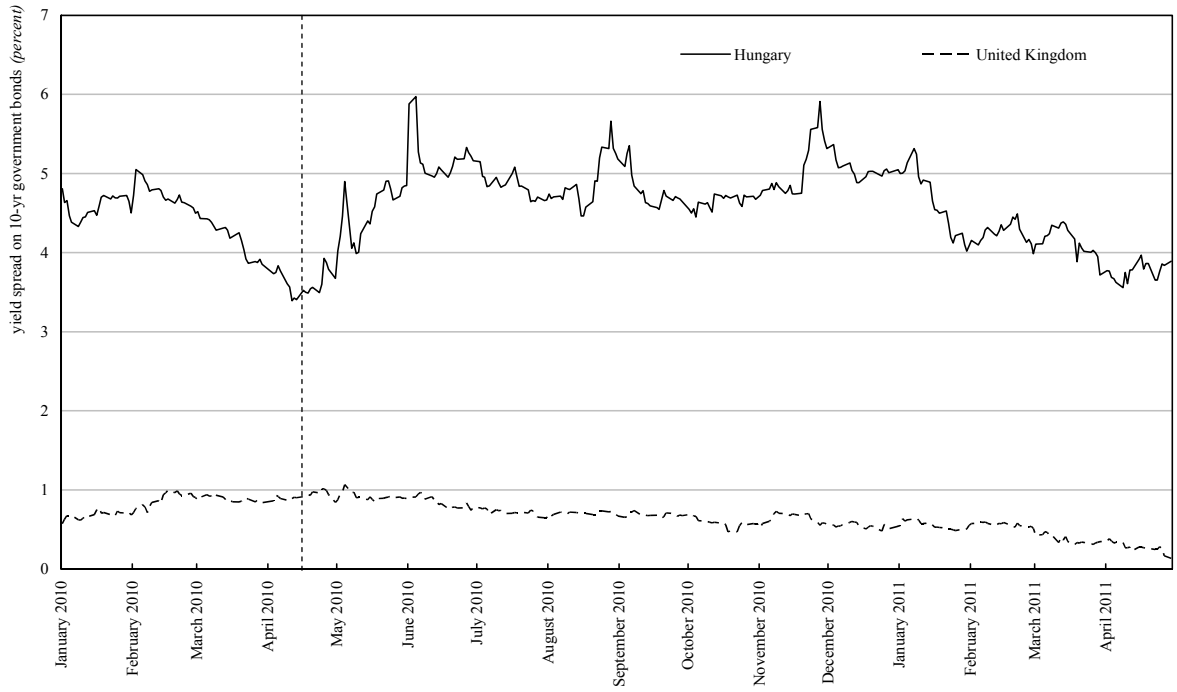
[18] Although more volatile (as they are generated in a thin market for derivatives), CDS spreads provide a more useful gauge for default risk, than plain sovereign spreads which include currency risk as well.

Figure 5

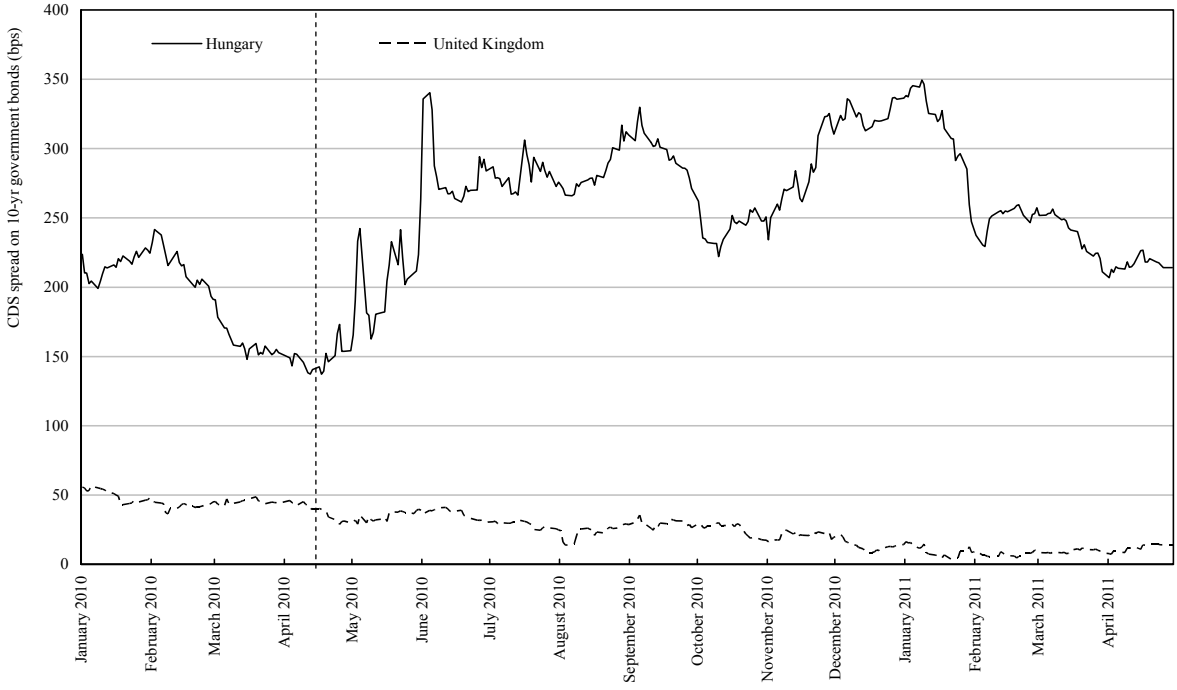
Hungary and United Kingdom: Sovereign Risk Premium



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.

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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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[*] Parliamentary Budget Office, Canada. Website: www.parl.gc.ca/pbo-dpb

This paper reviews developments in Canada's fiscal institutions – *i.e.*, budget processes conventions, constraints, and plans – and fiscal outcomes. The paper discusses Canada's institutional strengths and weaknesses, and identifies some potential areas for improvements in the context of current and looming fiscal challenges.

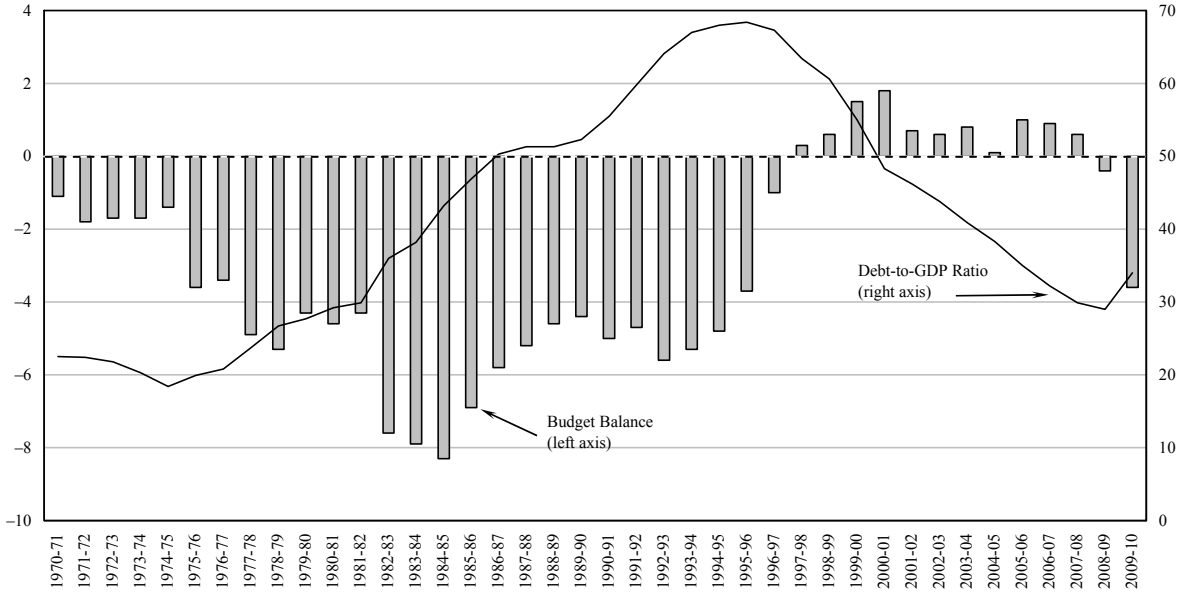
This paper incorporates work by Russell Barnett, Jeff Danforth, Chris Matier and Brad Recker of the PBO's Economic and Fiscal Analysis Division. Comments are welcome. E-mail: tapps@parl.gc.ca. We are responsible for any errors.

[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

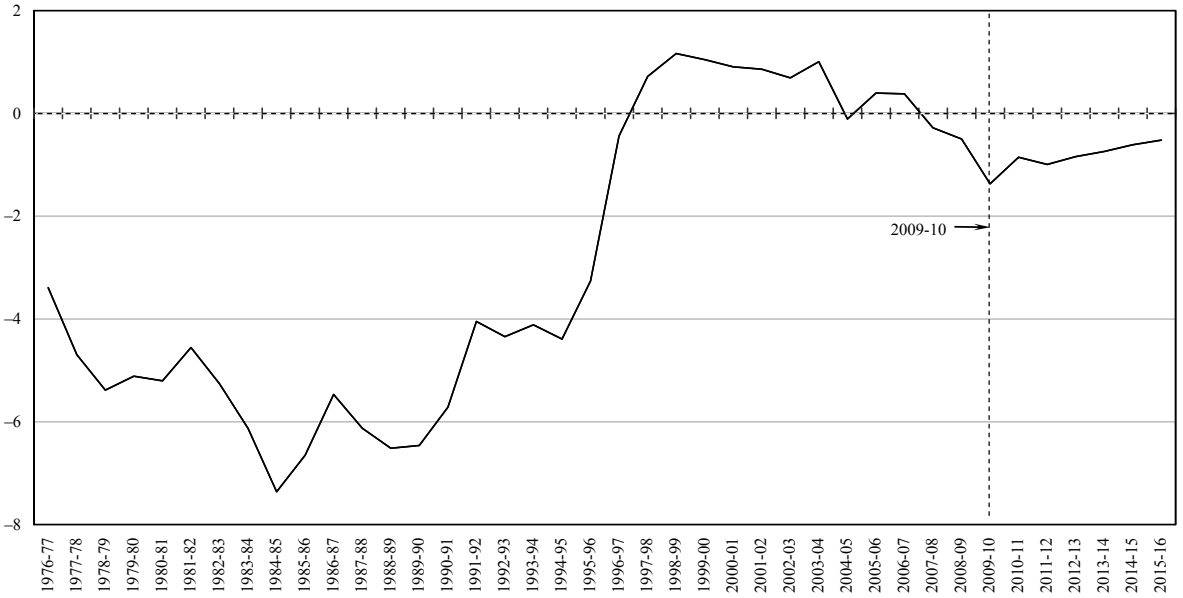
Canadian Federal Budget Balance and Debt-to-GDP Ratio
(percent of nominal GDP)



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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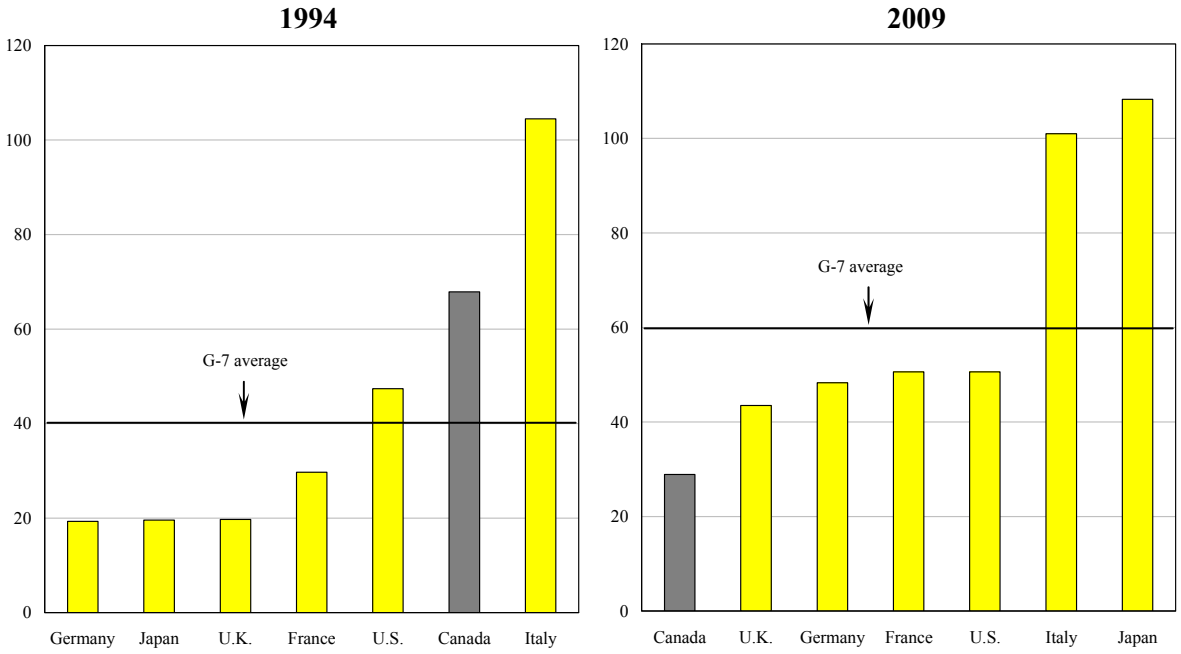
[3] While the federal government introduced short-term deficit and budget balance targets, many provinces introduced balanced budget legislation. The federal government began with an interim 3 per cent of GDP deficit target by 1996-97, which later became a target to balance the budget or achieve a surplus. 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

[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

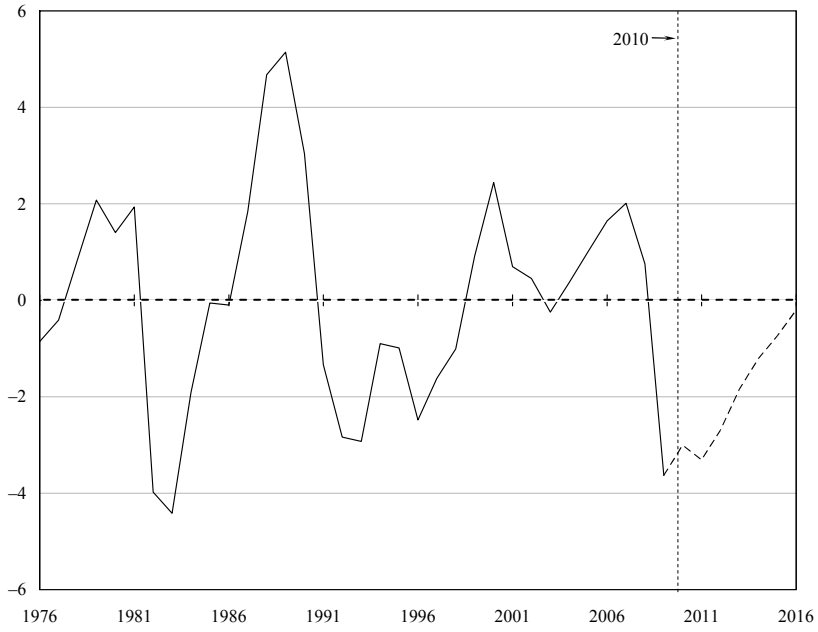
- *Monitoring* – In the context of fiscal rules and budget targets, a fiscal agency can play a key role in oversight by serving as an independent monitor by analyzing whether the government's fiscal policy has achieved or will likely achieve its key objectives. As another example, a fiscal agency can 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.

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

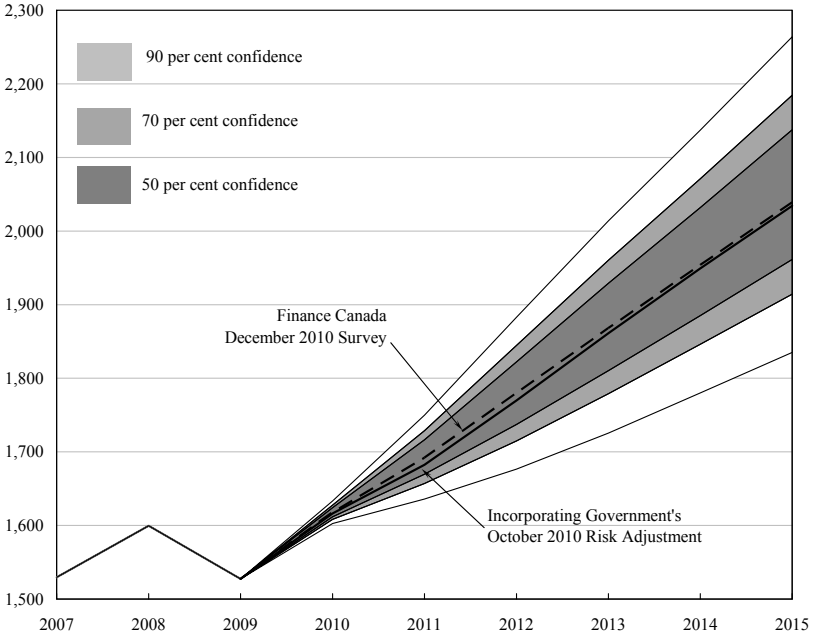
PBO Estimates of Canada's Output Gap
(percent of potential GDP)



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.

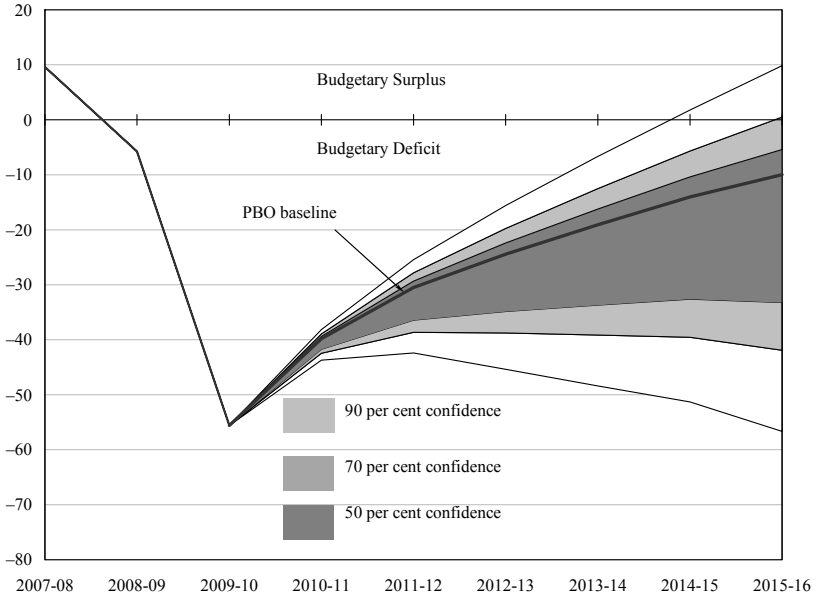
4.2 Looming long-term challenges

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

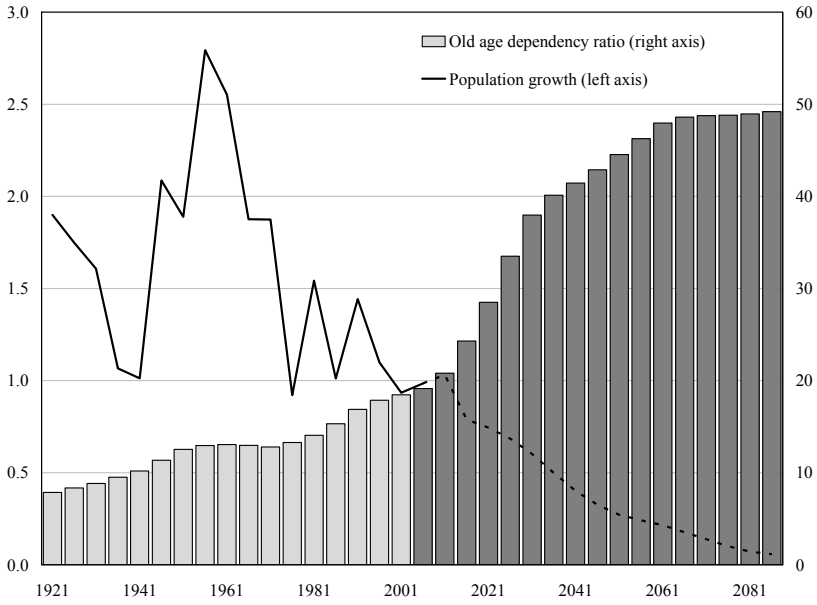
PBO Fan-Chart Budget Balance Projections Given Economic Uncertainty and Downside Risk
(billions of dollars)



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.

[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.

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EVALUATING ELECTION PLATFORMS: A TASK FOR FISCAL COUNCILS? SCOPE AND RULES OF THE GAME IN VIEW OF 25 YEARS OF DUTCH PRACTICE

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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).

Table 2

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.

Table 4

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.

Table 5

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.

Table 6

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.

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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

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[1] The planning stage can be further divided into a stage in which the government constructs the budget and a parliamentary approval stage.

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:

$$\begin{aligned} &BAL_t^{\tau} = BAL_t^{t-1} + \left(BAL_t^{\tau} - BAL_t^{t-1} \right) = \\ &\left[REV_t^{t-1} + \left(REV_t^{\tau} - REV_t^{t-1} \right) \right] - \left[EXP_t^{t-1} + \left(EXP_t^{\tau} - EXP_t^{t-1} \right) \right]. \end{aligned} \tag{2}$$

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]

$$\begin{aligned} e(x)_t^{\tau,t-1} &\equiv x_t^{\tau} - x_t^{t-1} \\ &= \frac{1+g_{x,t}^{t-1}}{1+y_t^{t-1}} \left(x_{t-1}^{\tau} - x_{t-1}^{t-1} \right) \qquad \text{base effect} \end{aligned} \tag{3}$$

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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 $x = EXP$:

$$e(x)_t^{f,t} = x_t^f - x_t^t \tag{5}$$

$$= \frac{1+g_{x,t}^t}{1+y_t^t}\left(x_{t-1}^f - x_{t-1}^t\right) \quad \text{base effect}$$

$$+ \frac{x_{t-1}^f}{\left(1+y_t^f\right)\left(1+y_t^t\right)}\left(g_{x,t}^f - g_{x,t}^t\right) \quad \text{growth effect}$$

$$- \frac{x_{t-1}^f}{\left(1+y_t^f\right)\left(1+y_t^t\right)}\left(y_t^f - y_t^t\right) \quad \text{denominator effect}$$

$$+ \frac{x_{t-1}^f}{\left(1+y_t^f\right)\left(1+y_t^t\right)}\left(g_{x,t}^f y_t^t - g_{x,t}^t y_t^f\right) \quad \text{residual effect}$$

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

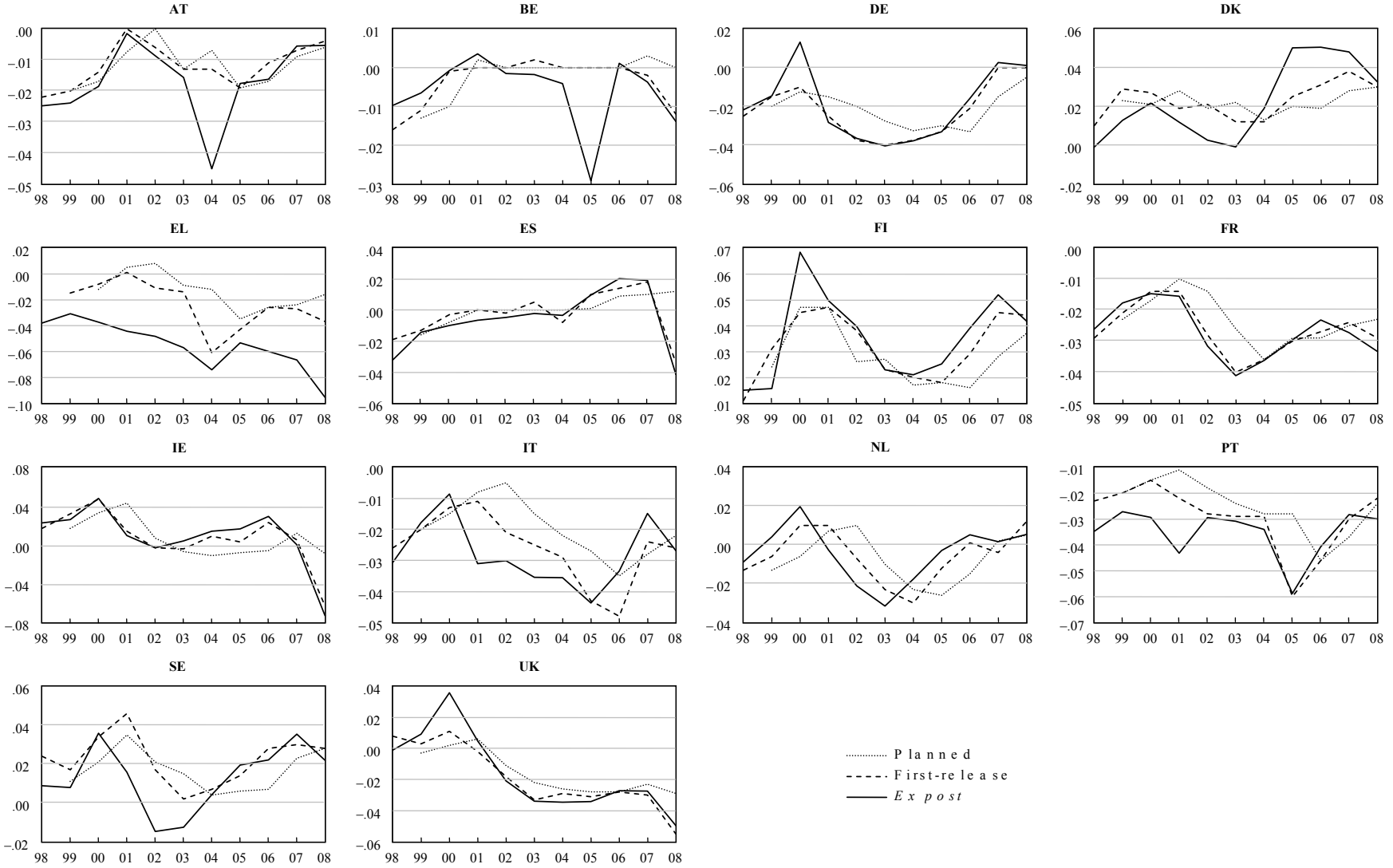

Table 1

Forecast Errors in Average GDP and the GDP Deflator

	Nominal GDP	**Real GDP**	**GDP Deflator**
First release minus plan	–0.20* *(0.12)*	–0.32*** *(0.09)*	0.11* *(0.06)*
Ex post minus plan	0.06 *(0.16)*	–0.07 *(0.13)*	0.13* *(0.08)*
Ex post minus first release	0.26*** *(0.09)*	0.22*** *(0.06)*	0.03 *(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

	TE	BE	GE	DE	RE
(A) Implementation Errors Based on First-release Data Minus Plans					
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.

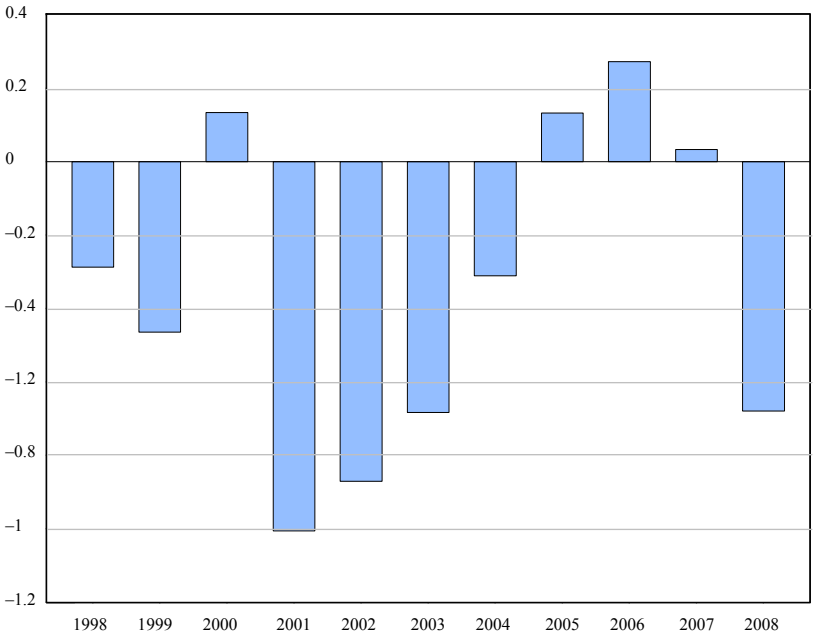
3 Explaining the revision error and its main components

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

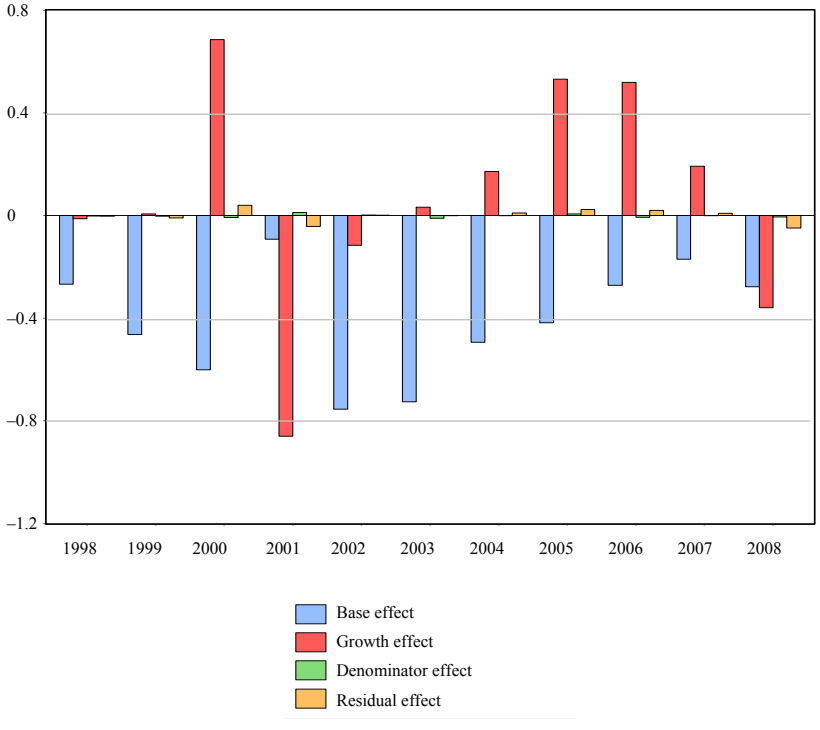
Figure 2

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

[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 $\left(BAL^f_{t-1} - BAL^t_{t-1}\right)$. Table 5 reports the results for our baseline specification of this regression. The lagged base effect $\left(BAL^f_{t-2} - BAL^{t-1}_{t-2}\right)$ 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^f_{t-1} and BAL^f_{t-2} into the same direction. The revision of the previous balance BAL^t_{t-1} enters with a significant and negative coefficient. In fact, if we were to rewrite the regression equation and add BAL^t_{t-1} 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_{t-1} 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_{t-1} 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_{t-1} relative to BAL^f_{t-1}, 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 $GROWTH^{f,t}_t$, as this revision error refers to a period *t* coming after period *t*-1 to which the base effect refers. Indeed, $GROWTH^{f,t}_t$ turns out to be insignificant in the regression for the base effect.

Table 5

Determinants of the Base Effect

Dependent variable: $BAL^{f}_{t-1} - BAL^{t}_{t-1}$						
	(1)	(2)	(3)	(4)	(5)	(6)
$BAL^{f}_{t-2} - BAL^{t-1}_{t-2}$	0.19* *(0.11)*	0.52*** *(0.11)*	0.47*** *(0.10)*	0.48*** *(0.10)*	0.47*** *(0.10)*	0.49*** *(0.11)*
BAL^{t}_{t-1}	–0.11* *(0.063)*	–0.022 *(0.030)*	–0.063* *(0.032)*	–0.034 *(0.029)*	–0.056* *(0.030)*	–0.048 *(0.031)*
$ELECT_t$	0.21 *(0.15)*	0.16 *(0.17)*	0.16 *(0.16)*	0.15 *(0.16)*	0.17 *(0.16)*	0.17 *(0.17)*
$GOVPARTY_t$	–0.039 *(0.058)*	–0.019 *(0.046)*	–0.078 *(0.049)*	–0.029 *(0.046)*	–0.008 *(0.046)*	–0.020 *(0.046)*
$GOVTYPE_t$	–0.022 *(0.089)*	0.031 *(0.062)*	0.016 *(0.060)*	–0.007 *(0.062)*	–0.000 *(0.062)*	0.041 *(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 $\left(BAL^{f}_{t-1} - BAL^{t}_{t-1}\right)$ 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*** *(0.28)*	–1.18*** *(0.28)*	–1.15*** *(0.27)*	–0.28 *(0.27)*	–0.49** *(0.25)*	–0.43* *(0.25)*	–0.51** *(0.23)*	–0.35 *(0.28)*
$GROWTH^{f,t}_{t}$	0.014 *(0.28)*	–0.11 *(0.42)*		0.30 *(0.32)*	0.30 *(0.31)*	0.23 *(0.31)*	0.15 *(0.28)*	0.25 *(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 *(0.39)*	–0.44 *(0.39)*	–0.46 *(0.40)*	–0.65 *(0.44)*	–0.69* *(0.41)*	–0.64 *(0.42)*	–0.59 *(0.41)*	–0.62 *(0.43)*
$GOVPARTY_t$	0.010 *(0.14)*	0.018 *(0.14)*	–0.059 *(0.14)*	0.041 *(0.12)*	–0.13 *(0.12)*	0.011 *(0.12)*	0.076 *(0.12)*	0.039 *(0.12)*
$GOVTYPE_t$	–0.25 *(0.23)*	–0.27 *(0.23)*	–0.39 *(0.25)*	0.28* *(0.15)*	0.10 *(0.15)*	0.10 *(0.16)*	0.028 *(0.16)*	0.24 *(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 = …)	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

[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.

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KEEPING THE LID ON AGGREGATE EXPENDITURE DURING BUDGET PREPARATION: ENFORCING AGGREGATE EXPENDITURE CEILINGS WHILE PRESERVING ALLOCATIVE FLEXIBILITY

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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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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).

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.

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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 Coenen 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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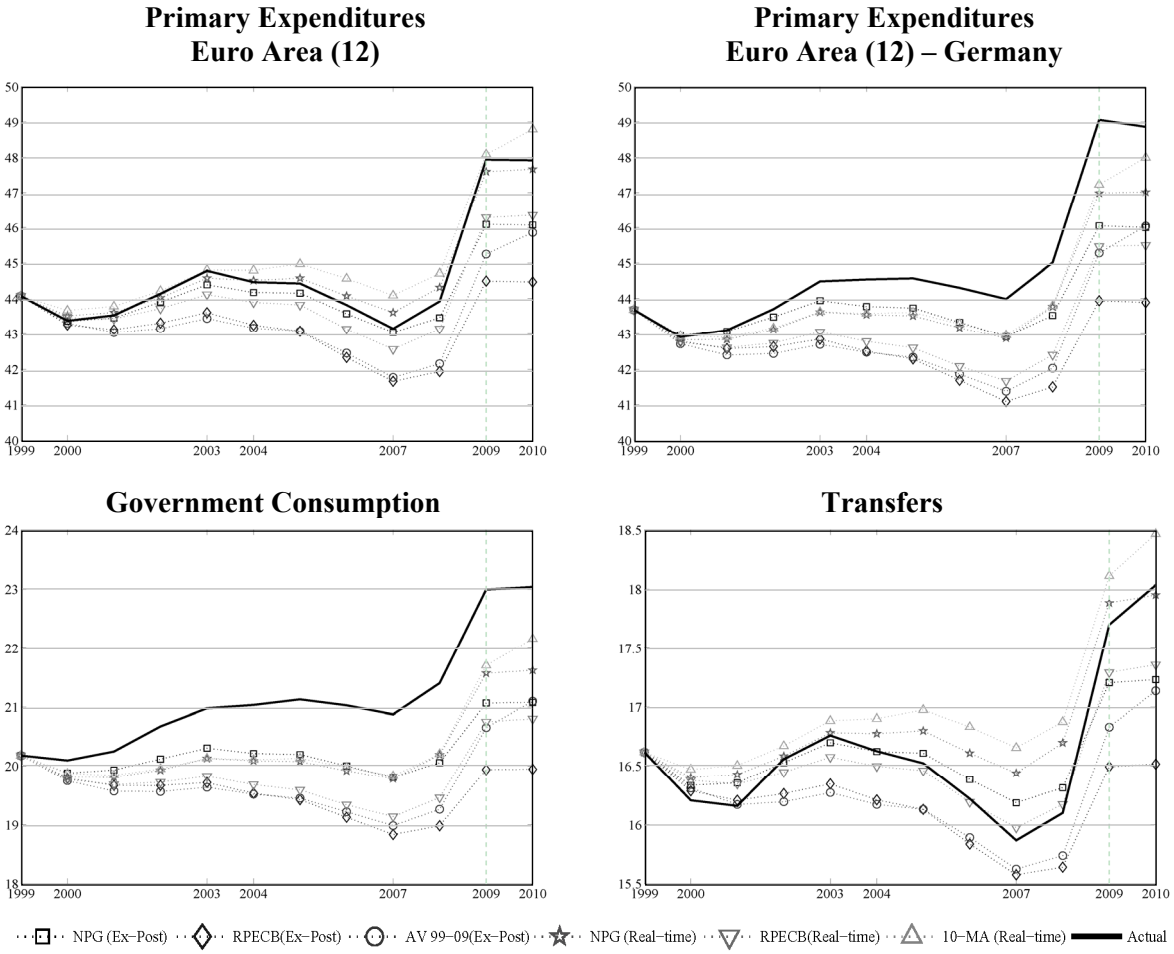
[12] The "euro area-De" figures represented here and elsewhere refer to euro area 12 excluding Germany and thus include the results for the analysis on Belgium, Netherlands, Luxembourg, Austria and Finland.

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

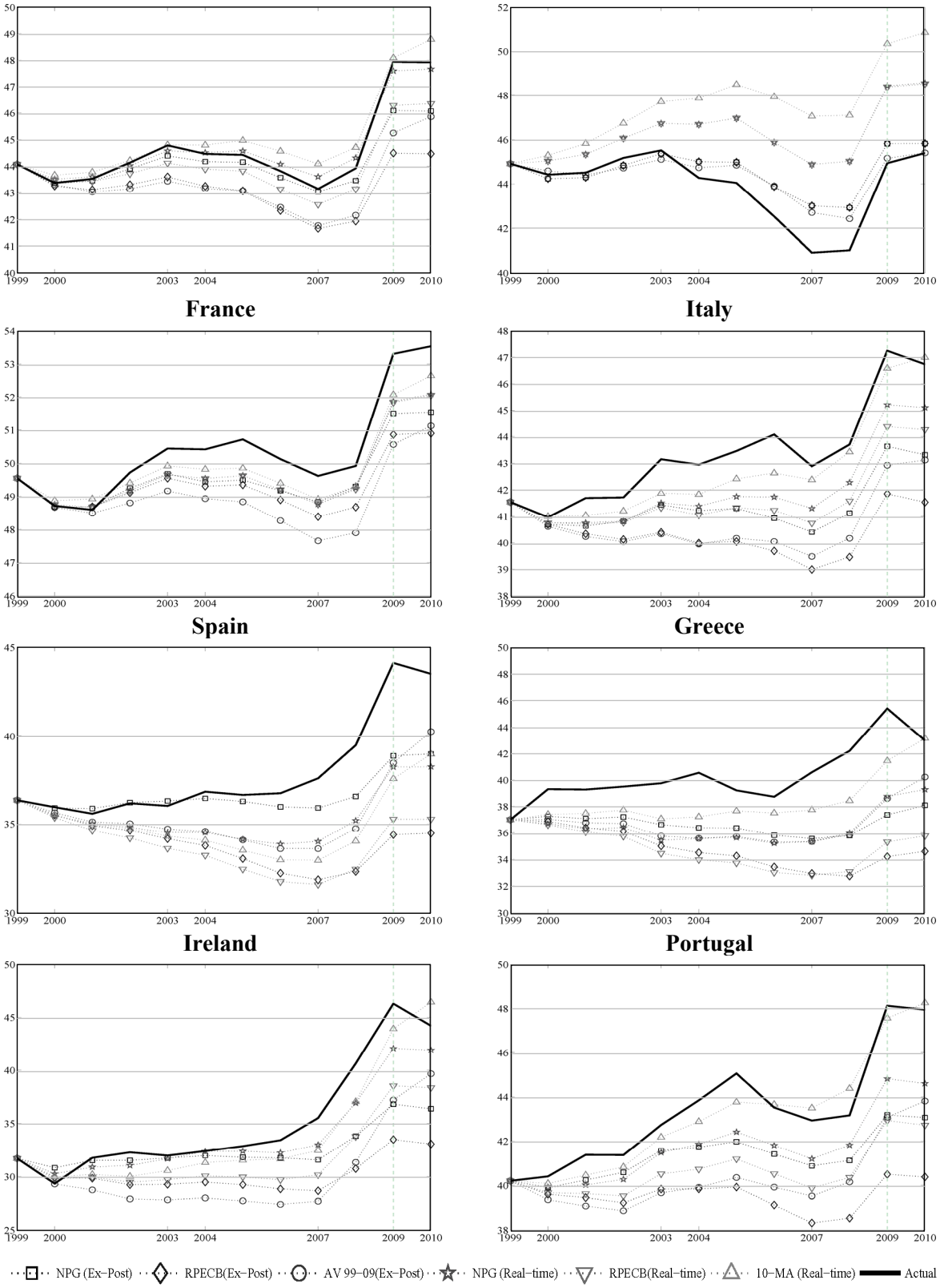


Table 2

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 *(3.78)***	0.476 *(3.01)***	0.401 *(2.50)***	0.463 *(3.04)***	0.274 *(1.65)*	0.374 *(2.22)**	0.476 *(3.00)***
Public debt ratio (*t*–1)	0.054 *(0.96)*	0.056 *(1.04)*	0.035 *(0.62)*	0.071 *(1.20)*	0.042 *(0.83)*	0.033 *(0.67)*	0.057 *(1.03)*
Crisis dummy	3.946 *(2.17)**	3.649 *(1.74)*	4.028 *(1.64)*	3.138 *(1.75)*	2.241 *(1.08)*	2.34 *(1.13)*	3.341 *(1.22)*
Strenght of expenditure framework * Output Gap		–0.262 *(2.09)**					–0.262 *(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 *(0.72)*	–2.998 *(0.77)*	–1.47 *(0.39)*	–4.148 *(0.97)*	–0.006 *(0.00)*	–0.512 *(0.13)*	–3.079 *(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

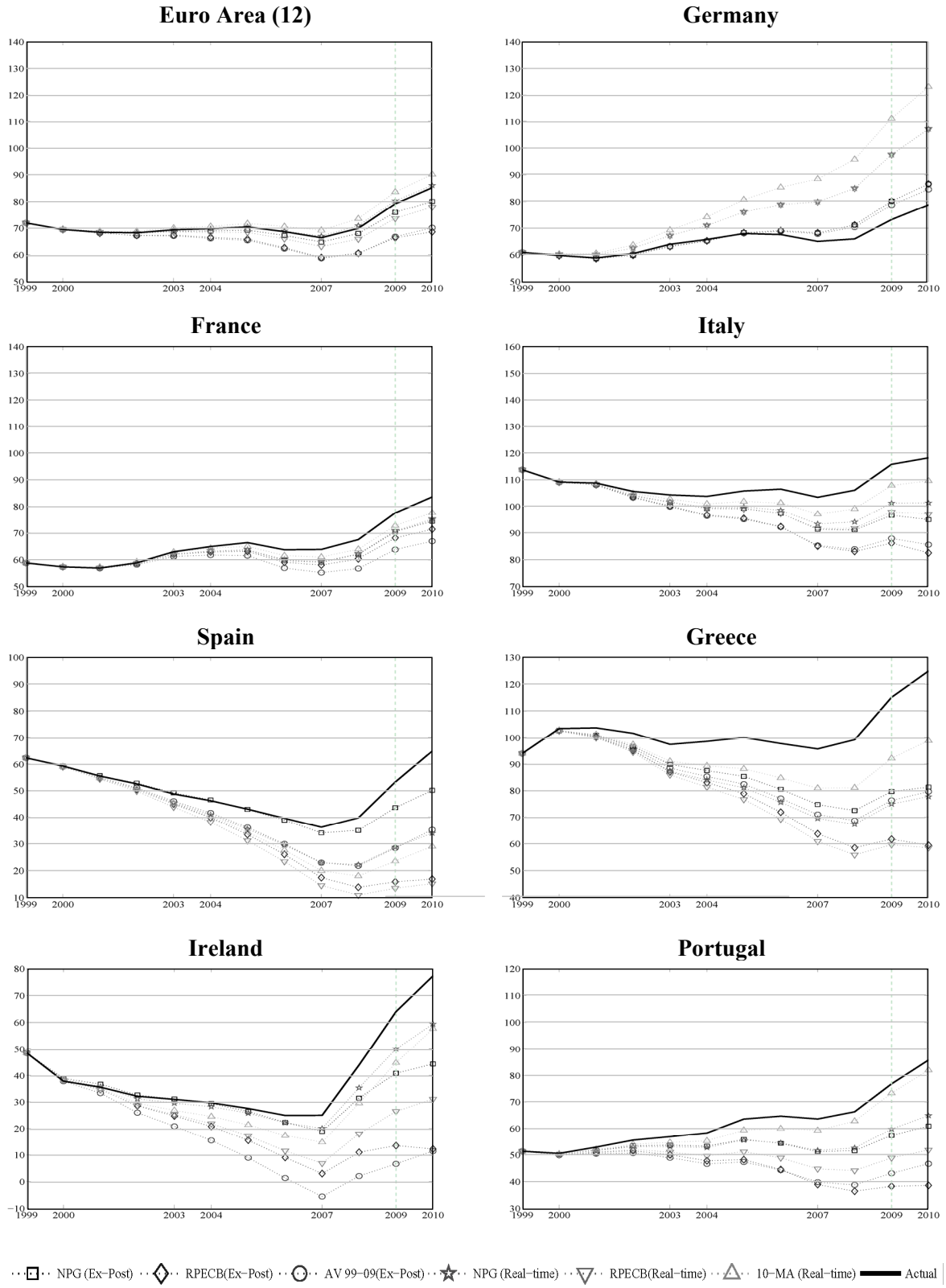
Panel B: *Ex post* Real Potential GDP +ECB Price Stability Objective (RPECB) Rule

	(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)



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: $\overline{G}$, ***G***, and 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: $\overline{D}$, ***D***, ΔG_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	$\overline{Y}_t = Y_t * (1 + \Delta\%G_t * g)$ 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	$g = \sum_j g_j \Big/ J$ 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	$r_t = \sum_i r_t^i \Big/ I$ where: r^i_t (i=1, …, I) is the different maturities each country has ever used
		Uniform	$r_t = r_t^i$ where: r^i_t represent one uniform maturity for all the countries (10 years)
		Fixed-term (short, medium and long term)	$r_t = \sum_i r_t^i \Big/ I$ where: r^i_t (i=1, …, I) is the maturities at short term (2-5 years), medium term (6-9 years) and long term (10-15 years) respectively.

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ACHILLES CATCHES UP WITH THE TORTOISE: AN EXPENDITURE RULE TO BRIDGE THE GAP BETWEEN FISCAL OUTTURNS AND TARGETS

Fabrizio Balassone,[*] *Daniele Franco*[*] *and Stefania Zotteri*[*]

> *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

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[1] Unless the recession-induced loss of output is quickly made good, the increase in deficits may turn out to be long-lasting, given that the GDP share of the expenditures that are not cyclical (such as pensions) is larger than before.

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.

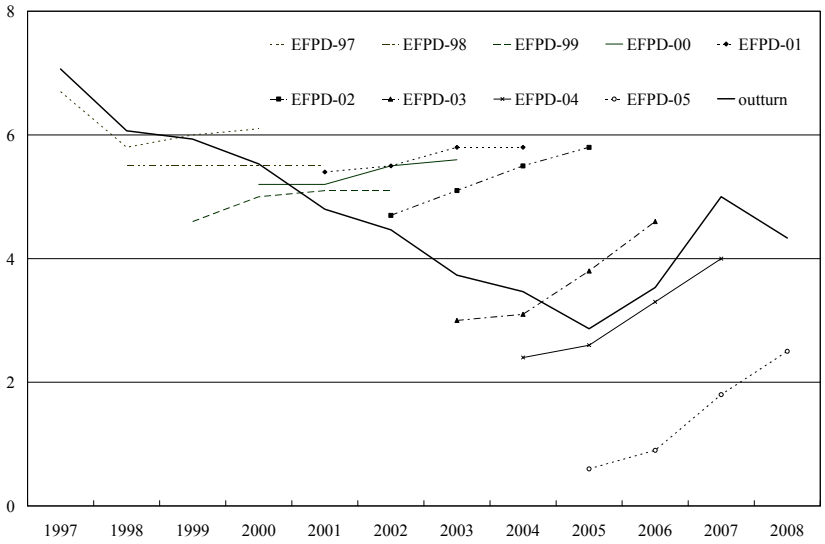
2 Italy: lessons from past fiscal performance

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

[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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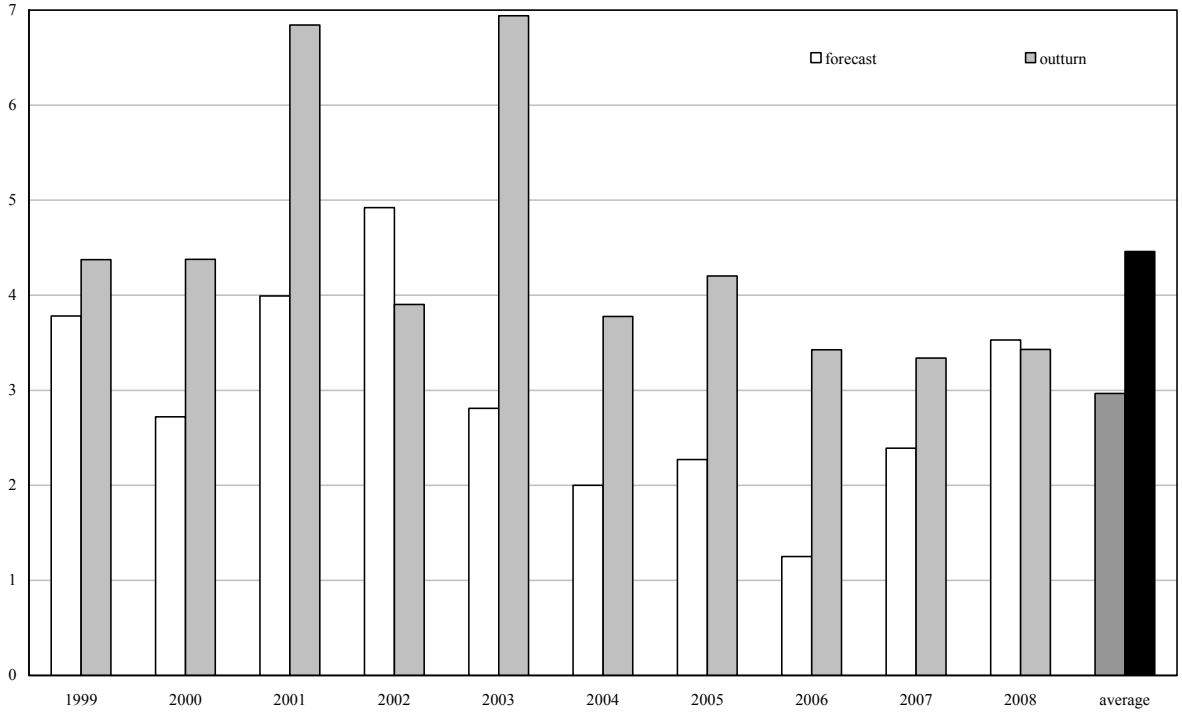
[3] "L'Italia nella moneta unica con sei impegni", *Corriere della Sera*, 22 March 1998. Since interest payments were nearly 5 per cent of GDP, this was broadly consistent with the Stability and Growth Pact objective of budgetary balance or surplus in the medium term.

[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

[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.

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COMMENTS ON SESSION 3
NEW DEVELOPMENTS: INDEPENDENT AUTHORITIES AND EXPENDITURE RULES

Armela Mançellari,[*] Gerti Shijaku[*] and Jonel Kristo[*]

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

[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!

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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.

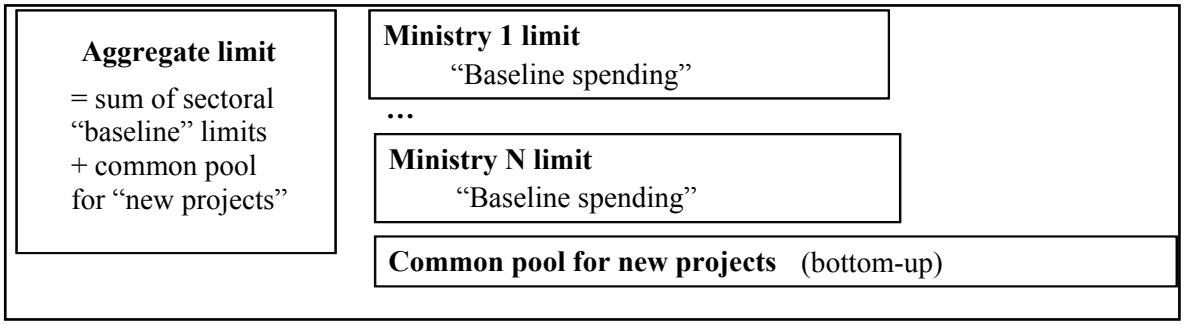
In addition, from a horizontal point of view, after considering the three papers of this session it is clear that the design of a expenditure rule has to pay due attention to at least some of the following issues:

- 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.

[*] Banco de España.

Figure 1

Outline of the Expenditure Ceiling Proposal



- 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).

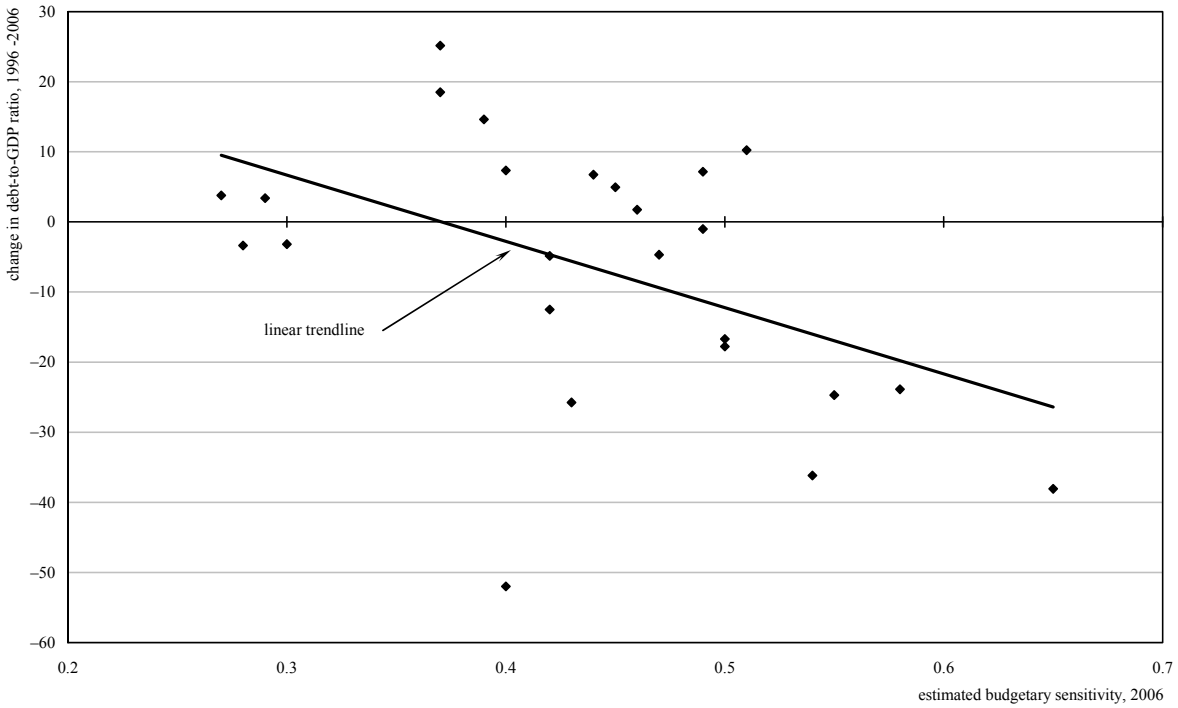
ii) The design of the common pool might be constrained by "political priorities". Would a zero-based budget guarantee full allocative efficiency?

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.