Session 4

TAX REFORMS

TAX POLICY IN EMU: A PRELIMINARY ASSESSMENT

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> *"All nations have endeavoured, to the best of their judgement, to render their taxes as equal as they could contrive; as certain, as convenient to the contributor, both in the time and in the mode of payment, and, in proportion to the revenue which they brought to the prince, as little burdensome to the people. The following short review of some of the principal taxes which have taken place in different ages and countries will show that the endeavours have not in this respect been equally successful."*
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> A. Smith, The Wealth of Nations, V.ii.b.7

Introduction

In the late Nineties, after a phase of fiscal consolidation, several European countries introduced tax cuts with a view to reducing distortions and supporting growth. The reforms were prompted by concern about the effects of high tax levels on competitiveness and employment. They were also affected by the new EMU policy framework.

Tax policy in Europe has been evolving over time. From the Fifties to the Seventies taxes have been increasingly used to redistribute income across different groups of citizens, to affect the allocation of resources in the private sector and to control the economic cycle (Kay, 1990; Peters, 1991). This process generated a number of problems (OECD, 1985 and 1987). High taxation of wage and capital income was considered to have adverse effects on labour supply and saving. The complexity of tax systems generated costs and distortions. Distributive effects were not straightforward.

In the late Seventies and in the Eighties there was an extensive debate over the need of tax reforms and their desirable features. Radical reforms were also considered (Meade, 1978). Efficiency, simplicity and equity were the keywords of the reform proposals. There was a wide consensus on the necessity to broaden tax bases and reduce the dispersion of rates. These changes were expected to reduce distortions (Hagemann *et al*., 1987; Tanzi, 1987; OECD, 1993). Several countries

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modified the structure of personal and company taxation (Hallerberg and Basinger, 1996). In the EU the expansion of the tax burden was only slowed down.

In the Nineties the debate on tax reform focused on the high tax wedges on labour, the use of taxation for environmental purposes, the neutrality of taxation vis-à-vis saving, investment and financing decisions (Joumard, 2001). There was growing concern about the effects of taxation on competitiveness and growth.

In spite of this debate, in the Nineties the tax to GDP ratio increased further. Only in the late Nineties, once the budgetary position required for the accession to EMU had been achieved, EU countries introduced tax reforms that aimed at reducing tax rates and redressing distortions in the labour and capital markets.

Recent tax reforms in Europe have thus been predominantly shaped by efficiency considerations. Equity issues seem to play a secondary role. Moreover, tax policy is increasingly constrained by policies and rules at the European level: EU agreements reduce the room for manoeuvre in selecting tax bases and rate levels; increasing economic integration forces countries to reduce the burden on mobile tax bases; EMU fiscal rules restrict the room for tax cuts.

The paper explores the main challenges that tax policy faces within the framework of EMU. It considers the implications of EU fiscal rules, the need for fiscal stabilisation at the national level, the effects of economic integration on tax bases and the role of tax policy with respect to the long term sustainability of public finances. It examines revenue trends in the EU and the main features of recent reforms.

Section 1 explores the main challenges facing tax policy in European countries and the constraints placed on reforms by the economic and institutional framework. Section 2 examines trends in revenue before EMU, referring also to a measure of the tax wedge on labour. Section 3, after a brief description of the main features of the reforms, analyses the objectives of recent reforms and their timing. The analysis of the objectives is based on government intentions as announced in their annual update of the Stability Programme; the latter provides a unique opportunity to run a cross-country analysis of fiscal policy intentions on a relatively homogenous basis. Section 4 attempts a first evaluation of the reforms and concludes.

1. Constraints on tax policy in the context of EMU

Over the Nineties, the major European economies were characterised by relatively low growth rates and high levels of unemployment both by historical standards and as compared with the USA (Jacquemin and Pench, 1997). One of the proposed explanations refers to the size of the public sector, which in Europe is much larger than in the USA. *Inter alia*, the tax induced distortions on labour supply appear to be higher in the EU than in the USA. The empirical evidence on the

efficiency and growth effects of taxes is somewhat ambiguous. However, high tax rates and the incentives provided by pension and welfare schemes, coupled with labour market rigidities, can reasonably be expected to limit employment and the ability to innovate (Greenspan, 2000). Estimates by the European Commission (2001a) suggest that a tax cut accompanied by a reduction in Government consumption may have a positive impact in the long run.

In the current European context, efficiency issues have come to the fore. At the moment, they are the main factor shaping tax reforms. Equity considerations seem less important than they were in previous decades. Economic and monetary integration introduces some additional constraints in the design of tax systems: (a) revenue levels must be compatible with the code of fiscal discipline specified by the Treaty of Maastricht and by the Stability and Growth Pact; (b) tax degradation and competition tend to erode some revenues and raise once again the issue of enforceability; (c) the tax system should contribute to stabilise the economy in a context in which monetary policy is no longer available at the national level. Moreover, tax reforms should help in ensuring sustainable fiscal position given the fast ageing of European societies. A further challenge comes from the decentralisation process which is underway in some countries: tax reforms may be required to allow adequate fiscal responsibility at all levels of government.[1]

1.1 EMU fiscal rules

In all countries tax cuts are constrained by the decisions concerning the size of the public sector and the welfare transfers. Rising deficits and debts would be an obstacle to any tax reform involving revenue losses uncompensated by expenditure restraint.[2] EMU fiscal rules, which sanction deficit exceeding 3 per cent of GDP and require structural budget balances, introduce additional constraints: (i) they require that tax cuts are subordinated to spending cuts on a yearly basis;[3] (ii) they increase the costs arising from unpredictable fluctuations in revenues.

The first constraint may limit the introduction of tax reforms involving initial revenue losses but providing increases in revenues over the medium term, for instance via positive effects on growth. The proposal of the European Commission (2002) to allow low debt countries to run temporary deficits in order to finance structural reforms aimed at tackling this problem. However, the uncertainty concerning the effects of tax reforms and the risk that tax cuts are introduced in

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1 On this aspect, which is not examined in the following sections, see OECD (2001b) and Balassone, Franco and Zotteri (2002).

2 The European Commission (2000) estimates that a 1 per cent of GDP tax cut without offsetting spending cuts would lead to an increase of the budget deficit of about 0.75 per cent of GDP.

3 This cautious approach is also supported by the European Commission (2000). In identifying the criteria for assessing whether tax cuts are compatible with budgetary constraints, the Commission stressed that, first of all, Member States must meet or make progress towards the medium-term budget target of “close-to-balance or in surplus”.

order to achieve short term political results give some support to the request for balancing spending and revenue cuts.

Quite apart from EMU fiscal rules, there are economic arguments suggesting that it may be wise, in the short run, to compensate tax cuts by expenditure reductions. "The evidence of labour supply responses to tax cuts is that […] if they are to occur, it is likely to be in the long run when economic actors can adjust to the new situation. In the short run it is usually argued that tax cuts will simply stimulate aggregate demand and, with aggregate supply largely unaffected, will be inflationary" (Cullis and Jones, 1992, p. 284).

The second constraint suggests relying on several sources of revenue and on relatively stable and predictable tax bases. In this respect, the significant effects of asset price changes on the variability of tax revenues in some countries are particularly problematic (Eschenbach and Schuknecht, 2002). In these countries larger budgetary safety margins may be required to avoid breaching the 3 per cent threshold.

In conclusion, EMU rules put an additional short term constraint on tax policy, by bringing forward what would in any case apply in the medium term, *i.e.* that expenditure restraint is necessary in order to make a lower tax to GDP ratio sustainable. In the medium term, however, the decline in interest payments determined by the reduction in debt connected with the close-to-balance requirement creates margins for durable tax cuts.

1.2 Tax competition

On the basis of very restrictive assumptions, traditional models of tax competition predict that an increase in factor mobility will determine a downward pressure on taxation.[4] An extreme version of this hypothesis holds that tax competition forces will lead to a "race to the bottom". However, subsequent developments showed that, if the assumptions are relaxed, factor mobility may even cause increases in taxation.[5] The race to the bottom hypothesis has therefore grown less popular.[6]

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[4] See, e.g., Oates (1972).

[5] For example, the recent literature known as the "new economic geography" and pioneered by Krugman (1991) shows that spatial agglomeration forces can reverse standard tax competition results. For a review of the theoretical literature on tax competition see Wilson (1999), Oates (1999) and Krogstrup (2002).

[6] Oates (2002), who is considered the father of the traditional tax competition literature from which the "race to the bottom" concept has been derived, has recently argued: "Such terminology (*i.e.* 'race to the bottom'), while colourful, is not very helpful. It conjures up an image of a dynamic process in which one jurisdiction reduces its taxes and levels of public services only to be followed by competing jurisdiction. Successive rounds of such cuts lead to 'the bottom', which sounds like a very unsatisfactory outcome indeed! Yet this is not what the theoretical models describe. They (at least some of them) produce comparative-statics outcomes characterised by sub-optimal equilibria. Rather than a race to the bottom, we find equilibria with less than efficient levels of public services."

The empirical research on the effects of tax degradation and competition on revenue trends in EU member states is still relatively young (Hoeller *et al.*, 1996). Recent studies on EU countries seem to support the hypothesis of a downward pressure on capital tax rates both in absolute terms and relative to labour taxes (Krogstrup, 2003). European governments have been taxing more the less mobile factors of production. Over the period 1970-2000, while the implicit tax rate on employees' income has increased on average from 25.7 to 37.7 per cent, the implicit rate on capital income increased only from 19.0 to 22.8 per cent (Martinez-Mongay, 2000 and 2002). However, these data also show that there is no immediate race to the bottom (CEPS, 2000).

Future trends are more uncertain. Some economists take the view that, if unmitigated tax competition is allowed, European welfare states will face a crisis (Sinn, 1990). While this view is perhaps extreme, mobile tax bases and competition between jurisdictions set a constraint to any tax increase (Tanzi, 1995). Attempts to shift even further the burden of funding public expenditure on labour income would reinforce the negative effects on employment levels highlighted above.

Over the medium and long term, the coexistence of different tax regimes in an integrated market will pose greater challenges to tax policy in EU countries. These challenges can be met either by developing forms of tax coordination or by increasing the role of benefit taxation, in particular in social insurance (Orszag and Snower, 1997). The slow progress of coordination, which may depend on sovereignty issues and differences in national interests, and the limits of benefit taxation make it likely that economic integration will continue to exert a downward pressure on tax rates.

1.3 Fiscal stabilisation

As monetary policy in EMU is geared towards the economic conditions prevailing in the euro area as a whole, fiscal policy represents the main tool for smoothing the impact of country-specific shocks on output (Buti and Sapir, 1998). In view of the long and uncertain lags of discretionary action and of irreversibility problems, there is a wide consensus that fiscal stabilisation should be primarily carried out via automatic stabilisers (European Commission, 2001a). In most European countries, stabilisation operates mainly via budgetary receipts, which are much more sensitive to cyclical fluctuations in economic activity than expenditure.

The tax reforms envisaged in several European countries may reduce the cyclical sensitivity of public budgets and their stabilisation properties. This depends both on the overall decrease in revenues and on the reduction of progressivity. There seems to be a potential trade-off between efficiency and stabilisation. However, there are reasons to take a cautious approach on this issue.

First, the effects of the move to the EMU-regime on the cyclical behaviour of the EU economies are still uncertain. As country-specific policy-induced shocks are likely to decrease in EMU, it can be expected that cyclical fluctuations will be

reduced and will become more similar between Member States (Buti and Sapir, 1998). Second, automatic stabilisers can effectively cushion demand shocks, especially if they concern private consumption, but they are less effective for supply shocks. Third, tax and spending reforms increasing the flexibility in factor markets may reduce the need for traditional fiscal stabilisation (Brunila *et al*., 2003).

Moreover, Buti *et al*. (2002) show that high distortionary taxes may destabilise output in case of supply shocks and may reduce inflation stabilisation in the case of demand shocks. Martinez-Mongay (2002) estimates that the level of taxation in EU countries is positively correlated with output volatility. In this case, a reduction in the tax burden would have a double dividend in terms of efficiency and stabilisation.

Finally, the quality of automatic stabilisers matters as well as their size. In this respect, making unemployment benefits and welfare provisions highly reactive to cyclical fluctuations could offset the effects of a decline in the tax to GDP ratio. For a given cost to the public budget, transfers targeted to agents with the highest propensity to consume are much more effective stabilisers than progressive taxes relief whose benefits accrue mostly to middle and high income individuals.

In conclusion, the need for fiscal stabilisation in the context of EMU does not seem to represent an obstacle to reforms aimed at reducing either the overall tax burden or progressivity. The reduction of the stabilisation carried out on the revenue side of the budget could be offset by making welfare expenditure more closely related to cyclical developments (European Commission, 2001a). Moreover the size of reforms currently envisaged in EU countries is not likely to significantly dent the present stabilisation properties of national budgets.

1.4 Fiscal sustainability

Fiscal sustainability is usually assessed by way of reference to the standard Domar (1944) model whereby for a given growth rate, a constant deficit to GDP ratio allows a constant debt to GDP ratio. However, the issue – as pointed out in Domar (1944) – is rather whether the fiscal policy implemented to ensure a constant deficit ratio is in itself sustainable, *i.e.* what are the effects of the implied tax rate and of the level and quality of public outlays on the rate of growth of GDP (Balassone and Franco, 2000).

We have already mentioned the possibility that high tax rates and the incentives provided by pension and welfare schemes, coupled with labour market rigidities, can limit employment and the ability to innovate. At present this risk is enhanced by demographic changes. In most European countries maintaining current expenditure policies with an ageing population would imply a sizeable increase in the per capita tax burden on workers. The equilibrium contribution rate for public pension schemes is expected to rise significantly in most EU countries over the next 30 years (Economic Policy Committee, 2001). The effects of these changes on

age-related expenditure programmes are therefore likely to gradually erode surpluses and increase deficits. Debt levels will revert to increasing trends.

The effects of ageing can be addressed primarily via reforms of expenditure programmes, a rapid reduction of public debt and an increase in employment rates.

Tax policy can have a complementary role. At the macro level, greater reliance on consumption taxes compensated by a reduction in social security contributions would get pensioners to share part of the burden. At the micro level, the structure of taxation can be modified to improve employment incentives so as to increase the labour market participation rates of women and of people aged 60 or more. This point is consistent with one of the indications given by the Joint Report of the Commission and Council to the Stockholm European Council to address the issue of population ageing in Europe.

1.5 Summing up

Overall, tax policy in Europe does not seem to be confronted with many extra constraints with respect to the pre-EMU situation. Fiscal rules do not restrict government choices over the medium term. The need for fiscal stabilisation in the EMU context does not represent an obstacle to reforms reducing either the overall tax burden or progressivity. Long run fiscal sustainability primarily requires changes in expenditure programs.

However, EMU rules do restrict the room for tax easing in the short run. Moreover, with further market integration the challenge posed by tax competition to tax policy in Europe may become more relevant.

2. Taxation trends before EMU

2.1 Tax to GDP ratios

Driven by public expenditure growth and, later on, also by the need for fiscal consolidation, the average total tax burden in the EU increased steadily from the mid-Sixties until the mid-Nineties (van den Noord and Heady, 2001).[7] From 38.9 per cent of GDP in 1980 it reached 42.9 per cent in 1994.[8] Thereafter it declined slightly to reach 42.1 in 1997, the relevant year for assessing admissions to stage 3 of EMU (Figure 1). Although some countries took action to reduce the tax wedge on labour, up to 1997 fiscal consolidation policies limited the room for overall tax easing.

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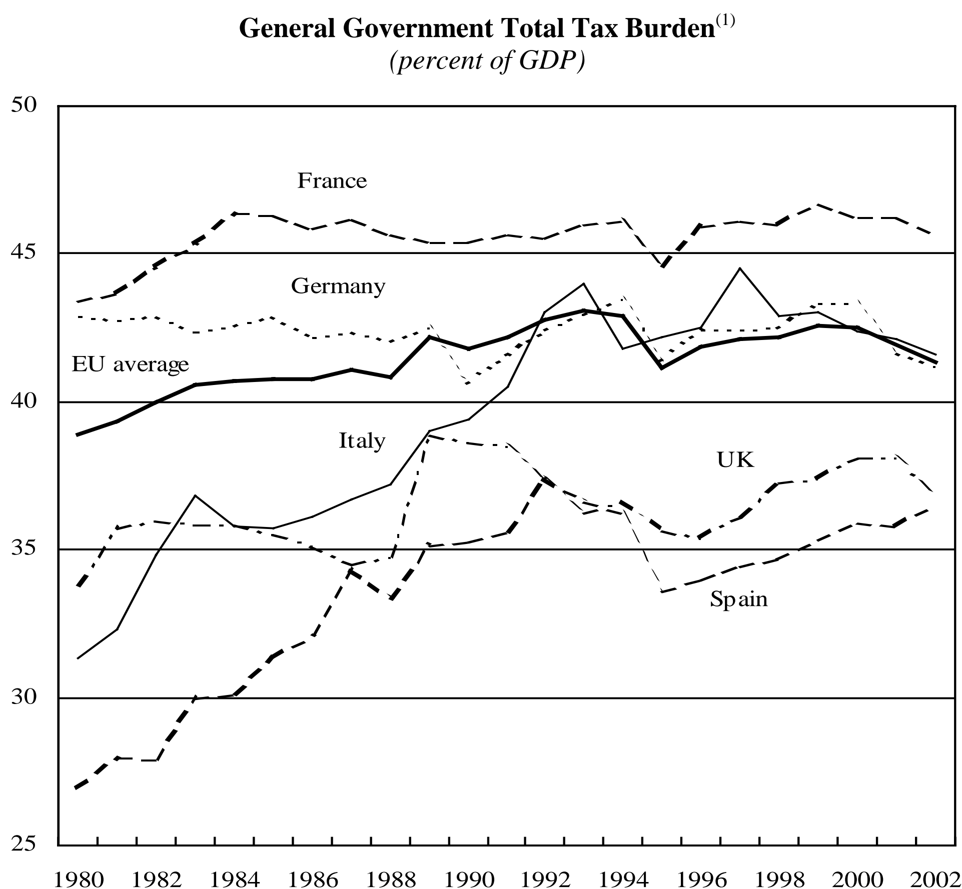
[7] By total tax burden we mean the sum of taxes (direct, indirect and capital taxes) and social security contributions as a percentage of GDP. OECD (2000) points to a number of notes of caution in using tax to GDP ratios.

[8] A peak is actually recorded in 1993 but this only reflects the low GDP growth of that year.

Figure 1

General Government Total Tax Burden(1)
(percent of GDP)



(1) Direct taxes, indirect taxes, capital taxes and social security contributions.

Source: European Commission (DG ECFIN) – AMECO Data base.

Reference to the EU average masks large cross-country differences in both levels and dynamics, reflecting diversity in public sector expenditure commitments and in the need for fiscal consolidation. Between 1980 and 1997 the tax burden did not significantly change in Germany and France, where in 1997 it was, respectively, 42.4 and 46.1 per cent of GDP. In the UK the tax burden peaked at the end of the Eighties and declined thereafter; in 1997 it was at about the same level recorded in the first half of the Eighties (slightly above 36 per cent).

Between 1980 and 1994 the tax burden grew significantly more than the EU average in Italy (11 points) and Spain (9 points). Subsequently it kept rising in Italy (to 44.5 per cent of GDP in 1997), while it decreased in Spain (to 34.4). While in

1980 the tax burden in Italy and Spain was significantly below the EU average (7.6 and 11.9 points), by 1992 the gap was closed in Italy and halved in Spain. In 1997 the Italian tax burden was above the EU average; the Spanish burden was 7.7 percentage points below average.

High and rapidly rising tax burdens were a source of concern for growth and employment prospects. Moreover, the larger contributions to revenue growth came from social security contributions and personal income taxes, the dynamics of the latter being influenced also by the fiscal drag. Between 1980 and 1997 the EU average ratio of direct taxes and social security contribution to GDP rose by 2.6 points, to 28.7 per cent, whereas the ratio of indirect taxes to GDP increased only by 0.3 points, to 13.1 per cent (Figure 2). Over the same period indirect taxes increased significantly only in Italy (from 8.7 to 12.4 per cent of GDP) and in Spain (from 6.6 to 10.5 per cent). Social security contributions increased by about 2 percentage points in Germany, in Italy and in the UK to, respectively, 19.7, 15.3 and 7.4 per cent. They fluctuated around 13.0 per cent in Spain and 21.0 per cent in France.

The European Commission (2000) estimates that the effective tax rates on labour, capital and consumption have been gradually converging over the period 1960-1999. Convergence was particularly strong for capital taxation.

2.2 *The burden on labour*

Several measures of the tax wedge on labour have been proposed and applied.[9] In this paper we use a synthetic index of the disincentive to labour supply derived from a growth accounting framework based on a general equilibrium growth model (Prescott, 2002). The tax wedge on labour is defined as:

$$\theta = \frac{(1+\tau_c)}{(1-\tau_h)} \tag{1}$$

where τ_c is the tax rate on consumption and τ_h is the tax rate on labour income. The index is proportional to the consumption and leisure price ratio.[10]

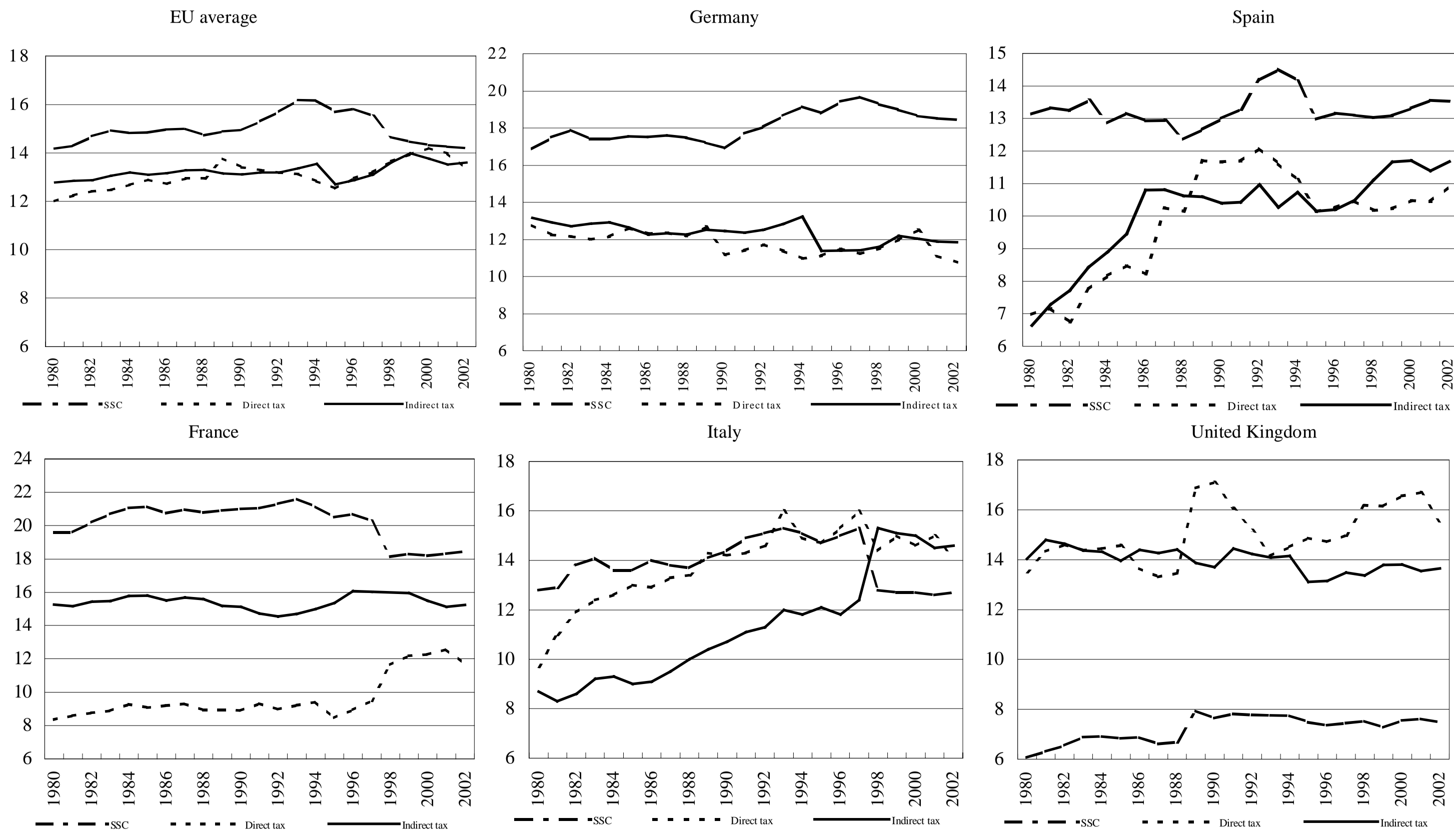
[9] See Martinez-Mongay (2000) and OECD (2000).

[10] In its January 2002 issue, *The Review of Economic Dynamics* presents a collection of papers that use growth accounting and variants of the general equilibrium growth model to examine a number of depressions in Europe, America and Japan (Kehoe and Prescott, 2002). The papers have a common theoretical framework that relies on growth accounting to split changes in output into the component reflecting changes in factor inputs and the one reflecting changes in the efficiency with which those factors are used, as measured by total factor productivity (TFP). The papers show that capital played a minor role in most depressions, while productivity and labour seem important in explaining some of them. In this framework, changes in hours worked are important in accounting for growth and depend on the capital-output ratio (relevant to the determination of the wage rate) and on the tax system through its effects on the relative price of consumption and investment.

Figure 2

Main Components of Total Tax Burden

(percent of GDP)



From (1) it follows that:

$$\frac{\partial \theta}{\partial \tau_c} \langle \frac{\partial \theta}{\partial \tau_h} \tag{2}$$

so that for an equal increase in the two tax rates the θ index grows more if labour taxes rise rather than consumption taxes. Also from the point of view of tax revenue, changes in τ_c are more desirable, given the different size of the respective tax bases. θ represents a useful tool to carry out comparative analysis of the effects of tax systems on the incentive to work.

We computed the index for European countries for the years from 1980 up to 2001. Since consumption taxes have proportional rates, we used an implicit tax rate, computed at aggregate level, as a proxy to the tax rate on consumption (τ_c). Given the progressivity of the income tax, we computed τ_h for a single worker whose income is equal to the average income of production workers.

The picture obtained by reference to the θ index is different from the one that is obtained by referring to the total tax burden. The average index for the EU is stable at about 1.9 over the whole period (Figure 3; Table 1). At the start of the Eighties, Germany, France and Italy had a high θ (in the range of 2.1 to 2.3). The UK came close (1.9), while Spain showed lower values (1.6). Over the period 1980-1997 the index increased in all those countries but the UK. In Italy, Germany and Spain the index grew moderately but steadily. In 1997, France, Italy and Germany were still the countries with the highest θ (at about 2.4). The index was lowest in the UK (1.7), while Spain was in between (1.9).

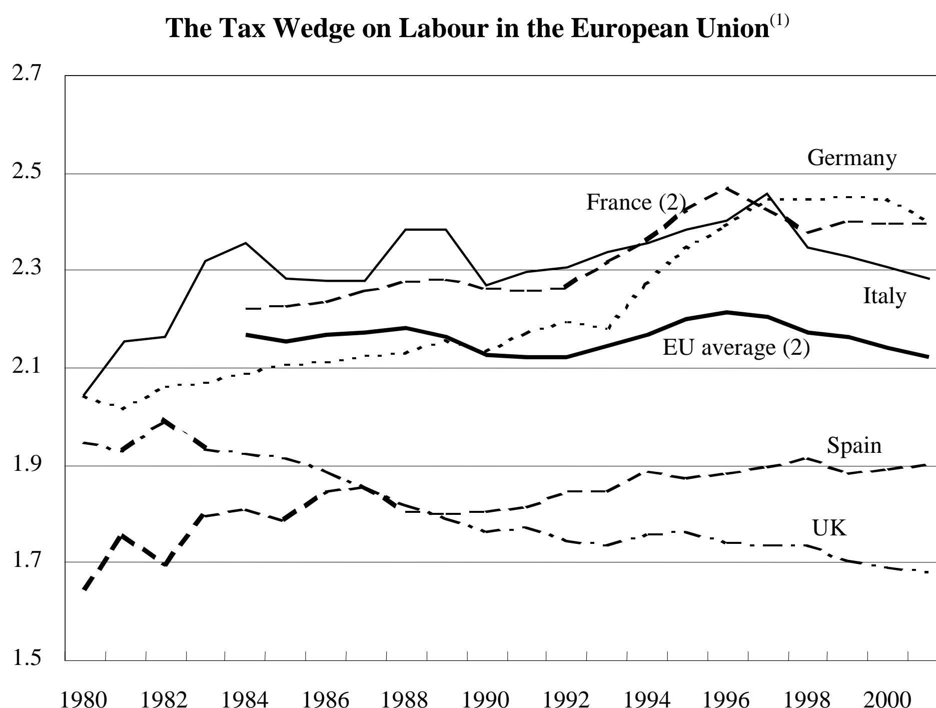
In Germany and France the increase in θ was driven by the growth of τ_h (Figure 4). The revenue increase obtained over the period considered may therefore be seen as especially costly in terms of induced distortions. On the contrary, the increase in revenue was more labour friendly in Spain, where it relied mostly on τ_c. The contribution of τ_h and τ_c to the growth of θ was more balanced in Italy. In the UK the decrease in θ occurred mostly through a reduction in τ_h, the reduction in the tax wedge occurred at a relatively low cost in terms of revenue.

It must be stressed that the impact of θ on labour supply is not invariant to the public sector use of revenues. If "revenues are used for some public good or are squandered, private consumption will fall, and the tax wedge will have little consequences for labour supply. If […] it is used to finance substitutes for private consumption, such as highways, public schools, health care, parks [then individual (*i.e.* private plus publicly produced) consumption] will not change […] and this tax factor will have large consequences for labor supply." (Prescott, 2002, p. 7).

In Italy and Germany the share of public goods expenditure, as defined by Prescott, decreased between 1991 and 1997, from 23.4 to 21.3 per cent in Germany

Figure 3

The Tax Wedge on Labour in the European Union(1)



(1) See the main text for the definition of tax wedge.
(2) For France and EU average data are available from 1984.

Source: OECD (2001a) for the tax rate on labour income and Martinez-Mongay (2000) for the consumption rate.

and from 33.9 to 31.7 per cent in Italy.[11] This may have strengthened the effects of the increase in θ.

2.3 *A look outside Europe*

In 1997, reflecting different public expenditure commitments, the total tax burden in the EU was much higher than in the USA and Japan (respectively by 10.6 and 14.1 points of GDP).[12] The structure of revenues was also different: the ratios to GDP of social security contributions and indirect taxes were much greater in the EU

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[11] The computation is based on COFOG classification data from Eurostat's New Cronos database. Expenditure categories considered as "public goods" are: defence, public order and safety, environment protection and general public services.

[12] These data refer to tax revenues (including capital taxes) and social security contributions (Banca d'Italia, 2002).

Table 1

The Tax Wedge on Labour Between 1980 and 1997[(1)]

	1980	1981-85 (3)	1986-1990 (3)	1991-95 (3)	1996-2000 (3)	1997
Belgium	2.3	2.4	2.5	2.6	2.8	2.8
Denmark	2.2	2.4	2.5	2.4	2.3	2.4
Germany	2.0	2.1	2.1	2.2	2.4	2.4
Spain	1.6	1.8	1.8	1.9	1.9	1.9
France (2)			2.3	2.3	2.4	2.4
Greece	1.5	1.6	1.8	1.8	1.9	1.9
Ireland	1.8	2.0	2.1	2.0	1.8	1.9
Italy	2.0	2.3	2.3	2.3	2.4	2.5
Luxembourg	1.6	1.9	1.9	1.9	1.9	1.9
Netherlands	2.2	2.3	2.3	2.2	2.1	2.1
Portugal	1.6	1.8	1.9	1.8	1.8	1.8
United Kingdom	1.9	1.9	1.8	1.8	1.7	1.7
Austria	2.0	2.0	2.1	2.1	2.2	2.3
Finland	2.2	2.2	2.3	2.4	2.4	2.4
Sweden	2.4	2.5	2.6	2.3	2.5	2.5
EU average (3)			2.2	2.2	2.2	2.2
United States	1.6	1.7	1.6	1.6	1.6	1.6
Japan	1.4	1.4	1.4	1.4	1.4	1.4

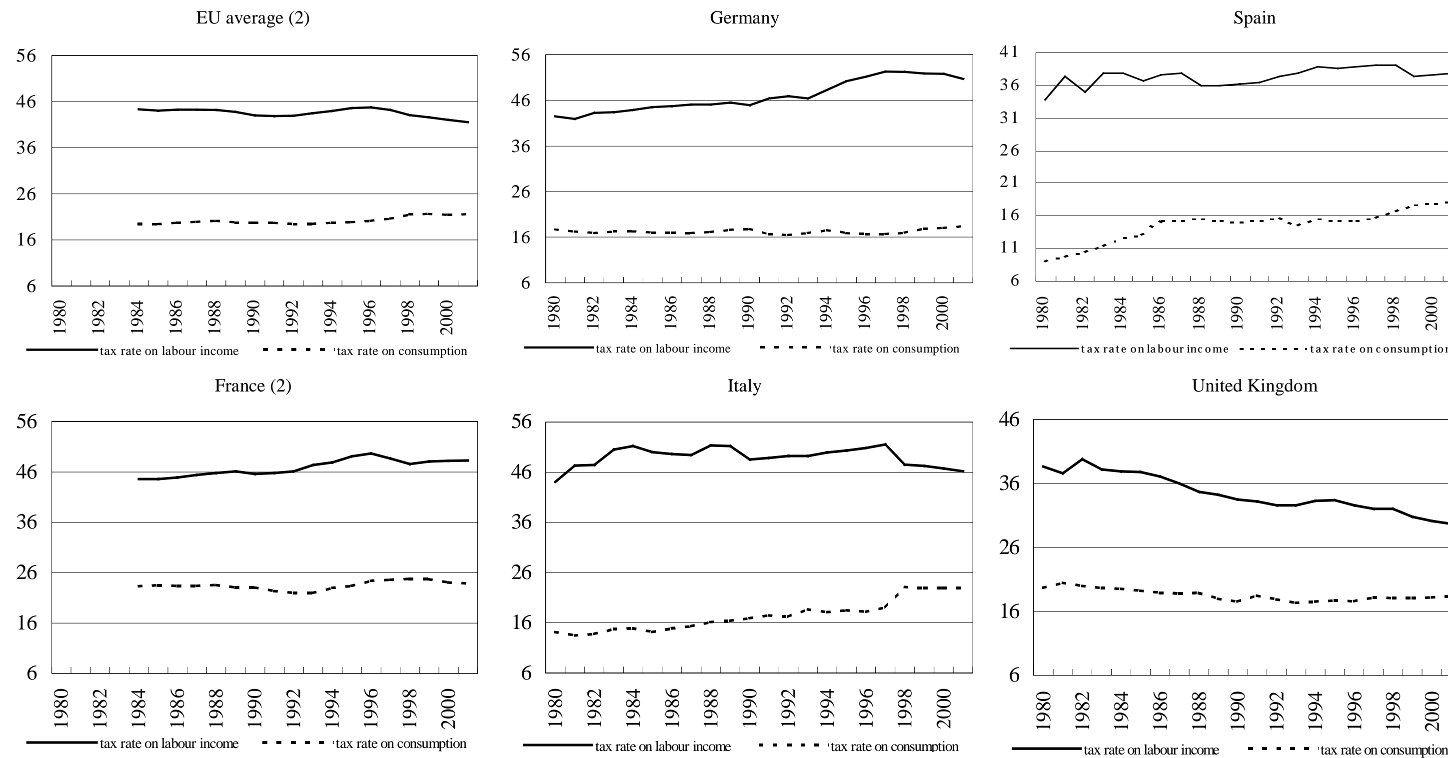
(1) See the main text for the definition of tax wedge.
(2) For France and EU average data are available from 1984.
(3) Average over five years.

Source: OECD (2001a) for the tax rate on labour income and Martinez-Mongay (2000) for the consumption rate.

Figure 4

Main Components of the Tax Wedge on Labour[1]

(percent of GDP)



(1) See the main text for the definition of tax wedge. – (2) For France and EU average data are available from 1984.

Source: OECD (2001a) for the tax rate on labour income and Martinez-Mongay (2000) for the consumption rate.

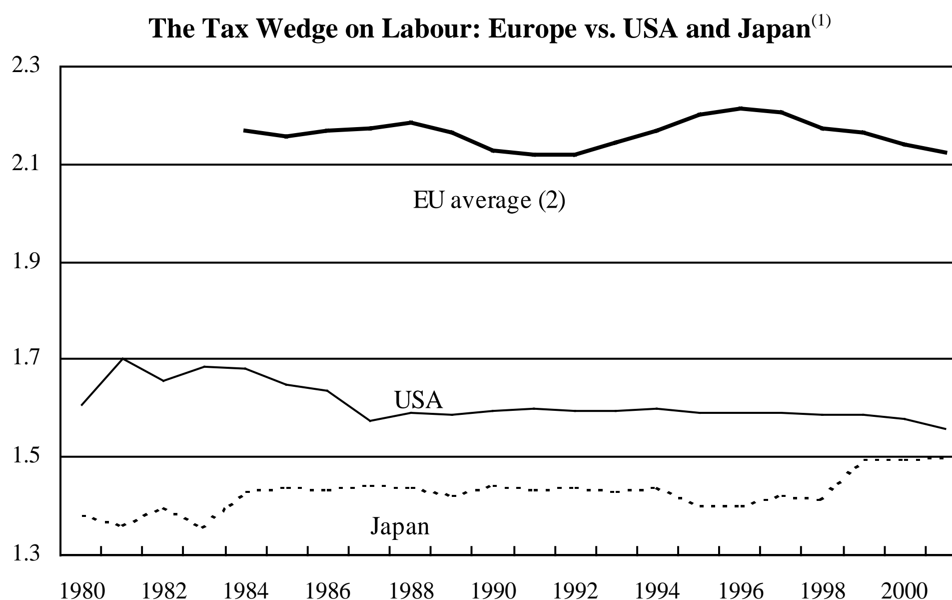
than in the USA and Japan; the ratio of direct taxes to GDP was higher in the USA than in the EU, while the Japanese ratio was below the EU ratio.

The analysis of the effective tax rates on labour, capital and consumption highlights sizeable differences for labour and consumption, with the EU taxing more than the USA and Japan, and small differences for capital, with the European and US rates being very close (European Commission, 2000). Over the period 1970-1999 the tax rates on labour and especially capital have been significantly converging in the three areas, while convergence in consumption tax rates was more limited.

Also the wedge on labour, as measured by θ, significantly differs between the EU, the USA and Japan. Over the whole period the value of the index is much higher for the EU average than for the USA and Japan (2.2 as against 1.6 and 1.4, respectively) (Figure 5). The higher EU level reflects mainly differences in the tax rate on labour (44.2 per cent in the EU as against 31.1 and 20.7 per cent in the USA and in Japan respectively). What Prescott (2002) terms "substitutes for private consumption" (health, education, pensions) is largely provided by the market in the USA so that not only the value of θ is lower there, but its effects on h are also lower in comparison to Italy and Germany.

Figure 5

The Tax Wedge on Labour: Europe vs. USA and Japan(1)



(1) See the main text for the definition of tax wedge.
(2) For EU average data are available from 1984.

Source: OECD (2001a) for the tax rate on labour income and Martinez-Mongay (2000) for the consumption rate.

The extra revenues raised in the EU as compared to the USA and Japan has a relatively high cost in terms of distortions. According to estimates in OECD (1999), the marginal implicit tax rate faced by individuals when moving from unemployment (and in receipts of benefits) to employment is significantly higher in Europe than in the USA.

3. Tax reforms at the end of the Nineties

Since 1998 EU countries are requested to submit an annual update of their Stability Programmes (SP) in order to facilitate the multilateral supervision of budgetary performance. In the updates, governments are required to indicate public finance targets and to describe the fiscal policy measures to be enacted in order to reach them. Tax policy measures are usually described in details, especially starting from 2000, when the European Commission explicitly stressed the relevance of the "quality" of public finance, that is of the composition of fiscal adjustments.

This provides a unique opportunity to run a cross-country analysis of fiscal policy intentions on a relatively homogenous basis. This section exploits this opportunity in order to evaluate how tax reforms have been motivated and implemented by EU member states. The analysis also focuses on the role played by the factors examined in section 2 in shaping the reforms.

3.1 A synthetic description

At the end of the Nineties, almost all European governments announced a reform of the Personal Income Tax (PIT) (Table 2). Where a reform of the PIT was not explicitly announced (Ireland, Finland and United Kingdom), tax cuts were introduced through the ordinary budget law (for a description of the main features of the reforms see Table 3).

Three factors may account for the clustering of reforms. First, most European countries had a significant unemployment and growth problem. This had become a major issue in the European fiscal policy debate.[13] At the Lisbon European Council (March 2000) a new strategic target for the Union was established of *"...a sustainable economic growth with more and better jobs..."*. Both the European Council and the Commission were invited to assess whether adequate concrete measures were being taken to alleviate the tax pressure on labour and especially on the relatively unskilled and low-paid.

Second, after a long period of fiscal consolidation, the cyclical upturn which started at the end of 1999 created a margin for tax cuts even without expenditure

[13] Concern over European unemployment was not new. European Commission (1993) stressed the problem. Since 1998, the Broad Economic Policy Guidelines recommended to support employment through adaptations of the tax-benefits system and through reductions of the tax wedge, especially on low paid labour.

Table 2

Reform Timing

	Stability Programme Update in which the reform is announced for the first time	Years in which the reform is approved by the Parliament	Years of implementation
Belgium			
Multiannual Programme for reforming the Personal Income Tax	1999 update	2001	2002-05
Denmark			
"Whitsun Package"	1998 update	1998	1999-2002
Germany			
Tax Relief Act 1999-2000-2002	1999 update	1999	1999-2002
Tax reform 2000	2000 update	2000	2001-05
Greece			
November 2000 Tax Package	1999 update	2000	2001-03
New tax reform	2001 update	draft law in Nov 2002	2003-04
Spain			
Law 40/1998	1998 update	1998	1999-2000
Income Tax Reform (1)	2000 update	2001	2003-05
France			
Budget Law for 2001	2000 update	2000	2001-2003
Ireland (2)			
1998-2002 Budget Laws	1998-2002 updates	1998-2002	1999-2003
Italy (3)			
Budget Law for 2001	2000 update	2000	2000-03
First Step of the new Personal Income Tax		2002	2003
Netherlands			
2001 Reform of the Tax system (4)	1998 update	2000	2001
Austria			
2000 Tax reform	1998 update	1999	2000
Portugal	1998 update	2000	2001-02
Finland (2)			
1999-2001 Budget Laws	1999 update	1999-2001	2000-02
Sweden			
1999 Plan for riforming income tax for households	1999 update	1999-2000	1999-2001
United Kingdom (2)			
1998-2002 Budget Laws	1998-2002 updates	1998-2002	1999-2003

(1) The implementation was originally scheduled in 2002; it was then postponed to 2003.
(2) In this country no unique tax reform was explicitily announced; Stability and Convergence Programmes refer to tax cuts introduced with annual budget law in various years.
(3) In this table we do not consider the tax reform introduced in Italy in 1998 (DIT and IRAP reform) since we refer only to tax policy measures announced by governments in the years 1998-2002, for which Countries' Stability and Convergence Programmes are available.
(4) Some minor tax cuts occurred in 2000.

Sources: Countries' Stability and Convergence Programmes from 1998 to 2002.

Table 3 (beginning)

Tax Reforms in European Union Countries at the End of the Nineties: Main Features

		Personal income tax	Corporate tax
Belgium	Years of implemetation: Personal Income Tax: 2002-04 Corporation tax: 2003	Tax rates: abolition of the top rates of 52.5 and 55.0 per cent; reshaping of tax scales and granting of a tax credit. Guaranteed neutrality in relation to life-style choice (equal treatment of married and cohabiting couple). Increase in tax allowances for children.	Rate reduction from 40.17 per cent to 33.99 per cent; abolition of some allowances to increase tax base.
Denmark	Whitsun Package (1998-2002)	Cuts in marginal rates for the lower incomes. Reduction in tax deductions for interest payments to make financing consumption by loans more expensive.	
Germany	Tax Relief Act 1999/2000/2002 2000 Tax reform	Tax rates reduction: Basic rate Top rate 1998 25.9% 53.0% 1999 23.9% 53.0% 2000 22.9% 51.0% 2001 19.9% 48.5% Increase of tax allowances and of the tax exemption area.	Tax rate: reduction to 25 per cent for both retained earnings (from 40 per cent) and distributed profits (from 30 per cent). Broadening of tax base through a reduction of depreciation allowances. Change in dividend taxation.
Greece	November 2000 Tax Package	Tax rates reduction: Top rate 2000 45.0% 2001 42.5% 2002 40.0% Increase in tax credits for families with 3 or more children.	Tax rates reduction for non-listed societés anonymes: 2000 40.0% 2001 37.5% 2002 35.0%
Spain	1995 Corporate tax reform		More neutrality
	Law 40/1998	Reduction in tax rates. Introduction of a tax-exempt area wich varies according to taxpayer's personal circumstances.	
France	Budget Law for 2001	Reduction in tax rates (to 7.0 per cent for the basic rate and to 52.5 per cent for the top rate in 2003).	Gradual reduction (up to the elimination in 2003) of the surtax on corporation introduced in 1995.
Ireland	1998-2002 Budget Laws	Multiyear programme of tax rates reduction. Replacement of tax allowances by tax credits and widening of standard rate tax band.	Tax rates reduction.

Table 3 (end)

Tax Reforms in European Union Countries at the End of the Nineties: Main Features

		Personal income tax	Corporate tax
Italy	1997-98 Tax reform		Introduction of DIT. Abolition of a local profit tax (ILOR) and of health contributions; introduction of a regional tax on business activities (IRAP).
	Budget Law for 2001	Reduction in the tax rates to be implemented in the period 2000-03; widening of the first income bracket; increase in tax credit for employees and self-employed, increases in tax credit for dependet relatives, total exemption of the imputed income of owner-occupied dwellings.	Reduction of tax rate from 37 to 36 per cent.
Luxembourg	Tax cuts 2001-02	Reduction in marginal tax rates and increase in miminum taxable area.	Reduction of corporate tax rate and elimination of the local business tax.
Netherlands	Income Tax Act 2001	Reduction in tax rates.	Introduction of a presumptive capital income tax.
Austria	2000 Tax reform	Reduction of marginal tax rate, increase in family allowances.	Increase in some expenditures allowances; assistance for business start-up; reduction of taxes on business transfers.
Portugal	Budget Law for 2000	Change in tax brackets and reduction in tax rates for lower-income taxpayer, reduction of the number of ad hoc regimes, increase in deduction for education costs for family with more than three dependants. Introduction of a simplified scheme for self-employed.	Reduction of the corporate tax ratio from 34 to 32 per cent and further reduction to 25 per cent for small enterprises, elimination of double taxation of dividend.
Finland	1999-2002 Budget Laws	Reduction in marginal tax rates for all income brackets from 2000 onwards and increase in tax deductions from 2001 onwards.	Increase in capital and corporate tax rates.
Sweden	Government plan to reform the income tax presented in 1999	The reform has two parts: 1) more favourable treatment of social insurance contributions; 2) rise in the lower threshold of the tax rate schedule.	Reduction in the corporate tax rate.
United Kingdom	1998-2002 Budget Laws	Introduction of a 10 per cent income tax rate from April 1999 onwards, reduction of the basic rate to 22 per cent from April 2000 onwards.	Reduction in the tax rate for small enterprises from 2002.

Sources: Countries' Stability and Convergence Programmes from 1998 to 2002 and European Commission (2000).

restraint. In 1999 public finance results were better than targets and in most countries during 2000 trend revenues seemed to be on a higher path than originally forecast. In some countries (e.g. in Italy) this increase in revenue was interpreted by the Government as stemming from structural improvement of the tax system.[14]

Third, political economy considerations may have played a role.[15] In the period in which tax reforms are clustered, elections (either parliamentary or presidential) were held in all EU countries. The reform was always announced before the elections. In nine cases, it was announced in the election year or in the one preceding the election (Table 4). Buti and Giudice (2002) and Buti, Eijffinger and Franco (2002) point out that unlike the Maastricht convergence, sticking to the rules of the Stability and Growth Pact may not pay politically. Moreover the very success of the rules in reducing budget deficits rebuilds room to pursue politically-motivated fiscal actions, especially palatable in election years. In fact Buti (2002) finds evidence that deviations from budgetary targets appear larger and more systematic in election years, while von Hagen (2002) shows that in the period 1998-2001 the expansionary stance in the year before an election has been twice as large as that in other years.

Most reforms aimed at lowering the tax burden on labour (Joumard, 2001; van den Noord and Heady, 2001). The specific measures adopted depend on the level of tax rates on labour income and on the structure of the benefits system. Most countries cut marginal tax rates on labour income. Countries with high unemployment benefits reformed benefits in order to induce higher participation in the labour force at the lower end of the earning scale.

Only in a few countries rate cuts were part of a comprehensive reform design. In Portugal, for instance, the cuts implemented in 2001-02 were part of a reform aiming at rationalising the main income taxes (PIT and corporation) by the gradual elimination of rebates and deductions, and by the harmonisation of the existing special regimes. In Ireland, tax allowances were replaced by tax credits.[16]

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[14] Some countries have fiscal rules that do not allow them to use additional unexpected revenue to implement tax cuts. In the Netherlands, for instance, there is a rule stating that when the surplus is below 0.75 of GDP, additional revenue (coming from higher economic growth rate relative to the cautious scenario used to set public finance targets) can be used to implement tax cuts only up to 50 per cent of their amount. The remaining 50 per cent has to be allocated to debt reduction.

[15] The idea that incumbent parties may use economic policy in order to maximise chances of re-election – also known as the political business cycle hypothesis – was first modelled by Nordhaus (1975) and MacRae (1977) and has thereafter spurred a large literature. Recent assessments are provided by Alesina, Roubuni and Cohen (1997), Frey (1997), Blomberg and Hess (2001) and Drazen (2001).

[16] In Italy an important reform of the tax system was designed before the time period considered in the paper (see, e.g., Staderini, 2001 and Balassone, Franco, Momigliano and Monacelli, 2002). The reform was approved in the years 1996-97. It aimed at reducing tax-induced distortions in capital markets and business activity, increasing fiscal responsibility of local governments and simplifying the tax system. The reform, which did not envisage immediate effects on the budget balance, introduced a dual income tax (DIT) system for companies (Giannini, 1998) and a new regional tax on business (IRAP), which replaced several taxes. IRAP tax base includes profits, rents, interest payments and labour costs.

Table 4

The Years of Political Election

	Political election	Announcement of the reform
Belgium	1999	1999
Denmark	2001	1998
Germany	2002	1999; 2000
Greece	2000	1999; 2001
Spain	2000	1998; 2000
France	2002	2000
Ireland	2002	1998-2002
Italy	2001	2000; 2001
Netherlands	2002	1998
Austria	1999	1998
Portugal	1999; 2001; 2002	1998
Finland	1999; 2000	1999
Sweden	2002	1999
United Kingdom	2001	1998-2002

(1) For each country we refer to the tax reform as defined in the first column of Table 2 and summed up in Table 3.

Sources: Countries' Stability and Convergence Programmes from 1998 to 2002 and European Commission (2000).

In most instances the cut in marginal rates was accompanied by increases in tax allowances/credits. Some countries also increased the tax exemption area. In some cases tax cuts were more targeted to earners at the low-to-middle end of the income distribution[17] or to low-paid workers with children (Joumard, 2001).[18]

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[17] Belgium, Denmark, Greece, France, Italy, Portugal, Austria, Finland and Sweden.

[18] Greece, Italy, Luxembourg and the Netherlands.

In the time span considered, social security contribution (SSC) rates were gradually reduced in most European countries (Table 5).

Most countries also implemented cuts in the corporation tax rate. Some countries, UK and Spain for instance, introduced only marginal cuts; in Spain the corporation tax had been reformed in 1995. Ireland went on cutting rates, as had already been done in previous years. Finland was the only country to finance the reduction of personal income tax with an increase in the corporate tax.

Some countries increased environmental and energy taxes.

3.2 Motivations

In all reforms motivations reflected supply side arguments. The analysis of governments' presentation of tax reforms indicates that among the three standard targets of tax policy (equity, efficiency and stabilisation) efficiency considerations played the crucial role.

Spain sought

> *"the implementation of a personal income tax reform designed to boost the supply side and aggregate demand. The main thrust of this new reform is a lowering of the tax burden on earned income, thereby reducing the tax wedge and shoring up job creation. Moreover, the higher disposable income resulting will simultaneously stimulate consumption and the household savings ratio"* (Ministry of Economy and Finance, Spain, 1998, p.16).[19]

The Netherlands also provided quantitative estimates:

> *"the tax reform in 2001 is expected to push up the supply of labour in the long run by nearly 40,000 man-years (+0.7 per cent)"* (Ministry of Finance, The Netherlands, 2000, p. 17).

Germany argued that

> *"the Tax relief act is both substantial and indeed crucial for the promotion of growth and employment"* (Federal Ministry of finance, Germany, 1999, p. 12).

Greece noted that

> *"The measures aim to alleviate the tax burden, to increase business activity and labour supply and thus boost economic*

[19] For a description of the Spanish tax reform see also Ministry of Economy and Finance, Spain (1999).

Table 5

Tax Policy in the European Union Countries at the End of the Nineties: Common Features[1]

	Cuts in the marginal tax rates of personal income tax	Increases of tax credits/ allowances	Increase of tax exemption area	Reduction in the corporation tax rate	Reduction in social security contributions
Belgium	Yes	Yes		Yes	Yes
Denmark	Yes			Yes	Yes
Germany	Yes	Yes	Yes	Yes	Yes
Greece *(2000 tax package)*	Yes	Yes		Yes	Yes
Spain *(1998 reform)*	Yes		Yes		Yes
France	Yes	Yes		Yes	Yes
Ireland	Yes			Yes	(2)
Italy	Yes	Yes	Yes	Yes	Yes
Luxembourg	Yes		Yes	Yes	
Netherlands	Yes	Yes	Yes	Yes	Yes
Austria	Yes	Yes			
Portugal	Yes			Yes	
Finland	Yes	Yes			Yes
Sweden	Yes	Yes	Yes	Yes	
United Kingdom	Yes	Yes		Yes	Yes

(1) If not otherwise specified, the first four columns refer to the tax reforms as defined in the first column of Table 2 and summed up in Table 3. The last column takes into account other changes introduced during the Nineties.

(2) In Ireland the increase in contributions due to the introduction of a new National Training Fund is offset by cuts in other contributions.

Sources: Countries' Stability and Convergence Programmes from 1998 to 2002 and European Commission (2000).

> *activity"* (Ministry of National Economy and Finance, Greece, 2000, p. 9).

Italy stressed that

> *"the main aims of fiscal policy are supporting and increasing the purchasing power of households, especially through a gradual reduction in the tax burden; increasing employment"* (Ministry of the Economy, Italy, 2000, p. 22).

France announced in 2000 that

> *"afin de renforcer leur dynamisme et leur compétitivité, trois réformes majeures réduiront les prélèvements payés par les entreprises" and that "le plan triennal de baisse d'impôts prévoit un allégement de l'impôt sur le revenu [qui] constitue un encouragement à la mobilité professionelle et sociale"* (Ministry of Finance, France, 2000, pp. 8-9).

The equity concerns, which had shaped tax reforms in the previous decades, seem to have been relevant only for those countries that could "afford" them, given their good economic situation and public finance position.

Where equity was explicitly mentioned as a target for the reform, it accompanied supply side considerations, either from the start or "on second thought".

Thus, in Ireland,

> "*on taxation, the changes announced in the 1999 budget are designed both to enhance work incentives, particularly for the lower paid, and to promote greater equity*" (Ministry of Finance, Ireland, 1998, p. 16).

In Portugal, while in 1998:

> "*the restructuring of the tax system with a view to improving equity and reinforcing the fight against evasion and avoidance is the main objective on the revenue side*" in 1998 (Ministry of Finance, Portugal, 1998, p. 2).

Efficiency motivations were advanced in 2000:

> "*the main objective of the current tax reform are to improve tax equity by redistributing the tax burden and seeking to offset the decrease in revenue by widening the tax base through more efficient collection. The aim is not only to create a greater sense of social justice, but also to*

> *increase firm competitiveness and to boost labour supply"* (Ministry of Finance, Portugal, 2000, p. 11).[20]

Equity concerns might have driven the targeting of tax cuts to the lower end of the income distribution. Some countries have reduced the personal income tax burden and/or social security contributions only for low incomes, enhancing the vertical equity of the tax and social security system (Joumard, 2001). This aspect, however, might have been justified also in terms of efficiency: the substitution effect of labour with other production factors, induced by a high tax wedge on labour, is more relevant for low-skill workers.[21]

3.3 Timing and funding

The first countries to implement reforms were Denmark, Germany, Spain, Ireland, Sweden, and the United Kingdom in 1999. In this group, only Denmark, Ireland and Sweden had already reached a significant budgetary surplus the year before the reform approval. However, all countries expected to improve their budgetary position over the period of implementation of the reforms (Table 6). This seems to suggest that EU induced fiscal discipline had a certain role, in particular in setting the timing of reforms.

Some further evidence in this respect can be found by analysing if and how countries sought to "finance" the reforms.

In presenting their reforms, governments explicitly referred to the compatibility with the budgetary constraints set in the Stability and Growth Pact. The only exception seem to be Portugal in 1999:

> *"The Government believes that there is a consensus on the principle that the tax system must be restructured independently of the state of the budget"* (Ministry of Finance, Portugal, 1999, p. 14);

but at the end of 2000 the policy view was different:

> *"tax reform is based on the following principles: compatibility with the structural budget balance to be reached in 2004, compatibility with a gradual reduction in the stock of public debt, continuation of structural expenditure-side reforms to accompany the tax reform and to ensure the sustainability of budgetary consolidation in*

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[20] In presenting the reform to be implemented in 2002, the Spanish government also mentions the equity goal: "*…the main goal of the reform, aside from promoting tax equality, will be stimulate saving, investment and the supply of labour"* (Ministry of Economy and Finance, Spain, 2000, 2).

[21] As already mentioned, this concern was also reflected in the European policy agenda as set by the Broad Economic Policy Guidelines since 1998 and reinforced by the Lisbon European Council in 2000.

Table 6

Net Borrowing (+) / Lending (–) at the Time of the Reform [1]

	In the year before the approval (2)	In the year of implementation (3)
Belgium	0,0 *(2000)*	–0.0 *(2002)*
Denmark	–0.5 *(1997)*	–2.5 *(1999)*
Germany	2.1 *(1998)*	1.2 *(1999)*
Greece *(2000 tax package)*	1.6 *(1999)*	–0.5 *(2001)*
Spain *(1998 reform)*	2.6 *(1997)*	1.6 *(1999)*
France	1.8 *(1999)*	1.0 *(2001)*
Ireland	–0.9 *(1997)*	–1.7 *(1999)*
Italy *(budget law for 2001)*	1.9 *(1999)*	1.3 *(2000)*
Netherlands	–0.5 *(1999)*	–0.7 *(2001)*
Austria	2.1 *(1998)*	1.7 *(2000)*
Portugal	2.0 *(1999)*	1.1 *(2001)*
Finland	–1.0 *(1998)*	–4.7 *(2000)*
Sweden	–2.0 *(1998)*	–1.7 *(1999)*
United Kingdom	2.1 *(1997)*	0.3 *(1999)*

(1) For each country we refer to the tax reforms as defined in column 1 of Table 2, if not otherwise specified.
(2) The figures reported are the ones available at time of approval. They do not take into account revisions made later.
(3) These figures are Government targets for the first year of the implementation (in brackets); they are taken from the latest update of the Stability or Convergence Programmes presented in the year of approval of the reform.

Sources: Countries' Stability and Convergence Programmes from 1998 to 2002.

> *the medium term"* (Ministry of Finance, Portugal, 2000, p. 13).

According to the criteria identified by the European Commission, this compatibility required that Member States that had not reached a budgetary position of "close-to-balance or in surplus" had to compensate the proposed tax cuts. The criteria identified by the Commission are the following: (i) Member States must meet or make progress to the medium-term budget target of "close-to-balance or in surplus"; (ii) reform must not be pro-cyclical; (iii) account must be taken of the level of government debt and long-term budget sustainability; (iv) tax reductions should form part of a comprehensive reform package (European commission, 2000).

Denmark, Finland, the Netherlands and Austria partly offset the expected revenue loss by increases in other taxes (Table 7). In Denmark the tax cut measures actually belonged to a comprehensive austerity package.[22] According to the Finnish and Swedish governments, tax cuts were conditional to economic growth:

> *"tax cuts presuppose robust economic growth, moderate wage settlement"* (Ministry of Finance, Finland, 2000, p. 3)

and

> *"implementation of tax relief has been possible at the same time that the Government has achieved, and even exceeded, its goal of a general government surplus of 2 per cent ... tax reduction have to take into consideration economic conditions, the outcome of future wage negotiations and sufficiently large budget surplus"* (Ministry of Finance, Sweden, 2000, p. 3, 5).

In France tax cuts were to be financed via expenditure restraint:

> *"la moitié des marges de manoeuvre resultant de la diminution de la part des dépenses publiques dans le PIB entre 2002 et 2004 [...] sera affectée à la baisse du poids des prélèvements"* (Ministry of the Economy, France, 2000, p. 10).

The attitude appears to have been different in Spain, Germany, Italy and Belgium. In the intent of the Government, the Spanish reform was to be financed by increases in revenue due to additional economic growth induced by the reform. In Germany, this factor would be accompanied by the implementation of expenditure savings and increases in green taxes. Italy relied on tax base broadening connected to reduction in tax evasion. Belgium was the only one to announce an expansionary tax policy with the intention of letting the balance deteriorate with tax cuts so as to stimulate a pick up in economic activity:

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[22] The so-called Whitsun package, approved by Parliament in 1998.

Table 7

Reforms' Funding

	Expenditure curbing	Increase in green taxes	Increase in indirect taxes	Tax base broadening	Increase in corporate tax	Economic Growth
Belgium						
Denmark *up to 2001* (2)		Yes		Yes		
Denmark *since 2002* (2)	Yes					
Germany	Yes	Yes				Yes
Greece *(2000 tax package)*	Yes					
Spain *(1998 reform)*						Yes
France	Yes					
Ireland						
Italy *(budget law for 2001)* (3)				Yes		
Netherlands		Yes	Yes			
Austria		Yes	Yes			
Portugal	Yes					
Finland		Yes			Yes	
Sweden		Yes				
United Kingdom						

(1) For each country we refer to the tax reform as defined in column 1 of Table 2, if not otherwise specified.
(2) Up to 2001: increase in "green taxes" and broader tax base. From 2002, the new Government (Nov. 2001) "froze" the announced tax increases and announced curbing expenditure and new tax cuts.

Sources: Countries' Stability and Convergence Programmes from 1998 to 2002.

> *"the resources available were used as far as possible to stimulate the economy, in a downward phase ... by implementing in full the tax reduction announced previously"* (Ministry of Finance, Belgium, 2001, p. 12).

The role of the EU fiscal framework became more evident at the end of 2001. In connection with the slowdown in economic activity experienced by most European countries, the implementation of reforms was delayed in several countries. Spain postponed the implementation of the reform approved in 2001 from 2002 to 2003. In France the implementation of tax cuts was suspended for the years 2003-04. Germany postponed the cuts that were to be implemented in 2003. The Finnish budget for 2003 envisaged increases in environmental/energy taxes to offset marginal cuts in labour taxation. The Netherlands included in the 2003 budget revenue raising measures so as to compensate the effects of automatic stabiliser on the budget balance. In Italy further reforms announced in 2001 were largely postponed.[23]

Only countries achieving growth rates above the European average have continued to implement tax cuts. Greece presented a new tax reform in 2002 to be implemented from 2003. Ireland with the budget law for 2003 continued its policy aimed at easing the tax burden on lower paid employment.

4. A preliminary assessment

4.1 Quantitative outcomes

Between 1997 and 1999 the overall tax burden in the EU kept rising (from 42.1 to 42.6 per cent of GDP; Figure 1). The decline of social security contribution (from 15.5 to 14.5 per cent of GDP) was largely offset by the growth of direct and indirect taxation. In this period the effect of tax cuts was limited. Most cuts were still to be implemented; those already enacted needed time to exert their full impact. The cyclical upturn boosted revenues.[24] The total tax to GDP ratio increased in the UK (1.3 percentage points), Spain (1.0 pp), Germany (0.9 pp) and France (0.6 pp). It decreased in Italy (–1.5 pp), mainly as a result of the expiration of temporary revenue measures enacted in 1997.

The trend in revenue changed, though not dramatically, from 2000. Between 1999 and 2002 the total tax burden in the EU decreased by 1.2 percentage points of GDP. Half of the reduction was due to direct taxes (0.6); the ratio of indirect taxes to GDP decreased by 0.4 percentage points; social security contribution declined by 0.3 percentage points of GDP. This pattern was common to the majority of European

[23] The announced reforms concerned the structure of the PIT (which is to have only two rates, with progressivity ensured by deductions), profit taxation (for which a return to the pre-1998 situation is envisaged with the gradual phasing out of the DIT) and IRAP (which is set to be abolished). So far, only a first step of the PIT reform has been taken.

[24] In some countries revenues were sustained by the upward trend of assets prices.

countries. The tax burden decreased in Germany (–2.1 pp), France (–1.0 pp), Italy (–1.4 pp) UK (–0.5).[25] It increased in Spain (1.1 pp) (Figure 6).

Between 1999 and 2002 only five countries increased the ratio of direct taxes to GDP (Figure 7). Finland financed personal income tax cuts with an increase in corporation tax. In Austria the effects of the reform introduced in 2000 were offset by some restrictive tax policy measures in 2001-02 (cuts in tax deductions and special regimes). In Belgium the reform started in 2002 and in Spain the second reform was postponed from 2002 to 2003.

As for the tax wedge on labour, the average θ in the EU was stable between 1997 and 1999 (2.2) and decreased to 2.1 in 2001 (Table 8). In each of the years between 1997 and 2001, the index is stable in four of the five largest member countries (the exception being Italy, where the index decreased almost entirely as a consequence of the introduction of IRAP[26]). In Germany, Spain and the UK, the reduction in direct taxes and social security contributions (inducing a decrease in τ_c) was compensated by increases in indirect taxes. In France the opposite happened.

The implementation of tax reforms contributed to stop the fiscal consolidation process. Between 1999 and 2002 the net borrowing in the EU rose by 1.2 percentage points, to 1.9 per cent of GDP. The reduction in the primary surplus (–1.8 pp) was partly compensated by lower interest outlays.

According to European Commission estimates, the increase in the EU cyclically adjusted net borrowing amounts to 1.0 percentage points. The deficit rose by 2.2 percentage points in the UK, 1.8 in Germany, by 1.6 in France and by 0.7 in Italy (where interest payments decreased by 1.0 pp). The budget balance improved by 1.2 points in Spain (Figures 8 and 9).

As mentioned before, according to the criteria laid down by the European Commission, only Member States already in line with the target of a budgetary position "close-to-balance or in surplus" could have adopted uncompensated tax cuts. In the year of the reform approval, only six countries[27] were in such a position. Between 1999 and 2002 the tax burden decreased also in four of the remaining countries,[28] none of them seems to have compensated via expenditure cuts the effects of the revenue decline on the budget balance. However, among the countries with the highest deficits in 2002 (close to or above the 3 per cent threshold), EMU fiscal rules have forced the postponement of further steps in tax reforms scheduled for 2003 (this was the case in France, Germany and Italy).

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[25] For a detailed description of recent tax revenue trend in Germany see Deutsche Bundesbank (2002).

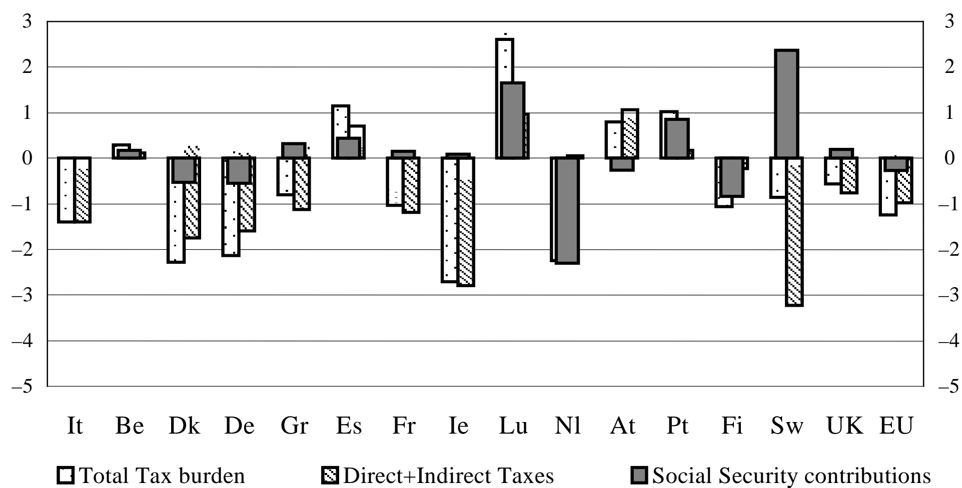
[26] The new tax (levied on business activities) substituted some direct taxes and health contributions. In the national accounts, IRAP, which in 1998 was equal of about 2.5 per cent of GDP, is included among indirect taxes. Between 1997 and 1998 the ratio of indirect taxes to GDP increased in Italy by 2.9 points (from 12.4 to 15.3); without IRAP it would have increased by 0.4 points.

[27] Belgium, Denmark, Ireland, the Netherlands, Finland, Sweden and the UK.

[28] Italy, Germany, Greece and France.

Figure 6

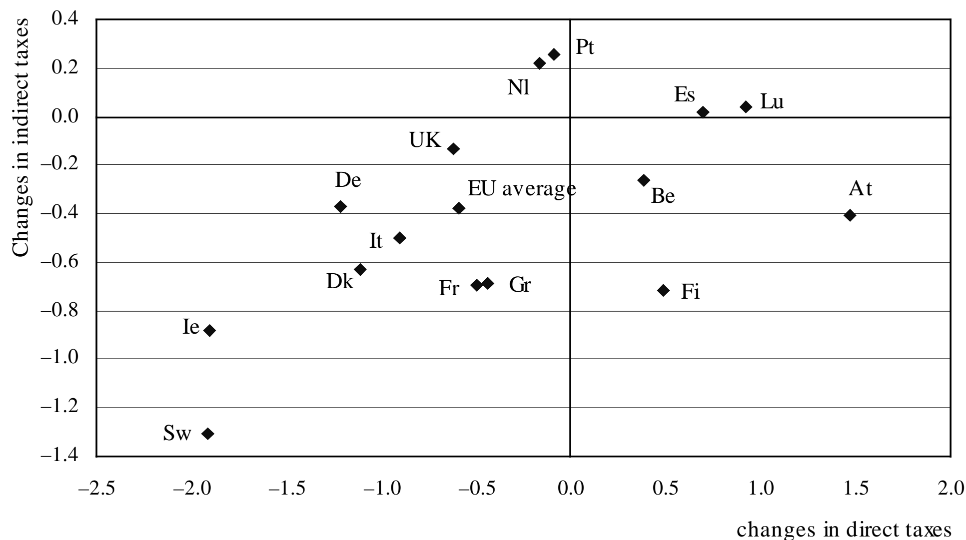
Changes in the Total Tax Burden and in Its Main Components Between 1999 and 2002
(percent of GDP)



Source: European Commission (DG ECFIN) – AMECO Data base.

Figure 7

Changes in Direct and Indirect Taxes Between 1999 and 2002
(percent of GDP)



Source: European Commission (DG ECFIN) – AMECO Data base.

Table 8

The Tax Wedge on Labour Between 1997 and 2001[1]

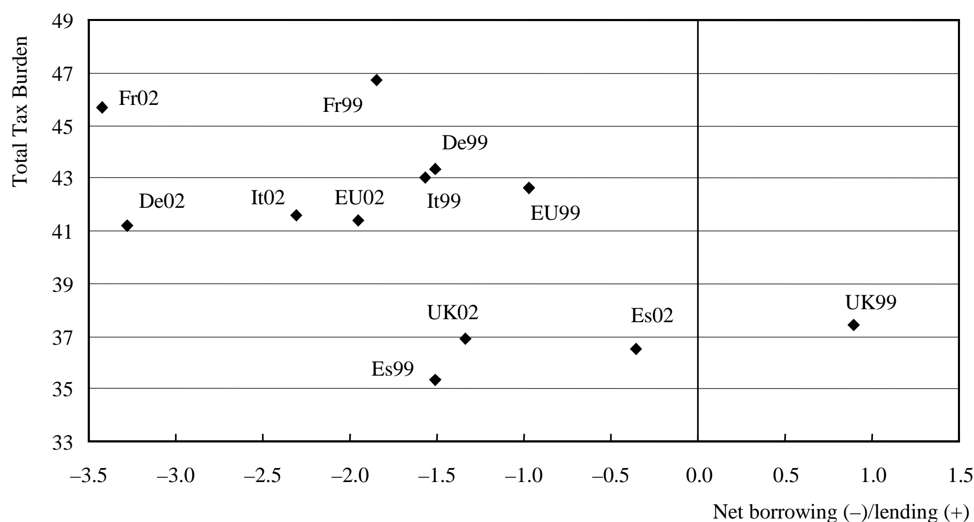
	1997	1999	2001
Belgium	2.8	2.8	2.7
Denmark	2.4	2.3	2.3
Germany	2.4	2.5	2.4
Spain	1.9	1.9	1.9
France	2.4	2.4	2.4
Greece	1.9	1.9	1.9
Ireland	1.9	1.8	1.7
Italy	2.5	2.3	2.3
Luxembourg	1.9	1.9	1.9
Netherlands	2.1	2.1	2.1
Portugal	1.8	1.8	1.8
United Kingdom	1.7	1.7	1.7
Austria	2.3	2.3	2.2
Finland	2.4	2.4	2.3
Sweden	2.5	2.6	2.4
EU average	2.2	2.2	2.1
United States	1.6	1.6	1.6
Japan	1.4	1.5	1.5

(1) See the main text for the definition of tax wedge.

Source: OECD (2001a) for the tax rate on labour income, and Martinez-Mongay (2000) for the consumption rate.

Figure 8

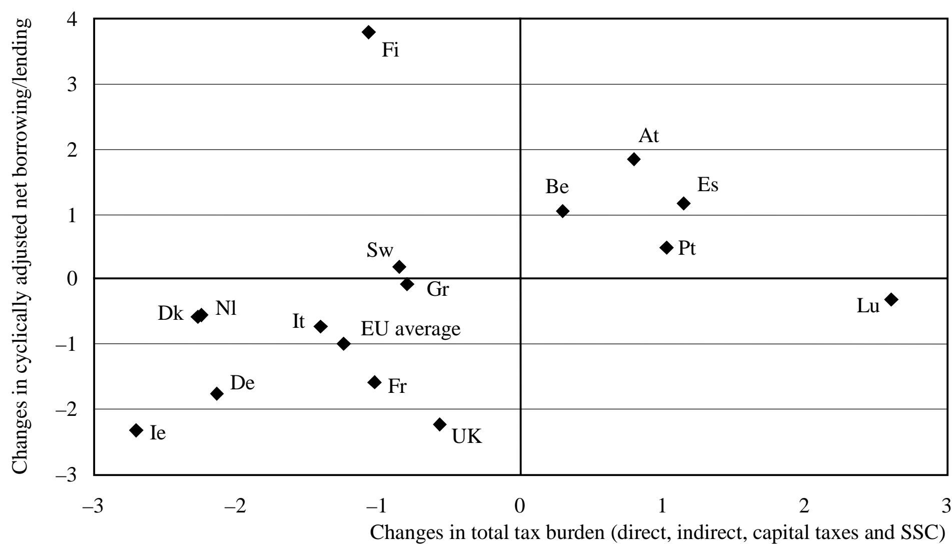
Total Tax Burden and Cyclically Adjusted Net Borrowing in 1999 and in 2002 in the Leading EU Countries
(percent of GDP)



Source: European Commission (DG ECFIN) – AMECO Data base.

Figure 9

Changes in Total Tax Burden and Cyclically Adjusted Net Borrowing/Lending Between 1999 and 2002
(percent of GDP)



Source: European Commission (DG ECFIN) – AMECO Data base.

4.2 Policy indications

In the late Nineties, having achieved the budgetary targets required for accession to EMU, several EU countries introduced tax reforms. The reforms differed in size and focus, but presented significant similarities. First, they primarily aimed at redressing distortions in the labour and capital markets. Second, the timing of reforms was relatively similar. It probably reflected the common concern about long term growth and employment trends and the conviction that cyclical conditions would have supported further fiscal consolidation. Moreover, the rise in revenue recorded in 1998 and 1999 was probably considered structural rather than due to favourable cyclical conditions or to rising asset prices. Electoral considerations may have played a role.

An assessment of the outcomes of the reforms is still premature. Some changes have been announced, but have not yet been introduced.

On the positive side, it seems that the measures taken to reduce the tax burden, in particular social security contributions, on low-paid workers have proved effective in creating job opportunities (OECD, 2001b). While not uncontroversial, these results confirm that tax cuts may be effective in tackling economic problems.

However, preliminary indications point to a number of policy problems.

First, tax reforms were not supplemented by expenditure reforms. As was noted above, expenditure restraint in recent years was largely due to the decline in interest expenditure. Since tax cuts are not generally self-financing, this set a tight limit to their size. In more favourable economic conditions this constraint would have been less binding. In the current downturn the deficit increased and, in the end, in some countries tax cuts were postponed. EMU fiscal rules did not alter the basic medium term issue (a lower tax burden is sustainable only if expenditure is reduced), but made the constraint immediately binding for countries with deficits close or above the 3 per cent limit.

Second, while several reforms aimed at changing the composition of revenues, data suggest that there is no relevant shift in revenue structure. There is a tendency to alleviate the tax burden on labour, especially on low-paid workers, and to increase the burden on energy. However the changes envisaged are generally relatively small in terms of their impact on the design of the tax system. In most cases there are only rate cuts. The reduction in marginal rates is consistent with the spirit of the tax reforms of the Eighties, but there is no large scale attempt to broaden tax bases. The apparent lack of ambition of reforms may have different interpretations. It may reflect a sort of reform fatigue: the lengthy debate on tax reforms may have convinced governments that adjustments in rates and specific provisions are more feasible and productive that structural reforms. It may also reflect the constraint set by EU agreements, in particular with respect to indirect taxation. Finally, it may reflect the lack of budgetary room for manoeuvre: any large scale reform would have been risky in terms of the fulfilment of EU fiscal rules.

Third, in spite of a lengthy debate on tax coordination, the progress has been relatively limited (European Commission, 2001b). Direct taxation is still far from harmonisation. This implies that tax competition may gradually erode revenues. This has positive and negative aspects. It may stimulate governments to improve resource utilisation in the public sector (Salvatore, 2002). But, it may also lead to an undesirable distribution of the tax burden among tax bases and may threaten welfare policies. In the end, the lack of tax coordination in an integrated economic area shifts the policy focus on reforms and cuts of expenditure programmes.

The experience of recent years confirms that tax policy cannot be defined in isolation. It has to be framed within the context of national or multinational fiscal rules. It has to be defined in a medium and long term prospect in view of fiscal sustainability issues. It has to be examined also on the basis of its implications for fiscal stabilisation and long term growth.

The implications of EU integration and policies on national tax policies are pervasive. Some areas of taxation are subject to EU agreements. All areas of taxation are affected by the behaviour of other countries and by EU budgetary rules. The scope for radical tax reforms at the national level. may be permanently limited. In the end, the very concept of a national tax policy may be jeopardised.

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CAPITAL INCOME TAXATION UNDER CONVERGENCE AND EMU – A FRAMEWORK TO DISCUSS POLICY CHALLENGES IN A WORLD OF HIGH CAPITAL MOBILITY

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1. Introduction

Completion of the monetary union has given new impetus to the debate on tax coordination at the European level, particularly in the field of capital income taxation. Scope for coordinated action is given by the fear that excessive or harmful tax competition to attract foreign capital would reduce capital income taxes to politically and economically unsustainable levels, causing distortions in the internal market, tax revenue losses and an excessive tax burden transferred to labour income.

The aim of the paper is to assess whether, in accordance with the prescriptions of the basic model of tax competition, European countries have engaged in some form of tax competition with regard to more mobile factors over the past decades. In particular, the paper focuses on taxation of corporate income and it examines whether, in an environment of increased liberalisation of capital movement, corporate income taxation has declined significantly across countries. Based on several tax indicators, available from recent empirical studies and examined in the paper, no strong conclusion can be drawn regarding countries' practice in the area of tax competition. Although statutory tax rates on corporate income declined significantly from 1983 to 2001 in all EU countries, revenues from corporate income, as a share of GDP, have remained fairly stable over the past decades. Furthermore, corporate taxation, as measured by indicators of effective taxation (EATR and EMTR) have decreased by much less than statutory tax rates and converged somewhat across countries.

Recent studies have tried to resolve the apparent inconsistency between theory prescriptions and the practice adopted by countries by means of several arguments. This paper reviews and assesses these arguments against the background of the available empirical evidence. By doing so, the paper also aims at raising critical issues for policy making in the new environment of capital mobility.

The next section outlines the main theoretical prescriptions from the basic model of tax competition and highlights some departures from it. The third section provides an overview of tax reforms undertaken in most EU countries since the mid-Eighties, with particular references to corporate income taxation. Moving to

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specific aspects of tax systems, the fourth section focuses on the evolution of corporate tax rates over the period considered. To assess the combined effects of changes in tax rates and tax base determination on the tax burden of corporations, more complex indicators are needed. In order to do so, the fifth section outlines the methodology underlying various indicators for the effective tax rates (marginal and effective). Based on the concept of the user's cost of capital and the related measure of effective taxation, these indicators summarise the effects of changes of the overall tax regulation on firms' tax burden. The same section also highlights merits and shortcomings of the selected indicators. The sixth section presents the quantitative results from the elaboration of tax indicators and discusses these results against the main prescriptions of the theory of tax competition. In so doing, it reviews the main arguments set forth by recent studies to reconcile theory and practice. Section 7 dicusses recent actions of the EU Council in the field of business tax coordination. The conclusive chapter raises issues of relevance for the current debate and highlights future avenues of work.

2. A basic model of tax competition

The standard result of the literature on tax competition is that in a classical model of full capital mobility and small open countries, where governments want to maximise national welfare using tax instruments, countries have an incentive to reduce taxes on locally invested capital.[1] The intuitive explanation is that a small country cannot influence the world rate of return available to domestic investors. In this context, starting from an equilibrium for the world and domestic rate of return, any increase in the domestic capital tax rate would imply an increase in the new equilibrium domestic pre-tax rate of return and hence induce an outflow of capital. If factors of production, capital and labour are in fixed supply for the world and labour is immobile, the attempt to increase taxes on locally invested capital income (the mobile factor) would shift the incidence of the tax onto the immobile factor because of well known channels of marginal productivity, in a constant-returns-to-scale production function

In this setting, if countries compete to attract foreign capital, they have an incentive to reduce taxes on capital and keep them at a low level. This implies that in a Nash equilibrium, tax rates on capital income are set at a level below the Pareto efficient level and all countries could be better off if they would adopt a cooperative solution, enforcing higher tax rates (Hamada, 1966 and Razin and Sadka, 1991).

The basic result described above needs to be further qualified by specifying the tax principle applied in taxing cross-border investment, namely whether capital income is taxed according to the source-based or the residence-based principle of

[1] For a survey of the literature and main issues on tax competition, see Devereux, Griffith and Klemm (2002), Gordon and Hines (2002) and Sorensen (2001).

taxation.[2] It is worth noting that, the result previously described of a too low and inefficient taxation of capital income is only obtained if corporate income is taxed according to the source-based principle. By contrast, if the residence principle applies, then the argument that higher domestic tax rates of capital taxation would drive up the domestic pre-tax return on capital and hence, drive away capital, does not hold any more (Gordon, 1986). In fact, under the residence principle, countries can tax exported capital. Hence the result that countries would compete to decrease capital income taxes to inefficiently low levels hinges on the difficulty of taxing "exported" capital (Bucovetsky and Wilson, 1991). This is the case when the source principle applies or when the residence principle is implemented imperfectly, due to the well known practical difficulties.

From the global efficiency point of view, a central result has been derived by Razin and Sadka (1991) from the international version of the production efficiency theorem of Diamond and Mirrlees (1971). It states that, if any pure profits can be fully taxed and there are no constraints in the set of taxes and transfers available to the government, the optimal set of taxes is the one which preserves production efficiency, that is the one which equates pre-tax returns to capital across countries. The implication is that the source principle is always inferior to the residence principle, as the latter is the only one which guarantees absence of distortions in individual investments and production choices. Furthermore, under the residence-based principle the non-cooperative or Nash competitive solution coincides with a cooperative solution.

The enforcement of the residence principle in taxing worldwide corporate income is not without a number of administrative and practical difficulties. In practice, because of these difficulties, most countries tax corporate income according to the source principle. The departure from the residence-based tax principle and the application of the source principle lies at the heart of the worries currently expressed within the EU. Along the lines of the prescription of the theoretical models, one would expect that countries have undertaken some form of tax competition and have adopted too low and inefficient tax rates, in order to compete on taxable bases.

Departing from the assumption of perfect competition and considering the possibility of economic rents significantly modifies the conclusions regarding the efficiency property of the residence and source principles. For instance, if foreign investors earn pure profits and the source principle applies, the country hosting the investment can optimally choose to set a high tax rate on capital return, thus exporting abroad some of its tax burden. As a further example, the existence of

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[2] Under the source-based taxation principle, capital income is taxed only by the country where the investment is located, regardless of the residence of the investor. Hence, corporations would be subject to the tax rules of the country or jurisdiction where they are located. Instead, under the residence principle, if fully implemented, a country would tax worldwide capital income of its residents, regardless of their location. Hence, corporate income would be subject to the tax rules of the country of residence of stockholders (in the case of an individual company), either on an accrual basis or upon repatriation of profits.

agglomeration forces and related self-sustaining spatial concentration, might create location specific rents, which could then be taxed without distorting the location of capital (Baldwin and Krugman, 2001). However, when a firm's investment decision is based on a discrete choice model, as might be the case for a multinational selecting a location, not only the marginal units of the investment are mobile, but also the inframarginal units are mobile. Hence, taxing pure economic profits might distort the location of capital as well (Devereux *et al.*, 2002). Along these lines, the theory would prescribe that one would find a higher tax rate where most profitable investments are located or where larger agglomeration forces are to be found.

3. Tax reforms in the EU countries since the mid-Eighties

In the second half of the 1980s, spurred by the new fiscal regulation introduced in the United Kingdom in 1984 and the Tax Reform Act which came into force in the United States in 1986, the governments of many countries committed themselves to reforming their direct tax systems. The reforms undertaken until the early Nineties generally aimed at ensuring a tax system which was simpler, more equitable and efficient. In the previous decades, a considerable erosion of the tax base resulted from large and to some extent discretionary tax allowances for personal and corporate income. Awareness of the disincentive effects of excessively high tax rates on the promotion of entrepreneurial activity then created a strong incentive for a less progressive tax system. Of equal importance was the greater importance acquired by sources of income, such as capital gains, traditionally not of primary concern but whose exclusion appeared highly prejudicial as regards to potential tax revenue. Therefore, in most countries tax reforms aimed at lower tax rates and a larger taxable base, so as to leave overall tax revenue unchanged. The reforms of the mid-Eighties generally had a neutral effect on tax revenue.

Concerning the taxation of corporate income, tax reforms have generally broadened the tax base and reduced tax rates. The reforms also ensured a more uniform taxation of the various productive activities, reducing differences of tax treatment, according to the type of capital good and sector of activities. Several additional provisions were also modified. The provision for carrying forward losses was modified to allow larger compensation over time of previous losses incurred by firms.

In the late Nineties, tax reforms were once again high on the agenda of the policy maker. As in the mid-Eighties, the reforms aimed at increasing the efficiency of the tax systems and simplifying the tax code. However, contrary to the reforms of the mid-Eighties, the reforms also aimed at reducing the tax burden on economies. Specific targets of the reforms, broadly shared by all countries, were (i) to promote employment and investment via lower marginal taxation and contribution rates, (ii) to increase tax neutrality with respect to savings and financing instruments, (iii) to improve the efficiency of tax administration, and (iv) to simplify tax codes. In addition, tax reforms were also deemed necessary from an international perspective,

as many EU countries have an average tax burden far in excess of the main industrialised countries outside the euro area. Relative to the initial tax plans announced, tax reforms have gained momentum in all euro area countries: future plans have been brought forward and, in some cases, the measures announced have been frontloaded.

The tax reforms are following a common pattern although they differ across countries in terms of their size and composition. Most euro area countries have introduced or plan to introduce significant corporate and personal income tax cuts. The latter will typically benefit all income groups, although many countries favour low-income earners. A number of countries explicitly state the objectives of alleviating poverty and unemployment traps, promoting "fairness" in the tax system and stimulating labour demand and supply. The objective of promoting employment is also behind the social security contribution cuts pursued in roughly half of the euro area countries. Most countries have also implemented or are planning corporate tax rate reductions. The related costs are partly being offset by broadening the tax base via less generous tax allowances for depreciation. A number of countries have reorganised and rationalised capital income taxation, aiming at a more neutral taxation of income from various sources (*i.e.* dividends, interest income and capital gains) in order to reduce distortions in investment and financing decisions. Some countries have also implemented tax measures to promote corporate reorganisation and restructuring. A number of countries have passed legislation or reinforced existing legislation favouring small and medium sized firms.

Over the period from 2000 to 2003 tax reforms will have reduced the total tax burden by more than 2 percentage points of GDP in EU countries. Although tax cuts differed in size and composition across countries, they were mainly concentrated in the area of personal income taxation. However, a number of countries have also implemented sizeable reductions in the corporate tax rates. In particular, Belgium, France, Germany, Ireland, Luxembourg, Italy and in Greece.

4. The evolution of the statutory tax rates on corporate income

The statutory tax rates on corporate income declined significantly from 1983 to 2001 in all EU countries. Notwithstanding the drastic simplification needed to produce a summary table of statutory tax rates for different countries, the direction towards a generalised reduction of tax rates is strongly supported by the data (see Table 1 and Figure 1). In the European Union average, corporate tax rates, as levied by central governments on retained earnings, declined by more than 12 percentage points, from 43.6 to 31 per cent, over the period considered. In the EU average, most of the total tax rates' reductions took place in the Eighties.

Average developments for the EU hide countries' specific developments to some extent. In 1983, large EU countries (Germany, Spain, France, Italy, The Netherlands and the United Kingdom) recorded on average a much higher corporate income tax rate than the small EU countries, namely 46.3 against 41.8 per cent. The

Table 1

Corporate Income Tax Rates - Central Government

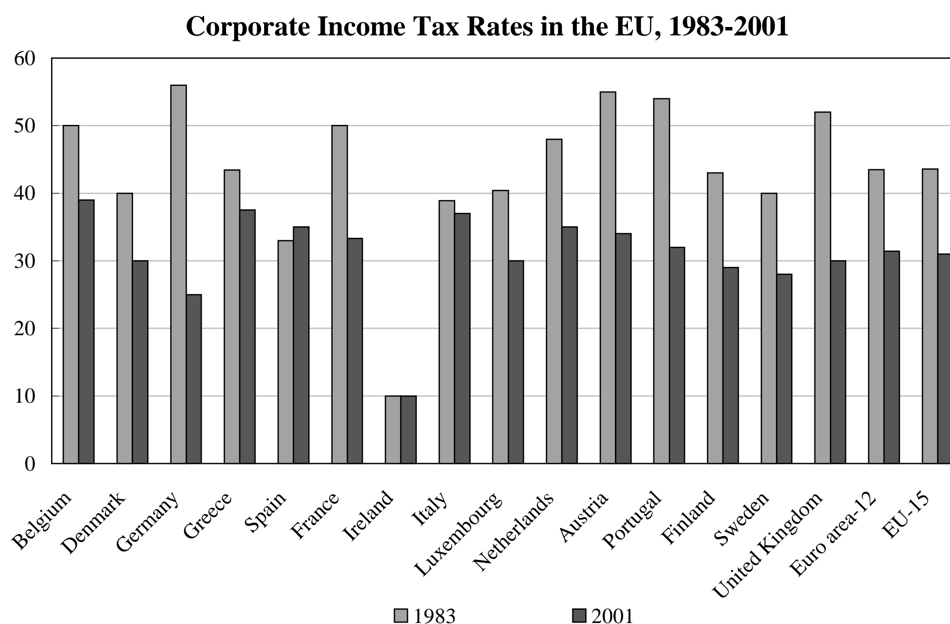
	1983	1991	2001	1984-2001	1984-1991	1992-2001
Belgium	50	41	39	–11	–9	–2
Denmark	40	38	30	–10	–2	–8
Germany	56	52	25	–31	–4	–27
Greece	43.4	35	37.5	–5.9	–8.4	2.5
Spain	33	35	35	2	2	0
France	50	34	33.3	–16.7	–16	–0.7
Ireland	10	10	10	0	0	0
Italy	38.9	36	37	–1.9	–2.9	1
Luxembourg	40.4	34.3	30	–10.4	–6.1	–4.3
Netherlands	48	35	35	–13	–13	0
Austria	55	30	34	–21	–25	4
Portugal	54	36	32	–22	–18	–4
Finland	43	23	29	–14	–20	6
Sweden	40	30	28	–12	–10	–2
United Kingdom	52	33	30	–22	–19	–3
Euro area-12 average	43.5	33.4	31.4	–12	–10	–2
EU-15 average	43.6	33.5	31.0	–13	–10	–3
EU-15 standard deviation	11.5	9.0	7.0	–5	–3	–2
Small countries	41.8	30.8	29.9	–12	–11	–1
Big countries	46.3	37.5	32.6	–14	–9	–5
Core countries	49.2	38.5	33.2	–16	–11	–5
Periphery countries	39.9	30.1	29.5	–10	–10	–1

Note: Tax rate on corporate retained earnings.

Sources: National sources and Ministry of Finances, Commission (2001), Devereux (2002), Cnossen (2002), Backer and McKenzie (1999).

difference in tax rates between the two groups widened in 1991, with small countries reducing their tax rates at a faster pace. In 1991 the average tax rate of the small countries group had fallen to 30.8 per cent, below the average tax rate for the large countries group and the EU average. By contrast, large countries appear to have distributed rate cuts more gradually over time. Therefore, in 2001 the distance between the average tax rates in the two groups decreased significantly. However, the large countries group still recorded on average a somewhat higher tax rate than the small countries group, namely, 32.6 against 29.9 per cent. Therefore, compared with the large countries group, the small countries group appears to have maintained lower tax rates throughout the period considered and to have adopted further tax cuts well ahead of time. Similar conclusions are reached when distinguishing countries between core countries, which are those which benefit from the agglomeration economies associated with a well established centre, and periphery countries, which

Figure 1



do not benefit from it. The classification produces a slightly different grouping of countries, compared with the previous criterion based on size, with Belgium, Germany France, Italy, The Netherlands and the United Kingdom included in the core economies. In each of the years considered, core economies recorded a higher average tax rate than the periphery economy. Furthermore, tax rates declined in the core economies more gradually over time than in the other countries and, at the end of the period considered, the distance between the average tax rates in the two groups had diminished significantly.

In the same years, the largest tax cuts have taken place in countries with the highest tax rates in the mid-Eighties (see Figure 2). This has also implied some convergence of tax rates across countries (see Figure 3). Moreover, the standard deviation of tax rates across countries declined significantly over time (from 12 to 7). Between 1983 and 2001, tax rates in the various countries have converged to a significantly lower EU average.

5. Marginal and average effective tax rates: the methodology

Statutory tax rates alone do not allow a satisfactory comparison of different tax systems. Several tax provisions, in particular those affecting the definition of the taxable base, concur to modify the tax burden on corporations. Therefore, corporate taxation is better assessed on the basis of the "effective tax rate" approach. Such a

Figure 2

Changes in Corporate Income Tax Rates, 1984-2001

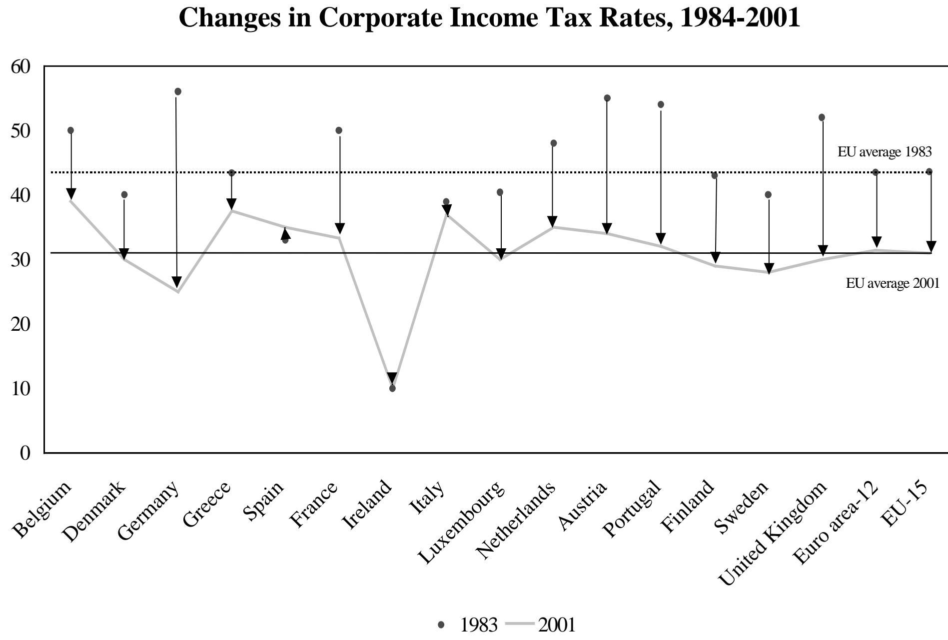


Figure 3

Corporate Tax Rates and Changes, 1984-2001

methodology summarises in one concise statistical measure all elements relating to corporate taxation and which describe the tax system in detail, namely, the tax base determination, tax rates, tax depreciation and other general tax provisions. This makes possible temporal and spatial comparisons of different tax systems across countries and their evolution over time.

The elaboration of the effective rates of taxation is based on the concept of the user's cost of capital, and related methodology. The theoretical foundations of the user's cost of capital and successive applications to the problem of capital income taxation have been developed by a vast literature.[3] The user's cost of capital indicates the gross rate of return on investment which is sufficient to remunerate the financing cost (internal and external), as well as the economic depreciation of capital goods, and other losses or gains related to prices and tax costs (depreciation and corporate and personal taxation). There is no unique user's cost of capital measure, as there are as many specific costs of capital as specific projects of investment. Therefore, the user's cost of capital is elaborated separately for specific sources of financing (retained earnings, equity issue and debt), specific capital goods (machinery, non-residential buildings and inventory) and type of investors (individual and institutional investors). The tax wedge is given by the difference between the user's cost of capital (net of the economic depreciation) gross and net of taxation. Effective tax rates are then obtained by taking the ratio of the tax wedge on the user's cost of capital, gross of taxation.

The user's cost of capital approach and the related measure of marginal effective tax have prevailed in the assessment of tax distortions on firms' savings and investment decisions. Following this approach, the distortional effects of taxes on firms' investment and financing decisions are assessed in a forward-looking way in a perfectly competitive market. Hence, effective tax rates are calculated as marginal tax rates and the effects of tax regulations on company financing and investment behaviour is assessed for the marginal investment. The marginal investment is the additional investment, which represents the new investment decision of the firm, where firms invest until the marginal cost is equal to the marginal revenue and there are no extra profits.

The validity of the effective marginal rates then stays with the validity of the underlying neo-classical investment paradigm. Furthermore, a satisfactory construction of the indicators hinges on the availability of data to produce forward-looking indicators. These aspects have been criticised and the recent empirical literature has proposed alternative indicators (see Table 2).

A different indicator has been proposed based on the consideration that marginal tax rates do not capture the effects of taxes when the decision process of a firm is described by a model of discrete choice of investment. An example of discrete choice is given by the case when firms, in particular multinational firms,

[3] In particular, Auerbach (1979), King and Fullerton (1984) and Jorgenson and Landau (1993).

Table 2

Effective Marginal and Average Tax Rates: an Overview of Available Indicators

Model	**Indicator**	***Ex ante/ ex post***	**Revenue- / legislation-based**	**Performance / Information**	**Disadvantages**
Devereux	EMTR	*Ex ante*	Legislation-based	Neo-classical model of investment/ forward looking / shows specific tax effects	Demanding estimates Sensitive to assumptions
Devereux	EATR	*Ex ante*	Legislation-based	Discrete investment choice / forward looking	Demanding estimates Sensitive to assumptions
Mendoza	EATR	*Ex post*	Revenue based / macro data	Backward looking / less demanding calculation / embodies tax planning	Difficulty to estimate the true economic profit / aggregate / does not isolate specific tax characteristic
Martinez-Mongay	EATR	*Ex post*	Revenue based / macro data	Backward looking / less demanding calculation / embodies tax planning	Difficulty to estimate the true economic profit / aggregate / does not isolate specific tax characteristic
Oecd	EATR	*Ex post*	Revenue based / macro data	Backward looking / less demanding calculation / embodies tax planning	Difficulty to estimate the true economic profit/ aggregate measure / does not isolate specific tax characteristic / affected by economic fluctuations
Eurostat	EATR	*Ex post*	Revenue based / macro data	Backward looking / less demanding calculation / embodies tax planning	Difficulty to estimate the true economic profit / inclusion of capital income paid to households/ aggregate measure / does not isolate specific tax characteristic
Bach	EATR	*Ex post*	Revenue based / micro data	Backward looking / sectoral performance / calculation less demanding / improved consistency of numerator and denominator / embodies tax planning	Does not isolate specific tax characteristic / affected by economic fluctuations

have to select a location to establish their investment (Devereux *et al.*, 2002). When the decision taken by the firm is whether or not to locate an establishment in a given location, both marginal and intramarginal units of investmnet are mobile across location. In other words, in a discrete-choice model of investment all units of investment are critical to the investor's decision making. The advantage of adopting average effective corporate tax rates, rather than marginal effective tax rates, is that they capture the impact of tax on both marginal and inframarginal investment. Therefore, average taxes will be a better predictor than marginal taxes depending on the model underlying a firm's investment decision. Moreover, since the proposed indicator is calculated on the basis of the tax legislation, it maintains the characteristic of a forward-looking indicator. By the same token, the calculation of average effective tax rates is also sensitive, as in the case of marginal rates, to the assumption made on interest rates, inflation, pre-tax rate of return and maturity of the firm. Hence the same criticisms apply regarding the difficulty of calculating satisfactory indicators.

Given the difficulty in constructing forward-looking indicators taking as a starting point the set of tax regulations in individual countries and the limited data availability, an alternative approach aims at producing *ex post* effective average tax rates (Mendoza, Razin and Tesar, 1994). The methodology consists of calculating effective tax rates as the ratio between tax revenues from specific sources (labour, capital and income) and the corresponding tax bases obtained from national accounts. In the case of capital income, the tax base is determined by a measure of aggregate business surplus.

Further effective average tax indicators have thereafter been calculated based on a revised methodology, particularly concerning the treatment of capital income and of self-employed income (Martinez-Mongay, 2000; Carey and Tchilinguirian, 2000). With some difference in the methodology adopted, *ex post* average effective taxes have also been elaborated as "implicit tax rates". In particular Dg-Taxud, in co-operation with Eurostat, publishes "implicit tax rates" on labour consumption and other production factors (European Commission, 1997 and 2000).

Since average tax rates are calculated by taking the ratio of the actual tax revenues to some economic measure of profits, their informational content is richer than a simple statutory tax rate, in that it reflects both changes in the rates and in the tax base. Furthermore, as backward-looking indicators, they also reflect tax strategies undertaken by firms to minimise tax payments. Hence, to some extent they embody the firms' behavioural response to tax schedule changes.

However, *ex post* average tax rates from national accounts data are usually calculated by including in the total tax revenue not only corporate tax revenue, but also taxes paid on capital income by suppliers of capital. Therefore, tax revenue includes corporate taxes and taxes on interest, dividends and royalties as well as property taxes and taxes on financial transactions. Hence, to ensure consistency with the numerator, the denominator has to include domestic value added accruing to suppliers. Two main problems arise for a correct and consistent calculation of these ratios, namely, the estimation of personal income tax rates on capital income and the

imputation of self-employed income to capital and labour. Different studies have adopted alternative solutions. However, notwithstanding methodologically relevant differences, the correlation of alternative indicators across time for a given country and across countries is quite high.

A major conceptual difficulty with these indicators stems from the estimate of tax bases and profits according to economic criteria. Depreciation allowances should in principle reflect the true economic depreciation, and not tax allowances, as is in fact the case in the applied approach. In addition, in using aggregate data the measure of the denominator (economic profits) is also affected by a firm's maturity, possible losses carried forward, previous investment experience and related depreciation schedules. This implies that, ideally, profits need to be adjusted to take into account non-profitable firms and the build-up over time of various tax credits and tax allowances. As suggested by some studies, if the tax base merely reflects the tax legislation, the resulting indicator is the statutory tax rates and departures from it are due to measurement errors. Furthermore, profits and taxes are affected by the economic environment and show a rather cyclical evolution. For all these reasons, backward-looking tax indicators have only a limited use in singling out tax policy changes.

Some of these problems can be solved by using detailed micro data (Nicodème, 2001). For a given sample of firms, it would then be possible to calculate average effective tax rates making a consistent use of numerator (tax debt) and denominator (economic profits). However, even in this case economic growth and fluctuations affect the values of the indicator and hence do not allow the singling out of the specific effect of tax rule changes.

6. Quantitative indicators for marginal and average effective tax rates

With regard to forward-looking indicators, over the period 1982-2001 marginal effective tax indicators declined significantly in almost all EU countries and in the European Union average (Table 3). In particular, the marginal effective tax rates in the average of 11 EU countries declined by some 11 percentage points, from 32.6 to 21.9 per cent. Results are slightly different when distinguishing between large countries (Germany, Spain, France, Italy and The Netherlands) and the small ones. Effective marginal taxes were higher in the large countries than in the small ones, and declined in small countries to a larger extent than in the large ones. The information provided by the indicators seems to go in the same direction as the theory prescriptions, with small countries adopting lower tax rates.

As clarified in the methodological section, marginal tax rates are a suitable indicator for potential tax competition should the neo-classical model of investment hold. However, marginal effective tax rates are of little help in assessing tax distortions in the presence of pure economic profits (rent) or when a firm's investment decision follows a discrete model. In these cases, average tax rates are a better indicator of tax distortions. Ideally, one would like to see a significant

Table 3

Marginal and Average Effective Tax Rates
(forward-looking indicators)

	Effective marginal tax rates			Effective average tax rates		
	1982	2001	1983-2001	1982	2001	1983-2001
Belgium	30.0	25.0	–5.0	39.0	32.0	–7.0
Germany	47.0	28.0	–19.0	58.0	32.0	–26.0
Greece	33.0	28.0	–5.0	39.5	32.5	–7.0
Spain	23.0	29.5	6.5	29.0	32.5	3.5
France	25.3	20.3	–5.0	40.5	30.0	–10.5
Ireland	-	-	-	0.3	0.4	0.1
Italy	18.5	9.5	–9.0	30.0	29.0	–1.0
Netherlands	35.3	24.5	–10.8	41.0	30.0	–11.0
Austria	25.0	17.5	–7.5	50.0	28.5	–21.5
Portugal	48.0	20.0	–28.0	51.0	29.0	–22.0
Finland	42.5	20.0	–22.5	52.0	22.5	–29.5
Sweden	43.0	15.5	–27.5	52.0	21.5	–30.5
United Kingdom	-	-	-	38.0	28.0	–10.0
Countries weighted average	32.6	21.9	–10.7	43.8	30.3	–13.6
Large countries	29.8	22.4	–7.5	39.7	30.7	–9.0
Small countries	29.8	18.4	–11.3	38.6	24.2	–14.5

Notes: Investment in plant and machinery, financed by equity or retained earnings. Real discount rate 10%; inflation rate 3.5%; depreciation rate 12.25%. Marginal tax rates: no economic rents. Average tax rates: real rate of economic profits 10%. EATR and EMTR coincide for marginal investment when the pre-tax rate of profits is equal to the cost of capital.

Source: Devereux *et al.* (2002) and our calculations.

difference between the two indicators and from this to infer information about countries' practices regarding tax policy. This is not so much the case, although there are aspects which are worth noting.

Average effective tax rates declined from 1982 to 2001 by some 13.6 percentage points on average in the EU countries considered. This is a bit more than the decline in the marginal tax indicator, suggesting that, in modifying tax rules, the tax legislators might have paid more attention to reducing the average tax burden than the marginal one.

More interestingly, large countries recorded on average a much smaller decline of average effective rates, compared to small ones. If one believes that larger countries also benefit from larger location-specific rents, a logical conclusion can be

that in those countries agglomeration forces and locational rents have sheltered taxation from competition (Baldwin and Krugman, 2000).

In a recent study, Devereux (Devereux *et al.*, 2002)produced evidence that the decline of average tax rates has been larger for higher profitability investment. As noted by Devereux, when calculating these rates for major OECD countries, including Japan and the United States, marginal rates barely declined over the period considered. By contrast, average tax rates declined significantly in line with statutory tax rates. Should this difference be noticeable and confirmed by further research, one could infer that tax reforms are consistent with a model of competition where countries try to attract more profitable projects and firms take discretional investment decisions.

However, one would still need to explain why reductions of statutory tax rates largely outweigh reductions of marginal and average effective rates. To find an explanation, one must again depart from the prescription of the traditional model. In particular, if multinationals operate income shifting between jurisdictions (for instance by using transfer prices) to exploit local low tax rates, then one might expect that countries might compete for allocation of taxable bases by reducing statutory tax rates (Haufler and Schjelderup, 2000).

Moving to backward-looking indicators, several studies have calculated the effective average tax rates. The remainder of this section only surveys those for which observations over a period of time are also available. The OECD elaborates effective tax rates based on the methodology originally developed by a number of studies (Lucas, 1990; Frenkel *et al.*, 1991, Mendoza *et al.*, 1993), as well as on a slightly revised methodology (see Table 4a). The main revision regards the treatment of self-employed income which, contrary to the original methodology, is only partly attributed to the category of capital income. However, in both cases, capital income category also includes households' capital income.

The data shows that over the period considered, average tax rates calculated on the net operating surplus have declined somewhat according to both methodologies. The decline has been larger for the OECD revised methodology (almost 7 percentage points) than in the case of the original methodology (some 3 percentage points), possibly due to the different treatment of capital income. Effective tax rates can also be based on the gross operating surplus (see Table 4b). In this case, the indicators hardly show any decline over the period considered, possibly due to the choice of tax base. However, the indicator does not signal different patterns for small and large countries.

A complete time series for average effective tax rates based on a comparable methodology is also available, based on net and gross operating surpluses (Martinez-Mongay, 2000). As shown in Figure 4, both indicators indicate only a slight reduction of effective tax rates over the period considered. Effective tax rates based on the net operating surplus decline somewhat over the period considered and remain rather stable as a ratio to gross operating surplus. This is not surprising to some extent as these indicators are *ex post* indicators or equilibrium indicators and

Table 4

Average Effective Tax Rates

Part a): Net Operating Surplus

	Mendoza methodology			OECD revised methodology		
	1980-85	1986-90	1991-97	1980-85	1986-90	1991-97
Germany	29.6	26.5	25.1	47.6	39.4	36.4
France	28.7	26.3	26.8	53.3	41.5	41.4
Italy	24.3	27.8	33.1	36	38.9	49.6
United Kingdom	67.8	61.2	48.2	95.5	90.2	68.6
Austria	21.4	21.9	23.4	35.4	34.2	34.4
Belgium	37.8	35	35.7	52.4	44.5	47
Denmark	-	54	48.3	-	90.1	67.7
Finland	30.3	37.6	39.9	35.6	46.4	56.5
Greece	-	15	16.1	-	38.9	39.4
The Netherlands	27.7	27.9	29.2	39.2	38.8	40.7
Portugal	-	11.2	16.7	-	-	-
Spain	13.5	19.9	21.5	24	31.4	31.9
Sweden	46.6	62.4	52.7	56.6	80.2	63.5
EU - Weighted average	35.2	34.0	32.1	53.7	50.8	47.0
EU - Standard deviation	15.2	16.7	12.2	19.7	22.0	13.1

Part b) Gross Operating Surplus

	Mendoza methodology			OECD revised methodology		
	1980-85	1986-90	1991-97	1980-85	1986-90	1991-97
Germany	17.1	16.2	15.5	22.9	21.1	19.9
France	17.1	16.8	17	24.3	22.9	23
Italy	17.9	20.8	24.4	21.7	24.7	31
United Kingdom	39.4	38.4	31.9	46.4	47.1	38.4
Austria	13.7	14	14.7	18.9	18.8	18.9
Belgium	27.5	26.1	26.3	32.5	29.9	30.8
Denmark	-	26.5	25.8	-	32.3	29.1
Finland	17.4	20.4	20.6	14.8	18.4	19.6
Greece	-	12.2	13.3	-	23.5	26.8
The Netherlands	18.9	19.4	20.3	22.5	23.4	24.7
Portugal	-	10	11.4			
Spain	9.8	14.9	16	12.6	19.7	20.6
Sweden	25.4	32.7	29.2	25.5	35.3	30.5
EU - Weighted average	21.5	21.9	21.1	26.8	27.2	26.2
EU - Standard deviation	8.4	8.3	6.5	9.6	8.4	6.0

Note: Average includes available countries.

Source: OECD (2000) and our calculations.

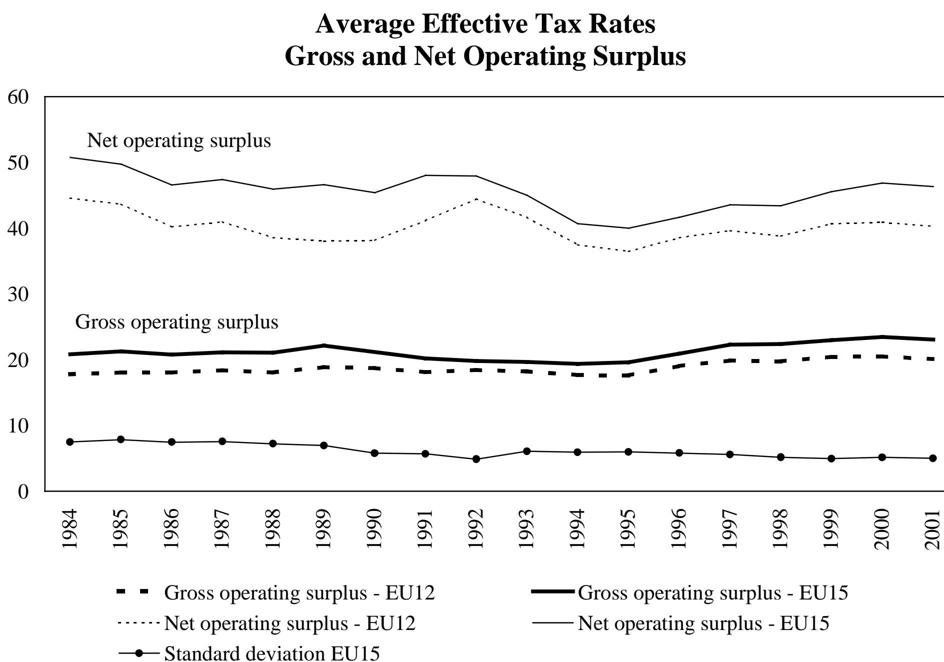
are the result of tax planning activities. However, following tax reforms implemented in the late Nineties, the chosen indicators indicate a reduction of the effective tax rate particularly towards the end of the period for the average of the euro area. Furthermore, a distinction between small and large countries highlights that tax reductions have been larger in the smaller countries.

Over the period considered, effective tax rates have converged across countries, particularly in the case of the euro area, as indicated by a declining value of the standard deviation and by the coefficient of dispersion. The coefficient of dispersion fell from some 35 per cent in the mid-Eighties to 20 per cent in the EU, but a similar decline was recorded also including the US and Japan in the sample.

As clarified in the methodological section, the indicators are also affected by the underpinning economic environment, with higher tax debt paid by companies in times of growth. Furthermore, the net operating surplus is a more erratic statistic than the gross operating surplus and a less comparable one across countries because of the treatment of depreciation. As pointed out in this section, the correlation of the two indicators within a country and across time is high. In addition, the correlation across countries, for short- and long-run changes is high. However, for the EU and euro area aggregates the correlation of the two indicators across time is much smaller, suggesting an area which deserves further exploration.

Figure 4

Average Effective Tax Rates
Gross and Net Operating Surplus



Micro data from firms has been elaborated from the Bach databases (Nicodeme, 2001) for the years 1990-1999. Regarding the manufacturing industry, the study shows that on average in the two sub-periods 1990-94 and 1995-99, the tax indicators, taken as ratio of gross operating surplus, maintain a stable value. The estimates also show that effective tax rates increased after 1997 following cyclical developments at the time when statutory tax rates would be reduced in the EU.

Table 5

Average Effective Tax Rates, *Ex Post* Indicators, 1990-1999

	1990-1994	1995-1999	Change
Belgium	10.6	13.3	2.7
Denmark	15	18.3	3.3
Germany	20.2	21.8	1.6
Spain	12.3	15.5	3.2
France	11	13.5	2.5
Italy	17.7	20.6	2.9
The Netherlands	15.9	19.1	3.2
Austria	9.8	12.1	2.3
Portugal	11.8	15	3.2
Finland	7.1	10.4	3.3
Sweden	9.4	10.7	1.3
Countries average	12.8	15.5	2.7

Source: Nicodème G. (2001), “Computing effective corporate tax rates: comparisons and results”, Economic Paper, No. 153, June.

The study clearly highlights that major differences between tax rates depend on sector of activity and firm size. This again points to an area of interest for further investigation. In particular, differences across sectors might indicate different degrees of competition, different financial structures of firms and different profitability of sectors. Size is also relevant in that lower tax rates paid by larger companies might indicate a stronger potential for tax planning.

7. The code of conduct for business taxation

A major argument for tax coordination is raised by the tax avoidance practice which multinational corporations can implement via a number of cross border transactions to reallocate profits in low tax jurisdictions. A typical example of tax avoidance is the transfer pricing of intermediate inputs that are traded exclusively between the parent company and its subsidiary. A second important mechanism is profit shifting, including the distribution of overhead costs and the payment of interest and royalties within interconnected parts of the firm. As suggested by some of the literature reviewed, the larger decline of statutory tax rates compared with effective tax rates could signal that countries compete on the allocation of taxable bases by reducing statutory tax rates. Furthermore, the merely moderate decline of backward-looking effective rates could also be an indication that strategic tax engineering has been under way from the outset.

Moreover, in the context of the international mobility of capital, enforcement of the existing domestic tax rules adds a new dimension to tax competition given the complexity of corporate tax laws and the variety of possible forms of ownership and legal organisation of a corporation. In addition, the adoption of special ad hoc tax regulations, with discriminatory practices and tax regulations applied by some countries to attract foreign capital, ultimately leads to harmful tax competition. In attracting foreign capital, countries may compete, not only by fixing their tax rates, but also by determining the taxable bases and even by adopting ad hoc tax regulations. The result would be a less transparent tax system with discriminatory tax practices and regulations, such as tax breaks for non-residential firms.

Both observations seem to offer some grounds for some form of tax coordination. However, the origin of the problem largely appears to be in the practices of multinational corporations and the discriminatory nature of tax breaks available in "tax havens" as well as in countries' ad hoc regulations. In this respect initiatives to reduce "unfair tax competition" and avoid harmful tax practices have been primarily geared towards preventing discriminatory tax preferences for foreigners that are not available to resident taxpayers. To prevent harmful competition, EU countries have given high priority to the fight against tax discrimination (particularly between domestic and cross-border investment) and harmful tax practices.

To this extent, in 1997 the EU Council adopted a resolution on a Code of Conduct for business taxation, with the scope of assessing tax measures considered harmful or discriminatory and improving system transparency and exchanges of information among tax administrations. The report was completed in 1999 (Primarolo Report) and out of the more than 2000 measures examined, identified 66 harmful measures such as discriminatory taxation and special regimes. The report addresses distortionary tax breaks, particularly advantages granted to non-residents, other advantages shielded from the domestic tax base and relaxed rules of profit determination for activities in the case of cross border transactions (multinational

groups). However, the rollback of these measures was postponed from 2003 to 2005 and further to 2010.

It should also be noted that the code is not legally binding as countries have expressed a voluntary commitment to abide by it. Furthermore, the code of conduct needs to be extended to third countries to be more effective.

8. Conclusions

The aim of the paper was to assess whether, in accordance with the prescriptions of the basic model of tax competition, in an environment of high capital mobility countries have engaged in some form of tax competition and in particular, whether corporate income taxation has declined significantly across countries. The paper also reviewed some of the arguments set forth to resolve the apparent inconsistency between theory prescriptions and the practice adopted by countries.

Based on several tax indicators available from recent empirical studies and examined in the paper, no strong conclusion can be drawn regarding countries' practice in the area of tax competition. Although statutory tax rates on corporate income declined significantly from 1983 to 2001 in all EU countries, revenues from corporate income as a share of GDP have remained fairly stable over the past decades. Furthermore, corporate taxation as measured by indicators of effective taxation (EATR and EMTR, both forward-looking and backward-looking) has decreased by much less than statutory tax rates and converged somewhat across countries.

With reference to forward-looking effective tax indicators, large countries recorded on average a smaller decline of effective average tax rates compared to small countries. If large countries are those who benefit most from location-specific rents, a possible conclusion is that in those countries' agglomeration forces and locational rents have sheltered taxation from competition (Baldwin and Krugman, 2000). Furthermore, in a recent study Devereux (Devereux *et al.* 2002) produced evidence that effective average tax rates have declined more than effective marginal tax rates and that the reduction of effective average tax rates has been larger for higher profitability investment. Therefore, tax reforms appear to be consistent with a model of imperfect competition where, in the presence of pure economic profits, firms take discretional investment decisions regarding their location and countries try to attract more profitable projects by reducing effective average tax. Both studies point at areas which deserve further investigation in future work.

To explain why reductions of statutory tax rates have largely outweighed reductions of marginal and average effective rates, one must again depart from the prescription of the traditional model. In particular, if multinationals operate income shifting between jurisdictions (for instance by using transfer prices) to exploit local low tax rates, then one might expect that countries might compete for allocation of taxable bases by reducing statutory tax rates (Haufler and Schjelderup, 2000).

With reference to backward-looking effective tax indicators based on aggregate data, one would notice a much smaller decline over time when compared with forward-looking indicators. A possible explanation is that since they are ex-post indicators, they embody the result of tax planning activities and tax engineering performed by corporations. Furthermore, backward-looking indicators based on firms' micro data highlights that major differences between tax rates depend on sectors of activity and firm size. In particular, differences across sectors might indicate different degrees of competition, different financial structures of firms and different profitability of sectors. Size is also relevant in that lower tax rates paid by larger companies might indicate a stronger potential for tax planning. This confirms that tax engineering might have a relevant impact on corporations' tax burden.

The above conclusion supports the need for some form of tax co-ordination in order to prevent harmful competition. Against this background, the EU Council adopted a resolution on a Code of Conduct for business taxation with the scope of assessing tax measures considered harmful or discriminatory and improving system transparency and exchanges of information among tax administrations. However, the rollback of these measures was postponed from 2003 to 2005 and further to 2010.

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TAX REFORMS IN EUROPE: OBJECTIVES AND SOME CRITICAL ISSUES

Luigi Bernardi[*]

1. Introduction

From the early Nineties, European tax systems were requested to achieve conflicting aims. The targets set by the Maastricht Treaty and the Stability and Growth Pact required raising revenues. At the same time, European declining growth and employment rates called for a reduction of the tax burden. Tax rates and structures were affected by the different reactions of each country to an increased fiscal competition. However, the purpose of improving the efficient working of the single market called for simpler taxes, neutral and harmonised at European level. The result has been a twisted stop-and-go of tax cuts and tax increases, of continuous shifts from one tax to another and of repeated minor tax codes updates. As an unavoidable consequence, most tax changes introduced in the Nineties in European countries were narrow in size and limited in scope.

It is very hard to claim that such changes were the most suitable tax reforms for tackling the present needs of European countries. On the contrary, one should start from two current key factors which heavily impinge on European tax systems and on any future change hoped for. First, several years of tax competition and harmonisation efforts have failed, so far, to set out a basic common framework for a "European" tax system, *i.e.* a system improving the efficiency of the single market by making the movement of people, goods and capitals really free from fiscal distortions. Second, the current decline of European growth rates seems almost endless, while prospects for future recovery are continuously postponed. Can tax reforms really contribute to enhance economic growth and increase fairness?

It may be worthwhile to start an intuitive, although general and undetermined, discussion of how tax reforms should be shaped in order to be consistent with this environment. This may at least help as a *caveat* against giving too much room to endless debates of minute issues concerning tax reforms in Europe.

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2. Past tax reforms and the limits of European tax convergence: macro issues

In the European Union, from the early Seventies to the late Nineties (Eurostat, 2000), the overall tax to GDP ratio increased by about 10 percentage points (from 33.5 to 42.2 per cent),[1] thus leaving well behind both that of Japan (27.9 per cent) and of the US (28.3 per cent). The increase in the tax burden in central European countries (France, Germany, the Netherlands) was close to the EU average increase; it was smaller in Ireland and the United Kingdom; it was much larger in the Mediterranean countries, such as Italy and Spain.[2] Thus, the wide dispersion of tax levels among European countries, already apparent in the early Seventies, continued to hold firm.

Direct taxes and social security contributions were largely responsible for the overall tax increase. They respectively increased form 8.9 to 13.7 per cent (mostly coming from the personal income tax) and from 11.7 to 15.5 per cent of GDP. Indirect taxes increased by less than one point (from 13.0 to 13.9 per cent). It is commonly believed that in the Seventies tax increases (6 percentage points) were determined by the growth of social expenditure (van den Noord and Heady, 2001). In the Nineties they were related to the need to fulfil the requirements of the Maastricht Treaty (1.8 per cent). At the turn of the century, only some minor and scattered tax cuts were adopted.[3] The constraints of the Stability and Growth Pact continue to be at work, forcing European countries to keep up the tax-to-GDP burden (De Novellis and Parlato, 2003).

A set of macro-indicators of tax convergence for the period 1970-1997 is presented in Table 1. Broadly speaking, they confirm that tax convergence has been until now far from being complete among European countries. The convergence process (by competition or harmonisation) seems to have impinged upon direct[4] and still more indirect taxes[5] but neither on total taxes nor social security contributions. The classification by economic function (Eurostat 2000) points to a strong convergence for consumption taxation and to limited convergence for capital taxation.[6] Convergence for labour taxation and the total tax burden seems to have been very limited. Finally, implicit rates (Martinez-Mongay, 2000) show that taxation on labour increased by almost 50 per cent and at the same time diverged,

[1] International comparison of tax levels should be carried out with caution, especially when welfare provisions and financing show different institutional arrangements. One should take account, *inter alia*, of the spread between gross and net social expenditure and of fiscal pressure reduction due to the existing tax expenditures (Adema, 2001).

[2] Italy adopted a fundamental tax reform in 1972, Spain not many years after.

[3] Italy, the Netherlands, Germany and Ireland reduced the total fiscal pressure up to 2001, the remaining countries did not cut or increased their taxes (OECD, 2002a).

[4] This has been mainly due to the income tax, whose amount is largely prevailing inside this category.

[5] Up to 1970, a true income tax did not exist in many European countries and VAT was in force only in France.

[6] "Capital" here means all the heterogeneous incomes which constitute operating surplus in national accounting.

Table 1

Descriptive Statistics of Fiscal Systems in European Countries, 1970-1997

	PERCENT OF GDP				ECONOMIC FUNCTIONS				IMPLICIT RATES		
	1970				1970				1970		
	TOTAL	DIRECT	INDIRECT	CONTRIB.	LABOR	CAPITAL	CONSUM.	TOTAL	LABOR	CAPITAL	CONSUM.
Max. Value	36.9	17.4	19.4	13.5	18.9	11.8	16.0	37.2	34.2	55.4	21.1
Min. Value	25.6	5.3	6.6	2.8	8.4	4.7	5.3	25.6	16.1	16.6	7.3
Mean	33.3	10.0	12.8	10.0	13.9	6.3	10.7	32.6	26.6	29.2	16.1
St. Dev.	4.7	4.0	4.1	4.1	3.6	2.5	3.2	5.1	6.2	13.4	4.6
(Max-Min)/ Mean percent	33.9	121.0	100.0	107.0	75.4	112.4	100.3	35.5	68.0	132.9	85.9
SD/Mean percent	14.1	40.0	32.0	41.0	26.0	39.5	30.4	15.6	23.1	45.8	28.4
	1997				1997				1997		
	TOTAL	DIRECT	INDIRECT	CONTRIB.	LABOR	CAPITAL	CONSUM.	TOTAL	LABOR	CAPITAL	CONSUM.
Max. Value	46.6	16.5	15.8	19.0	23.9	10.0	12.9	46.4	50.7	42.1	23.7
Min. Value	34.0	10.1	10.9	4.5	12.9	4.0	9.8	34.0	26.5	20.5	15.7
Mean	40.6	13.4	13.6	13.8	19.4	7.9	11.3	40.7	39.7	30.7	18.8
St. Dev.	5.3	2.4	1.6	6.0	4.6	2.0	1.1	5.1	9.3	7.4	3.5
(Max-Min)/ Mean percent	31.0	47.8	36.0	105.1	56.6	75.9	27.4	30.5	61.0	70.3	42.6
SD/Mean percent	13.1	17.9	11.8	43.5	23.5	25.9	9.9	12.5	30.2	18.6	18.6

Sources: Data and our computations from Eurostat, 2000: EU-9 up to 1979, EU-15 thereafter.

heterogeneous capital was affected by a stable rate converging taxation, and about the same happened for consumption.

These persisting divergences in tax systems prevent the efficient working of the single market, as the movement of goods, people and capitals is still subject to tax interference. The only process of convergence under way seems to be due to the growth of the income tax, the harmonisation of VAT and some tax competition on the most mobile capital.

3. Further on tax systems convergence: micro issues

It is commonly recognised that from the Eighties onwards the corporate overall statutory tax rates decreased markedly. Over the period 1980-2003, in the EU they declined by about 15 points (from less than 47 to close to 32 per cent – forecast figure) (Cnossen, 2002). This was probably the result of greater tax competition, due to the increasing degree of real and financial markets integration (Bretschger and Hettich, 2002). However, the tax burden decrease is not confirmed for backward effective (implicit) rates. This outcome has also been attributed to the broadening of the bases that usually matched rate cuts (Devereux, Griffith and Klemm, 2001). Thus, the total fiscal burden on corporations, as well the incentive to invest, might not have changed much (see Keen, 2002, for the German case, and Bernardi, 2002b, for Italy).

During the last decade, the EU average tax rate on interest income decreased by about ten points (from nearly 46 per cent in 1990 to slightly less than 37 per cent in 2000). This has been mainly due to the replacement of taxation within the personal income tax with withholding taxes. The reduction of the tax rates on dividends was smaller. The whole system of capital income taxation seems to be getting more divergent and less neutral (Gorter and de Mooij, 2001). The widespread shift to low withholding rates on interests widened the tax bias between interest and dividend incomes,[7] while national models of interest taxation became more uneven (Joumard, 2001; van de Noord and Heady 2001). Up to January 2003, non-residents were generally exempt, even if this was not formally the case in Greece and Portugal.

The EU agreement of January 21, 2003 is based mainly on monitoring and exchanging information to allow taxation in the country of residence (with the exception of Austria, Belgium and Luxembourg). The results of the agreement are somewhat limited by the increasing exclusion of interest income from progressive income tax bases and the move to flat tax rates for all capital incomes. Strong cooperation in monitoring and information exchange will be required. It is also necessary that strategic behaviours do not dominate the fixing of national

[7] This bad result somehow could be avoided by adopting a true "dual income tax system" which should tax any kind of capital income at the same rate. However, in 1998 this solution was not adopted by all the Nordic countries which were promoting the system (see van de Noord and Heady, 2001).

withholding rates. Needless to say, tax regimes for dividends and capital gains are still more fragmented than those for interests. The claimed general shift away from the imputation system (whichever its doubtful merits) has been realised, to date, only by a minority of European countries (van de Noord and Heady, 2001).

In the early Nineties, the European average tax wedge on labour had already reached a level of about 50 per cent. The implicit rate was close to 35 per cent, some ten points above US level (EU Commission, 2000; Cnossen, 2002). It was often considered that this spread affected the different pattern of growth and employment observed in the two areas. The suggestion to reduce taxes on labour, particularly on non-skilled labour, was repeatedly raised both by the OECD and the European Commission. It was also formally stated by the EU Lisbon's Council of 2000.

Notwithstanding these statements, from the early to the late Nineties the average European implicit rate on labour was increased by about two further points (Martinez-Mongay, 2000). Just before the turn of the century, small cuts were introduced in social security contributions. They did not exceed a few percentage points and were usually implemented at the lower end of the wage scale (Gandullia, 2003). Similar cuts to income tax rates were implemented during recent years and were extended to the top rates. The burden for the (most dense) central income classes remained generally almost unchanged. Thus the total redistributive effect of tax cuts has not been particularly relevant.

Improving income taxation horizontal equity was not a main aim of tax reforms over the last two decades. Usually, changes did not cross the traditional border of adjustments of the tax regimes of households and of different working professions (Gandullia, 2003). However, a widespread innovation was the more favourable regime granted to aged and disabled people. The allowances for dependent parents were also widely rised but the increase was small in most countries.

4. Tax reforms for the recovery of European economy

Reducing rates and broadening bases in order to make tax systems supply friendly was the keyword of tax reformers in the Eighties, but the results were not as positive as expected (see Bosworth and Burtless, 1992, with reference to the US case). The taxation-to-growth link then became a topic of an endless discussion.

Today, the consensus opinion is that the elasticity figures of the supply and demand of labour differ from zero, but that their mid-range remains relatively small. Gross average estimates in the US case have been set around 0.15[8] for total supply and 0.25 for demand. The more unionised European labour markets may allow for a slightly higher supply value (Leibfritz *et al.*, 1997).

[8] This, for instance, means that a tax cut which can raise net wage by 10 per cent will increase labor supply just by 1.5 per cent.

Neoclassical exogenous growth models do not help very much, apart from the common sense advice to reduce the burden on investments and savings as much as possible. Endogenous growth models claimed to be able to provide much more robust and targeted prescriptions. However, empirical work showed that the general level of average and marginal tax burden has only a limited impact on the rate of growth (Myles, 2000). Specific allowances should however be allowed for physical and human capital accumulation (Tanzi and Zee, 1997). Once more, the link between taxation and growth does not seem clear-cut (Besley, 2001). Last, the so called "new theory of economic growth" stresses the need for taxes (Jones, 2002) and institutions (going back to North, 1990) not hindering or meddling with economic transactions induced by the market. Up to now, the list of specific prescriptions is however still short and selective (for taxes) or somewhat vague (for institutions).

Checks of statistical correlation between taxes and growth throughout a long list of exercises have showed that the hypothesis of a negative (or positive) correlation may result alternatively to be true, false and spurious, and finally also indeterminate (Agell *et al.*, 1997).

The story so shortly summarised has just one relatively robust conclusion. Negative relationships between taxes and growth seem to exist but their size is small and they can be caught up just by looking at selective channels. As a consequence, growth enhancing tax reforms should be huge in amount and strictly targeted. The difficulty to find enough budget backing suddenly arises. The analysis provided by De Novellis and Parlato (2003) makes it clear that the Stability and Growth Pact prevents almost any European country from having the room to reduce fiscal pressure without compensating for this. Expenditure cuts are widely suggested (for example Tanzi and Schuknecht, 1997) and may be useful in the long run,[9] although the welfare state should not be dismantled, together with its contribution to economic growth, social cohesion and fairness (Atkinson, 1999a).

Wide and selective tax shifts thus become the last option to consider. Labour and corporate taxes could be significantly reduced. On the contrary, the tax burden on rents, environmental externalities and especially consumption should become substantially heavier.[10] Can the reduction of the tax burden on labour and the increase of consumption taxes be really effective for enhancing growth? The traditional textbook equivalence of taxation on labour income and consumption obviously still has some good arguments (Cnossen, 2002), but it is increasingly open to question, mainly due to its lacking empirical support (Carone and Salomaki, 2001).[11] Further, the old idea that heavier taxes on consumption may increase savings and investments still holds. Finally, interesting econometric estimates have

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9 In the short run, rationalizing public expenditure may increase its level.

10 There could be an increase of these taxes from the present European average to the level of the countries that tax immovable property more heavily (United Kingdom, 3.5 percent) and environment externalities (The Netherlands, 1.7 percent) (Eurostat data).

11 The basis of EU taxes on consumption is one third higher than that for taxes on labor income. Tax basis for capital is half that for labour.

recently been performed with the EU Commission Quest II model. A one per cent of GDP shift from corporate to consumption taxation would raise GDP by 1.6 points and wages by 2.1 points from the average European baseline levels. The same shift from labour to consumption taxes would increase employment by 0.6 and GDP by 0.7 points (Leibfritz *et al.,* 1997).[12]

Thus we are tempted to conclude that wage and consumption taxes are not perfect substitutes and that shifting burden from the first to the latter may effectively enhance growth. However, Profeta (2003) introduces more than one *caveat* concerning the political feasibility of a tax shift of the amount and the nature here considered. The main problem comes for the fact that the shift of the burden would go almost entirely from dependent workers to all the consumers. Thus some part of the workers' contributions to their PAYG pension schemes should be charged on other tax-payers-voters. A not trivial escape route could however be suggested. The financing of a universal social security safety net, including also minimum pensions, could be charged to general taxation. This share of pension expenditure could therefore be subtracted from the funding via the workers' social contributions.

5. Tax reforms for social fairness

At the beginning of his volume on Welfare Economics, Pigou (1929) clearly stated that social welfare is given not just by the amount but also by the even distribution of income and wealth. Thus it seems worthwhile to look for an increase in tax and social fairness in order to sustain welfare and to compensate the current decrease of the growth rate. Even more, one should look for something akin to a Rawlsian society (Rawls 2001), *i.e.* the well ordered society of equal opportunities, highly endowed with freedom and social justice, particularly for the less advantaged, wherein the political process generates fair political and transparent outcomes concerning tax systems and even fiscal exchanges.

Tax reforms may first help by making taxation reliable and certain, by impeding tax amnesties, by heavily fighting evasion and corruption and by inducing tax administration to be efficient and correct with tax-payers. I recall these obvious fine tax systems features just because they are in fact largely absent from some European countries, especially the Mediterranean ones.

The aim of vertical equity, *i.e.* the redistributive purposes of tax systems, should be empowered and not dismantled for more than one reason. First, the common argument that redistributive targets can be better reached through the expenditure side of the budget (EU Commission, 2002) is very questionable. It has been frequently shown (Goodin and Le Grand, 1987) that welfare and other public services are mostly captured by the middle class. The redistributive impact should then be enacted mainly by social protection and particularly by public pensions.

[12] The two sets of results may not look symmetric, but the non-linearities and the substitution effects embodied in the model must be taken into account.

However, these estimates only look at one generation. They do not take into due consideration, within a proper lifecycle horizon, the effects of PAYG social contributions. These are commonly considered proportional when they lower net wages, and even regressive when they are passed on prices in non-competitive markets.

Furthermore, inequality of *ex ante* incomes is rapidly (and worryingly) increasing (Atkinson, 1999b) and must be fought against. Finally, looking at the most recent theoretical and empirical literature, it turns out that standard theory arguments against redistributive policies (*i.e.* their supposed incentive-reducing effect on growth) do not seem to hold yet and perhaps need to be reversed.[13] The same seems true with respect to tax-progressivity.[14]

Vertical equity has also been eroded by the decreased burden on capital incomes, due to fiscal competition. The Nordic "dual income tax system" has been viewed as a good compromise between equity and contrasting capital flights (Cnossen, 2002). But this applies only when income and wealth are evenly distributed and highly correlated. This may be the case in some European countries, but not in all.[15] Furthermore, a uniform level of capital income tax rate is required, and this is not the case in many European countries. For instance, for the mid-Nineties Joumard (2001) reports rates on interest incomes ranging from 12.5 percent (Italy) to 30.0 per cent (Sweden, not surprisingly).

Room for improving fairness can be found on the ground of horizontal equity. The modern "welfare view", restricting the need of allowances only to low-income families, is now contrasted by a renewal of the old "optimum size view", induced by the worries of a European declining population. According to this view, allowances should be extended also to the middle-to-high incomes and should reach a huge amount in order to work effectively.

Tax systems should contribute to make the social justice principle of equal opportunities effective. For example, human capital formation could be supported. Qualitative discrimination among incomes should be extended to encompass more features of the ability to pay. Recently this has been done by granting specific allowances to old and disabled people (see par. 3). Further steps in this direction might be accomplished (albeit this is not politically easy), in order to compensate

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[13] The conventional OT idea concerning the unavoidable trade-off between equity and efficiency has recently been heavily challenged by a large number of empirical analyses. A negative correlation was repeatedly found between inequality and growth. More surprisingly still, growth rates seem positively influenced by redistributive policies, even if performed by increasing tax progressivity. The most convincing theoretical root of these evidences has been found inside endogenous growth models (see Aghion and Caroli, 1999).

[14] The standard competitive analysis of labour markets usually considers wage tax progressivity (*i.e.* the degree of substitution effect) conflicting with employment. This result is however generally reversed by unionised markets analysis (see, e.g., Pissarides, 1998).

[15] For the early Nineties, Wagstaff *et al.* (1999) report Gini coefficients on *ex ante* incomes ranging from 0.25 (Germany) to 0.41 (United Kingdom).

market failures concerning the distribution of individual incomes (due to rents, lack of information and under evaluation of the social value of some activities).

7. Conclusions

The tax reforms adopted by European countries from the Nineties introduced some improvements, mainly by streamlining existing systems, but have mostly been narrow in size and ambiguous in their objectives. Tax reforms targeted at tackling Europe basic needs should be more radical.

Economic integration and monetary union, together with the harmonisation efforts of European governments, have not yet determined the high degree of convergence of tax systems required for the efficiency of the EU single market.

Before any further analysis, basic common sense suggests that (average) tax wedges on labour at around 45 per cent and implicit rates over 30 per cent for corporations have something to do with the European declining growth rate and increasing unemployment. Theoretical hints and empirical data suggest that tax reforms can help, but only if the burden taken off from labour and corporate capital can be significantly reduced.

The funding of these huge tax cuts is problematic. The Stability and Growth Pact prevents the reduction of fiscal pressure and takes in any workable expenditure cuts. Thus, the escape route necessarily involves shifting the tax burden from labor (mainly social contributions) and corporations to rents, environmental externalities and, mainly, consumption (VAT). Theory and evidence are however not thoroughly reassuring about this policy, while political economy predictions warn us to beware of its electoral feasibility. To overcome this last obstacle, one can consider increasing consumption taxes in order to fund a universal social safety net, which also encompasses minimum pension treatments.

In a world where growth rates decline, an additional source of welfare is forcibly found in increasing fiscal and social fairness. What is needed is a legitimate and transparent political process of tax voting, an equitable fiscal exchange and well behaved tax rules between state and citizens. Even better, vertical and horizontal equity have to be strengthened in order to improve equal opportunities.

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THE POLITICAL ECONOMY OF TAXATION IN CIS COUNTRIES

Luca Barbone[*] *and Luís-Alvaro Sánchez*[*]

This note explores selected political economy aspects of taxation in Ukraine, compares that experience with Russia's and draws some insights for the CIS region. Ukraine has been unable so far to carry out a comprehensive tax reform, while Russia has. The lessons drawn from comparing the political economy determinants of these two experiences provide valuable insights on the sustainability of reforms and similar experiences in other CIS countries. This note does not attempt to provide a comprehensive treatment of all these issues, but rather to advance some ideas that can help develop a more systematic look at the political economy of taxation in the region.

The note begins with a brief overview of the introduction of modern taxation methods during the Nineties. The note shows why comprehensive reform became a necessity. It follows with a simple framework to consider the political economy issues of taxation in the region. Afterwards, the Ukrainian situation is examined in some detail with a focus on how the legislature has addressed taxation issues and the twin problems of tax arrears and tax exemptions. The note continues with a comparison with Russia's successful experience at comprehensive tax reform. The paper concludes by considering the applicability of the insights obtained to other CIS countries as well as to understanding the sustainability of fiscal institutions in the long-term.

Introduction

CIS countries inherited a similar institutional framework. However, the speed and characteristics of the transition to market economies as well as the emerging political systems have differed across countries. In politics, the spectrum ranges from authoritarian one-man rule, to semi-democratic arrangements. In economics, some countries relish and try to hold on the past, while others have introduced a variety of institutional changes geared to sustaining a market economy. Ukraine represents some sort of middle ground on both accounts. In fact, Ukraine provides a good example of the particular characteristics of the political economy of transition, characterized by considerable muddling-though. The Russian experience, although different, shares similar aspects with Ukraine.

This note emphasizes that political economy in CIS countries has emerged in an environment of incomplete institutions, collapsing political control and enforcement regimes, and shrinking economic activity. This confusing and opaque

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environment put strains on governance. The high costs of operating in this environment favored the appearance of highly concentrated economics and interest groups, which have sought partnership with political parties (often creating them) to gain protection of the state and the opportunities it provides. Gradually, however, countries have succeeded in introducing harder budget constraints and economic activity has rebounded. In this new environment, the new power groups reportedly seek to legitimize their wealth and hence favor greater transparency in their dealings with government and improved institutions overall. This observation is just a working hypothesis, that can only be tested with the passing of time.[1]

The introduction of modern tax systems in the CIS countries has not been smooth, as the complementary market institutions were not in place. The resulting tax systems have been fractured because of exemptions and special treatments, and have become difficult to apply (for government and taxpayers). Hence, the need for comprehensive tax reform as the economic situation improves and greater financial discipline comes into place. However, approval of clearer and simpler rules for taxation and elimination of special treatments is not straightforward, as special interests have emerged. Approval of such type of reforms requires the acquiescence of the legislative, which entails the ability of disparate political forces to cooperate. The experiences of Russia and Ukraine provide valuable insights into how this may or may not come about.

1. A decade of taxation efforts

The Soviet Union at the heyday of Stalinism was probably a classical predatory state, where the state appropriated resources and allocated them at the discretion of the party. This situation softened afterwards and certainly during perestroika. After the collapse of the communist party and the breakup of the Soviet Union, a new dynamics emerged as countries began adapting their tax systems, introducing new legislation and setting up tax agencies. Taxation is a pillar of a market economy; however, it cannot be fully set in place, unless other pillars are also in place (accounting, financial discipline, etc.). This necessarily means a gradual introduction of the new tax rules. It also means that, despite advances made in introducing new tax legislation and accounting standards and setting operating administrative enforcement agencies, the emerging set of rules and their enforcement became inconsistent, complicated and inadequate. Tax practices became a matter of significant controversy either because of failure to mobilize needed resources to assure fiscal balances, or because of the negative effects on the business environment and their association with corrupt practices. Hence, the need emerged for comprehensive tax reform in CIS countries.[2] This section briefly

[1] CIS countries, contrary to Central Europe accession countries, do not have external oversight over the quality of their institutions.

[2] The note focuses on Ukraine and Russia, but current concern with comprehensive tax reform extends to most other CIS countries.

highlights key aspects of the evolution of the tax systems in CIS countries during the first decade of transition.

1.1 Revenue mobilization: divergent experiences

Tables 1 to 6 present basic information on the revenue performance of CIS countries. This information allows some general observations. Of the twelve countries of the Former Soviet Union (FSU) (excluding the Baltic countries), seven collect in taxes 20 per cent or less of GDP. All of these countries are either in the Caucuses or in Central Asia. Uzbekistan is the exception. Russia, Ukraine, Belarus, and Moldova, are all above 20 per cent. Although, there is a rough correlation with income per capita, there are significant variations for similar levels of income. For instance, in Moldova the share of taxes over GDP is rather high for the reported level of income per capita, which is the lowest in the region. Also, in the lower group, some of the countries have made impressive improvements in revenue mobilization since the mid-Nineties. Georgia, Armenia, and Turkmenistan are cases in point. In Georgia, particularly revenue performance dropped significantly after independence as a result of war and the overall collapse of the control structure in the country. Armenia shared a similar fate. This shows that this countries have been able to improve their revenue mobilization capacity, regardless of their lower level of incomes. Tajikistan and Azerbaijan on the other hand show a decline in their revenue performance.

1.2 Introducing new tax systems: the need for comprehensive tax reforms

From a political economy perspective, it is important to note that the tax systems introduced in the CIS countries after independence did not arise out of a structured political process with broad stakeholder participation. As a matter of fact, economic agents in the socialist system did not have a clear perception of their individual tax burden. The design of the new tax systems (rates, bases) was driven by the need to mobilize the resources necessary to maintain the received patterns of public expenditure and the desire to mimic the design requirements of a market economy.

Tax system designs have evolved gradually over the last decade, in a long and iterative process.[3] Initially, experts voiced the concern that a gradual introduction of the new taxation institutions would make it more difficult to achieve modern comprehensive systems in the long-term, as emerging vested interests would slow down fundamental change. Also, there was the fear that continuous changes in tax rules would cause instability and uncertainty and undermine the development of domestic entrepreneurship and foreign investment. Both of these risks have

[3] Martinez-Vasquez and McNab (1997, updated 2000) presents an excellent review and analysis of this process.

Table 1

Composition of Revenue in Eastern and Central European, Baltic and CIS Countries[1]

(average; percent of GDP)

	2000 GDP per capita (US$) [2]	Sample Size	Total Revenue and Grants	Tax Revenue	Other Revenue and Grants	Sample Size	Total Revenue and Grants	Tax Revenue	Other Revenue and Grants
Central and Eastern Europe and the Baltics									
Albania	1,100	1992-95	24.5	18.1	6.4	1996-00	19.8	16.1	3.7
Bulgaria	1,470	1992-95	37.8	30.8	7.0	1996-00	36.5	29.1	7.4
Croatia [3]	4,180	1994-95	42.5	40.8	1.8	1996-00	43.0	40.8	2.2
Czech Republic	4,940	1994-95	44.4	40.3	4.1	1996-00	40.3	36.6	3.7
Estonia	3,510	1991-95	38.8	36.4	2.4	1996-00	39.1	36.7	2.3
Hungary	4,550	1991-95	52.7	40.9	11.8	1996-00	45.9	36.1	9.8
Latvia	3,010	1994-95	36.7	33.7	3.0	1996-00	39.7	34.0	5.8
Lithuania	3,040	1990-95	34.5	32.0	2.5	1996-00	31.5	30.1	1.3
Macedonia	1,760	1991-95	40.8	38.8	2.1	1996-00	35.2	32.3	2.8
Poland	4,100	1992-95	44.8	37.4	7.4	1996-00	41.3	34.4	6.9
Romania	1,640	1990-95	36.2	31.8	4.4	1996-00	31.1	28.6	2.6
Slovak Republic	3,540	1992-95	46.4	39.1	7.3	1996-00	43.1	36.9	6.2
Slovenia	9,160	1991-95	43.6	37.9	5.7	1996-00	42.8	40.1	2.6
Unweighted Average - Central and Eastern Europe and the Baltics	3,540		40.3	35.2	5.1		37.6	33.2	4.4
CIS									
Armenia	500	1994-95	23.8	12.9	10.9	1996-00	20.0	16.6	3.4
Azerbaijan	660	1992-95	35.8	23.4	12.4	1996-00	19.2	14.7	4.5
Belarus	860	1992-95	46.5	41.4	5.1	1996-00	42.9	39.7	3.3
Georgia	560	1994-95	9.2	5.0	4.2	1996-00	14.9	12.8	2.1
Kazakhstan [4]	1,230	1994-95	18.2	17.7	0.6	1996-00	18.5	17.1	1.4
Kyrgyz Republic	270	1994-95	24.7	20.2	4.5	1996-00	21.7	17.7	3.9
Moldova	360	1992-95	27.7	23.7	4.0	1996-00	30.7	26.0	4.7
Russian Federation [5]	1,730	1992-95	36.0	32.1	4.0	1996-00	35.5	29.4	6.1
Tajikistan	160	1991-95	35.8	33.7	2.2	1996-00	13.2	12.7	0.5
Turkmenistan [6]	850	1994-95	18.7	16.5	2.2	1996-00	22.4	20.0	2.4
Ukraine	640	1991-95	38.1	35.0	3.1	1996-00	36.0	33.2	2.8
Uzbekistan [7]	550	1992-95	32.8	26.4	6.4	1996-00	30.6	29.1	1.5
Unweighted Average - CIS	700		28.9	24.0	4.9		25.5	22.4	3.0
Overall Unweighted Average	**2,180**		**34.8**	**29.8**	**5.0**		**31.8**	**28.0**	**3.8**

[1] Consolidated General Government unless indicated otherwise.
[2] At the official exchange rate.
[3] Consolidated Central Government.
[4] Government Budgetary Operations.
[5] Enlarged Government Budget.
[6] State Budget.
[7] Excluding extrabudgetary funds.

Sources: IMF country documents and IMF and World Bank staff estimates.

Table 2

Tax Structure of Eastern and Central European, Baltic and CIS Countries[1] by Selected Tax Group

(average; percent of GDP)

	Sample Size	Taxes on Income, Profits and Capital Gains	Social Security and Payroll Taxes	Domestic Taxes on Goods and Services	Sample Size	Taxes on Income, Profits and Capital Gains	Social Security and Payroll Taxes	Domestic Taxes on Goods and Services
Central and Eastern Europe and the Baltics								
Albania	1992-95	2.7	3.5	7.3	1996-00	1.8	3.8	6.7
Bulgaria	1992-95	8.9	10.7	8.4	1996-00	8.2	7.7	10.6
Croatia [2]	1994-95	4.5	13.7	18.1	1996-00	4.8	14.0	18.3
Czech Republic	1994-95	10.3	15.8	11.5	1996-00	8.9	14.7	11.0
Estonia	1991-95	12.7	10.6	11.7	1996-00	10.2	12.1	13.0
Hungary	1991-95	10.1	12.9	13.3	1996-00	8.9	10.4	13.8
Latvia	1994-95	7.8	12.0	10.6	1996-00	8.1	11.5	12.4
Lithuania	1990-95	11.2	7.6	11.3	1996-00	8.5	8.2	11.7
Macedonia	1991-95	7.6	17.5	10.1	1996-00	5.8	11.3	11.2
Poland	1992-95	12.4	9.2	10.5	1996-00	10.0	9.5	11.7
Romania	1990-95	11.7	9.6	8.1	1996-00	8.6	9.1	8.6
Slovak Republic	1992-95	12.3	11.6	13.0	1996-00	9.2	13.7	11.2
Slovenia	1991-95	6.7	15.5	11.8	1996-00	7.7	13.9	14.8
Unweighted Average - Central and Eastern Europe and the Baltics		9.1	11.5	11.2		7.7	10.8	11.9
CIS								
Armenia	1994-95	6.4	1.8	3.5	1996-00	3.9	2.5	7.7
Azerbaijan	1992-95	7.8	6.6	8.0	1996-00	4.9	2.4	4.9
Belarus	1992-95	12.0	11.6	16.2	1996-00	7.6	10.3	18.0
Georgia	1994-95	1.6	0.9	1.9	1996-00	2.7	2.3	5.6
Kazakhstan [3]	1994-95	5.6	6.3	3.6	1996-00	5.3	4.9	5.8
Kyrgyz Republic	1994-95	4.9	5.9	7.8	1996-00	2.5	4.9	8.8
Moldova	1992-95	7.4	5.7	9.1	1996-00	4.4	6.9	11.9
Russian Federation [4]	1992-95	10.9	8.9	8.7	1996-00	7.2	8.2	9.2
Tajikistan	1991-95	11.5	8.3	11.6	1996-00	2.5	1.2	6.5
Turkmenistan [5]	1994-95	4.9	3.5	8.1	1996-00	5.3	4.4	8.9
Ukraine	1991-95	12.4	10.5	11.2	1996-00	10.1	10.2	10.4
Uzbekistan [6]	1992-95	9.5	0.5	14.6	1996-00	10.1	0.0	15.2
Unweighted Average - CIS		7.9	5.9	8.7		5.5	4.9	9.4
Overall Unweighted Average		**8.5**	**8.8**	**10.0**		**6.7**	**7.9**	**10.7**

[1] Consolidated General Government unless indicated otherwise.

[2] Consolidated Central Government.

[3] Government Budgetary Operations.

[4] Enlarged Government Budget.

[5] State Budget.

[6] Excluding extrabudgetary funds.

Sources: IMF country documents; and IMF and World Bank staff estimates.

Table 3

Tax Structure of Eastern and Central European, Baltic and CIS Countries:[1] by Individual Tax

(average; percent of GDP)

	Sample Size	Individual Income Taxes	Corporate Income Taxes	Social Security and Payroll Taxes	General Sales, Turnover, Value-Added Taxes	Excises	Sample Size	Individual Income Taxes	Corporate Income Taxes	Social Security and Payroll Taxes	General Sales, Turnover, Value-Added Taxes	Excises
Central and Eastern Europe and the Baltics												
Albania	1992-95	0.2	2.5	3.5	3.4	3.9	1996-00	0.4	1.3	3.8	5.4	1.3
Bulgaria	1992-95	4.7	4.1	10.7	5.3	3.1	1996-00	4.3	3.9	7.7	7.8	2.8
Croatia [2]	1994-95	3.7	0.9	13.7	14.0	4.1	1996-00	3.3	1.4	14.0	13.7	4.5
Czech Republic	1994-95	5.0	5.3	15.8	7.3	4.2	1996-00	5.2	3.7	14.7	7.2	3.8
Estonia	1991-95	7.8	4.9	10.6	8.7	1.6	1996-00	8.3	1.9	12.1	9.5	3.5
Hungary	1991-95	7.0	2.5	12.9	7.1	4.6	1996-00	6.8	2.1	10.4	8.1	3.5
Latvia	1994-95	5.0	2.8	12.0	9.0	1.6	1996-00	5.9	2.2	11.5	8.7	3.8
Lithuania	1990-95	5.7	5.6	7.6	8.3	2.6	1996-00	7.2	1.3	8.2	8.0	3.3
Macedonia	1991-95	6.2	1.4	17.5	6.9	3.3	1996-00	4.8	1.0	11.3	5.3	5.5
Poland	1992-95	8.7	3.7	9.2	8.0	2.5	1996-00	7.2	2.7	9.5	7.8	3.9
Romania	1990-95	6.9	4.8	9.6	7.0	1.1	1996-00	3.8	3.3	9.1	5.6	2.2
Slovak Republic	1992-95	4.9	7.4	11.6	9.8	3.2	1996-00	5.4	3.8	13.7	7.9	3.3
Slovenia	1991-95	6.0	0.6	15.5	11.2	0.1	1996-00	6.5	1.1	13.9	13.9	0.3
Unweighted Average - Central and Eastern Europe and the Baltics		5.5	3.6	11.5	8.2	2.7		5.3	2.3	10.8	8.4	3.2
CIS												
Armenia	1994-95	1.3	5.2	1.8	3.0	0.5	1996-00	1.6	2.0	2.5	5.6	2.1
Azerbaijan	1992-95	1.8	6.0	6.6	5.3	2.6	1996-00	2.1	2.8	2.4	4.0	0.9
Belarus	1992-95	0.0	12.0	11.6	..	..	1996-00	0.0	7.6	10.3	..	..
Georgia	1994-95	0.6	1.0	0.9	1.8	0.1	1996-00	1.7	1.0	2.3	4.3	1.2
Kazakhstan [3]	1994-95	..	..	6.3	..	..	1996-00	..	..	4.9	..	..
Kyrgyz Republic	1994-95	1.9	3.1	5.9	5.1	1.6	1996-00	1.2	1.2	4.9	5.5	1.9
Moldova	1992-95	2.1	5.2	5.7	5.9	3.2	1996-00	2.1	2.3	6.9	8.3	3.5
Russian Federation [4]	1992-95	2.5	8.4	8.9	7.7	1.0	1996-00	2.7	4.5	8.2	6.7	2.5
Tajikistan	1991-95	2.3	7.2	8.3	7.3	4.2	1996-00	1.1	1.3	1.2	6.0	0.5
Turkmenistan [5]	1994-95	0.9	4.1	3.5	7.1	1.0	1996-00	1.6	3.7	4.4	7.4	1.5
Ukraine	1991-95	2.8	9.2	10.5	10.1	1.0	1996-00	3.4	5.6	10.2	7.2	1.2
Uzbekistan [6]	1992-95	2.7	6.9	0.5	7.1	7.5	1996-00	3.9	6.2	0.0	7.6	7.6
Unweighted Average - CIS		1.7	6.2	5.9	6.0	2.3		1.9	3.5	4.9	6.3	2.3
Overall Unweighted Average		**3.8**	**4.8**	**8.8**	**7.2**	**2.5**		**3.8**	**2.8**	**7.9**	**7.5**	**2.8**

[1] Consolidated General Government unless indicated otherwise.

[2] Consolidated Central Government.

[3] Government Budgetary Operations.

[4] Enlarged Government Budget.

[5] State Budget.

[6] Excluding extrabudgetary funds.

Sources: IMF country documents; and IMF and World Bank staff estimates.

Chart 1

Central and Eastern Europe and BRO Countries: Average Total Tax Revenue, 1990-2000
(percent of GDP)

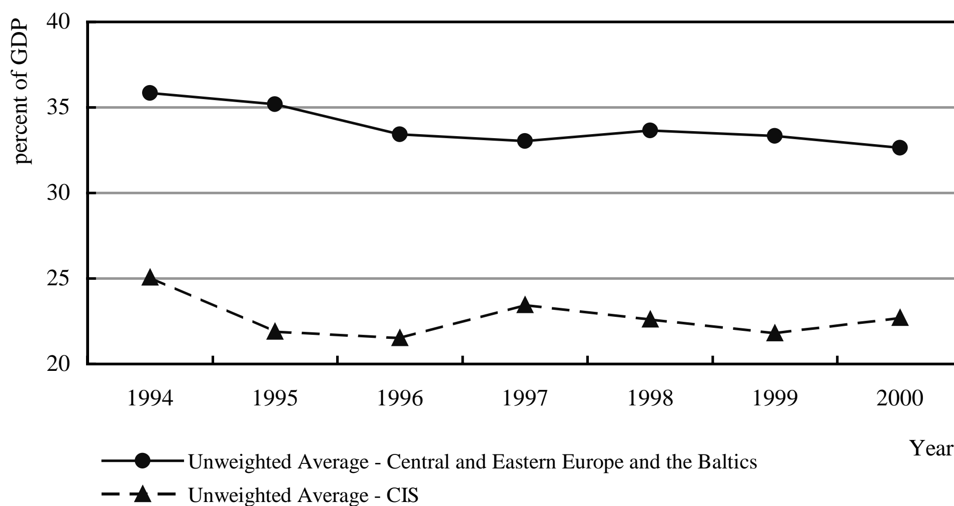
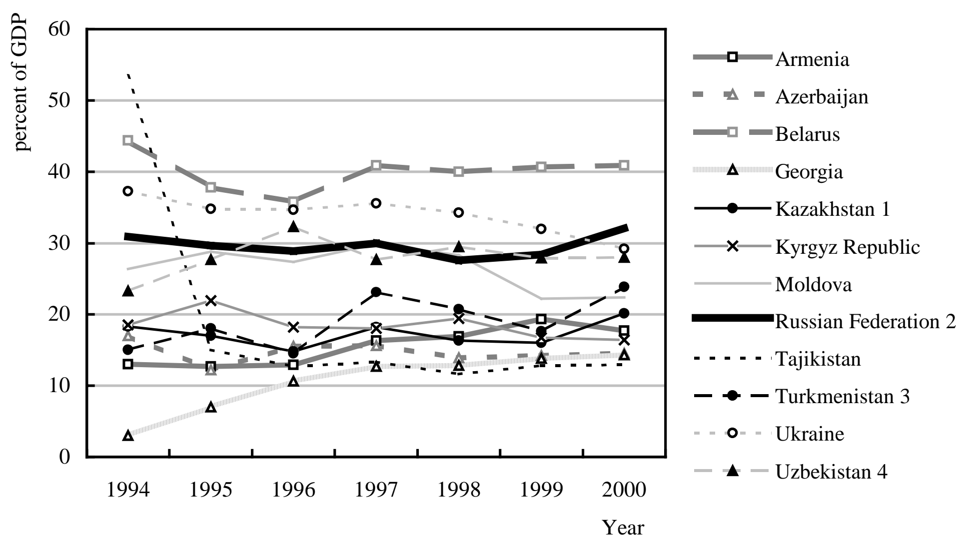


Chart 2

CIS Countries: Total Tax Revenue, 1994-2000
(percent of GDP)



1 Government Budgetary Operations.
2 Enlarged Government Budget.
3 State Budget.
4 Excludes extrabudgetary funds.

Sources: IMF country documents and IMF and World Bank staff estimates.

materialized to different degrees in all CIS countries. However, it is hard to imagine an alternative scenario. To begin with, CIS countries did not have the institutional basis required for a market economy, as these countries had not engaged in a gradual transition before the collapse of socialism as had been the case of Central Europe. Lacking a proper sustaining environment (good accounting, payments discipline), the new tax systems, of necessity, had to be introduced gradually, by trial and error.

Some countries tried to introduce complete tax systems emulating best international practices. This was the case of Georgia, where, however, the initial blueprint was gradually distorted to accommodate local interests and very active legislatures. Georgia faces again the need for comprehensive tax reform. Overall the tax law (policy and procedures) in CIS countries has been a mix of old and new rules, difficult for both taxpayers and tax officials to follow, setting thus the basis for a high degree of arbitrariness.

Table 4

Russian Federation: General Government Revenues, 1997-2002
(percent of GDP)

	1997	1998	1999	2000	2001	2002 (preliminary)
Total Revenue	37.1	32.9	34.0	37.1	37.1	36.1
Tax Revenue	36.0	31.5	32.3	35.3	34.9	33.8
Profits Tax	4.1	3.6	4.6	5.5	5.7	4.5
Personal Income Tax	3.0	2.6	2.5	2.4	2.8	2.9
VAT	6.9	6.2	6.0	6.3	7.1	7.2
Excises	2.5	2.6	2.3	2.3	2.7	2.4
Trade Taxes	1.1	1.2	1.8	3.1	3.6	3.0
Resource Extraction Tax	1.4	0.8	0.9	1.1	1.4	2.2
Social Security Taxes	9.2	8.1	7.8	7.9	7.4	8.0
Other	7.6	6.4	6.4	6.8	4.1	3.7
Non-Tax Revenue	1.1	1.4	1.7	1.8	2.2	2.3

Source: Ministry of Finance.

Table 5

Ukraine: Consolidated Budget Revenues, 1998-2002
(percent of GDP)

	1998	1999	2000	2001	2002 (first half)
Total Revenue	37.7	33.8	36.5	36.5	30.1
Tax Revenue	31.3	28.2	27.3	27.4	21.7
Profits Tax	5.8	4.9	4.5	4.1	4.3
Personal Income Tax	3.5	3.4	3.8	4.3	5.2
VAT	7.3	6.4	5.6	5.1	6.6
Excises	1.3	1.4	1.3	1.3	1.9
Trade Taxes	0.9	1.0	0.9	1.0	1.1
Resource Extraction Tax	1.5	1.1	1.2	1.1	1.2
Social Security Taxes	10.0	9.0	8.9	9.3	…
Other	1.1	1.1	1.2	1.2	1.4
Non-Tax Revenue	6.4	5.5	9.2	9.0	8.4

Note: Total tax revenue for the first half of 2002 excludes Social Security Taxes.

Source: Ministry of Finance.

Most countries adopted high rates of taxation for their level of per capita income. For instance, most CIS countries adopted VAT at a rate of 20 per cent. However, over time, as constituencies and stakeholders feel the burden of taxation and increasingly voice their concerns, there has been an effective pressure to reduce the rates of taxation. Some of that pressure has come about in the form of the search for special treatments and exemptions. Lately, however, as will be reported later, the initiatives have been geared to reduce the overall level of tax rates across the board.

1.3 Main taxes

A brief look at the developments at individual taxes helps garner a better understanding of the challenges of introducing a new tax system in CIS countries.[4]

[4] A review and detailed analysis of the current tax situation can be found in Mitra, P and Stern N. (2002).

Table 6

Tax Structure in CIS Countries, 2000
(percent of GDP)

	VAT	Excises	Trade Taxes	Profits Taxes	Income Taxes	Social Security Taxes	Total Taxes	Total Non-Tax
Armenia	6.5	2.5	0.8	2	1.4	2.3	17.7	1.2
Azerbaijan	4.1	0.5	2.1	2.7	2	2.3	14.6	6.3
Georgia	4.9	1.5	0.9	1.3	1.8	2.4	14.3	0.8
Kyrgyz Republic	4.8	2.4	0.4	1.1	1.1	3.5	15.8	2.6
Moldova	8.2	4.1	1.4	1.7	1.1	6.1	26.6	3.7
Tayikistán	2.5	0.5	1.5	-	1.8	1.6	12.9	0.6
Uzbekistán	7.6	7.8	0.7	3.2	4.2	-	26.7	1.8
Average CIS	6.2	2.5	1.3	2.1	2.6	3.9	21.6	2.5

Source: WB Georgia Public Expenditure Review 2002.

1.3.1 VAT

Most CIS countries introduced the VAT early on to replace the complex turnover taxes from soviet times. By 1997 all CIS countries had introduced VAT taxes, mostly following the Russian model established on December 6, 1991. The main feature of the soviet model was the application of the origin method to trade among CIS countries. In recent years, CIS countries have been converting their VAT systems to the European model based on the destination principle. Many problems have plagued VAT implementation. First, the VAT based on accrual accounting principles has been difficult to operate, given the poor accounting practices and the weak financial discipline that led to extensive inter-enterprise arrears. The consequence often has been large VAT arrears to the budget. Second, most countries have found it difficult to honor VAT refund claims, partly due to the reluctance of cash-starved treasuries to part with resources and partly because of weak administrative capacity of the tax agencies that makes it difficult to identify fake invoices and ghost companies. As a consequence, the VAT has come to resemble a turnover tax at very high rates, and enterprises perceive it as a tax on their cash flow rather than as withholding a consumption tax. Not surprisingly, different sectors and interests groups have sought and obtained special treatments, leading to a narrowing of VAT bases and hence a mediocre revenue performance. Additionally, the limited administrative capacity of the tax agencies has pressured for high VAT thresholds further limiting the tax basis and performance.

1.3.2 Enterprise Profit Tax (EPT)

Introduction of an EPT operating according to modern principles has been slow and difficult. One of the main problems has been the wide discrepancy between

the tax accounting principles and what could be called standard market accounting principles. Governments have sought to protect their revenue sources by limiting eligible expenditures. The end-result has often been an overestimation of profits, and artificially high EPT yields. While the situation has somewhat improved, it continues to be a problem – most countries now allow the deduction of expenses incurred in the generation of taxable income, yet, still reject or limit the deduction of conventional costs in western tax systems, in particular interest on long-term loans, certain labor costs, research and development expenses, costs associated with environmental protection, or advertising. This has led enterprises to seek special treatment.

Also, EPT has been linked to industrial policy, and early on in transition, introduction of *ad hoc* tax incentives, holidays and differential rates became the norm. Often these incentives were negotiated and granted at the discretion of the economic authorities. These practices have somewhat been abated, but still continue to an important part of the political economy of taxation, as privileges and tax treatments became part of the political negotiation processes. As a consequence, it came to be that the effective EPT rates vary considerably across sectors of the economy.

1.3.3 Personal Income Tax (PIT) and social security contributions

Overall, PIT and social security revenue performance in linked directly to the degree of formalization of the economy. In countries with low highly informal sectors (Georgia, Armenia, Kyrgyz Republic, etc.) the ratio of PIT revenues to GDP is low. Also, PIT revenue performance often increases in tandem with real salary increases, as it as been the case of Ukraine and Russia. A common characteristic across all CIS countries has been the high level of labor taxation – the combination of PIT and social security contributions. Initially, this was not perceived as a problem because employees received net wages and most of the taxes and contributions were paid by the enterprises. However, this has become more of a problem as enterprises seek to restructure their operations and become more competitive. The high levels of overall PIT and social security contributions further contribute to the sense of overtaxation by enterprises.

1.3.4 Other taxes

Overall excise taxation tends to be low. Most transition countries have established separate excise taxes on tobacco, alcoholic beverages, and petroleum products. In energy abundant countries, energy taxation has been low and neighboring countries have followed similar practices. Poor administrative systems and the fear of smuggling has led to low excises taxation of cigarettes. Excise taxation of alcohol has also been low. As to import duties, the initial trend was to introduce high tariff rates with wider dispersion, in response to both pressures for protecting domestic activities and for finding additional sources of tax revenue.

Today, however, the effective import tariff rates are low. Countries routinely introduced other taxes, such as excess wage taxes, and many other that produce little revenue. These taxes or contributions went to feed special funds catering to special bureaucratic interests. Elimination of such nuisance taxes has been a constant item in the tax reform agendas.

1.4 Tax administration

The development of modern tax administrations has taken place under difficult circumstances. Countries initially did not give much attention to tax administration as they relied on automatic debiting contributions through the banking systems. This delayed development of modern enforcement systems. Incomplete, contradictory, and inconsistent legislative frameworks provided the tax agencies with significant degrees of discretion and encouraged special deals and preferential treatments. This was reinforced by weak financial discipline environments, where voluminous levels of tax arrears further encourage discretionary enforcement. Moreover, weak tax agencies were hardly equipped to deal with the myriad of practices that emerged to siphon profits from state enterprises, in a widespread process of asset-stripping. Lacking capacity but under pressure to raise revenues, governments developed stringent methods to deal with the emerging small and medium enterprise sector, further creating an image of corruption and arbitrariness. In fact, however, tax administrations were hardly unified state bodies; rather, they were highly fractured, which meant that local offices often developed their own practices and contributed further to the siphoning of revenues. All of these factors have contributed to a certain politicization of the tax agencies and tax practices. In a nutshell, tax administrations are weak, but perceived as arbitrary and corrupt. The need to meet revenue targets (often under agreements with international organizations) further generated perverse incentives, as meeting revenue targets with limited technical capacities, further facilitated extortion, side-deals, and delayed the modernization of these agencies.

2. A framework

The process of transition from plan to market in the CIS countries has come to define a very particular political economy. Most of the institutions in these countries have been fluid, with old and new rules coexisting, while wide discrepancies have emerged between the written and the applied norms. This necessarily led to opaque environments with low levels of accountability. Just as critical is the fact that these countries did not have a culture of property rights, and one has been developing only gradually. In the evolution of market capitalist economies, political interests have traditionally been grounded on notions of property—landholders, industrial, etc. This is not the case of CIS transitional economies, where political interests do not so much arise from property, but themselves are part of the creation of property institutions. At the same time, modern

political institutions were weak or even non-existent. This has led to a merger of political and economic interests, where the nature of political parties is far removed from practices in most developed market economies. Two additional background factors have to be noted. The decade of the Nineties was a decade of shrinking economic resources, but the population did not have the political mechanisms to express their discomfort with their deteriorating standards. Also, nation building was possibly the greatest priority for some nations, which had not been independent political entities for a very long-time. Some considerations on these basic facts follow.

2.1 Rules and their enforcement

The incomplete institutional framework typical of CIS transition countries affected tax practices. As mentioned earlier, it would not have been possible to introduce a comprehensive set of tax laws and complementary legislation, not only because of the broad effort this would have entailed, but because of the low implementation capacity. Local bureaucrats and legislators, in adopting new laws, need the preexistent legislation as a model or try to develop their own standards. A good example of this has been the slow introduction of modern accounting standards, which are at the core of so many modern market economy practices, including taxation. Lack of proper accounting, pricing rules, and overall financial discipline no doubt contributed to amplify the inter-enterprise arrears problems and, as a result, tax arrears.

2.2 The State: a myriad of conflicting challenges

In most CIS countries, states continue to have difficulties developing policy positions and implementing decisions, and thus dealing with the often conflicting challenges they face. In the fiscal arena, for instance, the lack of strong ministries of finance has encumbered the building new taxation institutions, as fiscal powers often had been parceled among several authorities. Fractured states are not only ineffective but also prone to capture.

Balancing expenditure demands and revenue possibilities has been and will continue to be a determining factor for the stability of all CIS countries. They inherited a level of public expenditure much higher than that of countries at similar levels of per capita income, as the soviet system placed emphasis on the provision of social services, which were delivered mainly be the state. Continuing with the inherited levels of service delivery would have meant the extraction of a significant a share of total output.[5] Shrinking levels of output during the Nineties meant drops in public expenditure, and in some countries dramatically. Significantly, the drop in the availability of public services has not been accompanied by widespread civil

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[5] Belarus continues to do so.

unrest, indicating a low power of political mobilization. It can be said, though, that even in those countries where expenditures have fallen, the expectation remains of the state as provider of public services. Hence, there is an almost permanent pressure to increase expenditure.

CIS countries did not put in place rapidly an adequate sustaining legal basis (tax policy law, procedural law, etc.) and the technical capacity to collect revenues. Revenue agencies have often lacked a clear mandate, have been highly fractured, and have lacked and continue to lack external proper oversight. In some countries, there is the perception that the powers of taxation are being used to further political ends, as in going "after the opposition." There are also reports that the power of the tax agencies are used as tools to pursue economic ends, as can be by favoring particular enterprises.

Additionally, the highly decentralized revenue and expenditure management under the Soviet Union provided regional and local authorities with ample opportunities to strengthen and extend their hold. Regional government controlled the enterprises that provided the revenues needed to meet the expenditure mandates. Henceforth, efforts to centralize revenue collection have met with considerable opposition from regional authorities. This has been particularly the case in a federal country such as Russia. On the other hand, central governments, when faced with revenue shortages, have transferred expenditure mandates down to local level, creating a tug of war for resources, which led to very unstable revenue sharing systems and big discrepancies between written rules and effective outcomes.

The increased perception of an effective tax burden by economic agents, as noted previously, made it more difficult for governments to win political and popular support for tax reform. Last, passing new legislation and enforcing it was harder due to emerging confrontation between the different emerging interests within the state the various stakeholders. The uncertainly about the legal ownership of revenue sources and assets, including natural resources, further complicated matters.

2.3 Interests

2.3.1 Enterprises

The position of the enterprise sector regarding taxation carries a great deal of weight, as it is the largest contributor of revenues to the budget in all of the CIS countries. The enterprise sector pays the CIT, excises, land, and a large percentage of the social security taxes, and withholds VAT, PIT, and the rest of the socials security contributions. Two factors seem relevant to understand the evolving behavior of enterprise owners and managers: *hard budget constraints and privatization*. Hard budgets make evident the burden of taxation. Ownership determines the responses to a higher level of financial discipline. Reference has already been made to the weak financial discipline and lenient budget constraints. In

countries like Russia and Ukraine, it has been only after the 1998 crisis that financial discipline has improved.

Early in the transition, observers realized that, with the collapse of the systems of state control, it became possible for enterprise managers to appropriate resources from public enterprises. Indeed, a good part of what was/is often reported as informal economic activity corresponded to unreported economic activity by public enterprises. This was particularly the case in countries where the structure of control over public enterprises weakened or collapsed. Moreover, weak governance often led to the capture of attractive public enterprises by political interests or, alternatively, provided enterprise managers with the opportunity to create their own political power groups and seek to preserve their interests. Given that public enterprise managers had various options through which to influence their transfer of resources to the public treasury, they did not develop very active stands regarding taxation. They have become more active as harder budget constraints have been introduced.

The advance of privatization was expected to change attitudes towards tax compliance; however, the direction in which they would change was unclear. On the one hand, private companies could be expected to post a better performance, but, on the other, they could be expected to have greater capacity and incentives to avoid taxes. A more detailed study would be needed to determine what has been the effect of privatization on tax compliance. Still, partial evidence from Ukraine shows that private enterprises have been less likely to fall into tax arrears, at least recently, and that overall they are better compliers than public enterprises. However, there is anecdotal evidence that large private concerns, in Russia during the Nineties, reached very low levels of compliance, particularly when budget constraints were weak.

As budget constraints harden and the burden of taxation becomes more evident, private enterprises emerge as one of the leading interest groups in tax matters. Overall, enterprises in CIS countries, either public or private, see themselves as heavily taxed, especially because they tend to perceive the VAT as a tax on production and not on consumption and enterprises pay the largest share of the social taxes, which are high. This has created a favorable environment for lowering the tax burden. The initial tendency, however, was to seek preferential treatments and special deals with the state, particularly by the large economic groups that have emerged in several countries combining financial and industrial interests. These groups have sough direct intervention in politics as a way to protect and extend their interests. As pressure for the elimination of special interests builds up, the possibility arises for enterprise sector to support broad and comprehensive reforms. The interesting political economy question is the extent to which enterprises and/or their associations will seek collectively to improve the quality of taxation practices, rather than pursue purely individualistic strategies.

2.3.2 The broader national constituencies

Gradually other constituencies have been articulating their tax interests through there political system. One important constituency is that of the small and medium enterprises. The shift of the labor force out of the state enterprise sector has made this a policy priority sector. Two have been the primary concerns: (a) simplification of tax norms to facilitate creation of SMEs and income and employment generation; and (b) to isolate the emergent SME sectors from enforcement practices of the governments, which still can have severely negative attitudes towards the SMEs.[6] Today, practically all countries have designed special regimes both for private entrepreneurs and for small legal entities. In the countries where these policies have been implemented, the number of SMEs has increased, as well as their weight in national production. At the same time, SMEs have been politically active, seeking to preserve and even expand their status, raising concerns as to possible negative impacts in the long-term.

Other national constituencies have played a less active role in both taxation and expenditure. Gradually, it is likely that the political systems will start articulating their interests, with an impact the design of the tax systems. The elderly in CIS countries is one such potentially important political group, because of its size and its almost complete reliance on the budget. The pension funds rely on current taxation and are not capitalized to any significant extent. The political economy of the elderly in the CIS countries will differ from that of mature market economies, where wealth is highly correlated with age. Hence, one would expect the elderly to become quite politically active, though this has not yet been the case.

2.4 Politics: the aggregation of special interests

The disappearance of the communist parties left a vacuum of control that has been filled differently across CIS countries. Although most of them have moved to some sort of electoral democracy, the patterns of governance and the structure of the political systems differ among countries. In some of the countries forming a nation (including civil strife) has been an overriding concern to be addressed jointly with the developing viable governments. In other countries, strong presidential systems have arisen with limited contestability from political parties. In any case, the political parties of the CIS countries are far from resembling modern like political parties. Under these circumstances, the aggregation of political interests tends to be rather opaque. What more open countries seem to have are political enterprises, that aggregate narrow (often, regional) interests. These interests may or many not include directly tax policy, but they do include taxation issues in general. In countries with strong presidential systems, the role of the political parties plays a secondary role. Ukraine and Russia fall in some sort of a middle ground.

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[6] See Engelschalk (2002).

3. Ukraine

The tax laws Ukraine adopted after independence were revised after 1996 to bring them in line with modern market concepts. This period coincided with the issuance of a new constitution (1996) and the beginnings of macroeconomic stabilization. Also, in 1996, the government established a tax agency as a separate administrative unit.[7] The 1998 Russian crisis delayed the positive effects of macro stabilization.[8] The microeconomic situation continued to be characterized by high levels of inter enterprise arrears and barter, payment of taxes in kind or as offsets to the budget, a shrinking financial sector, obsolete accounting, and mounting debts to and from the budget. This environment made it very difficult to implement the new tax laws properly. A period of muddling-through followed, with constant revisions of tax legislation and implementation decrees. The revisions to the tax legislation centered around introduction of exemptions, amnesties or write-offs, taxation of small taxpayers and procedural matters.

Political forces favorable towards a market economy became a majority in the country after the 1999 presidential election, and the new government took active measures to enforce financial discipline, beginning with its own accounts. The results have been the almost total disappearance of barter, complete payment of taxes in cash, and greater financial discipline all over the economy, including the energy sector where collections in cash went from 10 to around 90 per cent in less than two years. Greater financial discipline has implied a greater confidence in the currency and a considerable expansion of the financial sector. Also, the public sector budgetary arrears have been drastically reduced and bankruptcy procedures are now more effectively implemented. At the same time, after 2000, the economy started to grow and has done so continuously over the last three years.

3.1 The tax reform agenda: the tax code

After 1999 reelection, the president made it one of the top priorities of his administration to obtain approval of a Tax Code, which would facilitate the further development of a market economy in Ukraine. The objectives of the tax code were and have been rather straightforward: streamline, clarify and make consistent existing tax legislation, lower tax rates and broaden tax bases, and set a sound basis for the relationship between tax authorities and taxpayers. Government has shifted tactics and the content of its proposals in its efforts to approval of a code. After failing to obtain approval of the original proposal, the government shifted a simplified code, focused on rate reduction. This strategy was withdrawn, and a new draft tax code was presented. With the new and current parliament, the strategy

[7] State Tax Administration, and currently State Tax Service.

[8] Some argue that the process of economic recovery in 1997 was based on the special incentives given by the government and hence not-sustainable. On the other hand, the 1998 crisis may have a positive effect by creating incentives for financial discipline.

shifted again, this time to the consideration of individual tax laws, each one of them focused on tax rate reduction and base expansion. In the process, the tax design has been changed in line with Russian reforms. This piecemeal approach, however, does not amount to comprehensive reform and the country will have to take stock of the results of the current process, and then see about the consistency and desirability of the reforms.

3.2 The presidency and the parliament

The political system in Ukraine mixes characteristics of a parliamentary and a presidential regime. While parliament elects a prime minister, the president can veto the selection. Moreover, the president can and has exercised power through a various means: the appointment of government officials, and, most importantly, government by decree. This means, that the president can issue decrees *en lieu* of laws, if parliament does not address the issue. Some important initiatives have come this way: land privatization, the special regime for SMEs, the unified land tax, etc. Still, it is not a purely presidential regime, and the ambiguous character of these political arrangements frame some of the delays in advancing institutional reform in Ukraine. Basically, the ability of the president to put together a governing coalition in parliament that elects a prime minister is at the heart of the political jockeying in Ukraine.

3.3 Stakeholders

Large and extended vested interests emerged in Ukraine during the Nineties. These vested interests were not directly linked to ownership of property. In fact, the privatization process in Ukraine has been slow as compared to Russia, for instance. Certainly, Ukraine advanced in small scale privatization during the Nineties, but even here property rights are poorly defined as around 40,000 shareholders left from voucher privatization do not have well defined minority shareholders rights. The state still owns around 60 per cent of assets in industry and land privatization only started in 1999/2000.

The vested interests are linked to privileges and control of state assets. Oftentimes the privileges have proven short-lived, and hence agents are prone to act with a very short-time perspective in mind. The link with political interests is a necessity, is mutually supportive, and sometimes there is no clear differentiation between the two. Particularly important have been the efforts made by regional authorities, political interests and state bureaucrats to maintain the competitiveness of the old industrial complex that continues to account for a large share of the country’s industry and exports. In the Donbass region, the regional authorities, the vested interests in the metallurgical and coal sectors are tightly linked. Similarly, groups linked to the old industrial complex (aviation, rocketry, high-tech intelligence, etc.) continue to play an important role in politics and the economy.

The energy sector also weighs heavily in the economy, as Ukraine is very energy intensive economy while resource poor. The transport and distribution of energy resources represents a significant share of national economy, and , with the exception of electricity distribution companies, the bulk of the sector remains in state hands. The state holding NaftoGaz accounts for a significant share of the economy and constitutes a power of its own. Several groups vie for the control of these resources. The overall improvement in financial discipline in the energy sector and the current efforts in addressing the stock of inter-enterprise arrears will certainly increase the attractiveness of these assets for both domestic and foreign investors. But, much remains to be done for this to become a reality.

With the exception of two state banks, the rest of the financial sector is private and growing fast with the accelerated monetization of the economy. Private banks have been active in the privatization process, diversifying through the acquisition of control or participation in industrial assets. Land privatization, since 2000, has added another important dimension to the structure of interests in the country. The government issued close to 6.5 million land certificates and is now in the process of issuing proper land titles. However, contrary to other CIS where privatization led to a minute fragmentation of the land, in Ukraine, large landholding continue to operate leasing the land from the certificate holders. Favorable, almost non-existent, land taxation has led industrial groups to move into agricultural production.

As a result of all of this, powerful regional interests have emerged combining political organization, control of state assets and involving emerging private interests.[9] The emergence of these groups has come to affect deeply the governance structure of the country, as these groups depend for their survival on their relationship with the state, and have actively sought positions of power and continue to participate actively in the political process. They have sought likewise to position themselves favorably in the privatization of the remaining state assets. However, as new groups emerge, linked to the banking system, for instance, the competition amongst interests is increasing. Overall, Ukraine can be thought of as a country of fragmented and regional interests, in which groups vie for power, and where foreign investment is limited. The big question is whether these power groups will agree to fairer and more transparent rules of the game, and whether the executive power can exercise its authority to make this happen.

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[9] Ukraine has a tradition of strong "clan" culture in some eastern regions (Dnipropetrovsk, Crimea, Donetsk, Odessa, Kharkiv, Kyiv). These clans operate both inside and outside the state. The power of the regions rest power from the center in Kiev. There are clear correlations between regional clans and political parties. These clans play a preponderant role in making the government coalitions work. Needless to say, these industrial/political groups have been behind drives to forgive taxes and create exemptions.

Table 7

Ukraine: Tax Arrears by Tax Type, 1998-2001
(billion of UAH)

	1998	1999	2000	2001
Tax Revenue	**7.21**	**9.6**	**9.16**	**6.18**
1. Income and Profit Taxes, Taxes on Increased Market Value	1.54	2.45	2.7	1.41
Personal Income Tax	0.03	0.03	0.05	0.07
Profits Tax	1.51	2.42	2.65	0.79
2. Property Taxes	0.01	0.01	0.07	0.07
Tax on Vehicles and Other Self-Moving Machinery	0.01	0.01	0.07	0.07
3. Resource Extraction Tax	0.96	0.99	1.25	0.52
Land Tax	0.42	0.33	0.49	0.27
4. Domestic Taxes on Goods and Services	4.59	6.11	5.1	3.98
VAT Total	4.07	5.57	4.48	3.76
VAT on Domestic Goods	4.07	5.56	4.48	3.76
VAT on Imported Goods	0	0	0	0
Excises Total	0.51	0.54	0.62	0.22
Excises on Domestic Goods	0.51	0.53	0.61	0.22
Excises on Imported Goods	0	0	0.01	0
5. Taxes on International Trade and External Operations	0	0	0	...
Import Duty	0	...	...	...
Export Duty	0	...	...	...
6. Other Tax Revenues	0.11	0.03	0.04	0.2
Local Taxes and Charges	0.03	0.03	0.03	0.01
Single tax for Small-Scale Enterprises and Individual Entrepreneurs	...	0	0.01	0.01
Vine-growing, Gardening and Hop-Growing Tax	...	0	0	0
Nontax Revenue	**3.01**	**1.98**	**0.73**	**0.07**
Revenues from Capital Transactions	**0**	**0**	**0**	**0**
State Earmarked Funds	**0.08**	**0.15**	**0.17**	**0.07**
TOTAL ARREARS	**10.3**	**11.73**	**10.07**	**6.31**
GDP (nominal)	102.593	130.422	170.07	201.93
Tax Arrears as a share of GDP	7	7.4	5.4	3.1
Total Arrears as a share of GDP	10	9	5.9	3.1

Source: State Tax Administration of Ukraine.

3.4 Tax arrears and hard budget constraints[10]

Tax arrears continue to plague Ukraine. To some extent tax arrears have been the outgrowth of a level of inter-enterprise arrears so high that it came to exceed the value of the GDP. During the Nineties, enterprises continued to operate regardless of the level of arrears. As Tables 8 and 9 show, VAT obligations originating mostly

[10] The World Bank has recently reviewed tax issues in Ukraine. See World Bank, “Ukraine: Tax Policy and Tax Administration”, February 2002.

Table 8

Ukraine: Tax Arrears by Tax Type, 1998-2001
(billions of UAH)

	1998	1999	2000	2001
Tax Revenue	**7.21**	**9.6**	**9.16**	**6.18**
1. Income and Profit Taxes, Taxes on Increased Market Value	1.54	2.45	2.7	1.41
Personal Income Tax	0.03	0.03	0.05	0.07
Pprofits Tax	1.51	2.42	2.65	0.79
2. Property Taxes	0.01	0.01	0.07	0.07
Tax on Vehicles and Other Self-Moving Machinery	0.01	0.01	0.07	0.07
3. Resource Extraction Tax	0.96	0.99	1.25	0.52
Land Tax	0.42	0.33	0.49	0.27
4. Domestic Taxes on Goods and Services	4.59	6.11	5.1	3.98
VAT Total	4.07	5.57	4.48	3.76
VAT on Domestic Goods	4.07	5.56	4.48	3.76
VAT on Imported Goods	0	0	0	0
Excises Total	0.51	0.54	0.62	0.22
Excises on Domestic Goods	0.51	0.53	0.61	0.22
Excises on Imported Goods	0	0	0.01	0
5. Taxes on International Trade and External Operations	0	0	0	...
Import Duty	0	...	...	...
Export Duty	0	...	...	...
6. Other Tax Revenues	0.11	0.03	0.04	0.2
Local Taxes and Charges	0.03	0.03	0.03	0.01
Single tax for Small-Scale Enterprises and Individual Entrepreneurs	...	0	0.01	0.01
Vine-growing, Gardening and Hop-Growing Tax	...	0	0	0
Nontax Revenue	**3.01**	**1.98**	**0.73**	**0.07**
Revenues from Capital Transactions	**0**	**0**	**0**	**0**
State Earmarked Funds	**0.08**	**0.15**	**0.17**	**0.07**
TOTAL ARREARS	**10.3**	**11.73**	**10.07**	**6.31**
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Tax Arrears as a share of GDP	7	7.4	5.4	3.1
Total Arrears as a share of GDP	10	9	5.9	3.1

Source: State Tax Administration of Ukraine.

in the energy sector accounted for most of the arrears, which is not surprising given that energy companies were collecting only 10 per cent of their bills in cash at the end of the Nineties. With hindsight, introducing a VAT based on accrual principles, under these circumstances, may have further escalated the growth of arrears. Moreover, throughout this period, the government introduced (a) the practice of budgetary offsets, by which tax obligations were traded against budgetary obligations, and (b) adopted the practice of issuing promissory notes (veksels) to cover its obligations. These practices further accentuated the problem of tax arrears as enterprises diverted the available cash to cover non-tax obligations and relied on offsets to cover their tax obligations. Notably, regardless of the use of offsets and in

Table 9

Ukraine: Tax Arrears by Sector, 1997-2001
(percent of GDP)

	1997	1998	1999	2000	2001
Not Defined	**0**	**0.07**	**0.06**	**0.04**	**0.06**
Industry	**0.82**	**5.4**	**5.33**	**3.51**	**1.64**
Fuel Industry	0.31	1.51	1.83	1.2	0.63
Coal Industry	0.04	0.28	0.41	0.59	0.31
Electric Power	0	0.68	1.01	0.56	0.58
Ferrous Metallurgy	0.12	0.83	0.13	0.07	0.01
Nonferrous Metallurgy	0.01	0.03	0.01	0	0
Chemical Industry	0.03	0.18	0.15	0.13	0.02
Petrochemical Industry	0.29	0.35	0.16	0.07	0.02
Machine-Building and Metal Processing	0.16	0.77	0.85	0.52	0.11
Woodworking and Cellulose-Paper Industry	0.01	0.07	0.08	0.06	0.01
Industry of Construction Materials	0.05	0.22	0.24	0.16	0.04
Glass and Porcelain-Faience Industry	0.01	0.04	0.05	0.04	0.01
Light Industry	0.01	0.07	0.08	0.06	0.02
Food Industry	0	0.53	0.61	0.58	0.17
Agriculture	**0.29**	**0.74**	**0.57**	**0.1**	**0.11**
Forestry	**0.01**	**0.03**	**0.02**	**0.01**	**0**
Transport and Communications	**0.27**	**1.24**	**0.74**	**0.23**	**0.08**
Construction	**0.04**	**0.52**	**0.63**	**0.46**	**0.1**
Trade and Catering	**0**	**1.85**	**0.35**	**0.29**	**0.21**
Material-Technical Supplies and Sale	**0**	**0.11**	**0.06**	**0.06**	**0.02**
Provision	**0**	**0.04**	**0.04**	**0.02**	**0.01**
Information-Calculable Service	**0**	**0**	**0.01**	**0.01**	**0**
Operations with Real Estate	**0**	**0**	**0**	**0**	**0**
General Commercial Activity	**0**	**0.03**	**0.01**	**0.01**	**0.01**
Production Types of Services for Domestic Population	**0**	**0.03**	**0.02**	**0.01**	**0.01**
Housing-Communal Economy	**0**	**0.23**	**0.38**	**0.15**	**0.18**
Health Protection, Physical Culture and Social Welfare	**0**	**0.02**	**0.02**	**0.01**	**0.01**
Public Education	**0**	**0.01**	**0**	**0**	**0**
Culture and Art	**0**	**0.01**	**0.01**	**0.01**	**0**
Science and Scientific Services	**0**	**0.05**	**0.04**	**0.03**	**0.01**
Finances, Credit, Insurance, Pension Services	**0**	**0.05**	**0.01**	**0.03**	**0.02**
Management	**0**	**0.05**	**1.66**	**0.92**	**0.64**
Union of Citizens	**0**	**0.01**	**0**	**0**	**0**
Total	**1.43**	**10.48**	**9.97**	**5.89**	**3.12**

Source: State Tax Administration of Ukraine.

kind payments, tax amnesties were frequent. Most of the tax amnesties were given by parliament and were both general and sector specific. Furthermore, the discretion of the tax administration in enforcing arrears also has played an important role, and served clear political purposes.

Parliament issued the last general tax amnesty in 2000, covering roughly 5 per cent of GDP. Examination of this amnesty shows some interesting facts. First,

some of the potential beneficiaries could not be located, meaning poor record-keeping and an overestimation of the stock of arrears. Second, the public sector and the public enterprises held the bulk of the arrears, mostly in the energy sector as noted above. The 2000 amnesty did not halt the accumulation of arrears, and the emerging patterns illustrate the forces at work. The government has had relative success in controlling the growth of arrears in the non-energy sector. The growth of arrears in the energy sector, specially in the gas holding company NAFTOGAZ, is partly a consequence of the remaining non-payment problem; but, more importantly, is the result of underpricing of energy products and the financial consequences for enterprises. Mismanagement of state enterprises and corruption also play an important role. The difficulties in halting the growth of tax arrears in the energy sector illustrates that solving problems of financial discipline requires more than the willingness or the capacity of the tax agency to enforce the law. Specifically, it requires that various interests within the executive and the legislative branches come together to provide an adequate framework for tax enforcement – energy prices, budget payments, oversight of public enterprises, etc. In the absence of the capacity to bring together conflicting interests, the state cannot fully introduce financial discipline, diminishing its credibility and inviting further plundering of its resources.

3.5 Tax exemptions

Tax exemptions became a regular practice in Ukraine in the Nineties, when even the executive could issue them. Now only the legislature can. The bulk of the exemptions are for the VAT, the EPT and less so the PIT (See Table 10.) VAT exemptions have favored agriculture, pharmaceuticals, constructions, and a host of other customary products and services. Introducing the VAT into the energy sector in the late Nineties, broadened the VAT coverage, but led to significant increases in arrears as reported above. CIT exemptions have favored traditional industries as part of an effort to maintain their competitiveness. As in the case of tax arrears, tax exemptions became part of the political game. Recently (2003), however, both the executive and legislative have cooperated in reducing exemptions for the EPT and the PIT, and to a lesser extent for the VAT.

3.6 Simplified taxation

The size of informal economy is a considerable concern in Ukraine. Some have argued that the reported GDP decline in the Nineties was partly a shift of production to the informal sector. It may well be that size of the informal economy is not as large as reported; however, to some extent it is the perception that matters.[11]

[11] The portion of the labor force that has left the formal sector is not large enough to generate the levels of informal outputs that often are quoted. Most likely, an informal sector may have developed within the formal sector itself, as managers of state enterprises seek to siphon incomes using fictitious constructs.

Table 10

Ukraine: Estimated and Actual Tax Exemptions, 1998-2001

(billions of UAH)

Type of Tax	1998		1999		2000		2001	
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
VAT	6.47	9.43	9.98	14.3	2.59	4.94	2.04	5.89
Profits Tax	0.02	0.83	0.59	1.26	1.87	2.7	3.27	2.5
Excises	3.15	0.14	1.78	0.24	0.67	0.15	0.73	0.08
Land Tax	0.9	1.64	1.05	1	1.15	0.42	1.34	0.55
Total (VAT, EPT, Excise, Land)	**10.54**	**12.05**	**13.4**	**16.81**	**6.28**	**8.21**	**7.38**	**9.02**
Total as percent of GDP	**10.28**	**11.75**	**10.28**	**12.89**	**3.69**	**4.83**	**3.65**	**4.47**
Personal Income Tax	0.42	n/a	0.82	n/a	0.94	n/a	0.84	n/a
Payment to Chernobyl Fund	0.98	cancelled since 01/01/1999						
Resource Extraction Tax	0.01	n/a	0.04	n/a	0.02	0.44	0.02	0.27
Payments for Construction and Reconstruction of Public Roads	0.13	n/a	0.13	n/a	0.13	cancelled since 01/01/2000		
Total Exemptions	**12.08**		**14.39**		**7.37**		**8.24**	
Total Exemptions as percent of GDP	**11.77**		**11.03**		**4.34**		**4.08**	
GDP, actual		102.59		130.42		170.07		201.93

Source: Ministry of Finance.

At first, based on the negative attitude against private sector activity inherited from the socialist times, the fight against the informal economy focused on the small and medium enterprises or individual entrepreneurs. Business surveys carried out during the Nineties picked up this pattern behavior. With time, however, to address these concerns and facilitate the emergence of a small and medium enterprise sector, the Presidency introduced in 1998 a special system of taxation for small business. The system applies differently to individuals and to enterprises. A key characteristic is the relatively high thresholds – roughly, US$ 100,000 for individuals and US$ 200,000 for business.[12] The increase in the number of individual entrepreneurs and business registered has been impressive, as shown in Table 11. There are now close to 100,000 business registered and 350,000 individual entrepreneurs. The SME sector has now become an additional lobbying group, politically very active, raising concerns as to whether this special regime could become significant loophole to the formal system.

Table 11

Ukraine: Subjects of Entrepreneurial Activities and Revenue from Special Regimes of Taxation

Year	Unified/Single tax				Special Trade Patent		Fixed Tax	
	Number of subjects		Revenues to consolidated budget from unified tax		Number of patents purchased (units)	Revenues to consolidated budget from trade permits (mln UAH)	Number of fixed tax payers('000)	Revenues to local budgets from fixed tax (mln UAH)
	Legal entities ('000)	Natural persons('000)	Legal entities (mln UAH)	Natural persons (mln UAH)				
1999	28.6	66.1	66.3	57.7	16873	20.8	318	196.4
2000	66.6	182	348.69	225.52	7411	31.6	327.4	229.6
2001	91.7	345.1	619.83	439.03	6986	40	339.3	250.1

3.7 *The quality of enforcement*

With the creation of the State Tax Administration (STA) in 1996, the government set itself the explicit objective to enhance the control structure of the state, enforce the tax law and to create a compliance culture. As in other Former Soviet Countries tax services were initially highly decentralized with a minimum level of central control, providing an opportunity for local interests to control them. Also, with a weak state control over state-owned enterprises, the task of enforcement

[12] Under this scheme, a taxpayer can choose to pay 10 per cent of turnover, and cover VAT, or pay 6 per cent and VAT independently.

fell upon the STA. The results have been mixed, and the efforts to tighten tax enforcement have led to concerns over taxpayer harassment, preferential tax enforcement towards specific groups and regions, and use of tax powers for political ends.

Widespread fear of powers of the STA led to calls to restrain its powers. In fact, parliament, jointly with the 2000 tax amnesty, mandated new enforcement collection procedure that limits the powers of the state, by setting stepwise procedures for the recovery of the arrears and by involving the courts as final arbiter in case of appeal.[13] On the positive side, however, the government, even if with drastic enforcement, seems to have prevented a revenue collapse, although there was a drop of revenue as a percentage of GDP.[14] This no doubt has been an important part of consolidating an independent Ukraine.

3.8 Taxes and the legislature

Changes in tax legislation have to be approved by parliament. Examining how political groups behave in parliament provides some insights into the working of the political economy of taxation in Ukraine. This section examines some characteristics of the political system in Ukraine and dynamics of tax legislation in the latest (third) parliamentary period (1998-2002). Consideration of the present parliament is given thereafter. The review shows that the political party system in Ukraine is unstable; parties or factions appear and disappear and coalitions are difficult to form and maintain. However, when majority coalitions emerge, meaningful legislative agendas can be advanced. Surprisingly, there has been considerable tax legislative activism as measured by the tabling of legislative initiatives. However, approvals of proposals have required building political coalitions, which often extend across ideological camps. In general, parties and factions are driven by narrow particular interests. Only larger parties have anything close to a broad agenda. In these circumstances, it has been difficult to advance a comprehensive reform agenda, as shown by the failure of the past legislature to advance with the tax code. In this very fragmented political environment, it has been easier to advance special interests and get approval for privileges, exemptions, and amnesties. The consequence has been the fracturing of the tax legislation, making its implementation more difficult for the taxpayers and the authorities.

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[13] This legislation (similar to that of other CIS countries) represents an effort by parliament to limit the powers of the executive in tax collection.

[14] Table 4 shows that ratio of tax revenues over GDP fell between 1998 and 2001. This happened while economic recovery was underway. The final outcome for 2002 produced an increase of slightly less than three points of GDP. The increase was driven by continued improvements in PIT, linked to rising wages, and greater yields in the VAT, deriving from elimination of loopholes that made administration difficult.

3.9 The instability of the political party system

The structure of the latest Ukrainian parliament was unstable.[15] Parties emerged, disappeared and regrouped. The innovation of the current parliament, after the elections and the regrouping that took place in 1994, has been the creation of two blocks – “Our Ukraine” on the right, and “United Ukraine” on the center, with strong oligarchic support. Both of these fronts include several parties or factions, but the coalitions are not fully stable, with parliamentarians regularly crossing lines across parties.

Let’s consider in some detail the political dynamics of the parliament elected in 1998. As of July 16, 1999 there were 447 people’s deputies in Verkhovna Rada, 430 were united in 12 factions and in 3 groups. During the transitional period from October, 1998 to July, 1999, 158 MPs changed their faction affiliation and two new groups were established.[16] The fate of each party shifted over time: parties disappeared, were created, dwindled and grew.

It is fair to think of the political parties in Ukraine as groups with vested interests, predominantly on economic matters, rather than built around political platforms. Some parties were created with the only purpose of lobbying interests of certain business associations, specific sectors of economy (e.g. gas and oil, coal, agriculture etc.) or certain regions. Besides the specific interests, there is often little or almost no difference among parties’ platforms. It is unclear if this pattern of shifting alliances will eventually coalesce into a well structured political system with a broad political agenda rather than narrow interests. The two exceptions are the Communist Party on the left, and the Rukh (“Our Ukraine” now), on the right.

Despite all of this, however, there is an identifiable trend: the number of MPs with clear pragmatic business interests significantly increased. More than 120 people deputies in the last parliament represented large and medium businesses. That number increased in the recent parliamentary elections. The fortunes of the communist party declined in the meantime. The instability of the political system

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[15] In accordance with the Constitution of Ukraine (Article 76) *Verkhovna Rada,* or Parliament, consists of 450 People’s Deputies (or Parliament Members - or MPs) elected by general, equal and direct vote by secret ballot for four years. Legislation on election establishes system of mixed representation in Ukraine, when half of MPs (or 250) are elected by proportional vote for party lists or electoral blocks (with 4 per cent entry threshold) and the other half from single-mandate districts. The third parliament of independent Ukraine was elected in March 29, 1998 on the basis of this new principle of mixed representation – representatives of parties and electoral blocks that won elections occupied 225 or half of the seats, and the other 225 deputies were elected in single-mandate districts. This new system gave to the political parties of Ukraine additional chance to demonstrate their positions and to seek their contingency. The following 8 parties won elections by overcoming 4 per cent barrier: Communists (24.6 per cent), Narodnyi Rukh (9.4 per cent), Block of Socialists and Peasant parties (8.5 per cent), Greens (5.4 per cent), People’s Democrats (5.01 per cent), Gromada (4.67 per cent), Progressive Socialists (4.04 per cent), and Social Democrats (4.01 per cent).

[16] “Revival of Regions” (28 MPs) and “Labor Ukraine” (17 MPs); Narodnyi Rukh was divided into two factions – 30 and 15 MPs, respectively; Socialist Party and Peasants’ Party Block split establishing two independent factions (24 and 15 MPs, respectively); a new faction was created – “Reforms – Center” consisting of 24 MPs; 55 peoples’ deputies left the faction of Peoples’ Democratic Party (NDPU); 25 MPs left Gromada and created a new faction “*Batkivshchyna”* (Motherland).

continued into the parliament elected in 2002, when it took several months before a majority coalition supporting the president could be put together and a new prime minister appointed.

3.10 Building reform coalitions

Three sub-periods can be identified during the last (third) parliament: pre-majority (May 1998-December 1999), majority (January 2000-April 2001), post-majority (April 2001-March 2002). The first period was characterized by an excessive instability and it ended up in December 1999/January 2000. The presidential elections towards the end of 1999 turned matters around. After the election, the president proposed and parliament approved the nomination of a reform minded prime minister, Victor Yushchenko. The president also initiated the transformation of the entire system of public administration, streamlining and consolidating the system of ministries and other central bodies of executive power and eliminating branch or sector ministries.[17] These developments pressured parliament and by February 2000 two factions ceased to exist, and two other disappeared later. A parliamentary majority was created comprising all the right wing parties and the center, and consisting of 238 people's deputies. This majority supported the prime minister and his cabinet in their reform effort and approved an ambitious program of activities April 6, 2000. As a majority was created, the composition of groups and factions within parliament stabilized, with some minor changes.[18]

Still, in April 2001, a coalition of left and center-right parties issued a non-confidence vote to the Government of Victor Yushchenko.[19] After that, the third phase of parliament commenced, the stable majority *de facto* ceased to exist, and decisions in parliament were adopted mostly by situational majority. Still, the third phase of parliament's work inherited some stability, and the majority in the parliament continued to work informally, despite serious internal tensions. This parliamentary coalition continued to advance significant reforms. Important legislative initiatives were approved during the third parliament including the Land and Budget Codes.

3.11 Tax legislative activism – initiatives and results

The third convention of the parliament considered 756 draft laws and resolutions on tax issues. Table 12 shows the number of initiatives by party or

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[17] The only left over from the soviet era - branch ministry of coal industry has been eliminated and merged with the ministry of energy covering the whole fuel and energy sector.

[18] The most significant growth was registered in the Labor Ukraine parliamentary faction, its membership increased by 21 MPs from 23 to 44. Solidarity faction grew from 16 to 27 members.

[19] This basically amounted to a coalition between communists and centrist oligarchic interests that found threatening the policies and the popularity of the prime minister.

Table 12

Ukraine: Status of Draft Tax Laws Submitted to the Parliament, 1998-2002

Faction/ Status	Drafts Submitted	Laws Signed by President	Resolution Signed	Drafts Rejected	Inefficiency Rate (%)
UNR	149	13	28	51	34.2
R&O	88	8	10	44	50.0
RU	55	2	0	7	12.7
SDPU(u)	47	3	0	12	25.5
LU	43	2	1	9	20.9
NDP	36	5	4	8	22.2
Batkivshchyna	32	4	1	8	25.0
Yednist	28	1	0	3	10.7
Greens	14	2	0	0	0.0
DU	11	1	0	1	9.1
NRU	9	1	0	1	11.1
CPU	126	20	15	28	22.2
Solidarnist	51	6	2	11	21.6
SPU	41	6	2	13	31.7
Yabluko	26	0	0	2	7.7

faction, the number of laws and resolutions signed and those rejected. Three groups in parliament initiated the most tax laws and resolutions. The UNR, R&O, on the one side of the political spectrum, and communist party (CPU), on the other, submitted together 363 draft laws and resolutions, almost as many as the rest of the factions (393).

3.12 Successful cooperation across factions

Table 13 presents information on the cooperation among different groups in parliament. Effective alliances and coalitions between the CPU (*Communist Party of Ukraine)* and UNR (*Ukrainsykyi Narodnyi Rukh)* led to 17 laws and resolutions approvals. The cooperation between left and right on tax matters is particularly telling of the nature of alliances in parliament. Efficient collaboration between CPU and UNR took place in taxation of agriculture (including machine building for agriculture) (3); VAT (3); enterprise profit tax (CPT) (3); taxation of businesses (2); excise tax (1); taxation for zone with special investment regime (1); and, local taxes (1), and on some other issues. The UNR was keen on the concept of tax system and together with CPU they developed a successful draft concept of the reform. This again demonstrates the possibility of cooperation on tax issues of irreconcilable ideological and political opponents. Of course, cooperation between ideological and political allies happened as well.

Table 13

Ukraine: Signed Laws and Resolutions Initiated by the Parliamentary Coalitions, 1999-2002

Faction	Drafts Initiated by Faction (#)	Drafts Initiated in Coalition (#)	Main Partners	
UNR	52	42	CPU (17)	R&O (11)
R&O	14	27	UNR (11)	CPU (7)
RU				
SDPU(u)	2	3	CPU (1)	R&O (1) UNR (1)
LU	1	2	CPU (1)	Solidarnist (1)
NDP	6	7	CPU (3)	R&O (2) UNR (2)
Batkivshchyna	2	2	CPU (1)	UNR (1)
Yednist	1			
Greens	2	7	CPU (2)	UNR (2)
DU	1			
NRU	1	1	UNR (1)	
CPU	29	41	UNR (17)	R&O (7)
Solidarnist	7	13	CPU (4)	UNR (3)
SPU	5	15	CPU (5)	UNR (4)
Yabluko				

3.13 Efficiency of political blocks' work

After the formation of stable political groupings (left, right and centrist blocks), the *Verkhovna Rada* during 1999-2002 adopted 83 laws on taxes developed and submitted for consideration. Table 14 summarizes the number of laws approved on taxes according to political coalitions and blocks in the parliament.

Table 14

Efficiency of Factions and Their Alliances in Terms of Adopted Laws

RIGHT wing factions	37
LEFT wing factions	14
CENTRIST factions	13
Alliance of RIGHT + LEFT factions	9
Alliance of RIGHT+LEFT+CENTER	6
Alliance of RIGHT+CENTER factions	2
Alliance of CENTER+LEFT factions	2

The right wing factions (UNR, R&O, and UNR) were the most effective, and by themselves or in coalition with others obtained approval for 54 initiatives. Center factions initiated or helped with the approval of 21 laws, while the left initiated or supported 31 initiatives. The center and right wing political forces were the most effective political alliance; cooperation between the center and the left was limited.

3.14 Classification of adopted laws and resolutions by their substance

Table 15 presents an overview of the areas in which different groups have developed and submitted proposals that were consequently adopted and signed. The most productive and efficient in their legislative activity were right-wing factions (R&O and UNR), and left-wing factions (CPU and SPU). Factions, which belong to the political center and include the majority of representatives of business and capital and are associated with power or oligarch groups, took an absolutely passive position. For instance, the centrist factions initiated only 6 draft bills on VAT out of 34 bills (or 21 per cent of all laws on VAT adopted); 5 draft bills on enterprises' profit tax out of 35 (or 14 per cent), etc. Such position of the center shows that representatives of business and capital were not very keen on changing existing tax system in Ukraine. Interestingly, the centrist political groups generally support and follow rather than lead, although they bargain hard for that support.

3.15 Regional aspects in tax policy

The parliament of Ukraine was active on regional issues and established in 1998-2002 ten special economic zones in some of the most prosperous regions of the country. The cabinet of ministers of Ukraine drafted and submitted most of them; all factions supported them. Thus the government, under the guise of regional policy has also been a promoter of special tax treatments, in this case, to win the support of powerful regional interest groups.

3.16 Voting on key legislature

An examination of the voting patterns around some key legislative tax initiatives illustrates the diversity of the positions of different political spectrums and factions on tax issues.[20] The tax code was supported mostly by factions close to the president and the green party. The big factions were rather lukewarm on the tax code despite significant activism on other matters. Interestingly, there is a high degree of cooperation around agriculture. As a consequence, agriculture practically does not

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[20] Voting patterns on the following legislative initiatives that were approved were examined in detail: Tax Code, On changes and amendments to the Law of Ukraine "On the value added tax", On write-off of debts of collective agricultural enterprises, which undergo reforming, On temporary procedure of taxation of transactions on producing and sale of crude oil and some other fuel and lubricant materials, On fixed agricultural tax, On changes and amendments to the Law of Ukraine "On the value added tax" (moratorium until 2004 to agricultural producers to pay VAT), etc.

Table 15

Ukraine: Signed Laws and Resolutions by Type, 1999-2002

	R&O	SPULCSP	Batkivshchyna	CPU	NDP	Solidarnist	Greens	SDPU(u)	UNR	Others	Total
Total	15	6	5	29	6	7	2	2	36	4	112
Tax privileges				1	1						2
Tax exemptions			1			1					2
cancellation of tax exemptions			1								1
agriculture											
metallurgy											
energy sector											
FEZ and TPD											
Tax amnesty, including	1		3	4	1				2		11
agriculture			2	3							5
metallurgy											
energy sector			1	1	1						3
FEZ and TPD											
machine-building									1		1
cancellation of tax amnesty	*1*								1		2
VAT	4	2	1	3		1	1	2	9		23
CIT	1			3	1	1			7	1	14
PIT	2	1		2		1			1	1	8
Fixed agricultural tax				2							2
Excise tax	1			1					2		4
Taxation of businesses, including	1	1		2	1	2			2	1	10
foreign businesses											
domestic businesses	1	1		2		1			1		6
Repayment of tax obligations to budget and state target funds	1								2		3
FEZ, TPD and zones with special investment regimes				4			1		1	1	7
Local taxes	2			1	2				1		6
Registration of taxpayers				1							1
Measures aimed at improving tax legislation		1		1							2
Other	2	1		4		1			9		17

pay taxes, and, moreover, gets to keep for investment, the VAT it collects. Given the fragmentation of parliament, eventual passage of laws requires the cooperation of even small factions. Voting results for selected laws provide evidence that some bills could be approved with a moderate support of all the factions and no single champion.

3.17 The present (fourth) parliament

The fourth parliament was elected in 2002 and is currently in operation. Forming a majority and appointing a new prime minister took considerable time and effort. A centrist coalition sympathetic to the president emerged in control. This coalition can be said to receive the support of some of the most influential power groups in the country. Outside the coalition are the reformists on the center/right and the communist. This parliamentary section has been very active on tax matters. However, the government has followed the strategy of presenting single tax laws, rather than a comprehensive tax code. Ukraine has already approved a new PIT law, at rate of 13 per cent, in effect in January 2004, and which will increase gradually to 15 per cent in 2005. The draft law approved, was not presented by the Pro-presidential coalition, but rather by a deputy of the center right, now in the opposition.[21] The proposal, however, gained broad support. The reasons supporting this proposal are similar to those given in Russia. Given that the payroll tax has not been changed, it is unclear whether the new law will have any significant impact on compliance. Even if some of the exemptions have been eliminated, it is estimated that the new law will generate a revenue shortfall. Additionally, the CIT tax rate has already been reduced to 25 per cent and the exemptions to the CIT severely curtailed. A VAT law is now under consideration of parliament. It remains to see what will be the net effect of the current piecemeal approach to tax reform, in terms of consistency and sustainability, as it likely that this round of reforms will imply drops in revenues.

3.18 Summary

The dynamics of the third Ukrainian parliament (1998-2002) shows that the system of parties and factions in Ukraine is relatively unstable, but that when a coalition is formed, a significant legislative agenda can be advanced. The review of the tax legislation shows that cross-cooperation across political lines occurs frequently, with the left and right joining forces successfully in many cases. Notably, groups or factions representing business interests took a passive position, as if satisfied with preserving the *status quo.* In this political landscape, the lesson from Ukraine seems to be that systemic reforms, in this case of the tax system, suffer from the unstable political situation in the society as a whole and in the parliament in particular. Analysis of proposals, debates and discussions around tax bills shows that

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[21] The law was approved by 341 in favor, none against and 100 abstained, most from the Communist party.

very often MPs are involved only in lobbying narrow interests of businesses close to them (tax exemptions, low tax rates, excise tax, etc.), and some of them do not even have a clear picture of the tax system in a whole, especially with regard to the draft of a new Tax Code. The parliament supported tax amnesties and privileges, but did not tackle larger issue of comprehensive tax reform. It is likely that the vote of no confidence for the reformist government meant a stop to aggressive legislative reform, including a tax code. The president in Ukraine gets his support from centrist parties linked to conservative industrial/financial groups. These groups have not had a vision of their own, and have shitted alliances to reach narrowly defined objectives. The passage of a new PIT law, with a single rate, further illustrates the point. This law has been the initiative of opposition forces on the right, but gained support of all but the communists.

4. Russia

4.1 Early tax legislation

Before the end of 1991, Russia introduced a conceptual law, "The Basic Principles of Taxation", and a new VAT, Enterprise Profits, and Personal Income Tax laws had been adopted. The "Basic Principles of Taxation" law outlined a system of tax assignments, where VAT revenues were the prerogative of the federal government while the EPT and PIT revenues were assigned to sub-national governments. Overall, from 1992 onwards a defective and complex tax system emerged, as in Ukraine. The EPT, for instance, included a tax on excess wages and grossly exaggerated profits by disallowing many conventional business expenses and numerous regional and local taxes. In 1993, a presidential decree gave the right to regional and local governments to introduce new taxes, leading to additional turnover and payroll taxes. Although this decree was abolished in 1997, the practice lasted for longer. On the other hand, many aspects of the tax legislation were never implemented. For instance, the tax-sharing system included in the annual budget laws differed the rates stipulated in the basic law.

Overall the perception amongst experts on Russia (and similar to Ukraine) was the lack of financial discipline, which had led to significant levels of barter and non-payments, undermined tax discipline by providing opportunities for different methods of tax avoidance and evasion. Moreover, the discrepancies between revenues and expenditures during the Nineties, led to a very unstable macroeconomic environment.[22] There was an overwhelming perception among observers that the government was not strict enough in combating tax evasion, tax arrears, and tax privileges, thus further contributing to a soft-budget constraint. The relationship with the regions was of particular concern, specially because it was the revenues of the central government that contracted the most in relative terms. Since

[22] Table 5 shows that tax revenue dropped sharply from 36.0 per cent of GDP in 1997, to 32.0 per cent in 1998. It has since recovered in part.

the 1998 crisis, like in Ukraine, significant progress has been made in improving financial discipline, eliminating barter, and reducing inter-enterprise arrears.[23]

4.2 Stakeholders

Two groups are reported as playing a significant role in the taxation debate in Russia: the large economic interests, linked to privatizations, and the regional interests. In Russia, as compared with Ukraine, privatization of large scale interests advanced much farther, and state enterprises carry far less weight in the economy. Consequently, economic groups that emerged linked to private assets have played a different role than similar groups in Ukraine. In Ukraine, arguably the control of state owned enterprises provided a less certain terrain where to stand as the privileges could be lost easier. In Russia, private ownership carries its own type uncertainty. In both countries, power groups sought an early access to the state.

Reportedly, during the Nineties, tax collection practices in Russia involved continuous informal bargaining process whereby economic elites controlling the country's industrial enterprises and regional leaders negotiated with the government to establish their individual tax burdens. The government bargained with these highly lucrative and concentrated industries, mostly in the energy sector, as means to seek to ensure sufficient tax revenue. On the one hand, the tax administration apparatus was weak and unprepared to collect revenues in a new environment, where it was at a technical disadvantage. Thus, for instance, Russian oil companies were able to effectively avoid taxation because they could hide their profits through a series of legal and semi-legal schemes. Transfer pricing was the most common form. By some estimates, the oil companies had been able to hide at least 25 per cent of their export proceeds by using this mechanism. As a result of tax avoidance measures, despite the high statutory tax rates in Russia, the government only received 22 per cent of the approximately $30 billion in windfall rent from natural resources sales in 2000 while 78 per cent remained in the hands of (largely oil and gas) exporters. Schemes were also devised to avoid payroll taxes.

On the other hand, economic groups and oil companies benefited from flexible tax rates because they had privileged access to both formal and informal policy-making channels. They exercised political influence through two main forms of lobbying: influence on deputies in the Duma, and direct, personalized contact with members of the executive branch – most importantly the Ministry of Fuel and Energy. The oil and gas lobby was highly effective, and for the latter part o the Nineties, they convinced a sufficient number of deputies and government officials to block tax reform and even to reverse unfavorable changes made by executive decrees.

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[23] There are many accounts of the reform process in Russia: Shleifer and Treisman (2000); Martinez-Vazquez and Wallace (1999) and others in the references.

The struggle for resources between the center and regions has also played an important role in shaping taxation issues in Russia. These issues have been investigated in great detail. A key point in this debate has been how the relative weakness of the central government during the Nineties led to shrinking of the revenues of the central government, growing tax evasion, and widespread unofficial economic activity. A key element of Federalism in the Russian version was the power given to different levels of government to levy their own taxes on common tax bases with the national government. As mentioned, a December 1993 presidential decree authorized regions and localities to introduce additional taxes beyond those formally assigned to them by law. The impact of the decrees was rapid. In 1994, regions and governments introduced local taxes and fees, many of them with bases overlapping with those of existing federal taxes. Grazing on the same tax bases led to overtaxation and drove firms underground. Everything from dogs to the use of foreign alphabets in company names became taxable. The decree was repealed as of 1997, but most of the new regional and local taxes were not abolished.

Also, in many regions, a few large enterprises contributed most of the tax revenue. Tax sharing, in the face of a fragmented tax administration, created an incentive for regional governors to strike collusive deals with these enterprises, at the expense of the federal budget. This may explain why collection of taxes that were more evenly shared among levels of government deteriorated faster in the mid-Nineties than collection of those that belonged entirely to one level. Numerous schemes were employed to make these covert deals possible: profits disappeared from companies' balance sheets through secret accounts and offshore banks or due to creative bookkeeping; contributions to regional off-budget funds out of pretax profits; avoiding the use of cash by companies, and using notes (veksels); issued by the regional governments or banks, instead that could be then used for payment of regional and local taxes, since federal budget did not accept this payment, taxes paid in this from could not be shared; and writing off tax obligations in exchange for public services barter.

A distinguishing feature of Russia has been the fragmentation of the its tax administration.[24] Two factors contributed this fragmentation: the highly decentralized public administration inherited from the previous regime, and the desire of each region to prioritize collection of the taxes accruing to them, as noted above. Regions established special economic zones to attract business to register or realize its profits, regions offered "tax packages" for companies that included low tax rates, aid in evading federal taxes, and other political and economic benefits. This practice covered mainly huge companies that had branches in several different regions. The system of dual subordination facilitated local control of tax collectors, although the tax agency is statutorily a federal body. Reportedly, regional STS directors depended upon and were influenced by regional governments; and local STS directors also relied on and had to take into account the views of local mayors.

[24] The State Tax Service, after 1999 the Ministry of Taxation and Tax Administration.

Putin's government has committed to improve the federal character of the tax administration, and is working with international donors to do so.

4.3 The underpinnings of reform

The perceived dismal performance of the revenue system in Russia led to considerable internal reflection, with the concern with the growing informality, at the top of the agenda. The informal economy was identified, in Russia like in Ukraine, with a sizeable group of wealthy individuals that had amassed fortunes and hided them. Econometric models, for instance, showed that in 1993-96 wages and not incomes correlated best with the income tax base. Salary earners had little possibility to avoid taxes; other incomes were hardly taxed.

The conclusion was drawn that although the personal income tax was progressive on paper, *de facto* it was regressive. A similar argument was made for social security contributions, where, even though the contribution rate was flat, higher income earners saw no advantage to contribute. Moreover, hiding the tax base for income tax accomplishes a similar objective for social security contributions. Thus, the idea emerged to have the PIT be effectively a tax on income and not wages. Hence the proposal of flat income tax roughly equal to the average PIT payment, and a gradually decreasing rate of social security contribution. Note that the argument above is not based on the effect of high taxes on the supply of labor; rather, the argument hinges on the availability of evasion techniques, and the inability of the tax authorities to detect evasion and enforce the law. As such, this is an argument about the formalization of informal incomes, in an environment of a weak tax administration. As a consequence, bringing high incomes into tax net would increase the horizontal equity of the tax system.

There was not a similar emphasis to the reduction in the VAT, as it was not considered that such a reduction would lead to an increase in the tax base. However, there was an emphasis on the need to broaden the tax base by eliminating the exemptions. Emphasis was also placed on the unification of the land tax and property taxes. Energy resource taxation would also be reformed, as well as the regime for SMEs and the CIT.

4.4 The new tax code – part I

4.4.1 The reform initiative[25]

In 1997 the Ministry of Finance submitted a comprehensive draft tax code to the Duma (Parliament). The proposed legislation, drafted with the support of foreign advisors, had little support in the Duma, was significantly opposed by many regional governors, and was criticized by the private sector that lobbied against it. The key

[25] On the overall Russian tax reform process, see Loung and Weinthal (2001) and Fritz (2003).

opponents of the draft tax code in the private sector were banking and natural resources oligarchs who had consolidated their power after the Yeltsin's reelection in 1996. Although the Duma passed the code in the first reading under the pressure of the government, eventually in late 1997, Yeltsin suggested that the government withdraw the tax code.

Thereafter, parliament requested the submission of alternative draft tax codes, either from deputies or from outside of the parliament. After consideration of alternative drafts, the government presented an official draft in April 1998, which was drastically changed by parliament. Major changes included: prohibition for the executive to issue tax legislation; support of taxpayer's rights; increased range of costs deductible under the EPT, and reduction of the EPT rate from 35 to 30 per cent; and, a presumptive regime for small business.

Although the draft tax code was passed in the first reading by the full Duma in April 1998, it became clear that the proposed legislation would not be approved as one piece. It was decided that Part I, the general part, would be discussed and voted first. The redraft produced by the Duma working group radically transformed many provisions, shifting the accent on the protection of taxpayer rights and practically tying the hands of tax administration to enforce taxes. This draft was approved in July 1998 and became effective in January 1999. Hence, in Russia like in Ukraine, legislators wanted to tie the hands of the state as it regards tax enforcement.

4.4.2 The crisis of 1998 as a trigger

It is not unlikely that the August 1998 financial crisis had a significant impact on the politics and economics of Russia and the neighboring countries. It certainly proved the vulnerability of the government and productive sectors, and business as usual did not appear any longer possible. The government needed to buttress its revenue sources and the private sector needed clearer rules. There was certainly a cost to continue operating on the opaque world of inter-enterprise debt and barter transactions, and to have the effective tax burden depend on the relationship with the official at hand. Following the crash in August 1998, some of the oil companies faced bankruptcy and lacked a cash flow to service their debts. Because many of the oil companies had acquired substantial foreign debt, the Russian government's decision to devalue the ruble made it even more expensive to repay these loans. Moreover, the oil companies were unable to pay their salaries, and many companies were forced to shut down their operations for several months, or to radically downsize their operations and decrease expenditures. Similarly, the 1998 crisis and the dramatic fall in world oil prices revealed how vulnerable the government was to global markets due to its dependence on oil exports for budgetary revenue. Federal government revenues and expenditures radically went down.

4.5 *The new tax code – part II*

Putin became acting prime minister in August 1999, acting president in January 2000, and president-elect in April 2000. A new Duma was elected in December 1999. Unity, a party supporting the president, was second in the parliamentary elections. This parliamentary election represented a shift of power to centrist and pro-government forces. These parties supported lower corporate taxes, reduction in exemptions, and simplification and more stability of the tax system. The communist party, on the other hand, supported increasing the top marginal rate of the personal income tax and higher taxation of the natural resource sector. Putin's presidential election gave a boost to tax reform. The new government presented the second part of the Tax Code to the consideration of the Duma, including the now well known 13 flat PIT rate. Likewise modifications to the part I of the Tax Code were presented, strengthening the enforcement powers of the state. After some lengthy negotiations, in July 2000, Part II was adopted, including chapters on the income tax, a unified social tax, excise taxes, and on VAT, and entered into effect on January, 2001. The profit tax and the energy sector tax were approved in 2001 and came into effect in 2002.

The profit tax was lowered from 35 to 24 per cent, to be shared among the federal, regional, and local governments. In the energy sector, a unified tax on production of raw materials replaced the royalties and mineral-resource tax. This ended a period of "implicit" bargaining in the taxation of the sector. New legislation on these two taxes became effective in 2002. In terms of rates, the code as approved meant lower rates for profit and income, the same for VAT, higher for excises, and, possibly, a higher rate for natural resources.

Alignment between the president and the Duma around a tax reform program contributed to a tax reform more aggressive than those considered by the previous Duma. This higher accord between the presidency and the Duma is likely to have facilitated also the approval of various elements of the Part II of the tax code by the Federation council,[26] which *de facto* lost its veto power. Also, and just as important, Putin managed to reach a broader constituency during the presidential election and thus liberated himself somewhat from the special interests. The president was able to challenge the regional interests. He also challenged the special interest groups, although, as some have argued, some amongst them had become conscious of the need for clear rules in a more level-playing field.

4.6 *Outcomes and outlook*

How successful has been the Russian tax reform? It certainly represents a comprehensive effort and the main thrust of the effort has been domestically driven. Moreover, the Russian reform is already impacting on neighboring countries, most

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[26] The Federation comprises regional governments and speakers of regional parliaments. It operates as a second chamber. Any veto of the Federation can be rescinded by the Duma.

significantly on reducing the rates of taxation and reducing the scope and extent of the state. However, other countries should better take account of the fact that Russia's taxes are buttressed by oil income and hence the country can afford lower taxes elsewhere. On the domestic front, it is too early for a full assessment of impact.

Revenue performance has been improving since 1999, but has yet to reach the level of 1997 (see Table 5). Tax revenues have slightly dropped from 2001 to 2002, due mostly to a drop in the CIT yield. The personal income, the VAT, and the resource extraction taxes have increased. As to PIT, its performance is still below the pre-1998 crisis level. It is not possible to determine the extend to which the revenue increases are due to the flat tax on compliance, to the greater enforcement efforts, or the increasing the level of wages, although the later appears to be the most likely explanation.[27] A final verdict will have to wait to see if, indeed, the level of formalization of incomes has increased.

Perhaps more importantly would be the impact on the overall business environment, and sustainability of the reforms. This effect cannot be measured with certainty in the short term, and to be effective it requires substantial changes in the administrative practices of taxes and customs. The Russian government has already initiated this effort, with emphasis on the federal nature of the tax administration. Also, important is the sustainability and improvement of the legislative practices, as is the further reduction of special treatments and other tax policy issues still on the agenda. Likewise, one may ask as to the sustainability of natural resource taxation. In this regard, it would appear important to continue consolidating the power of the state, trying to keep at arms' length from the interest groups in society. Moreover, it is important that power groups continue placing an emphasis on normalizing their activities. This is not necessarily a given, as the long-term experience of Latin America shows.

4.7 Russia and Ukraine compared

Russia and Ukraine, during the Nineties, shared a common history of weak financial discipline with all of its consequences for enterprises and the government. But there has also been significant differences, Ukraine extracts a higher share of GDP in taxes than does Russia, if oil is excluded. Russia has advanced far more than Ukraine in the privatisation of the public assets. Also, regional interests play a greater role in Russia than in Ukraine.

Both economies have begun to depart from their transitional phase and started developing more the characteristics of an effective market economy. This has meant a change in the articulation of tax interests, as tax constraints become more binding and economic agents start to feel the burden of taxation. In both countries, economic

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[27] Note that most of the taxpayers were already paying close to the flat tax rate, with only a few paying the higher 30 per cent.

groups have developed an interest in formalizing their operations, demanding clearer and enforceable rules. Although, this is likely to be more the case in Russia than in Ukraine.

However, Russia has approved a Tax Code, while Ukraine was unable to do so. Current efforts at piecemeal legislation in Ukraine still leave open the question of the overall consistency at the end of the process. Two important differences stand out in the political arena: the nature of the political parties and the composition of parliament, and on the relationship between parliament and the presidency. The constitution assigns greater power to the president in Russia than in Ukraine. Putin has sought to reestablish this power, based on the mandates obtained from the presidential and the parliamentary elections. The alignment of powers in the Duma and the presidency has allowed the federal government to block regional interests. Putin, it would seem, has sought the support of the broader constituencies in distancing the state from narrow vested interests.

During the last parliament, Ukraine managed to form a parliamentary majority, which supported a reform program. However, the past parliament did not support a broad tax reform. This, notwithstanding, the level of legislative activism on tax matters was significant. A highly fractured parliament led the approval of several tax amnesties, special tax treatment, and special zones. The most ambitious piece of tax legislation changed the norms for the collection of overdue taxes, limiting the powers of the tax administration. The same piece of legislation approved the largest tax amnesty in the history of Ukraine.

The vote of no confidence for a reformist government in 2001 by a center/left coalition, blocked the advance of an ambitious legislative reform agenda, the tax reform included. The political groups representing the business interests in Ukraine have not been very enthusiastic about comprehensive tax reform, perhaps because they prefer to deal directly with the state. The pressure to eliminate special privileges and enforce tougher budget constraints is bound to change attitudes in Ukraine. Still, it remains a fact that the president in Ukraine has not been able to establish an at-arms'-length relationship from the power/interest groups.

An additional element that helps explain the difference between the two countries is the higher degree of privatization in Russia. State Owned Enterprises in Ukraine seem less likely to go beyond narrow interests and take broad policy positions. Loung and Weinthal (2001) have argue that private domestic interests have been the forces behind the Russian reform. Specifically, they have argue that large energy groups benefit from a clear transparent tax system, not only in their dealings with the state, but also in their capacity to develop business with foreign partners. While this indeed has been a factor, other factors noted above are likewise relevant, particularly the consolidation of state power and the alignment between executive and parliamentary (political) forces. Also, special interests have to realize that "preferential treatments" are often temporary, and best if to agree on universal and stable norms.

5. Other CIS countries

In other CIS countries, besides Russia and Ukraine, the nature of the political arrangements also affect revenue reform and performance. It would take a longer review to look into the political economy experience of taxation of other countries.[28] But, the review of the Russian and the Ukrainian experiences shows the importance of the mechanisms of political control, which allows some speculation as how the level of political and administrative control could affect revenue performance in other CIS countries.[29] Belarus and Uzbekistan have reintroduced strong mechanisms of control, and both have relatively high rates of revenue generation over GDP.[30] To a lesser extent, this seems to be true of Turkmenistan. Belarus, for instance, is a country that has maintained both a structure of strong control and a highly formalized economy, and both factors contribute to explain its high revenue rate of extraction. The improved performance of Georgia and Armenia after the middle of the Nineties is due partly to the greater control exercised by the central authorities after internal wars. In the middle of the spectrum are countries like Ukraine and Russia, where the command structure collapsed somewhat, but overall new governance structures have arisen. Moldova seems to represent a special case, because it has managed to keep a relatively high levels of revenues, while reforming the institutions and suffering a drastic income contraction, without development a tight system of political control. It remains to see if the present situation is sustainable.

CIS countries with low ratios of revenue to GDP have characteristics more similar to developing economies – highly informal economies with weak control structures. Efforts to improve revenue mobilization, as may be required by the expectations of the basic constituencies, will depend to a great extent on improving their administrative capacity and addressing the political problems that state-consolidation entails. This may become increasingly difficult as interest groups become highly entrenched in the political system, as the experience of Latin American countries shows.

Now, while a high degree of political control favors high rates of revenue extraction, it does not by itself serves the advance the modernization of the tax systems. In fact, the high level of revenues may not be sustainable. To generate a demand for tax reform is necessary to introduce hard budget constraints so that the

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[28] For instance, the Georgian experience shows how political factors came to distort the tax design. See IMF Country Report No 211, November 2001 – Georgia: Recent Economic Developments and Selected Issues.

[29] Political factors are not often used to explain revenue performance. Traditional explanations center on tax handles, such as the (a) the size of the formal sector of the economy, and (b) size of foreign trade in the economy. The size of the formal sector affects the collection of income taxes and of social security employment, which are levied on wages. It is also likely to have an effect on domestic VAT collection and possibly CIT's, although much will depend here on the profitability of enterprises, their compliance and the ability of tax collectors. The level of international trade is particularly relevant for the collection of VAT and excises. Not surprisingly, highly informal economies (Georgia, Armenia, Tajikistan) have low revenues from income tax and social security contributions, and also their over collection ratios in general.

[30] Refer to Tables 1 to 3.

economic actors feel the burden of taxation. It is likely that privatization also helps, as owners are more likely to articulate their interests, when faced with binding budgets and tax obligations. But, also a political system is needed to articulate the interests and develop the vision.

6. Conclusions

This review has emphasized the peculiar characteristics of the political economy of CIS countries, built upon interests that have developed in very incomplete institutional environments. The tax systems developed in these environments were highly inconsistent and incomplete. As hard budget constraints become the norm and property rights are better defined, the need has emerged for comprehensive tax reform to best suit the requirements of a market economy. However, effective comprehensive tax reforms require a tax constituency that can articulate its interest and a political system (executive and legislative) that can aggregate those interests. The review of Ukrainian and Russian experiences showed, that pure political factors such as the alignment between the president and the parliament, and the leadership of the president play an important role. Important also appears, as others have noted, the level of privatisation (in hand of local owners.). Therefore, three factors play an important role in advancing tax reform: (a) the degree of political control; (b) tax constituencies capable of articulating their own interests; and, (c) a political system capable to develop a vision of a tax system that supersedes the boundaries of narrow interests.

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THE TAX SYSTEM IN THE CZECH REPUBLIC: IS THERE A NEED FOR REFORM?

Ivan Matalík and Michal Slavík**

Introduction

Integration in the European Union is a challenging task that requires an adjustment of the Czech economy to the economies of the other member states. The fiscal policy and namely the tax system is one of the main issues that the Czech Republic should pay attention in this phase. Fiscal and tax policies are for future member states not just a question of the Stability and Growth Pact fulfilment, but also a question of convergence and competitiveness. In addition to the harmonisation of some taxes to the EU legislation, the Czech Republic need to adjust the economy to be complementary and competitive in the European market. Are the fiscal policy and the tax system satisfactory for enhancing the convergence to the EU economy or are further adjustments required? Do automatic stabilisers work well enough to keep the budget deficits far from 3 per cent of GDP? Does the Czech tax system, designed in the early Nineties for a relatively closed economy, fit all today's needs? In this brief paper we would like to answer some of these questions and spell out certain criteria that might be helpful in judging a reform or non-reform of the Czech tax system.

The reason why we pay attention to fiscal and tax policy issues is the fact that the Czech Republic has certain problems in this area and does not fulfil the Maastricht 3 per cent of GDP government budget deficit criterion at the moment. This also affects the monetary policy, namely the speed of the accession to the Euro-zone and abandonment of national currency. The roots of the current fiscal imbalance lie on both sides of the general government budget. There is an increase of public expenditure (supporting the validity of the Wagner's law, *i.e.* the fact that public expenditure grows at a faster rate than national income, for the Czech economy) and a decline of budget revenues. Government often refers to the decline of the total tax burden (including social security contributions) in recent years as an argument for increasing taxation. The problem of a tax reform in the Czech Republic can be summarised into some simple questions: Why? When? And how much? We would like to provide some answers to these questions.

The Czech fiscal development shows intrinsic problems. The budget deficit is reaching unsustainable levels due to a decline of the revenue ratio that is not accompanied by a similar tendency of the expenditure ratio. Expenditure growth is affected by the increase of payments based on current legislation (so called "mandatory expenditures"). The government cannot control these outlays in the

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The views expressed are solely our own and do not necessarily reflect those of the Czech National Bank.

short-run. The increase of these expenditures (e.g. pensions, salaries for public sector employees) crowds out possible discretionary expenditures. There is a need for a reform targeted on both budget sides – revenues and expenditures. Politicians often speak about a reform, but there are not willing to undertake any responsibility and they generally tend to shift the problem to the future, hoping that someone else will carry the negative consequences of fiscal consolidation. This behaviour is allowed by the relatively low Czech public debt. The current debt to GDP ratio is approximately 25-28 per cent and the government sees room for further debt accumulation.

The purpose of this paper is to examine a possible tax reform in the Czech Republic. The paper briefly introduces the latest development; tries to identify unsatisfactory areas within the current tax system and discusses what could be done to improve tax policy.

1. The basic structure of Czech taxes

The structure of the Czech tax system was established during the early stage of the transformation process. Its roots were laid down in the early Nineties and have not been substantially modified yet. The Czech tax system copied the main features of tax systems of the OECD countries It introduced the VAT and simplified the taxation of companies.

The economic reform of the early Nineties was grounded on 4 pillars: price liberalisation, privatisation, internal currency convertibility and a tax reform. A substantial tax reform was prepared during 1991 and 1992 and was implemented on 1st January 1993. It completely transformed the old tax system which consisted of 17 different taxes, into a new one consisting of only 8 taxes. The difference was not just in complexity, the whole philosophy of taxation was rapidly changed to create a tax system consistent with a market economy and greater efficiency of labour and capital markets. For more details see, e.g., Heady and Smith (1995).

During the last 10 years modifications of tax rules were carried out in all transition countries. The Czech Republic was not an exception. The progress and structure of those changes were similar in all these countries: As Mitra and Stern (2003) pointed out, common features were a rapid decline of the corporate income tax revenue to GDP ratio and a growing importance of indirect taxes as a source of revenues. In the Czech Republic the share of corporate income tax on total tax revenues declined from 16.5 in 1993 to 9.8 per cent in 2000. However, the ratio of indirect taxes to Czech total tax revenues remained almost constant with a minimum volatility in the transformation period (32.9 per cent in 1993 and just 32.0 per cent in 2000).

The tax changes in the Czech Republic included the reductions of the corporation tax rate from 45 to 31 per cent and the VAT rate from 23 to 22 per cent. Several allowances were introduced in the personal income tax (e.g., for life insurance and pension savings, for home building/reconstruction savings). Foreign

investors were granted some tax holidays. As a result of a fight against tax deceptions and judicial decisions, the tax law became voluminous and complex.

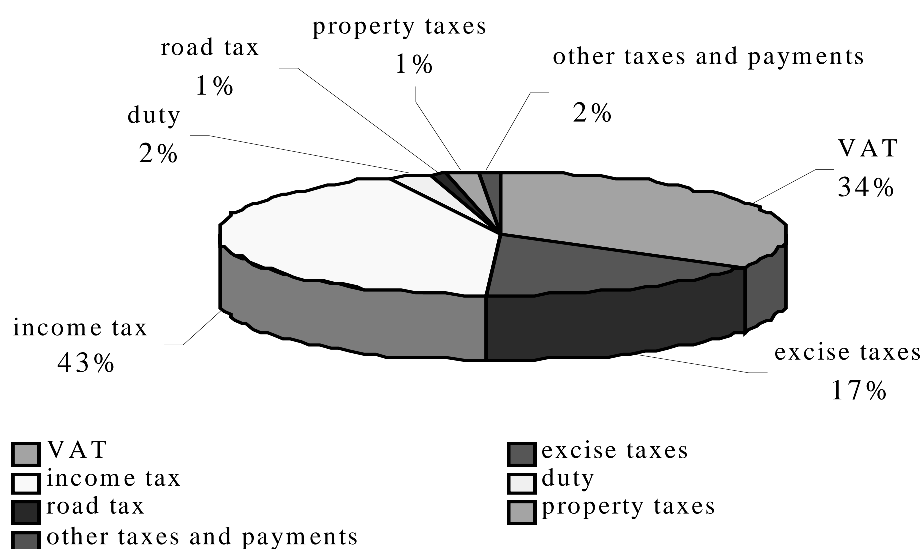
Taxpayers are subject to one or more of these taxes:

Corporation income tax	current tax rate: 31 per cent
Personal income tax	tax rate: 15-32 per cent
Value added tax (VAT)	5 per cent on services, 22 per cent on goods
Excise taxes	on petrol, tobacco and alcohol products
Road tax	1200-4200 CZK on cars, 1800-44100 CZK on trucks
Real estate transfer tax	5 per cent of the estate price
Inheritance and gift tax	between 7 and 40 per cent

Labour income is also subject to social security and health contributions. The most important budget revenue sources are indirect taxes (51 per cent) and income taxes (43 per cent). Other taxes and payments play a limited role and an increase of their revenue share could be seen as desirable. The structure of tax revenues is shown in Figure 1.

Figure 1

Structure of Tax Revenues in 2001



Source: CNB.

Table 1 compares tax revenue ratios in the Czech Republic and some surrounding countries with the EU and OECD weighted averages. Because a comparison based on tax rates would not provide an accurate picture – due to variously specified tax bases in different countries – a look at a share of a particular tax on total tax revenues (including social security contribution) seems to give better information. The Czech Republic has the highest social security contribution among these countries. However, combining the personal income tax and the social security contribution, overall labour taxation is still lower than in Germany and approximately the same as in Austria. Czech politicians often admit that the proportion of property taxes is low and need to be increased. They see property taxes as an easy target for increasing government revenues. But, as shown in Table 1, the share of property taxes on total tax revenues (1.3 per cent) is very similar to Austria and Hungary.

High taxation of labour (personal income tax and health and social contributions) and high amount of arrears are among the main problems of the tax system. High taxation of labour creates opportunities to work in the shadow economy (some individuals prefer to avoid the personal income tax and social contributions by declaring themselves as unemployed, while in fact they are

Table 1

Share of Taxes on Total Tax Revenues (Including SSC) in 2000

	Indirect taxes	Personal income tax	Corporate income tax	Social security contribution	Personal income tax and social contribution	Property taxes
Austria	28.4	22.1	4.7	34.2	56.3	1.3
Czech Republic	32.0	12.7	9.8	43.8	56.5	1.3
Germany	28.4	25.3	4.8	39.0	64.3	2.3
Hungary	40.5	18.6	5.7	29.3	47.9	1.7
Poland	36.6	23.2	6.9	29.4	52.6	3.3
EU-15 average	30.0	25.6	9.2	27.5	53.1	5.0
OECD average	31.6	26.0	9.7	24.8	50.8	5.4

Source: Revenue Statistics 1965-2001, OECD (2001).

employed in the shadow economy). Another reason for the high underpayments is the time-consuming enforcement of payments. In some cases, smaller companies operate as a "tax shell" – they cumulate tax obligations for a certain period of time and instead of a repayment, they just go bankrupt. During the liquidation of these companies it may be found out that there are no other assets that could be used to settle the tax debt.

The efficiency of tax collection could be improved. A part of the inefficiency stems from the low chances to collect revenues from liquidated firms that did not settle their former tax duties. Another stems from a widespread attitude towards taxation: tax evasion is considered more like a sign of heroism than a moral offence. There are still considerable opportunities to avoid taxation: tax inspections are not a sufficient threat to manipulate the accounts of small enterprises (many self-employed persons show in their business accounts as tax costs items which are related to their personal consumption rather than to their business activities). Big companies have larger opportunities to have their incomes taxed in countries with lower or no tax rates. The government is trying to eliminate these opportunities; as a result of this action, tax legislation becomes more complex.

The ratio of total tax arrears to total tax revenues is relatively stable and reaches values between 4 and 5 per cent. This indicator has not changed dramatically since 1995 and exhibits surprisingly high persistence. The tax administration is able to collect around 15 per cent of enforcing arrears. The success of enforcement is higher for the arrears of lower amount; the amounts exceeding 10 mil. CZK are usually unassailable. The Czech tax administration has dramatically increased its activity in enforcing arrears. Just for an illustration: in 1995 there were around 31 thousands of such cases, while in 2001 there were approximately 196 thousands. This increase of tax arrears is not accompanied by a higher "productivity of enforcement": the average amount of cashed arrears (total amount of additionally obtained tax revenues divided by the total number of case) has declined. This raises serious questions about the cost-effectiveness of the tax administration effort. It is fair to point out that the discussion of tax arrears could be somewhat misleading: tax arrears are taxes that have been declared, but have not been paid in time. It does not say anything about the taxes that have not been declared at all. Elimination of tax evasion should be another challenge for the tax administration.

Another problem is connected to the tax holidays granted to certain foreign investors. On one hand these incentives harm the fair competition between (or equal conditions for) domestic firms and new foreign investors, on the other hand they seemed necessary for attracting those investors. New investments certainly contributed to lower unemployment rates in some regions and speeded real economic convergence. It is highly probable that some of the firms that enjoy tax holidays would close down soon after the tax advantage disappears and move to another country granting tax incentives. It is questionable whether the Czech government is prepared for this. Sooner or later some manufacturing firm may move their location to countries that does not tax the labour that much and can provide a lower company income taxation.

2. The Czech tax system and the European Union

EU fiscal rules requires member states to pursue budgets which are close to balance or in surplus in the medium-term. Actual fiscal developments in the Czech Republic are far from these objectives. The general government deficit does not fulfil the 3 per cent of GDP level. Certain quantitative and qualitative steps should be undertaken. Restructuring of both sides of the budget should not just bring it to balance, but also enhance growth perspectives of the economy. Adaptation of the revenue side should be a part of this process.

From a qualitative point of view, Czech taxes are compatible with EU requirements. There are still some differences (mainly in indirect taxation), but they will be removed before the Czech Republic enters the EU. But one should also consider whether other aspects of taxation should be modified even if changes are not required by the EU law.

Labour taxation (personal income and social security and health contributions) is one of the highest in Europe. This raises labour costs and discourages work in the official economy causing high unemployment even during cyclical upswings. The state budget loses potential revenues and foreign investors are more likely to set up their branches outside the Czech Republic. Lately, we have witnessed a ”corporation tax rate cut race” in many countries that tried to become more attractive for foreign investments, but the labour costs are for investors as important as is the corporation tax.

Coordination of tax policies within the EU regards indirect taxes. As a result, the Czech Republic has adjusted the VAT and excise duties to be compatible with other EU members. The tax law of EU is not static and evolves, so new adjustments could be necessary in the future. In the context of accession the Czech Republic had to narrow the list of items that are taxed with the reduced VAT tax rate, decrease the threshold for required VAT tax payer registration, increase excise duties on tobacco and petrol products to a minimal EU level and close dawn duty-free shops on borders. Most of these steps have already been taken. Some changes are planned for this year. In some exceptional cases the Czech Republic tried to obtain a longer transitional period. This applies to the reduced VAT tax for telecommunication, heating and building services. The EU requirements on direct taxation are less rigid and give us more space for individual handling. The tax competition between acceding countries for attracting foreign investments leads to a decline of corporate income tax rates. In personal income taxation the Czech government aims at reducing special allowances and achieving a higher “tax fairness”.

The target of tax policy – as stated in several official documents – is that of stabilising the “composite tax quota” (the total tax burden including social security contributions to GDP). This variable has automatically declined during the transformation process. The government would like to reverse the trend. Reference to “stabilisation of a tax quota” may be less clear to the public than explicit reference to an increase of taxation. The fact is that the Czech total tax burden is already relatively high in comparison to other OECD countries – in 2000 it was 39.4 per

cent while the OECD unweighted average was 37.4 per cent and the EU-15 average was 41.6 per cent (see Table 2). Looking just at tax developments in the Czech Republic and ignoring those of other countries could be misleading and could harm the Czech economy, destroying its competition capability. The taxation in the Czech Republic is higher than, e.g., in Germany, Hungary or Poland (naming just the neighbouring countries) and only 10 OECD countries reach higher values. Increasing the total tax burden necessarily means higher taxation of the Czech economy than in the geographically nearest countries and adverse substitution effects and loss of the competitiveness. The Czech government ignores the international context of taxation, looking just at the past development of taxation in the country. Such approach would be feasible in a large close economy, which the Czech Republic is not. A fiscal reform that would increase the tax burden without solving the problems on the expenditure side would negatively affect the future growth perspectives of the Czech economy.

Table 2

Total Tax Burden Including Social Security Contributions
(percent of GDP)

	1993	1994	1995	1996	1997	1998	1999	2000
Czech Republic	42.9	41.3	40.1	39.3	38.6	38.1	39.2	39.4
OECD average	36.3	36.3	36.1	36.5	36.7	36.8	37.1	37.4
EU-15 average	40.2	40.5	40.0	40.6	40.9	40.9	41.5	41.6

Source: OECD Revenue Statistics (2002).

3. The role of the Czech central bank in a tax reform

It may be a little controversial that a monetary authority takes position about fiscal policy issues. In principle, in a country where the monetary policy is independent, a central bank could ignore the fiscal and tax policy design and take for its monetary decision these two policies as given. But the Czech Republic is making an effort to get ready for monetary union. The country should join the Euro-area only after the Czech fiscal and tax policies have been prepared to compensate for the loss of monetary autonomy. The Ministry of Finance is sometimes too much

concerned about day-to-day problems or the political consequences of changes and devotes less attention to long-term conceptual issues. The central bank tries to compensate for this and often steps into the fiscal policy debate to stress the economic side of changes and their long-term benefits.

Why is it important for a central bank to monitor the tax policy? The answer is very simple: tax policy is an important part of fiscal policy. Knowledge of the timing of tax changes gives important information for setting the monetary policy instruments in the inflation-targeting framework. Especially changes in indirect taxation have a direct influence on the price level and determine the consumer price index behaviour. The development of the revenue side of the government budget and the announced changes of taxation provide more precise information about the government budget deficit trajectory. Involvement in the tax reform process can give a significant information advantage to a central bank. On the other hand the central bank may be more exposed to political pressures.

The implementation of a tax reform needs a broad political support. Every change in taxation has different impacts on different social and political groups. It is obvious and well described in the theoretical literature (see, e.g., Alesina and Drazen, 1991) that it is often easier for politicians to maintain the existing tax system, which may be inefficient, than introduce a reform and risk their chances in the next election. It is therefore a task for economists to influence the political debate and support the reform process.

4. Criteria for a tax reform

To put some structure in our discussion of the tax reform, it may be useful to try to find some criteria why a tax reform may be needed. These criteria can be derived from economic theory and be valid for all counties. Alternatively, one can stress more country specific conditions.

As a tool for judging whether the tax system should be modified and a tax reform is needed, one can use the standard economic tools that were developed to solve optimal taxation problems. The economic theory focuses on the microeconomic aspects of taxation – e.g., welfare effects, redistribution and markets distortion. Any tax reform (or tax adjustment) is usually discussed within a simulation model that can estimate the effects of proposed changes on the variables relevant for policy makers.

Taxation is often discussed on the basis of three criteria (for more details see, e.g., Newbery, 1995 or Heady, 1996):

- minimisation of disincentive effects (economic efficiency),
- “fairness” of taxes,
- minimisation of administrative transaction costs (and practical enforceability).

In the theoretical literature (pioneered by Mirrlees, 1971) the search for optimality leads to the specification of the social welfare functions and microeconomic analysis. This paper focuses on policy-oriented issues. A limitation in the practical implementation of the theoretical results is the fact that there is a huge uncertainty about the parameters used in the models or simply a lack of data that could be used for modelling the impacts of intended changes. More empirically oriented simulation of tax reforms based on microdata analysis, *i.e.* the estimation of demand systems as described, e.g., by Baker, McKay and Symons (1990), could be used in economies in which the consumption patterns and habits of households are stable over time. Dramatic changes during the transformation period limit the use of household data from Family expenditure surveys for future predictions, due to sizeable changes in household expenditure habits. Although it may be possible to model a particular tax change by assuming that household habits have remained unchanged, as Blow and Crawford (1997) did for a duty tax on petrol in the UK, there are severe data limitations for an application to the Czech Republic. The Family expenditure surveys carried out by the Czech Statistical Office are not detailed enough to provide complete information about some commodities that are taxed by duty taxes.

In addition to the optimality criteria mentioned above, one can list other reasons why a tax reform should be implemented. For the Czech Republic the following justification can be suggested:

- strong need of fiscal consolidation,
- reinforcement of automatic stabilisers,
- increasing tax effectiveness,
- retaining fiscal competitiveness.

Once can think of other reason for a reform as well, but let us first describe in more detail each of these factors that seems to be the most relevant.

4.1 The need for fiscal consolidation

The Czech Republic went through a transformation process when it tried to develop a market-oriented economy. Over a very short period of time the state cumulated a large debt (it was large relatively to the starting value, although not in a European context). The structure of the state changed and new entities were introduced into the fiscal system. A characteristic feature of this period was the decline of budget revenues measured as a ratio to GDP and an increase of expenditures. The gap between expenditures and revenues tend to open over time.

Moreover, during the transformation process public finances benefited from large privatisation receipts. This blurs the Czech budget deficit history: budget deficits in the Nineties would have been much worse without these temporary revenues. Since there is no much state-owned property left for a future privatisation,

policymakers should bring the public finance soon back to its balance without relying on further extra revenues.

The difficulties of the current fiscal development in the Czech Republic can be seen from Table 3 that shows expected budget deficits (as percentage of GDP) of candidate countries. The reliability of these figures is somewhat questionable. All these countries are trying to send positive signals to the EU and do not have enough incentives to show their imperfections. Some of them might be too optimistic about their future fiscal development. Moreover, the future budget deficit in the candidate countries is also highly dependent on a state of the banking system. Through a transformation process, that was similar in all candidate countries, bad loans were cumulated in the banking system. Some countries have already undergone a deep consolidation of the banking system; some are in this process now. The Czech Republic is trying to be very open about this issue and deficits shown in the table are rather conservative estimates. The decomposition of the budget deficit into its

Table 3

Budget Deficits in the Candidate Countries
(percent of GDP, according to ESA95)

	2002	2003	2004	2005
Bulgaria	–0.8	–0.7	–0.5	0.0
Cyprus	–2.6	–1.9	–0.6	–0.3
Czech Republic	–6.4	–6.0	–5.7	–5.5
Estonia	–0.2	0.0	0.0	0.0
Hungary	–6.0	–4.5	–3.0	–2.5
Latvia	–1.8	–2.5	–2.2	–2.0
Lithuania	–1.9	–1.7	–1.6	–1.5
Malta	–5.2	–4.6	–3.9	–3.1
Poland	–4.1	–3.6	–3.3	–2.2
Romania	–2.7	–2.4	–2.4	–2.4
Slovakia	–4.6	–4.1	–3.1	–2.6
Slovenia	–1.8	–1.3	–1.0	0.8
Turkey	–13.2	5.9	–3.0	–0.5

Source: Preparation of the candidate countries for participation in economic policy coordination and European Commission, 2002.

cyclical and cyclically adjusted component shows that the cyclical part plays only a minor role and the problem lies in the cyclically adjusted part.

The overall deficit is not the only problem of the Czech fiscal policy. The parliament has created several local governments to decentralise the decision process of the state executive. Several state off-budget funds or vehicles were set up and the formerly unified central government budget was split into several budgets. The reason for this was an attempt to give a longer investment horizon to some institutions (in the case of off-budget funds) or to hide some transformation costs (in the case of the other off-budget vehicles). Unfortunately, some of these institutions are heavily dependent on temporary privatisation revenues and do not have regular incomes. Similarly the new local governments do not have direct revenues, but are dependent on transfers from the central state budget.

Table 4 shows the development of the Czech public debt since the foundation of the Czech Republic in 1993. The consolidated public debt reached 24.7 per cent of GDP in 2002. Non-consolidated estimates for 2003 corresponds to approximately 28.1 per cent GDP, with the consolidated likely to be close to this value.

The Czech tax system was originally designed for a different (much simpler) structure of the budgets. Although some adjustments have been introduced, the revenue side of the government does not correspond to the dramatic changes on the expenditure side. It would be advisable to cancel most off-budget institutions and integrate them back into the state budget and to reform the tax system in such a way that every institution gets a regular source of income. This solution can however apply only to the off-budget institutions of the central government. As to local governments, a tax reform could decentralise allow them to impose their own taxes or modify the tax rates in the area of their jurisdiction. On the other hand, the Ministry of finance prohibit local governments to create new debts.

We created several local governments to decentralise the decision process of the executive. Several national off-budget funds or vehicles were also set up. The formerly unified central government budget was split into several budgets. These reforms aimed at giving a longer investment horizon to certain institutions (in the case of off-budget funds) or to hiding some transformation costs (in the case of the other off-budget vehicles). Unfortunately, some of these institutions are heavily dependent on temporary privatisation revenues and do not have regular incomes. Similarly the new local governments do not have own direct revenues, but are dependent on transfers from the central state budget. The fact that a substantial proportion of sub-central governments' and off-budget vehicles' revenues comes from sources where they have no formal (or any) control is dangerous and needs to be improved.

The tax system should be structured in a way that prevents debts to be generated in the different levels of the general government. Moreover the decentralisation of taxation should not bring additional transaction cost and should be done within the Tax service office.

Table 4

Public Debt in the Czech Republic
(billions of CZK)

	1993	1996	1999	2000	2001	2002	2003*
Public debt (consolidated)	192.1	206.7	275.2	332.4	514.4	562.6	n.a.
as a percent of GDP	*19.2*	*13.2*	*14.5*	*16.7*	*23.9*	*24.7*	*n.a.*
Public debt (non consolidated)	192.2	213.5	287.8	351.9	517.9	565.7	658.1
as a percent of GDP	*19.2*	*13.6*	*15.1*	*17.7*	*24.0*	*24.9*	*28.1*
Consisting of:							
State debt	158.8	161.6	228.3	289.3	345.0	396.0	516.4
State consolidation agency	n.a.	n.a.	n.a.	n.a.	123.1	109.3	80.0
Local governments	3.4	28.1	40.3	41.4	49.0	56.7	58.0
State funds	0.1	0.4	2.0	0.0	0.0	3.0	3.4
Health insurance agencies	0.0	1.2	1.2	0.7	0.5	0.4	0.3
National property fund	29.9	22.2	16.0	20.5	0.3	0.3	0.0

Note: Forecast figures.

Source: Czech National Bank.

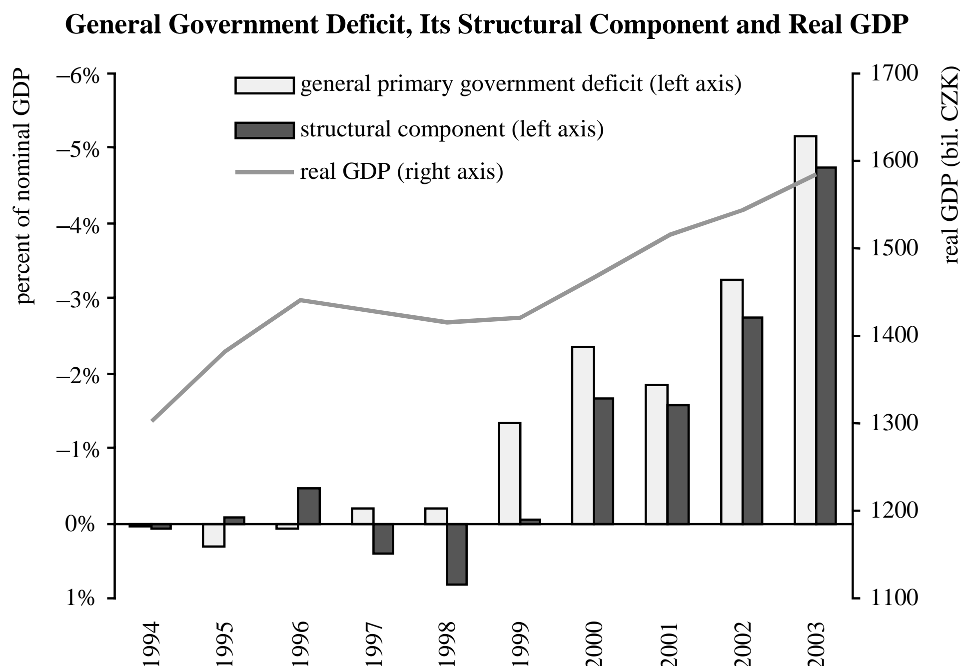
4.2 Reinforcement of automatic stabilisers

Taxes play an important macroeconomic role. It would be tempting for government to smooth business cycle by discretionary fiscal policy, but past experience shows that fiscal policy has been very often in pro-cyclical. Figure 2 shows the general government deficits, its structural part and business cycle development in the period between 1994 and 2003.

Fiscal stance, defined as a change of the cyclically adjusted general government budget, has been pro-cyclical for most of the Nineties. Fiscal policy involuntarily contributed to deepening the business cycle. The obstacle for an active discretionary fiscal policy stems also from often revisions of GDP data. Often such revisions modified the view of the current position in the business cycle. Moreover, since fiscal policy cannot be adjusted over a short period of time, it is not hard to see that discretionary policy decisions cannot be the best tool to minimize business cycle swings. A better solution is that of developing stabilizers that would work

Figure 2

General Government Deficit, Its Structural Component and Real GDP



Source: Czech National Bank and own calculations.

automatically without requiring discretionary government decisions. This can be achieved not just on the budget expenditure side, but also on the revenue side.

The advantage is no information and implementation lags and a relatively fast impact. On the expenditure side the strength of automatic stabiliser is dependent on the generosity of unemployment subsidies and the sensitivity of unemployment to GDP fluctuations. On the budget revenue side key parameters are the progressivity of the tax system and the size of the public sector. Important factors are also the openness of the economy and the flexibility of factor markets – see, e.g., Brunila, Buti and in't Veld (2002). The design of the automatic stabilisers should allow a symmetrical impact during the business cycle.

While designing the current tax system, the Ministry of finance did not pay much attention to the creation of effective automatic stabilizers. The main concern in 1992 was the design of a new tax system compatible with a market economy. An effort was made to implement tax changes that would allow the evolution of market structures and would not limit the economy as the previous system. At the same time the tax system would have to generate the same amount of tax revenues, so that fiscal soundness would not be endangered. The new tax system was introduced on New Year's Day, 1993, which was also the date of splitting Czechoslovakia into two

parts. It was a period of high political and economic uncertainty. Understandably, the issue of automatic stabilizers was not a priority with respect to the more urgent need to guarantee stable revenues.

Since 1993 the tax system has remained very much the same. However, many changes to individual taxes have been introduced. A common denominator of those adjustments was the attempt to minimize the room for tax evasion. Early stages of the process building a market economy were characterized by large tax avoidance. This was a consequence of undeveloped fiscal authorities, the emergence of thousands new companies and a common social climate. Most changes in tax legislation were motivated by the effort to eliminate these factors. A discussion about the connection of fiscal policy and business cycle was too academic and so remote from more urgent fiscal problems that it would not bring fruitful results.

However, as time moves on, the Czech fiscal authorities should start to improve the existing tax system, also in view of optimising its business cycle behaviour. Unfortunately, the discussion is still at the preliminary stage. Most tax changes are introduced as a result of the EU harmonisation requirements and there is no time or energy left for more detailed economic analysis of the proposed tax changes. One problem in building automatic stabilizers in a small open economy is that of a relatively low correlation between the business cycle and the domestic economic variables (e.g., the unemployment rate behaves quite acyclically and the room for automatic stabilizers that would be dependent on labour taxation – *i.e.*, personal income tax or social contributions – is very limited) which could be related to the potential tax base. This depends on the Czech business cycle being highly dependent on economic development abroad: the growth of domestic GDP is determined by foreign demand (*i.e.*, the net exports). One possible solution would be to impose some anti-cyclical import/export duties. However, the possibility to adopt this solution is limited by the international commitments of the Czech Republic. Moreover, the main trade partners of the Czech Republic are the members of the EU. Such duties would have to be imposed only on non-member countries that do not play a significant role in the Czech net exports.

The building of automatic stabilizers seems problematic in the Czech Republic. The domestic candidates for a tax base do not show a strong relationship to the business cycle; the foreign trade candidates are practically excluded, because export/import with non-EU countries will play a marginal role.

4.3 Increasing tax effectiveness

An ideal tax system should induce a minimal behavioural response of taxed subjects, *i.e.,* cause minimal distortions in the economy. Moreover, the tax system should minimise the administration costs. The tax administration in transition economies faces in general very similar problems. Mitra and Stern (2002, p. 37) provide this list:

- a culture of mutual mistrust between tax payers and tax authorities;

- no tradition of voluntary compliance with tax legislation;
- no tradition of appeals to the courts against the decision of tax authorities which, by enhancing trust in the fairness of tax administration, would encourage voluntarily compliance;
- no tradition of self-assessment, which would shift the burden of appraisal to the private sector and reduce administrative demands placed on the tax authority.

All this factors are relevant for the Czech Republic. Tax design has to take into account the cultural and institutional framework to increase its efficiency. In practise this may be rather tricky. A permanent effort of the government to fix imperfections in the legislation which allows to escape taxation complicates the tax law. As a consequence, tax legislation becomes complex even for the tax administrators and the previously well-intended changes turn out to be counter-productive in the end. The Czech tax system in recent years evolved in the opposite direction than the tax systems of many other countries. The Czech Republic should now reverse this trend and follow the examples of countries that were able to simplify the tax system (see Herd and Thorgeirsson, 2001).

Some taxes have a stronger impact on economic behaviour and impose a higher burden, some are less harmful and modify the behaviour only negligibly. Increasing the tax effectiveness means finding sources of taxation that minimise the burden to the economy. It is often agreed that the labour taxation modifies the work behaviour of the population and creates distortions on the labour market. Blundell, Duncan and Meghir (1995) present a method for estimating the effects of reforms of labour taxation. Štěpánková (2002) discusses microeconometric modeling approaches and their potential for the Czech Republic in more details. These and similar studies should be used to evaluate the tax reform now under discussion. When the current tax system was designed in the early Nineties the room for similar analysis was limited by the dramatic structural change and the discontinuity in households' behaviour.

Increasing the tax effectiveness also means an effort for suppressing the "shadow" economy. Simpler and clearer tax rules, that can be easily checked and enforced, could bring additional revenues not just from lowering the administration costs, but also from enlarging the base for taxation. Previous effort of the Ministry of Finance went in an opposite direction: in order to minimise the room for tax evasion, gaps in legislation were filled and the complexity of legislation was increased. The result is that the previously publicly understandable norms became readable only by tax professionals – the tax consultants and tax administrators. The effort should have gone rather in a different way: simplification, rather than extensive definitions, would close opportunities to avoid taxation. Nevertheless, any reform that would try to simplify the system would be first criticised by the tax consultants, because they would lose a part of their know-how concerning how to minimise tax obligations.

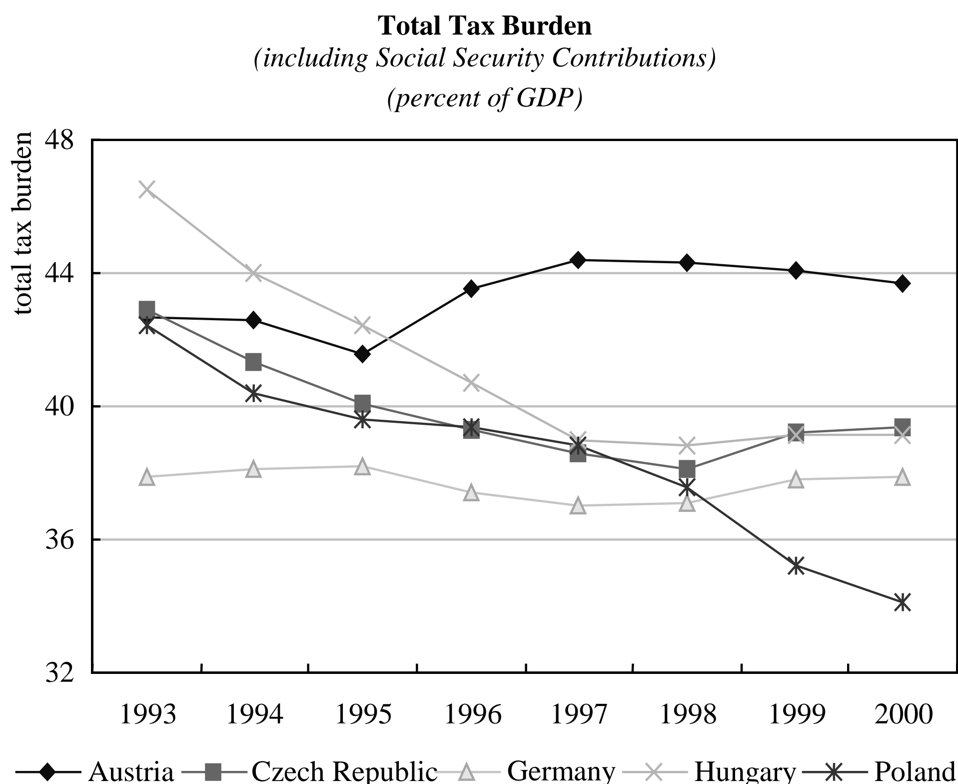
4.4 Tax competitiveness

International fiscal competitiveness is an important aspect in the design of a tax system. A small country has to consider the development of the tax systems of surrounding countries, otherwise it would lose competitiveness. The Czech Republic need to look at tax development in Poland, Slovakia and Hungary. A look at Germany or Austria could also be important, but it is necessary to keep in mind that those economies are in a different period of development. There is also a need to monitor tax developments in other acceding countries. If taxation of income and capital were be too different in the Czech Republic and those countries, one could expect that companies and capital would move quickly to an area with better conditions (*i.e.,* less taxation).

Figure 3 examines the tax burden (including the social security contributions) in Austria, the Czech Republic, Germany, Hungary and Poland. The Czech Republic

Figure 3

Total Tax Burden
(including Social Security Contributions)
(percent of GDP)



Source: OECD Revenue Statistics.

shows similar pattern as Germany and Hungary, while Poland was able to decrease the total tax burden sharply. The government's plan to return the total tax burden back to its former values may have a considerable negative impact on the attractiveness of the Czech Republic in the region. It is also a matter of opinion if the Czech Republic can be compared with developed economies like Germany and Austria or other EU members. It may be advisable to set tax and fiscal policies considering primarily the transition economies that are in a similar phase of development.

5. Summary

The Czech public finances are not balanced at the moment. The expenditure side of the general government budget tends to grow faster than GDP (as would predict the Wagner's law); the ratio of revenues on total output is meanwhile declining. Temporary revenues – such as massive privatisation receipts – that improved the budget position in the past, cannot be expected to occur again. Steps on both budget sides are required to solve this fiscal imbalance. Ineffective public expenditures should be reduced. An adjustment of the revenue side would also be appropriate. The Czech tax system is therefore a suitable candidate for a reform or at least an adjustment.

The current fiscal imbalance is not the only reason for a change of tax policy. The tax system was designed in the early phase of transformation of the economy from a planned to a market one. At the beginning of the Nineties the Czech economy was rather close and the imports and exports of goods and capital did not have the important role they have now. The opening of the economy creates also pressure on taxation; the government does not have a strong control over the tax base, since capital moves freely to countries where there are better conditions. Tax competition between countries puts a stronger pressure on the Czech government and limits the room for levying additional taxes.

The European approach to fiscal policy is based on building sufficient automatic stabilizers that would work freely without the need for government discretionary action. The elimination of discretionary policy and the development of automatic stabilizers is one of the challenges for the Czech Ministry of Finance. It is also a motivation for tax reform. Another challenge is the elimination of excessive burdens and ineffectiveness that hamper the growth potential of the country. The complexity of the tax law, which depends on the several incremental changes introduced in legislation, worsens the comprehensibility of tax regulation for economic subject and produces additional administration cost. Simplification, raising overall flexibility, competitiveness with neighbouring countries, deeper harmonisation with EU principles and a reflection of national constitutional changes are the main reasons why the Czech tax system should undergo a reconstruction.

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TAX REFORMS AND FISCAL STABILISATION IN LATIN AMERICAN COUNTRIES

Ricardo Martner[*] *and Varinia Tromben*[*]

Introduction

The fiscal burden in OECD countries more than doubles the overall taxation level in Latin American countries. In terms of revenue composition, OECD countries collect a larger share from direct taxes; there is also a greater weight of social security contributions. However, the revival of economic growth and the design of better tax systems enabled fiscal revenues to recover strongly during the last decade, reaching an increase of 3 points of GDP on average. Revenue growth has been particularly notable in VAT, and to a lesser extent among direct taxes.

In Latin America income and capital gains taxes show a very low collection level; its weight has fluctuated between 2 and 3 per cent of GDP. Although this feature is a structural weakness, major tax reforms tended to favour duties easier to collect, reduce the highest marginal rates of personal income tax and diminish the average corporate income tax rate. On the other hand, trade liberalization and the reduction in trade tariffs undermined tax revenues. This problem will continue as the deepening of regional integration will continue to reduce or even to eliminate import tariffs. The efforts thus concentrated on the internal aspects of taxation, in those sources which are easier to collect.

The overall increase of effective tax rates evidence the need for greater funding in the last decade. However, this effort was not sufficient to ensure fiscal sustainability, in an environment of high interest rates and low growth. Some countries of Latin America are once again facing an external debt crisis, this time in the public sector. In addition of establishing consistent and credible anti-cyclical fiscal rules, these countries need an overall solution which includes sovereign debt restructuring mechanisms designed in a global context.

In this document, we first describe the main trends of tax burden and composition of tax revenues in Latin American countries, and then we estimate some indicators to emphasize the magnitude of the fiscal problem. We calculate the short term tax gap, as OECD has defined it, for 18 countries. This simple indicator of fiscal sustainability underlines the huge difference registered in the recent years between the primary surplus required to stabilize debt and the effective primary balance. Hence, fiscal adjustment cannot be avoided if financing conditions remain prohibitive. However, the reversal of economic cycle makes impossible to fill this

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gap in the short term without significant macroeconomic costs. Some room of manoeuvre, namely a cyclical safety margin, has to be considered, specially in the discussions with International Financial Institutions.

We estimate the magnitude of this cyclical safety margin, which is very significant because of the volatility of output and the high value of income elasticity, despite the relatively minor size of public sector when compared to OECD standards. If fiscal policy is more efficient when letting operate automatic stabilisers, then "second generation" macro fiscal rules will have to address on the issue of the pronounced pro-cyclical bias that defined fiscal policies in the nineties in many Latin American countries.

1. Main features of tax systems and recent trends

One of the main functions of taxes is to finance public spending on goods and services, therefore choosing a taxation level is equivalent to choose a public spending level. Nonetheless, economic theory offers a very limited guide in relation to the optimal level of tax burden and revenue composition. Tanzi and Zee (2000) adopt an empirical approach, evaluating if the level and composition is "appropriate" by comparing the performance with other economies, taking into account the particularities of each country. If we compare the tax burden of OECD and Latin American countries, there is a great difference both in level and composition terms (see Figure 1).

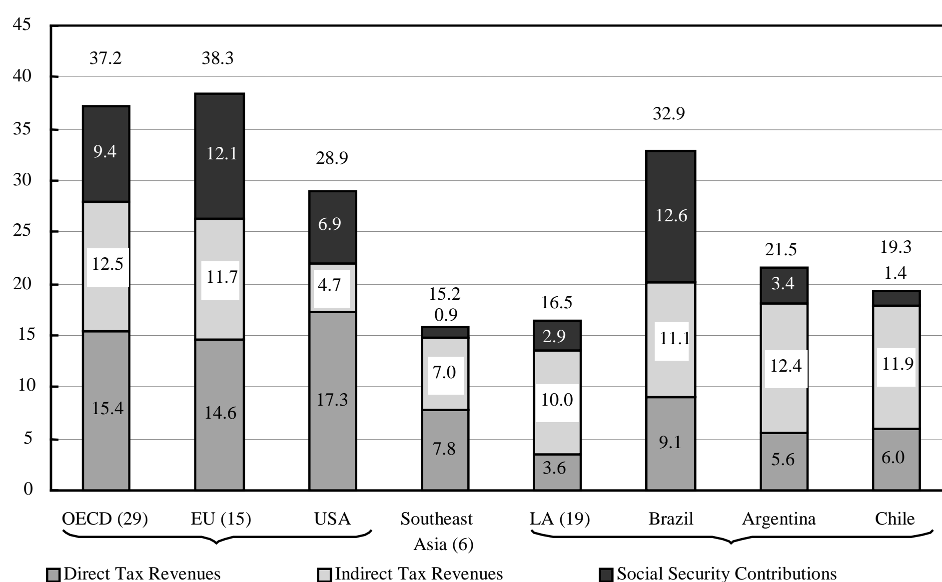
For the year 2000, the fiscal burden in OECD countries more than doubles the overall taxation level in Latin American countries. In terms of revenue composition, OECD countries collect a larger share from direct taxes; also there is a greater component from social contributions. In comparison to South-Eastern countries, there is virtually no difference in the overall taxation level. However, in relative terms, direct taxation is far more important than in Latin American countries.

1.1 Tax burden and composition

During the Nineties the tax burden in Latin America has increased significantly, on average (see Figure 2). The revival of economic growth and design of better tax systems enabled fiscal revenues to recover strongly; 16 of the region's countries managed to increase central government tax revenue (see Figure 3). On average, the region registers a tax pressure of the Central Government Sector equivalent to 15 per cent of GDP for the year 2000, and 15.8 per cent for 2001. Revenue growth has been particularly notable in VAT, and to a lesser extent among direct taxes. Between 1990 and 2000, including social contributions, the increase reached 3 points of GDP; if we exclude this item then the rise is 2 points of GDP. Social security contributions display wide disparities, because several of the region's countries reformed their pension system, which altered the public/private mix of social security financing and coverage.

Figure 1

International Comparison of Tax Revenues, 1999 or 2000
(percent of GDP)



Note: Data for OECD countries and Argentina, Bolivia, Brazil, Chile, Costa Rica and Ecuador correspond to General Government coverage. The others correspond to Central Government.

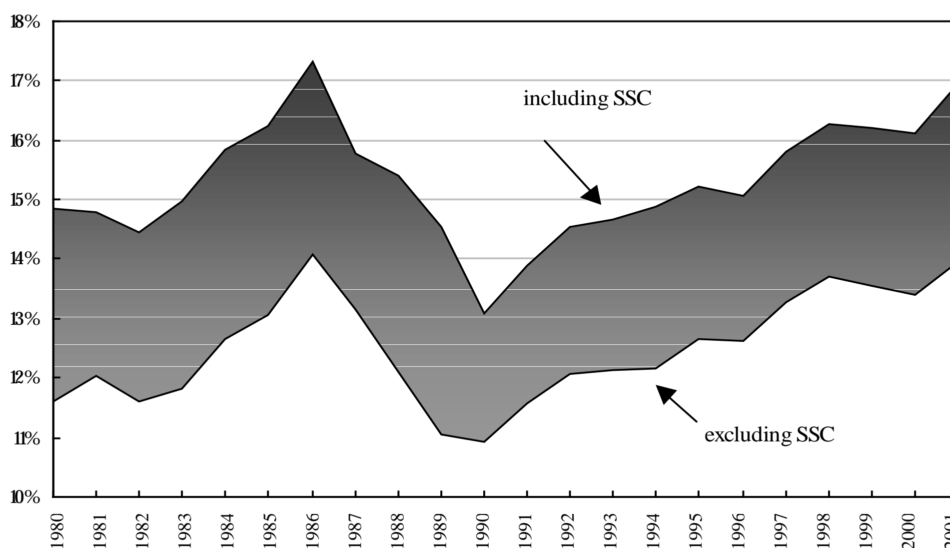
Source: for OECD countries, "Revenue Statistics of OECD Member Countries" (OECD), 2001. For southeast Asia, "Government Finance Statistics" (FMI), 2000. For Latin American countries, ECLAC, based on official data.

Regional averages hide relevant differences between countries, very significant in Brazil, Colombia, Nicaragua, and Uruguay, which exhibit a larger share of social contributions. For example, Brazil has a tax burden over 30 per cent of GDP at the General Government level, even higher that the level registered for the United States, mainly explained by the far above the ground level of social security revenues. Argentina and Chile register tax burden above average, reaching 20 per cent of GDP, despite the fact that the largest part of social security is private in these countries.

The income level is also a variable that explains the differences between countries; as shown in Figure 4, the economies with a higher GDP per person have also a higher tax burden. The sharp differences among countries can also be observed in relation to the revenue composition. Some general trends are represented in Figures 5 and 6. In Latin America, income and capital gains taxes show a low collection level. During the Nineties, its relative weight has fluctuated

Figure 2

Latin America, Central Government Tax Revenues, 1980-2001
(percent of GDP)



Note: for the period 1980-89 there are no data available for Bolivia, Colombia, El Salvador and Nicaragua.

Source: ECLAC, based on official data.

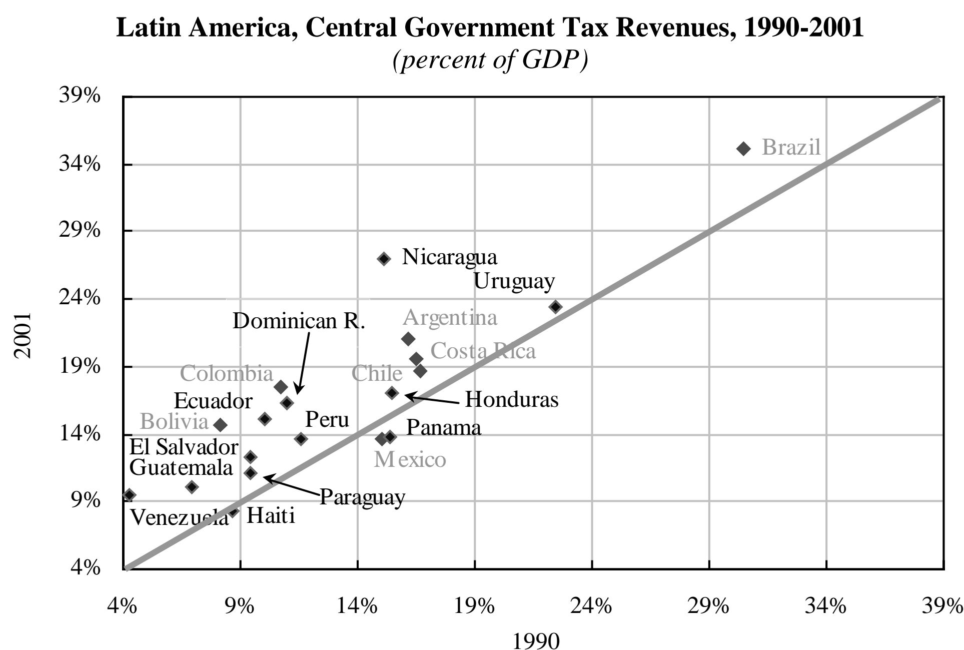
between 2 and 3 per cent of GDP. Major tax reforms have tended to favour duties easier to collect and with a larger tax base (such as VAT); reduce personal income tax (PIT) highest marginal rates, as well as a reduction in the average corporate income tax (CIT) rate, which have been compensated through an enlargement of the income tax base and an increase in the lowest marginal rates.

Following the previous argument, the trend regarding PIT during the Nineties has been associated mainly with reducing the top marginal rates, increasing the lowest marginal rates, and the reduction in the number of taxable income brackets. Table 1 shows that since 1992 the average highest marginal rate has been reduced by six percentage points, while the average lowest rate has been increased by one point in the same period. The current structure is very different to the prevailing in the European Union, where PIT rates are significantly higher than in Latin America.

At the beginning of the nineties, most countries in the Region used different CIT rates depending on the economic sector. This practice distorted seriously economic resource allocation, and contributed to a less efficient tax administration. During the decade this situation has been reverted, observing a clear tendency towards unification in the CIT rates (see Table 1), which accelerated in the second half of the decade. Currently, only three countries keep a differentiated structure for

Figure 3

Latin America, Central Government Tax Revenues, 1990-2001
(percent of GDP)



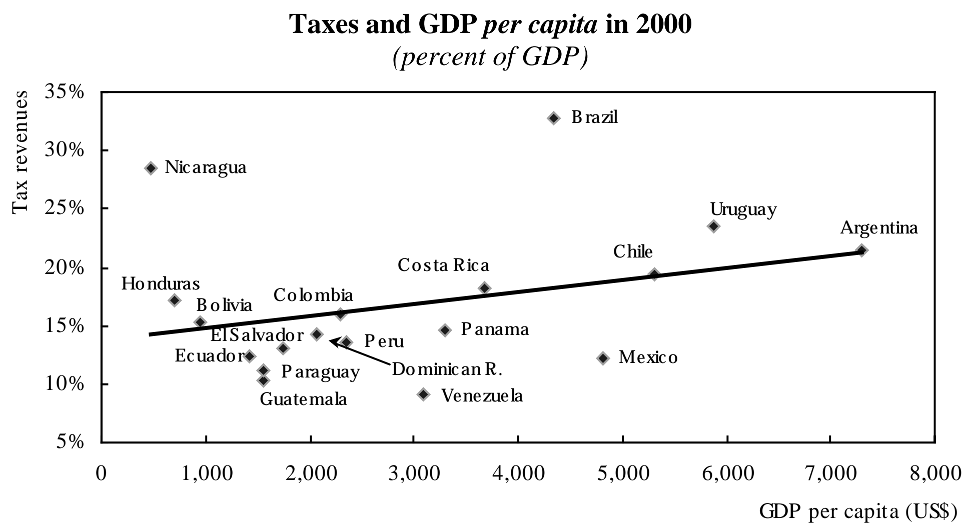
Source: ECLAC, based on official data.

this tax: Honduras, Paraguay, and Venezuela, and they have reduced their differences over time. When considering the Region's average, the dispersion between the highest and lowest rate goes from 26 percentage points in 1992 to only 2 points in 2001. With this performance the CIT structure assimilates itself to international standards.

Taxes on property have shown a systematic low collection; in 2000 the regional average was only 0.4 per cent of GDP and adds up to a 2.9 per cent of total government revenue. The only countries where this levy has a greater role is in Bolivia, Brazil, and Colombia, even though the numbers registered are not of great importance in the general structure of total government revenues. Most collection of property taxes are performed at the local government level, where tax administration capacities and inspection schemes are still very underdeveloped. There are several failures which undermine the local government collection capacity such as: the autoevaluation system by the owner, which incentives to declare a lower value of the property being assessed; the infrequent revaluation of unitary costs; the deficiencies and difficulties to create and keep updated the property cadastre; the ample range of excepted properties; and the high management cost for non-specialized tax administrations.

Figure 4

Taxes and GDP *per capita* in 2000
(percent of GDP)

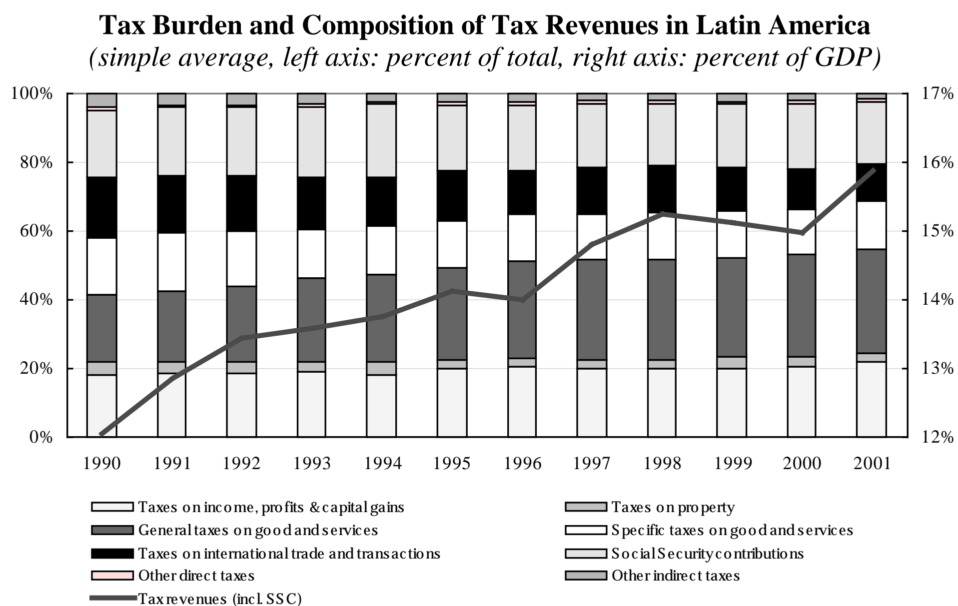


Tax revenues data include Social Security Contributions and correspond to General Government coverage for: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico and Panama. Data for Ecuador corresponds to 1999, and for Mexico to 1998.

Source: ECLAC, based on official data.

Figure 5

Tax Burden and Composition of Tax Revenues in Latin America
(simple average, left axis: percent of total, right axis: percent of GDP)

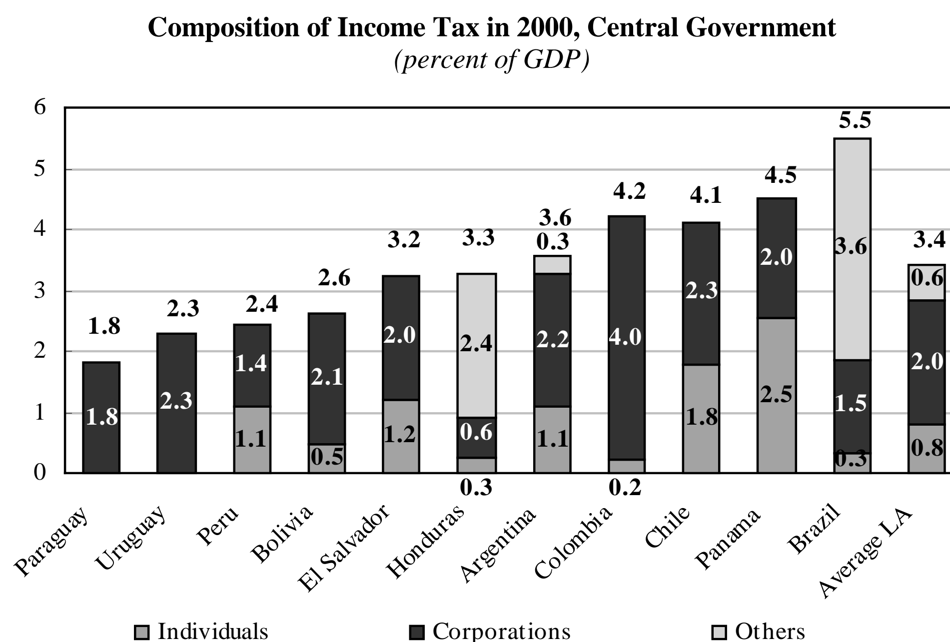


Notes: In some cases data of social security contributions do not correspond to central government level.

Source: ECLAC, based on official data.

Figure 6

Composition of Income Tax in 2000, Central Government
(percent of GDP)



Notes: data for Argentina and Colombia correspond to 1999.

Source: ECLAC, based on official data.

Given the context of simplification and generalization of income tax, and the trade liberalization which was accompanied by a reduction in trade tariffs, it was necessary for the countries of the region to search new ways to compensate the revenue reduction. The most appealed way to compensate was the wide introduction of value added tax (VAT). In the Sixties Uruguay was pioneer in the Region to introduce VAT in their tax codes; in the Seventies Argentina, Bolivia, Chile, Ecuador, Honduras, Nicaragua, Panama and Peru followed suit; and in the Eighties the rest of the countries of the Region began implementing it, with the exception of Jamaica, El Salvador, Paraguay, and Venezuela, which adopted it in the Nineties.

The literature has amply reviewed the reasons to implement VAT as a major collection source. It should be stressed its wide tax base; tax neutrality in intertemporal, international and national terms; and its relatively easy collection method, which compensates the management problems encountered by tax administrations. Compared with the previous sales tax, VAT has several advantages, such as generating information flows along the production, distribution, and sales process, which alleviates the tax auditing work. Also, the tax credit/debit mechanism generates incentives for complete tax returns by taxpayers, thereby reducing the needs for tax control.

Table 1

Income Tax Rates for Corporations and Individuals

	Corporations				Individuals			
	1992		Dec 2002		1992		Dec 2002	
	min	max	min	max	min	max	Min	max
Argentina	20	20	35	35	15	30	9	35
Bolivia	0	0	25	25	10	10	13	13
Brazil	25	40	15	15	10	25	15	27.5
Chile	15	35	16	16	5	50	5	40
Colombia	30	30	35	35	5	30	0.13	22.92
Costa Rica	30	30	30	30	10	25	10	15
Ecuador	0	44.4	25	25	10	25	5	25
El Salvador	0	25	25	25	10	30	10	30
Guatemala	12	34	31	31	4	34	15	31
Honduras	0	40.2	15	25	12	40	10	25
Mexico	0	35	32	32	3	35	3	32
Nicaragua	0	35.5	30	30	8	35.5	10	25
Panama	2.5	45	30	30	3.5	56	4	30
Paraguay	0	30	25	30	0	0	0	0
Peru	0	30	27	27	6	37	15	27
Dominican Republic	0	49.3	25	25	3	70	15	25
Uruguay	0	30	30	30	0	0	0	0
Venezuela	20	67.7	15	34	10	30	6	34
Average Latin America	**8.6**	**34.5**	**25.3**	**27.2**	**6.9**	**31.3**	**8.1**	**24.9**
Average European Union	**36.4**	**37.9**	**32.0**	**35.4**	**17.1**	**53.0**	**18.6**	**47.6**

Source: Tanzi (2000) and Centro Interamericano de Administraciones Tributarias (CIAT).

Since its introduction, VAT has acquired a great importance becoming the main source of tax collection in the Region. Its relative weight has increased from 19.6 per cent in 1990 to 31 per cent in 2000; VAT collection in relation to GDP reached in 2000 a 4.4 per cent. The countries that depend heaviest on VAT are Argentina, Chile, and Uruguay, which show a VAT tax burden above 7 per cent of GDP, and rates that are specially higher compared to the rest of Latin American countries.[1] The main differences registered in the region relate to the tax base. For example, in some countries VAT is imposed generally on goods and services, other countries use as tax base all goods and some services, while some countries impose it only on goods. Nevertheless, the general trend has been to extend the tax base over time, leaving the least number of exceptions possible. Some differences can also be

[1] The numbers for Argentina and Brazil are referred to General Government level. For Argentina, VAT is "co-participated" which means that federal and regional governments share revenues from this tax. In Brazil, the "ICMS" tax is collected –and spent- by regional Governments.

registered in the number of rates implemented, since in some countries there are different rates for some types of goods consumed, as is the case of Argentina, Colombia, Costa Rica, Honduras, Mexico, Nicaragua, and Panama.

The VAT basic rates registered a generalized increase in the decade (see Table 2); actually between 1994 and 2001 all the countries increased or maintained the VAT rates. On average, the rates have grown in two percentage points. However, on the other hand, the VAT compliance (measured as VAT collected in per cent of VAT rate multiplied by Final Private Consumption) is still relatively low in comparison to other countries.

In the past, governments tried to achieve greater social equality by imposing lower rates to certain categories of highly demanded social products. Such structure created higher administration costs, and incentives to generate greater tax evasion and elusion. Another outstanding trend of the decade has been the tendency to reduce multiple rates.

1.2 Estimation of VAT compliance and tax expenditures

Reducing tax evasion involves several benefits in terms of tax efficiency (whether the tax increases or reduces the overall welfare of those who are taxed) and tax equity (if the tax is fair to similar taxpayers), since compliant taxpayers are in disadvantage in comparison to tax evaders. Furthermore, the reduction of tax evasion would increase tax collection and improve resource allocation. In the case of VAT, there are several mechanisms used to evade file returns which sub-declare the debits or over-declare the credits. In all tax evasion analysis it must be considered that VAT evasion carries together income tax evasion, due to the fact that sub-declaring sales (or over-declaring purchases) reduces the corporate or personal income tax base.

Estimating VAT compliance does not allow to account separately tax evasion, elusion, and tax expenditures. Figure 7 and Table 2 show the VAT compliance for 18 countries on year 2001. The regional average is 53.2 per cent of the relevant tax base, namely private final consumption. However, the results are diverse; four countries have a record below 40 per cent and five countries exhibit a tax compliance above 60 per cent.

Tax expenditures are fiscal instruments which governments use as an alternative to direct spending. However, because of its nature it has several problems: horizontal inequality; lack of budgetary control; fiscal transparency problems; and management difficulties. Tax expenditures are defined as the amount of income that Government does not receive for giving a tax treatment which deviates from the general tax law. Tax expenditures are aimed at benefiting, promoting, or encourage certain activities, sector, region or group of taxpayers. Usually they take the form of exemptions or tax deductions, differentiated tax rates, and accelerated depreciation. Tax expenditure seeks to promote certain types of consumption or "desirable" activities. The never-ending question on these matters is

Table 2

VAT Rates and Compliance

(percent)

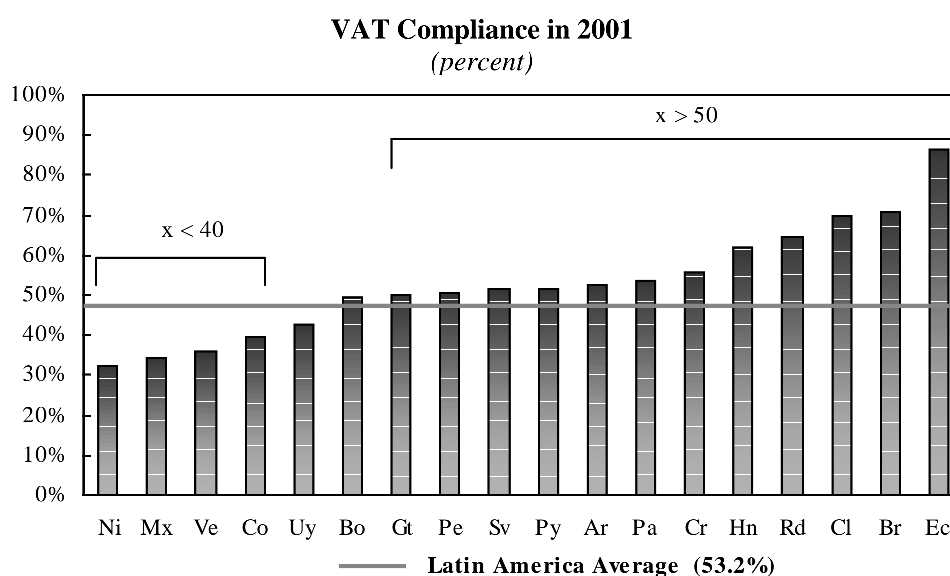
	Initial year	VAT Rates 1992 (a)	1994 (b)	1997 (c)	2002 (d)	VAT compliance 1992	1994	1997	2001
Argentina[e]	1975	18	18	21	21		67.1	60.6	52.4
Bolivia	1973	14.92	14.92	14.92	13	31.5	40.6	50.2	49.3
Brazil[e]	1967	20.48	20.48	20.48	20.48	43.3	63.8	57.8	71.0
Colombia	1975	12	14	16	16	46.0	44.4	46.1	39.8
Costa Rica	1975	8	8	15	13	77.5	69.4	47.1	55.6
Chile	1975	18	18	18	18	74.5	71.9	68.9	69.8
Ecuador	1970	10	10	10	12	44.5	49.3	58.6	86.5
El Salvador	1992	10	10	13	13	46.5	56.2	52.6	51.5
Guatemala	1983	7	7	10	12	44.6	43.0	48.2	50.1
Honduras	1976	7	7	7	12	62.6	69.9	83.4	61.9
Mexico	1980	10	10	15	15	37.7	37.9	31.9	34.3
Nicaragua	1975	10	10	15	15	24.7	33.3	26.4	32.3
Panama	1977	5	5	5	5	63.7	69.0	69.7	53.9
Paraguay	1993	10	10	10	10	23.2	45.0	53.7	51.7[f]
Peru	1976	18	18	18	16	27.1	46.4	51.8	50.6[f]
Dominican Republic	1983	6	6	8	12	42.5	32.3	46.9	64.5
Uruguay	1972	...	...	...	23	…	…		42.7
Venezuela	1993	...	10	16.5	15.5	…	29.0	39.6	39.8
Average		**11.4**	**11.8**	**13.7**	**14.4**	**46.0**	**51.1**	**52.6**	**53.2**

Notes: VAT collection correspond to central government level). VAT compliance is calculated as follows: $x = \frac{VATc}{PFC * VATr}$, where VATc represents VAT collection; VATr represents VAT rate; and PFC represents Private Final Consumption.
(a) July of 1992.
(b) March of 1994.
(c) June of 1997.
(d) December of 2002.
(e) VAT collection correspond to State Governments level.
(f) 2000.

Source: Tanzi (2000) for rate information of 1992 and 2000, CIAT for rate information of 2002.

Figure 7

VAT Compliance in 2001
(percent)



Note: collection VAT data for Argentina and Brazil correspond to General Government coverage. Data for Panama and Paraguay correspond to 2000.

Source: calculations of the authors based on data from ECLAC.

whether it is possible to achieve better results and lower costs at promoting these behaviours in a more targeted way through specific programs.

The surveys on tax expenditures in Latin America show that the magnitude of tax expenditure is high; estimations range from 7.4 per cent of GDP in Colombia to 1.5 per cent of GDP in Brazil (see Table 3). Depending on the country there is a different emphasis through which channel tax incentives are granted. In the case of Chile and Brazil tax expenditures rely heavily on direct taxes, while Argentina, Colombia, and Uruguay use in a greater proportion indirect taxes. A caveat must be made in relation to the above estimations, since there is great heterogeneity in the methodology and coverage used by each country. According to Simonit (2002) the majority of Latin American countries opted for the *ex post* method to estimate tax expenditures.

1.3 Evolution of effective tax rates

As was mentioned in the previous section, tax revenue increased by 3 per cent during the decade. It is important to highlight what are the origins for such increase. This analysis is based on the indicators proposed by Mendoza *et al*. (1994), adapting them to the national accounts data and tax collection information available, as

Table 3

Tax Expenditures in Selected Latin American Countries
(percentages)

Country	Year	Total tax expenditures *(percent of GDP)*	Tax expenditures, direct taxes *(percent of total)*	Tax expenditures, indirect taxes *(percent of total)*
Argentina	2001	3.0	29	64
	2002	3.1		
Brazil	2001	1.5	66	17
Chile	1998	3.8	71	29
	2001	4.4		
Colombia	1998	7.4	35	65
Guatemala	2001	2.0		
Mexico	2002	5.3	51	49
Peru	2003	1.9	10	90
Uruguay	1999	6.6	20	76

Source: Simonit (2002) and ECLAC based on official information.

performed by the European Commission in 2001.[2] The estimations on the effective tax rate on consumption, labour, and capital show the tax structure underlying trends, as well as the existing differences in these rates among countries.

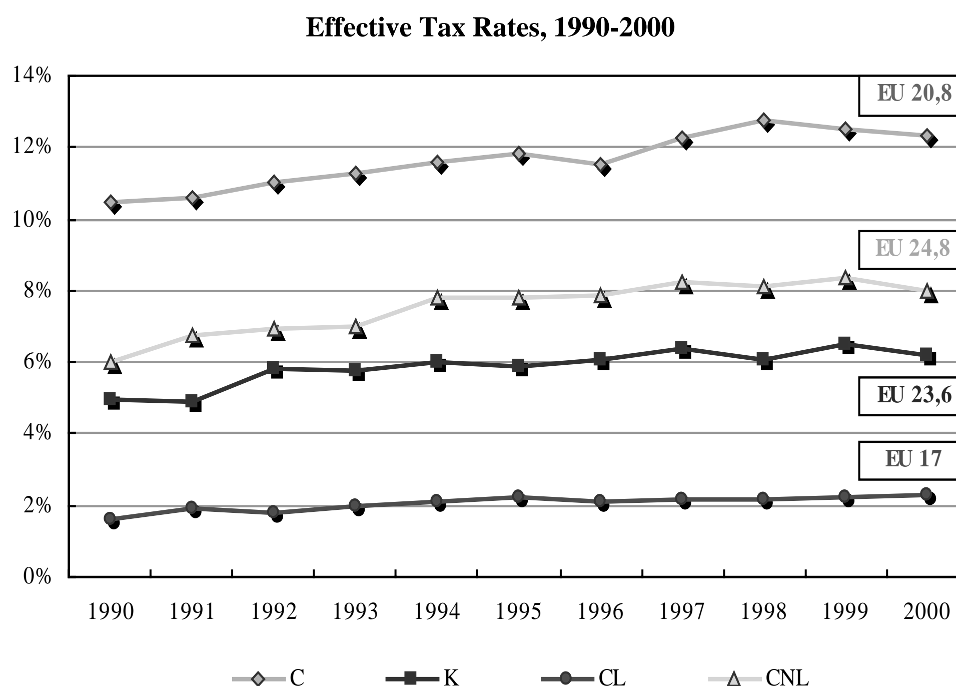
The indicators proposed by these authors link tax revenue to the relevant national accounts items. The Effective Tax Rate on Capital (**K**) shows the relationship between taxes on property, capital gains, and corporate income tax to the net operating surplus of the overall economy. The Effective Tax Rate on Labour (**L**) shows the relationship between taxes levied on the work force and social security contributions to the wages and salaries of dependent employees. Finally, the Effective Rate on Consumption (**C**) compares VAT and excise taxes to private and public consumption.

Using the above methodology it can be shown (Figure 8) that during the decade there was an increase in the effective tax rates on consumption (+1.9 percentage points), labour (+3.8 percentage points), and capital (+1.2 percentage points). These trends evidence that changes in the tax structure detailed in previous

[2] The effective rates of consumption include the 19 countries included of the Region. For the rest of the indicators there is full information available from Bolivia, Brazil, Colombia, Chile, El Salvador, Honduras, Panama, Paraguay and Peru.

Figure 8

Effective Tax Rates, 1990-2000



Notes: this analysis is based on the indicators proposed by Mendoza *et al*. (1994):

$$C = \frac{\textit{Indirect tax revenues}}{\textit{Private Consumption} + \textit{Government Consumption} - \textit{Indirect tax revenues}}$$

$$K = \frac{\textit{Corporative Taxes on Income} + \textit{Taxes on property}}{\textit{Net Operating Surplus of the overall economy}}$$

$$CNL = \frac{\textit{Social Security Contributions}}{\textit{Wages}}$$

$$CL = \frac{\textit{Taxes on work force}}{\textit{Wages}}$$

Source: calculations of the author based on data from ECLAC.

sections were not driven by change in the relevant tax bases, but rather by changes in the tax rates affecting each economic factor.

Compared to the European Union (EU), the regional averages for K, L, and C are substantially lower. While the average rate on consumption is 60 per cent of the one registered in the EU, the biggest difference is registered on work related costs (CL in the graph), where the EU average is seven times higher than the Latin American average. Disaggregating labour costs shows that effective tax rates on work related costs explained only 20 per cent of the effective rate on labour, and that they remained relatively stable along the decade (around 2 per cent), while non-work

related costs increased by two percentage points. This increase can be mostly explained by the social security reforms implemented.

A country breakdown of L shows great differences on the non-work related labour costs. Brazil exhibits the highest contribution on this category (33.3 per cent in 2000). However, on the work related labour costs there are no significant differences among countries. Indirect taxation shows the highest effective tax rates, reaching above 12 per cent from 1997 to 2000. Even though VAT taxes are the most important revenue in the Region, there are still strong differences between countries. Finally, effective tax rates on capital show a relevant increase, probably related to the simplification of nominal tax rates and to a greater control of corporate taxpayers by tax administrations.

2. Tax stabilisation in Latin America

Despite the substantial progress of tax systems in the last decade, there remains crucial issues that will have to be addressed in the near future. In general terms, the situation is puzzling: the deceleration of economic growth and the reversion of capital flows has deteriorated the public finance situation, especially in terms of refinancing debt at reasonable interest rates. In this conditions, the "tax gap" is significant in some cases, as it is shown in the next calculations.

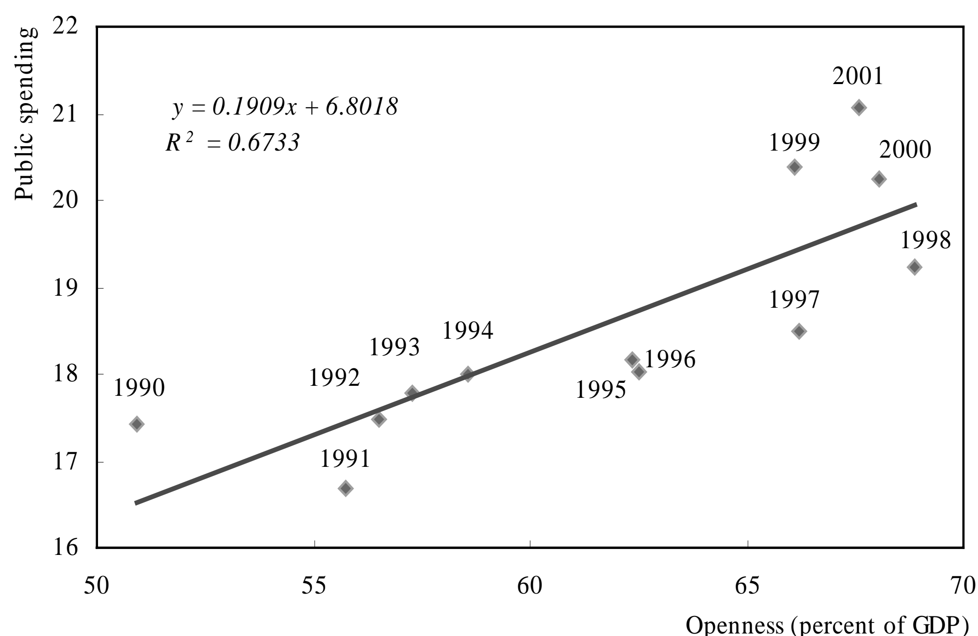
2.1 The need for fiscal adjustment (once again)

The economic reform process since the eighties has implied a reduction of the weight of the cycle in the economy, when measuring public sectors as a whole. Nevertheless, the public spending of the Central (and General) Government grew four points of GDP during the Nineties: from 16.6 per cent of GDP in 1990 to 20.7 per cent in 2001. The reasons of this dynamics are diverse, but we can identify at least four structural sources of spending:

- There may be a positive association, as Rodrik (1998) has stressed, between more open economies and government consumption. In the case in Latin America, this seems to be the case in the Nineties, as shown in Figure 9. The usual explanation is that the Government has a function of isolation of the economy against external volatility. The transfers to private sector, namely job creation, has been particularly widespread in the last years.
- The decentralization process in some countries (Brazil, Colombia, Argentina) has ensured sub-national "spending rights", but not the corresponding financing;
- The social security reforms have been significant, both in the destabilizing process of privatisation of pension funds in Chile, Peru, Argentina and Chile, and in the generalization of "social security rights" in Brazil and Colombia;
- The "snowball effect" of public debt has risen. Real interest rates have been much higher than economic growth rates, particularly in recent years, and this

Figure 9

Relation Between Openness and Public Spending, 1990-2001
(percent of GDP)



Source: ECLAC.

has endangered public sector solvency. As a result, a large and often growing proportion of fiscal revenues has been absorbed by interest payments in some countries, like Argentina, Brazil, Colombia, Costa Rica and Ecuador (see Figure 10). This problem is magnified with the very high proportion of liabilities that are set in US dollars. The countries of Latin America cannot borrow in domestic money abroad, phenomenon that is known as "the original sin" (see, for example, Céspedes, Chang and Velasco, 2002).

The aim of stabilising or reducing public debt has proven to be very difficult in the context of highly volatile growth rates, exchange rates and interest rates. One way to look at the magnitude of this problem is to estimate the so called *ex post* short term tax gap (see Blanchard *et al.*, 1990), which is the primary surplus (or deficit, in a few cases) that the public sector needs to stabilize its debt at the previous level. In Table 4 we make these estimates for 19 countries of Latin America.[3] In

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[3] Blanchard *et al.* (1990) estimate also medium-term tax-gap indicators forecasting the path of crucial variables as output, government consumption and transfers for each OECD country. The intention here is simply to highlight the importance of macroeconomic conditions in public debt dynamics, and not to estimate the exact situation of sustainability in Latin American countries.

Table 4

Tax Gap Indicator
(percent of GDP)

		1995	1996	1997	1998	1999	2000	2001	2002
Argentina	Primary balance	–0.2	–1.3	0.5	0.5	–0.1	1.3	0.2	1.4
	Required Primary balance	2.5	–0.3	–0.9	0.9	4.2	3.7	6.0	7.6
	Difference	–2.8	–1.0	1.4	–0.4	–4.3	–2.5	–5.8	–6.2
	Debt Stock Variation	2.4	1.9	–1.2	3.1	5.4	2.1	8.7	80.6
Bolivia	Primary balance	0.9	0.9	–1.0	–1.4	–2.1	–2.9	–4.9	–5.7
	Required Primary balance	–2.0	–1.6	–1.7	–1.6	1.3	0.1	1.4	0.4
	Difference	2.9	2.5	0.7	0.3	–3.4	–3.0	–6.2	–6.1
	Debt Stock Variation	–4.3	–9.0	–6.7	–1.3	3.1	0.1	7.4	5.7
Brazil	Primary balance	–2.4	–0.7	0.3	0.8	2.4	2.1	2.4	2.7
	Required Primary balance	1.7	1.3	1.0	5.7	5.3	2.0	2.8	2.2
	Difference	–4.1	–2.0	–0.7	–4.8	–2.9	0.2	–0.5	0.6
	Debt Stock Variation	0.4	2.6	2.8	6.3	5.1	0.9	1.8	2.8
Chile	Primary balance	3.0	2.6	2.2	1.0	–1.0	0.6	0.2	–0.5
	Required Primary balance	–1.7	–0.8	–0.6	0.2	0.4	–0.1	0.1	0.0
	Difference	4.8	3.4	2.8	0.8	–1.4	0.7	0.1	–0.5
	Debt Stock Variation	–7.6	–4.4	–2.1	–0.2	1.0	–0.6	2.3	0.3
Colombia	Primary balance	–1.9	–2.9	–2.4	–2.4	–4.3	–2.1	–2.4	–2.9
	Required Primary balance	0.6	1.6	1.5	2.8	4.1	3.2	3.4	3.1
	Difference	–2.5	–4.5	–3.9	–5.2	–8.4	–5.3	–5.8	–6.0
	Debt Stock Variation	0.0	2.0	0.8	5.2	6.7	7.8	8.4	0.4
Costa Rica	Primary balance	0.8	0.6	0.9	0.7	1.4	0.6	1.1	0.3
	Required Primary balance	3.3	4.4	2.1	0.8	0.6	2.8	3.7	3.2
	Difference	–2.5	–3.8	–1.3	–0.1	0.8	–2.2	–2.6	–2.9
	Debt Stock Variation	0.9	4.9	–2.7	8.8	–3.7	1.7	1.7	1.4
Ecuador	Primary balance	1.9	1.4	3.3	–0.1	4.7	7.6	3.2	3.1
	Required Primary balance	–0.7	0.0	–0.6	1.6	8.2	1.1	–1.0	–0.5
	Difference	2.6	1.4	3.9	–1.7	–3.4	6.5	4.2	3.6
	Debt Stock Variation	–13.0	–1.0	–3.8	4.7	35.4	–17.7	–16.3	–8.3
El Salvador	Primary balance	0.8	–0.2	0.2	–0.7	–0.9	–0.9	–3.0	–1.6
	Required Primary balance	–2.6	0.4	–1.0	–0.6	–0.2	0.5	0.4	0.5
	Difference	3.4	–0.6	1.2	–0.1	–0.7	–1.4	–3.5	–2.1
	Debt Stock Variation	1.1	–9.1	–6.3	–7.7	0.1	0.8	2.0	–3.5
Guatemala	Primary balance	0.5	1.2	0.0	–1.1	–1.5	–0.5	–0.5	0.0
	Required Primary balance	0.2	0.7	0.2	0.4	0.8	0.7	1.0	–0.3
	Difference	0.3	0.4	–0.2	–1.5	–2.3	–1.2	–1.5	0.3
	Debt Stock Variation	–2.2	0.2	0.0	–0.1	2.9	–0.1	0.5	–1.2
Haiti	Primary balance	–4.1	–1.6	0.2	–0.4	–0.6	–1.7	–2.5	–2.4
	Required Primary balance	-	-	–0.7	–0.5	–0.4	–0.3	0.6	0.8
	Difference	-	-	0.9	0.2	–0.1	–1.4	–3.1	–3.2
	Debt Stock Variation	-	-	-	-	–0.6	–1.2	–3.4	6.6

		1995	1996	1997	1998	1999	2000	2001	2002
Honduras	Primary balance	–2.8	–2.6	–2.1	–1.8	–4.2	–5.7	–4.7	–3.7
	Required Primary balance	0.3	0.3	–0.7	0.2	3.3	–2.1	–0.6	–1.3
	Difference	–3.1	–2.9	–1.4	–2.0	–7.5	–3.7	–4.2	–2.4
	Debt Stock Variation	–7.6	–4.8	–1.9	–7.6	4.5	–7.5	–4.6	2.0
Mexico	Primary balance	3.2	3.5	2.5	1.1	1.6	2.0	2.2	0.8
	Required Primary balance	5.2	1.9	1.5	1.2	2.2	1.5	3.0	2.4
	Difference	–2.0	1.6	1.0	–0.2	–0.6	0.5	–0.8	–1.6
	Debt Stock Variation	11.9	–4.1	–4.9	0.5	–0.1	–2.7	0.2	–0.2
Nicaragua 1/	Primary balance	3.6	1.5	3.5	2.9	–2.1	–4.3	–7.7	-
	Required Primary balance	–17.2	–17.9	–7.7	–9.2	–21.0	–15.7	–4.5	-
	Difference	20.9	19.4	11.2	12.0	18.9	11.4	–3.1	-
	Debt Stock Variation	–66.3	–184.2	105.7	–14.4	–23.8	–20.2	–4.6	-
Panama	Primary balance	3.8	3.0	2.8	–1.4	1.7	3.2	2.7	2.2
	Required Primary balance	1.7	1.2	–0.6	–0.4	1.2	2.3	4.2	3.8
	Difference	2.1	1.8	3.4	–1.0	0.5	0.9	–1.5	–1.6
	Debt Stock Variation	–2.7	20.9	–4.2	–1.2	6.0	–4.6	6.2	–21.6
Paraguay	Primary balance	0.6	0.5	–0.1	0.7	–1.9	–1.9	0.9	–0.8
	Required Primary balance	0.4	0.5	0.3	0.8	0.8	1.3	0.7	1.4
	Difference	0.2	0.1	–0.4	–0.1	–2.7	–3.2	0.2	–2.3
	Debt Stock Variation	2.8	–0.3	0.6	2.6	8.1	5.0	3.3	10.1
Peru	Primary balance	0.0	1.0	0.9	0.8	–1.0	–0.6	–0.7	–0.2
	Required Primary balance	–1.3	1.2	–1.3	2.0	1.7	0.8	2.1	–0.4
	Difference	1.3	–0.2	2.2	–1.2	–2.8	–1.3	–2.7	0.1
	Debt Stock Variation	–5.6	–2.7	–13.3	8.4	6.8	–1.8	–0.3	2.2
Dominican R.	Primary balance	2.1	0.5	1.4	1.1	0.0	1.8	1.2	1.1
	Required Primary balance	–0.7	–1.9	–1.8	–1.2	–1.2	–0.8	0.3	0.3
	Difference	2.8	2.4	3.3	2.4	1.3	2.6	0.9	0.9
	Debt Stock Variation	–4.2	–4.9	–4.9	–1.4	–1.4	–2.1	0.7	1.4
Uruguay	Primary balance	–0.6	–0.6	–0.2	0.2	–2.0	–2.0	–1.9	–0.6
	Required Primary balance	-	-	-	-	-	2.5	3.5	4.6
	Difference	-	-	-	-	-	–4.5	–5.4	–5.3
	Debt Stock Variation	-	-	-	-	-	5.3	6.9	38.6
Venezuela	Primary balance	–0.6	–11.7	–6.5	1.3	–3.8	–7.3	1.0	–3.9
	Required Primary balance	-	-	–0.3	2.7	4.8	1.9	2.6	7.4
	Difference	-	-	–6.2	–1.4	–8.6	–9.2	–1.6	–11.3
	Debt Stock Variation	-	-	–11.0	–3.1	–1.3	–1.1	2.6	9.2

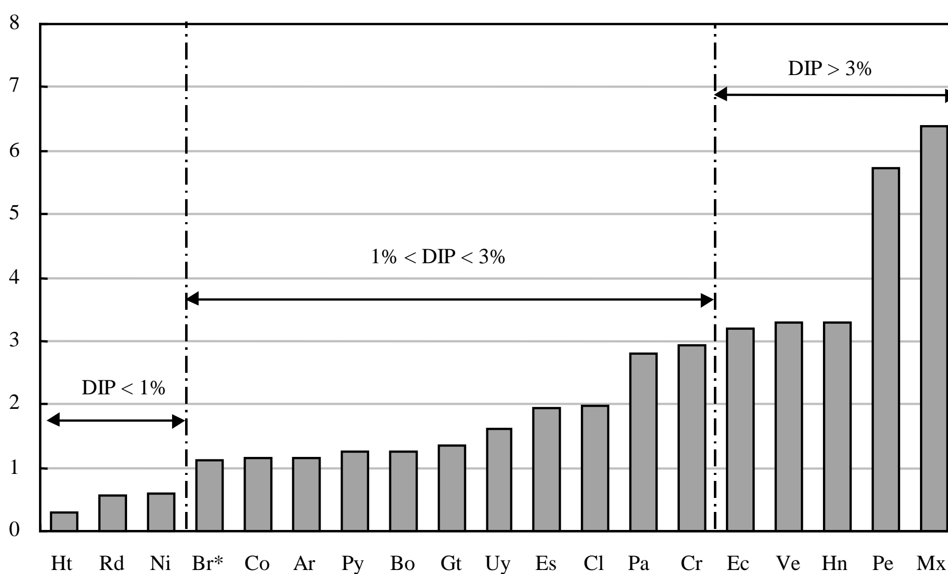
Notes: The Required Primary Balance was calculated multiplying the difference between the public debt implicit interest rate and the real growth rate of the economy with public debt stock of the previous period. The "Difference" corresponds to the difference between the effective Primary Balance and the Required Primary Balance.

1/ Results presented here for Nicaragua can be explained by high levels of debt stock and low levels of interest payments.

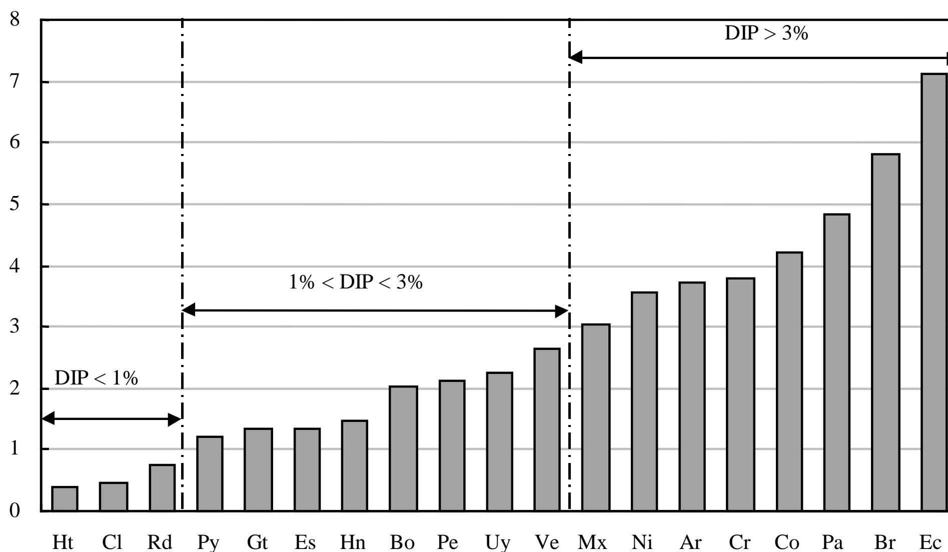
Source: calculation of the authors based on data from ECLAC . Coverage for Primary Balance is Central Government. Coverage for Public Debt is Central Government except Brazil (Federal Government and Central Bank), Honduras (Public Sector), Paraguay, Uruguay and Dominican Republic (only external debt of Central Government).

Figure 10

Latin America: Debt Interest Payments, 1990-1991 Average
(percent of GDP)



Latin America: Debt Interest Payments, 2000-2001 Average
(percent of GDP)



Notes: Institutional coverage: Central Government. DIP means Debt Interest Payments.
* 1991.

Source: ECLAC.

some of them (Argentina, Bolivia, Colombia, Costa Rica, Paraguay, Peru) there is a systematic negative difference between effective and required primary balance, which results in a dangerous dynamic of debt accumulation. A combined process of systematic generation of primary surplus and of enhancement of financing conditions seem to be the only way to ensure medium term sustainability of public debt.

2.2 The pro-cyclical bias of fiscal policy: evidence for Latin America

In a context of fiscal programming with an annual horizon and public revenues that closely follow the macroeconomic cycle, targeting the short-term deficit rather than the structural deficit has given rise to pro-cyclical public expenditure policies. In Latin American countries, during the Nineties, many positive but transitory episodes were considered as permanents, while the negative ones were usually considered as short-lived. This behaviour has produced in some countries an accumulation of public debt ratio even in periods were output growth was above trend. In the future, it seems crucial to face this "optimistic bias" with explicit norms to ensure consistent and transparent fiscal policy.

Graphically, the asymmetry of discretionary fiscal policies can be shown comparing the changes in the cyclically adjusted balance with the output gap, measured as a percentage of trend GDP.[4] If automatic stabilisers had operated symmetrically, in the sense that discretional policies are neutral in the cycle, the dots would be distributed along the X axis. In the case of anti-cyclical policies, dots should be found in bottom-left and top-right quadrants. If dots concentrate in top-left and bottom-right quadrants, discretional policies are pro-cyclical.

In Latin America (Figure 11), the analysis of 45 episodes of changes of the global cyclically-adjusted balance (CAB) reveals that 12 of them were neutral;[5] in 25 cases fiscal policy had a pro-cyclical behaviour, and in only 8 the result was counter cyclical. More precisely, in thirteen of the seventeen episodes in which GDP grew above its trend the change in CAB was negative, reflecting an expansionary fiscal policy.

When the economies grew below GDP trend, the change in CAB was positive in twelve of the sixteen episodes, with a restrictive fiscal policy.[6] The conclusions are similar when the analysis is made in terms of cyclically-adjusted primary balance. These exercises show the usual behaviour of fiscal authorities in Latin

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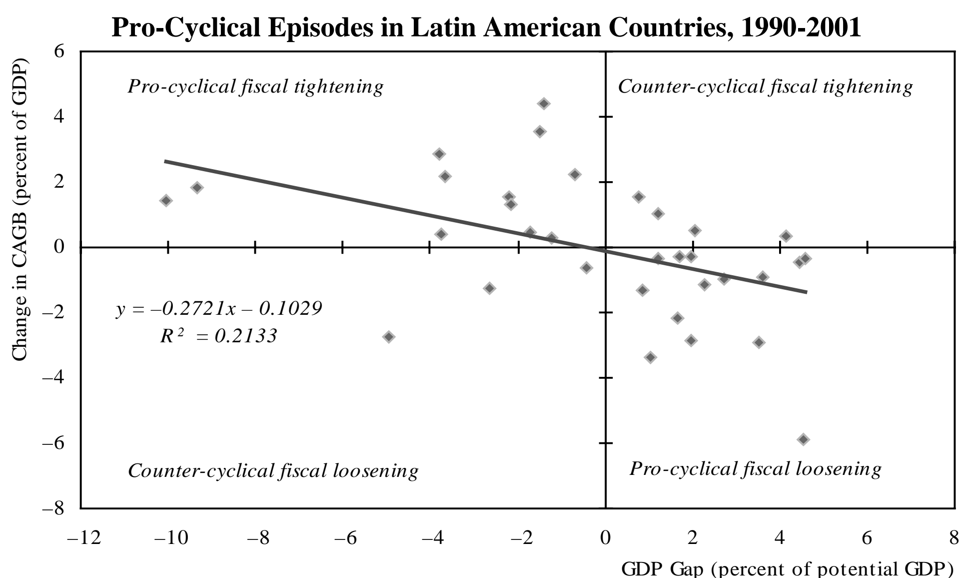
4 Recent studies has shown that there was also a pro-cyclical bias in EMU countries before the Maastricht Treaty (See for example European Commission, 2001). We use here the same methodology.

5 The episodes where there were no significant changes in the CAB even with huge changes of the output gap are: Colombia (99-00), Chile (92-98), Bolivia (94-00), Brazil (90-94), Guatemala (92-00), El Salvador (93-00), Mexico (95-97), Panama (92-00), Paraguay (93-98), Peru (94-00), Dominican Republic (90-96 and 97-00).

6 In this case, countries had to adjust anyway, what we can call a result more than a policy.

Figure 11

Pro-Cyclical Episodes in Latin American Countries, 1990-2001



Note: CAGB: Cyclically-adjusted global balance. The graph only includes episodes where over at least two years the absolute values of the annual average output gap and of the annual average change in the cyclically-adjusted global balance was bigger than 0.25 per cent of trend GDP.

Source: calculations of the authors based on data from ECLAC.

America, which is not very different of other countries when there is no counter-cyclical rule.

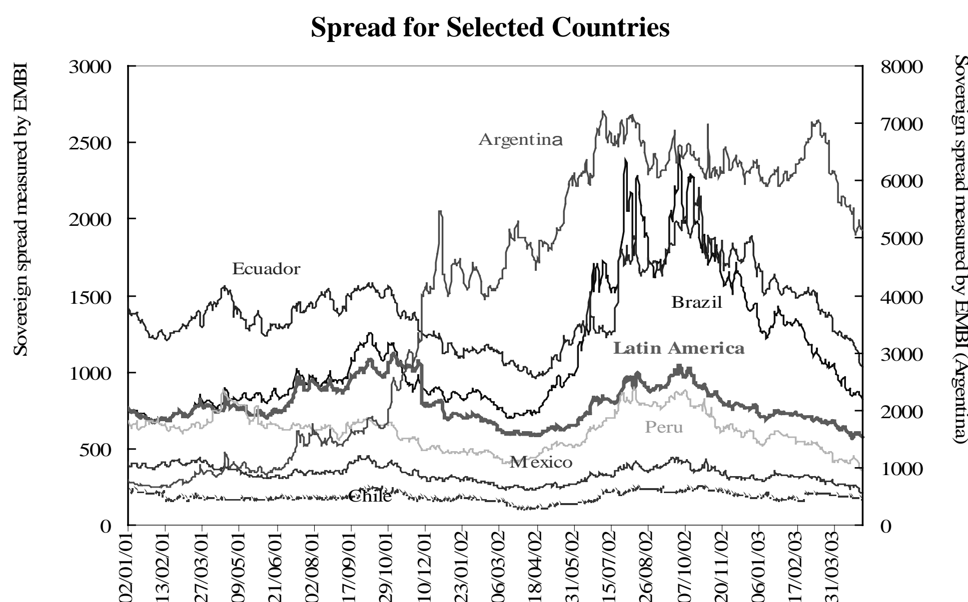
The countries that gained degrees of freedom during the nineties by diminishing its public debt are better prepared today to deal with the reversion of the cycle. As it can be seen in Figure 12, the dispersion of the values of the sovereign debt spread within Latin American countries is quite striking, reflecting the fact that financial contagion is somewhat under control.[7] The market is able to discriminate, essentially on the basis of the public debt stock.

Figure 13 compares, for the 45 episodes analysed, the position of the economies in the cycle with the changes in public debt at the Central Government level. We can identify 15 anti-cyclical episodes, where the "dividend of growth" was spent in the reduction of public debt: Chile (1992-98), Ecuador (1991-98), Peru (1994-2000), Mexico (1990-94 and 1998-2001) and Venezuela (1991-93 and 1997-98). Other periods of public debt reduction occurred with a negative output gap, especially in Dominican Republic (1990-96), Uruguay (1990-91) and Paraguay (1990-91). In various episodes public debt grew heavily in good periods, which

[7] This is only one indicator; the reversion of capital flows to the region is widespread, see ECLAC (2002).

Figure 12

Spread for Selected Countries



Source: Bloomberg.

explains the recent difficulties (or even collapse) of public finance. The cases of Argentina (from 1993) and Uruguay are very clear. To a lesser extent, Brazil (1995-98), Colombia (1994-98), Costa Rica (1998-2001) and Paraguay (1993-98) did not manage to control debt dynamics in the context of positive output gaps.

The complete absence of symmetry in the management of public finance is noteworthy. For example, the countries that succeeded to reduce public debt in good times did not permit a debt smoothing path in bad times. This is a behaviour that is inverse of what is found in the literature, some kind of "surplus bias". In order to ensure credibility, the fiscal authorities tend to eliminate the operation of automatic fiscal stabilisers, even when there is no debt problems. The pro-cyclical reflex is not only usual in expansions; many times the target of public balance is more important than output growth in the context of IMF-supported programs in Latin America.[8]

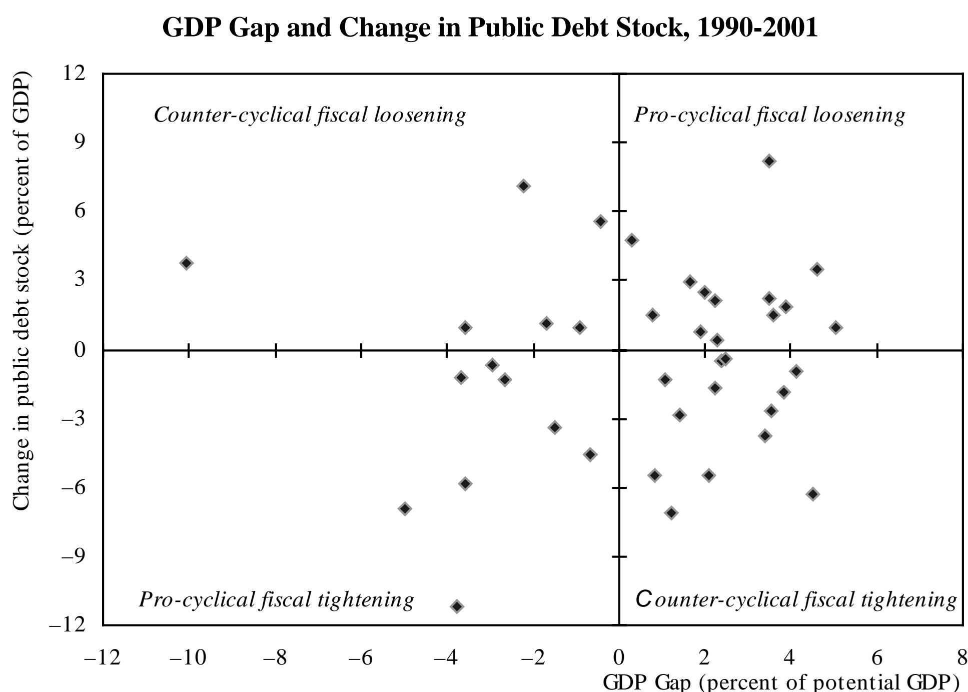
The recent experience of Chile[9] has shown that it is possible to make tax smoothing by accepting higher than expected deficits without losing market

[8] This is not indeed the issue of this paper. However, readers can find interesting discussions concerning structural conditionality and the effects of fiscal adjustments in the IMF web site.

[9] The rule of a structural fiscal surplus of 1 per cent of GDP adopted in 2000 defines public expenditure growth in terms of output trend, isolating this way the expenditure program from transitory fluctuations of fiscal incomes. This anti-cyclical design of fiscal policy is possible because of the systematic reduction of public debt during the Nineties.

Figure 13

GDP Gap and Change in Public Debt Stock, 1990-2001



Note: The graph only includes episodes where over at least two years the absolute values of the annual average output gap and of the annual average change in public debt stock was bigger than 0.25 per cent of trend GDP.

Source: calculations of the authors based on data from ECLAC.

credibility. Of course, this premium is explained by the very low stock of public debt in the country.

These simple calculations show that dynamic consistency of fiscal policy is not spontaneous, even with the strong hypothesis of responsible discretionality. But the need for transparency is growing. In the recent debate of OECD countries the norm of the free operation of automatic stabilisers is widely accepted for the conduct of fiscal policy (see, for example, OECD, 2000, EMU, 2002, IMF, 2002). For Latin American countries, ECLAC (1998) has recommended the use of a structural indicator of public balance for the orientation of fiscal policy. More recently, the World Bank is promoting the adoption of cyclically adjusted rules for the conduct of fiscal policy, in order to enhance the credibility of the countries of the region. A traditional argument against this type of rules in developing countries is that it is necessary to obtain fiscal equilibrium before adopting counter-cyclical criteria. Nevertheless, it should not be imperative to complete fiscal consolidation to introduce at least indicators that can achieve medium term sustainability and remove the pro-cyclical bias of fiscal policy, especially in good times. The definition of the

structural target itself depends essentially on the stock of public debt and the magnitude of contingent liabilities, and remains a domestic debate.

The problem is not only to set rigid objectives of deficit or debt. Fiscal rules that fix numerical targets, what we could call first generation rules, do not remove the pro-cyclical behaviour, as the recent experience in most Latin American countries has shown.[10] If the purpose of fiscal rules is to ensure the dynamic consistency of fiscal policy, reducing debt in good times and hence allowing Governments to access to credits at reasonable interest rates in recessive periods, "second generation" fiscal rules has to include medium term programming, prudent macroeconomic assumptions and some explicit treatment of the "dividend of growth", the destination of public incomes when they are superior to the initial budget programming.[11]

Hence, fiscal rules in the Latin American context requires substantial institutional developments, especially of the capacity to transform sensitivity analysis of the effects of crucial macroeconomic variables in routine budgeting procedures within the administration. Any fiscal rule has to take into account three main aspects: a medium term target (and the path to meet it), exception clauses when there are unforeseen macroeconomic fluctuations, and some room of manoeuvre for dealing with persistent recessive situations (see Buti, Franco and Ongena, 1997, for a discussion).

2.3 The cyclical safety margin of fiscal balance

Variation in a component of public income or expenditure is cyclical when it is due to the difference between the observed product and the trend product. In the OECD methodology (Giorno *et al.*, 1995), the deficit is broken down into a cyclical component and a structural one. The GDP gap is calculated as a percentage of the potential GDP, so that the cyclical balance is positive when the effective GDP is greater than the trend GDP and negative when it is smaller than it. Expressed as a percentage of GDP, the structural deficit is obtained from the difference between the global deficit and the cyclical deficit. The idea is that the structural or discretional deficit constitutes a suitable indicator of the fiscal trust: that is to say, the direction fiscal policy is taking.

In the case of many Latin American countries there are many sources of non-tax income, ranging from the profits of public enterprises that export commodities to the income from privatisation operations. Furthermore, the variation

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[10] The recent Fiscal Responsibility Laws of Argentina (1999), Peru (2000), and Ecuador (2002), did set numerical targets for the annual deficits, eliminating by law the possibility of the free operation of automatic stabilisers. In the last two cases the targets of the Law had to be abandoned with the reversion of the cycle, hampering seriously the perception of commitment of fiscal policy. See Martner (2000) for a discussion.

[11] For recent experiences in European countries, see EMU (2001) and Buti *et al.* (2003). The major budgeting innovations within the OECD countries are synthesized in Blondal (2003).

in real tax incomes is also due to other variables, such as inflation. Fixing deficit targets which are independent of other short-term oscillations (such as commodity prices) is of prime importance. It is also necessary to define what is "normal" for these forms of non-tax income.

For this reason, the concept of structural deficit, as defined earlier, may not be a good indicator of the stance of fiscal policy. Hereinafter, we will use the concept of cyclically adjusted balance with the same methodology developed in the European Commission (1995).

On the expenditure side, total elasticity in the OECD countries varies as a function of the size of the transfers provided for under the unemployment insurance legislation. These protection mechanisms are practically non-existent in Latin America, so there are virtually no expenditures or transfers automatically linked to the economic cycle. Consequently, cyclical expenditure is not taken into account in the calculations below.

The usual cyclical indicator breaks down taxation into its main components (taxes on goods and services, on companies and on households) and econometrically estimates the respective income elasticities, whose values depend basically on the tax structure and the progressiveness of the system. In contrast, it may be assumed that indirect taxes have an elasticity (instantaneous) of one.

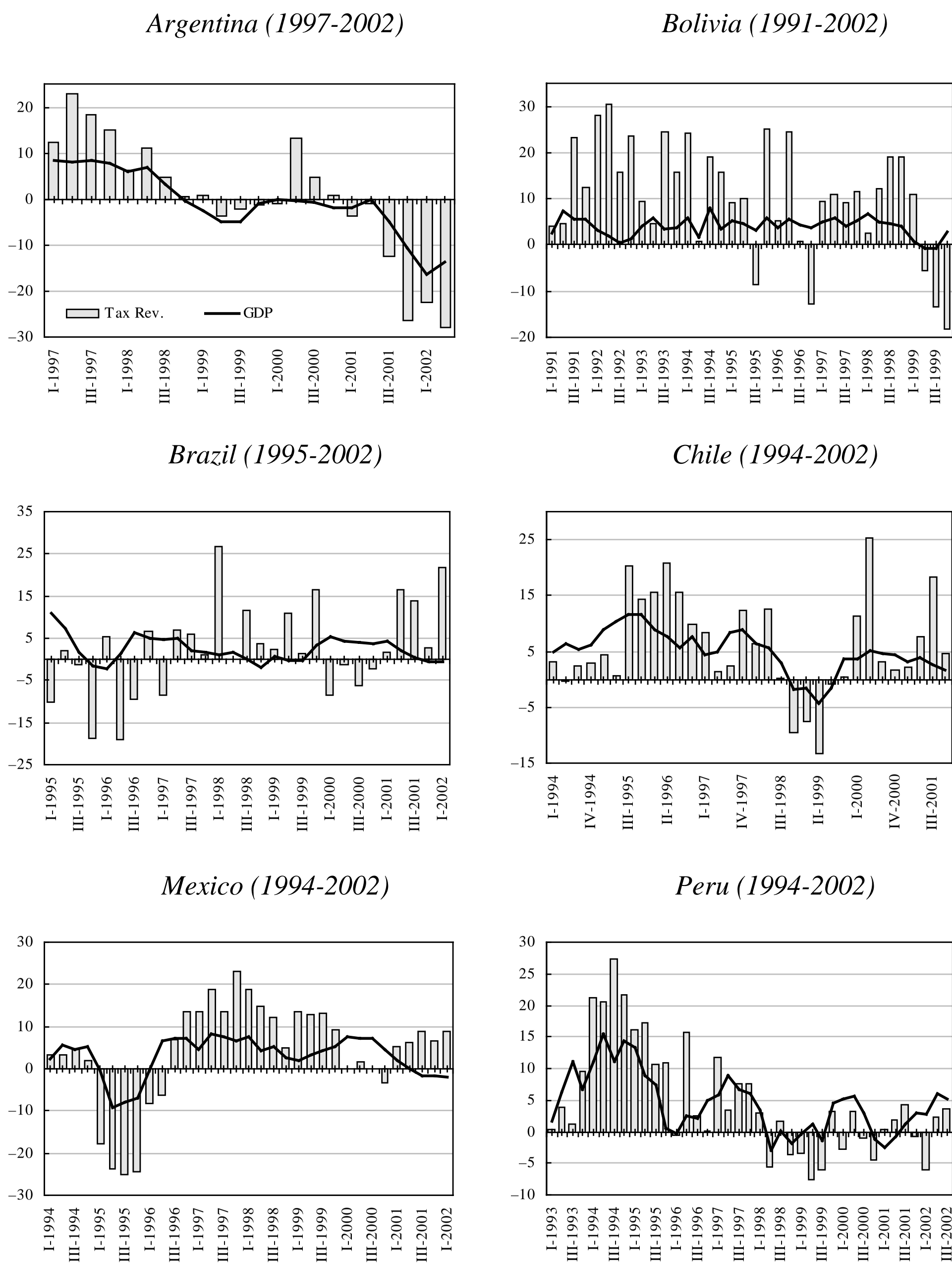
The mean aggregate elasticity depends on the tax structure of the country. On average, the aggregate elasticity is near unity in OECD countries, with a standard deviation of 0.4, varying from 1.38 for Great Britain to 0.77 for Italy (Giorno *et al.*, 1995, and van der Noord, 2000). In countries where direct taxes predominate, this elasticity will be greater than unity, but in those where indirect taxes are more important this parameter is generally close to unity, on average. This should be the case of the Latin American countries.

The high correlation between the changes in taxes and output can be seen for some countries in Figure 14. In broad terms, the variations of tax revenues are more pronounced than the changes in output. Nonetheless, there are episodes were this correlation is even negative, reflecting perhaps changes in the legislation and also revealing the difficulty to estimate accurately this crucial parameter. On one hand, tax reforms, of which there have been many in the region in the recent past, change the rates or bases of the main taxes, thus making the econometric estimation very difficult. On the other hand, the values of the elasticities are sensitive to the business cycle, with tax revenues falling more rapidly than output during downturns and increasing more than proportionally during upswings.

Crisis in Latin America are usually marked by drastic external adjustments in which private consumption – and above all its imported component – falls much more than GDP. In this case, the elasticity would be much greater than unity. The elasticity of VAT depends on the breakdown of private consumption between durable and non-durable goods (in a recession, consumption of durable goods goes down more sharply and the elasticity of VAT with respect to total consumption is therefore greater than unity at such times, if there are differentiated tax rates); on the

Figure 14

Net Tax Revenues and GDP
(real variation in 12 months)



Source: ECLAC.

elasticity of the volume of imports with respect to GDP (if this elasticity is greater than unity, the VAT collected on imported goods grows more rapidly than GDP); and on the relation between tax evasion and the economic cycle. These aspects are not usually taken into account in comparative analyses, but they can be highly significant in some situations. Table 5 shows the quarterly estimates of the output elasticity of total tax incomes.

As expected, the elasticity is greater than unity in five of the six cases. This might be a normal result in countries were the tax burden is low, like Bolivia (14.5 per cent of GDP), Mexico (12.5 per cent of GDP) and Peru (13.6 per cent of GDP). The very high value of elasticity in the case of Argentina reflects the sharp reduction of tax incomes during the recent and prolonged recession period, and it can be explained by the strong decrease of imports (and tariffs of imports), by tax evasion and by social security reforms. In the case of Chile, the effect on tax incomes of the slowdown in GDP growth in recent years has been counter balanced with a very active antievasion policy. In Brazil the elasticity is lower than one, reflecting perhaps the fact that the tax burden is already very high.

Table 5

Total Tax Revenues Elasticity Estimation
(dependent variable: log of total tax revenues)

	Argentina	Bolivia	Brazil	Chile	Mexico	Peru
Constant	–7.83	–11.81	–1.68	–3.75	–2.72	–1.67
	(–3.78)	*(–3.52)*	*(–1.57)*	*(–3.26)*	*(–2.33)*	*(–2.19)*
Log (TR)_1	0.32	0.46	–0.02	0.27	0.70	0.56
	(2.32)	*(3.88)*	*(–0.23)*	*(1.80)*	*(8.28)*	*(5.42)*
Log (GDP)	1.23	1.23	0.94	0.88	0.56	0.56
	(5.13)	*(3.98)*	*(5.83)*	*(4.48)*	*(4.10)*	*(4.17)*
R^2	0.839	0.916	0.933	0.949	0.919	0.941
F	26.07	127.9	86.9		120.6	68.2
No. of obs.	25	39	30	50	36	38
Durbin Watson	1.67	2.07	1.53	2.01	1.50	1.84
Solved static long run equation						
Log (GDP)	1.81	2.29	0.92	1.22	1.87	1.13
	(6.07)	*(2.24)*	*(12.5)*	*(20.1)*	*(5.58)*	*(9.12)*

Notes: Test t in parentheses. Seasonal effects were added in the estimations.

Source: calculations of the authors.

It is important to note that the indicator of cyclically adjusted balance is less sensitive to changes in the values of these elasticities than to changes in the measurements of the GDP gap (Giorno and Suyker, 1997). For the moment, we assume a unit income elasticity for all other countries. Under this hypothesis, the relative size of the cyclical deficit depends only on two factors: i) the gap between the effective and potential GDP, which measures the distance between the effective growth of the economy and its medium-term path, and ii) the weight of taxes in total income.

The marginal sensitivity of the public balance to changes in the level of activity is obtained by multiplying the aggregate elasticity by the rate of taxation. For the average tax rates in the region, which are of the order of 20 per cent, the cyclical balance would be one point of GDP for an output gap of 5 per cent and two points for a gap of 10 per cent. In other words, the semi-elasticity or sensitivity of the public balance to changes in the level of activity is close to 0.2 (for each percentage point of the GDP gap, the public balance varies by 0.2 points of GDP), compared with the value of 0.5 calculated for both the European Union (Buti, Franco and Ongena, 1997), and the OECD on average (Van der Noord, 2000).

Table 6 show the marginal sensitivity of the public balance to changes in the level of activity, the size of the GDP gap and the cyclical deficit, with their maximum and minimum values, for 1960-96 in the case of Europe and 1980-2001 in the case of Latin America. The potential GDP is estimated with the Hodrick-Prescott method, providing an elementary and immediate measure of macroeconomic fluctuations. According to the results obtained, the GDP gap (as a percentage of the potential GDP) varied between –13 and 17 per cent in countries such as Argentina, Peru, Chile and Uruguay in the 1980-2001 period. In the European Union, in contrast, the same indicator measured by the same means rarely exceeded 4 per cent of the trend GDP.

This marked volatility of the level of activity has adverse consequences for public balance, even though the marginal sensitivity in the region is far below that of the European Union. If we combine these two elements – tax rate and volatility of GDP – the application of this methodology to the Latin American countries brings out a cyclical component of the deficit which was significant in the Nineties, with values close to or higher than two points of GDP. It therefore seems worth estimating this component in order to evaluate the public accounts results properly.

In Paraguay, Ecuador and Venezuela, in contrast, the cyclical component is only a little over 0.5 points of GDP. In Paraguay there were only moderate macroeconomic fluctuation, and in Ecuador and Venezuela the income from oil exports was equal to or greater than tax income.

The cyclical component is relevant not only in the annual budget but also in terms of its persistence over various years. Many of the countries of Latin America register recent declines in their GDP growth and hence will exhibit strongly negative GDP gaps and cyclical fiscal balances in the near future (see Figure 15). These were

Table 6

Cyclical Component of Public Balance

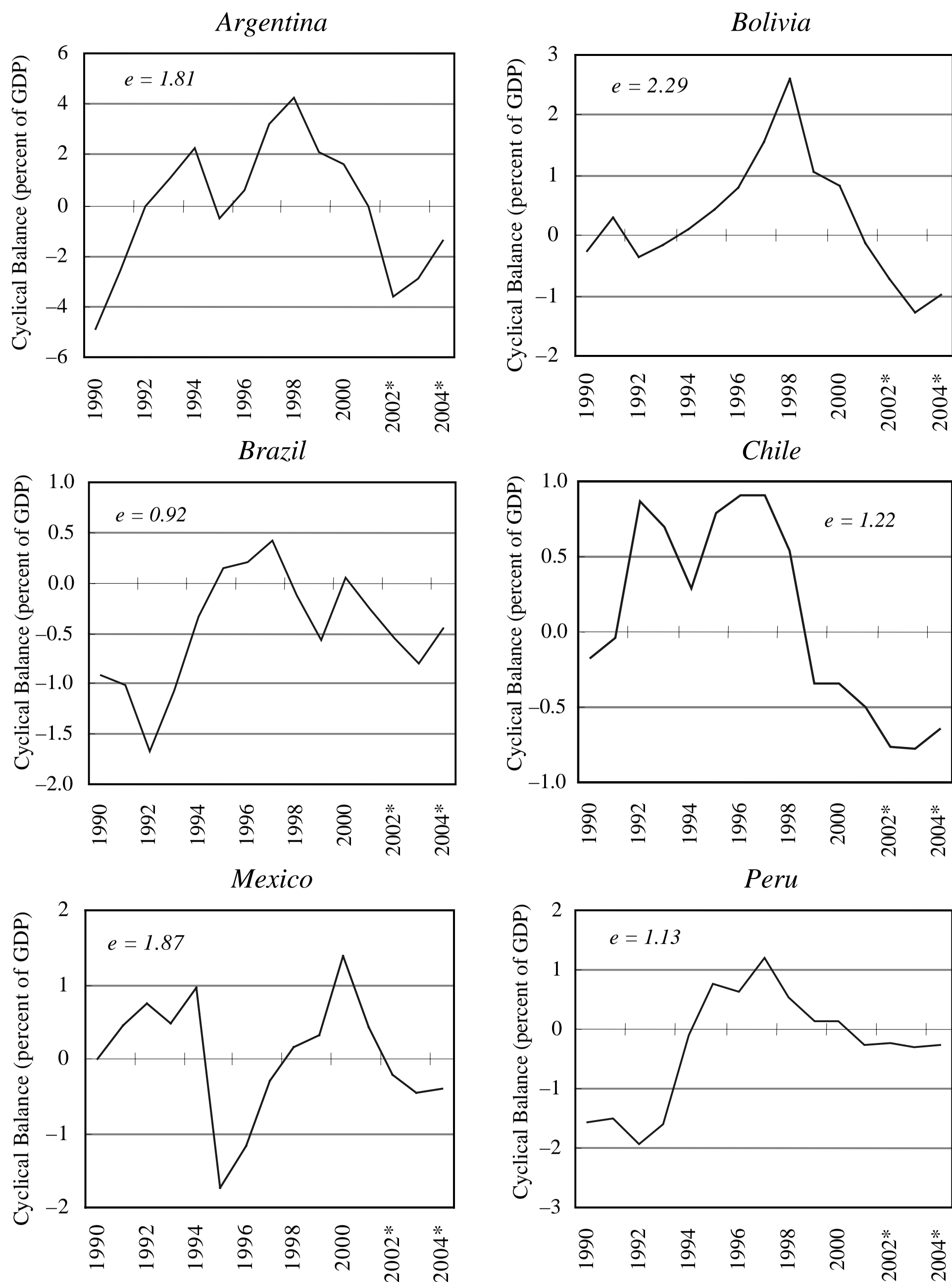
	Tax burden (percent of GDP) (2001)	Marginal sensitivity of public balance to GDP (2001) (1)	GDP gap (percent of potential GDP)		Cyclical component of public balance (percent of GDP)	
			Minimum	Max	Minimum	Max
Argentina	20.2	0.36	–13.0 (90)	9.4 (98)	–4.9 (90)	4.3 (98)
Bolivia	14.7	0.34	–0.7 (92)	4.9 (98)	–0.3 (92)	2.6 (98)
Brazil	35.1	0.35	–5.9 (92)	2.7 (97)	–1.7 (92)	0.4 (97)
Chile	18.7	0.22	–1.4 (01)	4.6 (97)	–0.5 (01)	0.9 (97)
Colombia	17.5	0.18	–2.9 (99)	4.6 (98)	–0.5 (99)	0.8 (97)
Costa Rica	19.5	0.20	–5.7 (82)	8.8 (80)	–0.7 (82)	1.1 (99)
Ecuador	18.8	0.19	–5.5 (99)	4.4 (97)	–0.6 (00)	0.5 (97)
El Salvador	12.9	0.13	–3.8 (91)	5.0 (95)	–0.4 (91)	0.7 (95)
Guatemala	11.1	0.11	–4.7 (86)	5.1 (81)	–0.3 (86)	0.4 (81)
Honduras	16.6	0.17	–3.1 (83)	3.4 (93)	–0.5 (99)	0.6 (93)
Mexico	12.5	0.24	–6.0 (95)	5.1 (00)	–1.7 (95)	1.4 (00)
Nicaragua	26.3	0.26	–6.8 (80)	6.9 (87)	–1.2 (89)	2.1 (84)
Panama	14.5	0.15	–12.9 (89)	7.0 (86)	–1.1 (88)	0.9 (86)
Paraguay	11.1	0.11	–4.5 (86)	5.1 (81)	–0.3 (86)	0.4 (81)
Peru	13.6	0.14	–11.2 (92)	15.9 (87)	–1.6 (92)	1.5 (87)
Dominican R.	16.3	0.16	–6.1 (91)	7.3 (00)	–0.8 (91)	1.0 (00)
Uruguay	23.2	0.23	–8.7 (84)	9.5 (81)	–1.2 (85)	2.1 (98)
Venezuela	9.4	0.09	–4.1 (90)	6.0 (92)	–0.3 (99)	0.5 (97)
Denmark	49.0	0.80	–3.6 (81)	3.8 (86)	–2.4 (81)	2.6 (86)
Sweden	53.2	0.65	–4.6 (93)	3.7 (90)	–4.1 (93)	3.2 (90)
Netherlands	39.9	0.65	–3.4 (83)	2.4 (74)	2.9 (83)	1.8 (74)
Belgium	45.3	0.60	–2.9 (93)	2.0 (90)	–2.1 (93)	1.3 (90)
United Kingdom	37.4	0.50	–4.0 (82)	5.1 (88)	–2.7 (82)	3.1 (89)
Germany	36.4	0.50	–3.8 (67)	4.3 (91)	–1.8 (67)	2.4 (91)
Italia	41.8	0.45	–3.4 (75)	3.1 (80)	–1.2 (75)	1.1 (80)
France	45.4	0.40	–2.1 (85)	3.2 (90)	–1.1 (85)	1.6 (90)
Spain	35.2	0.40	–4.5 (60)	5.3 (74)	–2.1 (85)	2.7 (90)
Greece	40.8	0.40	–2.7 (94)	2.9 (89)	–1.2 (94)	1.3 (89)
Portugal (2)	34.5	0.35	–1.8 (94)	3.4 (90)	–0.7 (94)	1.2 (90)
European Union (2)	**41.6**	**0.50**	**–2.2 (83)**	**3.2 (73)**	**–1.3 (83)**	**1.6 (90)**
New Zealand	34.8	0.57	–5.2 (92)	1.9 (86)	–3.2 (92)	1.3 (86)
Canada	35.2	0.41	–4.6 (88)	4.0 (88)	–2.3 (92)	1.7 (88)
Australia 2/	31.5	0.28	–2.8 (92)	2.1 (89)	–0.9 (92)	0.6 (89)
United States 2/	29.6	0.25	–1.8 (91)	2.0 (89)	–0.6 (91)	0.6 (89)
Japan 2/	27.1	0.26	–2.3 (95)	3.1 (91)	–0.5 (95)	0.4 (91)
OECD average (2)	**37.4**	**0.49**	**–4.6 (90)**	**2.7 (86)**	**–3.1 (90)**	**1.6 (86)**

(1) The marginal sensitivity is calculated multiplying tax burden in 2001 by tax revenue elasticity. Tax revenue elasticity is estimated in Table 7 for Argentina, Bolivia, Brazil, Chile, Mexico and Peru. For the other countries we assume that tax revenue elasticity is 1.
(2) 2000.
PS: Public Sector.

Source: calculations of the authors for Latin American countries. European Commission (2002) for European countries. OECD (2000) for other OECD countries. For Tax Revenues for OECD countries: "Revenues Statistics 1965-2001", OECD (2002 Edition), Central Government; General Government for Argentina, Bolivia, Brazil.

Figure 15

Cyclical Balances of Selected Countries
(percent of GDP)



* Forecast.
Source: calculations of the authors based on data from ECLAC.

offset by a positive cyclical balance in previous years; the condition of symmetry applied in these calculations should be borne in mind.

It is essential to identify a "sustainable" medium-term path and to formulate fiscal policy as a function of permanent sources of income generated when the economy is on its trend path. The magnitude of the automatic fiscal stabilisers and the uncertainty of the macroeconomic environment therefore shows the crucial importance of adopting prudent criteria regarding the management of the public finances, not so much in terms of precise annual deficit targets but rather in terms of simple and transparent rules which ensure their medium-term stability.

3. Conclusions

In this paper we emphasized the diversity of situations of public finances in Latin American countries. Clearly there are three groups of countries. In the first one the debt problem has already exploded (Argentina, Ecuador, Uruguay, Venezuela); these countries will have to generate or maintain for many years significant primary surplus and will have to apply some kind of Sovereign debt restructuring mechanisms. A second group of countries live dangerously in a context of poor growth, volatile exchange rates and very high spreads, with an urgent need to put into operation (Colombia, Costa Rica) or to maintain and even enhance (Brazil, Peru) tight fiscal policies. The third group (Chile, Dominican Republic, Mexico) managed to reduce their stock debt in the nineties, hence applying anti-cyclical policies in the good times and allowing them to face the cyclical reversion in better situation.

Despite the substantial progress of tax systems in the last decade, there remains crucial issues that have to be addressed in the near future. In general terms, the situation is puzzling: the deceleration of economic growth and the reversion of capital flows deteriorated the public finance situation, especially in terms of refinancing debt at reasonable interest rates. Meanwhile, the "tax gap", significant in some cases, is very difficult to fulfill, mainly because of snowball effects that impede public expenditure adjustment and make impossible the task of increasing tax revenues in crisis situations.

At the domestic level, clearly in the medium term the enhancement of public finances can only be attained with a substantial improvement of tax levels, particularly through the reduction of tax evasion and the decline of generalized exemptions and other tax expenditure mechanisms.

But even if these duties were completed, the structural problem of public finance in Latin America remains, which is the significant vulnerability of tax collection to the economic cycle, and of course the high volatility of output itself. In this situation, it would be efficient to combine, particularly in the agreements with IMF, credibility with flexibility in the design of fiscal rules, taking into account the necessary cyclical safety margin in the conduction of fiscal policy.

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ELUSIVE TAX REFORM IN MEXICO

Calixto Mateos-Hanel[*]

Introduction

Over the last two decades the Mexican tax structure has been transformed into a more equitable, efficient and modern system. However, there are still many flaws to correct, and a lot of modifications remain to be completed. Tax collection is markedly lower than in other countries while public expenditure has to be strengthened in order to satisfy public needs, and a higher primary surplus is required in order to avoid sustainability problems.

Since 1980 the Mexican tax system has experienced a number of reforms, which guided it towards more efficient, fair and neutral ways of obtaining resources in order to finance public needs. To implement these reforms, the fiscal authority faced non-negligible challenges. In particular, there were two important facts that restricted its choices. The first was adverse macroeconomic conditions: economic crises called for careful use of fiscal policy. Accordingly, every implemented tax reform took into account the constraints imposed by an urgent need of healthy public finances. Second, as a small open economy, tax design cannot ignore international dependence and interactions among tax systems. These facts have grown in importance as the Mexican economy has broadened its commercial relationships with other countries. International competition considerations affect how tax bases are defined and the viability of the level of tax rates.[1]

The efforts undertaken by fiscal authorities during these years can be broadly summarized in three major stages.[2] In the first period (1980-87) the whole structure of the tax system was modified. Among the outstanding reforms of the income tax was the substitution of a schedular scheme of the personal income tax for one that taxed income on a global basis. In addition, the corporate and personal income taxes were integrated in order to avoid double taxation. Regarding indirect taxes, more than 30 federal excise taxes and more than 300 state taxes were eliminated to introduce a value added tax, a tax on specific goods and services (excise taxes), and a tax on new automobiles. Besides the efficiency gains provided by a tax system with a well-integrated small number of taxes, these modifications represented a significant reduction in the administrative cost of collection.

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* Banco de México. The views expressed herein are those of the author and not necessarily represent those of Banco de México. Mariana A. Torán and Alejandrina Salcedo provided valuable research assistance.

1 Gil Diaz (1987).

2 The classification is made only for simplicity of exposition. As such, it does not reflect the richness in detail of yearly modifications. A more specific review of the evolution of the Mexican tax system can be found in Gil and Thrisk (1997) and Amieva (2002).

During the second stage (1987-94) one of the goals of the reforms was the full indexation of the tax system. For the corporate income tax, assets, liabilities, and capital were adjusted for inflation. In 1989 a minimum corporate income tax was introduced. Its aim was to catch the firms that managed to evade income tax through transfer prices and other fiscal manipulations. In 1991 a simplified regime was adopted; it allowed firms as well as individuals in agriculture, livestock, forestry, fishery and land transportation activities to compute the tax on a cash flow basis. Regarding the personal income tax, the schedule of income brackets was also adjusted for inflation. Additionally, a fiscal subsidy inversely related to fringe benefits provided by employers was established. These reforms avoided both the inflationary erosion of the tax base and distortions on the financial structure of firms. They also prevented an increment in the tax burden of low-income taxpayers (because the progressiveness of the tax rates was maintained).

Finally, in the third stage (1995-2000) investment incentives as well as measures to reduce evasion practices were implemented. The accelerated depreciation of fixed assets was allowed and later substituted by a differential tax rate on profits, where reinvested profits were subject to a lower rate. Tax bases were enlarged for both income tax and VAT. In the first case, all financial institutions were included in the corporate tax base. Also, in order to cover some activities of the informal sector, a regime for small taxpayers was introduced within the personal income tax structure. Under this regime, individuals whose unique source of income are entrepreneurial activities must pay a low tax rate (less than 3 per cent) on gross income. In the case of the VAT, interest paid on consumption credits and credit cards was taxed. Additionally, fines to evaders were increased, and new administrative procedures were required in order to improve the monitoring of taxpayers.

In spite of these important steps, tax revenues are still far from raising at the same pace as the requirements of a growing population. Nowadays, no study related to the tax system in Mexico can avoid stressing the fact that tax collection is notably lower than in other countries, either OECD or Latin American, even though the tax system is considered correctly designed overall and one of the most neutral. This is a clear signal that the Mexican tax system is not working properly. The usual indicators of total tax revenues or revenues from specific taxes (such as income or value added taxes) show poor results. The low outcomes are evident in international comparisons such as the one presented in Table 1. Moreover the differences are not due to discrepancies in tax rates given that the value added and top marginal income tax rates are similar to those of other countries.

Fiscal analysts attribute these poor results in revenue terms to exemptions, special regimes, and a number of fiscal benefits that, due to their magnitude, absorbed the positive effects of a tax system grounded in a small number of taxes with a broad tax base.[3] Over time, special economic circumstances have forced the government to introduce preferential treatments. This has led to the computation of

[3] Ruiz (1999) and World Bank (2002).

Table 1

Tax Revenues, 1997-2001 Average
(percent of GDP)

Countries	Tax Revenue	Tax on Income, Profits and Capital Gains	Value Added Tax	Excise Tax
Australia	30.76*	17.83	0.89	2.57
Austria	44.45	13.05	8.30	2.67
Belgium	45.45	17.78	7.10	2.34
Canada	36.02	17.53	2.56	1.84
Czech Republic	38.86	8.84	7.07	3.72
Denmark	49.78	29.47	9.71	5.36
Finland	46.47	19.33	8.22	4.51
France	45.36	10.50	7.62	2.88
Germany	37.24	10.81	6.77	2.77
Greece	36.88	10.20	7.87	4.27
Hungary	38.92	9.15	8.30	4.07
Iceland	35.19	13.79	9.79	3.56
Ireland	31.09	13.18	5.45	3.55
Italy	42.72	14.59	6.00	2.74
Japan	23.68	8.41	2.24	1.81
Republic of Korea	24.57	6.71	4.25	3.50
Luxembourg	41.12	15.38	5.41	4.84
Netherlands	40.90	10.59	7.07	3.34
New Zealand	35.06	20.42	8.87	1.96
Norway	42.51	16.81	8.61	4.79
Poland	36.40	10.84	7.81	3.93
Portugal	33.65	9.79	7.96	4.46
Slovak Republic	35.30*	8.02	7.55	3.08
Spain	34.57	9.84	5.88	2.69
Sweden	52.41	21.85	7.04	3.52
Switzerland	34.57	12.87	3.78	1.92
United Kingdom	31.33	14.12	6.80	3.87
United States	36.61	14.31	0.00	1.41
Chile	17.18	3.98	7.85	2.15
Brazil	24.80*	4.50	8.47	
Argentina	13.67	3.34	6.60	0.26
Mexico	**17.61**	**4.93**	**3.31**	**1.89**

* Average 97-99.
This figure differs from the 10.7 per cent that is normally considered in Mexico because the OECD comparison includes social security contributions (2.96 per cent), taxes on payroll and workforce (0.16 per cent), taxes on property (0.2 per cent), and duties (oil fees and others) (3.17 per cent).

Source: OECD, except Brazil (FMI), Chile and Argentina (Ministry of Finance).

the income tax according to economic sector or income type and, in the case of VAT, according to the type of good. These small but recurrent changes have not only seriously eroded the tax base, but they have also generated a complex tax system, difficult to administer and with a number of opportunities to elude payments. Consequently, a tax reform that reverses such negative loopholes cannot be postponed.

Besides special regimes, administration problems are another important reason for very low collection. Among the most important flaws are high compliance costs, complexity of the code, inconsistency of the applications of the code by tax collectors, and insufficient information and misuse of the available one. Evasion problems are also very deep: estimates indicate that it is higher than 40 per cent.[4] A recent diagnosis of the World Bank (2002) points out that "with weak and sometimes corrupt enforcement, evaders are rarely caught and even more rarely punished, especially large taxpayers. This seriously reduces revenue collection, makes tax burdens inequitable, and increases resistance to paying taxes that are seen as unfair." Although evasion and inadequate tax administration are among the main problems of the Mexican tax system, this document focuses specifically on tax system design.

An improvement in the design of the tax system is not only necessary to address efficiency concerns, a tax reform is required in order to handle increasing fiscal pressures. That is, the reform is not needed to have a technically flawless tax system *per se*, but to strengthen the system with the aim of providing public services satisfactorily while keeping healthy public finances. Regarding the supply of public services, an increase in certain expenditures cannot be deferred for very long. Education, for example, does not receive enough public investment: public education as percentage of GDP is very low compared to other countries. However, the proportion of expenses in education to total public expenditures is high. This points out that such low expenses are not related to a small effort by the government (Figure 1). Several studies insist on the need for more investment in infrastructure, education and health services and agree that they have been delayed because of low revenues.[5] More public spending that enhances human as well as physical capital is not only desirable, but also imperative.

The tax reform is also essential to cope with probable fiscal sustainability problems. Total net public sector debt amounted to 40.21 per cent of GDP in 2002 (Table 2) without taking into consideration contingent liabilities that the government will have to face in the future, like those related to the pension system.[6] Studies on the sustainability of public finances (Santaella, 2001) indicate that the government is bound to maintain a primary surplus of 3.5 per cent of GDP in order to keep healthy

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4 Approximations indicate that only 5.5 million people are inscribed in the taxpayer roll compared to the total economically active population of 34 million (Bours, 1999).

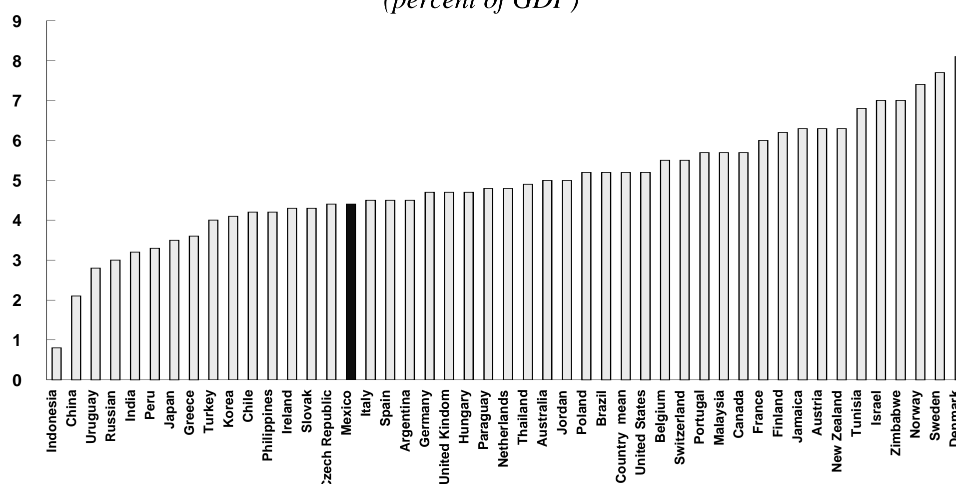
5 Dalsgaard (2000), Ruiz (1999).

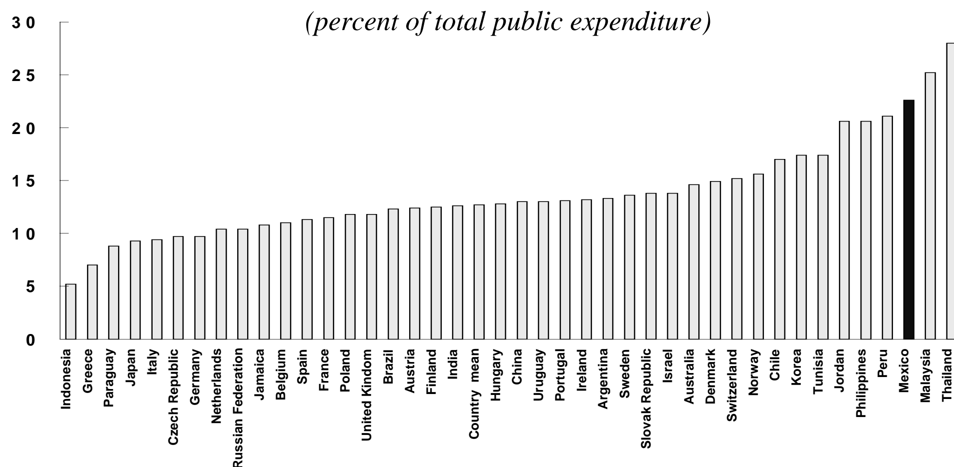
6 Liabilities of IMSS and ISSSTE for 1999 were estimated at 45 and 33.8 per cent of GDP respectively (Santaella, 2001).

Figure 1

Public Expenditure on Education, 1999

(percent of GDP)





Source: Education at a glance, OECD Indicators 2002.

public finances once contingent liabilities (normally not included in the debt to GDP measurement) are considered. Given that the average primary surplus of the last five years is 2.2 per cent of GDP, a fiscal effort of 1.3 per cent is required to avoid any possible sustainability problems.

The only way of reconciling higher public expenditure with higher levels of primary balance is by raising tax revenues. Thus, a tax reform is crucial to

Table 2

Total Net Public Sector Debt
(percent of GDP)

	1994	1995	1996	1997	1998	1999	2000	2001	2002*
a. Net Broad Economic Debt	**32.31**	**37.00**	**27.55**	**22.08**	**24.52**	**21.87**	**20.74**	**20.05**	**22.78**
Domestic	4.20	0.61	2.77	2.61	3.89	5.70	7.83	8.30	10.32
Foreign	28.11	36.39	24.78	19.47	20.63	16.17	12.90	11.76	12.45
b. Contigent Items	**1.15**	**5.11**	**9.27**	**13.73**	**14.16**	**17.51**	**16.15**	**16.54**	**17.43**
1. IPAB	1.15	5.08	8.36	10.49	9.82	11.68	10.31	10.70	10.41
2. FARAC	-	-	-	1.90	1.91	1.97	1.92	2.09	2.29
3. UDIs Restructuring Programs	-	-	0.60	0.48	0.54	0.67	0.64	0.72	0.68
4. Direct PIDIREGAS	-	-	0.11	0.38	1.26	2.34	2.76	2.72	3.94
5. Debtor Suppor Programs	-	0.03	0.20	0.48	0.63	0.85	0.52	0.31	0.11
c. Total Net Public Sector Debt (a+b)	**33.46**	**42.11**	**36.82**	**35.81**	**38.68**	**39.38**	**36.89**	**36.59**	**40.21**
Domestic	5.35	5.72	11.93	15.96	16.79	20.87	21.22	22.12	23.81
Foreign	28.11	36.39	24.89	19.85	21.89	18.51	15.66	14.48	16.39
d. Consolidated with the Central Bank	32.32	40.84	35.03	34.44	36.75	38.51	36.22	36.74	39.52
Domestic	5.35	4.43	12.07	19.63	20.89	25.67	26.69	29.28	31.70
Foreign	26.97	36.41	22.96	14.81	15.86	12.84	9.53	7.45	7.82
Memorandum:									
Total Gross Public Sector Debt	65.1	65.6	56.0	58.4	59.5	65.2	58.4	53.7	57.9
Total Public Sector Debt Net of Liquid Assets	45.2	48.9	36.6	31.5	34.7	47.2	42.8	42.6	46.6

* Preliminary figures.

Source: Banco de México.

strengthen the fiscal position without further damaging the supply of public services.[7]

Furthermore, oil revenues have financed a high proportion of public expenditure. Around 30 per cent of total revenues are related to oil (Figure 2), which during 2002 amounted to 6.65 per cent of GDP.[8] The volatility of the oil price is evidently transferred to public revenues and consequently to expenses as can be seen in Figure 3 where the behavior of oil-related duties and excise taxes against the oil price are shown.

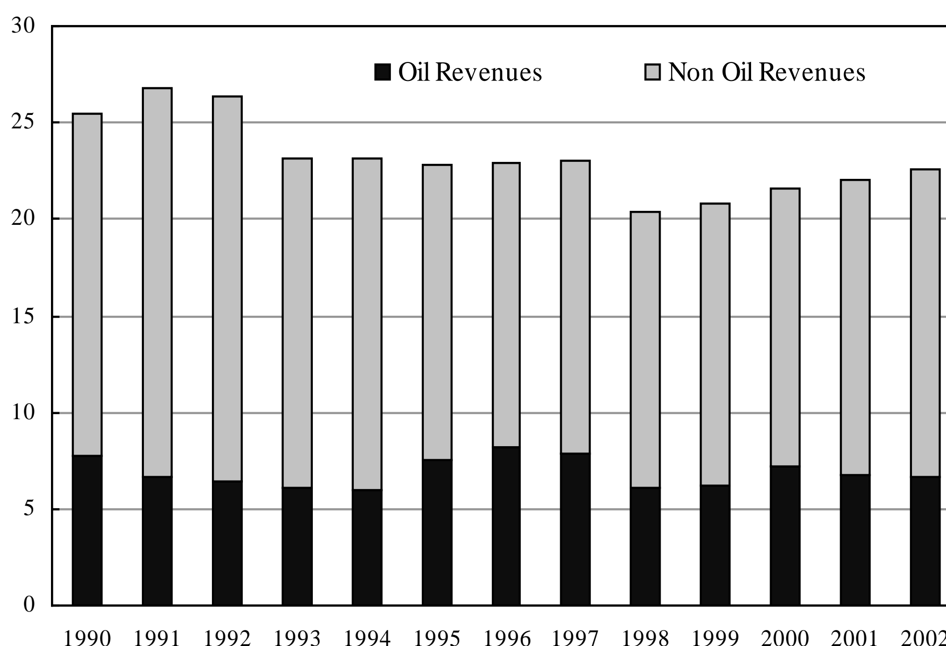
In order to stabilize revenues, it may be desirable to increase taxes not related to oil so that the proportion of oil revenues decreases and with it, the uncertainty on total revenues. Moreover, some authors (e.g. Fernández and Trigueros, 2001) have argued that oil reserves are an asset and as such only the financial gains should be spent, instead of considering all oil revenues as available to finance current expenses.

[7] So far in Mexico, when a fiscal adjustment has been imperative it has been implemented through expenditure cuts. For example, in 2001 when the oil price fell sharply, the government decided to cut expenses in order to reach the public balance goal.

[8] Thirty four per cent of these revenues were linked to duties and 27 per cent to excise taxes on fuel.

Figure 2

Public Revenues: Oil and Non-Oil Revenues
(percent of GDP)



Source: Ministry of Finance.

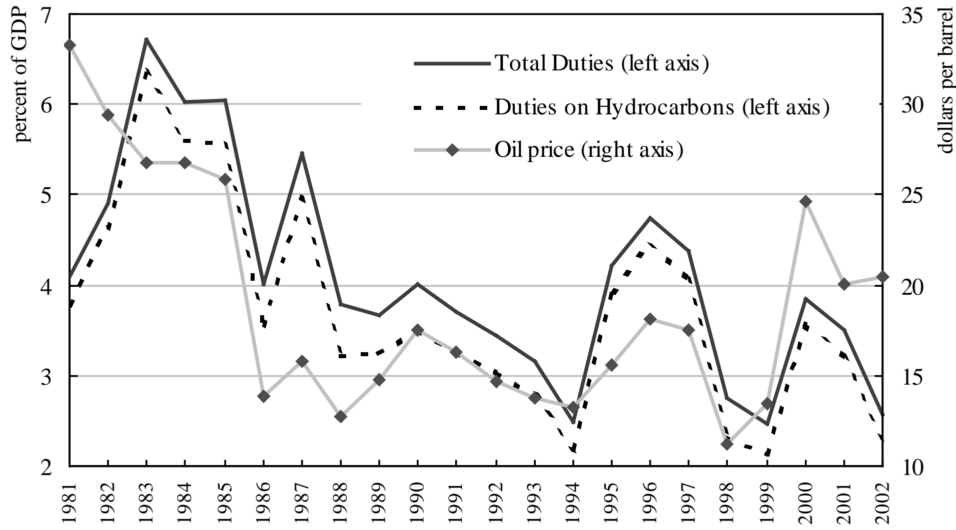
In conclusion, whether to improve the efficiency and fairness of the system, to raise public expenditures, to avoid sustainability problems or to decrease oil price dependency, there is a consensus that a tax reform is needed. There is also an agreement regarding the steps that should be taken in order for the reform to be successful. In particular, well identified causes of low collection such as evasion, narrow tax bases, preferential regimes, and exemptions must be tackled.

In April 2001, the incoming administration, conscious of the limitations of the tax system, presented to Congress a package of fiscal initiatives. It was argued that the fiscal reform was intended to strengthen the government's fiscal stance and to reduce the public sector's borrowing requirements; increase social expenditures in key areas such as education, health and infrastructure; and foster an environment of low interest rates.[9] The fiscal package was designed as a comprehensive modification of the tax system. It suggested measures to increase tax revenues as well as mechanisms to compensate those taxpayers who would be adversely affected by the reform.

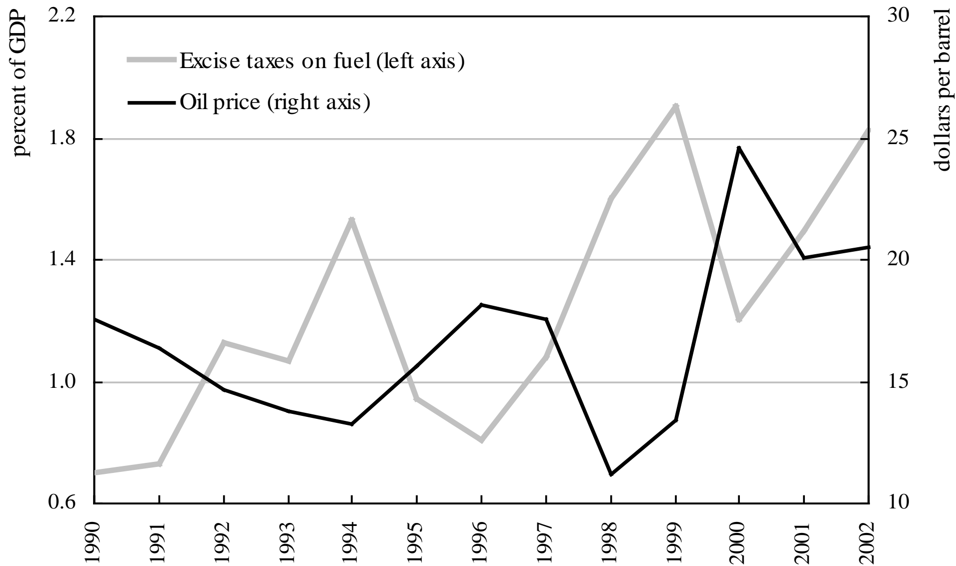
[9] SHCP, 2001a.

Figure 3

Duties and Excise Taxes on Fuels



Correlation coefficient	Oil price
Total Duties	0.58
Duties on Hydrocarbons	0.62



Correlation coefficient	–0.35

Source: Ministry of Finance and Pemex.

In broad terms, the proposal aimed at eliminating preferential regimes and exemptions. It suggested a uniform VAT tax rate of 15 per cent except in the border; a reduction of the top marginal income tax rate together with less tax brackets and higher wage credits. A uniform tax rate of 32 per cent (3 points lower than the prevailing) was proposed for the corporate income tax, simultaneously with the elimination of preferential schemes and taxes on dividends. Initiatives were also presented for excise taxes and taxes on new cars. Finally, a series of measures geared towards improving tax administration and collection were suggested such as payments via electronic transfers and internet procedures.

The initiative designed by the government echoed some of the most important proposals of fiscal specialist about ways to increase tax collection, reduce evasion, and improve efficiency. Nevertheless, Congress did not approve it. Instead, the fiscal reform transited from a comprehensive tax reform to a partial modification of the existing taxes, the introduction of new ones and several administrative measures.

The purpose of this paper is to provide a review of the new administration's attempt to implement a tax reform in Mexico. The structure of the most important taxes (in terms of their revenue raising capacity) is described in order to highlight their flaws as a rationale for the proposed reform. The initiative of the Ministry of Finance is analyzed as well as other proposals. Since the tax reform was once more eluded, the approved fiscal package for 2002 is described as well as the changes made in 2003 in order to amend it.

1. Structure and recent changes on the Mexican tax system

The review of the Mexican tax system presented in this section focuses only on three taxes, VAT, excise taxes and income tax as they stand for more than ninety per cent of total tax revenues. The first two are indirect taxes, while the third is the unique direct tax. Other federal levies are taxes on imports, which have been diminishing due to trade liberalization; tax on assets, which is treated as part of the income tax; tax on new automobiles, and an annual registration fee for vehicles. Local taxes, which will not be discussed in this document, comprise payroll and property taxes.[10]

1.1 Indirect taxes

1.1.1 Value added tax

The Value Added Tax (VAT) was introduced in 1980, but it has suffered several changes in rates and administration. The Mexican VAT belongs to the

[10] Although the subject is not treated deeply enough in this document, a comprehensive fiscal reform should include a revision of local taxes and its relation with federal transfers and the level of local expenditures. States expenditures have been increasing, but local authorities take little responsibility for tax collection. The Federal Government cannot afford to transfer taxes to local government without reducing transfers.

consumption variant (gross investment expenditure is excluded from the tax base), it is based on the destination principle, and it is computed through the credit-invoice method. When it was first implemented, there were three different rates: a standard rate (10 per cent), special rate for border regions (6 per cent), and a zero rate (for some agricultural goods and for some basic foodstuffs). Over the last 20 years the need to reduce budget deficits in times of adverse macroeconomic conditions called for adjustments of the rate schedule. In each case, in order to make an increment in the standard rate politically palatable, some goods were classified as zero rated or exempted, while others were classified as luxuries and taxed at a rate higher than the standard one (Table 3). These changes undermined the simplicity, neutrality and revenue potential of the tax. It is estimated nowadays that the VAT tax base includes

Table 3

Value Added Tax Rates

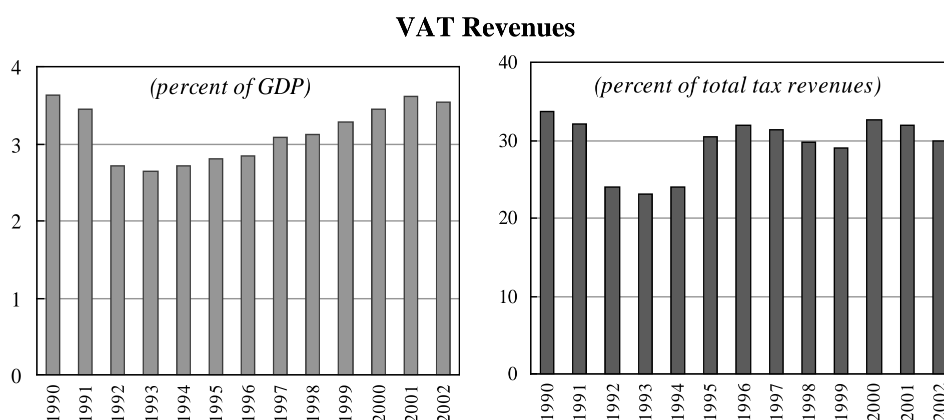
Rates/Goods and Services	1980	1981-1982	1983-1987	1988-1991	1992-1994	1995-2001
Standard rate	10	10	15	15	10 (1)	15 (2)
Border tax	6	6	6 (3)	6	10	10
Luxury goods and services	-	-	20	20	-	-
Basic Food	0	0	0	0	0	0
Processed food	10	0	R	0	0	0
Medical Care	X	X	X	X	X	X
Medicines	10	10	R	0	0	0
Education	X	X	X	X	X	X
Dwelling house	X	X	X	X	X	X
Books	X	X	X	X	X	X
Newspapers and magazines	X	X	X	X	X	X
Recreative services(4)	X	X	X	X	X	X
Financial services(5)	X	X	X	X	X	X
Agriculture	0	0	0	0	0	0

(1) Since November 11th, 1991.
(2) Since April 1st, 1995.
(3) The standard tax rate is levied on services, vehicles, sale and leasing of property, fuels, lubricants, extracts from oil and petrochemicals, and on all goods subject to excise taxes (softdrinks, wine, beer, fermented alcoholic beverages, alcoholic beverages, turbosine, tobacco, cigarettes, insurance (until 1990), telephone services (until 1989) and fuels).
(4) Public shows and museum entrances.
(5) Agriculture and life insurance.
X Exempted goods and services.
0 Zero rated goods and services.
R Special rate.

Source: Ministry of Finance.

Figure 4

VAT Revenues



Source: Ministry of Finance.

only 50 per cent of total consumption.[11] Additionally, VAT compliance is very low. In Mexico it is around 63 per cent while in Canada is 77, in Portugal 86, in New Zealand 95, in Argentina 69, and in Chile 77 per cent.[12]

The VAT represents revenues of around 3 per cent of GDP (Figure 4). For 2002 total collection was 3.5 per cent of GDP, which amounted to 30 per cent of total tax revenues and 16 per cent of total public revenues. VAT collection as a percentage of GDP had been increasing since 1994, however in 2002 it diminished. It was argued that the low economic activity was responsible for the result of such year's performance. On the contrary, after reaching a maximum in 2000, revenues from VAT as percentage of total tax revenues have decreased.

In 2001 the VAT regime established a 15 per cent rate, except for the border regions where it was 10 per cent. Nevertheless, as it is shown in Table 3 and in more detail in Table 4, there were several goods and services (which represent a large proportion of total consumption) exempted or zero-rated. Besides eroding the tax base, such differential rates encourage evasion, and as a result revenues are diminished. Furthermore, businesses with sales under a certain threshold were also exempted from VAT payment. Because of such exemptions, collection from VAT is such as if the rate were only 5 per cent.[13] Apart from the problem of exemptions and

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[11] Fernández and Trigueros (2001), Dalsgaard (2000). The involvement of states in the collection task, justified by their supposed knowledge on the local situation, is not functioning, because incentives related to federal transfers are not correctly designed.

[12] Dalsgaard (2000).

[13] World Bank (2002). This study also points out that: "the zero rating for food cuts out a lager proportion of total consumption expenditures in Mexico than a similar exclusion would in other OECD countries because Mexico is poorer".

Table 4

VAT Exempted and Zero Rated Goods and Services

Departures from standard exemptions[1]		Coverage of lower rates	
Exemptions other than “standard exemptions”	Taxation of “standard exemptions”	Zero rate	Lower rates
– books – newspapers – magazines – gold and silver coins – equity – foreign currency – gold bullion – authors rights – public transport of passengers by land – agriculture, forestry and fishing activities	– postal service – insurance services (except life and agricultural) – the letting of commercial buildings – financial services for consumer credits and personal loans	– non processed animals and vegetables except rubber – patented medicines – milk, water and ice – food except smoked salmon and caviar – agricultural equipment and machinery – fishing boats – the wholesale of gold, gold bullion and jewellery – some agricultural and fishing services – the letting of some agricultural machinery and equipment – the export of goods and service	The sale of goods and services in the border regions. Rate = 10%

(1) Standard exemptions are the following: postal services; transport of sick/injured persons; hospitals and medical care; human blood, tissues and organ; dental care; charitable work; education; non-commercial activities and non-profit making organization insurance and reinsurance; letting of immovable property; financial services; betting; lotteries and gambling; supply of land and buildings; certain fund raising events.

Source: Consumption Tax Trends, OECD 2001.

a lower rate at the border, collection is highly affected by evasion and low enforcement.

The proposed reforms for 2002 were intended to take advantage of the revenue potential of VAT. Thus, the main suggestions focused on eliminating preferential treatments, *i.e.* to obtain a rate schedule as uniform as possible. The Ministry of Finance proposed a unique tax rate of 15 per cent for all goods and services except for exports which would be taxed at a zero-rate and border regions that would be levied at a 10 per cent rate. Consequently, all goods and services that were exempted or zero-rated up to 2001 would be taxed at 15 per cent rate. Estimates of tax expenditures computed by the Ministry of Finance indicate that the total cost of the special regimes associated to VAT (zero rates and exemptions) amounts to 1.69 per cent of GDP. The highest loss in collection is related to food, and it totals 1.13 per cent of GDP (Table 5). Furthermore, it is important to recall that additional collection was expected due to the fact that evasion opportunities are weakened in a scheme with less special regimes.

Fernández and Trigueros (2001), agreed in the homologation of the VAT rate by means of a reduction of exempted and zero rated items, but suggested also a reduction in the standard rate. In this way, revenues would be augmented while the

Table 5

Value Added Tax Expenditures, Estimated for 2002
(percent of GDP)

Concept	percent of GDP
Total	1.6960
Zero Rate	1.3390
Food	1.1330
Medicines	0.1000
Books, newspapers and magazines 1	0.0860
Other products	0.0200
Exemptions	0.2330
Medical care	0.0220
Education services	0.1030
Public transportation of persons by land	0.0890
Household water services 1	0.0120
Others	0.0070
10% border rate	0.1240

(1) Includes the exemption granted through Presidential Decree.

Source: Ministry of Finance.

neutrality of the tax regarding saving and investment decisions would be enhanced. In their suggestion only corn staples (flour, nixtamal, and tortilla) and exports would be taxed at a zero rate, while exemptions would only apply to vegetables, fruits, cereal, and leguminous in natural state. The standard rate for the rest of goods and services would be 12 per cent even in border regions. In addition, local governments would have the option to increase the tax rate and to keep the supplementary revenues. To set the right incentives, this measure would tie local collection to federal transfers. In order to avoid an excessive tax burden on consumers, part of the local tax could be credited against the federal tax. Their estimates indicate that VAT revenues would be increased by 2.1 per cent of GDP if the federal standard rate were established at 12 per cent together with a local 3 per cent rate. If no local tax were adopted, the increase in collection would be only one per cent of GDP.[14]

The World Bank (2002) considers that apart from eliminating exemptions and zero rating, the preferential rate in border areas should also be removed.[15] With these

[14] These estimations consider 30 per cent of evasion, which is lower than the 40 per cent estimated for the regime in 2001.

[15] This study indicates that no other OECD country, except for limited exceptions, has such preferential rates.

reforms, the system would become slightly regressive, contrary to the prevailing progressive system, so that subsidies to the poor should be increased through expenditure programs. The sales threshold under which business are exempted is judged to be too high, so the proposal is to lower it.

In spite of the proposal presented to the Congress by the Federal Government, there were no major reforms approved to the VAT structure. The main administrative modification established that the VAT will be charged on a cash flow and not on an accrued basis. Regarding tax rates, a voluntary local tax was introduced for local governments of a maximum of 3 per cent on the value of the good. Nevertheless, no local government chose the option because political costs were high and there were no incentives since the amount of federal transfers remained unchanged. Apart from this rate, there were no other changes in the number of rates or the composition of goods or services subject to taxation.

In an attempt to compensate the revenue loss expected due to the rejection of the original proposal, a tax on luxury goods and services was introduced. The tax rate was set at 5 per cent. The goods and services that qualified for this luxury tax are described in Table 6. It can be noticed that those goods and services are such that the tax could be easily evaded.

The collection from this tax was only 1,853 million pesos, even though it was estimated at 8,751.4 million pesos. As a result, for the 2003 fiscal package this levy was derogated.

1.1.2 Excise taxes[16]

Excise taxes are structured as the VAT, but up to the wholesale level. As a result, they are charged on a small number of taxpayers who are easily supervised. These taxes have to be paid only after goods are released for final sale. These goods are also subject to the VAT, which is calculated upon the value of the good including the excise tax.

In 2001, excise taxes comprised fuels, alcoholic beverages, tobacco, and motor vehicles. They represented 17 per cent of total tax revenues, while in 2002 they amounted to 18.7 per cent. In terms of GDP, in 2002 they increased with respect to 2001 from 1.9 to 2.2 per cent. More than 80 per cent of the collection of these taxes is related to oil revenues; they are paid by Pemex for fuel sales (Figure 5).[17] So, even if this is an effective tax in terms of collection and neutral in

[16] In Mexico this regime is known as the Special Tax on Production and Services.

[17] Excise taxes are not the only way Pemex transfers part of its revenues to the Federal Government. Oil revenues of the Federal Government amount to around 4 to 5 per cent of GDP, of which only around 1 to 2 per cent of GDP correspond to the excise taxes analysed in this section. The Mexican Ministry of Finance considers the rest of the revenues as non tax revenues, and as such, are not examined in this document.

Table 6

Luxury Goods and Services

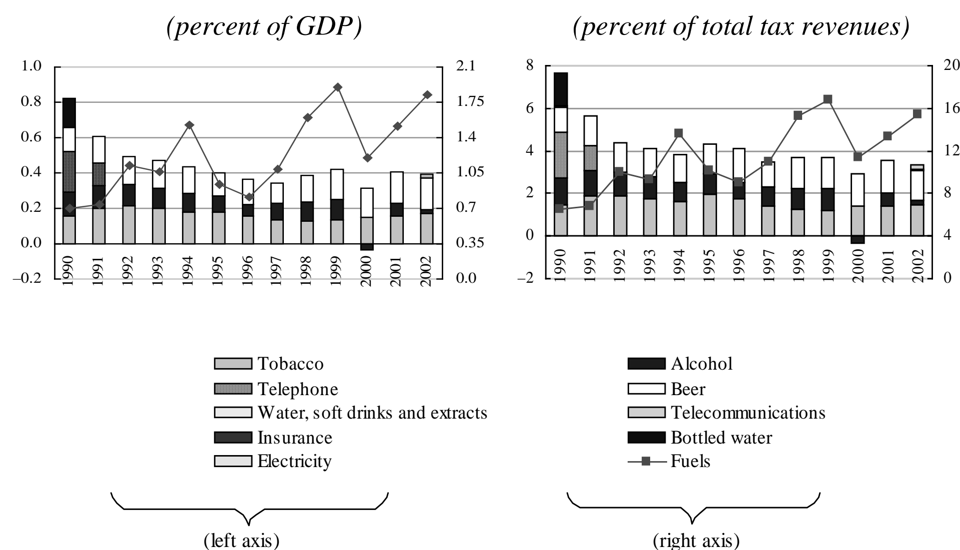
Goods	
o Caviar	o Silk or leather clothing items, except for shoes
o Smoked salmon	o Watches with a value over 5,000 pesos
o Elvers	o Televisions with screens over 25 inches
o Motorcycles with cylinders over 350 cubic centimeters of potency	o Flat screen monitors or televisions
o Motorized water ski	o Sound equipment with a price above 5,000 pesos
o Aquatic motorcycles	o Computing and auxiliary equipment with a price above 25,000 pesos
o Motorized surf boards	o Electronic agendas
o Special automobile parts (magnesium rims, sun roofs and sports equipment)	o Videocameras
o Aircraft, except fumigation airplanes	o Compact disc format video players
o Perfumes	o Audio and video playing equipment with a price above 5,000 pesos
o Fire arms	o Gold, jewelry, gold or silver work, crafts or ornaments with a price above 10,000 pesos
o Camping equipment	o Ingots, memorial medals and coins that have a minimum gold content of 80 per cent
o Automobiles with capacity for up to 15 passengers with a price above 250,000 pesos	

Services

- o Those that enable the practice of golf, horseback riding, motor car racing or water sports.
- o The membership fees for restaurants, night clubs or bars with restricted access.
- o Bars, cabarets, discotheques, as well as restaurants in which alcoholic beverages are served (except beer and table wine).

Figure 5

Excise Taxes Revenues



Source: Ministry of Finance.

Table 7

Tax Rates for Excise Taxes, 2001

Good	Tax rate
Fermented alcoholic beverages	25% - 60%
Tobacco	20.9% - 100%
Fuels	Based on the difference between the import parity and the regulated final consumer price
Alcoholic beverages	Fixed amount per liter

the sense of imposing few distortions (due to the low demand elasticity of taxed goods), it is dependent on the oil price, which makes it a volatile income.[18]

In 2001, goods subject to excise taxes in Mexico were classified in two broad groups. The first one included fermented alcoholic beverages and tobacco products, which are taxed with a combination of *ad valorem* and specific rates. This group also included fuels (gasoline, diesel and natural gas) that pay a variable *ad valorem* rate. Such rate depends on the difference between the domestic regulated price and the international reference price, so that when the international price is high the rate decreases. This induces a highly volatile implicit tax rate.[19] Nevertheless, as it taxes mainly products with low demand elasticity, it causes relatively few market distortions. The second group included distilled alcoholic beverages, where each different type pays a fixed amount per liter. The tax rates for sales of these goods are displayed in Table 7.

Regarding excise taxes, the Federal Government's initiative sought that all alcoholic beverages be taxed with a combination of *ad valorem* and specific rates. Furthermore, it included increases in the rates of cigarettes and beverages.

Fernández and Trigueros (2001) agreed with the general modifications, but in the case of alcoholic beverages they suggested that the differential burden (specific part of the rate) should be related with the alcoholic degree of each. With respect to fuels, their proposal was to establish a rate of 150 per cent instead of the effective variable rate. These authors point out that although services like electricity, telephone, and water have convenient characteristics to be taxed under this scheme

[18] The relation of the excise taxes related to fuel and the oil price was described in the introductory section (Figure 3).

[19] Fernández and Trigeros (2001).

Table 8

Revenue Impact from New Excise Taxes
Estimated for 2002
(million pesos)

Excise taxes	Revenue impact
Telecommunications	3,830.8
Soft drinks	1,374.9
Processed tobacco	85.8
Alcoholic beverages	–170.0
TOTAL	**5,121.5**

Source: Ministry of Finance.

(inelastic demand and easy administration), it is not recommendable to tax them. On one hand, electricity and water are subsidized, and it would be politically unfeasible not only to reduce the subsidy but to tax them. On the other hand, both electric and telephone sectors are under reform, so that it would not be convenient to introduce a new tax on them. Unlike those authors and the Ministry of Finance, the World Bank's (2002) proposed tax reform suggests the conversion of *ad valorem* rates into rates per physical unit.

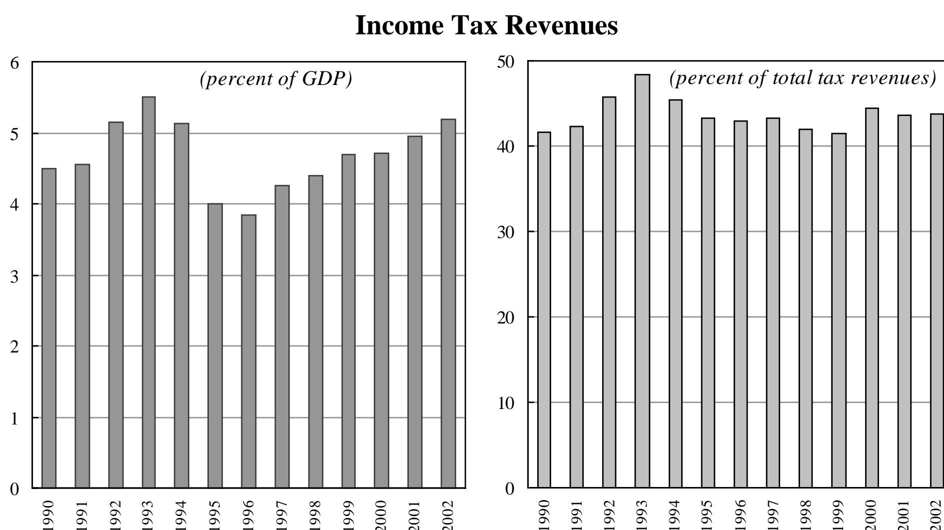
The Congress approved the proposal of taxing alcoholic beverages with a combination of *ad valorem* and specific rates regardless of the process by which they are obtained (fermentation or distillation). New taxes were also introduced. Among them, and despite the aforementioned recommendations, telephone and telecommunications were included. A 10 per cent excise tax on cellular phone, wireless data services, cable and satellite television services was adopted. Residential telephones, cellular services (provided via prepaid cards of up to 200 pesos), domestic and international long distance, emergency services, and web hosting were excluded form the base. This tax was extensively criticized because it opens a lot of possibilities for elusion. Additionally, a 20 per cent tax on natural and mineral bottled water, and on soft drinks and other beverages sweetened with fructose was introduced.[20] Furthermore, rates on cigarettes and alcoholic beverages were adjusted. Approved reforms for 2003 were only for clarification of the previous law.

The revenue impact from these reforms was estimated at 5,121.5 million pesos according to the structure shown in Table 8. Nevertheless, the collection

[20] The tax on soft drinks with fructose was a protectionist measure for the domestic sugar-cane industry.

Figure 6

Income Tax Revenues



Source: Ministry of Finance.

generated from the new excise taxes was not as expected. For example from telecommunications only 1,254.9 million pesos were raised, and for the tax on soft drinks the revenue was only 379.5 m.p.

1.2 Direct taxes

Over the past years, the income tax has experienced a number of changes aimed to broaden and strengthen the tax base, to simplify its structure and to avoid double taxation. To attain these goals, the implemented modifications sought to tax income on a global basis, to index the whole structure for inflation, to flatten the rate schedule and to integrate personal and corporate regimes. Although the tax structure as a whole is considered among the most neutral and progressive within the OECD countries,[21] its low revenue raising capacity is remarkable: it is the lowest from such organization. It is important to stress that the flaws of the income tax scheme are related to fiscal benefits associated with special regimes. Although the government had the intention of eliminating these special regimes, it had to preserve some of them in order to obtain support for the suggested unification of VAT rates.

In 2002 the collection derived from income tax amounted to five per cent of GDP, which is equivalent to 44 per cent of total tax revenues (Since 1996

[21] Dalsgaard (2000).

income tax revenues have increased as a percentage of GDP while as a percentage of total revenues they have remained around 45 per cent.

1.2.1 Corporate income tax

In 2001 the corporate income tax was administered via two modalities: the general regime and the simplified regime. Under the first one, business' taxable income was computed on an accrual basis; under the second, income was calculated on a cash flow basis. The nature of the business activity determined the regime under which the firm would pay taxes. In particular, agriculture, livestock, forestry, fishery and land transportation activities were subject to the simplified regime as long as the firms performing these activities did not act as holding or subsidiary companies. Also, firms with these kind of activities[22] are exempted from the payment of the tax as long as their income does not exceed 20 times the annual minimum wage.

The tax base includes all income received in cash, credit, goods, services or any other form, such as changes in the value of assets and liabilities due to inflation or exchange rate gains and losses. Dividends and profits are exempted as long as they are distributed after the payment of corporate income tax. If profits are distributed, they are taxed at a 35 per cent rate, while if they are reinvested they are subject to a rate of 30 per cent. This differential tax rate was introduced in 1999 as an investment incentive that replaced accelerated depreciation allowances. A discount between 25 and 50 per cent on the general tax rate is applied to firms within the agriculture, livestock, forestry, fishery and publishing industries regardless of the regime to which they belong.

Purchases and costs directly related to business activity are deductible when incurred. Inventory valuation is not considered for tax purposes for reasons of accounting simplification. Interest and exchange rate losses are deductible after they are adjusted for inflation. Fixed assets are depreciated at a constant yearly rate using the straight-line method. Taxable income equals gross income less expenses and net losses carried forward from preceding fiscal years.

A tax of 1.8 per cent on total assets complements the corporate income tax as a control to avoid elusion. It was designed as a minimum corporate income tax. The base of this tax is composed of all firm's assets, adjusted for inflation without allowing the deduction of debts. Payments are creditable against the corporate income tax. It does not have an important effect on investment and it is estimated that for every peso collected by the asset tax, 3.5 pesos are collected by the income tax.[23] This tax is creditable against the income tax.[24]

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[22] Excluding land transportation activities.

[23] Amieva (2002).

[24] The income tax measure described in Table 6 includes the asset tax.

The Ministry of Finance proposed several modifications to this tax in the fiscal reform initiative of April 2001. As in the case of the VAT, for the corporate income tax the Federal Government's primary goal was to eliminate preferential treatments. In particular, it suggested the removal of reduced rates granted to agriculture, livestock, forestry, fishery, and publishing.[25] The need to adopt this particular measure was widely recognized not only by national and international studies that assessed the Mexican tax system, but also by private sector analysts.[26] Some studies estimated that the tax expenditure associated with these preferential provisions amounted to approximately 0.33 per cent of GDP[27] without considering the cost associated with elusion opportunities generated by differential fiscal treatments.

The Federal Government suggested additional reforms. In order to encourage investment, accelerated depreciation of fixed assets (other than furniture) was reinstated as long as firms were located in areas outside the three mayor cities of the country. Among the new fiscal benefits were the deduction of social security contributions as well as deposits on housing funds paid by employers and the profit sharing among firm's employees. The tax rate on profits would be unified at 35 per cent in 2002, and it will gradually be reduced one percentage point annually in order to reach 32 per cent by 2005. As a result, there would no longer be a fiscal difference neither between retained and distributed profits nor between the top marginal tax rate for individuals and the rate applied to corporations.

The private sector[28] also proposed a change in the computation method of the corporate income tax base for a cash flow approach (a consumption-based income tax). It was estimated that this modification would provide a 15 per cent increase in corporate tax revenues, in addition to a significant simplification of accounting requirements for firms. A major drawback of this proposal is that it would prevent foreign firms from crediting the taxes paid in Mexico. This change would constitute a pervert incentive for foreign direct investment, since income generated in Mexico would suffer double taxation.

The Congress accepted the proposal related to the deduction from taxable income of mandatory benefits such as social security, deposits to employees' retirement savings accounts and to housing funds. However, the suppression of special fiscal treatments was not achieved. The major advance made in this regard deals with tax reductions. The top marginal rate was unified at 35 per cent in 2002 and the gradual reduction to achieve a tax rate of 32 per cent by 2005 was approved (Table 9). The 50 per cent discount in the tax rate for publishing was diminished to

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[25] It was also proposed the elimination of the exemption for firms related to agriculture, livestock, forestry and fishery.

[26] Gil Diaz (1987), OECD (1999), Ruiz (1999), Bours (1999), Chávez and Gabriel (2000).

[27] SHCP (2001).

[28] Bours (1999).

Table 9

Corporate Income Tax Regimes

	2001			Approved Fiscal Package								
					Rate (R) / Discount[2] (D)							
	Computation	Rate	Discount[2]	Computation	2002		2003		2004		2005	
					R	D	R	D	R	D	R	D
General	Accrual basis	30 / 35 *	50	Accrual basis	35	40	34	30	33	20	32	10
Simplified[1]	Cash flow	30 / 35 *	25-50	Cash flow	35	25-50	34	25-50	33	25-50	32	25-50

(1) Agriculture, livestock, forestry, fishery and transportation services are subject to the simplified regime. Firms are exempted from the payment of the tax as long as their income does not exceed 20 times the annual minimum wage.
(2) For the general regime, the discount applies only to publishing firms.
* The rate is 30 per cent if profits are distributed and 35 per cent if they are reinvested.

40 per cent in 2002, and it was programmed to decrease 10 percentage points annually until 2005. There were also administrative changes to increase collection.

Furthermore, since the need for increasing revenues was obvious and they were not coming from the VAT reform, the Congress introduced, besides the luxury tax, a new tax that would replace the wage credit. Employers had the option of paying the wage credit[29] that was formerly covered by the government or a 3 per cent payroll tax.[30] The government expected a revenue impact of 23,187 million pesos. For 2003 the rate was increased from 3 to 4 per cent.

1.2.2 Personal income tax

In 2001 the personal income tax considered six categories of sources of income:[31] wages and salaries, service fees, leasing, income from sale and purchase of goods (real state), income from entrepreneurial activities and other types of income. For wage and salary earners an annual return form is not mandatory since tax on this income relies heavily on withholding.[32] Income from interests was taxed on a schedular basis.[33]

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[29] As will be explained in the next section, this credit is provided to avoid that taxpayers with incomes slightly above the minimum wage enter into the schedule with a high marginal rate.

[30] Up to 2001 firms paid the wage credit and were allowed to deduce the whole amount from their taxable income. Under the new schemes firms pay either a 3 per cent payroll tax (still deducting the wage credit) or the wage credit (deducting only the difference between the credit and the amount they would pay under the payroll tax).

[31] Each individual is taxed separately, regardless of marital status.

[32] Although individuals with this type of income have the option to fill the annual return form in order to deduce allowed expenses, it is not a common practice. Individuals in this category must fill an annual

(continues)

The main exemptions from this tax are: bequests, fringe benefits (that do not exceed the limits indicated by law), in kind benefits, social security benefits and capital gains in the stock market. Deductions include: medical expenses, school transportation, funeral expenses and (up to a limit) contributions to pension funds and donations made to qualified institutions.

There were ten tax brackets with a minimum rate of 3 per cent and a top rate of 40 per cent. A wage credit equivalent to one minimum wage is provided to avoid that taxpayers with incomes slightly above the minimum wage enter into the schedule with a high marginal rate. The credit decreases as taxable income increases.[34] A tax subsidy is also included in order to partially incorporate fringe benefits not included in the base; the amount of the subsidy is inversely related to the proportion of fringe benefits in total worker's remuneration. Thanks to these special characteristics of the tax structure, individuals with earnings below four minimum wages actually received a refund.[35]

If individuals obtained income solely from entrepreneurial activities, they were taxed under one of three different regimes: a general, a simplified and a small taxpayer regime. Within the first one, individuals computed their taxable income as specified by the relevant corporate tax provisions (they also applied the corporate tax rate). The simplified regime was designed for individuals earning their income from agriculture, livestock, forestry, fishery and transportation services, and it was computed on a cash-flow basis. Taxpayers within this regime paid the same reduced rate as firms devoted to these activities. Finally, in 1998 the regime for small taxpayers was created in an attempt to incorporate individuals with activities in the informal sector. It was applicable to those with entrepreneurial annual income below 2.7 million pesos. The minimum tax rate was cero, the top rate was 2.5 per cent, and it was charged on gross income.

The proposed fiscal reforms for the personal income tax focused on the treatment of fringe benefits. The main concern was that their exclusion from the tax base represents a loss of 0.9 per cent of GDP for the treasury. In particular, it was recommended to tax all recurrent or monetary fringe benefits such as food and gasoline coupons and to exempt all non-recurrent fringe benefits as well as those provided in services such as sport facilities, transportation or maternity benefits.

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return if they obtained income from any other source (except interests) or if their income from wages and salaries was higher than 2.1 million pesos.

33 Interests paid on saving deposits that do not exceed two times the minimum wages and those paid by bonds issued by Federal Government or international credit institutions were exempted. The rest of interest income was taxed at a rate of 2.4 per cent on the first 10 percentage points of paid interest.

34 By law, individuals with an income equal to the minimum wage cannot be taxed.

35 Fernández and Trigueros (2001) estimated that the cost of these provisions amounted to 0.5 per cent of GDP in 2000. Moreover, only a third of wage earners actually pay some income tax. Due to these provisions it has been argued that incorporating individuals from the informal sector will not contribute to strengthen the revenue capacity of the system since their incomes fall within the three to four minimum wages range.

With respect to the wage credit, some authors[36] proposed a limit in order to provide the exemption only to workers who earn one minimum wage. Since it would be difficult to implement this change, they suggested fixing the nominal amounts of the credit (*i.e.* to eliminate the indexation of this benefit) until they achieve the necessary level to exempt income equal to one minimum wage.

Regarding the fiscal treatment of individuals whose income is solely generated by entrepreneurial activity, the Federal Government proposed the disappearance of the simplified regime.[37] It also suggested the elimination of the schedular regime for interests in addition to the removal of the exemption to interest income from Federal Government bonds. With respect to deductions, it would be possible to subtract from taxable income 20 per cent of tuition payments as well as 100 per cent of medical insurance premia[38] and the mandatory sharing out of firm's profits granted to employees. As in the case of the corporate income tax, the reduction of the top marginal tax rate from 40 to 35 per cent in 2002 was recommended with the same annual reduction of one percentage point until 2005.

The Congress accepted lowering the top marginal tax rate from 40 to 35 per cent in 2002 (Table 10) together with a gradual reduction of one percentage point each year in order to reach a tax rate of 32 per cent in 2005. The number of tax brackets was reduced from ten to eight in 2002 and will diminish one bracket until 2005. Among the new deductions from taxable income the most important are medical insurance premia and mortgage interest payments. In the case of deductions of voluntary contributions to retirement accounts, the modification was to limit the amount that can be deposited in such accounts. In order to increase fiscal control over wage and salary earners it is now compulsory to fill an annual income tax return for those who obtain more than 300 thousand pesos (previously this limit was 2.3 million pesos). It is also required to report non-taxable and/or exempted income.

The regime under which individuals with entrepreneurial activities tribute was also restructured. Individuals whose income comes strictly from these activities pay taxes on a cash flow basis and apply the general progressive rate schedule together with personal deductions allowed for individuals with other types of income. In addition to the small taxpayer regime, an intermediate taxpayer scheme was introduced. The first one is applied to individuals with annual entrepreneurial income below 1.5 million pesos. Under this regime the tax paid on income is one per cent (the progressive schedule is not applied). The intermediate regime includes individuals with annual income between 1.5 and 4 million pesos. The benefit of paying under

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[36] Fernández and Trigueros (2001).

[37] Fernández and Trigueros (2001) proposed the elimination of the discounts in tax rates. They also suggested the substitution of the small taxpayers regime for the simplified one and to limit the option to pay taxes under this regime to individuals whose earnings were under 600 thousand pesos.

[38] These deductions aim at compensating the rise in the VAT rate for these services.

Table 10

Personal Income Tax Rates*

		No. of Tax brackets	Marginal tax rate	
			Minimum	Top
	1995	8	3	35
	1996	8	3	35
	1997	8	3	35
	1998	8	3	35
	1999	10	3	40
	2000	10	3	40
	2001	10	3	40
Approved fiscal package	2002	8	3	35
	2003	7	3	34
	2004	6	3	33
	2005	5	3	32

* Before 2001 these rates were applicable to all taxpayers under the personal income tax regime except those whose income was solely generated by entrepreneurial activities. From 2002, according to the approved fiscal package, the only exclusion is for individuals in the small taxpayers regime.

this regime is that immediate deduction of investments is allowed.[39] The former simplified regime was eliminated.

2. Conclusions

At the time the new administration took office in 2001 there was an overall recognition that a major tax reform was needed to improve the condition of public finances. In the end, the modifications actually approved were last minute changes aimed at reducing the revenue loss generated by the rejection of the original proposal.

It is obvious that the need to implement a major tax reform prevails. It once again should be targeted at strengthening revenues and at consolidating public finances by broadening the tax base and reducing reliance on oil income. Although through previous reforms the Mexican tax system has gained in efficiency, tax collection has not increased due to special regimes and exceptions. Tax evasion is closely related to them, and it will not be easily handled without a comprehensive reform.

[39] Individuals with income above 4 million pesos still deduct physical investments with the option of accelerated depreciation.

Table 11

Personal Income Tax Regimes for
Taxpayers With Entrepreneurial Activities Only

	2001			Approved Fiscal Package		
	Computation	Rate	Discount	Computation	Rate	Discount
General	Accrual basis	Corporate tax rate (35%)	0%	Cash flow	Personal progresive tax rate. Min rate: 3%. Top rate: 35% and diminishing 1% each year until 2005.	0%
Simplified(1)	Cash flow	Corporate tax rate (35%)	25% - 50%	Eliminated		
Intermediate (2)	Did not exist			Cash flow	Personal progressive tax rate. Min. rate: 3%. Top rate: 35% and diminishing 1% each year until 2005. (4)	0%
Small (3)	Cash flow	0% - 2%	0%	Cash flow	1%	0%

(1) Agriculture, livestock, forestry, fishery and transportation services are subject to the simplified regime. Firms are exempted from the payment of the tax as long as their income does not exceed 20 times the annual minimum wage.
(2) Entrepreneurial annual income between 1.5 and 4 million pesos, except for agriculture, livestock, forestry, fishery and transportation services where the limits are 1.5 million pesos and 10 million pesos.
(3) Entrepreneurial annual income below 2.7 million pesos in 2001 and below 1.5 million pesos from 2002, except for agriculture, livestock, forestry, fishery and transportation services where the limit is 1.5 million pesos.
(4) The difference with the general regime is the depreciation scheme: contrary to the general regime, in this one immediate deduction is permitted.

Neither the fiscal authorities nor the taxpayers deny the deficiencies of the current tax system. There were several proposals for a comprehensive tax reform that suggested mechanisms to eliminate the special regimes and exemptions and to enhance fiscal administration, thus increasing tax collection and reducing evasion. In 2001, the Ministry of Finance presented to the Congress initiatives for new laws with the aforementioned purposes. Nevertheless, such reform was politically difficult to accept and was therefore rejected by legislators.

It should be noted that the original initiative was comprehensive in that it included reforms in consumption and income taxes that complemented each other. However the reform process favored changes mainly related to fiscal benefits leaving aside those aimed at increasing tax bases. In particular, the proposal to homologate VAT rates was rejected while the compensation measures included in the income tax (designed to lower the distributive impact of the consumption tax

reform) were almost completely approved. This has left the fiscal authority with less bargaining power for future modifications.

This last experience regarding the attempt to implement a comprehensive tax reform reassures three already known lessons. Even though the reforms were technically well designed to fix the shortcomings of the tax system, political economy issues to establish a successful bargaining process cannot be ignored in the future. This consideration is particularly relevant given that groups with preferential fiscal treatments will continue to oppose any reform that attempts to increase their tax burden. It should also be taken into consideration that in order to make the acceptance of a broad reform feasible, it might be necessary to introduce well-defined expenditure programs.[40] It is difficult for people to accept higher levies while public goods and services are not seen as a direct consequence of them. In this regard it is also crucial to introduce public accountability and transparency laws. Finally, a generalized disposition to contribute to public expenditures will be very difficult to achieve if evasion problems are not solved.

The process of reform is continuous as long as the fiscal authority faces varying economic scenarios, new restrictions and the constant compromise to satisfy new needs. It is possible to take major steps towards a more efficient and equitable system as was the case of Mexico in the past two decades. Nowadays the major challenge is not to modify the whole structure of the tax system but to tune up the system in order to improve its revenue raising potential. Even after the last proposal made by the Ministry of Finance this particular goal was not achieved: the tax reform continues to be elusive.

[40] The Federal Government suggested several expenditure programs together with the initiative of tax reform, but they were not seen as a fair compensation for the higher tax burden. The reforms should include benefits to offset increases in the tax burden of the poor; it is better to increase the progressivity of public spending than of the remaining taxes (World Bank, 2002).

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COMMENTS ON SESSION IV: TAX REFORMS

Carine Bouthevillain[*]

I would like to thank very sincerely Daniele for the invitation to this workshop and Carlo for the perfect organisation. I would also like to thank the authors of the papers for their useful and very interesting work.

I will not discuss precisely the papers that have been presented to us in this session, and I apologise for that. I would simply like to make a few general remarks on the difficulties of implementing a fiscal reform. Upon reading the papers which describe national situations, I had the feeling that the key questions are similar to many countries. As I am more accustomed to the French system, I will draw on my country's example to illustrate my comments. I apologise by advance because many aspects of my comments have already been mentioned during former sessions of this workshop.

From my point of view, there are at least two keywords linked with the tax reform problem.

The first one is time, because a tax system is something which changes very slowly by itself. I would like to quote a sentence from Joseph Caillaux, who served as a Minister of Finance during the Third Republic and was to launch the income tax in France. He said : "Changing as the civilisation progresses and as the public wealth expands, the fiscal system is entrenched in a country's history and in its moral and political development. But, the changes are an integral part of the social evolutions. It means that they happen very slowly. The more entrenched the system is, the longer it takes to get things changed." This sentence was written in 1911, but is still topical : the French taxation system, given its very long and diverse history, has turned into a very complex one (with approximately 115 taxes, all with many tax exemptions).

As a whole, and in spite of the current budget deficit, the system seems to work satisfactory with respect to its traditional assignments:

- finding resources to public finance expenditure,
- carrying out a good income reallocation,
- correcting the market failure.

But due to its complexity, the system is fraught with losses and inefficiencies. An overhaul of the system is highly needed to cope with the difficulties and to make it more efficient to support growth and employment. It is no longer possible to wait for endogenous and marginal changes. Most of the economists and politicians are in

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The views expressed in this comment are those of the author and do not commit the Banque de France.

favour of a huge reform of our tax system. They know that the current one is not sustainable, especially in the context of increasing expenditure on pensions and health, and of tax competition. But the ideal (or optimal) content or even the main objectives of the reform are discussed without any general agreement.

Some economists recommend a "liberal" reform, that is a strong reduction in tax pressure and as a counterpart, a reduction in public expenditure. They would like to support GDP growth with the help of incentive measures that could stimulate household's consumption, companies investment and employment supply and demand. On the other hand, other economists ask for a "social" reform that favours a more fair tax-burden sharing, a better reallocation of revenues, incentive measures for low-skilled employment and a set of allowances for the poorest part of the population. At the present time, the tax system is a mix of those two kinds of organisation, leading to a lack of transparency for the medium-term.

"Liberal" and "social" reforms are often incompatible. That's why the second keyword I would like to mention is the "equity versus efficiency" dilemma. I don't want to develop the different meanings of equity, in particular the difference between horizontal and vertical equity. This has already been recalled in previous sessions. There is a dilemma between those two objectives not because it is impossible to reach them together, but also because tax policies serve for many different purposes and cause the system to shift from one direction to another. For instance, there is a preference for equity when the objective is the organisation of the regional development or the taxation of labour income. On the contrary, there is a will for efficiency when it comes to the taxation of capital and the financing of the welfare system.

Favouring the most relevant tool to reach the selected target and avoiding the creation of distortions and the development of excessive losses of efficiency gives way to a permanent debate. But there is a risk that the system may lack overall coherence. In addition, there is a need for fiscal stability. A permanent fiscal debate is detrimental to the economy because households and firms need to plan their allocation of resources over the medium-term. Constant changes in the government commitments weaken the politician authority because of a lack of credibility which alter agents' behaviour.

In the past, the same questions have been debated for years and every new government gives a new answer. For instance, in 1982 President Mitterrand created a tax on wealth which has been removed by Prime Minister Chirac in 1986. Two years later, in 1988, Prime Minister Rocard, who was newly appointed, created a new tax on wealth which was to be reshaped and increased by Juppé in 1995. This tax is due to be lowered with a new fiscal base by the current government.

We have also learned from the past that a gradual reform leads to a more cumbersome system and most of the time has an impact which is both very slow and different or even may counter to the initial target.

A wide tax reform should be made of sudden and heavy changes and should not arise from the piling up of punctual adjustments and dusting. It means that,

ideally, a government, in addition to the definition of precise medium-term targets, is supposed to answer many fundamental questions before the implementation of the reform. It sounds obvious but it rarely happens. Let me take an example. The society, through its government, must choose some fundamental values. For instance the preference for work or leisure at different ages, the relative level of pensioners and wage-earners incomes, the will to uphold a well developed welfare system or not, etc… Those questions have been raised during the working time reduction process implementation but remain unsolved. They reappear now on the occasion of the debate on the pension system reform without any clear answer once again. There remain underlying questions, every time there is a tax reform concerning labour taxation or reallocation of income or tax competition issues. So I think that a tax reform is not only dealing with public finance issues but also with more general parameters of a country.

Regarding a tax reform, fiscal structural questions must also be raised and I would like to focus on some of these questions.

1) Do we prefer either a large fiscal base with low tax rates or a narrow fiscal base with high tax rates and a lot of tax exemptions?

The French system experienced the second option, using tax exemptions to modify some behaviours which were considered as undesirable. Thus, only 50 per cent of the households are subject to the income tax. Another example : the work of art is not included in the fiscal base of the tax on wealth. The principal effect of these exemptions is to reduce the tax base. The system also creates distortions as households and companies behave in such a way that they can take advantage of favourable tax conditions without having to care about the macroeconomic efficiency of the reform.

VAT is also a good example. In France this tax has been lowered for targeted goods and services : first, for subscription for electricity and gas providing, second, for all works and repair made in houses. Targeted reduction of VAT rate has two advantages : it impacts prices in a predictable way and it's a good way to support an economic sector or to fight against "grey or underground" economy. But on the other hand, the system turns increasingly complex as some producers may be encouraged to take advantage of the law rates to modify their production, which in turn urge the other economic sectors to ask for the same advantage.

Faced with this serious experiences, politicians are increasingly supporting a large fiscal base with low tax rates and the suppression of many tax exemptions. During the last three years, more than 40 small taxes have been removed and many tax benefits which were unintentionally incentives for the creation of fiscal niches have been cancelled. I think it is the good direction even though the transition might be difficult to organise.

2) Do we prefer either a progressive or a proportional tax?

Many economists are proponent for a progressive tax, such as the income tax, because it is considered to meet the equity target. But, the more the tax is concentrated on high-level incomes, the less it helps the redistribution of revenues. There is no evidence in the empirical literature that high marginal income tax rates are dissuasive or act as a deterrent to foreign high-skilled human resources immigration or on the contrary incite the French highly educated workers to move abroad. In addition, the marginal gain for a higher marginal tax rate is very small. So emphasising the efficiency concerns, some economists consider that it could be a better solution to leave the redistribution task to social and welfare expenditures and to simplify and rationalise the income tax with a proportional rate. I am also in favour of this approach. As yet, there is no attempt to reform the income tax with less progressivity in France.

3) Do we prefer to tax either labour or capital the most heavily?

Taxes were considered to be higher on labour mainly on account of high social contributions and this is one of the main reasons for the high unemployment level in France. Recently, a lot of reforms tried to reduce taxation on labour, with a view to supporting employment and improving competition. Indeed targeted cuts in employers' social contributions help to support employment during the economic downturn. But, employment as a whole has a limited mobility. So the changes on taxes levied on labour have actually a direct impact on employment and this is particularly penalising if it raises the mean cost of labour. On the other hand, if you rise the tax on capital, insofar as it incites the investors to delocalise, it could have a negative impact on domestic employment and then on wages. So, in the end, the wage earners pay also a part of the tax on capital, as an indirect effect. In addition to this point, and because they would like to promote entrepreneurship, economists are increasingly supporting a low tax on capital, especially in an open economy provided that this limited taxation is not offset by too heavy a taxation on labour. A solution, which could be used in the near future by France is the enlargement of the taxation on financial revenues.

International tax competition lies of course at the forefront of the debate on capital taxation. A lot of things have been said in previous sessions on this subject and I don't want to repeat them because I agree with my colleagues, especially on the need for a code of conduct to avoid a race to the bottom on tax rates and unfair competition.

As a conclusion, I would like to point out two issues:

- Tax system and public expenditures can not be considered separately. Especially in France, no tax reform can be undertaken without sizeable efforts to control and reduce public expenditure. For the time being, the French reform focused on

lowering the cost of labour for low-skilled workers and on the reduction of inactivity traps. The convergence Gabriella noticed for capital income taxation will probably be extended to other fields of taxation in the future.

- According to the recent experiences, France seems to be struggling to reduce its expenditure, especially those dedicated to the welfare system. The risk is therefore to lower the taxation of the mobile factors (big companies income, skilled-workers, capital income…) while non-mobile factors taxation (small companies, income, inheritance, non-skilled workers, household's capital income…) could be used to finance the expenditure. Even though the last reforms have avoided this temptation, the risk still exists that the recent reform benefits could be wiped out. I think this risk should not be overlooked as the tax pressure reduction process continues and could be one of the lever which contributes to the increase of potential growth.

COMMENTS ON SESSION IV: TAX REFORMS

Mark Chandler[*]

In these comments I focus on the last three papers of the session. The Barbone and Sanchez paper tells a compelling story of the political economy of reforms in the CIS. Its framework of analysis centres on (1) the stakeholders, (2) the process of interest aggregation through the political system, and (3) institutions. In Ukraine the main stakeholders were metallurgical and coal sectors, regional clans and the energy sector. The political system consisted of unstable factions in a mixed presidential and parliamentary system. The President's main support came from conservative industrial and financial groups. Significant institutional features included large tax arrears, particularly in the energy sector, and chaotic tax exemptions. The tax code was not approved and enforcement was weak. Weak enforcement meant low quality enforcement characterised by taxpayer harassment and politicisation of collection.

In Russia stakeholders are similar to in Ukraine, but other aspects of the environment are quite different. The main stakeholders in Russia are the larger privatised industrial companies, regional leaders and the energy sector. Prominent institutions include lobbying of the government and duma and the technical disadvantage of the tax authority compared to private companies. Transfer pricing is used aggressively to avoid taxation along with other methods of avoidance and evasion. Even local governments collude with companies to reduce the national government's tax share.

The Russian political system underwent something of a shock after 2000. The Russian president has greater power than his Ukrainian opposite number. Putin managed to reach a broad consensus of support in the 2002 election and this eliminated the need for dependence on oligarchs. Hence the oligarchs control of government broke down. Oligarchs themselves had anyway realised the need for reform after the 1998 financial crisis. Duma elections in 1999 had increased the power of reformist forces, reducing the number of seats held by the Communist Party.

The Matalík and Slavík paper describes the major reforms in the Czech taxation system. The main thrust of those reforms consisted of 4 elements. First policymakers sought to keep the budget deficit below 3 per cent of GDP. Second they wanted to maintain automatic stabilisers in the economy. Third, there was an attempt to improve efficiency by simplification of the tax system. Fourth, the Czech government aimed to reduce tax rates in order to make the economy more "competitive".

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The Martner and Tromben paper paints a vivid picture of the fragility of Latin American countries' public finances. A basic problem is the high instability of gdp, this naturally leads to unstable tax revenues. This instability has tended to lead to increasing debt burdens. Some countries have allowed debt to crescendo to the point that long run surpluses are needed into the future to service the debt, while several others face the need to maintain tight fiscal policies to avoid this situation. Mexico and Chile have been among the more successful countries. Their reduction of debt in the 1990s now allows some flexibility over fiscal policy.

The papers of this session, other papers of the conference and experience from the Baltic suggest a number of lessons for tax reform. The CIS experience suggests that fragmentation of tax collection may make it less effective. The dramatic tax reform in Russia under President Putin offers a fascinating case for analysis. So far it is still to early to tell whether the lower tax rates lowered tax evasion significantly, tax revenue rose for other reasons. One priority for reform that comes out strongly in the Baltic countries is the replacement of personal income tax by value added taxation, due to the latter's greater efficiency in collection. A lesson from reforms of the personal income tax in the UK is that reducing exemptions may harm political decision-making and hence it is better to reduce tax rates. Another policy reform idea with negative consequences is the abolition of corporate income tax. It is better to exempt dividends and capital gains to avoid double taxation, but retain the tax on profits to prevent earnings going untaxed.

In some areas of tax policy not enough is currently known about the current environment to create the most effective reform, particularly in the transition countries of Central and Eastern Europe. More research is needed particularly in the area of tax evasion. Questions such as how much evasion is achieved through non-registration of enterprises versus hidden payment of cash in envelopes by registered companies need to be investigated further. It may be possible to find evidence of evasion from clustering of declared income around the minimum wage in the wage distribution. This research could then provide the opportunity for cost/benefit analysis of administrative measures to combat evasion such as increasing quantity and quality of auditing.

COMMENTS ON SESSION IV: TAX REFORMS

Walpurga Köhler-Töglhofer[*]

As the last discussant of this workshop, let me on behalf of all participants thank our hosts for the excellent organisation of this event and for the lavish supply of food – both for the stomach and for thought. The variety of insights presented and the breadth of items discussed have provided an intellectually enriching atmosphere for all of us. Thus, many thanks to the Banca d'Italia for hosting this meeting.

For two and a half days we have been discussing a very old topic: taxes have, after all, been around virtually as long as organised governments have been in place. Even in the Bible it says that the tithe (one tenth) of the crops be set aside and that the tithe be used for purposes of redistribution and to support the priesthood. However, it is not clear what the enforcement mechanism was, and the extent of tax evasion was not an issue in the Bible, either.

We have been talking about a policy area that is concerned with the design of tax systems which are capable of financing the necessary/preferred level of public spending in the most efficient and equitable way.

Being the final discussant, I would like to recall briefly what we have heard in this forum and then share my impressions with a view to wrapping up the discussions that have evolved over the past few days. In other words, the purpose of my contribution is to round off this workshop with some concluding comments.

1. A retrospective glance – what were the debates about?

The first three sessions focused on the challenges advanced economies typically face. Challenges related, above all, to efficiency and growth considerations, but also challenges regarding equity aspects of tax systems, as discussed, in particular, in the first session. The taxation of production factors, such as labour taxation and its potential effects on labour supply and labour demand, and capital taxation and its potential effects on investment and saving decisions were at the centre stage; at the sidelines, distributional aspects of indirect and direct taxation were touched upon.

Another session focussed on the macro impact of taxation – taxation and its relevance for stabilising the economy or for dampening the deviations of economic activity from its trend path. Given the long and uncertain lags with which discretionary policy measures – especially specific tax measures – work, and given problems of irreversibility, there is a wide consensus that fiscal stabilisation should

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be primarily carried out via automatic stabilisers. However, efficiency-enhancing income tax reforms might affect the effectiveness of automatic stabilisers.

Current tax debates, be it in Germany or in Austria, centre on the question whether tax reforms designed to increase the disposable income of households are indeed capable of stimulating the economy – amid growing uncertainty about the long-run sustainability of public finances, notably doubts about the fiscal sustainability of public pay-as-you-go pension systems. There is no consensus among economists and policy-makers about this issue.

The third session dealt with taxation issues in open and integrating economies and reminded us that in designing tax reforms it has to be taken into account that (intended or unintended) spillover effects tend to be important, and that tax policy can be used as a substitute for the classical beggar-thy-neighbour policies. This session revolved around the analysis of tax competition issues and the issue in how far such harmonisation is indeed necessary. In particular in the field of capital taxation, competitive aspects are increasingly coming to the fore. Concerns about the effects of high tax levels and high tax rates on competitiveness are the driving forces behind corporate tax reform proposals.

In an open economy, the problem of levying taxes on a mobile tax base in general hinges on the possibility of an induced tax base flight (positive externality to other countries) or a tax induced tax base import (negative externality to other countries). The latter implies the strategic use of tax policy measures designed to attract tax bases, such as financial capital, by offering foreign investors favourable tax treatment of capital income. As a case in point, the "necessity" of cutting corporate income taxes to retain Austria's attractiveness as a business location is being discussed as our neighbours towards the east (Hungary, Slovakia) announced their decision to reduce their corporate income tax rates significantly. However, the empirical findings about tax-induced location decision of FDI are rather mixed.

The ongoing integration process has an impact not only in terms of creating scope for proactive measures in global location competition. This process evidently restricts the room for tax increases on mobile tax bases.

1. Tax reform challenges in advanced economies

In the final session, Gabriella Briotti tried to find out – based on different tax indicators – whether the tax reforms undertaken in recent decades, notably in the field of corporate taxation, were mainly driven by tax competition reasons. The last decades saw major reforms in the area of income taxation, especially capital taxation, *i.e.* corporate and capital income taxation. Even though not mentioned explicitly, most of the reforms were driven by the intention to reduce non-neutralities *vis-à-vis* saving, investment and financing decisions, as well as to enhance growth by cutting marginal tax rates, flattening the rate structures, broadening the tax bases (by eliminating tax exemptions, special regimes, tax deductions and tax allowances) and by integrating or aligning different tax rate

structures to avoid arbitrage opportunities. Base broadening alongside tax rate cuts explains why the average effective tax rate was growing over the last decade of the 20th century.

Undoubtedly, globalisation and the free movement of production factors had an impact on tax reforms, as they tended to lower top marginal rates in particular on the more mobile tax bases (and hence, on those bases with more elastic responses to taxation) and to raise them on less mobile tax bases. In this sense, the reforms corresponded to a standard principle for the design of tax systems – that tax distortions are minimised if the burden is focussed on tax bases that respond relatively weakly to taxation. At the same time, though, these shifts in the tax mix gives rise to fairly serious concerns for distribution and tax equity.

However, Gabriella Briotti concluded that, based on the information examined in her paper, no strong conclusion can be drawn regarding countries' practise in the area of tax competition, although corporate tax rates, statutory and effective, have converged over the last decade, particularly in the euro area. What can be said is that statutory rates have fallen dramatically and that they continue to fall, but that depreciation allowances (which pay only when tax rates are high) have become less generous. However, there has not been an obvious decreasing trend in corporate tax revenues. What comes immediately to my mind is that the reduction in statutory rates may indeed have been a measure of governments to combat income shifting strategies, *i.e.* tax planning activities of trans- or multinational companies.

If I discussed current taxation options from the Austrian point of view, I would put the finger on problem areas quite similar to the ones of other European countries:

- the high tax burden (including social contribution) on labour,
- the negative effect on labour demand and for low skilled labour in particular, but also on labour supply;
- the implications of high marginal income tax rates on human capital accumulation,
- the relationship between tax planning efforts and tax avoidance activities of highly skilled people with high marginal tax rates,
- the danger of revenue losses with respect to mobile tax bases, such as capital, and, finally,
- the attempt to reinforce the internalisation of negative externalities through environmental taxes.

In my opinion, future tax reform debates in Europe are likely to revolve around the following issues, most of which were touched upon in the three sessions:

- the reduction of the tax burden and the restructuring of the tax systems with a view to increasing employment and enhance the long-term growth potential,

- the international coordination and/or harmonisation of tax policies with a view to reducing tax-induced allocation distortions and to prevent competitive tax cuts of mobile bases,
- the timing of tax reforms and their role in stabilisation in general, against the background of the European fiscal rules in particular,
- the intra- and intergenerational tax equity – shifting the burden from wage taxes to consumption and property taxes, in consideration of societies characterized by an increasingly ageing population;
- fostering environmental objectives via taxation.

2. Tax reforms and tax policy challenges in transition countries and Latin America

The last session was devoted to tax policy issues and problems in reforming tax structures of a set of extremely heterogenous countries. While Gabriella Briotti discussed the problems that advanced European countries typically face, Ivan Matalík analysed tax policy problems from the perspective of a more advanced acceding country that will join the EU soon, namely the Czech Republic. The paper by Luca Barbone and Luís-Alvaro Sánchez about the political economy of taxation policy in CIS countries highlighted in particular the problems of weak institutions or the lack of proper functioning institutions, rules and so on. Finally, our attention was turned to Latin America peculiarities.

These last papers of the final session gave a broad overview of problems often neglected in discussions about taxation issues, since we tend to start under the assumption of functioning market economies with more or less functioning democratic rules, as is the case in advanced OECD countries. The necessary and sufficient conditions, or rather "pre-conditions" for the working of a modern tax system are usually assumed as given. What becomes obvious immediately is that CIS countries as well as Latin American countries suffer from problems related to the so-called governance structure: the challenge they face is the need to introduce or implement appropriate institutional structures, to institutionalise functioning tax administrations,[1] to reduce the influence of specific interest groups, to reduce corruption, to build up functioning or efficient budgeting processes and so on.

In other words, from the point of view of both transition and Latin American countries, providing and securing these pre-conditions is what counts in the first place. What good does it do to take over and install modern Western-type tax systems if the underlying political culture, the institutional framework and widespread popular support and understanding are missing and if the effective tax systems are distorted by the arbitrariness of policy-makers or those who have economic power? With respect to these countries, questions about the proper

[1] Otherwise, "tax administration in fact becomes tax policy" (Bird *et al*., 1992, quoted in Shome, 1999).

framework conditions for efficient tax systems are relevant, whereby "proper" relates to a governance structure able to achieve stable and sufficient revenues, raised with some degree of fairness and at minimal efficiency costs.

In all the countries considered, a tax system should of course raise enough revenue to finance essential expenditure without recourse to excessive public sector borrowing. However, in CIS countries – but also in most of Latin American countries – the establishment of effective, efficient and equitable tax systems is clearly also challenged by characteristics other than insufficient/inappropriate governance, such as the scarcity and the poor quality of basic data (Tanzi *et al.*, 2000) and the structure of the economies itself: large informal sector activities and occupations, agriculture accounting for a large share of the total output and employment, many small establishments, a small share of consumer spending made in large, modern establishments etc.: all that *per se* reduces the possibility of relying on certain modern taxes such as personal income taxes and maybe even the possibility of achieving high tax levels.

Another, and very well known, problem is the uneven income distribution (not to speak of the distribution of wealth). In order to generate higher income tax revenues, the top deciles of the income distribution would perhaps have to be taxed significantly more, proportionally to the low deciles. As long as the economic and the political power is concentrated in the top deciles, richer and wealthier taxpayers are able to prevent tax reforms with a strong re-distributional intention that would affect them negatively. This at least can be seen as one explanation why personal income taxes and property taxes have been very little exploited;[2] in general, total taxes on incomes generate less than 5 per cent of GDP and much less than that in some countries. In a few countries, such as Mexico, property taxes have remained negligible in terms of GDP.

Of utmost importance for all the discussed countries is the need to effectively tackle tax avoidance and tax evasion. This has become a problem in advanced countries, too, reinforced by the free movement of production factors – but it is much more dangerous in developing countries and emerging markets, since they already suffer from a high informal sector and therefore from small tax bases. The result may be a vicious circle – small tax bases and high tax rates may be accompanied by a growing informal sector, followed by a further reduction of the tax bases, as mentioned by Ivan Matalík for the Czech Republic. These problems are fuelled by complex income tax provisions with a web of exceptions (numerous tax allowances, exemptions and deductions, tax holidays) and multiple rate systems in the area of indirect taxation as administrative difficulties grow exponentially with the increase in the number of rates.

Moreover, some Latin American countries are heavily dependent on raw materials – such as oil, copper and gold – for their revenues, revenues that are

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[2] As Bird (1992, quoted in Mahon, 1997) stated for Latin American countries, "major explicit tax changes are almost invariably political dynamite."

volatile, as they depend on the development of world market prices for these goods. Given these peculiarities, it seems extremely challenging to generate adequate and, above all, stable tax revenues.

However, raising stable and sufficient revenues in an efficient way so as to achieve more sound fiscal policies is of particular importance exactly for those countries, as they do not generate the appropriate private savings for the investments needed. Hence, they have to rely on external finance. As long as they do not manage to have stable fiscal policies, there is the danger that savings will be diverted from badly needed private sector investments, thus increasing the risk of a financial crisis. What we see in Latin American countries is that, during the good times, these countries have easy access to external financing. During the bad times, however, access to international markets becomes harder and more expensive, forcing these countries to adjust their fiscal accounts (*i.e.* cut their expenditures). Worse, inadequate fiscal policies may be penalised by the flight of capital – a disciplinary measure of international financial markets. Latin American countries have tended to cut capital spending in the wake of such crises, which – in part – contributed to the reduction of the rate of medium term growth prospects for the upcoming decades (Tanzi, 2000).

In last year's Perugia workshop, we talked about the implications that fiscal policy may have for long-term growth. It was mentioned that one of the clearest and most direct conceptual links between fiscal policy and growth is associated with tax policy. However, with respect to growth considerations, not only the financing but also the spending side is important. Even though empirical studies provided some evidence that in Europe any reduction of distortionary taxation could boost long-run growth, at least in the case of Latin American countries it is reasonable to assume that the opposite is true. As mentioned by Mateos-Hanel for the Mexican case, there are *imperative* future expenditures for their development which have to be financed by an increase in taxation.

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