

TAX POLICY IN EMU: A PRELIMINARY ASSESSMENT

Fabrizio Balassone, Daniele Franco* and Alessandra Staderini**

“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.”

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

* Banca d'Italia, Research Department. The views expressed in this paper are those of the authors and should not be attributed to the institution they are affiliated with.

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

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

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**

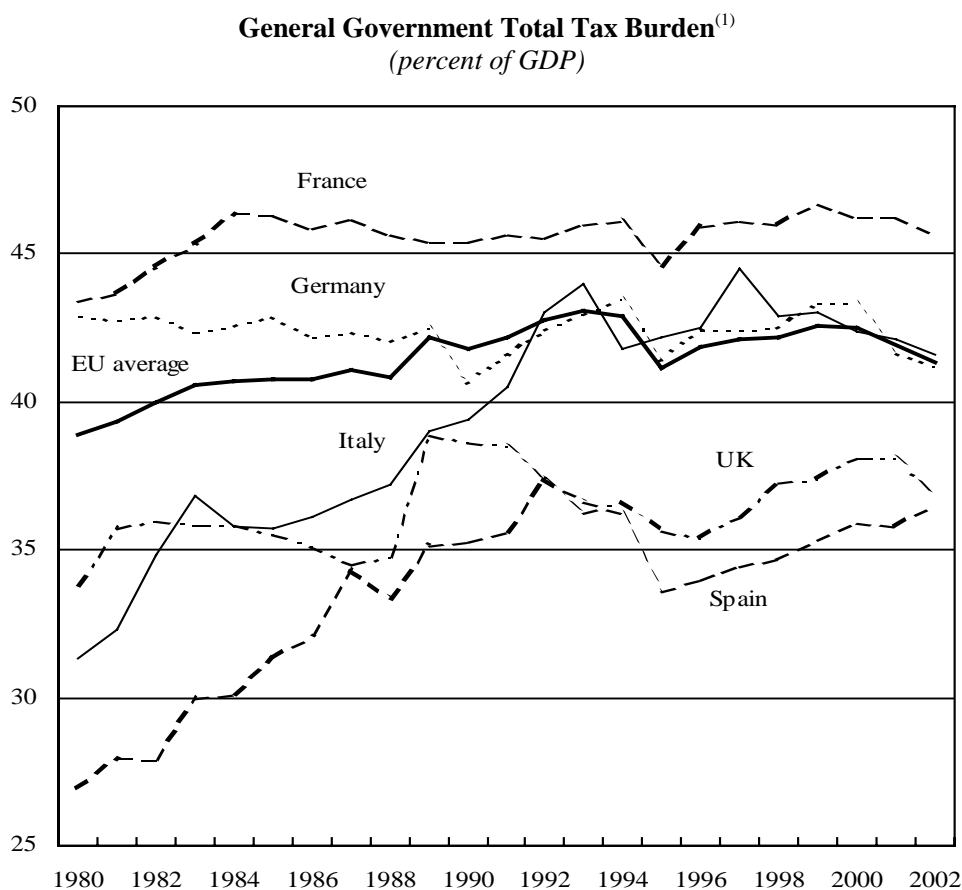
2.1 *Tax to GDP ratios*

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.

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



(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:

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

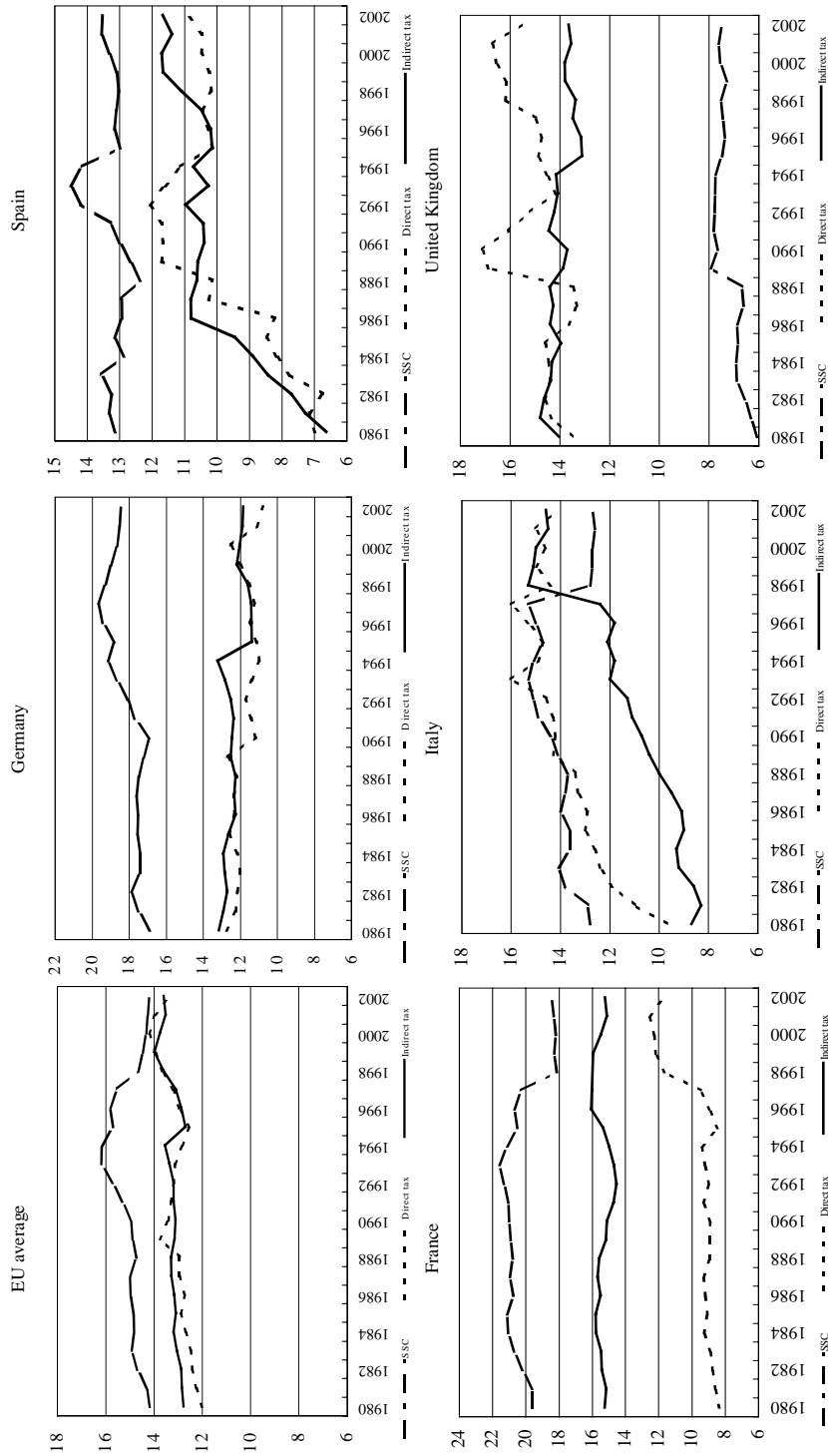
where τ_c is the tax rate on consumption and τ_h is the tax rate on labour income. The index is proportional to the consumption and leisure price ratio.¹⁰

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:

$$\frac{\partial \theta}{\partial \tau_c} < \frac{\partial \theta}{\partial \tau_h} \quad (2)$$

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.

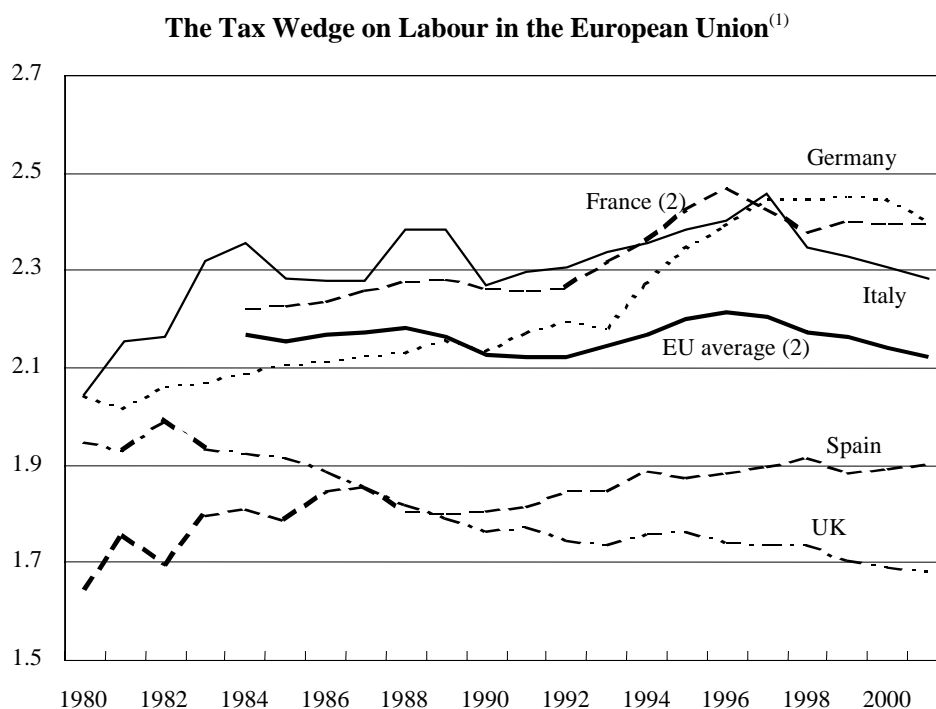
The picture obtained by reference to the θ index is different from the one that is obtained by referring to the total tax burden. The average index for the EU is stable at about 1.9 over the whole period (Figure 3; Table 1). At the start of the Eighties, Germany, France and Italy had a high θ (in the 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



(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

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	1986-1990	1991-95	1996-2000	1997
		(3)	(3)	(3)	(3)	
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.

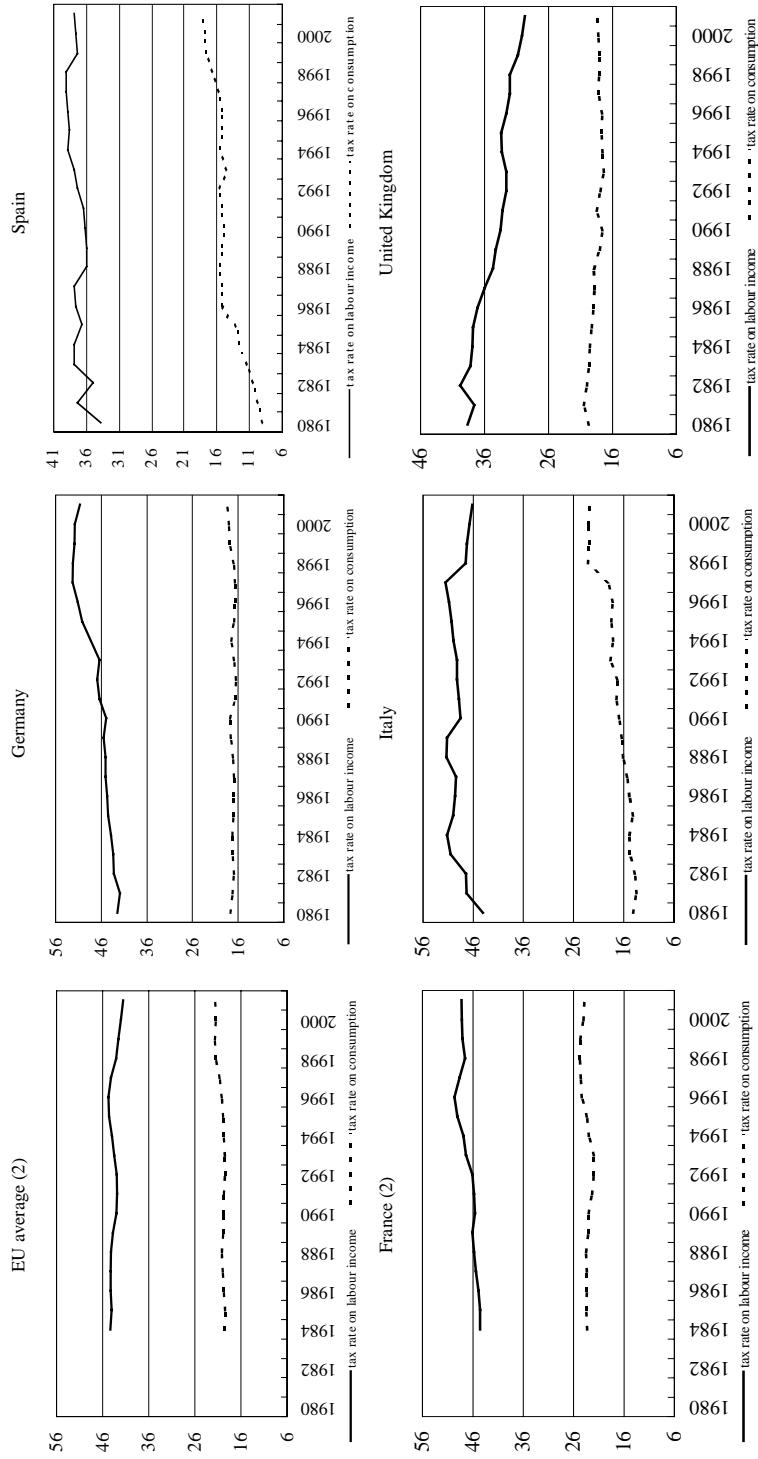
(2) For France and EU average data are available from 1984.

(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)



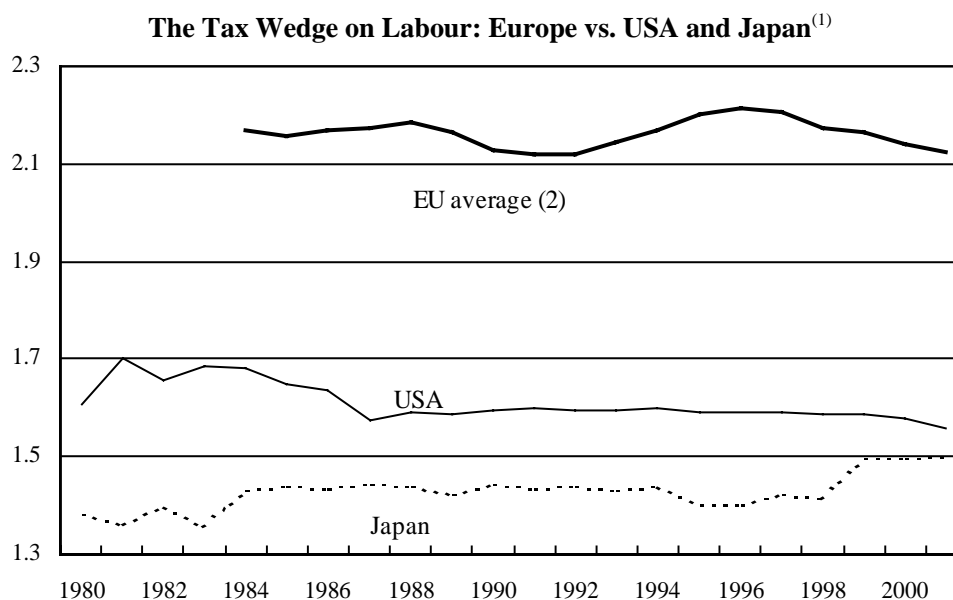
(1) See the main text for the definition of tax wedge. – (2) For France and EU average data are available from 1984. Source: OECD (2001a) for the tax rate on labour income and Martinez-Mongay (2000) for the consumption rate.

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



(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 <i>Multiannual Programme for reforming the Personal Income Tax</i>	1999 update	2001	2002-05
Denmark <i>"Whitsun Package"</i>	1998 update	1998	1999-2002
Germany <i>Tax Relief Act 1999-2000-2002</i>	1999 update	1999	1999-2002
<i>Tax reform 2000</i>	2000 update	2000	2001-05
Greece <i>November 2000 Tax Package</i>	1999 update	2000	2001-03
<i>New tax reform</i>	2001 update	draft law in Nov 2002	2003-04
Spain <i>Law 40/1998</i>	1998 update	1998	1999-2000
<i>Income Tax Reform (1)</i>	2000 update	2001	2003-05
France <i>Budget Law for 2001</i>	2000 update	2000	2001-2003
Ireland (2) <i>1998-2002 Budget Laws</i>	1998-2002 updates	1998-2002	1999-2003
Italy (3) <i>Budget Law for 2001</i>	2000 update	2000	2000-03
<i>First Step of the new Personal Income Tax</i>		2002	2003
Netherlands <i>2001 Reform of the Tax system (4)</i>	1998 update	2000	2001
Austria <i>2000 Tax reform</i>	1998 update	1999	2000
Portugal	1998 update	2000	2001-02
Finland (2) <i>1999-2001 Budget Laws</i>	1999 update	1999-2001	2000-02
Sweden <i>1999 Plan for reforming income tax for households</i>	1999 update	1999-2000	1999-2001
United Kingdom (2) <i>1998-2002 Budget Laws</i>	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 explicitly 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 implementation: 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: <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td align="center">Basic rate</td> <td align="center">Top rate</td> </tr> <tr> <td>1998</td> <td align="center">25.9%</td> <td align="center">53.0%</td> </tr> <tr> <td>1999</td> <td align="center">23.9%</td> <td align="center">53.0%</td> </tr> <tr> <td>2000</td> <td align="center">22.9%</td> <td align="center">51.0%</td> </tr> <tr> <td>2001</td> <td align="center">19.9%</td> <td align="center">48.5%</td> </tr> </table> Increase of tax allowances and of the tax exemption area.		Basic rate	Top rate	1998	25.9%	53.0%	1999	23.9%	53.0%	2000	22.9%	51.0%	2001	19.9%	48.5%	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.
	Basic rate	Top rate																
1998	25.9%	53.0%																
1999	23.9%	53.0%																
2000	22.9%	51.0%																
2001	19.9%	48.5%																
Greece	November 2000 Tax Package	Tax rates reduction: <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td align="center">Top rate</td> </tr> <tr> <td>2000</td> <td align="center">45.0%</td> </tr> <tr> <td>2001</td> <td align="center">42.5%</td> </tr> <tr> <td>2002</td> <td align="center">40.0%</td> </tr> </table> Increase in tax credits for families with 3 or more children.		Top rate	2000	45.0%	2001	42.5%	2002	40.0%	Tax rates reduction for non-listed sociétés anonymes: <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>2000</td> <td align="center">40.0%</td> </tr> <tr> <td>2001</td> <td align="center">37.5%</td> </tr> <tr> <td>2002</td> <td align="center">35.0%</td> </tr> </table>	2000	40.0%	2001	37.5%	2002	35.0%	
	Top rate																	
2000	45.0%																	
2001	42.5%																	
2002	40.0%																	
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 which 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 dependent 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 minimum 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

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, Roubini 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 distribution¹⁷ or to low-paid workers with children (Joumard, 2001).¹⁸

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 <i>(2000 tax package)</i>	Yes	Yes		Yes	Yes
Spain <i>(1998 reform)</i>	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 allègement de l’impôt sur le revenu [qui] constitue un encouragement à la mobilité professionnelle 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

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 résultant 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:

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 IRAP²⁶). 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 countries²⁷ 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).

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

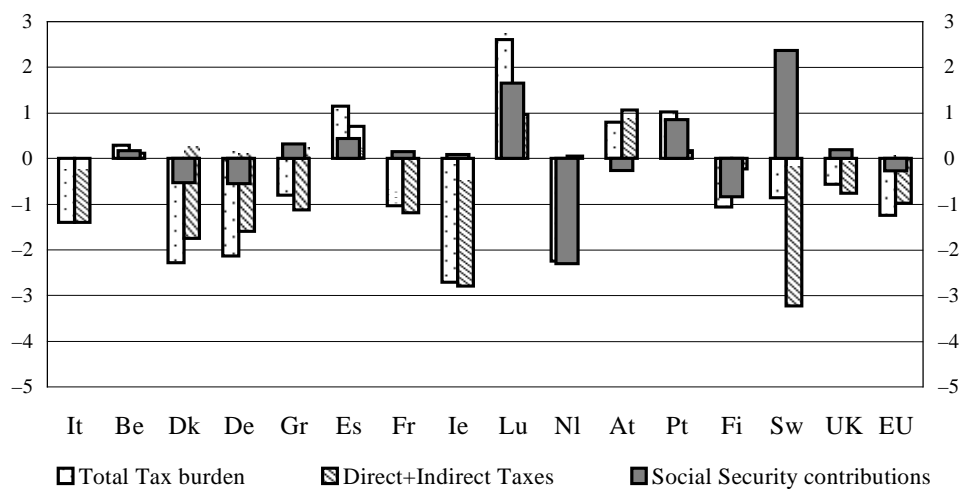
²⁶ The new tax (levied on business activities) substituted some direct taxes and health contributions. In the national accounts, IRAP, which in 1998 was equal of about 2.5 per cent of GDP, is included among indirect taxes. Between 1997 and 1998 the ratio of indirect taxes to GDP increased in Italy by 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

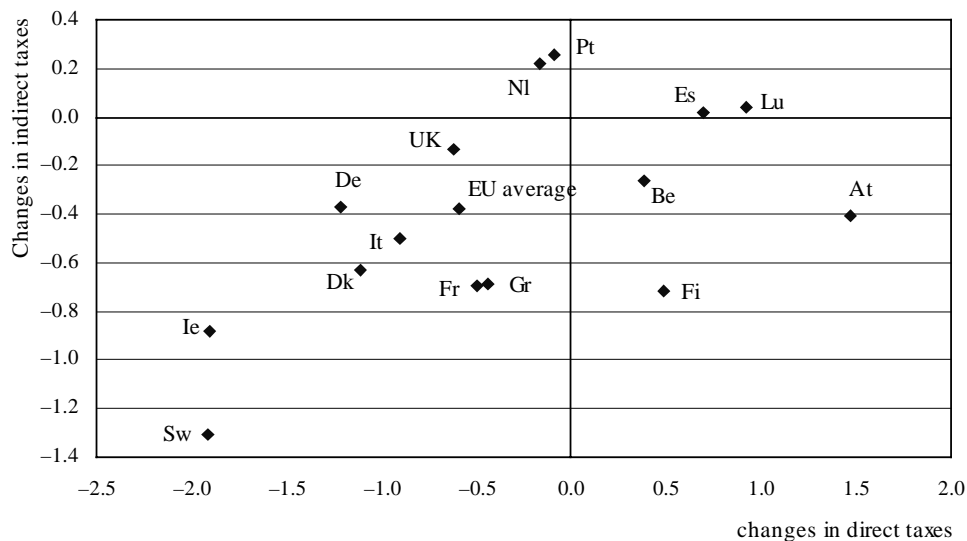
**Changes in the Total Tax Burden and in Its Main Components
Between 1999 and 2002
(percent of GDP)**



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⁾

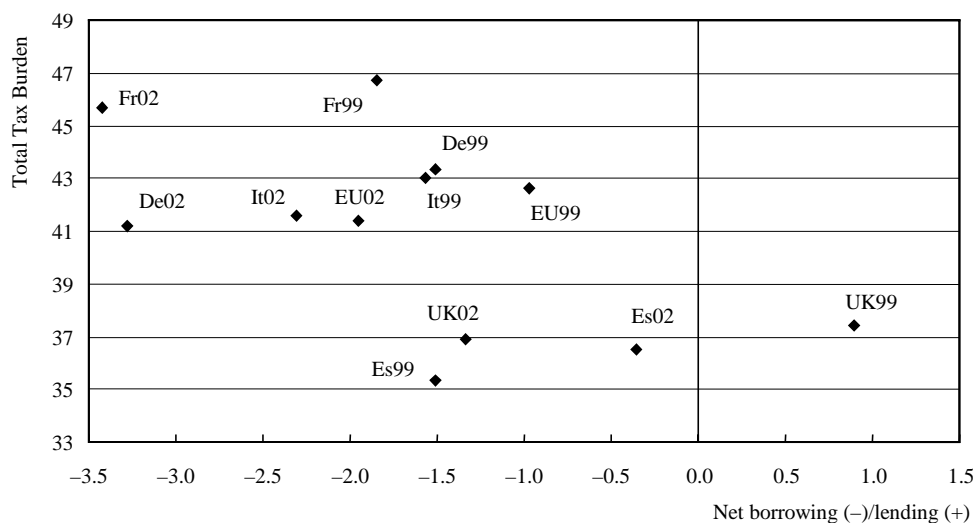
	1997	1999	2001
Belgium	2.8	2.8	2.7
Denmark	2.4	2.3	2.3
Germany	2.4	2.5	2.4
Spain	1.9	1.9	1.9
France	2.4	2.4	2.4
Greece	1.9	1.9	1.9
Ireland	1.9	1.8	1.7
Italy	2.5	2.3	2.3
Luxembourg	1.9	1.9	1.9
Netherlands	2.1	2.1	2.1
Portugal	1.8	1.8	1.8
United Kingdom	1.7	1.7	1.7
Austria	2.3	2.3	2.2
Finland	2.4	2.4	2.3
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

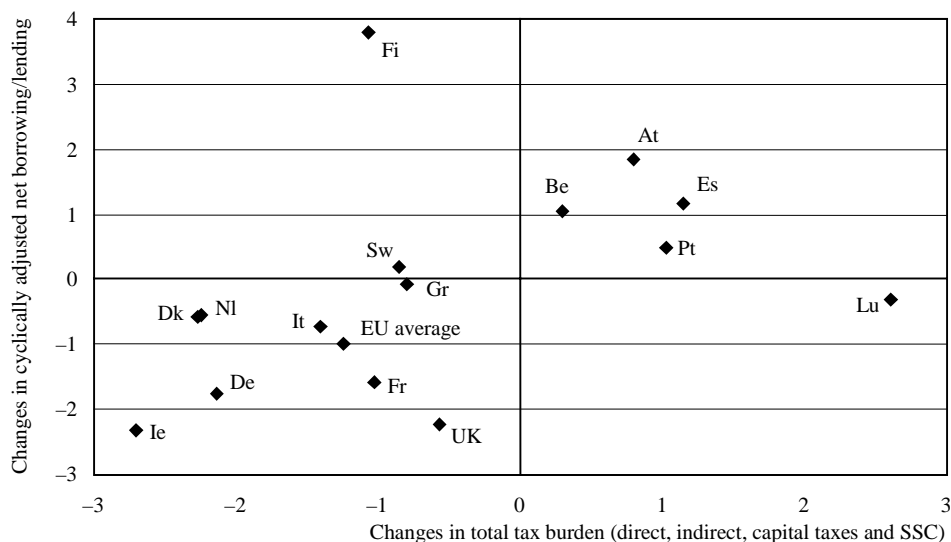
**Total Tax Burden and Cyclically Adjusted Net Borrowing
in 1999 and in 2002 in the Leading EU Countries**
(percent of GDP)



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 than 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.

REFERENCES

- Alesina, A., N. Roubini and G.D. Cohen (1997), *Political Cycles and the Macroeconomy*, Cambridge (MA), MIT Press.
- Balassone, F. and D. Franco (2000), "Assessing Fiscal Sustainability: A Review of Methods with a View to EMU," in Banca d'Italia (ed.), *Fiscal Sustainability*, Rome, Banca d'Italia.
- Balassone, F., D. Franco and S. Zotteri (2002), "Fiscal Rules for Local Governments: What Lessons from EU Countries?", paper presented at the conference on *Rules-Based Macroeconomic Policies in Emerging Market Economies*, IMF-World Bank, Oaxaca, Mexico, February 14-16.
- Balassone, F., D. Franco, S. Momigliano e D. Monacelli (2002), "Italy: Fiscal Consolidation and its Legacy", in Banca d'Italia (ed.), *The Impact of Fiscal Policy*, Rome, Banca d'Italia.
- Banca d'Italia (2002), "Public Finance Statistics in the European Union", *Supplements to the Statistical Bulletin*, Vol. XII, No. 68, December.
- Blomberg, S.B. and G.D. Hess (2001), "Is the Political Business Cycle for Real?", CES IFO Working Papers, No. 415.
- Brunila, A., M. Buti and J. in't Veld (2003), "Cyclical Stabilisation under the Stability and Growth Pact: How Effective are Automatic Stabilisers?", in Banca d'Italia (ed.), *The Impact of Fiscal Policy*, Rome, Banca d'Italia.
- Buti, M. (2002), *Public Finances in the Early Years of EMU: Adjusting to the New Policy Regime*, mimeo.
- Buti, M. and G. Giudice (2002), "Maastricht Fiscal Rules at Ten: An Assessment", *Journal of Common Market Studies*, Vol. 40, No. 5, pp. 823-47.
- Buti, M., S. Eijffinger and D. Franco (2002), "Revisiting the Stability and Growth Pact: Grand Design or Internal Adjustment?", CEPR, Discussion Paper, No. 3692.
- Buti, M., C. Martinez-Mongay, K. Sekkat and P. van den Noord (2002), "Automatic Stabilisers and Market Flexibility in EMU: Is There a Trade-off?", OECD, Economics Department, Working Paper, No. 335.
- Buti, M. and A. Sapir (eds.) (1998), *Economic Policy in EMU – A Study by the European Commission Services*, Oxford University Press.
- CEPS (2000), *The Future of Tax Policy in the EU*, Brussels.
- Crossen, S. (2001), "Tax policy in the European Union", *FinanzArchiv*, Vol. 58, No. 4, pp. 466-558.
- Cullis, J. and P. Jones (1992), *Public Finance and Public Choice*, Mc Graw-Hill.
- Deutsche Bundesbank (2002), *Monthly Report*, December.

- Domar, E.D. (1944), "The Burden of the Debt and the National Income", *American Economic Review*, December, pp. 798-827.
- Drazen, A. (2001), "The Political Business Cycle after 25 Years", in B.S. Bernanke and K. Rogoff (eds.), *NBER Macroeconomics Annual*, Cambridge (MA), MIT Press.
- Economic Policy Committee (2001), *Budgetary Challenges Posed by Ageing Populations: the Impact on Public Spending on Pensions, Health and Long-term Care for the Elderly and Possible Indicators of the Long-term Sustainability of Public Finances*, Bruxelles.
- Eschenbach, F. and L. Schuknecht (2002), "Asset Prices and Fiscal Balances", *ECB Working Paper*, No. 141.
- European Commission (1993), *Growth, Competitiveness and Employment, A White Paper*, Brussels, December.
- (2000), "Public Finances in EMU – 2000", *European Economy Reports and Studies*, No. 3.
- (2001a), "Public Finances in EMU – 2001", *European Economy*, No. 3.
- (2001b), *Towards an Internal Market without Tax Obstacles*, Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee, COM (2001) 582 final.
- (2002), *Strengthening the Coordination of Budgetary Policies*, COM (2002) 668, November.
- Federal Ministry of Finance – Germany (from 1998 to 2002), *Updates of Stability Programme*.
- Frey, B.S. (ed.) (1997), *Political Business Cycles*, Cheltenham, Elgar.
- Giannini, S. (1998), "The Italian Corporate Tax", paper presented at the IFS Policy Seminar on *Corporate Tax Reform*.
- Greenspan, A. (2000), "The Evolving Demand for Skills", Remarks made at the U.S. Department of Labor National Skills Summit, Washington D.C., 11 April.
- Hagemann, R.P., B.R. Jones and R.B. Montador (1987), "Tax Reform in OECD Countries: Economic Rationale and Consequences", OECD, Economics Department, Working Paper.
- Hallerberg, M. and S. Basinger (1996), "Why Did All but Two OECD Countries Initiate Tax Reform From 1986 to 1990?", CES, Working Paper Series, No. 119.
- Hoeller, P.T., M.O. Louppe and P. Vergriete (1996), "Fiscal Relations within the European Union", OECD, Economics Department, Working Paper, No. 163.

- Jacquemin, A. and L.R. Pench (eds.) (1997), *Europe Competing in the Global Economy*, Edward Elgar.
- Joumard, I. (2001), "Tax Systems in European Union Countries", OECD, Economics Department, Working Paper, No. 301.
- Kay, J.A. (1990), "Tax Policy: a Survey", *The Economic Journal*, No. 100, pp. 18-75.
- Kehoe, T.J. and Prescott, E. (2002), "Great Depressions of the 20th century", *Review of Economic Dynamics*, No. 5, pp. 1-18.
- Krogstrup, S. (2002), "What do Theories of Tax Competition Predict for Capital Taxes in EU Countries? A Review of the Literature", HEI, Working Paper, 05-2002.
- Krogstrup, S. (2003), "Are Capital Taxes Racing to the Bottom in the European Union?", HEI Working Paper, 01-2003.
- Krugman, P. (1991), "Increasing Return and Economic Geography", *Journal of Political Economy*, Vol. 99, No. 2, pp. 483-99.
- Martinez-Mongay, C. (2000), "ECFIN's Effective Tax Rates. Properties and Comparison with other Tax Indicators", *Economic Papers*, No. 146, European Commission.
- (2002), "Some (Un)pleasant Econometrics About the Relationship Between Fiscal Policy and Macroeconomic Stability. Stability-Enhancing Reforms of Governments", mimeo, European Commission.
- Meade, J.E. (Report of a Committee chaired by) (1978), *The Structure and Reform of Direct Taxation*, IFS, London.
- Ministry of the Economy (France) (from 1998 to 2002), *Updates of Stability Programme*.
- Ministry of the Economic Affairs and Ministry of Finance (Denmark) (from 1998 to 2002), *Updates of Convergence Programme*.
- Ministry of National Economy and Finance (Greece) (from 1998 to 2002), *Updates of Stability Programme*.
- Ministry of the Economy and Finance (Italy) (from 1998 to 2002), *Updates of Stability Programme*.
- Ministry of Economy and Finance (Spain) (from 1998 to 2002), *Updates of Stability Programme*.
- Ministry of Economy and Finance (Spain) (1999), *Tax reform in Spain*.
- Ministry of Finance (Belgium) (from 1998 to 2002), *Updates of Stability Programme*.
- Ministry of Finance (Ireland) (from 1998 to 2002), *Updates of Stability Programme*.

- Ministry of Finance (Portugal) (from 1998 to 2002), *Updates of Stability Programme*.
- Ministry of Finance (Finland) (from 1998 to 2002), *Updates of Stability Programme*.
- Ministry of Finance (The Netherlands) (from 1998 to 2002), *Updates of Stability Programme*.
- Ministry of Finance (Luxembourg) (from 1998 to 2002), *Updates of Stability Programme*.
- Ministry of Finance (Austria) (from 1998 to 2002), *Updates of Stability Programme*.
- Ministry of Finance (Sweden) (from 1998 to 2002), *Updates of Convergence Programme*.
- Nordhaus, W.D. (1975), "The Political Business Cycle", *Review of Economic Studies*, No. 42, pp. 169-90.
- Oates, W.E. (1972), *Fiscal Federalism*, New York, Harcourt-Brace-Jovanovich.
- (1999), "An Essay on fiscal Federalism", *Journal of Economic Literature*, Vol. 28, pp. 1120-49.
- (2002), *Fiscal and Regulatory Competition: Theory and Evidence*, mimeo.
- OECD (1985), "The Role of the Public Sector", *OECD Economic Studies*, No. 4.
- (1987), *Taxation in Developed Countries*, Paris.
- (1993), *Taxation in OECD Countries*, Paris.
- (1999), *Benefits Systems and Work Incentives*, Paris.
- (2000), "Tax Burdens: Alternative Measures", *OECD Tax Policy Studies*, No. 2.
- (2001a), *Taxing Wages 2000-2001*, Paris.
- (2001b), "Challenges for Tax Policy in OECD Countries", *OECD Economic Outlook*, No. 69, June, pp. 169-85.
- Orszag, J.M. and D.J. Snower (1997), "Expanding the Welfare System: A Proposal for Reform", *European Economy*, No. 4.
- Peters, B.G. (1991), *The Politics of Taxation*, Cambridge, Basil Blackwell.
- Prescott, E. (2002), "Prosperity and Depression", *American Economic Review*, Vol. 92, No. 2, pp. 1-15.
- Salvatore, D. (2002), "Relative Taxation and Competitiveness in the European Union: What the European Union Can Learn from the United States", *Journal of Policy Modelling*, Vol. 24, pp. 401-10.

- Sinn, H.W. (1990), "Tax Harmonization and Competition in Europe", *European Economic Review*, Vol. 34.
- Staderini, A. (2001), "Tax reforms to influence corporate financial policy: the case of the Italian business tax reform of 1997-98", *Temi di discussione, Banca d'Italia*, No. 423.
- Tanzi V. (1987), "Tax Reform in Industrial Countries and the Impact of the U.S. Tax Reform Act of 1986", IMF, Working Paper, No. 61.
- UK Treasury (from 1998 to 2002), *Updates of Convergence Programme*.
- van den Noord, P. and C. Heady (2001), "Surveillance of Tax Policies: a Synthesis of Findings in Economic Surveys", OECD, Economics Department, Working Paper, No. 303.
- von Hagen, J. (2002), "More Growth for Stability – Reflections on Fiscal Policy in Euroland", ZEI Policy Paper, June.
- Wilson, J.D. (1999), "Theories of Tax Competition", *National Tax Journal*, Vol. 52, pp. 269-304.