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TAX SYSTEMS AND TAX REFORMS: A COMPARATIVE VIEW OF SELECTED EUROPEAN COUNTRIES

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Abstract
The purpose of this paper is to give a comparative view of tax systems and tax reforms in some EU Countries (France, Germany, Ireland, Italy, Netherlands, Spain and UK) over the period 1970-2000. The paper presents evidences of the structure and evolution of tax systems, focusing on tax ratios by legal and economic categories and on the allocation of revenues across sub-sectors of general government; then it illustrates common features of current tax systems, presenting indicators to measure and compare their equity and efficiency. The structure and evolution of the European tax systems confirm the peculiarities of the EU area in comparison with the main international experiences. Up to the mid-80s Country divergences within Europe increased considerably, while over the last 15 years the isolationism of individual countries has been largely reversed, most likely as a consequence of some common international pressures. No radical tax reforms occurred during the 1990s. Changes enacted were made mainly through continuous updates of tax codes. The main non marginal tax reforms occurred in Spain (1998), Italy (1997) and Germany (2000). Some common trends may be identified: a traditional rate-cutting, base-broadening reform; efforts to strengthen tax equity at the lower end of the income scale; efforts to reduce tax burden on lower-paid labor and to foster work incentives; growing use of tax systems to deliver social benefits; reorientation of business tax incentives to selective objectives and use of tax system to correct market failures. Finally the paper discusses some common issues that have arisen in the recent discussion of tax design: *(i) Tax equity*. Recently a number of tax measures have been introduced to achieve horizontal equity objectives and to strengthen progressivity at the lower end of the income scale; (*ii*) *Competitiveness*. A number of countries have planned reforms where competitiveness is one of the main motivations; (*iii*) *Innovation*. The broadening of tax bases have been followed by the reorientation of tax incentives to stimulate selectively innovation and growth; (*iv*) *Fiscal design across levels of governments*. The structure of fiscal relations across levels of government is changing in all the selected experiences, but the distribution of taxing powers is still not definite.

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1.1. Introduction and main conclusions

The structure and evolution of the European tax systems over the past 30 years confirms the peculiarities of the EU area compared with the main international experiences outside Europe (US and Japan) and more generally compared with the OECD area (van den Noord and Heady 2001, Joumard 2001; Cnossen 2002). In the EU area the tax burden is on average higher than in the OECD area; European Countries rely more on social security contributions and less on consumption taxes; a higher share of tax revenues is allocated to the social security sector and a lower share to sub-national governments; taxes on labor and their contribution to total tax revenues are higher in Europe than in the OECD area. However the European averages conceal marked differences across individual countries. Tax ratios, tax structure by legal and economic categories and the allocation of revenues across levels of government differ markedly between the seven selected countries, even if some evidences show that more recently a process of slow convergence is ongoing.

Up to the mid-1980s country divergences within Europe increased considerably, while over the last 15 years the isolationism of individual countries has been largely reversed (Messere 1998), most likely as a consequence of some common pressures (growing globalization, international tax competition, the influence of the European Union at both macro and micro level). Looking at the seven selected European Countries (France, Germany, Ireland, Italy, Netherlands, Spain and UK) some common trends in the recent evolution of tax systems or in reforms currently under way may be identified: a traditional rate-cutting, base-broadening reform both in the personal and corporate income taxes; efforts to strengthen the horizontal and vertical equity of the tax system at the lower end of the income scale; efforts to reduce the tax burden on lower-paid labor and to foster work incentives; the growing use of the tax systems to deliver social benefits; the reorientation of business tax incentives to selective objectives and the use of the tax system to correct market failures (for instance R&D and environment).

No radical tax reforms occurred during the 1990s. Changes enacted were made mainly through continuous updates of the tax codes. The main non marginal tax reforms occurred in Spain in 1998 (OECD 2000b), in Italy in 1997 (OECD 2000d) and in Germany in 2000 (Keen 2002a), but just the Italian reform can be seen as innovative, especially in the sector of capital income taxation (Guerra 1998; Bordignon, Giannini and Panteghini 2001; Bernardi's Italy chapter).

Some common issues have arisen in the recent discussion of tax design: *(i)* Tax equity. After a period where tax reforms placed more emphasis on efficiency than on equity, in the recent years a number of tax measures have been introduced to achieve horizontal equity objectives and to strengthen progressivity at the lower end of the income scale; *(ii)* Competitiveness. A number of countries have planned reforms where competitiveness is one of the main motivations; tax measures specifically targeted to increase national competitiveness have been introduced with regard to financial capital, real capital and other production factors (mainly labor); *(iii)* Innovation. The broadening of tax bases have been followed by the reorientation of tax incentives to stimulate selectively innovation and growth, mainly in four areas (small firms, R&D investments, venture capital and stock options); *(iv)* Fiscal relations across levels of governments. The structure of fiscal relations across levels of government is changing in all the

selected experiences, but the distribution of tax powers is still not definite; some recent evidences prefigure in the future a lower redistribution pattern of the whole tax systems.

This chapter is organized as follows. Paragraph 1.2 presents some indicators of the macro structure and evolution of the selected tax systems over the period 1970-2000, focusing on tax ratios by legal and economic categories and on the allocation of revenues across sectors of government. Paragraph 1.3 illustrates some common features of the current tax systems (personal and corporate income taxes and consumption-based taxes), presenting some indicators to measure and compare their equity and efficiency. Finally, paragraph 1.4 discuss briefly some common micro-policy issues that have arisen recently in the discussion of tax design in the selected European experiences.

1.2. Tax systems: structure and developments

Even if it's only a rough indicator of the tax burden across time and countries, the ratio of taxes to GDP is a useful scaling factor and a signal of the country's preference for the size of the public sector (OECD 2000a). According to OECD (2002a)[1] in the past 30 years (1970-2000, see Table 1.1) tax ratios generally increased in OECD Countries (by 9.1 percentage points) and 15 EU Countries (by 11.2 percentage points). For the selected EU Countries the rise has been lower (about eight percentage points). More recent developments (2001) suggest the trend increase in the OECD area may be ending. A part from France, the provisional data for 2001 show light decreases (Ireland, Germany, Netherlands and Italy) or constant trends (Spain and the UK).

The trends have been different over time and between countries. In the period 1970-2000 the ratio increased in six countries (Spain, Germany, UK, Italy, Netherlands and France) and stayed constant in Ireland. The figures for Italy and Spain are the highest (respectively 61 and 116 per cent), as in these countries the 1970 ratios were the lowest. On average both in the OECD Countries and in the 15 EU Countries the main share of these changes occurred during the 1970s and to a less extent during the 1980s. The pattern of individual countries has been different. For instance in Italy the increase in the tax-to-GDP ratio was higher during the 1980s than in the previous decade. In the 1990s up to 2000 while the ratios decreased markedly in Ireland and the Netherlands, in France, Germany and Spain they increased at an average rate of about 0.24 percentage points per annum. In the same decade Italy registered the highest increase in the tax-to-GDP ratio (from 38.9 to 42 per cent).

At the end of the period (2001) the difference between the highest ratio (France) and the lowest (Ireland) still remains significant (16.2 percentage points), even if the figures suggest that the tax ratios of individual states moved closer to the average. The latest available data (2000) confirm that in the EU area the tax burden is on average higher than in the OECD area and the difference during the period 1970-2000 has increased from 2.1 to 4.2 percentage points.

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[1] In this paper data on tax revenues are mainly drawn from the OECD that allows comparative analysis between the EU area and the OECD area. As known tax data collected by the OECD differ in some respects from those collected by other organizations (for instance in Europe by Eurostat). Sometimes the differences for individual countries in the tax-to-GDP ratios are significant. For instance the 2000 tax-to-GDP ratio accounted for Germany by the OECD is about four percentage points less than that from Eurostat; in this case, as in others, the difference can be explained in the accounting of tax credits, of voluntary/compulsory social security contributions and of figurative public social security contributions.

TABLE 1.1 NEAR HERE

As the total tax ratio has risen sharply, the tax structure by legal tax categories, measured as the distribution of tax revenue among major taxes (income taxes, taxes on goods and services, social security contributions and property taxes), has changed over time (see Table 1.2). Currently, the tax structure of the OECD area differs from that of the European area mainly in respect of two items: social security contributions (higher in the EU Countries) and taxes on goods and services (lower in the EU Countries). But in the last two decades, the differences between the two areas decreased. For instance, the difference between the relative importance of social security contributions in the OECD area and in the EU area has decreased from about seven percentage points (1980) to 2.7 percentage points (2000). This is the effect of two opposite trends registered in the two areas: while the ratio has risen on average in the OECD Countries, it has decreased in the 15 EU states. Within Europe the main share of this reduction comes from the seven selected countries.

In Europe the current tax mix is composed of taxes on goods and service (30 per cent), social security contributions (28.4 per cent), personal income tax (25.6 per cent), followed by corporate income tax (9.2 per cent) and property taxes (five per cent). In last two decades a shift has occurred from the personal income tax and social security contributions to the corporate income tax and the property tax.

The seven selected countries vary considerable in the relative importance of these main revenue sources. Table 1.2 shows clearly the peculiarities of the "Anglo-Saxon model" compared to the other countries. In the UK and Ireland income taxes and consumption taxes account for a much higher share of total tax revenues, while social security contributions account for approximately the half of the European average. Italy reflects exactly the average European model of taxation, while the remaining countries are all characterized by the fact that they rely heavily on social security contributions and less on the personal income tax (France, Spain and Netherlands) or on corporate income tax and property taxes (Germany).

TABLE 1.2 NEAR HERE

Table 1.2 gives also explanations about the different incidence of taxes on GDP between the OECD and the EU areas and between different countries within Europe. On average the higher tax burden on GDP in the European area (about four percentage points in 2000) is explained by the higher incidence of social security contributions and payroll taxes (1.9 percentage points), followed by the personal income tax (0.9) and taxes on goods and services (0.7). Both the corporate income tax and the property taxes are in line with the OECD average.

In 2000 within the EU some countries (Table 1.1) show higher tax burden than the European average (France), while others are in the opposite situation (Germany, Ireland, Spain and UK). In France this is explained by the relatively higher incidence of social security contributions and property taxation, while both income and corporate taxes are under the European average. The lower tax burden in the Anglo-Saxon Countries is mainly due to the incidence of social security contributions, while in Germany and Spain direct taxes and taxes on goods and services are under the European average.

In the Countries that during the 1990s registered an increase in tax-to-GDP ratios (France, Germany, Italy and Spain), the largest part of the increases has taken the form of higher personal and corporate income taxes (France), social security contributions and consumption taxes (Germany and Spain), while Italy used a mix of increases in the personal income tax, property and consumption taxes.

Selected countries also differ in prevailing fiscal arrangements between the central and the sub-central levels of government. In particular, Table 1.3 illustrates the attribution of tax revenues to the three sub-sectors of general government (central, local and social security sectors).[2] Taking into account only unitary countries, the tax allocation structure, that was different in the 1970s, currently appears to be very similar between OECD and EU unitary countries, with the most part of tax revenues (63 per cent) attributed to the central government, about one fourth to the social security funds and just 12 per cent to local governments.

Within the EU (excluding Germany) the selected countries show on average a higher share of revenues allocated to the security sector and a lower share to local governments. But this is the result of extremely different patterns of individual countries. The combined share of sub-central governments in total tax revenues in 2000 shows a wide variation from 1.8 per cent in Ireland and 3.4 per cent in the Netherlands to 11.4 and 16.9 per cent in Italy and Spain respectively. In the last 25 years two clear trends can be identified: a move to fiscal centralization in the UK and Ireland and an opposite move in Italy and Spain.

TABLE 1.3 NEAR HERE

A variety of taxes are used by sub-national authorities in the EU. The pattern of taxes is illustrated by Table 1.4 that reports the percentage contribution to each country's total sub-national tax revenue that is accounted for four main sets of taxes used in OECD classifications. Figures don't allow drawing general conclusions about the choice of taxes by local governments. At one side Ireland and the UK rely exclusively on property taxation, on the other side Germany, Italy, Spain, the Netherlands and, to a less extent, France seem to use a composite mix of local taxes; apart from France these countries make use of local income and profits taxes, even if a decreasing trend can be found in Germany, Italy and Spain.

Moreover it should be mentioned that two countries (France and Italy) have "other taxes" with significant yields. In each case this is explained by the presence of two local business taxes (the French "taxe professionnelle" and the Italian Regional Tax on Productive Activities – IRAP), whose tax base is some mixture of two or more of different components (profits, payrolls, interest and property). Finally, looking at the structure of local tax systems over time the only clear evidence (with the exception of Germany) seems to be the growing relevance of local property taxation.

TABLE 1.4 NEAR HERE

[2] Obviously this is just an imperfect measure of fiscal decentralization as it neglects the share of sub-national revenues on total government revenue (or on GDP). For more accurate measures of fiscal decentralization, composition of sub-national revenues (tax, non-tax revenues and grants) and degree of local taxing powers see OECD 1999 and 2002b.

A closer look at the incidence of individual tax revenues by economic categories (labor, capital and consumption) gives more useful explanation about the structure of the European tax systems and their evolution.[3] The economic structure of European tax systems, measured as the share of individual taxes in total tax revenue by economic category, shows that, on average, taxes on labor contribute for more than half to total tax revenue, consumption taxes for about one third and taxes on capital just for about 15 percentage points (Cnossen 2002). This tax mix has remained quite stable during the 1990s.

But a full picture of where the macro-tax burden falls can be obtained looking at the *implicit tax rates*, measured as individual tax revenues expressed as a percentage of their respective tax base (Table 1.5). As shown in Table 1.1, last 30 years have been characterized in Europe by the rise of tax-to-GDP ratios; at the same time the incidence of different tax bases relative to GDP has changed over time, with the labor tax base declining and the capital and consumption tax bases increasing. As a consequence, the implicit tax rates on production factors and consumption changed significantly. In the EU at the beginning of 1970s, the incidence of taxation on capital and consumption was about the same (19-20 per cent), while the incidence on labor was higher (25.5 per cent). During the last three decades (up to 1999) the implicit tax rates on consumption grew slightly; the increase has been much higher for capital (about 24 per cent) and especially for labor (47 per cent). This is the result of increases occurred during the 1970s and 1980s, while during the last decade the rise in capital and consumption taxation has been higher (10.8 and 7.22 per cent respectively) than that on labor (5.3 per cent). At the end of the period under review labor still bears a tax burden (37.6 per cent) much higher than capital (23.6) and consumption (20.8).

Even in this issue the European averages conceal marked differences across individual countries. Looking at the structure of implicit tax rates in 1999, tax rates on labor are significantly below the average in Spain and even more in the UK and Ireland, while they are above the average in France and Germany. Marked differences still exist in the implicit tax rates on consumption and on capital. For instance the incidence of taxes on capital in Germany (15.9 per cent) is less than the half of the UK figure (35.1 per cent). Between the selected countries the variance of tax rates is generally higher for labor and capital than for consumption, but some evidences show that a process of slow convergence is ongoing.

TABLE 1.5 NEAR HERE

1.3. Common features of current tax systems

1.3.1 Personal Income Tax

The fundamental structure of personal income taxes is highly similar across the OECD Countries, but differences can be found in the tax rates and base structures. Table 1.6

[3] On the significance of the use of economic categories and legal categories see Martinez-Mongay (2000). Tax burdens by economic categories are shown by Eurostat (2000), EU Commission (2000) and Cnossen (2002).

(combined with Table 1.7) gives some basic information about the structure of the personal income tax in the seven selected countries.

All the countries turn off from the model of the pure comprehensive personal income tax in favor of some hybrid taxation models where elements of the expenditure tax are present. Large differences still exist in the treatment of the tax base (taxable incomes and tax expenditures). Diversities are mainly due to the different use of the tax systems to pay social benefit, for instance tax breaks for private pensions (Adema 2001). Moreover not all income from capital is included in the personal income tax base. As a general trend a growing number of countries introduced lower, flat rates for certain types of capital income (interest, dividends and capital gains). This is the case of those countries (France and Italy) where interest is subject to flat withholding taxes. As far as the integration of the personal and the corporate income taxes is concerned, the full imputation system is absent both for dividends (with the exception of Italy, but at the option of taxpayer) and capital gains. Even if this result can be interpreted as a response to growing pressure from international tax competition or part of a more general strategy designed to lower the efficiency costs of taxation in open economies, the taxation of capital income outside the personal income tax can reduce the overall progressivity of the tax system and compromise its redistributive impact.

Family status is taken into account in the selected countries by three major ways (OECD 2003): *(i)* by application of a tax schedule that varies according to family-status. In this respect the tax unit is the individual in Italy, the Netherlands and the UK, while is the family in France, Germany, Ireland and (by option) in Spain; *(ii)* by providing tax credits and allowances related to marital status and the presence of dependent children. For instance a tax credit is provided for children in Germany, Italy, Netherlands and the UK; *(iii)* by supplying cash transfers or benefit outside the tax system. Cash transfers for dependent children are present in all the selected countries, with the exception of Germany.

Looking at the structure of the personal income tax, countries differ in the way they give relief to low income individuals. As shown by Table 1.6, a certain amount of income may be exempted from tax (France, Spain and UK) or taxed at zero per cent (France and Germany). In other countries the basic tax relief is granted through tax credits (Ireland and Netherlands), which in Italy are reserved only to the employment income. To valuate how much these basic relieves may reduce the personal tax burden, they can be expressed as a percentage of the gross wage of an average production worker (APW). On this measure, Spain exempts 17.7 per cent of the APW, Germany 21.8 per cent and the UK 23.4 per cent; in France the exempt amount is higher as a result of zero rate band and basic allowances. Even if non directly comparable, the value of tax credits as percentage of APW is lower in Italy (1.8 per cent) than in the Netherlands (5.3 per cent) and Ireland (six per cent).

TABLE 1.6 NEAR HERE

Apart from Germany that applies several tax formulae, in the other countries income is sliced into brackets, whose number ranges from two (Ireland) to seven (France). Income in the first bracket is taxed at a low rate in the Netherlands (2.95), while Ireland and Italy apply higher tax rates (20 per cent and 18 per cent). Top marginal tax rates range from 39.6 per cent (Spain) to 52.75 per cent (France). More significantly, in Ireland taxpayers at the income level of an APW are already exposed to

the top marginal rate of 42 per cent, while in Italy and Spain workers must earn more than three times as much the average before they start paying the top rate. Looking at the evolution of the top marginal tax rate, a clear trend toward its reduction can be observed (Bernardi 2000), mainly explained in the efficiency ground. Since 1996 (OECD 1997 and 2003) top marginal tax rates have been reduced from 54 to 52.75 per cent in France, from 53 to 42 per cent (2005) in Germany, from 48 to 42 per cent in Ireland, from 51 per cent to 45 per cent in Italy, from 60 to 52 per cent in the Netherlands and from 56 to 39.6 per cent in Spain. In Italy the new plan of tax reform reduces the top rate by a provocative heavy amount (from 45 to 33 per cent).

TABLE 1.7 NEAR HERE

1.3.1.1 Equity of the Personal Income Tax

Even if the concept can be ambiguous and subject to different interpretations, some recent changes in tax systems can be seen as directed to achieve grater *horizontal equity.* A number of features of tax systems can be seen as instruments directed to this objective. But fundamentally tax systems differ in the way they consider the number of children that people have and their marital status as elements to evaluate the "similar economic position" for tax purposes (OECD 2003).

Specific measures of horizontal tax equity, even if imperfect, are shown in Table 1.8, where both the personal income tax and social security contributions are considered. The Table compares the average effective tax rates of two different categories of tax payers: a single individual without children and a one earner married couple with two children, both earning the same income level (APW). In each country differences in the effective tax rates represent how the tax system treats different economic positions of taxpayers. Looking only at the personal income tax, horizontal equity seems to be pursued more in some countries (France, Germany, Ireland and Spain) and less in other (Italy, Netherlands and the UK). Apart from the Netherlands, social security contributions are not directed to horizontal tax equity purposes. However a more comprehensive picture can be obtained from the last column, where average effective tax rates are determined taking into account both the tax system (personal income tax and social security contributions) and the benefit system (cash transfers). Ireland, Germany and to less extent Italy appear the countries which give more emphasis to horizontal tax (and benefit) equity.

TABLE 1.8 NEAR HERE

Measures of statutory *vertical equity* can be constructed by comparing the share of income paid in tax by taxpayers at different income levels (van den Noord and Heady 2001). Table 1.9 reports measures of statutory tax progressivity for low-wage (67 per cent of the APW) and high-wage (167 per cent of APW) people, taking into account only the personal income tax or also the social security contributions. Personal income taxes are progressive in all selected countries, even if at varying degrees. Germany shows a pronounced tax structure across different income levels, while the progressivity

is more concentrated at below-average income levels in France, Spain and UK and at above-average income levels in Ireland, Italy and Netherlands.

Statutory social security contributions are neutral or progressive in the most part of countries, with two main exceptions: the structure is regressive across different income levels in the Netherlands and just at higher income levels in France.

TABLE 1.9 NEAR HERE

1.3.1.2 The taxation of labor

The average effective tax rate on labor in the EU area appears to be higher than in the OECD area, even if during the 1990s many EU Countries have introduced measures to lower the tax burden (Joumard 2001), mainly financed through the shifting of the tax burden from labor to capital or to broader tax bases (as in the case of the Italian IRAP) and to polluting activities (Germany, Italy and the UK).

Looking at the total tax wedge on labor in the selected EU Countries (100 per cent APW, Table 1.10a) and its evolution during the last seven years (where homogeneous data are available), the tax burden has decreased in France, Italy and the UK and more markedly in Ireland and the Netherlands, while it has remained constant in Germany and Spain. Currently, labor is most heavily taxed in Germany, France and Italy, while in the UK, Ireland, Netherlands and Spain labor is taxed less than the European average.

If generally labor is taxed more heavily in Europe than in the OECD area, the issue appears to be most relevant for lower-paid labor. Concerns about high tax burdens on lower-paid labor and possible substitution of (low-skill) labor with other production factors or relocation abroad of productive activities prompted initiatives in several EU Countries (France, the Netherlands, Spain and the UK) to reduce effective tax wedges on low-paid workers. Such initiatives aimed both at enhancing the vertical equity of the tax and benefit system and at increasing job opportunities. Table 1.10b compares the evolution of effective tax rates on low-incomes in the selected countries. With the exception of the Netherlands, all the surveyed countries apply lower tax wedges on low-income (67 per cent APW). In a period where on average the EU Countries have tried to reduce tax wedges on labor, the reduction appears to be more marked for low-income workers.

TABLE 1.10a NEAR HERE

TABLE 1.10b NEAR HERE

1.3.2 The Corporate Income Tax

As explained in more detail in the countries chapters, in taxing corporate profits a number of approaches may be observed, especially in the determination of taxable income and integration of the corporate and personal income taxes. Table 1.11 just

compares the nominal rate structure ("all-in") applied to taxable profits across time and countries.

Two general trends have signed the last decade: the reduction in statutory tax rates, resulting mainly from international tax competition between countries (Devereux, Lockwood and Redoano 2002) and (with the exception of Ireland) their convergence to the European average. The case of Ireland, as a small open economy, is non comparable to the others, with regard both to the amount of the reduction and the low level of the current tax rate (12.5 per cent).

Between the selected countries after the recent abolition of the local business tax (*taxe professionnelle*) in France, currently only Italy and Germany levy sub-central taxes on corporate income. Even if arguments in favor of the sub-central taxation of productive activities may be identified (Alworth, Boffano and Gandullia 1996), both in Germany and especially in Italy the reform or abolition of the local business tax is currently under discussion.

A part from the UK and Italy all the countries have adopted a flat corporate income tax; the UK has a graduated tax structure in place, with the low bracket rate (currently zero per cent) often coined the "small business" tax rate; Italy applies two different tax rates under the dual income tax system. Special corporate tax rates apply to small enterprises in some other countries (France, Netherlands and Spain). Generally these measures are targeted to stimulate entrepreneurship and to correct financial market failures that can create obstacles to SMEs in raising new capital (Chen and Mintz 2002).

TABLE 1.11 NEAR HERE

Excluding the innovative Italian system of the dual income tax and the local business tax (IRAP), all the Countries adopt a traditional model of the corporate income taxation that, combined with the taxation of capital income at the personal level, makes the tax systems in the surveyed countries structurally not neutral on firm's organization, investment, funding and location decisions. Table 1.12 illustrates three sets of effective tax rates' measures on enterprises: forward looking marginal and average tax rates on investments (EU Commission 2001b; Giannini and Maggiulli 2001); forward looking effective tax rates on production marginal costs in the presence of multiple inputs, fundamentally capital together with labor (Gandullia 2002, following the methodology developed by McKenzie, Mintz and Scharf 1997); and finally backward looking effective average tax rates (Nicodeme 2001).

The comparison of METRs between the selected countries shows the different structure of incentives and disincentives given by the different tax systems to undertake a standard investment (given a certain location). As a consequence of accelerated depreciation allowances and of the equity allowance introduced in 1997, in Italy marginal investments received (up to 2001) a subsidy by the tax system (METR was negative). Between the other countries the structure of incentives/disincentives varies markedly, ranging from Ireland (11.7 per cent) to France (31.8 per cent).

The variance is lower looking at the forward overall EATRs that measure the relative competitiveness of a country as location for intra-marginal investments. Ireland appears to be on average more attractive than France or Germany. But the differences between countries decrease significantly if, assuming financial flexibility (Sinn 1987), investments are financed by debt. This shows that generally "real" distortions induced

by the tax system can be attenuated through the optimization of the company financial policy.

Following a different forward approach, ETRs *on production marginal costs* show the effects of both capital and labor taxation on marginal costs of production. Differences in ETRs modify the production efficiency and thus the competitive position of firms coming from different locations and competing in the same international market; international trade may be distorted. Following this approach large differences between countries still exist (in Ireland ETR is 18.2 per cent, while in France it is 34.2 per cent), but, not surprisingly, the variance between countries seems to be much lower.

Finally, backward ETRs, based on data of corporate profits drawn from financial statements, give some information about the distribution of the tax burden and also about the ability of firms coming from different countries to use tax-planning techniques to reduce the tax burden (Cnossen 2002). Following this approach, firms located in Italy and in Germany appear to bear a higher tax burden than those located in France, Netherlands and Spain.

TABLE 1.12 NEAR HERE

1.3.3 Consumption-based taxes

As illustrated in paragraph 1.2 (Table 1.2) countries rely heavily on consumption-based taxes that account for about 30 per cent of total tax revenue and 11-12 per cent in terms of GDP. Taxes on general consumption cover the main share (18.2 per cent of total tax revenue and 7.5 per cent in terms of GDP). Moreover taxes on general consumption as a percentage of GDP appear to be more similar across the selected countries than taxes on specific goods and service (OECD 2002a). In particular VAT revenues, as a percentage of GDP, never vary more than one percentage point between the selected countries.

Despite this picture countries apply different VAT tax rates structures (Table 1.13): a dual-rate structure (Germany, Netherlands and the UK) and a multiple-rate structure (France, Italy, Ireland and Spain). The standard rates range from 16 per cent (Germany) to 20 per cent (Italy and Ireland). With the exception of Ireland, in the last 20 years all the countries have increased the standard tax rates; on average at the EU level the standard rate increased from 17.5 to 19.4 per cent.

All the countries maintain rate differentiation and exemptions, motivated by historical and social factors, by concerns over distributional effects of indirect taxation or by industrial policy objectives. On aggregate the effects of rate differentiation and exemptions and thus the effectiveness of VAT can be measured through the ratio between the effective and the statutory rate of VAT (van den Noord and Heady 2001), where the first is VAT revenues divided by the potential VAT base. On average the effectiveness of VAT in Europe is still lightly over the 50 per cent, meaning that rate differentiation and exemptions are pervasive and that base erosion is significant. Between the selected countries only Germany, Ireland and Netherlands are placed above the European average. Italy appears to be the country where the VAT system is less neutral and efficient mainly as a consequence of tax erosion and evasion. These non-neutralities across Europe signal that national VAT systems could be improved in order to reduce distortions that affect competition within EU Countries and also on digital and cross-border shopping in boundary areas (Keen 2002b).

TABLE 1.13 NEAR HERE

Differently from the VAT, the contribution of the other consumption taxes to total taxation and their incidence on GDP is less homogeneous (OECD 2002a). These taxes raise revenues in the range of 8.2 per cent of the total tax revenue (France) to 14.1 per cent (Ireland). A substantial share is levied on energy consumption in order to achieve both fiscal and environmental policy goals. Apart from the Netherlands (where environmental levies were introduced in 1988), France, Germany, Italy and the UK have initiated green tax reforms more recently (Barde and Braathen 2002): France introduced a General Tax on Pollution Activities in 2000; Germany initiated a green tax reform in 1999 through a new tax on electricity and an increased taxation of mineral oil; in Italy a green tax reform is being implemented over the period 1999-2005 through the introduction of a carbon tax; in the UK a "Climate Change Levy" on energy use by business and the public sector was introduced in 2001. According to the last available data (OECD 2001a) revenues from environmental taxes range from 4.7 per cent of the total tax revenue (France) to 8.7 per cent (Netherlands) as a consequence of the different emphasis that individual countries place to fiscal and extra-fiscal objectives and on concerns about distribution effects of taxation and international competitiveness of national firms.

Table 1.14 illustrates a somewhat emblematic case of the variance of effective tax rates on the final price of electricity household consumption. As effect of the presence of different country structures of indirect taxation (VAT and excise taxes), the incidence of taxes as a percentage of the market prices appears varying markedly, ranging from 4.8 per cent (UK) to 34 per cent (Netherlands). Similar disparities can be also found in the industrial electricity consumptions (IEA 2002), meaning that, when the destination principle can't be applied, competition in the internal market can be distorted.

TABLE 1.14 NEAR HERE

1.4. Tax reforms and selected policy issues

As a result of tax changes and reforms made during the 1990s or reforms currently on the policy agenda, illustrated in more detail in countries chapters, some issues have arisen in the recent discussion of tax design in the selected European experiences: *(i)* tax equity; *(ii)* competitiveness; *(iii)* innovation and growth; *(iv)* fiscal design across levels of government.

(i) Tax equity. During the 1990s tax changes or reforms in the European Countries have structurally reduced the progressivity path of the personal income tax. This was the result of two different policies: the flattening of the tax schedule and the exclusion of (almost part of) capital income from the PIT base. Both the policies have been motivated mainly on the efficiency ground. Looking at the last years (OECD 1997 and 2003) the main changes in the personal income tax have been the sequenced cut in marginal tax rates, the increase in the basic allowances (or tax credits) and the reduction in the level at which the top marginal tax rate applies.

The emphasis that tax reforms placed on efficiency has been only partly matched by tax equity considerations. To this end in more recent years a number of tax measures have been introduced or are planned in some countries to achieve horizontal equity objectives (mainly through child and family tax relief) and to strengthen the progressivity of the tax system at the lower end of the income scale (through basic allowances and tax credits). A number of these measures have replaced pre-existing cash transfers, reinforcing the trend towards the *use of the tax systems to deliver benefits.* This is the case for instance of the German child tax credit (that in 1996 replaced the former cash child allowance) or the new child tax credit in the UK.

Since the mid-1990s some countries have introduced measures targeted to reduce the tax burden on lower-paid labor and at the same time to foster work incentives (EU Commission 2001a). Within the personal income tax cuts in marginal rates on labor income have been targeted to lower income groups in France and Italy. Tax relieves to make work more attractive for targeted groups (in most cases spouses and low-paid workers) have been introduced for instance in the UK (*working earned income tax credit*) and in France (*Prime pour l'emploi*).

(ii) Competitiveness. The growing integration of economic activities in the EU is exerting pressures on national tax systems. The location of financial and real capital appears becoming increasingly sensitive to tax regime differences between competing countries. Many EU Countries have instituted (Germany, France and the UK) or are currently considering (Italy) reforms where competitiveness is one of the main motivations.

Tax measures specifically targeted to increase national competitiveness have considered three main areas: financial capital; real capital; production factors other than capital.

Concerns about competitiveness have motivated during the 1990s the generalized reduction in withholding taxes on capital income paid to non resident. Currently, no country levies taxes on interest and on capital gains as a mean to attract foreign capital in a world where the resident principle *de facto* can't be applied. The same reason justified the lowering of capital income taxation for resident investors as an instrument to protect against the coming out of capital. More recently, Italy adopted (and Germany is still considering) a tax amnesty for capital illegally exported.

In the business sector, especially after the adoption of the European Code of Conduct and thus the prohibition of "harmful tax practices," countries have began to compete mainly over corporate tax rates in order to attract greater volume of foreign direct investment (Keen 2001). Deep corporate tax cuts occurred in Ireland, Italy, France and Germany. A number of other micro tax measures have been introduced to the same aim; for instance, the adoption of the tax participation exemption regime (or similar regimes) is seen as an instrument intended to favor the location of multinational headquarters in the Netherlands, UK and in Italy (according to the new tax reform).

More generally, comprehensive approaches to the competitiveness issue have been followed in a number of countries. Many countries (France, Italy, Netherlands, Spain and the UK) have cut payroll taxes since the mid-1990s in order both to stimulate the demand for labor and the location of production activities inside the country. In deciding if and how institute green tax reforms or environment-related taxes, concerns about possible competitiveness losses have been one of the main arguments in Italy, Germany and the UK (Barde and Braathen 2002).

(iii) Innovation and growth. The structure and design of business taxation and personal taxes have implications for growth performance. Across the EU Countries, there has been a broad reduction of both personal income taxes and corporate income taxes in the view that high tax rates can distort economic activity. There has also been a trend towards broadening the tax base and changing the structure of business investment incentives. With the exception of Italy, where tax incentives in the business sector still appear to be general (even if sometimes reinforced when directed to underdeveloped areas), in the other selected countries the broadening of tax bases has been followed by the reorientation of tax incentives to stimulate selectively *innovation and growth.* Tax measures which EU Countries have targeted to stimulate innovation and growth can be grouped into four main areas: SMEs, venture capital, intangibles investments (R&D) and stock options.

Specific tax incentives targeted to SMEs have been motivated by the idea that innovative start-ups and small firms can play an important role in spurring productivity growth. To this end some countries (France, Ireland, the Netherlands, Spain and the UK) have lowered corporate taxes on small firms (emblematic is the case of the UK where since 2002 the zero starting rate has been applied to small firms); to address the problem of operating losses, that may discriminate against smaller enterprises, some countries (Germany, Ireland and the Netherlands) allow losses to be carried forward indefinitely; more generally, as a consequence of the European discipline against state aids, all the selected countries have more generous or targeted tax incentives on investments conduced by SMEs.

Several countries have introduced specific tax incentives in favor of venture capital as a mean to correct market failures that prevent innovative start-ups and SMEs from accessing to equity finance. Tax incentives take two broad forms: *front-end incentives* whereby investors receive tax credits on income tax for qualifying investments; *back-end incentives* whereby investors receive reductions on capital gains tax. Schemes of front-end incentives have been introduced in France (in favor of *Fonds Commun de Placement dans l'innovation*), Ireland (*Business Expansion Scheme*), the Netherlands (*Tax Compensation Scheme*) and the UK (*Enterprise Investment Scheme* and *Venture Capital Trust*). Schemes of back-end incentives are present in France (in favor of *Fonds Commun de Placement a Risques* and *Sociétés de Capital Risque*), the Netherlands (*Tax Compensation Scheme*), Spain (*Fondos de Capital Riesgo*) and the UK (*Enterprise Investment Scheme* and *Venture Capital Trust*).

Preferential tax measures (compared to ordinary salary compensation) targeted to stock options have been introduced during the 1990s as an instrument to promote entrepreneurship and innovative small firms. Different approaches have been followed, but generally tax schemes used in the UK and Ireland appear to be more favorable for employers and employees than those adopted for instance in France or Spain.

Finally, due to positive externalities several countries have introduced tax incentives to stimulate intangible investments (R&D). Countries offer tax credits applied to the level (Italy, Netherlands) or the increase (Spain) of R&D investments or they offer tax allowances (UK and Ireland). According to one indicator of the relative generosity of R&D tax measures (Warda 2001), Spain and the Netherlands have the most generous fiscal incentives for large manufacturing firms, while Italy and the UK are the most generous for R&D investments conduced by small firms.

(iv) Fiscal design across levels of government. The structure of fiscal relations across different levels of government is far from stable in most of the selected countries. From some years Germany has been considering the reform of intergovernmental fiscal relations toward a more efficient public sector (OECD 1998). As response to desires by different parts of the nation with strong identities for regional assemblies that allow a measure of self-determination Spain introduced "strong" regional assemblies (Basque region, Catalonia) and is currently strengthening the "weak" regions to become as strong as the "strong" regions, while the UK introduced new regional assemblies for Scotland and Wales and is considering the possibility of introducing regional assemblies in England. After the 2001 Constitutional reform Italy has markedly decentralized the structure of fiscal relations between central and sub-central governments (Giarda 2001) and currently is considering more radical processes of devolution. In the most centralized country in Europe (France) the reform of the Constitution toward more decentralized structures is currently in the policy agenda.

Although so many changes in the institutional settings that prefigure higher degrees of decentralization of the public sectors in the future, the distribution of taxing powers across levels of governments is still not definite.

In the last years the structure of sub-national taxation has been mainly characterized by (OECD 1999, 2002a and 2002b): growing use of property taxes; increased relevance of non-tax revenues (user charges), based on the benefit principle; progressive desertion of local business taxes; use of environmentally related taxes; and finally growing use of tax revenue sharing sources. What has been seen as the most innovative experience of local tax (the Italian IRAP) is going to be abolished according to the tax reform plan under discussion in Italy.

All these trends seem to be consistent with the theory, but together with the increased degree of decentralization they prefigure in the future a lower redistribution pattern of the whole tax systems.

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Table 1.1 Total tax revenue as a percentage of GDP

	1970	1975	1980	1985	1990	1995	1999	2000	2001 Provisional
Ireland	28.8	29.1	31.4	35	33.5	32.7	31.3	31.1	29.2
Spain	16.3	18.8	23.1	27.8	33.2	32.8	35	35.2	35.2
Germany	32.3	35.3	37.5	37.2	35.7	38.2	37.8	37.9	36.4
United Kingdom	37	35.3	35.2	37.7	36.8	34.8	36.4	37.4	37.4
Netherlands	35.8	41.6	43.6	42.6	43	41.9	41.2	41.4	39.9
Italy	26.1	26.1	30.4	34.4	38.9	41.2	43.3	42	41.8
France	34.1	35.9	40.6	43.8	43	44	45.7	45.3	45.4
OECD Total	28.3	30.5	32.1	33.9	35.1	36.1	37.1	37.4	n.a.
EU 15	30.4	33.2	36	38.8	39.5	40	41.5	41.6	n.a.
EU selected	30.1	31.7	34.5	36.9	37.7	37.9	38.7	38.6	37.9

Source: OECD (2002a)

Table 1.2 Tax structure. Tax revenue of major taxes as a percentage of total tax revenue and GDP

	Personal income			Corporate income			Social security and payroll			Property			Goods and service		
	1980	1990	2000	1980	1990	2000	1980	1990	2000	1980	1990	2000	1980	1990	2000
France	11.6	11.8	18	5.1	5.3	7	44.9	46	38.4	4.8	5.1	6.8	30.4	28.4	25.8
	4.7	*5.1*	*8.2*	*2.1*	*2.3*	*3.2*	*18.3*	*19.7*	*17.5*	*2*	*2.2*	*3.1*	*12.4*	*12.2*	*11.7*
Germany	29.6	27.6	25.3	5.5	4.8	4.8	34.5	39.4	39	3.3	3.4	2.3	27.1	26.7	28.1
	11.1	*9.8*	*9.6*	*2*	*1.7*	*1.8*	*13*	*13.4*	*14.8*	*1.2*	*1.2*	*0.9*	*10.2*	*9.5*	*10.6*
Ireland	32	31.9	30.8	4.5	5	12.1	14.5	16.1	13.6	5.3	4.7	5.6	43.7	42.3	37.2
	10	*10.7*	*9.6*	*1.4*	*1.7*	*3.8*	*4.6*	*5.4*	*4.2*	*1.7*	*1.6*	*1.8*	*13.7*	*14.2*	*11.6*
Italy	23.1	26.3	25.7	7.8	10	7.5	38.6	33.2	28.5	3.7	2.3	4.3	26.5	28	28.4
	7	*10.2*	*10.8*	*2.4*	*3.9*	*3.2*	*11.8*	*12.9*	*11.9*	*1.1*	*0.9*	*1.8*	*8.1*	*10.9*	*11.9*
Netherlands	26.3	24.7	14.9	6.6	7.5	10.1	38.1	37.4	38.9	3.6	3.7	5.4	25.2	26.4	29
	11.5	*10.6*	*6.2*	*2.9*	*3.2*	*4.2*	*16.6*	*16.6*	*16.1*	*1.6*	*1.6*	*2.2*	*11*	*11.3*	*12*
Spain	20.4	21.7	18.7	5.1	8.8	8.6	48.6	35.4	35.1	4.6	5.5	6.4	20.7	28.4	29.8
	4.7	*7.2*	*6.6*	*1.2*	*2.9*	*3*	*11.2*	*11.8*	*12.4*	*1.1*	*1.8*	*2.3*	*4.8*	*9.4*	*10.5*
United Kingdom	29.4	27.1	29.2	8.4	11.2	9.8	21	16.7	16.4	12	10.3	11.9	29.2	30.5	32.3
	10.3	*10*	*10.9*	*2.9*	*4.1*	*3.7*	*7.4*	*6.1*	*6.1*	*4.2*	*3.8*	*4.4*	*10.3*	*11.2*	*12.1*
Unweighted average: OECD Total	31.3	29.4	26	7.6	7.9	9.7	23.5	23.7	25.7	5.3	5.7	5.4	32.3	31.8	31.6
	10.5	*10.7*	*10*	*2.4*	*2.7*	*3.6*	*7.8*	*8.6*	*9.9*	*1.6*	*1.6*	*1.9*	*10.1*	*10.9*	*11.6*
EU 15	29	27.2	25.6	5.8	6.8	9.2	30.4	29	28.4	4.2	4.4	5	31	31.5	30
	11.1	*11.1*	*10.9*	*2.1*	*2.7*	*3.8*	*10.7*	*11.4*	*11.8*	*1.5*	*1.7*	*2*	*11*	*12.2*	*12.3*
Selected EU Countries	24.6	24.4	23.2	6.1	7.5	8.6	34.3	32.0	30.0	5.3	5.0	6.1	29.0	30.1	30.1
	8.5	*9.1*	*8.8*	*2.1*	*2.8*	*3.3*	*11.8*	*12.3*	*11.9*	*1.8*	*1.9*	*2.4*	*10.1*	*11.2*	*11.5*

Source: OECD (2002a)

Table 1.3 Attribution of tax revenues to sub-sectors of general government

	Central government			Sub-central government			Social Security Funds		
	1975	1985	2000	1975	1985	2000	1975	1985	2000
France	51.2	47.2	42.4	7.6	8.7	9.6	40.6	43.5	46.9
Germany	33.5	31.6	30.8	31.3	30.9	30	34	36.5	39.2
Ireland	77.4	82.1	86.6	7.3	2.3	1.8	13.1	13.6	11.6
Italy	53.2	62.3	60	0.9	2.3	11.4	45.9	34.7	28.6
Netherlands	58.9	51.9	57.1	1.2	2.4	3.4	38.4	44.3	39.3
Spain	48.2	47.8	48.2	4.3	11.2	16.9	47.5	41	34.9
United Kingdom	70.5	69.4	78.2	11.1	10.2	4	17.5	17.8	15.5
OECD unitary countries	64.2	64.2	62.7	12.3	12.3	12.7	23.1	22.9	24.2
EU 12 unitary countries	61.0	61.4	62.8	10.4	10.8	12.0	28.0	26.8	24.7
EU 6 selected countries	59.9	60.1	62.1	5.4	6.2	7.9	33.8	32.5	29.5

Source: OECD (2002a)

Table 1.4 Sub-central tax structure. Tax revenue from the main local taxes as a percentage of total tax revenues of sub-central governments

	Income & Profits			Property			Goods and services			Other taxes		
	1975	1985	2000	1975	1985	2000	1975	1985	2000	1975	1985	2000
France				46.0	47.2	48.2	7.9	13.1	11.5	46.0	39.7	40.4
Germany												
State	62.8	62.9	51.7	6.2	5.4	4.9	31.0	31.7	43.4			
Local	78.4	80.9	78.0	20.3	18.1	15.8	0.9	0.8	6.0	0.4	0.2	0.2
Ireland				100.0	100.0	100.0						
Italy	80.0	66.7	12.2	17.5		18.6	2.5	10.5	8.6	0.0	22.7	60.6
Netherlands	15.4			54.2	75.1	56.0	30.4	24.9	44.0			
Spain	57.3	26.9	25.2	8.5	16.8	37.3	34.2	52.8	36.1		3.5	1.4
United Kingdom				100.0	100.0	99.8						0.2
OECD unitary countries	45.0	47.0	38.0	35.0	29.9	31.6	14.0	14.4	16.8	5.4	8.6	9.1

Source: OECD (2002a)

Table 1.5 Implicit Tax Rates on production factors and consumption

	Consumption					Labor					Capital				
	1970	1990	1999	*1970-99*	*1990-99*	1970	1990	1999	*1970-99*	*1990-99*	1970	1990	1999	*1970-99*	*1990-99*
France	23.6	23.1	24.5	*3.81*	*6.06*	26.6	39.7	42.4	*59.40*	*6.80*	15.5	17.9	22.6	*45.81*	*26.26*
Germany	19.2	17.8	17.9	*-6.77*	*0.56*	29.4	38.3	44	*49.66*	*14.88*	18.3	16.2	15.9	*-13.11*	*-1.85*
Ireland	20.6	22.1	24.8	*20.39*	*12.22*	9.8	24.6	24.2	*146.94*	*-1.63*	26.9	18.9	20.8	*-22.68*	*10.05*
Italy	16.4	16.9	22.9	*39.63*	*35.50*	20.7	35.9	35.8	*72.95*	*-0.28*	11.9	22.7	26.2	*120.17*	*15.42*
Netherlands	15.9	16.7	19.5	*22.64*	*16.77*	29.9	38.5	36.9	*23.41*	*-4.16*	19.5	21.5	25.1	*28.72*	*16.74*
Spain	11.6	15.2	17.7	*52.59*	*16.45*	12.1	27.9	29.9	*147.11*	*7.17*	8.9	19.9	18.5	*107.87*	*-7.04*
UK	15.2	15.6	18.2	*19.74*	*16.67*	25	24.8	25.2	*0.80*	*1.61*	35.2	34.4	35.1	*-0.28*	*2.03*
EU 15	20	19.4	20.8	*4.00*	*7.22*	25.5	35.7	37.6	*47.45*	*5.32*	19	21.3	23.6	*24.21*	*10.80*
Selected EU Countries	17.5	18.2	20.8	*18.78*	*14.21*	21.9	32.8	34.1	*55.31*	*3.79*	19.5	21.6	23.5	*20.56*	*8.38*

Source: Eurostat (2000); EU Commission (2000)

Table 1.6 Main components of the personal income tax's structure

	ZERO RATE BAND	*ZERO RATE BAND AS PROPORTION OF APW*	*BASIC ALLOWANCES*	*TAX RELIF AS PROPORTION OF APW*	*BASIC TAX CREDIT*	*TAX CREDIT AS PROPORTION OF APW*	*LOWEST STANDARD RATE*	*HIGHEST STANNDARD RATE*	*NUMBER OF BRACKETS*	*HIGHEST RATE STARTS AT **
France	Y	18.8%	Y	20%	-		7.5	52.75	7	2.12
Germany	Y	21.8%	-	-	-		Formula based	48.5	Formula based	1.66
Ireland	-	-	-	-	Y	6%	20	42	2, different according to family status	1.11
Italy	-	-	-	-	Y**	1.8%	18	45	5	3.25
Netherlands	-	-	-	-	Y	5.3%	2.95	52	4	1.54
Spain	-	-	Y	17.7%	-	-	15	39.6	6	3.60
United Kingdom	-	-	Y	23.4%	-	-	10	40	3	1.52

Source: own calculations from OECD (2003) data.
* proportion of APW wage
** In Italy the basic tax credit is only applied on dependent workers.

Table 1.7 The taxation of capital income

	Resident			Non resident	
	Dividends	Capital gains	Interest*	Dividends	Interest*
France	PIT and tax credit (50%)	Separate taxation (26%)	Final withholding tax (15%).	Final withholding tax (25%)	Not taxable
Germany	PIT on half income	Exemption	PIT	Final withholding tax (25%)	Not taxable
Ireland	PIT	Separate taxation (20%)	PIT	Not taxable	Not taxable
Italy	Final withholding tax (12.5%). Option for PIT and tax credit (56.25%)	Separate taxation (12.50%)	Final withholding tax (12.50%)	Final withholding tax (27%) (4/9 recoverable)	Not taxable
Netherlands	Exemption	Exemption	PIT	Final withholding tax (25%)	Not taxable
Spain	PIT and tax credit (variable)	Separate taxation (18%)	PIT	Final withholding tax (18%)	Not taxable
United Kingdom	Separate taxation (10-32,5%) and tax credit (11.11%)	Separate taxation (6-24%)	PIT	Not taxable	Not taxable

Source: REF (different years)

* From public bonds.

Table 1.8 Measures of horizontal tax equity

	AVERAGE EFFECTIVE TAX RATE (INCOME TAX)		*SSC*		*AVERAGE EFFECTIVE TAX RATE (INCOME TAX+SSC- CASH TRANSFERS)*	
	SINGLE INDIVIDUAL WITHOUT CHILDREN (APW)	*ONE-EARNER MARRIED COUPLE WITH TWO CHILDREN (APW)*	*SINGLE INDIVIDUAL WITHOUT CHILDREN (APW)*	*ONE-EARNER MARRIED COUPLE WITH TWO CHILDREN (APW)*	*SINGLE INDIVIDUAL WITHOUT CHILDREN (APW)*	*ONE-EARNER MARRIED COUPLE WITH TWO CHILDREN (APW)*
France	13.3%	6.9%	13.3%	13.3%	26.5%	14.2%
Germany	20.5%	-2.0%	20.7%	20.7%	41.2%	18.6%
Ireland	11.4%	2.4%	5.0%	5.0%	16.4%	-0.8%
Italy	18.9%	11.8%	9.2%	9.2%	28.1%	12.2%
Netherlands	7.2%	6.6%	21.5%	16.0%	28.7%	18.2%
Spain	12.9%	4.0%	6.4%	6.4%	19.2%	10.4%
United Kingdom	15.7%	10.1%	7.7%	7.7%	23.3%	10.8%

Source: own calculations from OECD (2003) data.

Table 1.9 Statutory income tax progressivity

COUNTRIES	*LOW-WAGE PROGRESSIVITY*		*HIGH-WAGE PROGRESSIVITY*	
	INCOME TAX	*TOTAL*	*INCOME TAX*	*TOTAL*
France	6.81	8.03	5.59	5.47
Germany	8.06	10.89	10.89	12.61
Ireland	4.86	8.16	13.96	15.13
Italy	5.47	6.17	6.92	7.88
Netherlands	3.84	2.29	17.73	9.85
Spain	6.43	6.94	6.00	6.50
United Kingdom	3.75	5.65	3.09	3.69

Source: own calculations from OECD (2003) data.

Table 1.10a Tax wedges on labor

	INCOME TAX PLUS EMPLOYEE AND EMPLOYER CONTRIBUTIONS (AS % OF LABOR COSTS), 1996–2002 SINGLE INDIVIDUAL WITHOUT CHILDREN (APW)						
	1996	1997	1998	1999	2000	2001	2002
France	49.7	48.7	47.6	48.1	48.2	48.3	47.9
Germany	51.2	52.3	52.2	51.9	51.8	50.8	51.3
Ireland	36.1	33.9	33.0	32.4	28.9	25.8	24.5
Italy	50.8	51.5	47.5	47.2	46.7	46.1	46.0
Netherlands	43.8	43.6	43.5	44.3	45.1	42.3	35.6
Spain	38.8	39.0	39.0	37.5	37.6	37.9	38.2
United Kingdom	32.6	32.0	32.0	30.8	30.1	29.5	29.7

Source: OECD (2003)

Table 1.10b Tax wedges on labor

	INCOME TAX PLUS EMPLOYEE AND EMPLOYER CONTRIBUTIONS (AS % OF LABOR COSTS), 1996–2002 SINGLE INDIVIDUAL WITHOUT CHILDREN (67% APW)						
	1996	1997	1998	1999	2000	2001	2002
France	44.3	41.6	39.4	40.3	39.6	38.4	37.8
Germany	46.5	47.7	47.5	47.0	46.5	45.5	45.9
Ireland	26.5	24.9	23.4	21.5	18.1	17.4	16.6
Italy	48.3	48.8	44.4	44.1	43.3	42.8	42.7
Netherlands	39.3	38.8	39.2	40.2	40.6	36.8	37.2
Spain	34.4	34.8	35.1	32.6	32.8	33.4	33.9
United Kingdom	26.8	28.4	28.5	25.8	25.3	24.5	24.7

Source: OECD (2003)

Table 1.11 Statutory corporate "all-in" tax rates

	1993 "All-in" tax rate	1998 "All-in" tax rate	"All-in" tax rate	2003 of which local rate	Preferential rate
France	33.33	41.6	35.43	-	15.45
Germany	52.15	54.3	39.72	12.0-20.0	-
Ireland	40	32	12.5	-	10
Italy	52.2	41.25	34.25-38.25	4.25	-
Netherlands	40	35	34.5	-	29
Spain	35	35	35	-	30
United Kingdom	33	31	30	-	0-19
15 EU average	37.85	36.76	32.62	-	-

Source: REF (different years)

Table 1.12 Effective tax rates on enterprises

Country	METRs (2001)	Forward EATRs (2001)			ETRs on production marginal costs (2002)	Backward EATRs (1999)
		Overall	*Equity*	*Debt*		
France	31.80	34.7	39	26.8	34.19	17.6
Germany	26.10	34.9	38.7	27.7	33.47	21.8
Ireland	11.70	10.5	11.7	8.2	18.17	n.a.
Italy	-15.90	27.6	28.7	25.5	27.31	26.4
Netherlands	22.70	31	35.2	23.3	30.17	17.9
Spain	22.80	31	35.2	23.3	27.77	16.2
UK	24.80	28.3	31.8	21.7	25.91	n.a.
EU average	18.32	28.54	32	22	28.7	17.9
Standard deviation	*10.8*	*6*	*6.9*	*4.7*	*3.9*	*4.2*

Source: EU Commission (2001b); Nicodeme (2001); Gandullia (2002)

Table 1.13 VAT structure and effectiveness

	Statutory tax rates			Preferential tax rates	Effective VAT rates (1998)	Effective VAT rates as percentage of standard rates
	1980	1993	2002	2002		
France	17.6	18.6	19.6	2.1/5.5	10.9	53
Germany	13	15	16	7	9.4	59
Ireland	25	21	20	0/12.5	12.2	58.2
Italy	14	19	20	4.0/10.0	8.5	42.7
Netherlands	18	17.5	19	6	10.5	60.1
Spain	n.a.	15	16	4.0/7.0	8	49.7
United Kingdom	15	17.5	17.5	0	8.8	50.1
EU average	17.5	19.4	19.4		10.5	54.2

Source: Cnossen (2002); van den Noord and Heady (2001)

Table 1.14 Selected environmentally related taxes: the case of electricity consumption

	VAT rate	Excise rate	Effective tax rates (2000)
France	19.6	0.0073	21.1
Germany	16	0.0128	13.8
Ireland	12.5	exempt	11.1
Italy	10	0.0201	22.9
Netherlands	19	0.0601	34
Spain	16	0.0056	18
United Kingdom	5	exempt	4.8

Source: own calculations from OECD Environmentally related taxes database and IEA (2002)