



# Structures of the **taxation** **systems** in the European Union

**Data 1995-2001**

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## PREFACE

I am proud to present the 2003 edition of the publication ‘Structures of the taxation systems in the European Union’. This is the fourth time that the Directorate-General for Taxation and Customs Union in the European Commission and Eurostat co-operated to compile tax indicators for analysing the structures of the taxation systems of the Member States of the European Union, mainly on the basis of national accounts data. This work commenced with the White Paper on Growth, Competitiveness and Employment that the then Commission President Jacques Delors presented in 1993. The Commission Services have continued this work because they are frequently asked to provide comparative assessments of the taxation systems in the Union, in the context of the co-ordination of economic policies in a broader sense. In recent years, the European Council and the Commission have put special emphasis on the need to reduce the tax burden on labour income as part of the guidelines of the European Employment Strategy. The monitoring of tax revenues at EU level has also become more systematic in the framework of the Growth and Stability Pact.

The Commission considers that tax policy should support broader EU policy objectives such as the goal set by the Lisbon European Council of making the EU the most competitive economy in the world by 2010. Increased tax co-ordination would help Member States to meet these objectives. But while a large measure of harmonisation is necessary in the VAT and excises fields, in other tax fields tax co-ordination does not imply tax harmonisation. It is in this general context that the European Commission has drawn up its plans for the next few years in the tax field<sup>1</sup>. The work on the elimination of harmful tax competition should continue. But to achieve a balance in EU tax policy, attention must also be paid to the concerns of taxpayers, both individuals and companies. This means eliminating tax obstacles hindering the exercise of the fundamental freedoms guaranteed by the EC Treaty. The Directorate-General for Taxation and the Customs Union is responsible for implementing this tax strategy. As part of this work, the Directorate-General monitors the taxation policies and practices of the Member States so as to be able to define coherent approaches at Community level.

The taxation systems in the European Union currently exhibit substantial differences. Owing to their great complexity, comparisons between the taxation systems are not easy to make. The present publication provides a unified framework based on national accounts by which the heterogeneous taxation systems of the different Member States can be usefully compared within different classifications of tax revenues and at different levels of aggregation. This framework makes it possible to monitor the broad development of the taxation systems as well as (aggregate) tax burden indicators in the different Member States, and in the European Union as a whole. Although for this edition it was possible, with the help of the Member States, to implement important methodological improvements, it should be noted that, due to the level of aggregation, the tax indicators used in this publication have certain limitations. Results based on the tax indicators should therefore be interpreted with these shortcomings in mind, and judged with due caution when they are used as a basis for addressing policy questions.

Robert Verrue  
Director-General Taxation and Customs Union

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<sup>1</sup> “Tax policy in the European Union – Priorities for the years ahead” COM (2001) 260 of 23/5/2001

## PREFACE

In recent years, Eurostat has endeavoured to ensure a harmonised application of a new conceptual reference framework: the European System of national and regional integrated accounts (ESA95). The ESA95 methodology, which has contributed to major improvements and progress in national accounts, has now been adopted and implemented throughout Europe.

From December 2000 onwards, EU Member States have been transmitting to Eurostat (as part of the ESA95 transmission programme) data on detailed tax receipts and social contributions by institutional sector. In this process, the fruitful collaboration of Eurostat and National Accounts departments in Member States has enabled the building of one of the most structured, harmonised and complete databases on taxes and social contributions in Europe.

The European Commission services - in particular Eurostat and Directorate-General Taxation and Customs Union - have now engaged in promoting the diffusion of this complex set of information. The 2003 edition of the publication 'Structures of the taxation systems in the European Union' presents for the first time a global overview of this corpus of ESA95 statistics. The publication lays particular emphasis on tax indicators in national accounts, the classification of taxes, and methodology for calculating harmonised implicit tax rates on labour, capital and consumption. A large section of the publication is also devoted to a comparative analysis of recent developments in the taxation systems of EU Member States.

A result of considerable joint efforts of Member States and European Commission services (Eurostat and Directorate-General Taxation and Customs Union) on the compilation, methodology and harmonisation of data on taxes and social contributions, the 2003 edition of the publication 'Structures of the taxation systems in the European Union' is an indispensable tool in understanding the developments and mechanics of tax policies in European countries.

Further editions of the publication (which is intended to be issued on a regular basis) will make it possible to follow-up on these developments, and may extend the scope of the analysis to include Accessing Countries.

Yves Franchet  
Director-General Eurostat

## **Origin of this report**

The publication ‘Structures of the Taxation Systems in the European Union’ is the result of collaboration between two Directorates general of the European Commission: the Directorate-General Taxation and Customs Union, and EUROSTAT, the statistical office of the European Communities. The national accounts data collected from the national statistical offices by EUROSTAT were processed and analysed by the Directorate-General Taxation and Customs Union.

For some tax indicators, additional estimates provided by tax experts from national tax departments have been used. The Commission services also wish to acknowledge very helpful oral and written contributions of the tax experts.

However, it should be noted that the Commission services bear the sole responsibility for this publication and its content. Therefore, the present report does not necessarily represent the views of the tax departments in the Member States.

All data requests should be sent to one of the EUROSTAT Data workshops listed on the last page. Any questions or suggestions relating to the analysis should be addressed to the Directorate-General Taxation and Customs Union.

## **Language and diffusion**

The publication ‘Structures of the Taxation Systems in the European Union’ will only be available in English for the time being. The publication will be disseminated through the Eurostat Datashop network.

Chief editor: Anne Bucher (Commission, Directorate-General for Taxation and Customs Union)

Editing: Main contributors:  
Peter Heijmans (Commission, Directorate-General for Taxation and Customs Union)  
  
Claudius Schmidt-Faber (Commission, Directorate-General for Taxation and Customs Union)  
  
Gilles Revelin (EUROSTAT)

Assistant: Freddy De Buyscher (Commission, Directorate-General for Taxation and Customs Union)

## EXECUTIVE SUMMARY

### Introduction

1. The publication ‘Structures of the taxation systems in the European Union’ presents time series of tax data from national accounts for the fifteen Member States of the European Union. It provides a breakdown of taxes according to three different types of classification: by major type of tax (*i.e.* direct taxes, indirect taxes, social contributions), by levels of government (*i.e.* central-, state- and local government, social security funds and the European institutions) and by economic function (*i.e.* consumption, labour and capital). It also compiles implicit tax rates (ITRs) on consumption, labour and capital, which measure the effective average tax burden on different types of economic income or activity. ITRs express tax revenues that can be allocated to these economic categories as a percentage of the total potential tax base in the economy. The publication also presents data on environmental taxes.
2. The publication is divided into three parts. Part I describes the tax revenue data available in national accounts and reviews major trends between 1995 and 2001. Part II presents the economic classification of taxes, the methodology for the implicit tax rates and a comparison of implicit tax rates between Member States over the period 1995-2001. Part III includes country chapters. It describes, for each Member State, the 1995-2001 trends in the overall tax burden and structures of taxes as well as tax policy changes in the period.
3. Most of the data presented in this publication are directly available from the standard tables of national accounts provided by Member States to Eurostat which are accessible via the database New Cronos. This is the case for the breakdown of taxes by major type of tax and by levels of government. However, the classification of taxes by economic functions is not standard, and is computed specifically for this publication. It relies on a detailed breakdown of national accounts tax data and on additional computations provided by tax departments in the Member States.
4. This edition of the publication ‘Structures of the taxation systems in the European Union’ covers the period 1995 to 2001. This period corresponds to the years for which national accounts data is available in the new European System of Accounts (ESA95) format for all Member States. There are other important methodological changes, which means that the figures in this edition are not always directly comparable to the previous edition from 2000. In particular, a new classification of taxes by economic functions and a new implicit tax rate on capital, with a new distinction between taxes on capital income and capital stocks (or their transaction) resulting from savings and private sector investment in the economy as a whole. In addition, the methodology for allocating the personal income tax revenue across the categories labour, capital, self-employed and social transfer income has been significantly improved, by the use of micro tax revenue data and detailed wage- and income tax statistics. This edition also presents a first investigation of the main factors underlying the developments in the tax burden indicators, and it includes a comparison of the implicit tax rate on labour with a widely used indicator from the OECD.

## Part I: Overview of taxation in the EU

### Calculating tax indicators in national accounts

5. The new European System of Accounts (ESA95) is an important step forward in getting harmonised definitions and registration rules and more detailed national accounts for the European Union and its Member States. National Accounts provide time series for observing changes in the overall effective tax burden and a coherent framework for matching tax revenues with income flow data and economic aggregates. The effective tax burden indicators are backward-looking aggregate measures<sup>1</sup>. ESA95 introduces a number of changes in methodology and definitions, together with changes related to new data sources. At the aggregate level of the economy, the resulting changes in the data tend to offset each other. But the overall effect is a slight upward revision of the GDP figures. The changeover to ESA95 affects all components of final demand, in particular gross formation of fixed capital and government consumption.
6. The switch to the ESA95 system also affects tax revenue data. The main changes in the data are caused by the fact that transactions are now recorded when the underlying economic event takes place (accrual principle) rather than when the payment is made (cash principle). Other changes are related to the new treatment of some levies, such as stamp duties and car registration taxes, and a reclassification of some social contributions which are no longer considered to belong to the general government. Preliminary estimates of the impact of the changeover to the new ESA95 system show that the impact of the switch is rather limited for major aggregates. The overall result is a reduction in the overall tax burden (as measured by total taxes and social contributions as a percentage of GDP) by one percentage point in the year 1995. However, given the conceptual changes that are incorporated in the new system, no attempt has been made to establish a link with the ESA79 system. This edition focuses on 1995-2001 data.

### Tax structures and recent developments

7. This publication measures the overall tax burden as the total amount of taxes and compulsory actual social contributions as a percentage of GDP. Since the late 1990's, a number of Member States have taken the opportunity to reduce the tax burden in proportion to the size of the economy, in particular through cuts in personal income tax rates and in social contributions, but also through tax rate reductions in corporate income tax. The tax reforms that were implemented vary in coverage and depth (part III of the publication presents further information on the individual Member States), but they were often aimed at reducing the tax burden on labour income, at achieving a reduction in corporate income tax rates (whilst broadening the tax base at the same time) and at improving the functioning of capital markets. Reforms in the area of indirect taxation were more diverse. Increases in indirect taxation were driven by 'green' tax reforms in several Member States, often as a counterpart to the reduction in the taxation of labour income (the so-called 'double dividend' approach). In some Member States the share of revenues received by state governments (regions) increased.

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<sup>1</sup> Other methods to compute effective tax burdens also exist, such as so-called 'micro forward-looking' methods (i.e. based on the tax legislation) and 'micro backward-looking' methods (*e.g.* based on financial statement data of companies). Each method has its own merits and demerits as well as different aims; there is not a single preferred methodology (see also OECD 2000; Nicodeme 2001).

8. While the data for the most recent years point downwards in most Member States, the EU average tax-to-GDP ratio has continued to rise between 1995 and 1999. The tax-to-GDP ratios remain relatively high in the Nordic countries and in Belgium, whereas they are relatively low in the United Kingdom, Portugal, Spain and Ireland. Ireland stands out for having witnessed the largest reduction in the overall tax burden. The tax-to-GDP ratios in the European Union generally remain high by international standards.
9. There are some noticeable differences in the tax mixes of the Member States. The Nordic countries (*i.e.* Sweden, Denmark and Finland) have relatively high shares of direct taxes in total tax revenues, whereas some southern countries (in particular, Portugal and Greece) have relatively high shares of indirect taxes compared to the EU average. In Denmark and the United Kingdom and Ireland the shares of social contributions to total tax revenues are relatively low, whereas these shares are relatively high in Germany and, to a lesser extent, in France. More details on the structures of the taxation systems (by more detailed type of tax) in individual Member States are given in the country annexes in part III of this publication. The patterns of the changes in the tax structures that are observed between 1995 and 2001 are rather mixed across the Member States. One trend that is rather evident is the increase in revenues from direct taxes (as % of GDP), despite the recent tax rate reductions that were implemented. This can in a number of Member States be attributed partly to the economic expansionary phase in the second half of the 1990s. For example, strong economic growth may have moved taxpayers into higher tax brackets resulting in higher real tax payments ('bracket creep'), and companies made more profits, hence paid more corporate income tax. The current slowdown in economic growth that started in 2001 has stopped this trend. It should furthermore be kept in mind that the tax rate reductions were often financed by reducing allowable deductions against taxable income, and by limiting special incentive schemes in personal and corporate income tax, or by shifting the tax burden away to other taxes, notably indirect or 'green' taxes. Increases in indirect taxes in relation to GDP are hence noticeable for a number of Member States.
10. A classification of taxes and social contributions according to the level of government that receive the revenues clearly indicates differences in the taxation systems of the Member States. For example, the share of the tax revenue received by the (lower-level) government sub-sectors (*i.e.* state- and local government) varies from one percent in Greece to around one-third in Denmark. Sweden, Belgium and Germany also have relatively high shares of tax revenues received by (lower-level) government sub-sectors. The largest shares of tax revenues apportioned to local governments (municipalities) are found in the Nordic countries. Tax revenues apportioned to state governments (regions) are significant in the (quasi-) federal countries Germany, Belgium, Spain and Austria. However these figures reveal little information as to the degree of discretion allowed to state and local authorities over the management of their tax base and rates.



## Part II: Taxation of labour, capital and consumption

### Methodology for implicit tax rates

11. It is not possible to obtain a good picture of where in the economy the tax burden falls by looking solely at standard classifications of taxes. Therefore a broad classification into three economic functions (*i.e.* consumption, labour and capital) has been made. National accounts have been used to derive information on the corresponding aggregate bases that could potentially be taxed in the economy, in order to calculate implicit tax rates (ITRs) for consumption, labour and capital. ITRs measure the average effective tax burden on the different types of income or activity in the economy. They do not measure the final incidence of taxes that can be shifted from one activity to another via behavioural effects. It is also evident that these potential tax bases do not measure the actual tax bases as defined in the legislation. In practice it is sometimes not straightforward to link developments in the implicit tax rates to tax policy changes<sup>2</sup>.
12. This classification of taxes by economic functions leads inevitably to certain simplifications and rather hybrid categories. The exercise is currently complicated by the fact that the tax data are not always recorded in sufficient detail to identify individual taxes and allocate them to the corresponding categories. A key methodological problem for classifying tax revenue across the economic functions is that some taxes relate to multiple sources of economic income or activities. This holds notably for personal income tax (which is typically broadly based), and also for some other taxes (*e.g.* local business taxes or energy taxes). Estimates from national tax departments have been used to make the relevant allocations of taxes, whenever this was feasible.
13. A new method had to be developed to split the revenue of the personal income tax across the different economic functions. Under an approach using only aggregate data from national accounts, total personal income tax raised on labour or capital income is often estimated using the proportion of aggregate labour or capital income in the aggregate taxpayer income. This approach basically assumes that effective average rates of personal income tax are equal across different taxable income sources and different groups of taxpayers. This assumption is generally unrealistic, and this has called for a new approach using more detailed income tax statistics from national tax departments. Actually splitting the income tax revenues is complicated both conceptually and in practice. Member States used the best methods available to them. A majority of Member States has used data sets of individual taxpayers to estimate the allocation of the personal income tax. Basically, income tax payments were multiplied by fractions of the (net) taxable income sources (as a percentage of the total tax base) at the level of the individual taxpayer. Some Member States used income class data (or data aggregated at the level of tax brackets) to produce the estimates in a comparable way, while others used detailed tax receipts data from withholding wage tax and income tax statistics with a number of adjustments. While the method for allocating personal income tax has significantly improved compared to previous

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<sup>2</sup> Readers wishing to achieve a good understanding of the implicit tax rates and their strengths and limitations are referred to section II-1., and to the methodological paper on the ITR on capital (European Commission 2003).

editions of the publication 'Structures of the taxation system in the European Union', there remains some heterogeneity between Member States, which is most noticeable for personal income tax allocated to capital income and social transfers and pensions. Inevitably this has had some effect on the accuracy and the comparability of the implicit tax rates. It should furthermore be noted that some Member States were able to provide estimates only for a limited number of years. In these cases the missing estimates were replaced by simple linear interpolations, which seems reasonable in the absence of major tax reforms.

14. Taxes on consumption include taxes levied on transactions between (final) consumers and producers and on the (final) consumption goods. The corresponding tax base for the implicit tax rate is defined as the final consumption expenditure of households on the economic territory. Taxes on labour are generally defined as all personal income taxes, payroll taxes and social contributions of employees and employers that are raised on labour income. The potential tax base is the total amount of compensation of employees in the economy. Two implicit tax rates on capital are computed. The ITR on capital and business income is defined as all taxes levied on the income earned from savings and investments by households and corporations divided by a measure of the potentially taxable capital and business income within national accounts. This base aims to approximate the world-wide capital and business income of Member States' residents for domestic tax purposes. The broader implicit tax rate on capital also includes taxes that are related to stocks of capital stemming from savings and investments in previous periods as well as taxes on transactions related to these stocks.

#### **Trends in the tax burden according to economic functions**

15. Taxes levied on employed labour income, mostly withheld at source, clearly represent the most prominent source of tax revenue in most Member States. Capital taxes are generally less important than consumption taxes. It is also evident from the figures that Member States with a relatively high tax-to-GDP ratio generally tend to collect a relatively high amount of labour taxes and social contributions, and conversely. The share of labour taxes and social contributions in total tax receipts is significantly below the European Union's average in traditionally low-tax countries such as Ireland and the United Kingdom, and also in Greece, Portugal and Luxembourg.
16. The distribution of the tax burden according to economic functions has undergone some important changes since the mid-1990s. The most striking feature of the recent developments has been a stabilisation or slight decline in labour taxation, and a general increase in the measured overall tax burden on capital. The latter trend can probably be attributed in part to the economic upswing in that period. A subsequent decrease in the measured overall tax burden on capital is already noticeable for 2001 in some of the Member States.

## Tax burden on labour

17. The implicit tax rate on labour has been steadily rising since the early 1970s in most Member States. Since the mid-1990s, however, a number of Member States have implemented measures to lower the tax burden on labour income, in order to boost the demand for labour, and to foster work incentives. It now appears that the general trend towards increasing the tax burden on labour has stabilised or reversed slightly for most Member States. However, the average (EU-15) effective tax burden on labour still remains relatively high by international standards. It should, however, be recognised that the evolution of the implicit tax rate on labour refers to an ex-post trend without disentangling cyclical, structural and policy elements. In some Member States, for example, the development of the implicit tax rate on labour seems to be clearly influenced by the economic upswing in the late 1990s.
18. By the year 2001, labour income appears to be most heavily taxed in Belgium, Finland and Sweden with average implicit tax rates well above 40% of the total wage bill in the economy (social contributions included). Ireland and the United Kingdom stand out with average implicit tax rates clearly below 30% of the total wage bill. When interpreting these figures, it must be recognised that the implicit tax rate on labour may hide important variation in the effective tax burden across different household types or across different wage levels.
19. In the majority of the Member States the implicit tax rate on labour largely reflects the important role played by wage-based contributions in financing the social security system. On average, somewhat more than 60% of the implicit tax rate on labour consists of social contributions paid by employees and employers. Only in Denmark, Ireland and the United Kingdom, do personal income taxes form a relatively large part of the total charges paid on labour income. In Denmark, the share of social contributions is relatively low as most welfare spending is financed out of general taxation.
20. Every year, the OECD publishes data of total tax wedges between labour costs to the employer and the corresponding net take-home pay of the employee, for various examples of household types and representative wage levels of production workers in the manufacturing industry. These total tax wedge indicators are calculated on the basis of the tax legislation and they do not relate to the actual tax revenue. Comparisons between the (macro) implicit tax rate on labour and these (micro) total tax wedge indicators tend to show a reasonably strong correlation. Member States with a relatively high (macro) implicit tax rate on labour should generally also show a relatively high level of the (micro) tax wedge indicator, and conversely. However, for some Member States there can be sizeable differences between the two ratios, because of the conceptual and statistical differences between the two indicators. For example, the gross amount of the compensation of employees from national accounts, which forms the base/denominator of the implicit tax rate, does not correspond to the particular wage level of an average full-time production worker in the manufacturing industry, but includes all employees, both full-time and part-time workers. With a few exceptions, both indicators have comparable informative content as regards to general increasing- or decreasing trends in the average tax burden on labour income over time. However, reductions in the tax wedge indicators are often more pronounced for most Member States, as the consequences of the recent tax reforms show up more clearly in the OECD figures for targeted income levels. However, as indicated before, the implicit tax rate on labour also reflects structural changes, such as changes in the distribution of wage income. It relates to

actual tax revenue data, and it could very well be that for some Member States, for example, the revenue effect of targeted reductions in personal income tax at, say, the lower end of the wage scale has been offset by increases in income at the top end of the wage scale.

### **Tax burden on capital**

21. The implicit tax rate (ITR) on capital for companies and households has been rising sharply between 1995 and 2000. In 2001 in some countries a reduction in the ITR on capital is already discernible, partly offsetting the increase in prior years. Of the various implicit tax rates, the ITR on capital is the most complex and it is important that it is interpreted very carefully<sup>3</sup>. The ITR on capital is a broadly based indicator and its trends can therefore reflect a very wide range of factors, which may vary for different Member States. However, four main channels of influence have been identified, which seem to be relevant for most Member States:
22. The ITR on capital and business income is sensitive to the business cycle. Due to the asymmetric influence of company losses from previous and current years, in principle no clear direction in the cycle can be identified from the outset. In the relatively long-lasting expansionary phase of 1995 to 2000, however, an increase in the ITR might be expected. This relates to the progressive nature of the personal income tax system and to the fact that more and more companies make profits in combination with diminishing loss carry-over possibilities. Preliminary time series over a longer period for some Member States seem to confirm this relationship.
23. This expansionary phase in the second half of the 1990s was accompanied by booming stock markets across-the-board. As a result, capital gains and the corresponding tax revenues have risen substantially (in countries where capital gains are taxed). However, as it is not possible to include the capital gains in the denominator of the ITR on capital (since in practice they are not recorded in national accounts for all assets), this development clearly leads to an overestimation of the average effective tax burden on capital and business income for some Member States, and partly explains the rise in the ITR.
24. In addition, structural changes in the financing of companies have led to an increase in the ITR on capital and business income: empirical evidence exists to suggest that companies changed their way of financing (and their distribution of profits) with less interest and more dividend payments. But this also happened against the background of dropping interest rates. Most tax systems in the EU are not neutral towards different forms of investment-financing and allow deductions for interest payments when calculating the taxable profits. The shift towards more dividend distributions results on average in a higher tax burden on companies' profits as a consequence of this characteristic of tax legislation.

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<sup>3</sup> The construction of this indicator and its possible sources of bias in measuring the effective tax burden on capital are mentioned in paragraph II-1.3.3 and are explained in detail in European Commission (2003).

25. These factors have disguised the influence of recent tax policy measures aimed at reducing the tax burden for corporations and at improving the functioning of capital markets. However, cuts in the nominal statutory tax rates on corporations were often at the same time accompanied by measures that broadened the taxable base (*e.g.* by reducing the rates of capital depreciation allowances), offsetting at least to some extent the effects of the reductions in the statutory rates that most of the Member States implemented in the period 1995 to 2001.
26. With the slowdown in economic growth and deteriorating stock market performance in 2001, a decline in the ITR on capital income is already discernible in some countries. However, if the structural changes in the distribution of income continue, it seems unlikely that this indicator will decline to the level that was observed at the beginning of the latest upswing.

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## Introduction

The publication ‘Structures of the taxation systems in the European Union’ presents time series of tax revenue data from national accounts for the fifteen Member States. It provides a breakdown of taxes according to different classifications: by types of taxes (direct taxes, indirect taxes, social contributions), by levels of government, and by economic functions (consumption, labour, capital). It also compiles data for the sub-group of environmental taxes.

The breakdown of tax revenue data computed in percentage of GDP provides indicators of the tax burden and the structure of taxation in the different Member States as well as developments over time. The interpretation of the tax-to-GDP ratio as an indicator for the tax burden requires additional information. A step in this direction is to use the economic classification of taxes and to compute implicit tax rates for each category. The implicit tax rate for each category is defined as the ratio of aggregate tax revenues to the corresponding income in the economy or the kind of economic activity that could potentially be taxed. Implicit tax rates measure the average effective tax burden for the economic categories<sup>1</sup>.

Most of the data presented in this publication are directly available from the national accounts provided by Member States to Eurostat. This is the case for total taxes and the breakdown of taxes by levels of government. The related definitions are given in the regulation for the “European System of Accounts”<sup>2</sup>. The breakdown by types of taxes is an aggregation of the common national account categories of taxes. However the economic classification of taxes is not standard and is computed specifically for the publication ‘Structures of the taxation systems in the European Union’. It relies on more detailed tax revenue data provided by the Member States in addition to the standard data required for EU national accounts. The corresponding implicit tax rates require additional assumptions and calculations. Tax departments in the Member States have in particular helped to produce the data required for these computations. The publication gives a comprehensive overview of the methodology and data used for this purpose. Environmental taxes have also been compiled in this framework. However, Eurostat has published the underlying methodology separately<sup>3</sup>.

This edition of the publication ‘Structures of the Taxation Systems in the European Union’ incorporates a number of changes and extensions compared to the 2000 edition<sup>4</sup>:

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<sup>1</sup> Implicit tax rates are aggregate ‘backward-looking’ measures. Other methods to compute average effective tax burdens also exist, such as so-called ‘micro forward-looking’ methods (i.e. based on the tax legislation) and ‘micro backward-looking’ methods (*e.g.* based on financial statement data of companies). Each method has its own merits and demerits as well as different aims; there is not a single preferred methodology (see also OECD 2000; Nicodeme 2001).

<sup>2</sup> European Commission(1996)

<sup>3</sup> European Commission (2001b)

<sup>4</sup> European Commission (2000b)

- An important change is the switch to the new European System of accounts (ESA95) which, apart from providing new estimates of national accounts aggregates, opens new areas for the investigation of taxation issues: national accounts are more harmonised and more detailed than in the past, allowing to improve the definition of the tax base and to decompose implicit tax rates further by type of taxpayer (households/corporations). National accounts are also more comprehensive, providing in the future extensions such as asset accounts.
- There are other important changes compared to the previous edition from 2000. In particular, a new classification of taxes according to economic functions, which draws on the new harmonised definition of taxes adopted in the ESA95. A new methodology for the implicit tax rate on capital has been implemented. Capital taxes are no longer a residual category and are defined in a broad sense, with a distinction between taxes on capital income and capital stocks (or their transaction) that result from savings and investment in the overall economy.
- Moreover the methodology to split the personal income tax between capital, labour and other sources of income has been significantly improved by the use of micro tax return data and income tax statistics by national tax departments.
- A first investigation of the factors underlying the developments in the tax burden: the empirical analysis aims at identifying the impact of macroeconomic changes on the tax base, effects of tax reforms and changes in the tax legislation. It includes a comparison of implicit tax rates with other tax burden indicators for labour.

This edition of the publication ‘Structures of the taxation systems in the European Union’ covers the period 1995-2001. This period corresponds to the years for which national accounts data is available in the new European System of Accounts (ESA95) format for all Member States. For the reasons mentioned above, these data are not comparable to the data 1970-1997 published in the last edition.

The publication is divided into three parts. Part I describes the tax revenue data available in national accounts and reviews major trends between 1995 and 2001. Part II presents the economic classification of taxes, the methodology for the implicit tax rates and a comparison of implicit tax rates between Member States over the period 1995-2001. Part III includes country chapters. It describes, for each Member State, the 1995-2001 trends in the overall tax burden and structures of taxes as well as tax policy changes in the period. The country presentation is based on a standard table presenting the data in 4 blocks: A-Structure of revenues as % of GDP; B-Structure according to level of government as % of GDP; C-Structure according to economic function as % of GDP, including the sub-group of environmental taxes; D-Implicit tax rates.

Annex A presents the same data organised differently: each table presents a single tax category, in % of GDP or in % of total taxes, or an implicit tax rate, for all years and all Member States together with an EU average. Annex B gives an exhaustive list of detailed taxes that were sent by the Member States and their allocation to the different economic functions and environmental tax categories. Annex C presents further explanatory notes for the data presented in the country chapters in part III. Annex D provides a more detailed description of the methods employed by the national tax departments in the Member States to split the revenue of the personal income tax between labour, capital and other sources of taxable income.

## Part I Overview of taxation in the EU

Chapter 1 reviews the main definitions of tax revenue data in national accounts and the main implications of the switch to the new European system of accounts. Chapter 2 presents the 1995-2001 trends in the tax structures and the tax-to-GDP ratio in the Member States.

### 1. CALCULATING TAX INDICATORS IN NATIONAL ACCOUNTS

The Commission Services are frequently required to carry out comparative assessments of the tax systems, not only for the purpose of the internal market based EU tax policy but also in the perspective of co-ordination of economic policies in a broader sense. In recent years, the European Council and the Commission have put special emphasis on the need for reducing the tax burden on labour as part of the guidelines of the European Employment Strategy. The monitoring of tax revenues at the EU level has also become more systematic in the framework of the Growth and Stability Pact. The assessment and monitoring of the structures of the taxation systems and the various tax reforms in the European Union call for a reliable, coherent and up-to-date system of tax indicators representing the structures of the various tax systems in the European Union.

The publication ‘Structures of the Taxation Systems in the European Union’ assesses the tax burden in the EU by comparing tax revenues in the Member States. Tax revenues are classified in different groups, such as direct or indirect taxes, or by level of government that ultimately receives the taxes. These technical classifications, though usual, are hard to interpret in economic terms. Therefore, the Commission Services also apply a classification according to three so-called ‘economic functions’, i.e. consumption, labour and capital. This is one way of showing the kind of economic activity or type of income on which Member States levy taxes.

#### 1.1. National Accounts Framework

National accounts satisfy the criteria of reliability, coherence and up-to-date information set out above. They are increasingly used in EU policy making (own resources for the EU budget, allocation of Cohesion and Structural Funds, Stability and Growth Pact). They provide time series for observing changes in the overall effective tax burden and a coherent framework for matching tax revenues with income flow data and economic aggregates. The average effective tax burden indicators derived from national accounts are backward looking aggregate measures.

##### 1.1.1. *General approach*

The publication ‘Structures of the taxation systems in the European Union’ follows a top down approach to assess the economic incidence of the overall tax system. Total taxes in percentage of GDP reflect national preferences for the financing of public goods. The breakdown of taxes into taxes on consumption, labour and capital gives an indication of the link between fiscal performance and the main growth and income distribution parameters relevant for taxation. Implicit tax rates for consumption, labour and capital measure the actual or effective average tax burden levied on different types of economic income or activities. In this framework capital is defined in a broad



sense, encompassing all private sector investment and saving activities<sup>1</sup>. The implicit tax rates give some further insights but their economic interpretation is still not straightforward. In particular they do not measure the final incidence of taxes that can be shifted from one activity to another through behavioural effects. National accounts provide a consistent framework to compare economic functions and to match income and tax revenue data. However it should be kept in mind that the tax base derived from national accounts does not correspond to the actual tax base for taxes. There is no definition of the concept of tax base - as such - in National accounts, yet National accounts are in some ways narrower (omitting capital gains for capital, for instance) and in others they are broader (excluding some deductions from the tax base). Implicit tax rates differ from other calculations of effective tax rates, which, using tax legislation, simulate the tax burden generated by a given tax and can be linked to individual behaviour. But such so-called ‘forward-looking’ effective rates do not allow comparison of the tax burden implied by different taxes. Neither do they allow the identification of any shift in the taxation of different economic income and activities. At the EU level, implicit tax rates featured in the debate on taxation of capital and labour.

An advantage of the publication ‘Structures of the taxation systems in the European Union’ is the international comparability due to the consistency and harmonised computation of ESA95 national accounts data by the Member States of the European Union. Tax revenue data in national accounts rely on a common classification and registration method.

### 1.1.2. *Switch to ESA95*

The ESA95<sup>2</sup> is a major step forward in getting harmonised and more detailed national accounts for the EU and their Member States. However, it introduces substantial changes, implying in particular that data in this publication are not fully comparable with those in previous editions based on ESA79. Changes in the methodology and definitions of the aggregates come in addition to the changes related to new data sources. Some changes are across the board, such as the application of the accruals accounting rule. Other changes affect specific GDP/GNP components and the related accounts of the institutional sectors. Twenty-three conceptual changes from ESA79 to ESA95 which affect GDP or GNP have been introduced. Box 1 gives an overview of these conceptual changes. At the aggregate level of the economy, the changes tend to offset each other. But the overall effect is a slight upward revision of GDP figures, by slightly less than 2 percentage points for the years for which the data are available in the two ESA systems (Table I-1). It affects all components of final demand. In particular gross formation of fixed capital has been extended to computer software, military equipment that can be used for civilian purpose, with originals in the field of entertainment, literature and arts now being considered as assets. Consumption, in particular government consumption, which now includes the depreciation of all public infrastructures, also increases.

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<sup>1</sup> Capital income includes income from corporate and unincorporated businesses, property and financial savings by households. Capital taxes include taxes on income, plus taxes on wealth.

<sup>2</sup> A comprehensive description of the system is available in European Commission (1996).

### Box 1 Main changes in ESA95 affecting the overall GDP/GNP

23 conceptual changes from ESA79 to ESA95 which affect GDP or GNP have been introduced<sup>3</sup>:

- 1. Residence criteria
- 2. Financial intermediation services indirectly measured (Fisim)
- 3. Insurance
- 4. Direct investment earnings
- 5. Interest income
- 6. Cultivated natural growth of plants
- 7. Computer software and large database
- 8. Military equipment and vehicles, other than weapons
- 9. Work in progress on services
- 10. Mineral exploration expenditures
- 11. Consumption of fixed capital on roads, bridges, etc.
- 12. Government licences and fees
- 13. Valuation of output for own final use and output from voluntary activity
- 14. Value threshold for capital goods
- 15. Market/non-market criteria
- 16. Subsidies
- 17. Entertainment, literary and artistic originals
- 18. Services associated with the license to use entertainment, literary and artistic originals
- 19. Garages
- 20. Car registration taxes paid by households
- 21. Wages and salaries in kind
- 22. Licences for the use of intangible non-produced assets
- 23. Stamp taxes

A preliminary assessment by EUROSTAT enables to quantify the overall impact of these changes and of new statistical sources on GDP and its components.

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<sup>3</sup> The changes from ESA79 to ESA95 are described in European Commission (1997).

Box 1 Continued

Table I-1 Differences between ESA95 and ESA79 in %, 1995							
	GDP			Final consumption expenditure	Gross capital formation	Exports	Imports
	Total	Concepts	Statistical sources and other elements				
EUR-11	+ 1.9	-	-	+ 1.1	+ 7.2	+ 2.5	+ 4.1
EU-15	+ 2.00	-	-	+ 1.1	+ 7.2	+ 2.2	+ 3.4
B	+ 0.8	+ 1.6	- 0.8	- 2.00	+ 14.3	+ 5.7	+ 6.6
D	+ 6.4	+ 4.1	+ 2.3	+ 4.3	+ 17.1	+ 5.3	+ 5.8
DK	+ 2.3	+ 1.1	+ 1.2	+ 1.3	+ 6.4	+ 5.1	+ 5.5
EL	-	-	-	-	-	-	-
E	+ 4.4	+ 1.5	+ 2.9	+ 3.2	+ 10.3	- 0.6	+ 0.6
F	+ 1.2	+ 0.2	+ 1.0	+ 1.2	+ 6.7	- 3.2	+ 1.00
IRL	+ 0.2	- 3.0	+ 3.2	+ 5.1	+ 5.8	+ 0.3	+ 6.9
I	+ 0.9	+ 1.7	- 0.8	- 0.4	+ 7.0	- 1.7	- 1.5
L	-	-	-	-	-	-	-
NL	+ 4.1	+ 3.3	+ 0.8	+ 2.7	+ 13.7	+ 12.8	+ 15.8
A	-	-	-	-	-	-	-
P*	+ 1.9	-	-	+ 0.3	+ 3.8	+ 0.9	- 1.2
FIN*	+ 2.1	-	-	+ 0.5	+ 12.9	+ 1.0	+ 2.2
S	+ 3.4	+ 2 to + 2.5	+ 1 to + 1.5	+ 1.8	+ 11.1	+ 1.6	+ 1.1
UK	+ 1.6	+ 0.8	+ 0.8	+ 1.0	+ 4.9	+ 0.0	+ 0.0

\* In the case of Portugal and Finland, it was not possible to calculate accurately the causes of the change. In Finland however, the main impact is due to concepts.  
Source: European Commission (1999)

Though small at the GDP level, the differences between ESA79 and ESA95 do not make the data fully comparable. No attempt has been made at this stage to link the long time series 1970-1997 in ESA79 to the most recent ESA95 series, which do not include taxation data before the nineties for most of the Member States. This edition presents series for the 1995-2001 period.

1.2. Classification of taxes

The publication ‘Structures of the taxation systems in the European Union’ is based on a standard classification of taxes, splitting taxes into direct, indirect taxes and social contributions and a classification by levels of government. The ESA95 has broadly kept the classification of taxes that prevailed under the ESA79.

Box 2 gives the breakdown of taxes that Member States have agreed to provide on a harmonised basis and the codes used in ESA95. This represents the smallest common denominator for tax data availability and national statistical offices provide more detail on individual taxes<sup>4</sup>.

### 1.2.1. *Classification of taxes by type of taxes and level of government*

Indirect taxes are defined as taxes linked to production and imports (D2), i.e. as compulsory levies on producer units in respect of the production or importation of goods and services or the use of factors of production. It includes VAT, import duties, excises and other specific taxes on services (transport, insurance etc.) and on financial and capital transactions. It also includes taxes on production (D29) defined as ‘taxes that enterprises incur as a result of engaging in production’, such as professional licences, taxes on land and building and payroll taxes.

Direct taxes are defined as current taxes on income and wealth (D5) plus capital taxes including taxes such as inheritance or gift taxes (D91). Income tax (D51) is a sub-category, which includes personal income tax (PIT) and corporate income tax (CIT) as well as capital gain taxes.

Social contributions (D611) are divided into contributions paid by employers, social contributions paid by employees and social contributions paid by self-employed and non-employed persons. In this publication they correspond only to compulsory actual social contributions, thus excluding the imputed social contributions, which correspond to social insurance schemes provided by employers that are not funded<sup>5</sup>.

The publication ‘Structures of the taxation systems in the European Union’ provides also a split according to the government level that ultimately receives the tax revenues. A distinction is made between central government, local government, social insurance funds and institutions of the European Communities. In ESA95, a new distinction has become available for state government (regions).

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<sup>4</sup> Annex B provides for each Member State the list individual taxes that Member States have agreed to provide on a voluntary basis, and shows how the individual taxes have been allocated for the economic classification of taxes and for the environmental taxes.

<sup>5</sup> Eurostat has defined, in 2001, four indicators for the measurement of general government and European Union levies, in order to reflect the institutional differences that exist across the Member States. The definition of the social contributions that is chosen for this publication corresponds to the OECD tax revenue statistics approach. The circumstances in which voluntary social contributions are paid vary considerably, reflecting differences in legislation across Member States. The most frequent cases are the purchase of ‘extra years’ for pensions and the wish to complete a gap in the social contributions (*e.g.* for work abroad). It should be noted that the compulsory actual social contributions include contributions which are actually voluntary from a legal point of view, but which could in fact be considered compulsory for most workers. In Denmark, for example, the unemployment insurance contributions are classified as compulsory reflecting the economic reality although they are legally voluntary. The inclusion or exclusion of imputed social contributions is rather controversial. Some would argue that imputed contributions are not actually levied as such, whereas others tend to argue that their inclusion would ensure a better comparability over time and across Member States. In Italy, for example, a new social security fund was introduced in 1996 for general government employees, which replaced an unfunded scheme. This transition involved large shifts from imputed to actual contributions, without any substantial change for public employees and employers, as the levels of compensation of employees and benefits remained unchanged.

**Box 2 Schematic presentation of ESA95 classification of taxes and social contributions**

<p><b>TRD2</b></p> <p>TRD21</p> <p>TRD211</p> <p>TRD212</p> <p>TRD2121</p> <p>TRD2122</p> <p>TRD2122A</p> <p>TRD2122B</p> <p>TRD2122C</p> <p>TRD2122D</p> <p>TRD2122E</p> <p>TRD2122F</p> <p>TRD214</p> <p>TRD214A</p> <p>TRD214B</p> <p>TRD214C</p> <p>TRD214D</p> <p>TRD214E</p> <p>TRD214F</p> <p>TRD214G</p> <p>TRD214H</p> <p>TRD214I</p> <p>TRD214J</p> <p>TRD214K</p> <p>TRD214L</p> <p>TRD29</p> <p>TRD29A</p> <p>TRD29B</p> <p>TRD29C</p> <p>TRD29D</p> <p>TRD29E</p> <p>TRD29F</p> <p>TRD29G</p> <p>TRD29H</p> <p><b>TRD5</b></p> <p>TRD51</p> <p>TRD51A</p> <p>TRD51B</p> <p>TRD51C</p> <p>TRD51D</p> <p>TRD51E</p> <p>TRD59</p> <p>TRD59A</p> <p>TRD59B</p> <p>TRD59C</p> <p>TRD59D</p> <p>TRD59E</p> <p>TRD59F</p>	<p><b>Taxes on Production and Imports</b></p> <p>Taxes on Products</p> <p>Value added type taxes (VAT)</p> <p>Taxes and duties on imports excluding VAT</p> <p>Import duties</p> <p>Taxes on imports exc. VAT and import duties</p> <p>Levies on imported agricultural products</p> <p>Monetary compensatory amounts on imports</p> <p>Excise duties</p> <p>General sales taxes</p> <p>Taxes on specific services</p> <p>Profits of import monopolies</p> <p>Taxes on products, except VAT and import taxes</p> <p>Excise duties and consumption taxes</p> <p>Stamp taxes</p> <p>Taxes on financial and capital transactions</p> <p>Car registration taxes</p> <p>Taxes on entertainment</p> <p>Taxes on lotteries, gambling and betting</p> <p>Taxes on insurance premiums</p> <p>Other taxes on specific services</p> <p>General sales or turnover taxes</p> <p>Profits of fiscal monopolies</p> <p>Export duties and monetary comp. amounts on exports</p> <p>Other taxes on products n.e.c.</p> <p>Other taxes on production</p> <p>Taxes on land, buildings and other structures</p> <p>Taxes on the use of fixed assets</p> <p>Total wage bill and payroll taxes</p> <p>Taxes on international transactions</p> <p>Business and professional licenses</p> <p>Taxes on pollution</p> <p>Under-compensation of VAT (flat rate system)</p> <p>Other taxes on production n.e.c.</p> <p><b>Current taxes on income, wealth, etc.</b></p> <p>Taxes on income</p> <p>Taxes on individual or household income</p> <p>Taxes on the income or profits of corporations</p> <p>Taxes on holding gains</p> <p>Taxes on winnings from lottery or gambling</p> <p>Other taxes on income n.e.c.</p> <p>Other current taxes</p> <p>Current taxes on capital</p> <p>Poll taxes</p> <p>Expenditure taxes</p> <p>Payments by households for licenses</p> <p>Taxes on international transactions</p> <p>Other current taxes n.e.c.</p>
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**Box 2 Continued**

<p><b>TRD91</b> TRD91A TRD91B TRD91C</p> <p><b>TRD611</b> TRD6111 TRD61111 TRD61112 TRD6112 TRD61121 TRD61122 TRD6113 TRD61131 TRD61132</p>	<p><b>Capital taxes</b> Taxes on capital transfers Capital levies Other capital taxes n.e.c.</p> <p><b>Actual social contributions</b> Employers' actual social contributions Compulsory employers' actual social contributions Voluntary employers' actual social contributions Employees' social contributions Compulsory employees' social contributions Voluntary employees' social contributions Social contributions by self- and non-employed persons Compulsory contributions self- and non-employed persons Voluntary contributions by self and non-employed persons</p>
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*1.2.2. Impact of the switch to ESA95 on tax revenues*

The classification of taxes in the new ESA95 is broadly speaking in line with the classification derived from ESA79. However some changes affect the data. Three main sources of change have been identified: first and foremost, the switch to the accrual principle, the treatment of some levies such as stamp duties and the car registration tax, and a reclassification of some social contributions which are no longer considered as part of the general government. Preliminary estimates of the impact of the change show that on major aggregates, the impact of the switch to ESA95 is limited. The overall result is a reduction in the tax burden measured as total taxes in percentage of GDP by 1 percentage point in 1995.

**Table I-2 Taxes and social contributions**  
1995, in % of GDP

ESA79						ESA95					
ESA codes	Taxes linked to production and imports (R20)	Income and wealth taxes (R61)	Capital taxes (R72)	Social contributions (R62)	Total		Taxes linked to production and imports (D2)	Inc. and wealth taxes (D5)	Capital taxes (D91)	Social contributions (D611)	Total
<b>EU-15</b>	12.7	13.1	0.3	15.1	<b>41.2</b>	<b>EU-15</b>	12.7	12.6	0.3	14.4	<b>40.0</b>
<b>EU-11</b>	12.4	12.0	0.3	16.8	<b>41.5</b>	<b>EU-11</b>	12.5	11.5	0.3	16.1	<b>40.4</b>
<b>B</b>	11.2	18.0	0.4	15.4	<b>45.0</b>	<b>B</b>	12.2	16.7	0.4	14.8	<b>44.1</b>
<b>D</b>	12.0	11.4	0.1	18.4	<b>41.9</b>	<b>D</b>	11.4	11.2	0.1	17.7	<b>40.4</b>
<b>DK</b>	17.2	31.3	0.2	1.6	<b>50.3</b>	<b>DK</b>	16.9	30.4	0.2	1.6	<b>49.1</b>
<b>EL</b>	-	-	-	-	-	<b>EL</b>	13.5	7.4	0.3	10.5	<b>31.7</b>
<b>E</b>	9.8	11.1	0.2	12.4	<b>33.5</b>	<b>E</b>	10.2	10.1	0.3	12.0	<b>32.6</b>
<b>F</b>	14.3	9.6	0.6	19.4	<b>43.9</b>	<b>F</b>	15.4	8.5	0.6	18.7	<b>43.2</b>
<b>IRL</b>	13.6	13.8	0.1	5.1	<b>33.1</b>	<b>IRL</b>	13.5	13.7	0.1	5.1	<b>32.4</b>
<b>I</b>	11.8	14.8	0.5	13.1	<b>42.8</b>	<b>I</b>	12.1	14.7	0.6	13.0	<b>40.4</b>
<b>L</b>	-	-	-	-	-	<b>L</b>	-	-	-	-	-
<b>NL</b>	11.7	13.1	0.3	19.0	<b>44.1</b>	<b>NL</b>	10.7	12.4	0.3	16.0	<b>39.4</b>
<b>A</b>	14.6	12.2	0.0	15.5	<b>42.3</b>	<b>A</b>	14.2	12.0	0.0	15.2	<b>41.4</b>
<b>P</b>	14.0	9.3	0.1	11.3	<b>36.0</b>	<b>P</b>	14.8	9.3	0.1	10.2	<b>34.4</b>
<b>FIN</b>	13.2	17.2	0.2	14.9	<b>45.5</b>	<b>FIN</b>	13.1	17.5	0.2	14.7	<b>45.5</b>
<b>S</b>	13.6	21.6	0.1	14.0	<b>49.3</b>	<b>S</b>	13.8	21.3	0.1	13.7	<b>48.9</b>
<b>UK</b>	13.3	15.3	0.2	7.2	<b>36.0</b>	<b>UK</b>	13.2	15.0	0.2	6.8	<b>35.2</b>

NB: the column 'total' does not correspond to the total of the sum of taxes and charges.

Source: C. Ravets & C. Hublard (2000).

The impact of the switch to the accrual principle is difficult to predict. The ESA95 system applies a full accrual principle, implying that transactions are recorded when the underlying economic event/transaction takes place rather than when the payment is made (cash-based time of recording principle). Transforming cash registered transactions into accrued transactions is not straightforward. This applies in particular to taxes and other flows concerning the general government, which are often recorded on a cash basis in government accounts. Taxes and social contributions in national accounts are based on assessments and declarations or cash receipts.

In the first case, accrual amounts are adjusted by a coefficient reflecting assessed amounts that are never collected, or alternatively, by a capital transfer to the relevant sector equal to the same adjustment<sup>6</sup>. In the second case, the cash receipts are ‘time-shifted’ so that the cash amount is attributed when the activity that generated the tax liability took place. The latter method works well for taxes that are collected at predictable (and fairly short) intervals, such as value added tax and social contributions. However, some taxes are only collected several months, or even years, after the time when the liability arose, such as corporate income taxes which allow for a carry over of losses over several years. In that case it is necessary to estimate the amounts that are never collected. It is hard to assess if these time shifts have an effect on the level of GDP (through taxes on production and imports) and generally on taxes and social contributions. EUROSTAT is currently co-operating with the national statistical offices to get a full picture about the application of the full accrual principle. Some statistical offices are still working on refinements to their approach in this area.

ESA95 has adopted a slightly more restrictive definition of taxes as a result of the revision of the measurement of non-market services. Some licences or fees are now considered as payments for government services: for instance licences, if they are attached to any check of quality or safety standards by the government, or levies, as a counterpart for public services such as waste collection, are no longer recorded as tax revenue. This reduces marginally both indirect taxes and also direct taxes for licences paid by households.

The decrease in indirect taxes might be offset by the treatment of the car registration taxes and stamp duties paid by households. In ESA79 taxes linked to production were specifically limited to taxes paid by producer units. Therefore car registration taxes and stamp duties paid by households were by default often registered under other transfers. This is no longer the case in ESA95 and both are part of the aggregate taxes on products (D214).

ESA95 has also reclassified some social security funds, previously part of the general government, as financial corporations. This change implies a reduction in social contributions received by the government compared to the previous system. Table I-2 shows nearly everywhere a slight reduction in the weight of social contributions in percentage of GDP. It is particularly important in the Netherlands, where the change amounts to 3 percentage points of GDP and will significantly affect the measure of the tax burden on labour in this edition.

Finally, several transactions of the government are now recorded on a net instead of a gross basis. This implies that transactions that were previously recorded both as receipts and expenditures of national governments are now only booked as a balance. For example, tax receipts that are transferred from national governments to the European Union are no longer considered as tax receipts of national governments. This leads to a statistical reduction of total tax receipts of the government in the Member States. It does not affect the data presented in this publication, which are based on totals including the European Union.

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<sup>6</sup> European Commission (2001).



The ESA95 is bringing major improvements with respect to harmonisation of definitions and registration rules for national accounts, as well as for tax revenues. These changes have a relatively limited impact on large aggregates such as GDP or the overall tax to GDP ratio. Specific cases call for qualifications: the new system implies substantial upward revisions for investment, or the exclusion of some social contributions in a country like the Netherlands, which have a strong impact on the measure of the tax burden. All in all, it has been possible to keep the standard format used in the publication ‘Structures of the Taxation System in the European Union’. However, given the conceptual changes incorporated in ESA95, no link between the ESA79 1970-1995 and ESA95 data has been established and this edition focuses on 1995-2001 data<sup>7</sup>.

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<sup>7</sup> Even if the changes have a limited impact on the levels of most aggregates, their development in time might deviate substantially due to new methodological concepts and definitions.

## 2. TAX STRUCTURES AND RECENT DEVELOPMENTS

### 2.1. Total tax burden

The political pendulum of the second half of the 1990s has been in favour of reducing taxes in proportion to the size of the economy. But while the data for the most recent years point downwards in a number of Member States, the EU average overall tax burden in the Union (EU15, GDP weighted) has continued to rise since 1995, although it is stabilising in recent years. In the publication ‘Structures of the taxation systems in the European Union’, the overall tax burden is measured as the total amount of taxes and compulsory actual social contributions as a percentage of GDP<sup>1</sup>. The average tax-to-GDP ratio in the European Union rose from 40.8 percent in 1995 to around 41.8 and 41.7 percent in 1999 and 2000, which is still some 12 and 15 percentage points of GDP above that recorded in the United States and Japan, respectively (Graph I-2.1)<sup>2</sup>. The 2001 figures indicate a decline in the average tax-to-GDP ratio to around 41 percent. The tax-to-GDP ratios for the individual Member States and all years are given in annex A.

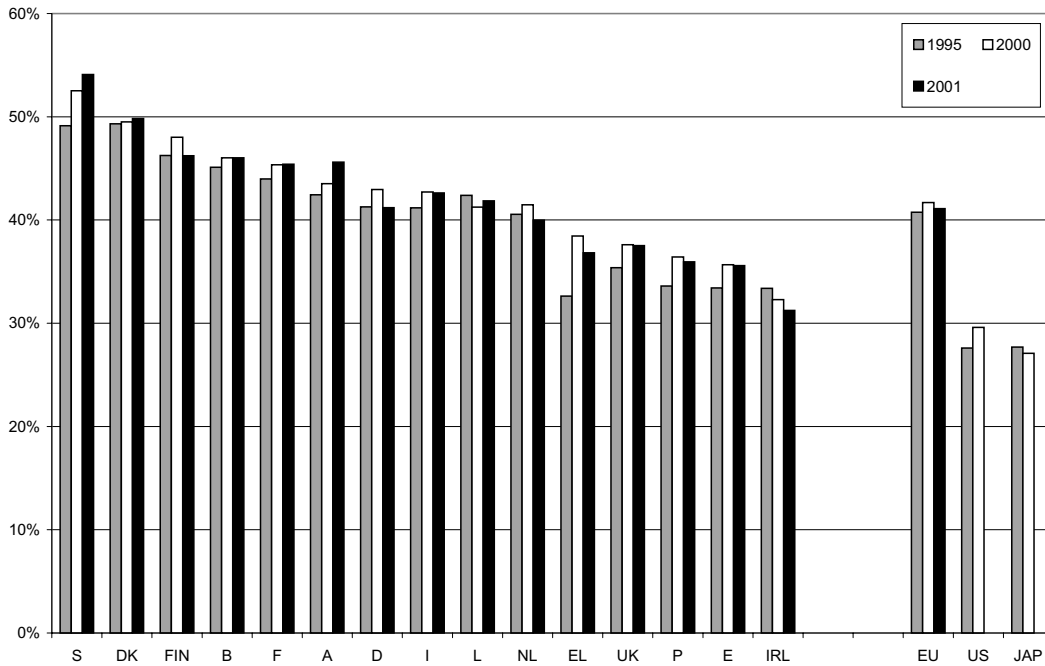
Seen over the entire period, most Member States appear to have witnessed an increase in the tax-to-GDP ratio. A quite significant increase in the overall tax burden between the years 1995 and 2001 can be observed in Greece (4.2 percentage points), Austria (3.2 percentage points), and Sweden (5.0 percentage points). The only Member States who seem to have succeeded to decrease the overall tax burden between 1995 and 2001 are Germany, the Netherlands, Luxembourg, Ireland and Finland, although generally not by substantial amounts. The largest reduction in the tax-to-GDP ratio is visible for Ireland (-2.1 percentage points).

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<sup>1</sup> The tax-to-GDP ratio is an indicator that is widely used to measure the overall tax burden. However, this indicator has certain limitations as a comparative tax burden measure across Member States and over time. Among the factors which can affect the level and trend of the tax-to-GDP ratios are the extent to which Member States provide social or economic assistance via tax expenditures, rather than direct government spending, and whether or not social transfers are subject to taxes and social contributions. In many cases, taxes raised on social transfers are not so much real taxes, but rather a special way of calculating a certain net transfer, in order to achieve an equal treatment of taxable income sources and to avoid high marginal effects. Countries with a relatively high tax-to-GDP ratio generally also have higher taxes on social transfers than other countries. Adema (2000), for example, estimated that in 1995 taxes and social contributions on transfers exceeded 5 per cent of GDP in Denmark, Finland and Sweden and also in the Netherlands. They did not exceed 2 per cent of GDP in Germany and Belgium and were even lower in Ireland, the United Kingdom. It should furthermore be recognised that Member States’ positions may vary according to the charges that are taken into account. This is especially important as regards the inclusion or the exclusion of certain social contributions. It should, for example, be noted that, as a result of the transition from ESA79 to ESA95 classification of National Accounts, the level of recorded social contributions in the Netherlands has substantially declined. Some social arrangements provided by employers through labour contracts, for example, are not considered to belong to the Dutch government anymore. In the late 1980s and the early 1990s the Netherlands was still reported to consistently belong to the group of jurisdictions with the highest tax burden in the Union.

<sup>2</sup> The tax-to-GDP ratios in the European Union generally exceed those elsewhere in OECD countries. Outside Europe, only Australia, Canada and New Zealand have tax ratios above 30 per cent of GDP. See OECD (2002a).

**Graph I-2.1 Tax to GDP ratio in EU countries and the US and Japan**  
1995, 2000 and 2001, in %



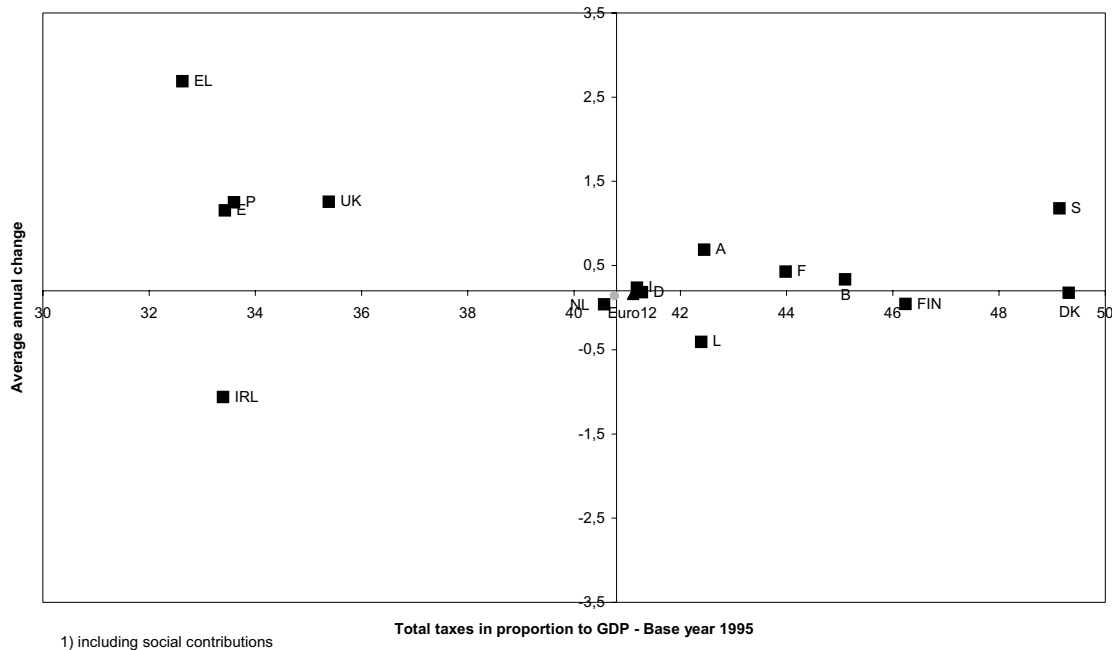
Source: Commission services for the EU countries, and OECD (2002a) for the US and Japan. The 2001 figures for the US and Japan were not yet available at the time of writing this publication.

Graph I-2.2 displays the (estimated) average annual changes in the tax-to-GDP ratios between 1995 and 2001 in percentage points of GDP in comparison to the original levels in the base year 1995. The values of the x- and y-axis in this graph cross at the 1995 level and the (estimated) average annual change in the average tax-to-GDP ratio between 1995 and 2001, respectively (40.8 percent, 0.1 percentage points respectively). These figures do not reveal a very clear pattern. On the one hand, traditionally low-tax countries such as the United Kingdom, Spain, Portugal and Greece appear to have faced an increase in the overall tax burden since 1995 (which can partly be attributed to the fiscal consolidation process in the run-up to EMU). Ireland, however, stands out for having witnessed the relatively largest reduction in the overall tax burden while being a low-tax country (Ireland witnessed budgetary surpluses since 1997). Relatively high-tax countries, on the other hand, such as Belgium, France and Sweden, have also faced an increase in the overall tax burden, although not always by large amounts. Denmark and Finland are the only high-tax countries where the overall tax burden remained more or less stable between 1995 and 2001. Overall, the figures suggest that the tax ratios of the individual Member States have not moved closer to the EU average<sup>3</sup>. They are

<sup>3</sup> Alternative convergence indicators have increased between 1995 and 2001: the ratio of the standard deviation and mean increased from 14.1% to 14.7%; the standard deviation increased from 5.7 to 6.0; and the differences between the maximum and the minimum ratio increased from 16.7 percentage points to 22.9 percentage points. Cnossen (2001) reports convergence of the tax ratios over the period 1970-2000. In particular, in Greece, Portugal and Spain the rate of increase in the tax ratio greatly exceeded those of other Member States.

currently relatively high in Belgium, Denmark, Finland and Sweden, whereas they are relatively low in Greece, Spain, Ireland, Portugal and the United Kingdom.

**Graph I-2.2 Level in 1995 and change of tax-to-GDP ratio<sup>1)</sup> until 2001**  
in %



Source: Commission services.

The relatively high tax-to-GDP ratios that we generally observe today are to a large extent the result of the persistent and largely unbroken<sup>4</sup> upward trend in the tax burden in the 1970s, and to a lesser extent also in the 1980s and early 1990s<sup>5</sup>. This long-run increase in the overall tax burden is closely related to the growing share of the public sector in the economy. Taxes and social contributions have been raised in order to finance increasing government spending and, in particular, labour taxes appear to have been steadily rising in order to finance social welfare commitments, especially as regards to pensions, health care, education and other social benefits. The rise in unemployment also acted as a main underlying pressure to increase taxes in most EU countries between 1970 and the early 1990s<sup>6</sup>.

<sup>4</sup> Some marked decreases have occurred in single years, for example in 1994 as a result of the severe recession in 1993.

<sup>5</sup> European Commission (2000a) reports a long-run increase of 11 percentage points in the Euro area between 1970 and 1999, compared with a relatively small increase of 2.5% of GDP recorded in the United States. Similar differences are reported in OECD (2002d).

<sup>6</sup> Differences in the tax burdens are also mostly related to the weight of the public sector in the economy. The amount of net social expenditure in the US, for example, is at less than 18% of GDP significantly lower than in most Member States (cf. Adema (2000)). European Commission (2000a) presents a number of causality tests. Between 1970 and 1999, almost 75% of the changes in the tax burden in EU Member

Since the early 1990s, the Maastricht criteria of 1992 and later also the Stability and Growth Pact have created a framework in which Member States have implemented fiscal consolidation efforts. In a number of Member States the process of consolidation relied primarily on restricting and/or scaling back primary public expenditures (*e.g.* by cutting or postponing public investment) and/or even (temporarily) increasing taxes. Meeting the EMU criteria and in particular reducing the overall debt-to-GDP ratio has also ruled out any major tax cuts in the run-up to the EMU for some Member States.

Only in the late 1990s, a number of Member States appear to have taken advantage of buoyant tax revenues to reduce the tax burden, most notably through personal income tax and social contributions, but also through corporate income tax. However, on average the overall tax burden appears to have decreased only slightly. One reason why the recent tax cuts do not show up (more) clearly in the figures is that the economic upswing of the late 1990s may have lifted the measured overall tax burden, even while substantial cuts in statutory tax rates have been implemented. For example, strong economic growth may have moved taxpayers into higher nominal income tax brackets ('bracket creep') in some Member States, resulting in higher real tax payments. Also, during the expansionary phase between 1995 and 2000, more companies moved from a loss making to a profit making position, and with diminishing loss-carry over they paid more corporate income tax during recent years. The current slowdown in EU-wide economic growth has arrested this trend and this could mean that the effect of any further tax reductions shows up in the years ahead<sup>7</sup>.

Another reason why the recent tax cuts are not clearly reflected in the tax-to-GDP figures is that a number of Member States have (partly) financed their tax rate cuts reducing allowable deductions against the taxable personal income, and/or by limiting special incentive schemes and tax allowances for depreciation of capital equipment in corporate income tax. In addition, a number of Member States have shifted the tax burden away from labour to other taxes, notably to indirect or 'green' taxes. It should furthermore be kept in mind that the tax revenue figures in National Accounts do not follow a real 'accrual principle'. According to the ESA95 guidelines, taxes and social contributions should be recorded when the underlying economic event/transaction takes place rather than when the actual tax payment is made. Personal- and corporate income taxes, for example, are typically levied on incomes accrued one year prior to most of the actual collection. However, most statistical offices in the Union in fact use 'time shifted' cash figures for a few months, and declare them as accrual<sup>8</sup>. This could mean that the expected effects of the recent tax reforms could be reflected in the figures with some delay.

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States, the US and Japan appears to be related to changes in public expenditure. Also, more than 40% of the changes in the average effective tax rate on labour appear to be associated with changes in current spending and over 70% of the cross-country differences in the effective rate in labour correspond to differences in the ratio of current transfers to GDP.

<sup>7</sup> See also OECD (2002c).

<sup>8</sup> Three Member States were given a temporary derogation up to 30 June 2002 (Portugal), 7 November 2002 (Spain) and 7 December 2002 (Denmark) in order to adapt their accounting systems to these requirements (Regulation N° 2516/2000, see European Commission (2001)). In statistical terms this may result in a downward revision of revenues by the new national accounts treatment of non-recoverable tax arrears.

With the EU-wide slowdown of economic growth that we observe today, the next batch of tax revenue figures could show the tax-to-GDP ratios declining. It should furthermore be kept in mind that the measures in the 1990s to restrict public spending may take time to show up in the tax ratios for some Member States. Of course, a number of Member States may still face increased overall tax burdens, while they continue the process of (fiscal) convergence in the European Union, and/or further develop their infrastructure and/or have to cope with higher costs of their social protection- and health care systems. It remains to be seen whether this results in any further pressure on higher taxes. In the longer term, population ageing will, in the absence of reforms, further raise spending on pensions and health care.

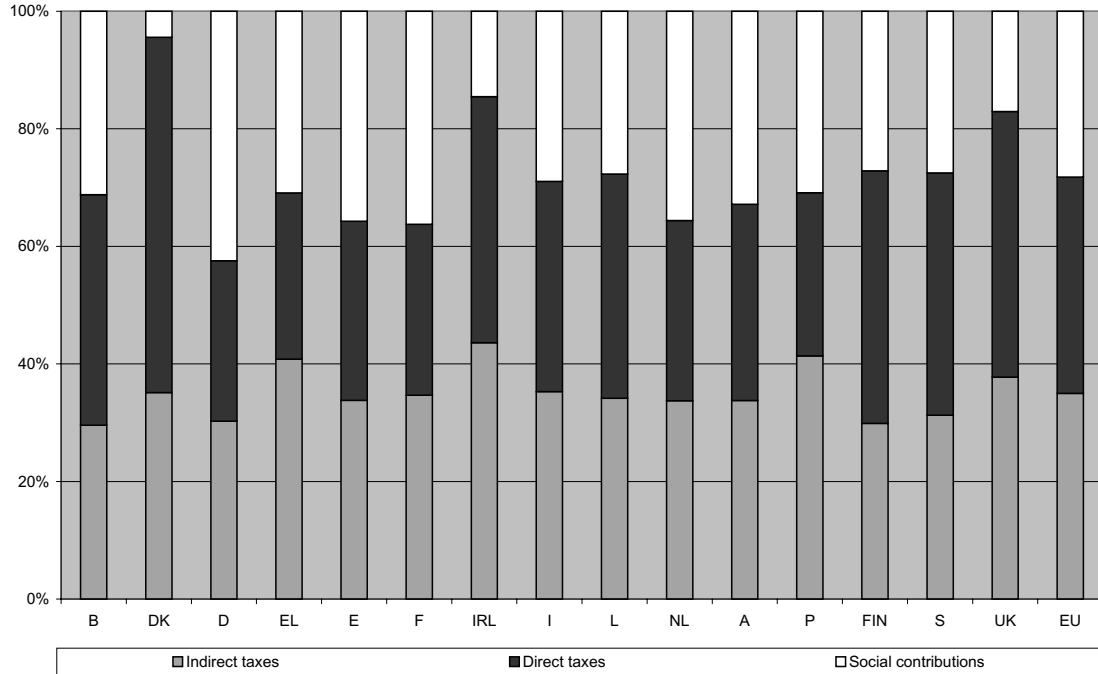
## 2.2. Tax structures

### 2.2.1. *By type of taxes*

The structure of the tax revenues by major type of taxes (*i.e.* direct taxes, indirect taxes and social contributions) is shown in Graph I-2.3. The EU average in this graph represents an arithmetic – rather than a weighted – average. Further information about the distribution of the overall tax burden among more detailed type of taxes (*e.g.* VAT, excise duties, personal and corporate income tax) can be found in part III, which describes the structures and developments in the individual Member States, and their relative positions.

There are some noticeable differences evident from Graph I-2.3. The Nordic countries (*i.e.* Sweden, Denmark and Finland) have relatively high shares of direct taxes in total tax revenues, whereas some southern countries (in particular, Portugal and Greece) have relatively high shares of indirect taxes compared to the EU (arithmetic) average. In Denmark and, to a lesser extent, also in the United Kingdom and Ireland the shares of social contributions to total tax revenues are relatively low compared to the EU (arithmetic) average. In Denmark, most welfare spending is financed out of general taxation. The share of direct taxation to total tax revenues in Denmark is in fact the highest in the Union. What also stands out, furthermore, is that Germany has the highest share of social contributions in the total tax revenues. Germany's share of direct tax revenues, on the other hand, is the lowest in the Union. France also has a relatively high share of social contributions and a corresponding relatively low share of direct tax revenues, compared to the EU average.

**Graph I-2.3 The structure of tax revenues by major type of taxes**  
2001, in % of total tax burdens



Source: Commission services

Since the mid-1990s, a number of Member States have implemented reforms to their tax systems. The reforms vary in coverage and depth, but they were often aimed at reducing the tax burden on labour, particularly at the low- to middle end of the pay scale (paragraph II-1.3), at achieving a general reduction in corporate income tax rates (whilst broadening the base) and at improving the functioning of capital markets. Reforms of indirect taxation are more diverse in nature. Increases in indirect taxation in several countries were driven by ‘green’ tax reforms, often as counterpart to the reduction in the taxation of labour<sup>9</sup>. Some Member States also implemented measures that resulted in increases in the shares of total taxes that accrue to state (regional) governments. The measures were sometimes part of a reform-package that was stretched out over several years. The remainder of this paragraph only touches upon some basic elements and highlights a few examples. Further details are given in part III, which describes the structures and the developments for the individual Member States.

<sup>9</sup> This approach is generally referred to as the ‘double dividend’ approach. In this respect it must be noted that incentives to work may also be influenced by the level of indirect taxation.

Reforms of the personal income tax code mainly consist of lowering statutory rates (quite often relatively more at the low to the middle end of the income distribution), reducing the number of tax brackets and increasing the minimum level of tax-exempted income. Member States also increased a number of family allowances, in particular for the tax relief for families with children. Some Member States replaced (basic family) tax allowances by individual tax credits (also in order to increase second-earner' work incentives). A number of Member States have also introduced additional (earned) tax credits (or tax base allowances) that are exclusively earned on labour income. Most of these credits or allowances phase in for lower incomes and phase out for higher incomes. Some Member States also implemented reforms to the taxation of pensions.

Reforms of taxes on capital income were often aimed at improving capital markets. Another aim was to create incentives for risk, and venture and intangible capital. Some Member States have fundamentally changed the taxation of capital income or capital gains in personal income tax (and thereby effectively broadened the income tax base). Member States also implemented reductions in statutory corporate income tax rates, but at the same time lowered special incentive schemes, or tax allowances granted for the depreciation of capital equipment. Some EU countries have tried to reduce the relative cost of financing new investment via own capital by introducing tax breaks directly through the corporate income tax.

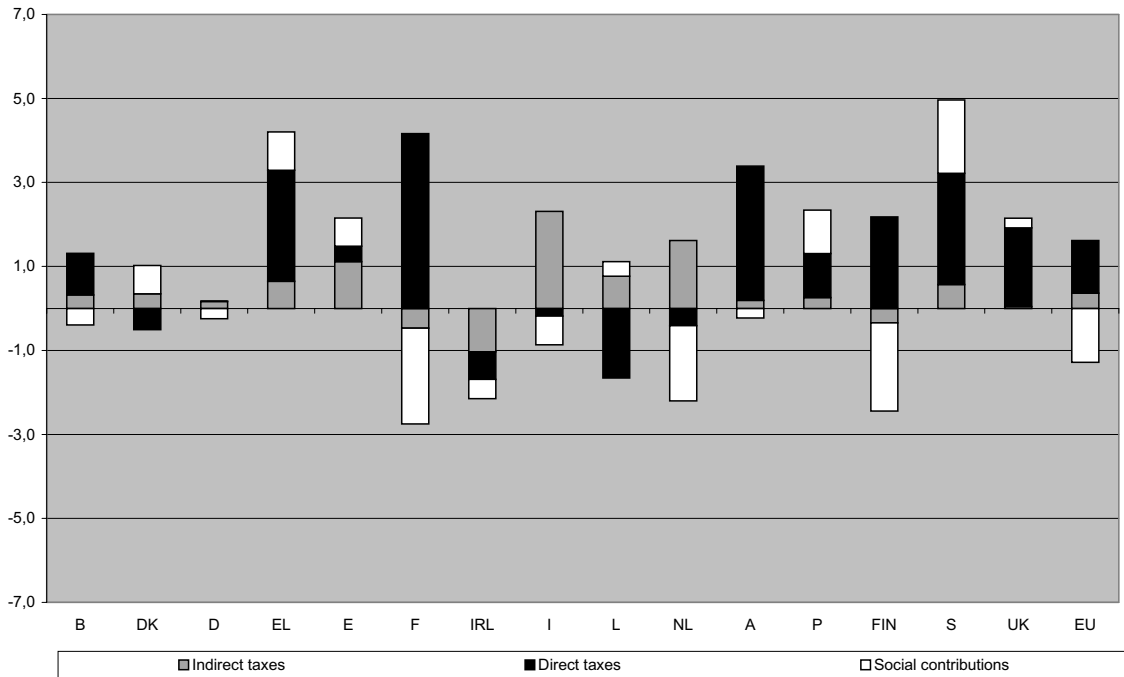
Reforms are more diverse in the area of indirect taxation. In the second half of the 1990s, a number of Member States have implemented comprehensive 'green' tax reforms (Sweden, Denmark, the Netherlands, Germany, Italy, Austria and the United Kingdom). Existing indirect taxes were increased and new environmentally related taxes were introduced, often to finance, at least partly, the reduction of taxes on labour income (the so-called 'double-dividend approach'). The Nordic countries were the forerunners in introducing green tax reforms. Most Member States apply reduced rates on labour intensive service sectors. Other Member States implemented increases in the standard VAT rate, while others implemented general VAT reductions or targeted reductions for certain products and/or sectors. Some Member States increased certain excise duties (*e.g.* on tobacco, diesel fuel or petrol), while others were being reduced.

Some Member States implemented general reductions in social contributions across the board. A number of Member States put forward targeted reductions of non-wage labour costs in respect of the low end of the pay scale, while others aim at creating new jobs for long-term unemployed, for training or for the shift from temporary to permanent labour contracts.

In Graph I-2.4 the change in overall tax burden has been broken down into changes of its three major components. As a result, the sum of the heights of each bar gives the change in the overall tax-to-GDP for all the countries. For the EU average, it appears as if both direct taxes and indirect taxes have slightly increased (in proportion to GDP), and that this was partly offset by reductions in social contributions. These averages, of course, conceal some marked differences between the individual Member States. One trend that is in fact rather evident from Graph I-2.4 has been the increase in direct tax revenue for a number of Member States, despite the tax rate reductions that were implemented over the period. This can probably (partly) be attributed to the economic upswing during recent years. In some countries the tax burden was shifted away from labour. Increases in measured indirect taxes are also quite often visible in the graph.



**Graph I-2.4 Evolution of major type of taxes**  
1995-2001, differences in % points of GDP



Source: Commission services

For Belgium, Greece, France, Austria, Finland, Sweden and the United Kingdom, it appears that the observed increase in the tax-to-GDP ratio originated mostly from increases in revenues from direct taxes (in proportion to GDP). In Belgium, Finland and Sweden, the increases in direct tax revenues originated most notably from increases in corporate income tax revenues. Austria witnessed a particularly sharp increase in direct tax revenues in 2001. This increase is mostly related to base-broadening measures and significantly increasing tax pre-payments, in reaction to the introduction of interest charges on tax arrears from October 2001 onwards. In France, changes in personal income tax revenues appear to have been clearly dominant. However, it is important to note that the observed changes in the personal income tax revenues in France largely originated from increases in revenue from the generalised social contribution ('CSG'), and the contribution for the reduction of the debt of social security institutions ('CRDS'), which are both booked as taxes on individual and household income (TRD51A) in national accounts. The base of the 'CSG' was extended to capital income in 1998, and the 'CRDS' was introduced in 1996. At the aggregate level the increases in revenues from the social contributions have apparently offset to some extent the effects of the reductions in personal income tax and social contributions that were implemented in recent years.

Increases in revenues from indirect taxes were dominant in Spain and Italy (in proportion to GDP). In Italy, the 1997-98 tax reform eliminated the employer's compulsory health contributions, bringing the overall employer's social contribution rate down substantially. At the same time, however, a new regional tax on productive activities, commonly abbreviated as 'IRAP', based on value added was introduced (that is an indirect 'other tax on production'). Italy also witnessed a substantial decrease in revenues from corporate income tax reflecting the introduction of the 'dual' corporate income tax system in 1998. In Spain, the revenues from corporate income tax have increased, despite the

introduction of a reduced statutory tax rate for small- and medium sized companies. This increase was partly offset by decreases in personal income tax. Spain implemented reductions in personal income tax in the late 1990s.

Denmark witnessed a decrease in revenues from the personal income tax. This occurred as Denmark reduced its statutory personal income tax rates, most notably at the lower-to the middle end of the income scale. This decrease was offset by the increases in the revenues from mostly social contributions and also from corporate income tax.

Germany, the Netherlands, Luxembourg and Ireland have witnessed a decrease in the overall tax-to-GDP ratio, although generally not by very large amounts. In Germany, the new tax on energy consumption implemented in 1999 has been used to lower social contribution to pension systems. Until 2000, Germany also saw an increase in the revenues from personal income tax in proportion to GDP, and corporate revenue increases from its corporate income tax in 2001 dropped substantially. In the Netherlands, the observed decreases in social contributions (and to a lesser extent also in personal income tax) were partly offset by increases in revenues mostly from VAT, but also from corporate income tax. The Netherlands has recently increased its standard VAT rate to finance (at least partly) the reductions in the combined tax rate of personal income tax and social contributions for households. In Luxembourg, reductions in revenues from direct taxes (Luxembourg reduced the rates of both the personal income tax and corporate income tax) were partly counterbalanced by increases in revenues from indirect taxes and social contributions. Ireland witnessed reductions in both direct and indirect tax revenues and also in social contributions. Ireland particularly implemented reductions to personal- and corporate income tax and social contributions in recent years.

It is of course not possible to obtain a good picture of where exactly in the economy the tax burden falls by looking solely at classifications by major type of taxes. For example, direct taxes consist of income and property taxes paid by individuals and corporations. Hence the tax burden from direct taxes falls on both labour and capital, but also on social transfers received by non-employed people (*e.g.* social benefits and pensions). This also holds for the personal income tax itself. The evolution of the tax burden falling on the different economic functions (*i.e.* labour, capital and consumption) is more closely examined in part II.

### 2.2.2. *By levels of government*

Graph I-2.5 displays a classification of aggregate tax revenue (including social contributions) by receiving level of government. In the new ESA95 framework of national accounts, taxes are usually classified according to four different units of government that may operate within country and to the Institutions of the European Union. The combination of the different government levels operating within a Member State is called the general government, and may include:

1. Central (or federal or national) government, including all administrative departments and central agencies of the State whose competence extends normally over the whole economic territory, except for the administration of the social security funds;

2. State (or regional) government, when relevant within a Member State, which are separate institutional units exercising some of the functions of government at a level below that of central government and above that at local level, except for the administration of social security funds;
3. Local (or municipal) government, whose competence extends to only a local part of the economic territory, apart from local agencies or social security funds;
4. Social security funds, including all central, state and local institutional units whose principal activity is to provide social benefits.

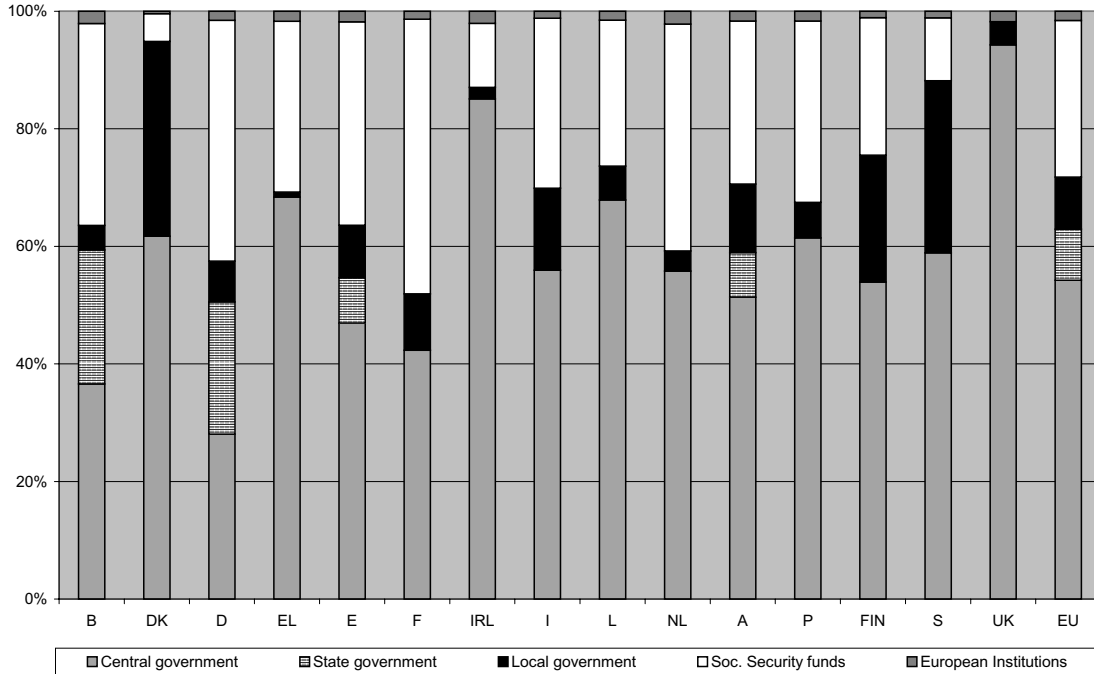
It is important to recognise from the outset that the figures shown in Graph I-2.5 represent ‘ultimately received’ tax revenues. This means, for example, that the shares displayed under state and local governments do not only include ‘own’ taxes of government sub-sectors, but mostly also the relevant part of the tax revenue that is actually ‘shared’ between the different levels of the general government, even in cases where a government sub-sector has practically no power to vary the rate or the base of those particular taxes<sup>10</sup>. The figures displayed in Graph I-2.5 therefore convey relatively little information on the discretion provided to state and local authorities over their tax base and rates. It should furthermore be noted that the figures also exclude grants of all kinds between different levels of government. Also, the taxes received by the Institutions of the European Union do not only include taxes paid directly to the Institutions (*i.e.* the ECSC levy on mining and iron and steel producing enterprises paid by resident producer units), but also taxes collected by general governments on behalf of the European Union. The latter include, in particular, (i) receipts from the common agricultural policy, (ii) receipts from custom duties from trade with third countries and (iii) a share in receipts from VAT imposed within each Member State.

In 2001, in the Union on average 55% of the ‘ultimately received’ aggregate tax revenue (including social contributions) is claimed by the central or federal government, roughly 25% accrues to the social security funds and almost 20% to the state and local government sub-sectors. Around 1.5% of this tax revenue is paid to the Institutions of the European Union. There are however considerable differences from one Member State to another. For example, the share of the total tax revenues received by the government sub-sectors varies from less than 1% in Greece to 32.7% in Denmark. Not only in Denmark, but also Belgium (27%), Sweden (29.3%) and Germany (29.4%) show relatively high shares of total taxes received by government sub-sectors. The share is around the EU average in Austria (19.2%), Spain (16.7%) and Italy (13.9%). The share is noticeably small in Greece (0.9%), Ireland (2%), the Netherlands (3.4%) and the United Kingdom (3.9%). What also stands out, furthermore, is that the figures for France show a relatively high share of tax receipts that accrues to social security funds.

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<sup>10</sup> Additional information was used for the classification of taxes by ultimately receiving government sub-sectors for Belgium.

**Graph I-2.5 Classification of tax revenues by ultimately receiving level of government**  
2001, in % of total tax burdens



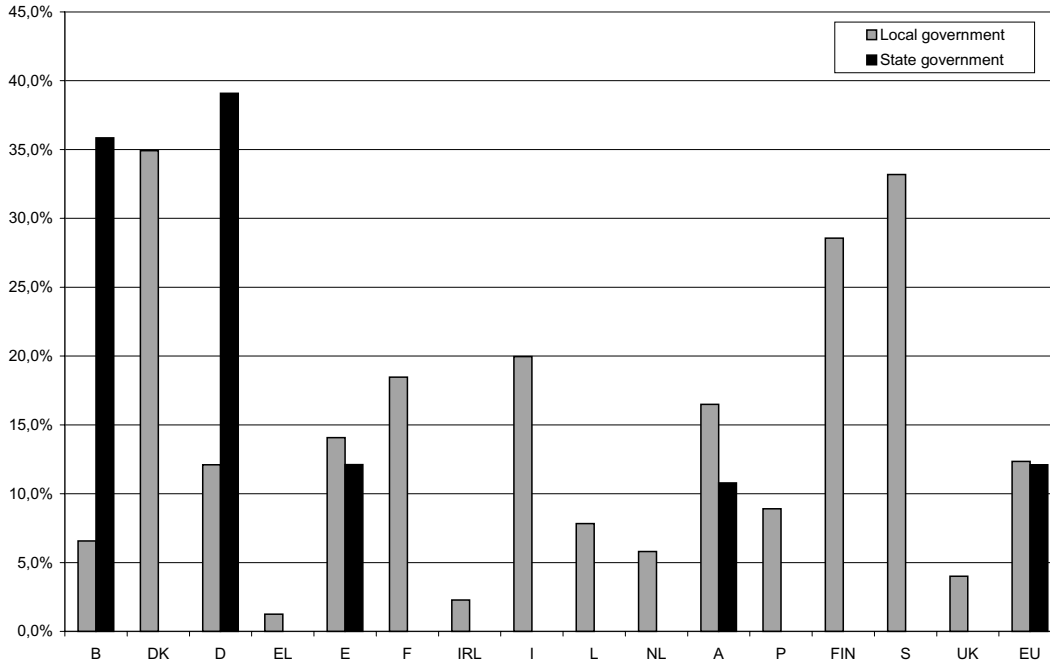
NB: In the United Kingdom, the social security system is part of central government.

Source: Commission services.

Graph I-2.6 shows the shares of direct and indirect revenues of the general government that is apportioned to local (municipalities) and state (regions) governments (social contributions are thus not included in this graph). The greatest shares of tax revenues from local governments are found Denmark (34.9%), in Sweden (33.2%) and Finland (28.6%). These shares are noticeably small in Greece (1.2%), Ireland (2.3%) and the United Kingdom (4%). The graph furthermore shows that the tax revenues that are apportioned to the State governments (regions) are significant in Germany (39.1%) and Belgium (35.9%)<sup>11</sup> and, to a lesser extent, also in Spain (12.1%) and Austria (10.8%). They are virtually non-existent in the other Member States.

<sup>11</sup> It should be noted that the Institutional Reform Act of July 2001 granted further fiscal autonomy to the Regions in Belgium. The list of taxes devoted to the Regions in Belgium was enlarged, and the tax powers of Regions were increased. While corporate income tax and VAT remain the full prerogative of the Federal government, the Regions are now allowed to deviate from the personal income tax rates stated in the Federal tax code by an upward margin of 3.25 per cent as of 2002. The Regions may thus adjust the progression of the personal income tax, but without reducing it. The Regions are not allowed to change the base of the personal income tax.

**Graph I-2.6 Shares of aggregate tax revenue ultimately received by sub-central governments**  
 2001, in % of tax revenues of general government, social contributions not included



Source: Commission services

Significant changes in the shares of tax revenues of state and local governments between 1995 and 2001 occurred in Spain and Italy. In Spain, an increase in the share of state tax revenue is visible from 1997 onwards. This mainly reflects the introduction of the new five-year (1997-2001) arrangement for sharing tax revenues between the autonomous regions. In Italy, an increase in the share of local tax revenues is visible from 1998 onwards. This can be attributed to the Italian reform that, among other important changes, introduced a new Regional Tax on Productive Activities ('IRAP'), and decreased the dependence of the local governments on grants from the central government.

The figures displayed in Graph I-2.6 indicate substantial differences in the structures of the taxation systems across the Union. However, as argued above, they give relatively little insight in the degree of tax autonomy of sub-central levels of government as such. Generally speaking, the tax raising process within the general government involves (i) setting a tax base, (ii) defining statutory tax rates, (iii) collecting the tax and (iv) attributing its revenues. Two or more levels of government can be involved in one or several of these different stages. Several modalities exist. For example, an ‘own’ tax means that the central or sub-central government unit is responsible for all phases of the tax raising process (i) through (iv). A ‘joint’ tax, means that the central government is responsible for (i) setting the base and (iii) collecting the tax, and jointly with the Regions for (ii) setting the rates. Tax ‘sharing’ generally means that the central government is responsible for (i) setting the base, (ii) defining the tax rates and also for (iii) collecting the tax<sup>12</sup>. However, the sub-central governments are automatically and unconditionally entitled to a percentage of the tax revenue collected or arising in their territory. Other modalities may also exist. In practice, the organisation of the general governments – including the fiscal relations, the constitutional arrangements and the tax raising process – is quite complex, and varies considerably from one Member State to another. A recent OECD (1999) study has complemented tax revenue statistics by providing a typology of the ‘taxing powers’ of government sub-sectors, and by applying this typology to tax revenue statistics. The study shows important differences as regards to the tax autonomy of the Länder and the Regions within the group of Federal or quasi-Federal countries in the Union (*i.e.* Germany, Austria, Belgium and Spain). It also shows differences as regards to the tax autonomy of local governments within the European Union.

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<sup>12</sup> Except in Germany, where the Länder also collect the tax.

## Part II Taxation of labour, capital and consumption

The tax-to-GDP ratio and the breakdown of tax revenues into standard categories such as direct, indirect taxes and social contributions provide a first insight into cross-country differences in terms of tax burden and its distribution across different taxes. But this tells little on the economic dimension of taxation. A final tax incidence analysis would require to compute the economic burden of a tax defined as the final impact on different categories of taxpayers<sup>1</sup>. The publication ‘Structures of the taxation systems in the European Union’ uses the national accounts framework which represents the economy with a distinction between consumption and production activities, remuneration of production factors and savings and investment decisions. It takes into account as production factors: labour, physical and financial capital as well as intangibles. A broad classification into three economic functions (i.e. consumption, labour and capital) has therefore been used. National accounts enable to derive the corresponding potentially taxable bases from sector accounts. This does not measure the final incidence of taxes, which can be shifted from one activity to another via behavioural effects.

This part is sub-divided into a first methodological part on the classification of taxes in economic functions and the compilation of implicit tax rates (section II.1), and sections II.2 to II.4 which actually review recent developments of the economic distribution of the tax burden.

### 1. METHODOLOGY FOR IMPLICIT RATES

#### 1.1. Classification of taxes according to economic functions

As mentioned above, the overall framework of national accounts justifies a classification of taxes according to three economic functions, consumption, capital and labour. Starting from the ESA95 classification of taxes described in part I, some general rules could be defined for the allocation of taxes to the three categories. A number of border cases and approximations had to be taken into account to arrive at a final classification of taxes. Most of these cases affect the division between capital and consumption. Tax data are not always recorded in sufficient detail to identify individual taxes and allocate them to the corresponding economic categories. In addition, national specific features required a special treatment. Comparisons of the implicit tax rates with other tax burden indicators provide some useful insight on specific properties of the implicit tax rates.

##### 1.1.1. *Taxes on consumption*

Taxes on consumption are defined as taxes levied on transactions between final consumers and producers and on the final consumption goods. In the new ESA classification (Box 3), these can be identified as the following categories:

- VAT type taxes (D211).
- Taxes and duties on imports (D212).

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<sup>1</sup> D. Fullerton-G.E. Metcalf (2002)

- Taxes on products (D214), which include excise duties. Those taxes paid by companies on products used for production have been excluded from the category of consumption taxes, whenever the level of detail enabled to identify them. This was done for instance for the car registration tax paid by companies. But national accounts tax revenues do not allow such a split for excises, which are paid for a substantial part by companies. Moreover, some categories have been allocated to capital such as the stamp taxes (D214B), when they could be identified as related to the stock exchange market or real estate investment. Taxes on financial and capital transactions (D214C) have also been recorded as capital taxes.
- Other taxes on production (D29). These are a typical border case since this category includes several taxes or professional licences paid by companies ‘as a result of engaging in production’: total wage bill and payroll taxes (D29C) have been classified as a tax on labour, taxes on land, building and other structures (D29A) have been classified as taxes on the stock of capital. But most of the other categories, such as pollution taxes (D29F) have been considered as consumption taxes.
- Some taxes defined as current taxes (D5) in ESA95 such as poll taxes, expenditure taxes, or payments of households for licenses have been included under consumption since they are expenditures by households related to the access to specific goods and services.

A particular difficulty of the ESA95 is that the tax revenue classification is still relatively new. Not all Member States have used the ESA95 codification at the detailed level of individual taxes. The degree of decomposition provided by national statistical offices makes it sometimes difficult to identify sub-categories. Therefore while experience with ESA95 develops, the border cases mentioned above, which mainly affect the split between taxes on stock of capital and consumption will be reviewed.

### Box 3 Definition of consumption taxes

D211: VAT type taxes  
 D212: Taxes and duties on imports  
 D214: Taxes on products except:  
     - D214B: stamp taxes  
     - D214C: taxes on financial and capital transactions  
 D29: Other taxes on production except:  
     - D29A: taxes on land, building and other structures  
     - D29C: payroll taxes  
 D59B: Poll taxes  
 D59C: Payments by households for licences

#### 1.1.2. *Taxes on labour*

The publication ‘Structures of the taxation systems in the European Union’ distinguishes between employed and non-employed labour (Box 4).



**Box 4 Definition of taxes on labour**

Employed Labour

From D51 Taxes on income:

D51A Taxes on individual or household income (part raised on labour income)

D29C Wage bill and payroll taxes

From D611 Actual social contributions:

D6111 Employers' actual social contributions

D6112 Employees' actual social contributions

Non-employed labour

From D51 Taxes on income:

D51A Taxes on individual or household income (part raised on social transfers and pensions)

D6113 Social contributions of non-employed (part paid by social transfer recipients)

*Taxes on employed labour income*

Taxes on employed labour comprise all taxes, directly linked to wages and mostly withheld at source, paid by employers and employees, including social contributions. They include employers' social contributions (D6111) and payroll taxes (D29C), social contributions paid by employees (D6112) and the part of personal income tax (D51A) that is related to earned income. The personal income tax is typically levied on different sources of income, labour income, but also social benefits, including pensions, dividend and interest income and self-employment income. The next section explains how taxpayers' data have been used to allocate the personal income tax revenue across different sources of income.

*Taxes on non-employed labour income*

The category labour - non-employed comprises all taxes and social contributions raised on transfer income of non-employed persons, where this could be separately identified. This transfer income includes social transfers that are paid by the state (*e.g.* unemployment-, invalidity- and health care benefits) and benefits from old-age pension schemes (both state and occupational pension schemes). Most of these benefits of non-employed persons are in some way or the other linked to employment; contributions for current unemployment- and State pension benefits are for example for the most part paid by the active labour force, while occupational pension schemes are mostly funded while being employed. The calculation of the implicit tax rate on labour, is, however, limited to the category employed labour.

- In some Member States social transfer payments by the State are subject to personal income taxation. That way part of what is paid by the State is immediately refunded to the budget (but not necessarily at the same level) in the form of taxes. In many cases, however (*e.g.* for social assistance), these taxes raised on social transfers are not so much real taxes but rather a special way of calculating a certain net transfer. Where such taxes could be identified they have been separated from other taxes and social contributions.

- Pension arrangements and their tax treatment vary considerably between, and in some cases within, Member States. Where there is up-front tax relief for contributions to funded pensions this often tends to be given as an exemption from tax on labour income and estimates are not easy to make. The tax revenue collected on pension benefit payments is usually easier to estimate, but there is a conceptual and practical issue over whether to regard it as capital income (because pensions can be privately funded), deferred labour income (because they are actually taxed in this way) or a social transfer payment (because they are classified as such in national accounts or because they are guaranteed by the state). For state (first pillar) pensions, the solution is to treat them in the same way as social transfer payments but for occupational (second-pillar) and private (third pillar) pensions the issue is more difficult, because they are generally privately funded and the benefits are not guaranteed by the state. In this report, the compromise solution classifies income tax on occupational pensions under the labour - non-employed category and does not include them in capital income. An important reason for doing this is that both state and occupational pension benefits are often treated as (deferred) labour income in the income tax, as they are directly linked to employment or the exercise of a profession. Another important argument is that occupational pension benefits are scored as (privately funded) social benefits in national accounts<sup>2</sup>. In the United Kingdom, however, occupational pensions and also private pensions are allocated to capital giving an upward bias to the ITR on capital compared to other Member States.
- Private (third pillar) pensions may be used as a supplement for state or occupational pensions. They have many of the characteristics of occupational pensions, although participation is often not directly related to employment or the exercise of a profession, and is arranged individually by contract directly with a product provider (*e.g.* a life insurance company). It could therefore be argued that the taxes raised on private pension benefits should be allocated to capital income. It should however be noted that the statistical identification of private pension benefits is often more complicated, and the amount of this type of income is so far not very significant in the majority of Member States (notable exceptions in this respect are Denmark, Belgium, the Netherlands and the United Kingdom)<sup>3</sup>.

#### *Taxes on income of the self-employed*

The question arose whether part of the self-employed income should be treated as a remuneration of labour and whether the related taxes should be included in taxes on labour. The best compromise between economic rational and data availability was to consider self-employment income as income from capital: self-employed income is genuinely an entrepreneurial income and self-employed take

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<sup>2</sup> In national accounts, social benefits are transfers to households, in cash or in kind, intended to relieve them from the financial burden of a number of risks or needs, made through collectively organised schemes, or outside such schemes by government units.

<sup>3</sup> Unfortunately, in some Member States the taxes raised on different type of pensions could not separately be identified from the income tax statistics. The treatment of taxes raised on pensions is a difficult area, both from a conceptual and practical point of view, which would benefit further work. This work will also need to take account of the current review EUROSTAT is doing on how the different national schemes are allocated to the first, second and third pillar pensions.

the risk of incurring losses when exercising their activity. Personal income taxes as well as social contributions of self-employed are therefore, allocated to the capital income sub-category for self-employed. This assumption includes the part of self-employment income equivalent to the remuneration of self-employment own labour. For some Member States, this assumption does not reflect the situation of some self-employed, whose economic status or income do not significantly differ from those of wage earners. In Italy, for example, the Central Statistical Office (ISTAT) provides official estimates of the percentages of "mixed income" that can be attributed to labour and capital; the results of this splitting are given in the description of developments in Italy in part III.

### 1.1.3. *Taxes on capital*

As mentioned above, capital is defined in a broad sense, including physical capital, intangibles and financial investment and savings. Corporations and households both pay taxes on capital. Capital taxes are therefore calculated for the whole private sector, allowing at some stage a split between the two groups of taxpayers. They include taxes on business income in a broad sense: not only taxes on profits but also taxes and levies that could be regarded as a prerequisite for earning profit, like the real estate tax or the motor vehicle tax paid by enterprises. Companies have to pay this kind of taxes out of their annual profits. In their empirical study Desai and Hines (2001) confirmed that these indirect taxes also influence investment decisions of American multinational firms. They also include taxes on capital stocks of households or their transaction (*e.g.* on real estate). As mentioned above, taxes on income from self-employment, including social contributions, are also part of that category. In this edition of the publication 'Structures of the taxation systems in the European Union', a limited breakdown of capital taxes was introduced, with a distinction between taxes on capital and business income and taxes on capital stock:

- Taxes on *capital and business income* that economic agents earn or receive from domestic resources or from abroad. This includes taxes on income or profits of corporations, taxes on income and social contributions of the self-employed, plus personal income tax raised on capital income of households (rents, dividends and other property income). In practice this is mainly the personal income tax paid on dividend, interest and entrepreneurial activity (part of D51A) and corporate income tax (D51B) as well as capital gain taxes (D51C).
- Taxes on *capital stock* include wealth tax (D59A), capital taxes (D9) including inheritance tax (D91A), real estate tax (D29A) or taxes on the use of fixed assets (D29B), professional and business licences (D29E), and some taxes of products (from the category D214).

**Box 5 Definition of taxes on capital**

*Capital and business income taxes:*

From D51-Taxes on income:

D51A	Taxes on individual or household income (part paid on capital and self-employed income)
D51B	Taxes on the income or profits of corporations
D51C	Taxes on holding gains
D51D	Taxes on winnings from lottery and gambling
D51E	Other taxes on income n.e.c.

From D611-Actual social contributions

D6113	Social contributions of self-employed
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*Taxes on stocks (wealth)*

From D214-Taxes on products, except VAT and import taxes:

D214B	Stamp taxes
D214C	Taxes on financial and capital transactions
D214D	Car registration tax

From D29-Other taxes on production

D29A	Taxes on land, buildings and other structures
D29B	Taxes on the use of fixed assets
D29E	Business and professional licenses
D29H	Other taxes on production n.e.c.

From D59-Other current taxes

D59A	Current taxes on capital
D59F	Other current taxes on capital
D91	Capital taxes

The split of taxes into three economic functions leads inevitably to simplifications and rather hybrid categories. The exercise is currently complicated by the fact that the new harmonised classification of taxes in ESA95 is not always consistently applied across Member States. Annex B gives a detailed list of taxes for the three economic functions per country. The resulting time series are reported in part C of the country tables and in the summary tables in annex A.

As indicated before, a key methodological problem for classifying tax revenues across the economic functions is that some taxes relate to multiple sources of economic income. This holds most notably for the personal income tax. A method had to be developed to split the personal income tax revenue, using (mostly confidential) data from national tax administrations. This method is outlined in the next paragraph. But also for other – from a quantitative point of view, less important – taxes, estimates from Member States have been used to distribute their revenue across the economic functions, whenever this was feasible. Only a few examples are highlighted here. The revenue from the French Tax on accommodations (so-called ‘Taxe d’habitation’), for example, has been distributed among the categories ‘consumption’ and ‘(stocks of) capital’, using estimates from the national administration. Also, the revenue from the French generalised social contribution and the contribution for the reduction of the debt of social security institutions (commonly abbreviated as ‘CSG’ and ‘CRDS’, respectively) has been distributed over the categories ‘labour’ and ‘capital (income of households)’. Also local business taxes often relate to one or more sources of economic income. The revenue from the Italian Regional tax on Productive Activities (‘IRAP’), for example,

has been distributed among the categories ‘labour’ and ‘capital (income of corporations)’, using revenue data from the public administration. The German local business tax (‘Gewerbesteuer’), on the other hand, was fully allocated to the category ‘capital income (of corporations)’, as the part on business capital stocks is not applied in recent year. The French local business tax (‘Taxe professionnelle’) has been fully allocated category ‘Stocks (wealth) of capital’, as it is mostly levied on buildings and real estate, and the French government is reforming the tax with phasing out the payroll component from the tax base.

## 1.2. Split of the personal income tax

Apart from the aggregate data in National Accounts, additional data made available by Member States has been used to split recorded tax revenues into more detailed categories. This holds most notably for the recorded personal income tax, which is typically broad-based, and relates to multiple sources of income. A method had to be developed to split the personal income tax revenues according to economic functions. This section generally describes how Member States use tax return data to generate estimates of the split of the personal income tax. In practice, Member States have used a variety of methods to make the best estimates available to them. More details about the methods used in the Member States are given in annex D to this report.

The methods attribute personal income tax to four main taxable income sources:

- Income from employed labour
- Income from self-employed labour
- Income from capital
- Income in the form of social transfers and pension benefits received.

The resulting estimates of the personal income tax revenue that could be attributed to these taxable income sources are used in the numerators for the implicit tax rates on labour and capital (using relevant aggregate economic incomes as denominators) and in the breakdown of taxes across the economic functions (*i.e.* taxes on consumption, labour and capital, as a percentage of GDP).

Under an approach using only aggregate data, total personal income tax raised in respect of labour (capital) income is often estimated as the proportion of aggregate labour (capital) income in the aggregate taxpayer income. Another approach is to estimate a single average effective income tax rate on the basis of aggregate data. The total personal income tax revenue data is divided by the aggregate approximation of labour and capital income in the economy to get the overall effective personal income tax rate, which can subsequently be applied to the labour (capital) income in order to estimate the income tax raised in respect of labour (capital) income<sup>4</sup>. This ignores the fact that effective rates on personal income tax vary across different taxable income components and groups of taxpayers. Even where, say, labour and capital income are pooled together for tax purposes at the

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<sup>4</sup> This approach has been introduced by Mendoza, Razin and Tesar (1994) and was used in internal studies by the Economics and Financial Affairs Departments of both the European Commission and the OECD. See Martinez-Mongay (2000) and Carey and Rabesona (2002) for more details.

individual level, such an approach may be criticised where aggregate labour income is believed to be subject – on average across taxpayers – to a significantly different average effective tax burden than capital income<sup>5</sup>. Relying on micro-level data – that is, confidential tax data at the individual taxpayer level – Member States are able to generate more accurate estimates of personal income tax revenues raised on separate sources of income. Generally, capital income will tend to be concentrated at the right side of the Lorenz curve and therefore, be subject to higher marginal and average tax rates as compared to income from labour. On the other hand, special tax concessions may apply to income from capital, so that the average tax rate for capital income might not be significantly different from that for income from labour. For example, some Member States apply a so-called ‘dual’ income tax system, in which capital income is usually taxed at a relatively lower (fixed) rate as compared to other earned taxable income. Forcing the latter assumption (of special tax concessions) on the data would however be a shortcoming to the analysis. Also, most Member States tend to tax pension benefits or social benefits more favourably than earned income from labour, either by way of increased tax allowances or tax credits that are age-based, or by partial exemptions from the tax base. Using micro data sets that include separate reported figures at the taxpayer level for the items of income on which the personal income tax is raised, it is possible to account for such effects<sup>6</sup>. Some Member States use micro-simulation models relying on samples from the total taxpayer population to compute the estimates, while others employ exhaustive tax return data-sets (*e.g.* Belgium and Ireland).

Most Member States basically multiply individual income tax payments by proportions of the selected income sources in the total taxpayer’s income (Belgium, Denmark, Germany, France, Netherlands, Ireland, Finland and Sweden). The corresponding estimates obtained at the taxpayer level are consequently aggregated to obtain estimates of the personal income tax raised in respect of the selected sources of income. For example, the total amount of personal income tax raised in respect of labour income,  $PIT(labour)$  say, could be estimated as follows:

$$PIT(labour) = \sum_j (W_j / Y_j) * PIT_j = \sum_j w_j * PIT_j$$

where  $W_j$  measures the labour income of the  $j$ -th taxpayer in a sample of individuals ( $j=1,..,n$ ) and where  $PIT_j$  measures the personal income tax payment of the  $j$ -th taxpayer on his total taxable income  $Y_j$ . The above equation therefore measures the total personal income tax raised on labour income as a weighted average of each individual taxpayer’s payment  $PIT$ , with the weights  $w_j =$

<sup>5</sup> See also OECD (2000, 2002b), Clark (2002) and De Haan, Sturm, and Volkerink (2002).

<sup>6</sup> In order to illustrate the degree of precision that can be reached with using micro data rather than aggregate tax return data, the Ministries of Finance and Taxation in the Netherlands, Finland, Denmark and Italy have performed additional calculations on the basis of only aggregate tax return data for some years. It actually appeared that the differences for the estimated amounts of income tax raised on income from employed labour were rather small. The reason is that employed labour income is by far the most dominant income source, which means that the overall effective income tax rate (measured on the aggregate taxable income and across all taxpayers) is strongly influenced by the average effective tax rate on labour income. The differences were however significant for the other selected income sources. If only aggregate tax return data would have been used, generally higher fractions would be computed for capital income and income in the form of social transfers and pensions, and generally lower fractions would be computed for income from self-employed labour.

$(W_j/Y_j)$  attached to these individual payments reflecting the distribution of total wages and salaries across taxpayers. Some Member States (Spain, Italy and Greece) instead use tax return data that is aggregated at the level of a number of income classes or income tax brackets ( $j=1,..n$ ), but essentially make the same calculations. The latter approach is likely to capture broadly comparable effects of the differences in tax treatment and the distribution of income sources across different groups of taxpayers.

In most Member States the personal income tax system is comprehensive in the sense that all sub-categories of taxable income are pooled at the individual level, and the result is taxed at ascending statutory tax rates. However, some Member States apply a given statutory rate on a specific income category, as can occur under a ‘dual income tax’ system. In the Netherlands, Finland and Sweden, for example, capital income is currently taxed at a relatively lower statutory rate as compared to other earned income. In most cases, however, the tax receipts data are used to isolate the amount of tax collected on that particular income category. In the United Kingdom, the personal income tax law actually prioritises the order of different types of income. For example, labour income is treated as the bottom of the taxable income and dividend income is treated as the top slice of taxable income. Unlike the method used in other Member States, the United Kingdom calculations therefore does not assume that the individual taxpayer has the same average effective income tax rate over all income sources (see also above). Instead, income source specific income tax rates are multiplied by the selected income sources at the taxpayer-level.

Some Member States (Austria, Luxembourg, Portugal) choose another approach and use tax receipts data from the wage (withholding) tax and (final) income tax statistics and apply a number of adjustments. Wage (withholding) tax is by its very nature designed to approximate the final income tax liability for wage earners as closely as possible, but in some cases there are certain adjustments for income tax assessments, because the wage tax withheld is not correct (*e.g.* because of different jobs or pensions during a single year). As this correction concerns only wage earners, in some cases the net amount of the correction is deducted from the total amount of recorded wage tax and, the amount of personal income tax is adjusted accordingly. Since wage tax can also be levied on social benefits (*e.g.* unemployment benefits, widowers benefits and invalidity benefits) or old-age pensions, the recorded wage tax is adjusted accordingly. The (adjusted) personal income tax is further split between income from self-employed businesses and capital income, either using aggregate proportions or information aggregated at the level of income classes (Austria). The latter approach is also likely to capture broadly comparable effects of the differences in tax treatment and the distribution of income sources across different groups of taxpayers as outlined above. Box 6 presents a schematic overview of the methods used in the Member States.

**Box 6 Overview of methods to estimate the allocation of the personal income tax**

<b>Countries</b>	<b>Data</b>	<b>Basic method</b>
B, DK, D, F, NL, IRL, FIN, S	Data-set of individual taxpayers	Personal income tax payments multiplied by fractions of net taxable income sources (as percentage of the total tax base) at the level of the individual taxpayer
UK <sup>7</sup>	Data-set of individual taxpayers	Income source specific income tax rates multiplied by net taxable income sources at the level of the individual taxpayer
E, I, EL	Income class data based on data-set of individual taxpayers	Personal income tax payments multiplied by fractions of net taxable income sources (as percentage of the total tax base) at the level of income classes/tax brackets
A, L, P <sup>8</sup>	Tax receipts data from withholding- and income tax statistics	Approach using aggregate withholding tax and final assessment income tax data with certain adjustments.

Box 7 provides a broad overview of the definition of the main taxable income sources. It is only limited to one calendar year and is purely for illustrative purposes. A complete description would require year-specific definitions. Member States have identified the selected taxable income sources on the basis of the specific structure of their personal income tax system. It is quite clear that some degree of heterogeneity because of specific features of the tax legislation might occur between Member States.

- Income from employed labour is broadly defined to include wages and salaries, fringe benefits in kind, director’s remuneration and foreign source earned income. A number of Member States

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<sup>7</sup> It should be noted that total tax liability that results from the micro data, grossed up to the total taxpayer population for sampling, does not always exactly correspond to the macro tax receipts data, because some components of the income tax are not modelled, or because certain tax repayments are made. The United Kingdom Inland Revenue therefore makes adjustments to the estimates using macro tax receipts data.

<sup>8</sup> In Luxembourg, due to data limitations, the wage withholding tax is allocated to labour income without corrections. The final personal income tax is allocated to capital and the self-employed. Estimates of taxes raised on social transfers and pensions are currently not available. Estimates for taxes raised on social transfers and pensions are currently also not available for France.



also tax benefits from financial participation schemes as labour income, or the deemed income from the private use of company cars.

- Self-employment income includes income from unincorporated businesses such as profits from agriculture or forestry, profits from trade or business and/or the proceeds from independent professional services. Some Member States also choose to include taxable dividend distributions from self-employed businesses or closely held companies in this category.
- Capital income is broadly defined to include income from movable property (interest, dividends, royalties), immovable property (*e.g.* rents earned on letting a private dwelling) and taxable capital gains. In some Member States realised capital gains are tax exempt, or they are taxed outside the personal income tax system. Some Member States also tax the (deemed) rental value of private owner-occupied housing as capital income, in which case they may also grant tax base deductions for related interest payments.
- Social transfer and pension benefits are broadly defined to include all taxable benefits from social security schemes and State- and occupational old-age pensions. The taxes raised on these benefits have been allocated to the category labour non-employed in the tables, where they could be separately identified (see the previous paragraph for more explanations).

**Box 7 Broad definition of the selected income sources**

<b>Income source</b>	<b>Type of taxable income components included</b>
Employed labour	Wages and salaries Benefits in kind Director's remuneration Foreign source earned income Other ( <i>e.g.</i> stock options, company car)
Self-employed labour	Income from unincorporated businesses Other ( <i>e.g.</i> dividend distributions from closely-held companies)
Capital	Income from movable property ( <i>e.g.</i> dividends, interest, <i>etc</i> ) Income from immovable property (rents, <i>etc</i> ) Realised capital gains Other ( <i>e.g.</i> rental value owner-occupied housing)
Transfers and pensions	Social benefits State pension benefits Occupational pension benefits

It should furthermore be noted that the income sources are as much as possible measured net of tax base deductions or allowances that are exclusively earned on these income sources (*e.g.* allowance for savings, expenses incurred in maintaining labour income). In some Member States, tax concessions or tax breaks earned on income from capital can be quite substantial, for example, with the result that the estimated fraction for personal income tax raised on capital income is rather low, and in some cases even negative (*e.g.* in the Netherlands and in Denmark). Some Member States also directly incorporate the revenue effects of income-specific tax credits (*e.g.* an additional tax credit

that is earned exclusively on income from labour). Revenue effects of general tax base deductions and credits, on the other hand, are proportionately allocated across all income sources.

Splitting income tax between capital and labour is difficult both conceptually, and in practice, due to data problems and differences between tax systems in Member states. The main difficulties arise because certain income tax receipts, and certain tax breaks, are given at source, whilst others are collected within the individual taxpayer's tax return. This typically is the case with certain components of capital income: interest, dividends or pensions. There are further conceptual and practical issues with pensions and the self-employed to which there are no easy answers.

Member States used the best methods available to them to generate the estimates. All in all, it is believed that the described methods generally lead to careful estimates of the allocation of the personal income tax revenue across the four main taxable income sources. Sources of inconsistency may still arise, however, due to certain data set limitations. In some Member States, for example, tax return data are only available at income class level rather than at the taxpayer level. Also, in some Member States not all the taxable benefits from social security or old-age pension schemes could be separately identified from the tax return data. Some Member States could not incorporate the revenue effects of tax base deductions or tax credits that are specifically earned on the main income sources. Looking at the resulting estimates for the split of the personal income tax (see annex D for more details), there is indeed some heterogeneity between Member States that is most noticeable for the amount of personal income tax allocated to capital and social transfers and pensions. Inevitably this may have had some consequences for the accuracy and comparability of the estimates of the implicit tax rates on labour and capital. Sources of inconsistency may also arise in Member States where there is a joint assessment of the taxable income of the household (*e.g.* in France). For example, the principal earner of the household may earn labour income whereas the spouse is actually a social benefit recipient with a relatively lower income. In these cases, however, the same effective tax rate was applied to the taxpayers jointly assessed.

Some Member States were not able to provide a full time-series coverage for all calendar years. In these cases, a trend has been assumed using simple linear interpolations, or the fractions were assumed to remain constant. In reality changes in the fractions would reflect changes either in the distribution of income or in the tax parameters. Applying linear interpolation seems a valid method only in the absence of major tax reforms. For 2001 onwards estimates of the breakdown of taxes and the implicit tax rates on labour and capital were calculated assuming constant fractions in most Member States. In future publications these estimates will be updated.

Apart from certain simplifying assumptions and estimates of the share of personal income tax limited to specific years this new treatment of the personal income tax is a major improvement to the methodology of the publication 'Structures of the taxation systems in the European Union'. Some tests proved that it mainly corrects the bias in the estimation of the tax burden on non-wages income sources using only aggregate data (in particular for social transfers and pensions and self-employment income).

### 1.3. Implicit tax rates

Tax revenue data in relation to GDP is a macro backward-looking tax burden indicator that is often used in the literature. Also in this publication, taxes that are raised on economic functions are shown as percentage of total GDP in the economy. But the level of GDP does not specifically relate to these economic functions, and considering only taxes in % of GDP is limited since it does not give any information on whether for instance, a high share of capital taxes comes from high tax rates or a large tax base in the economy. Therefore so-called ‘implicit tax rates’ (ITRs) are also presented.

They measure the actual or effective average tax burden directly or indirectly levied on different types of economic income or activities that could potentially be taxed by Member States. The implicit tax rates give some further insights but their economic interpretation is still not straightforward. In particular they do not measure the final incidence of taxes that can be shifted from one activity to another through behavioural effects. National accounts provide a consistent framework to compare economic functions and to match income and tax revenue data. This is in fact the only framework, which enables to assess the relative tax burden generated by various taxes in a country. Most of the other calculations on effective tax rates only provide information on a given tax but do not allow comparisons of the tax burden implied by different taxes. Developments over time enable to identify shifts between the taxation of different economic functions *e.g.* from capital to labour.

One of the advantages of these indicators is the comparability due to the improved consistency and harmonised computation of ESA95 national accounts data. This can only be exploited by using the same denominator for all countries not accounting for country specific peculiarities in national tax legislation. For capital, an average tax rate is estimated by dividing all taxes on capital by a broad approximation of the total capital and business income both for households and corporations. For labour, an average tax rate is estimated by dividing direct and indirect taxes on labour paid by employers and employees by the total compensation of employees. The attractiveness of the approach lies in the fact that all elements of taxation are implicitly taken into account, such as the combined effects of statutory rates, tax deductions and tax credits. They include also the effects of the composition of income, or the distribution of companies. Further, effects of tax planning, as well as the tax relief available (*e.g.* tax bases which are exempted below a certain threshold, non-deductible interest expenses), are also taken implicitly into account. The advantage of the ITRs in capturing a wide set of influences on taxation is accompanied by difficulties in interpreting the trends when a complete and precise separation of the different forces of influence is not possible<sup>1</sup>. In addition, any timing differences that arise because of lags in tax payments and business cycle effects may give rise to significant volatility in these measures. It is therefore sometimes not straightforward to explain trends in these measures. But this does not mean they are meaningless: they are a reduced model of all variables influencing taxation, tax rates and bases.

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<sup>1</sup> OECD (2000); OECD (2002b).

1.3.1. *Implicit tax rate on consumption*

The implicit tax rate on consumption is defined as all consumption taxes divided by the final consumption expenditure of private households on the economic territory (domestic concept).

**Box 8 Definition of the implicit tax rate on consumption**

Ratio	Definition
Implicit tax rate on consumption (ESA95)	Taxes on Consumption / (P31_S14dom)
<i>Numerator:</i> see box 3	
<i>Denominator:</i> P31_S14dom: Final consumption expenditure of households on the economic territory (domestic concept).	

Compared to the previous edition of the publication ‘Structures of the taxation systems in the European Union’, the denominator of the ITR on consumption was simplified: before, in addition to consumption of households on the economic territory, government consumption net of government salaries was included<sup>1</sup>. The computation of ‘government consumption minus wages and salaries’ was only a rough approximation of the intermediate consumption of the government<sup>2</sup>. Some of the ‘consumption taxes’ are levied on these government purchases.

The importance of intermediate government consumption for the implicit tax rate can be estimated for VAT. Table II-1.1 indicates the share of taxable intermediate consumption of the government and non profit-institutions in the total taxable VAT-base. For 1998 this lies between 4% and 16% in different Member States. But there are also other final demand components contributing to a similar extent to the VAT-base. From the viewpoint of VAT, which is only one part of consumption taxes included in the ITR, other corrections to the denominator would be justified. On the other hand there is a clear indication that private consumption of households is by far the most important component of the tax base. This is a good reason to keep an overall implicit tax rate on consumption simple and include only final domestic consumption of households in the denominator. The implication is an overestimation of the tax burden levied on private consumers.

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<sup>1</sup> In this respect, the previous edition followed the formula proposed by Mendoza, Razin and Tesar (1994).

<sup>2</sup> A solution would be to include directly national accounts figures of intermediate consumption of the government in the denominator, now available in ESA95.

**Table II-1.1 Share of different categories of internal demand in the total taxable VAT-base**  
1998 - in %

Member States	Final consumption of house-holds	Intermediate consumption of non-profit institutions and general government	Intermediate consumption of others sectors	Gross fixed capital formation of non-profit institutions and general government	Gross fixed capital formation of others sectors	Others
B	71	4	10	3	10	2
DK	61	11	12	3	12	0
D	62	9	13	3	14	0
EL	85	6	4	5	1	0
E	73	6	6	5	7	3
F	66	8	10	5	10	1
IRL	65	5	9	4	15	2
I	76	7	0	7	4	7
L	64	5	14	7	8	1
NL	63	6	16	12	2	0
A	71	13	7	1	6	2
P	66	9	17	4	4	0
FIN	62	14	8	5	8	1
S	61	16	11	5	3	4
UK	70	9	13	2	1	5
<i>Mean</i>	<i>68</i>	<i>9</i>	<i>10</i>	<i>5</i>	<i>7</i>	<i>2</i>
<i>S.dev/mean</i>	<i>10</i>	<i>43</i>	<i>46</i>	<i>55</i>	<i>64</i>	<i>111</i>
<i>Min/Max</i>	<i>61/85</i>	<i>4/16</i>	<i>0/17</i>	<i>1/12</i>	<i>1/15</i>	<i>0/7</i>

Source: Commission Services

This holds not only for VAT. Excises are another major category of ‘consumer’ taxes, which are also paid by companies. One could argue that companies would increase their prices, which would result in higher tax burdens on consumers at the end. This kind of thinking is normally subject to a secondary or final incidence analysis of the tax burden and not subject to the construction of effective tax rates since in general it disregards any shifting of taxes. To gain an accurate measurement of the tax burden for consumers it would be beneficial to split the revenues from the taxes and charges that are paid by consumers, the government and enterprises. This approach has already been achieved for taxes or duties on motor vehicles, where only payments by households are included in our tax ratio. Splitting taxes between households and companies for all excises and other ‘consumer’ taxes is not straightforward. For the time being, the inclusion of all taxes potentially levied on private consumption in the tax ratio leads to a simple and comparable indicator on the tax burden on consumers in different Member States, in spite of an overestimation bias. A way forward seems to be the split of ITR on consumption by type of taxes (VAT, Excises, others). This might be an area for investigation in future editions.

### 1.3.2. *Implicit tax rate on labour*

The implicit tax rate on employed labour is defined as all direct and indirect taxes and employees' and employers' social contributions levied on employed labour income divided by the total compensation of employees working in the economic territory.

Here, direct taxes are defined as the revenue from personal income tax that can be allocated to labour income. Indirect taxes on labour income, currently applied in some Member States, are taxes such as payroll taxes paid by the employer. The compensation of employees is defined as total remuneration, in cash or in kind, payable by an employer to an employee in return for work done. It consists of gross wages (in cash or in kind) and thus also the amount paid as social insurance contributions and wage withholding tax. In addition, employers' contributions to social security (including imputed social contributions) as well as to private pensions and related schemes are included. Compensation of employees is thus a broad measure of the gross economic income from employment before any charges are withheld.

It must be noted that the denominator of the implicit tax rate on labour has changed compared to previous editions of this publication. Following suggestions by Member States, an adjusted implicit tax rate is computed. Since the indirect taxes on labour are part of the total labour costs of employers, they are also included in the denominator of the implicit tax rate on labour. Otherwise the tax ratio would overestimate the effective tax burden on labour income for those Member States with sizeable payroll taxes (*e.g.* Austria, Denmark and Sweden).

#### **Box 9: Definition of the implicit tax rate on labour**

Ratio	Definition
Adjusted implicit tax rate on employed labour (ESA95)	Direct taxes, indirect taxes and social contributions paid by employers and employees, on employed labour income/ (D1 + D29C)
<i>Numerator:</i> see box 4	
<i>Denominator:</i>	
D1	Compensation of employees
D29C	Wage bill and payroll taxes

The fundamental methodological problem in calculating the implicit tax rate on labour and capital is that the personal income tax is typically broad-based and relates to multiple sources of income (*i.e.* employed labour, self-employed labour, income from capital and income in the form of social benefits and pensions received). Part II 1.2 explains the calculations for estimating the part of the revenue from personal income tax that can be attributed to labour income and other income sources.

The resulting implicit tax rate on labour should be seen as a summary measure that approximates an average effective tax burden on labour income in the economy. It must be recognised that the tax ratio may hide important variation in effective tax rates across different household types or at different wage levels. In some countries, for example, the recent tax reforms may have clearly more pronounced effects on low-paid, low-qualified workers or families with children.

### 1.3.3. *Implicit tax rate on capital*

Of the various implicit tax rates, the ITR on capital is by far the most complex and it is important that it is interpreted very carefully. As indicated below, the ITR on capital is broadly based and trends in it can therefore reflect a very wide range of factors. Compared to the previous edition of the publication ‘Structures of the taxation systems in the European Union’, two implicit tax rates on capital are computed. The implicit tax rate on capital and business income is defined as all taxes levied on income earned from the economic activities of private sector investment and saving (see box 5 in paragraph 1.1) divided by a measure of potentially taxable capital income in the economy within national accounts. The broader implicit tax rate on capital includes also taxes that are related to stocks of wealth stemming from investments and savings in previous periods as well as taxes on transactions of these stocks<sup>3</sup>. Both implicit tax rates are calculated for the private sector of the economy, including companies and households. The definition of the ITR on capital income will allow a split for households and corporations in future editions that will give more tax policy oriented indicators.

In this edition the improvement is to move away from a residual concept of ITR on ‘other production factors’ of the previous edition to an ITR on capital. Therefore, the new methodology and definition of the implicit tax rate on capital is not directly comparable to the previous figures for the implicit tax rate on other production factors. Both ITR on capital and capital and business income use the same denominator. The definition of the tax base is fully exploiting the sector accounts of ESA95, resulting in an improved measurement of the tax burden on capital<sup>4</sup>. It aims to approximate the world-wide capital income of its residents for domestic tax purposes. However, the base of the ITR does not measure the actual base of tax legislation, which drives tax revenues. So in practice it is not easy to link developments in the ITR to the various statutory tax rates and other policy changes.

Capital and business income with national accounts is defined as profits and property income. Profits are defined as net operating surplus (B2n) of the private sector including corporations (and quasi-corporations) and private households, self-employed and non-profit institutions (incl. mixed income B3n and imputed rents). The net operating surplus of the government sector is excluded, because losses or profits of the government are not subject to taxation. The gross operating surplus of the private sector also includes the net operating surplus of financial institutions including interest based profits measured by the aggregate Financial Intermediation Service (FISIM) in national accounts<sup>5</sup>.

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<sup>3</sup> For these taxes the underlying tax base is not available in national accounts for the time being. ESA95 foresees an integrated reporting of balances of stocks and their variations, but up to now the data is not available for most of the Member States.

<sup>4</sup> The rationality behind the new definition of the ITR on capital and exhaustive investigations of the features of this indicator are described in European Commission (2003).

<sup>5</sup> This aggregate nets off when the profit of the whole economy is considered, as it was done in the previous edition of the publication ‘Structures of the taxation systems in the European Union’. This is another reason for limiting the tax base to the private sector.

There is no simple way of approximating the tax base for property income (mainly interest and dividends) for the aggregate economy. We switched from net interest payments of the government in the previous edition of the publication ‘Structures of the Taxation Systems in the European Union’ to a specifically defined balance of property income of the private sector (received minus paid). The objective for the definition of this balance was to approximate the taxable profit of a company and of the taxable capital income of private households. Taxable profits of companies consist of net operating profit, property income received (financial income) less certain deductible elements of property income paid. The property income deductible from the tax base includes interest (D41) and rents on land (D45) payments. Dividends (part of distributed income of corporations - D42) are part of the financial income but they cannot be deducted to calculate the taxable base in national tax legislation<sup>6</sup>. For private households the taxable capital income consists almost completely of interest and dividend payments received. The new definition takes into account the received property income from abroad and improves the measurement of profits from banks and insurance companies. Although in this edition a more refined denominator for the ITR on capital is used several sources of bias compared to taxable profits remain:

- Capital gains are not part of profits in national account because they are not related to the production process. This important part of taxable profits of (financial) companies is disregarded in calculating the denominator and leads to an overestimation of the ITR on capital and business income. The same is true as regards the capital gains of private households, which are often taxed under the personal income tax. All this is likely to affect international comparability as some countries have a greater share of financial company profits including gains.
- Central banks are part of the financial corporations sector in national accounts. The inclusion of their profits in the denominator that are not taxable leads to an underestimation of the ITR on capital and business income.
- For taxable third-pillar, private pension benefits treated as income from capital in the split of the PIT, no corresponding income flow is recorded in national accounts. Ignoring these benefits in the potentially taxable capital and business income in the denominator leads to an overestimation of the ITR.
- Because of data limitation(s) in national accounts, interest payments by private households and self-employed cannot be split. Taking the total net interest as part of the denominator accounts for tax deductible interest payments of self-employed but leads to an overestimation of the ITR on capital because interest payments for mortgage and consumer loans are not tax-deductible in most Member States.
- Unlike net operating surplus, taxable profits and tax revenues are reduced by losses carried forward, causing a cyclical mismatch with the base and cyclical fluctuation in the ITR, which sometimes makes the trend difficult to interpret. This may also distort international

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<sup>6</sup> To avoid a double counting of dividends that are distributed by domestic companies out of their operating profits, the dividends paid to domestic private households or other domestic companies are deducted from the capital ITR tax base. For more details on this issue see European Commission (2003).



comparisons. In addition, the difference in the measurement of depreciation or imputed rents on owner-occupied dwellings between national accounts and tax legislation is another source of bias.

Table II-1.2 below presents a comparison of the ITR based on the definition of the tax base used in the 2000 edition of the publication 'Structures of the taxation systems in the European Union' (the so-called 'previous base') with the ITR derived from the tax that is used in this publication (the so-called 'new base'). The new base being generally broader, the ITR on capital is, in most of the cases, lower than the one published in the last edition. This result stems directly from the better inclusion of profits of financial institutions in the new base and account for an increase by more than 10% of the profit base.

**Table II-1.2 Comparison old and new ITR on Capital**

Average 1995 to 2001 - in %

	ITR on capital (old base)	ITR on capital (new base)	ITR on capital (new/old)	Denominator new/old <sup>1)</sup>	
				Profits	Property income
B	32.4	26.4	81.6	17.3	37.8
DK	29.9	30.6	102.3	18.2	-64.4
D	27.3	24.0	87.7	17.4	-4.8
EL	14.9	14.6	97.6	6.2	-16.0
E	27.3	24.9	91.4	13.9	-20.4
F	39.8	35.1	88.2	14.7	6.2
IRL <sup>2)</sup>	18.6	26.5	142.3	7.4	-583.5
I	29.9	27.9	93.3	12.4	-10.6
L <sup>2)</sup>	61.8	30.8	49.8	72.1	2518.2
NL	31.4	29.0	92.4	13.3	-16.2
A	30.2	25.8	85.7	25.3	-26.6
P*	29.2	25.3	86.9	21.1	-16.9
FIN	29.0	30.8	106.1	10.2	-76.1
S** <sup>3)</sup>	27.2	28.2	103.7	9.9	-51.1
UK	36.4	31.4	86.4	16.2	12.1

\* 1999 to 1995 \*\* 2000 to 1995

1) Difference new to previous in relation to previous base

2) For the new base net property income (received-paid) is taken into account because no detailed sector accounts are available in these countries

3) The denominator incorporates the net reinvested earnings on foreign direct investment (D43)

Source: Commission Services

For the component on property income, the switch from interest paid by the government in the previous definition to the balance of property income of the private sector goes in the opposite direction, with the exception of Belgium, France, Luxembourg and the United Kingdom. But this change has quite a smaller relative weight, and does not affect the outcome on the capital ITR significantly for most the countries. Denmark, Finland, Sweden and have a high external debt service, 2 to 3% of GDP over the period compared to less than 1% in most the countries. Interest paid abroad overcompensates the increase in the base related to the better inclusion of financial institutions. For these countries the ITR on capital is revised upward with the new definition.

**Box 10 Definition of the implicit tax rate on capital (income)**

Implicit tax rate on capital (income) (ESA95)	$\frac{\text{Capital (income) taxes/}}{B2n\_S11-12 + B2n\_S14-15 + B3n\_S14 + D41\_S11-12rec - D41\_S11-12pay + D45\_S11-12rec - D45\_S11-12pay + D42\_S11-12rec - D42\_S11-12pay + D42\_S13rec + D42\_S2rec + D41\_S14-15rec - D41\_S14-15pay + D45\_S14-15rec - D45\_S14-15pay + D42\_S14-15rec}$
<u>Numerator:</u>	see box 5
<u>Denominator:</u>	
B2n_S11-12	Net operating surplus of non-financial and financial corporations (incl. quasi-corporations)
B2n_S14-15	Imputed rents of private households and net operating surplus of non-profit institutions
B3n_S14	Net mixed income of self-employed
D41_S11-12rec	Interest received by non-financial and financial corporations
D41_S11-12pay	Interest paid by non-financial and financial corporations
D45_S11-12rec	Rents on land received by non-financial and financial corporations
D45_S11-12pay	Rents on land paid by non-financial and financial corporations
D42_S11-12rec	Dividends received by non-financial and financial corporations
D42_S11-12pay	Dividends paid by non-financial and financial corporations
D42_S13rec	Dividends received by general government
D42_S2rec	Dividends received by rest of the world
D41_S14-S15rec	Interest received by households, self employed and non-profit organisations
D41_S14-S15pay	Interest paid by households, self employed and non-profit organisations
D45_S14-S15rec	Rents on land received by households, self employed and non-profit organisations
D45_S14-S15pay	Rents on land paid by households, self employed and non-profit organisations
D42_S14-15rec	Dividends received by private households, self-employed and non-profit organisations

## 2. DISTRIBUTION OF THE TAX BURDEN ACCORDING TO ECONOMIC FUNCTIONS

Part 1 examined the distribution of the overall tax burden by major type of taxes and the different levels of government that ultimately receive the tax revenue. This part traces the evolution of and the reasons behind the changes in the tax burden falling on economic functions (*i.e.* labour, capital and consumption).

Graph II-2.1 displays the breakdown of the overall tax burden by economic functions for the year 2001. Taxes levied on labour income (employed or non-employed), mostly withheld at source (*i.e.* personal income tax levied on wages and salaries income plus social contributions), clearly represent the most prominent source of tax revenue in most Member States. What is also evident, furthermore, is that labour taxes appear to be a major determinant behind the level of the overall tax burden; Member States with a relatively high tax-to-GDP ratio also tend to collect a relatively high amount of labour taxes, and conversely (measured in % of GDP). Labour taxes contribute around 50 per cent of total tax receipts in the Union as a whole. Taxes on capital are generally less important. They account for approximately 20 per cent of the total tax receipts in the Union as a whole, while consumption taxes account for almost 30 per cent.

The share of labour taxes in the total tax receipts is significantly below the EU average in traditionally low-tax countries such as Ireland and the United Kingdom, and also in Greece, in Portugal and Luxembourg. The share of capital taxes is particularly large in Luxembourg, and it is noticeably small in Denmark and Sweden<sup>1</sup>. Differences in the shares of consumption taxes between Member States generally are the lowest among the three major economic categories. This can partly be explained by the harmonised VAT-system and by the introduction of minimum rates for important excise duties<sup>2</sup>. Tax receipts from consumption taxes do seem to be particularly important in Greece, Ireland, Portugal and the United Kingdom, where the share of labour taxes is also the lowest in the Union.

Taxes raised on capital and business income for the whole private sector are generally more important than taxes on stocks (wealth) of capital, except in Denmark and France, where the proportions to total capital taxes are broadly equal. The largest shares of taxes raised on stocks (wealth) of capital in total tax receipts are observed for France and Luxembourg.

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<sup>1</sup> The revenue from capital taxes in Denmark was particularly small in the year 2001, because in pension funds the non-realised capital gains are taxed. For this reason a capital loss due to a drop in the value of shares had a particularly strong influence on the capital income tax revenue in Denmark. It should also be noted that the method used for splitting the revenue of the personal income tax in Denmark tends to overestimate tax base deductions for interest payments. By including the net interest payments in the tax base of capital, the Danish Ministry of Taxation has taken into account how tax relief for mortgage interest payments and other interest payments on loans reduces the tax base of capital. But from 2001 onwards, negative capital income can only be deducted in the municipal income tax. This implies that the method used for splitting the personal income tax in Denmark tends to underestimate the capital tax revenue from 2001 onwards.

<sup>2</sup> However, despite VAT-harmonisation, there are still some marked differences in the implicit tax rates on consumption across Member States. Such divergences are largely due to the differences in normal and reduced VAT rates and the excise duties and also environmental taxes.

The category 'labour non-employed' in graph II-2.1 refers to personal income tax and/or social contributions that is raised on old age pension benefits and social benefits. Sweden, Finland, Denmark and also the Netherlands and Austria tend to raise a substantial amount of taxes on such benefits. In other Member States the amount of tax raised on such benefits is generally lower, or even negligible. However, since the statistical identification of these taxes is rather difficult (mostly owing to a lack of specification in the original tax statistics)<sup>3</sup>, such taxes could not be presented for all Member States<sup>4</sup>.

More details on the structures of the taxation systems by economic functions in the individual Member States (and their relative positions) are given in the country annexes in part III of this publication.

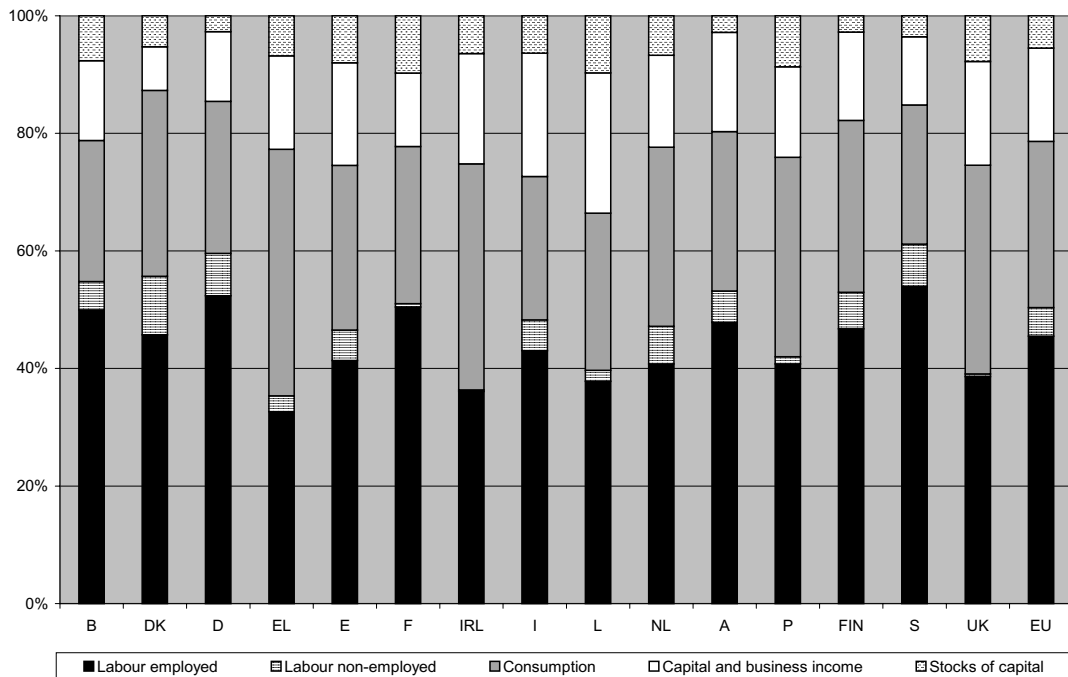
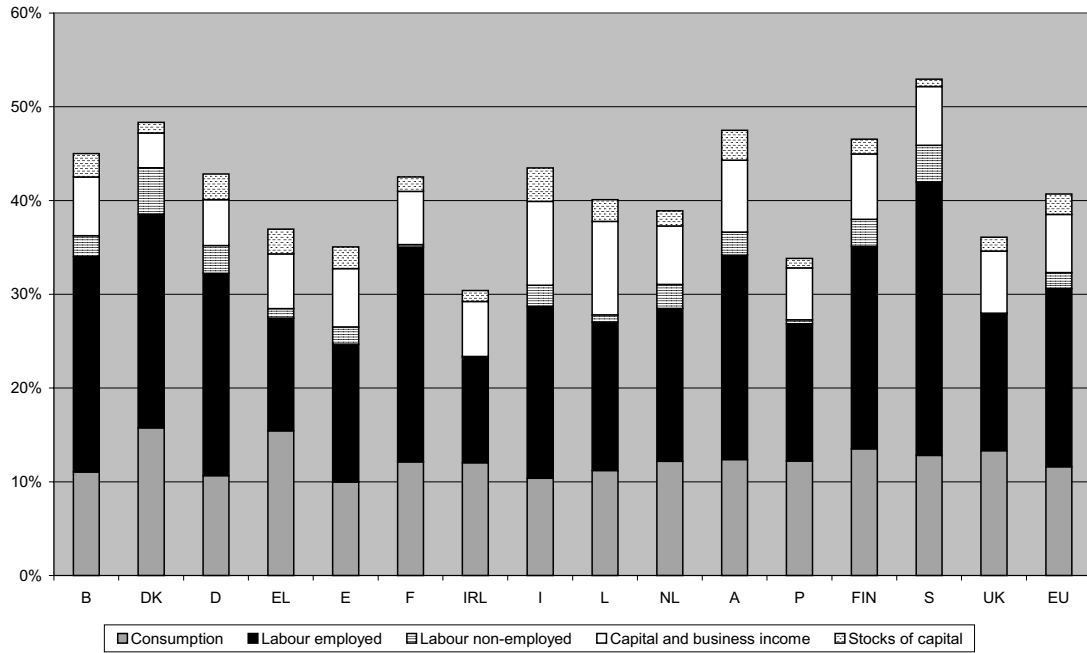
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<sup>3</sup> Like, for instance, for the UK, where taxes paid on pension benefits have been allocated to capital income.

<sup>4</sup> Most of the people that receive social security and/or pension benefits have paid either compulsory- or voluntary contributions to such schemes while being active in the labour market. Also, such benefits are often taxed as (deferred) labour income in the wage withholding tax or personal income tax.

**Graph II-2.1 Distribution of the total tax burden according to economic functions**

- Taxes on labour (employed and non-employed), consumption and capital (capital and business income and stocks) in % of GDP, 2001
- Shares of tax revenues raised on labour (employed and non-employed), consumption and capital (capital and business income and stocks) in % of total taxation, 2001

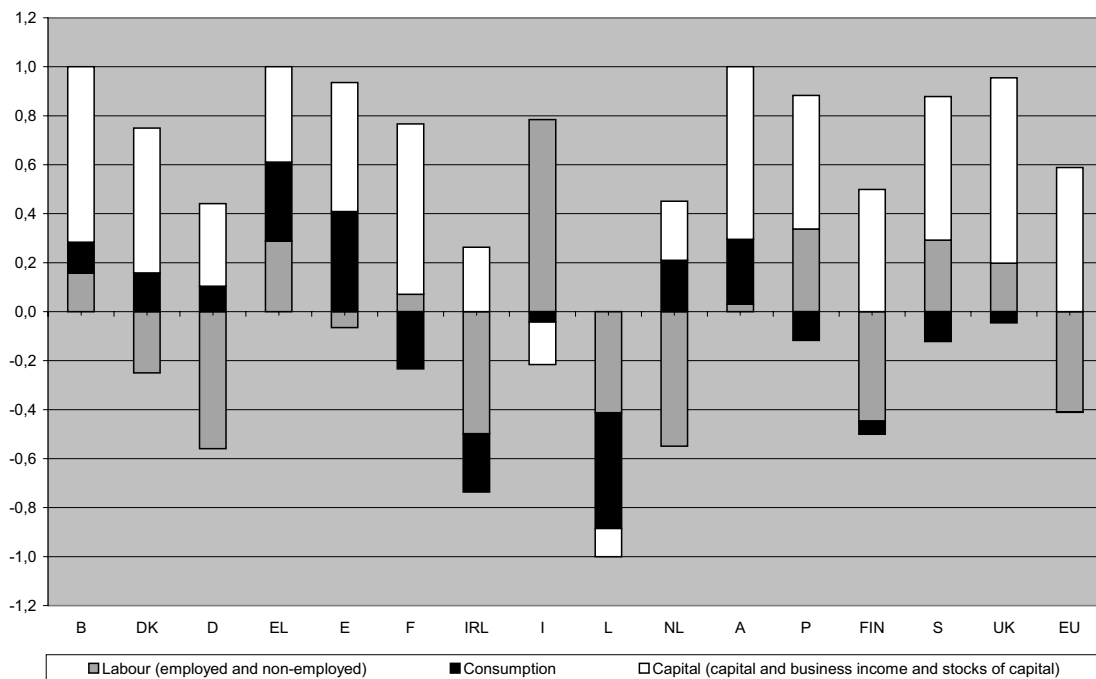


Source: Commission Services

The distribution of the overall tax burden according to economic functions has undergone some important changes since the mid-1990s, and the pattern is rather mixed across Member States (see Graph II-2.2). The most striking feature of the past developments has been a – partly cyclical induced – increase in capital taxes as % of GDP until 2000, and a stabilisation or slight decline of labour taxes since the late 1990s. However, the latter developments are not always visible in Graph II-2.1. The stabilisation or decline in labour taxes often occurred after some initial increases in the second half of the 1990s. Also, a decline in measured capital taxation is already discernible in 2001 in some Member States.

**Graph II-2.2 Contribution of taxes on labour, capital and consumption (in % of GDP) to the changes in the total tax-to-GDP ratio**

1995-2001, differences in % points of GDP



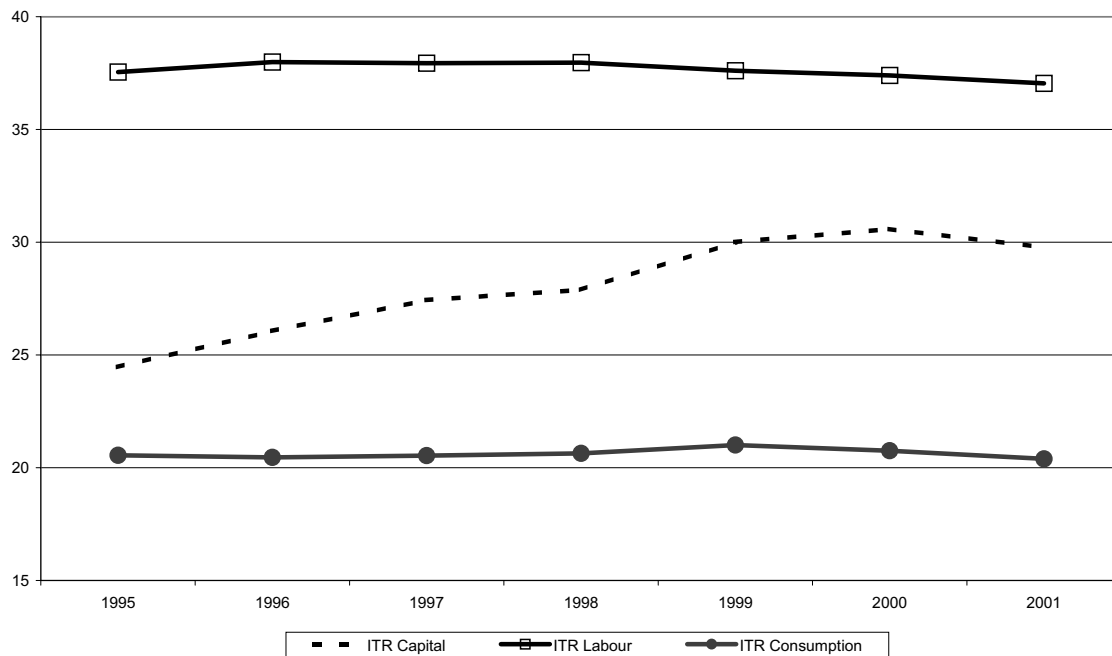
SOURCE: Commission services

Graph II-2.3 and Graph II-2.4 display the evolution of implicit tax rates (tax revenues expressed as % of the potential tax base computed from national accounts) between 1995 and 2001 in the Union and for the individual Member States, respectively. Previous publications by Commission Services on the ‘Structures of the taxation systems in the European Union’, based on ESA79 classification, all reported a substantial increase in the implicit tax rate on labour since the beginning of the early 1970s, while the implicit tax rate on consumption has on the whole remained broadly stable. The average effective tax rate on capital (as measured by the so-called implicit tax rate on other production factors) varied sometimes considerably from one year to another. The implicit tax rate on labour has always been higher than the average effective tax burden indicator for capital and consumption, and the difference has increased throughout the period under review<sup>5</sup>.

<sup>5</sup> European Commission (2000 a, b).

The new implicit tax rates for the period 1995-2001 based on ESA95 data in Graph II-2.3 now appear to show some signs of a reversal of this trend. The average tax burden on labour relative to the potential tax base – *i.e.* compensation of employees as computed from national accounts - tends to stabilise or decline slightly from the late 1990s onwards for the first time. Another striking feature of the past developments appears to be the increasing tax burden on capital until the year 2000. The latter trend can partly be attributed to the business cycle<sup>6</sup>; for 2001 a decrease is visible. The average implicit tax rate on labour remains with 37% in 2001 the highest. Capital is taxed at an overall implicit rate of 29.8%, which is on average roughly 7 percentage points lower than the implicit tax rate on labour. The next two sections turn to a more careful examination of - and the reasons behind - the evolution of the implicit tax rates of labour and capital for the Member States.

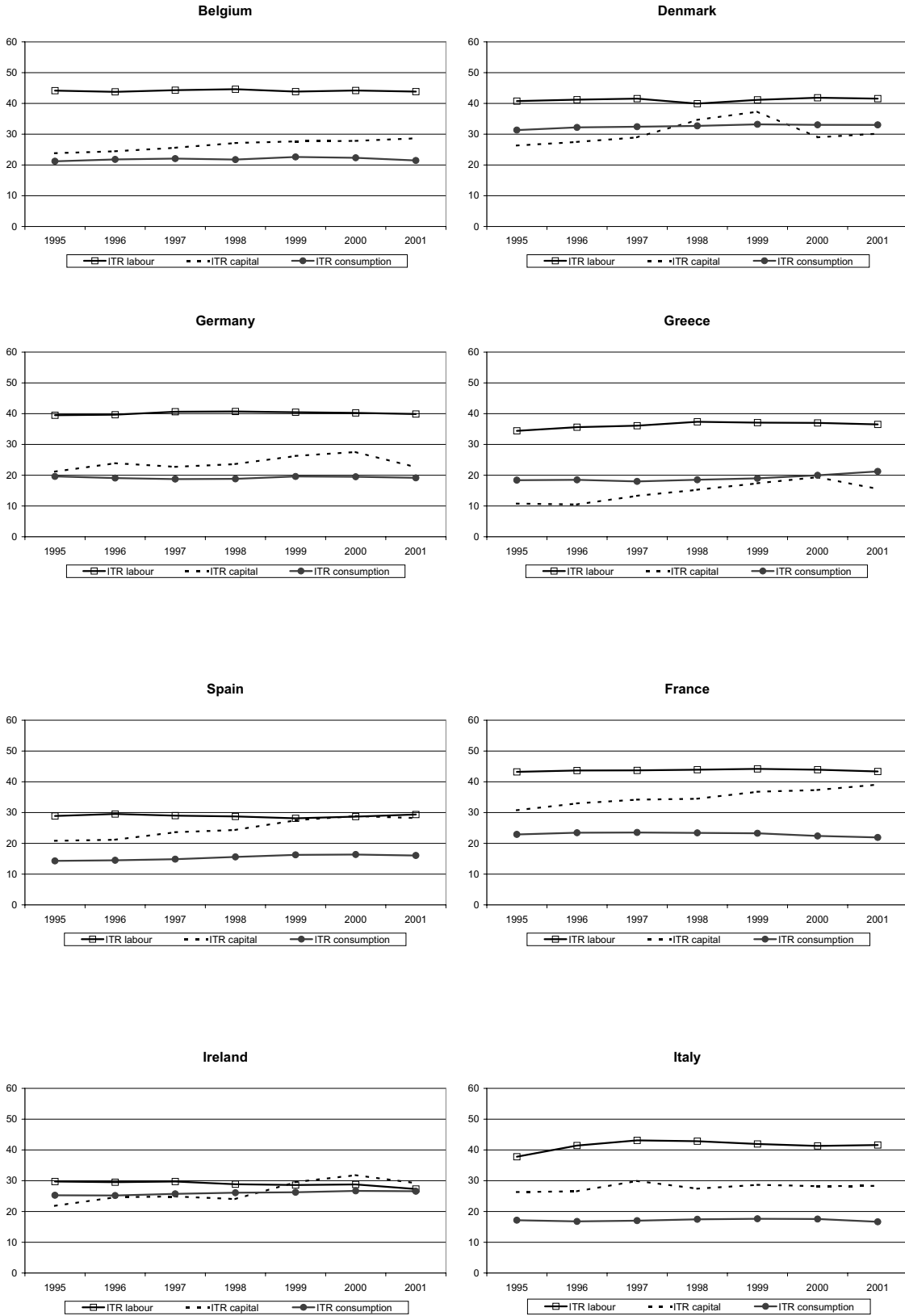
**Graph II-2.3 Development of implicit tax rates for the EU average**  
1995 - 2001, in %



Source: Commission Services

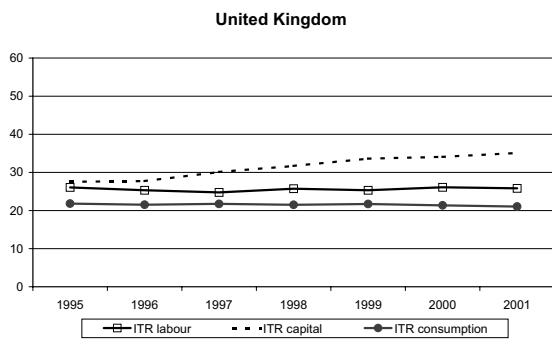
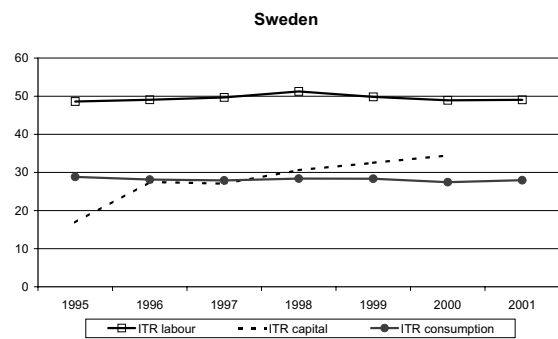
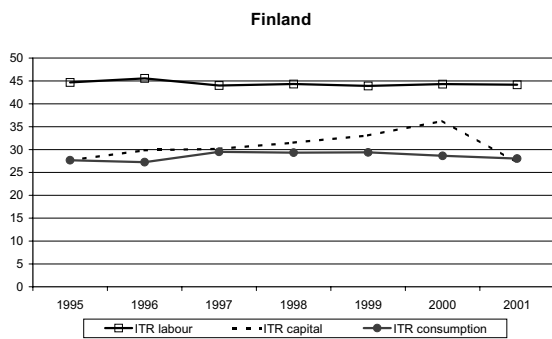
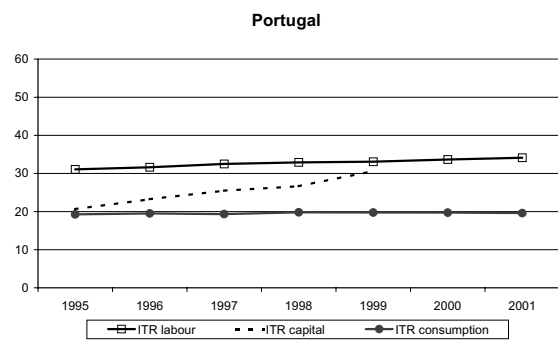
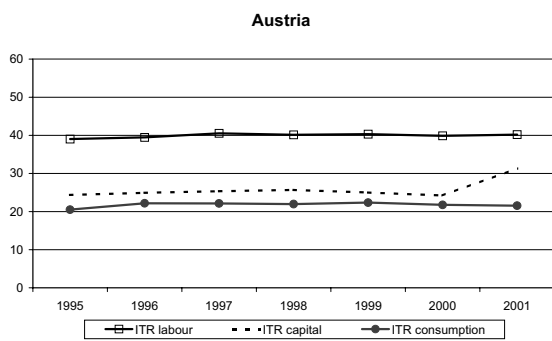
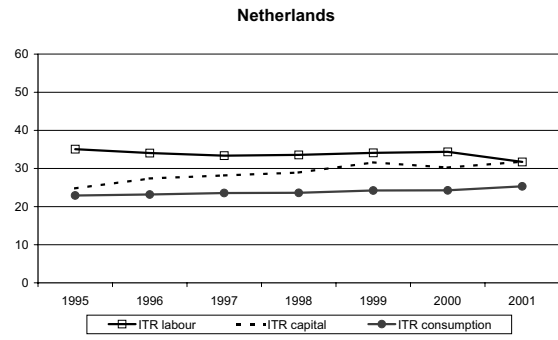
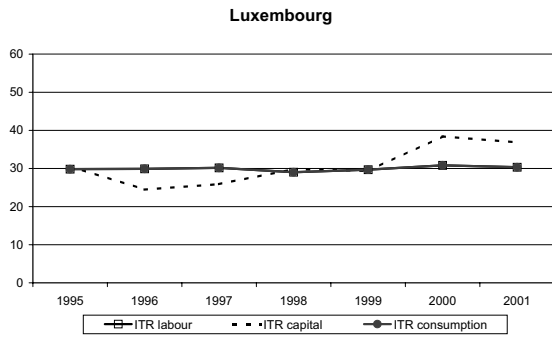
<sup>6</sup> This new pattern is not related to the new definition of the ITR on capital. A check was made by computing the ITR on capital using the previous definition. The increase in the ITR on capital between 1995-2001 was even found to be larger than that reported here.

**Graph II-2.4 Development of implicit tax rates for the Member States**  
1995 - 2001, in %





② Part II: Taxation of labour, capital and consumption ②



Source: Commission Services

### 3. TRENDS IN THE IMPLICIT TAX RATE ON LABOUR

#### 3.1. Stabilising/declining tax burden on labour in recent years

Previous publications by Commission services on the ‘Structures of taxation systems in the European Union’<sup>1</sup>, based on ESA79 system of national accounts, reported a common increasing trend in the tax burden on labour income in the EU area since the beginning of the early 1970s (despite some decreases in single years). This general increase, which was quite marked in the 1970s and was still significant in the 1980s and the first half of the 1990s, was closely related to the increasing share of the public sector in the economy, in particular of social welfare spending driven by dependency ratios (especially for pensions, health care and other social benefits). The increase in the first half of the 1990s was most notably associated with increases in social contributions related to the recession at the beginning of the decade.

Since the late 1990s, a number of Member States implemented fiscal measures to lower the tax burden on labour income, in order to boost the demand for labour, and to foster work incentives<sup>2</sup>. Concerns about excessive labour costs prompted initiatives in some Member States to reduce non-wage labour costs (*i.e.* social contributions and other payroll taxes) across-the-board. Other Member States put forward targeted reductions of social contributions on behalf of low-paid and low-qualified workers. These cuts in social contributions have mostly been focused on relieving the fiscal pressure for employers, although some countries have also made substantial cuts to employee social contributions. Reforms of personal income tax codes often consist of lowering statutory tax rates, as well as raising the minimum level of tax exempted income and/or introducing specific tax base deductions and allowances or tax liability credits for workers with relatively low levels of earnings<sup>3</sup>.

It now appears that the general trend towards increasing the implicit tax rate on labour has mostly stabilised or reversed slightly since the mid-1990s for most Member States (Table II-3.1)<sup>4</sup>. Previous ESA79 data displayed a steady increase in the EU average implicit tax rate on labour (weighted by the total compensation of employees in the economy) from less than 30% in 1970 to almost 42% in 1997. New ESA95 data for the period 1995 to 2001, though not fully comparable, now indicate that the EU average implicit tax rate first continued to increase from 37.5% in 1995 to around 38% in 1998, but then decreased to 37.0% in 2001<sup>5</sup>. However, the pattern of the changes is quite diverse across Member States. Notable reductions in the implicit tax rate on labour since the late 1990s and the year 2001 are visible for Belgium, Germany, Ireland, the Netherlands, Finland and Sweden. The

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<sup>1</sup> European Commission (2000 a, b).

<sup>2</sup> See also Carone and Salomäki (2001).

<sup>3</sup> See the country annexes for more details.

<sup>4</sup> A markedly slower annual rate of increase in the average effective tax rate on labour is reported for the 1990-2000 period in Carey and Rabesona (2002).

<sup>5</sup> Implicit tax rates computed on the basis of ESA79 data are generally higher than those on the basis of ESA95 data over the same period. This can partly be attributed to improved methods for estimating the allocation of personal income tax across different income sources.

Netherlands and Ireland stand out with the largest reductions in the implicit tax rate on labour. In the other Member States the implicit tax rate more or less stabilised. In some Member States the implicit tax rate continued to increase.

**Table II-3.1 Implicit tax rates on labour in the Union**

1995-2001, in %

	1995	1996	1997	1998	1999	2000	2001
B	44,2	43,8	44,3	44,6	43,8	44,2	43,8
DK	40,8	41,2	41,5	39,9	41,2	41,9	41,5
D	39,5	39,7	40,6	40,7	40,5	40,2	39,9
EL	34,4	35,6	36,1	37,3	37,1	37,0	36,5
E	28,9	29,5	29,0	28,7	28,1	28,7	29,4
F	43,2	43,7	43,7	43,9	44,2	43,9	43,3
IRL	29,7	29,5	29,7	28,9	28,6	28,8	27,3
I	37,8	41,4	43,1	42,8	41,9	41,3	41,6
L	29,8	29,9	30,2	29,0	29,7	30,8	30,3
NL	35,1	34,1	33,4	33,6	34,1	34,4	31,7
A	39,0	39,5	40,5	40,2	40,3	39,9	40,2
P	31,1	31,6	32,5	32,9	33,1	33,7	34,1
FIN	44,7	45,6	44,0	44,3	43,9	44,3	44,2
S	48,6	49,1	49,7	51,3	49,8	48,9	49,1
UK	26,1	25,3	24,8	25,7	25,3	26,1	25,8
EU	37,5	38,0	37,9	38,0	37,6	37,4	37,0

Source: Commission Services

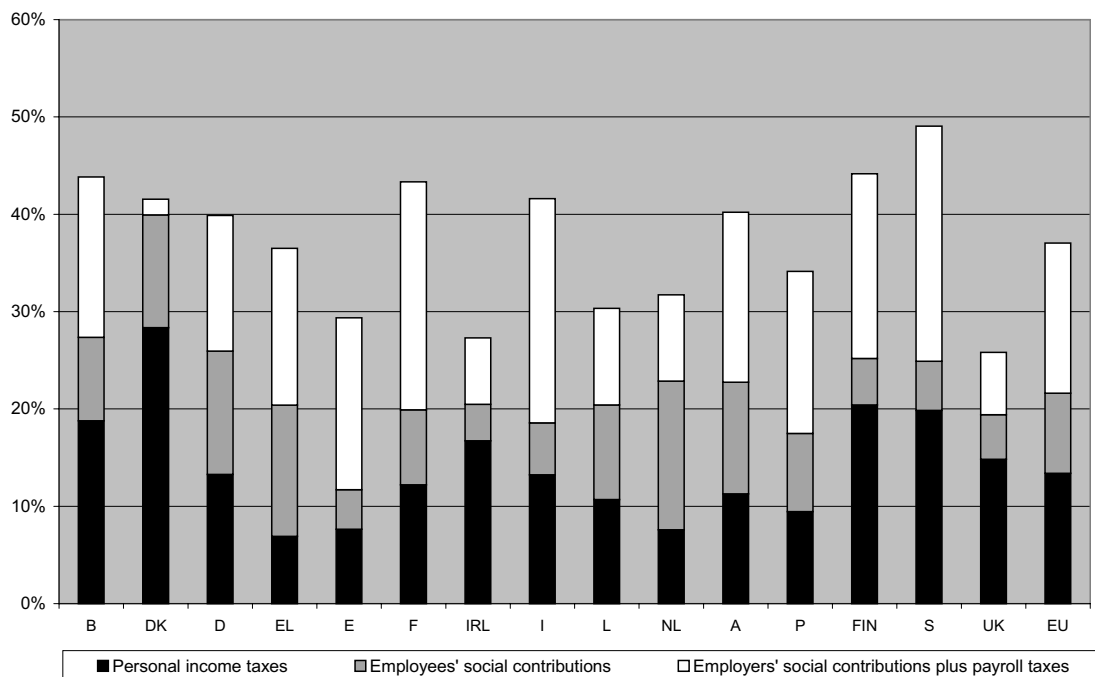
By the year 2001, labour income is estimated to be most heavily taxed in Sweden, Finland and Belgium, with implicit tax rates well above 40% of the wage bill. Ireland and the United Kingdom, on the other hand, stand out with implicit tax rates well below 30% (Graph II-3.1). For the majority of the countries in the Union, the implicit tax rate on labour largely reflects the important role played by wage-based contributions in financing the social security system<sup>6</sup>. On average, somewhat more than 60% of the overall implicit tax rate on labour consists of non-wage labour costs paid by both employees and employers<sup>7</sup>. Only in Denmark, Ireland and the United Kingdom do personal income

<sup>6</sup> It should be noted that the categories 'personal income tax' and 'social contributions' in the graph sometimes consist of multiple tax categories. In the 'Nordic' countries, for example, the recorded amount of personal income tax does not only consist of central government income tax, but also state income tax, or municipality income tax and sometimes also church tax. In France, the generalised social contribution ('CSG') and the contribution for the reduction of the debt of the social security institutions ('CRDS') are partially booked as income tax on labour income. In Austria, the tax on industry and trade and the contribution to chambers are also partially booked as income tax on labour income. In Italy, a new tax called 'IRAP' based on value added was introduced in 1998 at the same time when employers' social contributions were substantially reduced. A part of its revenue has been allocated to labour and employers' social contributions in particular (and also included in the denominator of the tax ratio).

<sup>7</sup> It is worth noting that the effective tax rate on labour in the US was estimated just 24% in 1999, with non-wage labour cost only 12% of the average gross wage. See European Commission (2000a).

taxes form a relatively large part of the total charges paid on labour income. In Denmark, the share of social contributions in government receipts is relatively low as most welfare spending is financed out of general taxation. The relatively low tax burden on labour in Ireland and the United Kingdom can largely be explained by the relatively low shares of the social contributions in these countries. The overall average rate of personal income taxation (as percentage of total labour costs) seems for example not very different from high tax countries like Sweden, Finland and Belgium. The latter countries have relatively high rates of both personal income tax and social contributions (as percentage of total labour costs).

**Graph II-3.1 Decomposition of the implicit tax rate on labour**  
2001, in %



Source: Commission Services.

The average implicit tax rate on labour (EU-15) still remains relatively high by international standards<sup>8</sup>. It should however be noted that the full effects of the recent fiscal reforms could be reflected in the data with a certain delay. Also, a number of Member States have announced further fiscal measures to improve labour market performance, which will come into effect beyond the year 2001 (e.g. Belgium, Germany, Spain, France, Ireland and Italy).

### 3.2. A note on the properties of the implicit tax rate on labour

The implicit tax rate on labour is a macro backward-looking indicator that is mainly derived from aggregate data in national accounts. As such, the tax ratio should be seen as a summary measure that

<sup>8</sup> Carey and Rabesona (2002) estimated the EU average effective tax rate on labour reached some 37% in 1999, compared with 25% and 23% for the United States and Japan, respectively. Martinez-Mongay (2000) provides broadly similar differences between the EU and the United States and Japan.

approximates an average effective tax burden on labour income in the economy. It must be recognised that the tax ratio may hide important variation in effective tax rates across different household types or at different wage levels<sup>9</sup>. The decomposition of total tax wedges, for example, may be quite different at relatively low or relatively high wage levels. Also, in some Member States the recent fiscal reforms may have had more pronounced effects on low-paid, low-qualified workers or on families with children. When interpreting the time-series comparisons, it should be borne in mind that the evolution refers to an *ex-post* trend without disentangling cyclical, structural and policy elements. This means that the observed changes may only partially reflect discretionary tax policy measures. In some Member States, for example, strong economic growth may have moved taxpayers into higher personal income tax brackets resulting in higher real tax payments ('bracket creep'), or taxpayers at the top of the pay scale may have witnessed relatively high increases in incomes, and such changes may have induced a cyclical swing in the implicit tax rate on labour that may to some extent offset the (*ex-ante*) expected fall driven by the tax reforms (aimed at reducing the tax burden at the bottom to the middle end of the distribution, say). In addition, it should again be noted that the figures in the national accounts do not follow a real accrual principle. According to the ESA95 guidelines for the national accounts, the taxes should be recorded when the underlying economic event/transaction takes place rather than when the actual tax payment is made. Personal income tax, for example, is typically levied on incomes accrued one year prior to actual collection. However, most statistical offices in fact use 'time shifted' cash figures for a few months, and declare them as accrual. This means that the effects of tax reforms may be reflected in the figures with some delay. The following box presents an overview of the main fiscal measures that seem to be (partially) reflected in the pattern of the changes in the implicit tax rates on labour (Graph II-3.5 displays the time trend of the implicit tax rate on labour for the Member States). The country annexes present some more details about the recent tax reforms in the Member States.

**Box 11 Overview of main fiscal measures affecting the ITR on labour**

	<b>Personal income tax</b>	<b>Social contributions</b>
B	<ul style="list-style-type: none"> <li>• Indexing of tax brackets abandoned</li> <li>• Introduction of 'crisis tax' on top of all statutory rates plus 'solidarity levy' on personal income (1997). Reintroduction of automatic indexing of tax brackets (1999). Phasing out of additional 'crisis tax' (1997-2001).</li> </ul>	<ul style="list-style-type: none"> <li>• Lowering of employers' contributions, especially in respect of the low-paid. The scope of the reductions in employers' social contributions was expanded to more social security schemes (1997-2001).</li> </ul>

<sup>9</sup> See also Clark (2002).

**Box 11 Continued**

DK <sup>1</sup>	<ul style="list-style-type: none"> <li>• Reductions in rate low tax bracket (1996-1999). Increase in rate additional medium tax bracket (1997). Reductions of personal income tax, especially at the bottom- to the middle end (1999-2001).</li> </ul>	<ul style="list-style-type: none"> <li>• Increase employees' social contribution rate (1997). Split of the social unemployment contribution into two contributions: one for unemployment insurance and the other is a voluntary contribution for an early retirement scheme. The combined social contribution rate is higher. Introduction of contribution employees for special pension savings scheme (1999).</li> </ul>
D	<ul style="list-style-type: none"> <li>• Across-the-board reductions of personal income tax (1999-2001).</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in social contribution rates (1997).</li> <li>• Reduction of social contributions to the pension system (1999-2001).</li> </ul>
EL	<ul style="list-style-type: none"> <li>• Reduction of highest statutory personal income tax rate, indexing of tax brackets plus increase in standard tax allowances (2000-2001).</li> </ul>	<ul style="list-style-type: none"> <li>• Reductions of employers' and employees pension contributions in respect of new staff and at the low end of the wage scale (2000-2001).</li> </ul>
E	<ul style="list-style-type: none"> <li>• Across the board reduction of personal income tax rates (1999).</li> <li>• Increase in work income allowance for low wages.</li> <li>• Increase in basic personal allowances (1999).</li> </ul>	<ul style="list-style-type: none"> <li>• Targeted reductions in social contributions (1997-2000).</li> <li>• Reduction in unemployment contributions for employers and employees (2001).</li> </ul>
F <sup>2</sup>	<ul style="list-style-type: none"> <li>• Reductions of personal income tax, especially at the bottom to the middle end (2001).</li> <li>• Introduction of contribution for refunding of debt of social security institutions ('CRDS') with a broader base than the generalised social contribution ('CSG') (1996).</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of employers' contributions in respect of low-paid workers in association with reduction working week (1997-2001).</li> <li>• Reduction of employees' sickness contributions (1998). Reduction of employees' and employers' unemployment contributions (2000-2001).</li> </ul>
IRL	<ul style="list-style-type: none"> <li>• Personal income tax rates reductions, especially at the bottom- to the middle end (1997-2001).</li> <li>• Increases in basic tax allowances/credits (1997-2001).</li> <li>• Widening of the rate band (2000).</li> </ul>	<ul style="list-style-type: none"> <li>• Reductions in employers' and employees' PRSI levies (1997-2001).</li> <li>• Reduction in employer's contribution in respect of the low-paid (2001).</li> </ul>

**Box 11 Continued**

I <sup>3</sup>	<ul style="list-style-type: none"> <li>Personal income tax rate of the second bracket down (2000).</li> </ul>	<ul style="list-style-type: none"> <li>Reduction of employers' health care contribution rate. Introduction of new regional tax ('IRAP') based on value added (1998). Reductions of employer's social contributions in respect of new jobs and also at the low end of the pay scale (1997-2000).</li> </ul>
L	<ul style="list-style-type: none"> <li>Across-the-board reduction in personal income tax rates (1998). Across-the-board reduction in personal income tax rates (in 2000 and 2001 in two stages).</li> </ul>	<ul style="list-style-type: none"> <li>Increase in contribution for sickness insurance (2000).</li> </ul>
NL	<ul style="list-style-type: none"> <li>Across-the-board reduction in personal income tax (2001).</li> </ul>	<ul style="list-style-type: none"> <li>Contribution for disability insurance scheme shifted from the employee to the employer (1998).</li> <li>Increases in employees' contribution rate for state pensions and medical expenses (1998-2000).</li> <li>Reductions of wage tax and employers' social contributions in respect of the long-term unemployed, the low-paid and also for training (1996-2001).</li> <li>Reductions in employees' contribution rate for unemployment insurance (2001).</li> </ul>
P	<ul style="list-style-type: none"> <li>General reduction in personal income tax rates (2001).</li> </ul>	<ul style="list-style-type: none"> <li>Targeted reductions in employers' social contributions (2001).</li> </ul>
A <sup>4</sup>	<ul style="list-style-type: none"> <li>Increases in family allowances and children's tax credits (1998-2000).</li> <li>Reduction of the tax schedule and increase in the general tax credit (2000).</li> </ul>	<ul style="list-style-type: none"> <li>Reduction of employers' contribution rates for health insurance and pay insurance schemes (2001).</li> </ul>
FIN	<ul style="list-style-type: none"> <li>Reductions in central- and local income tax, especially at the bottom- to the middle end (1995-2001).</li> </ul>	<ul style="list-style-type: none"> <li>Reductions in employees' and employers' contribution rates (1997-2001).</li> </ul>
S	<ul style="list-style-type: none"> <li>Reductions in central- and local income tax, especially at the bottom to the middle end (1999-2001).</li> </ul>	<ul style="list-style-type: none"> <li>Increases in employees' contribution rates (1995-1998).</li> <li>Reductions in employers' contribution rates (2000-2001).</li> </ul>

**Box 11 Continued**

UK	<ul style="list-style-type: none"> <li>• Personal income tax reductions, especially at the bottom to the middle end (1999).</li> <li>• Increase in starting point for paying national insurance contributions (NIC) for employers and employees. Reduction in employers' contribution rates to compensate for introduction of climate levy (2001).</li> </ul>
<p><sup>(1)</sup> In Denmark, the slight increase in the implicit tax rate in 2000 can be attributed to the method of the split of the personal income tax. From 2000 onwards the rental value of owner-occupied housing is no longer a part of the personal income tax system. This has also affected the estimated part of the personal income tax that is raised on labour income.</p> <p><sup>(2)</sup> In France, the effects of the recent reductions of personal income tax were apparently offset at the aggregate level as a result of higher revenues from the generalised social contribution (CSG) and the contribution for the reduction of the debt of social security institutions (CRDS) since late 1990s. France also witnessed sharp increases in tax receipts in the financial year 1999, notably from direct taxes.</p> <p><sup>(3)</sup> In Italy, the 1997-1998 tax reform eliminated employer's compulsory health care contributions, bringing the overall employer's social contribution rate down substantially. At the same time, however, a new tax for employers, called 'IRAP', based on value added was introduced. For reasons of comparability, a part of the revenue of this new tax has been allocated to labour income (and included in the denominator of the implicit tax rate) while it is not actually levied on wages and salaries as such.</p> <p><sup>(4)</sup> In Austria, the effects of the recent reductions in personal income tax were apparently offset at the aggregate level as a result of sharp increases in direct tax revenues in 2001. These increases are related to base-broadening measures and significantly increasing tax pre-payments, in reaction to the introduction of interest charges on tax arrears from October 2001 onwards.</p>	

*Source:* Commission Services.



### 3.3. A comparison with tax wedges computed for example household types

Every year, the OECD releases *Taxing Wages*, a publication providing internationally comparable data of total tax wedges – between labour costs to the employer and the corresponding net take-home pay of the employee – for various example household types and different representative wage levels. It is assumed that the earned income derived from employment is equal to a given fraction of the average gross earnings of adult, full-time workers in the manufacturing sector. The tax wedges are calculated on the basis of the tax legislation, by expressing the sum of personal income tax, employee plus employer social contributions together with any payroll tax, as percentage of total labour costs. They have the theoretical possibility to disentangle discretionary tax policy measures as regards personal income tax and social contributions. However, because of the theoretical approach, this method does not relate to actual tax revenue, nor does it incorporate all the elements of the tax system that may be relevant, such as effects of special tax relief available on the tax base.

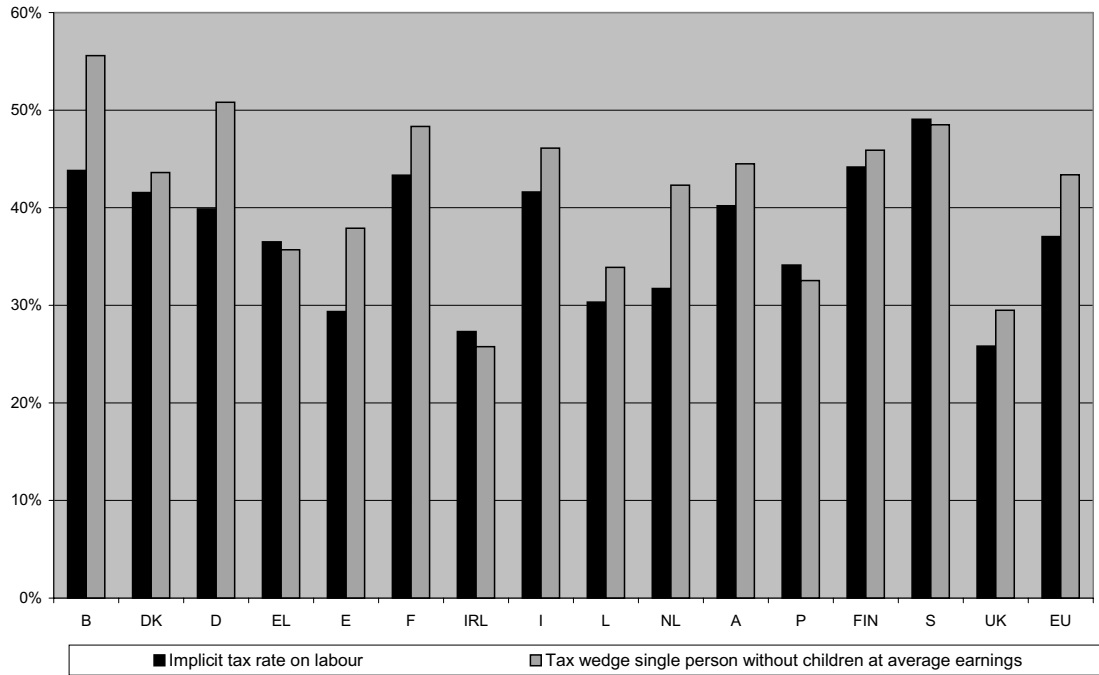
Pair-wise comparisons between the macro - backward looking implicit - tax rates on labour and the - micro example - tax wedge for a single average production worker at average earnings (without children) indicate that the tax wedges are significantly higher than the implicit tax rates of labour for some countries (Graph II-3.2). As a result, the ranking between the Member States may also be quite different. The differences are not specific to a single year. Nevertheless, the correlation between the macro and micro indicators is still moderately strong. Member States with a high tax wedge for an average production worker generally also have relatively high implicit tax rates on labour and the other way around<sup>10</sup>. For example, Sweden and Belgium are consistently in the higher group regarding the taxation of labour, and Ireland and the United Kingdom are always in the lower range (Graph II-3.3).

A complete correlation cannot be expected, due to conceptual and statistical differences between the macro and the micro indicators. The gross wages and salaries from National Accounts which form the basis of the implicit tax rate on labour do not correspond to the particular wage level of an average full-time production worker in the manufacturing industry. The aggregate gross compensation of employees represents the sum of all gross wages paid in a given year, *i.e.* they include all workers, both full-time and part-time and across all economic sectors. Moreover, the denominator of the micro example tax wedge does in some cases not contain information of (employer provided) contributions to private pension and related schemes. Moreover, the macro implicit tax rate uses the *actual* tax revenues raised on total labour income in a certain year with accrual adjustments. The diversity of different household- and wage level situations will be reflected in these actual tax revenues. Some of the observed differences between the macro and micro indicators can probably be explained by the fact that employees at the lower end of the pay scale are generally subject to relatively lower taxation, or even no taxation at all. Such employees with a relatively low tax burden apparently have substantial weight in the calculation of the implicit tax rate on labour.

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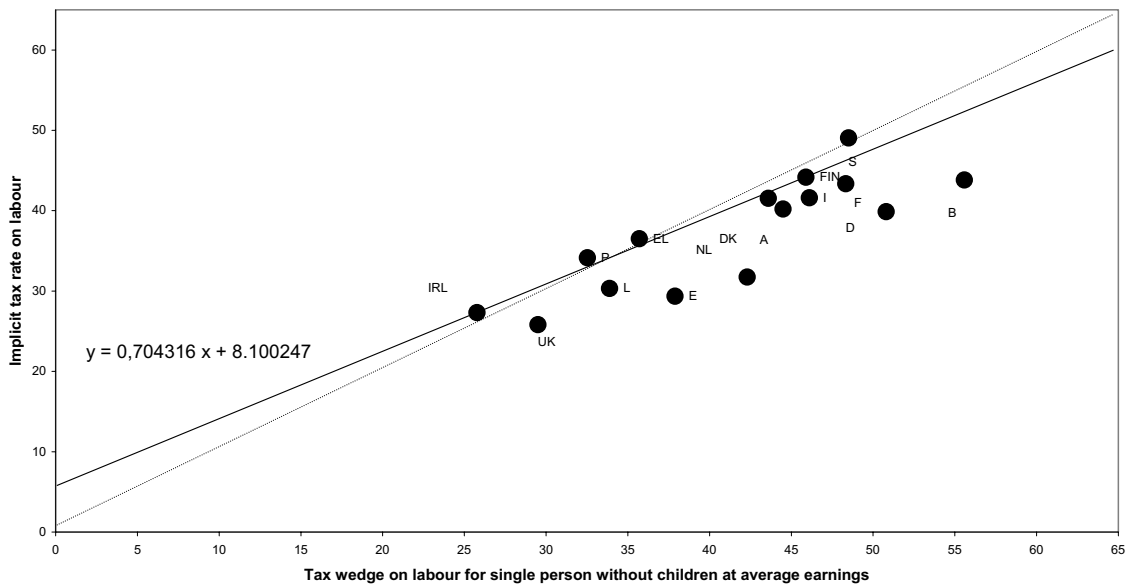
<sup>10</sup> If Spearman's Rho test is run on the different ranges of levels, it actually seems that the rankings are not method-specific. Spearman's correlation coefficient is a measure of the linear relationship between two variables. It differs from the standard Pearson correlation coefficient only in that the computations are done when the levels are converted to ranks. The actual value of the test statistic is 0.8357, while the critical value for the test statistic is 0.6536 for  $\alpha = 1\%$  and  $n = 15$ .

**Graph II-3.2** Pair-wise comparisons between macro and micro indicators  
2001, in %



Source: Commission services, using data from *Taxing Wages* (OECD (2001-2002 edition)).

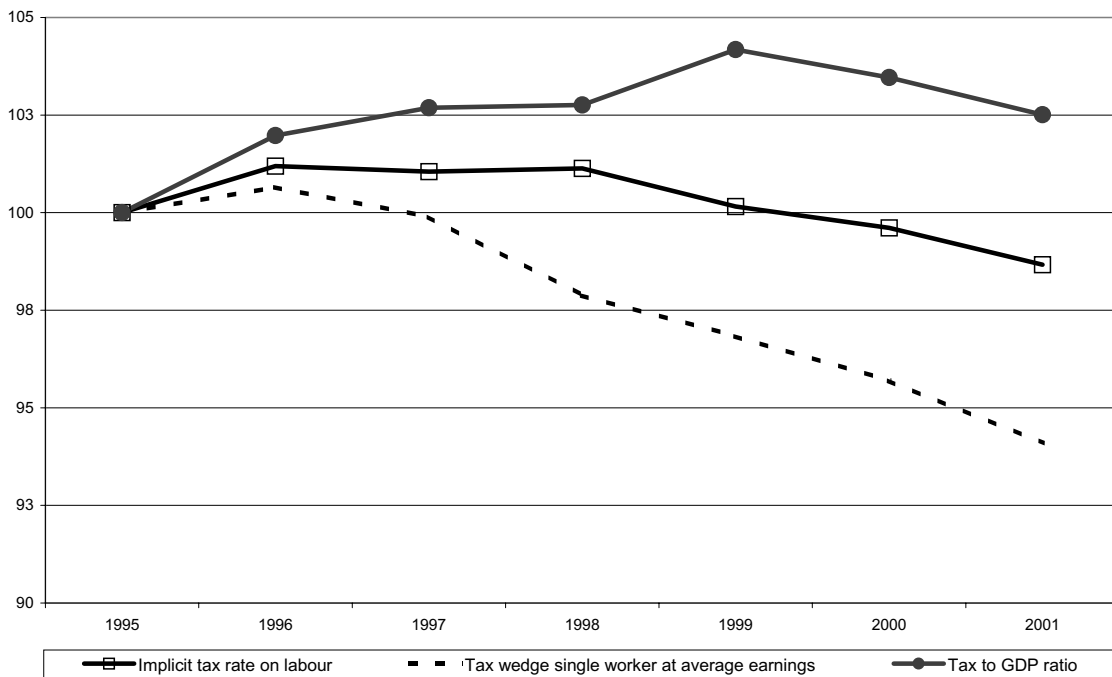
**Graph II-3.3** Relationship between macro and micro indicators  
2001, in %



Source: Commission services, using data from *Taxing Wages* (OECD (2001-2002 edition)).

The following graphs compare the time-trends between micro tax wedge indicators and two macro backward-looking tax ratios: the implicit tax rate on labour and the tax-to-GDP ratio. The tax-to-GDP ratio is calculated by expressing all taxes as a share of GDP. For each year GDP-weighted averages are computed. Indices representing the trend of each variable have been plotted in Graph II-3.4 (with 1995=100). Over the period 1995-2001, the EU average tax burden on labour visibly starts to decline. This trend is evidenced by the development of both indicators. However, the reductions in the tax wedges for an average production worker are clearly more pronounced for most Member States, as the consequences of the recent tax reforms immediately show up in this indicator. The changes in the tax wedges appear to be particularly large in Ireland, Italy, Finland and also in the United Kingdom (see also Table II-3.2).

**Graph II-3.4 Time trend micro and macro indicators in the Union**  
1995-2001, weighted averages, index 1995=100



Source: Commission services, using data from *Taxing Wages* (OECD (2001-2002 edition and previous editions)).

The latest 2001-2002 edition of *Taxing Wages* (2003) presents above average reductions in the tax wedge for a single worker at average earnings between 2000 and 2001 for Ireland (-3.1 percentage points) and the Netherlands (-2.8 percentage points). Ireland reduced both the standard rate and the higher rate of its personal income tax by two points each. The lower tax wedge in the Netherlands is a direct consequence of the 2001 tax reform. As part of the tax reform package, the combined rate of income tax and social contributions was reduced, with standard personal allowances being replaced by individual tax credits with an additional non-refundable tax credit for workers.

**Table II-3.2 Tax wedges for a single example worker at average earnings**  
1995-2001, in %

	1995	1996	1997	1998	1999	2000	2001
B	56,3	56,4	56,6	56,8	56,9	56,2	55,6
DK	45,2	44,8	45,1	43,7	44,5	44,4	43,6
D	50,2	51,2	52,3	52,2	51,9	51,8	50,8
EL	35,6	35,8	35,8	36,1	35,7	36,0	35,7
E	38,5	38,8	39,0	39,0	37,5	37,6	37,9
F	49,1	49,7	48,7	47,6	48,1	48,2	48,3
IRL	36,9	36,1	33,9	33,0	32,4	28,9	25,8
I	50,3	50,8	51,5	47,5	47,2	46,7	46,1
L	34,3	34,5	35,2	33,8	34,6	35,5	33,9
NL	44,8	43,8	43,6	43,5	44,3	45,1	42,3
A	41,2	44,8	45,6	45,8	45,9	44,9	44,5
P	33,7	33,8	33,9	33,8	33,4	33,5	32,5
FIN	51,2	49,4	48,9	48,8	47,4	47,3	45,9
S	49,3	50,2	50,7	50,7	50,5	49,5	48,5
UK	33,4	32,6	32,0	32,0	30,8	30,1	29,5
EU	46,1	46,4	46,1	45,1	44,6	44,1	43,4

Source: Commission services, using data from *Taxing Wages* (OECD (2001-2002 edition and previous editions)).

Trends in average tax ratios can conceal some important variation in patterns of change across Member States. Graph II-3.5 at the end of this paragraph therefore shows comparisons of trends in the tax ratios for all Member States. Comparisons for the implicit tax rate on labour are not only given with respect to the tax wedge indicator for a single average production worker, but also with respect to tax wedge indicators for a two-earner married couple without children. It appears that the general increasing or decreasing trends in the macro and micro indicators follow each other rather closely in most Member States. However, notable differences in the trends are visible for Greece, Ireland, Portugal and the United Kingdom. In principle, these differences could be explained by the conceptual differences between the two indicators and/or by strong economic growth<sup>11</sup>. A decomposition of the change in the denominator of the implicit tax rate on labour actually suggests that the differences could perhaps partly be attributed to cyclical movements during the period 1995-2001. The figures in Table II-3.3 show that the (estimated) average annual growth rate of the nominal compensation per employee during this period was clearly above the EU average in Greece,

<sup>11</sup> Some notable differences are also visible for Italy, and in 2000 for Denmark. The 1997-98 tax reform in Italy eliminated employer's compulsory health care contributions, bringing the overall employer's social contribution rate down substantially. At the same time, however, a new tax for employers, called 'IRAP', based on value added was introduced. For reasons of comparability, a part of the revenue of this new tax has in fact been allocated to labour income for the calculation of the implicit tax rate (and has also been included in the denominator of the implicit tax rate), while it is not actually levied on wages and salaries as such. It is not reflected in the micro tax wedge indicators. In Denmark, the slight increase in the implicit tax rate in 2000 can be attributed to the method of the split of the personal income tax. From 2000 onwards the rental value of owner-occupied housing is no longer a part of the personal income tax system. This has also affected the estimated part of the personal income tax that is raised on labour income.

Ireland and Portugal. The figures furthermore show that the average annual growth rate of the personal income tax revenue per employee was clearly above the EU average in Greece, Portugal and the United Kingdom<sup>12</sup>. For reasons outlined above, the increases in the average growth rate of the compensation of employees (or the compensation of a group of employees) could have induced a swing in the implicit tax rate on labour in these Member States that, to some extent, has offset the effect of the recent tax policy measures (that are incorporated and more visible in the micro tax wedge indicators that are computed for specific wage levels and household types).

**Table II-3.3 Growth rates of nominal compensation per employee and personal income tax revenue per employee**

Estimated average annual growth rates in %, total economy, 1995-2001

	Nominal compensation per employee	Number of employees	Personal income tax revenue per employee <sup>1</sup>
B	2,5	1,5	2,4
DK	3,6	1,4	1,9
D	1,3	0,8	1,2
EL	6,9	1,8	7,9
E	3,1	3,7	0,5
F	2,2	1,6	0,4
IRL	5,6	6,0	3,7
I	2,4	1,2	-0,6
L	3,0	4,6	1,1
NL	3,3	2,8	-0,8
A	2,0	0,9	3,4
P	6,2	1,1	5,8
FIN	3,1	2,6	3,2
S	4,1	1,1	2,9
UK	4,6	1,6	10,4
EU	3,4	1,6	3,4

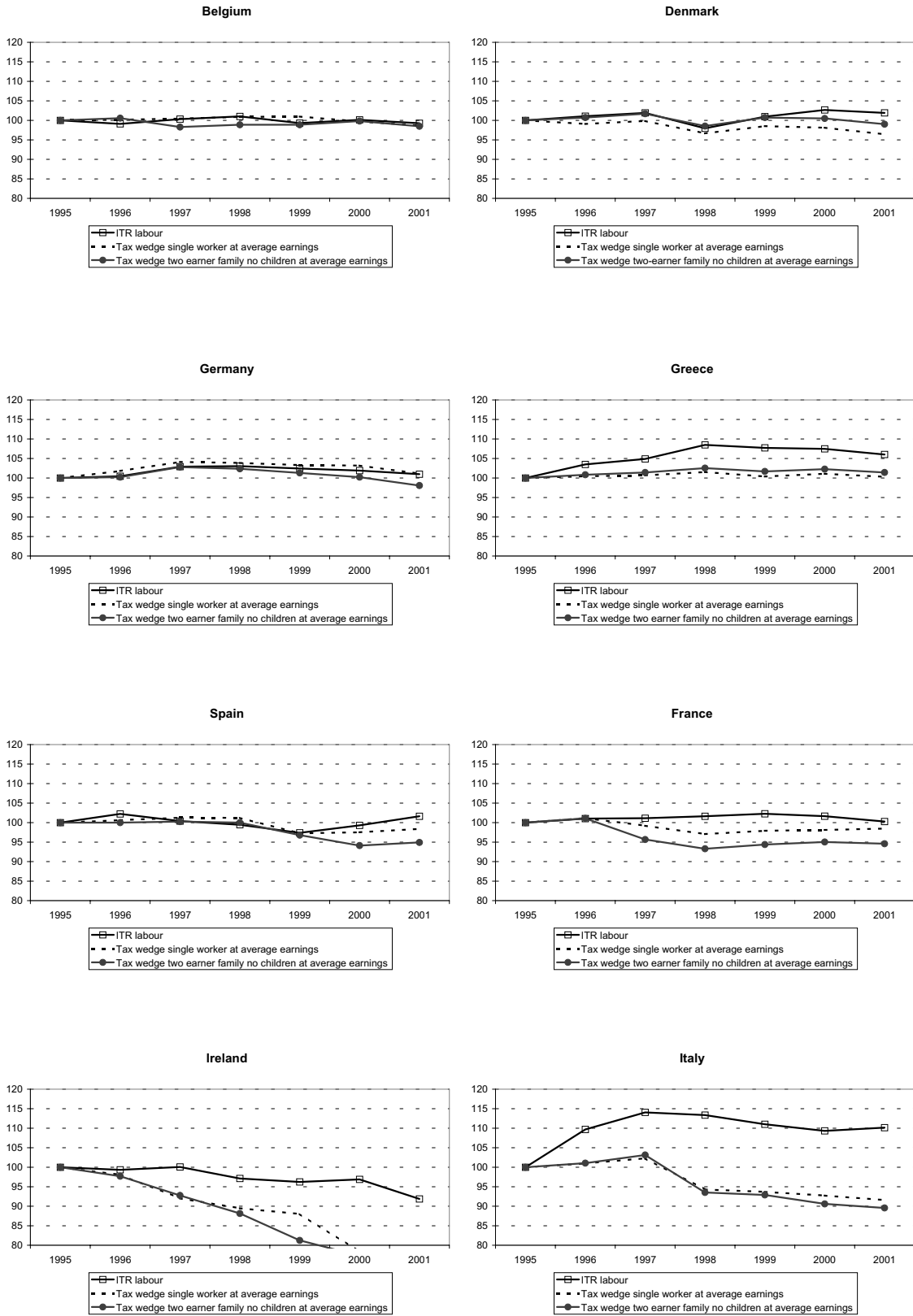
<sup>1</sup> Only income tax that is raised on (employed) labour income, excluding social contributions of any kind.

Source: Commission Services

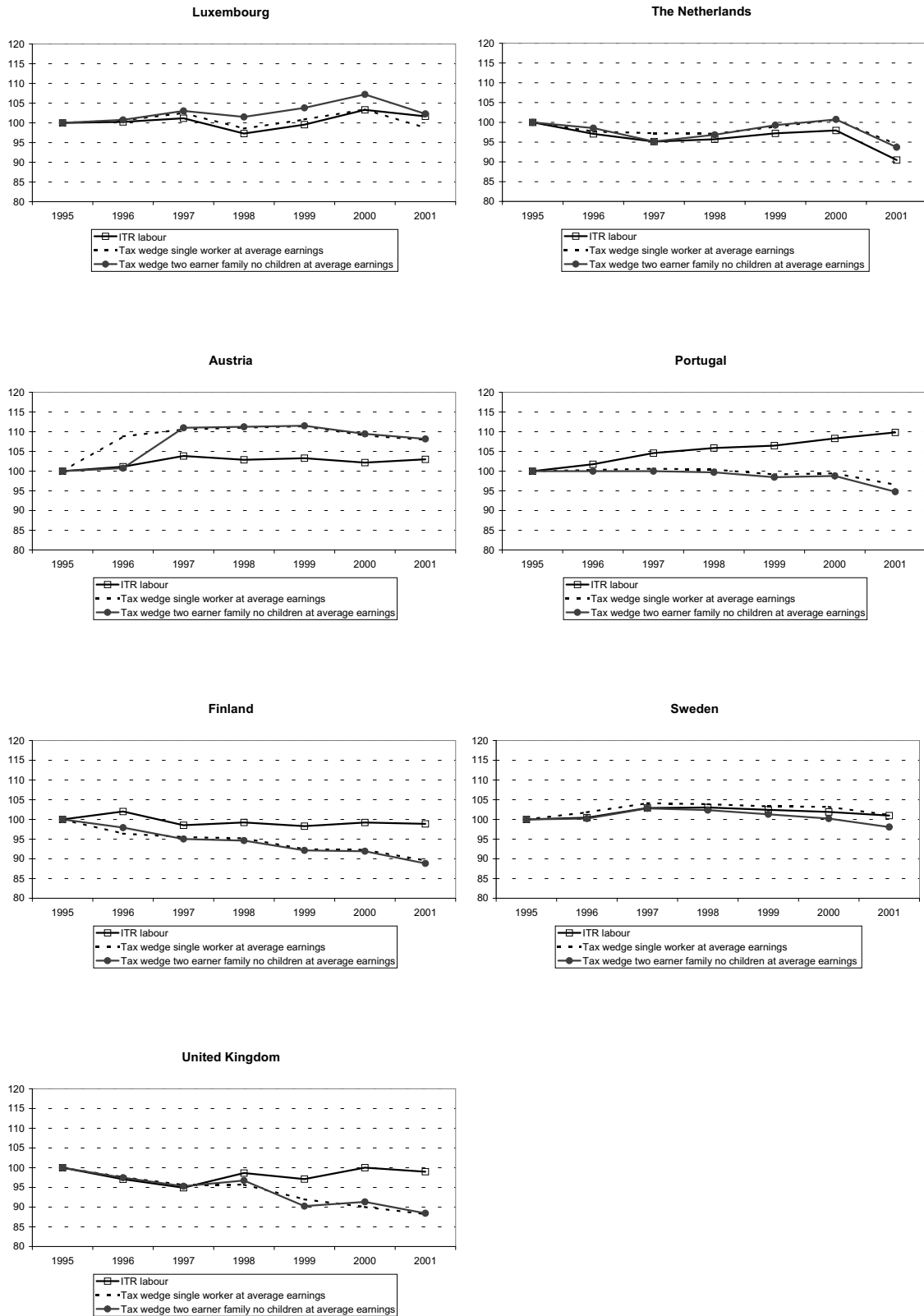
<sup>12</sup> For the UK, the revenue effect of the targeted reductions in personal tax at the lower end seem at the aggregate level to have been offset by increases in personal income at the top of the income scale. Some noticeable differences between the two indicators are also visible for Spain in 2000 and 2001. This should be attributed to a substantial increase in wages and salaries subject to tax as a result of a strong job creation process observed in the Spanish economy in the last few years.

The conclusion from these comparisons between micro and macro indicators should be that observations at the micro-level for one particular wage level cannot simply be projected onto the macro-level, and conversely. However, the correlation between the micro- and the macro indicators seems to be reasonably strong. Countries with a relatively high average tax wedge for production workers at average earnings should generally also have relatively high macro implicit tax rate of labour, and the other way around. With a few exceptions, both types of tax indicators should also have comparable informative content as regards to general increasing- or decreasing trends in the average tax burden on labour, although there can sometimes be sizeable differences in the level of the changes.

**Graph II-3.5 Time trend micro and macro indicators in the Member States**  
1995-2001, 1995=100



② Part II: Taxation of labour, capital and consumption ②



Source: Commission Services



#### 4. TRENDS IN THE IMPLICIT TAX RATE ON CAPITAL

##### 4.1. Increasing tax burden on capital in recent years

Although the increasing trend until 1999 in the tax burden on labour and the slight decrease in recent years appears to be an undisputed fact, empirical evidence on the tax burden on capital is more controversial. The implicit tax rate on other production factors as published in the previous edition of the publication ‘Structures of the taxation systems in the European Union’ based on national accounts ESA79 indicates for the 15 Member States of the European Union a slight decrease in the effective tax burden starting in 1981 until the mid eighties, followed by a period of stabilisation from the late eighties to the early nineties. Although the rates are not directly comparable, the new implicit tax rate (ITR) on capital for companies and households of Member States’ economies does not show a similar pattern. On the contrary, between 1995 and 2000 a sharp increase in this refined indicator can be observed<sup>1</sup>. In 2001 in some countries a reduction in the ITR on capital is discernible, partly offsetting the increase in prior years. Of the various implicit tax rates, the ITR on capital is the most complex and it is important that it is interpreted very carefully<sup>2</sup>. The ITR on capital is broadly based and its trends can therefore reflect a very wide range of factors, which can also be different for different Member States. However, four main transmission channels have been identified for the ITR on capital and business income, which seem to be relevant for most Member States. The country chapters in part III provide some further details for some Member States:

- Tax policy: Cuts in the nominal statutory tax rates on corporations were often at the same time accompanied by measures that broadened the taxable base (*e.g.* by reducing rates of capital depreciation allowances), at least to some extent offsetting the effects of the reductions in the statutory rate that most of the Member States have implemented in the period 1995 to 2001 (Table II –4.1).
- The business cycle: Theoretical reasoning as well as empirical evidence suggests that the ITR on capital income is sensitive to the business cycle, resulting in a rise partly caused by the expansionary phase that lasted until 2000.
- This expansionary phase in the late 1990s was accompanied by booming stock markets across-the-board. As a result, capital gains and the corresponding tax revenues have risen substantially. As the capital gains are not included in the denominator of the ITR on capital, this development clearly constitutes a source of overestimating the average effective tax burden on capital and business income, and partly explains the rise in the ITR for some Member States.

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<sup>1</sup> A more pronounced increase could be observed for the indicator that was used in the previous edition of the ‘Structures of the taxation systems in the European Union’. The denominator of this previous indicator is not a good approximation of taxable capital income in the economy since it neglects considerable parts of financial profits and property income. Carey and Rabesona (2002) also report increases in the implicit tax rate on capital while using a similar (biased) denominator.

<sup>2</sup> The construction of this indicator and its possible sources of bias in measuring the effective tax burden on capital are mentioned in paragraph II-1.3.3 and are explained in detail in European Commission 2003.

- Structural changes in investment financing of companies: National accounts data shows that during 1995 to 2001, in most Member States a relative shift in financing with less interest and more dividend payments has taken place. This also happened against the background of dropping interest rates. Most tax systems in the EU are not neutral concerning financing and allow interest payments deductions to calculate the tax base. The relative shift towards more dividend distributions results in a higher average tax burden on companies' profits<sup>3</sup>.

**Table II-4.1 Top statutory corporate income tax rate<sup>1</sup>**

	1995	1996	1997	1998	1999	2000	2001	Diff. 2001-1995
B	40.2	40.2	40.2	40.2	40.2	40.2	40.2	0.0
DK	34.0	34.0	34.0	34.0	32.0	32.0	30.0	-4.0
D	56.8	56.7	56.7	56.0	51.6	51.6	38.3	-18.5
EL	40.0	40.0	40.0	40.0	40.0	40.0	37.5	-2.5
E	35.0	35.0	35.0	35.0	35.0	35.0	35.0	-0.0
F	36.7	36.7	36.7	41.7	40.0	36.7	36.4	-0.2
IRL	40.0	38.0	36.0	32.0	28.0	24.0	20.0	-20.0
I	52.2	53.2	53.2	41.3	41.3	41.3	40.3	-12.0
L	40.9	40.9	39.3	37.5	37.5	37.5	37.5	-3.4
NL	35.0	35.0	35.0	35.0	35.0	35.0	35.0	0.0
A	34.0	34.0	34.0	34.0	34.0	34.0	34.0	0.0
P	39.6	39.6	39.6	37.4	37.4	35.2	35.2	-4.4
FIN	25.0	28.0	28.0	28.0	28.0	29.0	29.0	4.0
S	28.0	28.0	28.0	28.0	28.0	28.0	28.0	0.0
UK	33.0	33.0	31.0	31.0	30.0	30.0	30.0	-3.0
Mean EU-15	38.0	38.1	37.8	36.7	35.9	35.3	33.8	-4.3
St. Dev. EU-15	8.1	7.9	8.0	6.9	6.4	6.6	5.5	-2.7

<sup>1</sup> Only the top rate is presented. Surcharges and (weighted averages of) local taxes are included when they exist. It is important to note that some countries apply also small profit rates or special rates (e.g. in case the investment is financed through issuing new equity), or alternative rates for different sectors. Such alternative tax rates can be substantially lower than the top rate. Ireland, for example, applies a 10% rate to the manufacturing sector and certain internationally traded companies. Spain and the Netherlands, for example, have introduced a lower statutory tax rate of 30% for small- and medium sized enterprises and lower profits, respectively, which might affect a substantial part of the companies.

Source: Commission Services

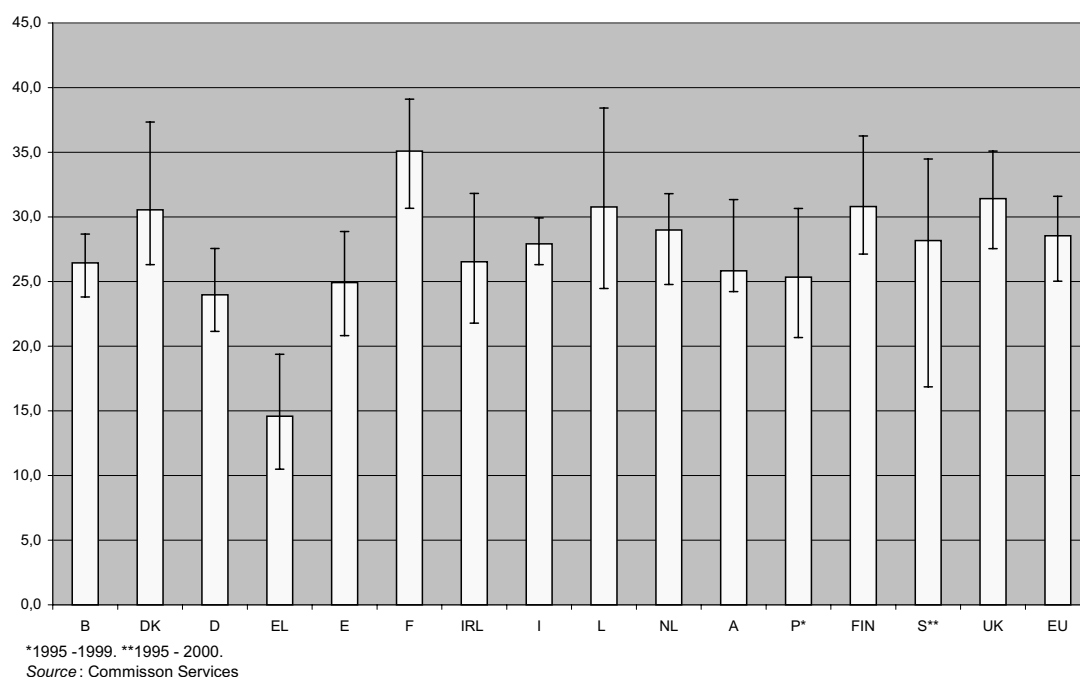
#### 4.2. Implicit tax rates on capital

The ITR on capital income measures the average effective tax burden on the economic activities of private sector investment and saving by dividing tax revenues on capital by a measure of potentially taxable capital and business income in the economy. The broader implicit tax rate on capital includes also taxes that are related to stocks of wealth stemming from savings and private sector investments in previous periods, as well as taxes on transactions of these stocks. This means, for instance, that not only taxes on profits are included but also taxes and levies that could be regarded as a prerequisite to earn the profit, like the real estate tax or the motor vehicle tax paid by enterprises. Companies have to pay this kind of taxes out of their annual profits. Because national accounts do not deliver an indicator for the tax base of taxes levied on capital stocks or their transactions a more narrowly defined ITR on capital income for the private sector is presented in addition.

<sup>3</sup> European Commission (2001a).

### Graph II-4.1 Implicit tax rate on capital

Average 1995 - 2001 in % and minimum and maximum level over that period



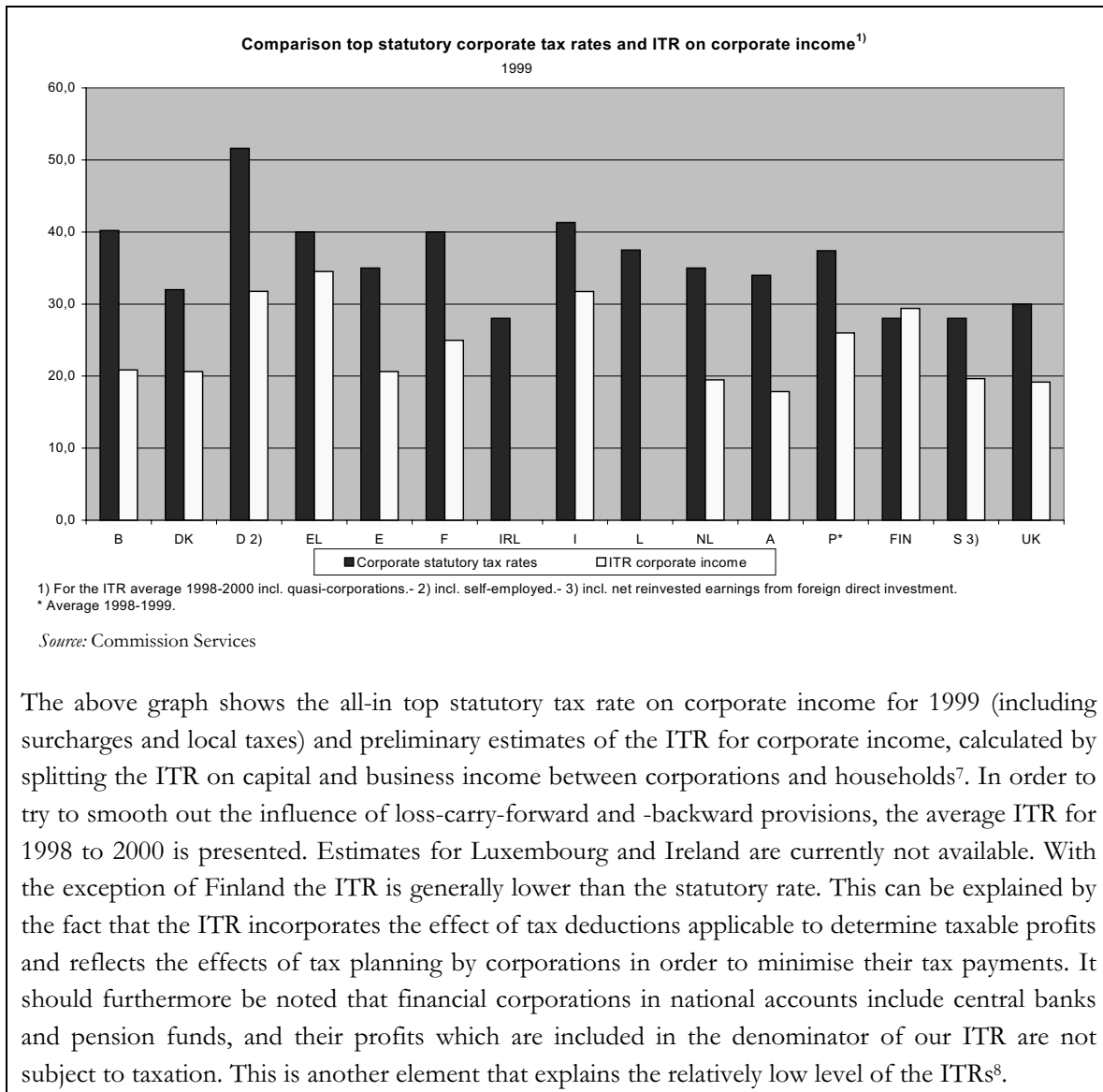
Graph II-4.1 presents the ranking of countries according to the average for the overall ITR on capital between 1995 and 2001 and the maximum and minimum deviation. At first sight, the result looks a little bit surprising. For example, Germany is situated under the European average and the United Kingdom above the European average concerning the effective taxation of capital<sup>4</sup>. It should however be kept in mind that this indicator reflects a mixture of the tax burden on households and companies and from taxes on capital stocks and capital and business income.<sup>5</sup> Besides France and Greece, all countries are pretty close to the European average. Table D.3 in Annex A presents the annual rates. With the exception of Belgium and Italy in all countries relatively strong increases in the ITR on capital can be observed. The most pronounced increases occurred in Spain, France, Sweden and the United Kingdom<sup>6</sup>.

<sup>4</sup> The UK figures however are known to be biased upwards due to the inclusion of tax on second-pillar pension benefits that are allocated to the capital income category whilst the benefits could not be incorporated in the denominator of the ITR. Other factors which could affect/bias comparisons between Member States are described in part II-1.3.3. Their importance differs between Member States according - for instance - to a different share of financial companies making capital gains.

<sup>5</sup> Box 13 compares preliminary results of the implicit tax rate for corporate income with the top all-in statutory corporate tax rates indicating that a split of the ITR between households and corporations is possible and that it results in a reasonable relationship between these two indicators.

<sup>6</sup> It should be noticed that for Luxembourg and Ireland only a more simplified definition of the denominator is available that includes the balance of all property income for the private sector. To apply the refined denominator a full set of sectoral data in national accounts is necessary that is not existing for the moment in these countries. The analysis of more detailed data for other Member States suggests that the increase in the ITR is overestimated when using this simplified denominator.

**Box 12 Implicit tax rate on corporate income**



<sup>7</sup> The preliminary ITR is defined as all taxes on corporate income divided by the denominator of the ITR on capital and business income (box 10 in paragraph 1.1.3) without the net operating surplus (including mixed income) and balance of property income of households, self-employed and non-profit organisations.

<sup>8</sup> The profits of financial corporations within national accounts include profits from investments of pension funds, which may not be subject to taxation at the corporate level in all Member States. It is believed that this effect is relatively important for the Netherlands.

## Box 12 Continued

Making a comparison with an ITR using micro data from tax statistics, Valenduc (2001:13) finds that the ITR based on macro data tends to underestimate the effective taxation on company profits. On the other hand, the tax base of the ITR as a measure for the average of the economy takes into account all loss making companies that do not pay taxes. Capital gains are part of the taxable profits but by the definitions of national accounts they are not included in the tax base of the ITR. This would be another source for overestimating this ratio and could probably explain the high ITR in Finland. Although up to now only preliminary estimates are available, the implicit tax rate for corporate income seems to lie in a reasonable order of magnitude.

### 4.3. Driving forces behind changes of the ITR on capital income

The ITR on capital is a complex aggregate indicator, for which it is not straightforward to explain trends. This section considers some of the driving factors that may have influenced it. Graph II-4.2 shows a decomposition of the ITR on capital between capital income and the part related to capital stocks or their transactions. The columns represent the absolute difference in the ITR between 1995 and 2001 in percentage points<sup>9</sup>. Given the relatively stable trend over this period, this difference is an approximation for the development of the ITR between 1995 and 2000. With the exception of Germany, Italy and Finland, the ITR on capital increases in all countries within a range of 4 to 17 percentage points. This increase mainly reflects an increase in the implicit tax rates on capital income. In Belgium, Denmark, Greece, and Portugal, the increase of tax revenues in the category 'stocks (wealth) of capital' contributes significantly to this development. We focus below on the ITR on capital income and discuss the reasons behind the general increase in the implicit tax rate. It should be noted from the outset that this description sometimes hides the overall increase between 1995 and 2000 because a substantial drop of the ratio has taken place in 2001 in some countries. In Germany this is related to the reduction of the corporate tax rate to a uniform rate of 25% and related special transformation provisions<sup>10</sup>. Also in Finland the ITR fell back to its initial level in 1995, although its rise has been very pronounced until 2000. In Austria only in 2001 the ratio rose substantially although before the increases have been relatively modest.<sup>11</sup>

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<sup>9</sup> The detailed sectoral data for 2001 for the construction of the denominator is not available for Luxembourg and Ireland. For Portugal the last year for which a full set of sectoral accounts is available is 1999. For Sweden it is 2000. For these two countries a drop in the ITR in 2001 that is visible in the majority of other countries could therefore not be reported.

<sup>10</sup> In 2001 the revenues from corporation tax fell dramatically from about 26 million euro to 2 million euro. This can partly be explained by the special effect of changes in legislation related to the first reduction of the corporate tax rate for distributed profits. Until the end of 2001 corporations could claim the difference in taxation of retained profits - taxed with a rate of 45% in former years - and the new rate of 30% if they distributed these profits. Corporations massively applied these rules resulting in substantial refunds. At the same time, revenues from dividend tax and PIT increased due to the taxation of distributed profits at the individual level.

<sup>11</sup> The increase in 2001 is related to base broadening measures and significantly increasing tax pre-payments, in reaction to the introduction of interest charges on tax arrears from October 2001 onwards.

**Graph II-4.2 Decomposition ITR on Capital**  
 Difference 2001 to 1995 - in %-points

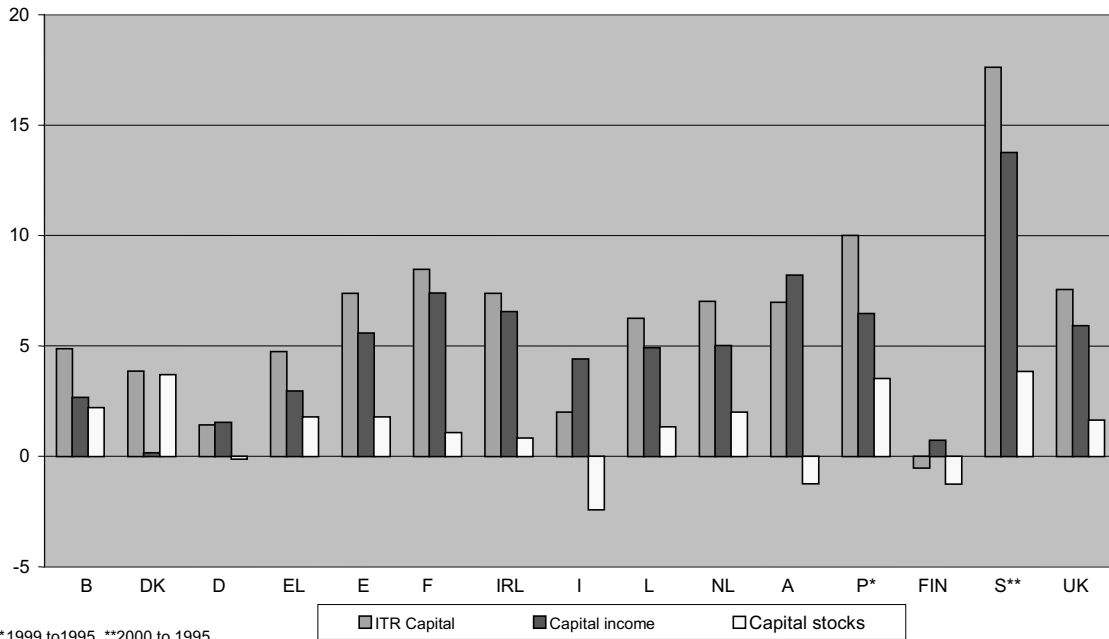


Table II-4.2 presents the ITR on capital income until 2001. In most countries continuous increases in these years are visible. In Italy, Luxembourg, Austria and Sweden a fluctuating movement can be observed in this tax ratio. The figures for 2001 indicate that the peak was reached in 2000<sup>12</sup> for some countries. Large changes in backward looking measures of the tax rate on capital are not unusual and are not specific to aggregate data. Recent tests on Belgium and Sweden<sup>13</sup> report annual changes of several percentage points for effective tax rates derived both from national accounts data or tax statistics using micro data for companies. The calculations presented here have similar features.

<sup>12</sup> Also the figures for the European average show a slight decrease. Since data for 2001 are not available for all Member States the developments for Sweden, and Portugal are not included.

<sup>13</sup> Valenduc (2000), OECD (2001b).

**Table II-4.2 Implicit tax rate on capital income in the Union**

1995 to 2001 - in %

	1995	1996	1997	1998	1999	2000	2001	Diff. 01-95
B	15.7	15.8	16.2	17.5	17.6	17.8	18.4	2.7
DK	17.5	19.0	20.2	24.2	27.0	17.1	17.6	0.2
D	16.9	19.4	18.8	19.6	21.9	23.4	18.4	1.5
EL	7.9	7.3	8.6	10.6	11.4	13.4	10.9	3.0
E	13.7	14.2	16.3	16.4	18.8	19.8	19.3	5.6
F	14.6	16.4	17.0	17.3	19.4	20.3	22.0	7.4
IRL <sup>1)</sup>	15.2	17.5	18.1	17.6	21.8	23.9	21.7	6.5
I	17.3	18.4	20.8	19.1	20.9	21.3	21.7	4.4
L <sup>1)</sup>	24.0	18.9	19.8	22.4	20.7	26.4	26.2	2.2
NL	17.2	19.4	20.3	20.5	22.0	20.8	22.3	5.0
A	18.6	21.0	20.9	21.3	20.6	20.0	26.8	8.2
P*	12.9	15.1	16.9	17.1	19.3	n.a.	n.a.	4.2
FIN	22.2	24.0	24.9	26.4	27.9	31.4	22.9	0.7
S**2)	10.7	18.4	17.6	20.7	22.4	24.5	n.a.	13.8
UK	18.5	18.9	21.1	22.5	23.4	23.3	24.4	5.9
<b>EU</b>	<b>16.2</b>	<b>17.8</b>	<b>18.9</b>	<b>19.3</b>	<b>21.0</b>	<b>21.7</b>	<b>21.0</b>	<b>4.8</b>

\* 1999 to 1995. \*\* 2000 to 1995

1) Calculated with a simplified denominator due to lack of full sectoral accounts data

2) Denominator including net reinvested earnings on foreign direct investment

Source: Commission Services

The increase in the ITR over this period does not fully reflect recent policies. It partly reflects previous steps towards a broadening of the capital tax base. Recently, most Member States have introduced (or envisage further) tax reforms aimed at reducing the taxation of entrepreneurial income and other capital income. But these reforms are still recent and it is too early to see their full impact on tax revenues. This becomes in particular reasonable if one takes into account that a certain time lag between the change of legislation and the collection of the revenues by the government exists. This means that the figures in national accounts do not follow a real accrual principle. Most statistical offices use time-shifted (for a few months) cash figures and declare them as accrual<sup>14</sup>.

Another important explanation for this overall increase in the implicit tax rate lies in the general good condition of the European economy in that period and the position in the business cycle. The first year 1995 of the period under investigation was, in almost all countries, a year of recovery from the 1993 recession. The whole period until 2000 can be characterised as an upswing with a slower pace in 1998 due to the impact of the Asian crisis. At the same time the EU was preparing for the

<sup>14</sup> In addition, it should be noted that the figures could be affected by differences over time in methods in which national tax administrations determine final tax liabilities and actually collect the tax revenues. Separate calculations by the Ministry of Finance in the Netherlands using other (unpublished) accrual figures (in which the effect of such differences in collection methods has been eliminated) suggest a less pronounced increase in the ITR on capital income.

European Monetary Union and introducing the euro. Both cyclical as well as structural mechanisms influencing the development of the ITR have been identified.

#### 4.3.1. *Cyclical factors affecting the development of capital ITR*

The sensitivity to the business cycle is a general feature of backward-looking indicators that measure the average effective tax burden on economic activities. In principle, *ceteris paribus*, three different factors influence the ITR on capital income in an economic recovery:

- In countries with a progressive personal income tax, the ITR should rise in an upswing. If taxable income from capital and self-employment increases, the taxes raised on this income increase faster.
- Corporate tax schedules are generally not progressive and therefore the economic cycle should not affect the ITR via that channel of influence. However, some Member States do apply lower rates for small and medium sized enterprises. In an ongoing upswing some of these companies will exceed the tax legislative thresholds resulting in a higher tax burden.
- A cyclical effect on the ITR could be transmitted via the asymmetric influence of company losses. When relying on aggregate data from national accounts, corporate income tax revenues appearing in the numerator of the ITR are reduced by losses incurred in prior years, while the denominator is reduced by losses in current years. The numerator effect is caused by so-called loss ‘carry forward’ provisions in the tax legislation. The denominator effect results from the inclusion of loss-making firms, with current losses from loss-making firms offsetting profits of profitable firms in the aggregation. Losses are therefore incorporated in both the numerator and the denominator, but the losses are transmitted in the ITR asymmetrically in the sense that they refer to different periods. Now in the beginning of an economic upswing more firms will make profits. Initially this means that the ITR on capital would be reduced because the resulting increase in profits is immediately reflected (in the denominator) but not fully in the tax payments (in the numerator) due to losses that are carried forward. However, one could expect the latter effect diminishes over time, as loss-carry forward provisions are often restricted in time and more and more companies make profits as the upswing persists. This diminishing effect of loss carry-over provisions should therefore lead to a gradual increase in the ITR on capital due to progressive increases in tax payments.

All in all, generally no clear direction of influence on the ITR during the whole business cycle could be expected from the outset. However, in a long lasting economic upturn these channels of influence will point most likely to an increase in the implicit tax rate on capital with a certain time lag. Under the assumption of a constant split of the personal income tax (prior to the year 1995)<sup>15</sup>, it was possible for Germany, Italy, Finland and the United Kingdom to calculate longer, provisional time trends for the ITR using ESA95 data. Graph II-4.3 illustrates the sensitivity of the ITR to the business cycle, using the output gap as calculated by the Commission Services as an indicator of the degree the GDP diverges from its potential value assuming a normal utilisation of production

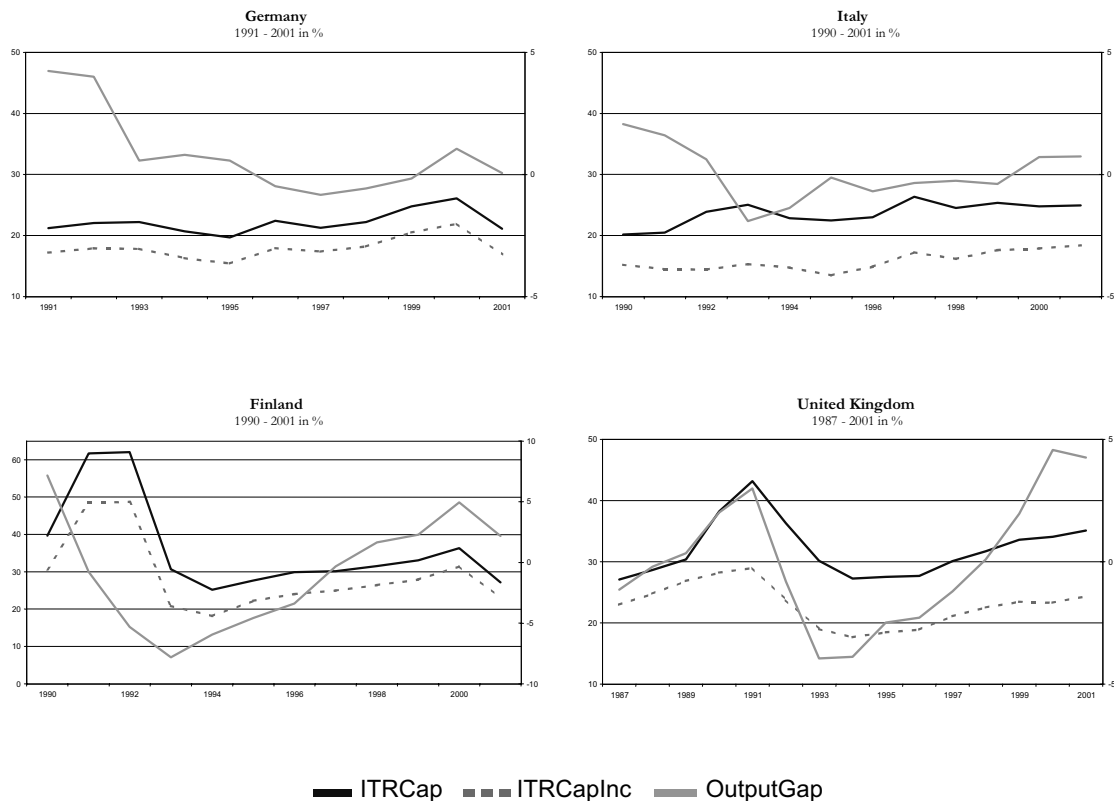
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<sup>15</sup> Generally this assumption is only reasonable in the absence of major tax reforms. The figures before 1995 should thus be considered as broad estimates only.



capacities<sup>16</sup>. Only in the UK a clear pro-cyclical behaviour of the ITR is at work. In the other graphs the economic downturn appears to be reflected in an increase in the ITR that is reversed when the upswing starts. During the following expansionary phase the ITRs tend to rise again. The graphs confirm (i) that the increase over the expansionary period 1995-2000 has indeed a cyclical component; (ii) that the suggested time-lag in the behaviour of the ITR is more or less visible (but to a lesser degree in the United Kingdom).<sup>17</sup>

**Graph II-4.3 ITR capital and output gap<sup>18</sup>**



Source: Commission Services

To further identify the most important driving factors underlying the increase in the capital income ITR, we decompose stepwise the changes in the tax base and the tax revenues by types of income

<sup>16</sup>The output gap is defined as difference between the estimated potential GDP and its actual value. The output gaps figures are calculated by the Commission's services as described in Denis, Mc. Morrow and Röger (2002).

<sup>17</sup> The sharp drop in the ITR for Finland in 1993 seems to be related to a structural tax reform that introduced the system of so-called 'dual income taxation'. This tax reform resulted in a substantial decrease of the tax burden on capital. It should furthermore be noted that the estimation of the output gap in Germany is strongly influenced by the unification boom in the early nineties. Taking this exceptional period as a reference likely leads to an estimation of potential GDP that is not very sensitive to business cycle fluctuations in later years.

<sup>18</sup> For the years prior to 1993 (Finland) and 1995 (Germany, Italy, UK), the ITR on capital and capital income have been built using ESA95 historical data and assuming a constant share of PIT on capital and self-employed income.

and sectors. These calculations are only a first step in unravelling the factors affecting the numerator and the denominator which both reflect a large set of factors. Further insights can be expected from the split of the ITR between corporations and households that will be presented in the next edition of the publication 'Structures of the taxation systems in the European Union'. All the calculations rely on aggregates defined in % of GDP and the changes are absolute differences of these ratios. These calculations show that complex mechanisms are at work.

**Table II-4.3 Contributions of corporations and households for the development of ITR on capital income**

Difference 2001 to 1995

	ITR on capital income in %	Numerator			Denominator		
		in %-points of GDP					
		Total	Corporations	Households	Total	Corporations	Households
<b>B</b>	2.7	0.2	0.7	-0.5	-4.2	-0.9	-3.3
<b>DK</b>	0.2	-0.1	0.1	-0.2	-0.7	2.7	-3.4
<b>D</b>	1.5	0.3	-0.3	0.6	-0.8	-2.7	1.9
<b>EL</b>	3.0	0.9	0.6	0.3	-8.6	-1.6	-7.0
<b>E</b>	5.6	1.1	1.1	0.0	-5.1	-0.9	-4.2
<b>F</b>	7.4	1.7	1.4	0.4	-1.1	-1.2	0.1
<b>IRL<sup>1)</sup></b>	6.6	1.2	0.8	0.4	-3.7	<i>n.a.</i>	<i>n.a.</i>
<b>I</b>	4.4	1.0	0.7	0.3	-4.8	0.1	-4.9
<b>L<sup>1)</sup></b>	2.2	-1.1	0.2	-1.3	-8.0	<i>n.a.</i>	<i>n.a.</i>
<b>NL</b>	5.0	1.0	1.0	0.1	-2.2	0.1	-2.3
<b>A</b>	8.2	2.6	1.7	0.9	1.1	-1.3	2.4
<b>P*</b>	6.5	1.3	1.3	0.0	-4.6	0.2	-4.7
<b>FIN</b>	0.7	2.1	2.0	0.1	8.4	8.5	-0.1
<b>S**2)</b>	13.8	2.6	1.0	1.6	-3.7	-3.0	-0.7
<b>UK</b>	5.9	1.4	0.9	0.5	-1.0	-0.1	-0.9

\* 1999 to 1995 \*\* 2000 to 1995

1) Calculated with a simplified denominator due to lack of full sectoral accounts data

2) Denominator including net reinvested earnings on foreign direct investment

Source: Commission Services

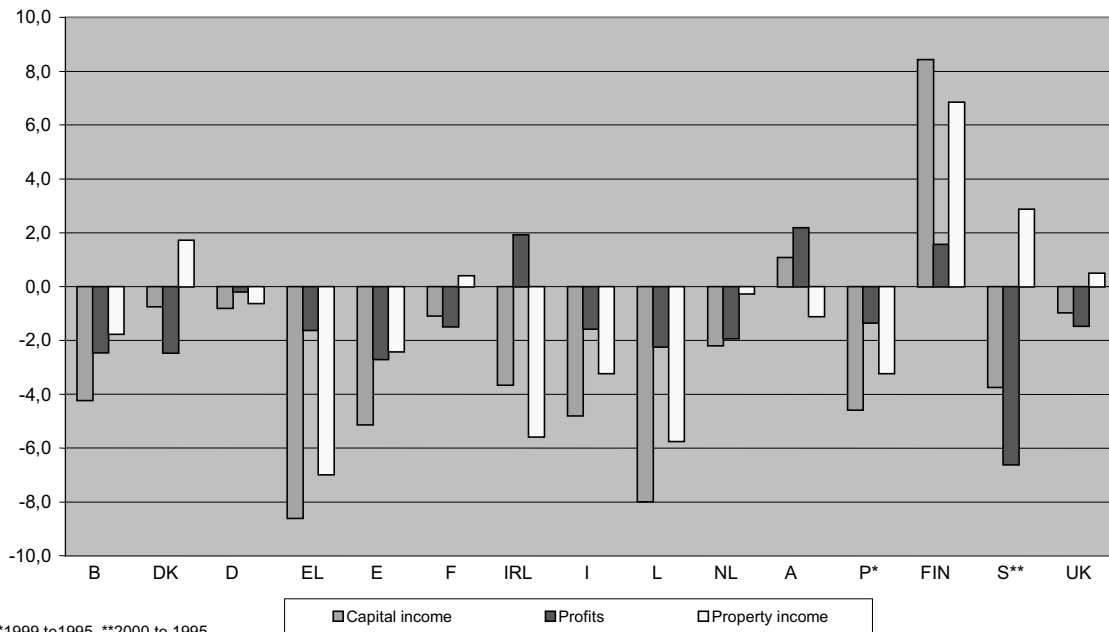
Table II-4.3 shows increasing tax revenues, except for Denmark and Luxembourg. In most countries this stems mainly from higher taxes paid by corporations. More detailed tax revenue data shows that this is more specifically the result of increases in revenue from corporate income tax. In other countries like in Germany or Sweden, however, tax revenue increases from households appear to play a more prominent role. Detailed information from Swedish tax statistics point out that taxes raised on capital gains were very important. Germany witnessed a sharp reduction in corporate tax revenues in 2001, but in the years before these revenues increased remarkably.

However, the increase in the ITR is mainly driven by a reduction in the share of the tax base in GDP. The share of profits and capital income in percentage points of GDP dropped in the majority of Member States except in Austria and Finland. This drop - mainly relates to the self-employed reported within the household sector, which is somewhat surprising in an (on average) expansionary phase like in the last years. This points out that the upswing in the last decade exhibited some peculiar features compared to the 'standard' economic cycle.

4.3.2. *Specific patterns of the period 1995 to 2000*

Graph II-4.5 shows that the relative decrease in the tax base corresponds mostly to a decrease of profits in proportion to GDP that is measured by the net operating surplus of the private sector, including self-employment income in Belgium, Denmark, Spain, France, Netherlands, Sweden and the United Kingdom. A relative decrease in property income (interest, dividends, rents on land) appears to be the main driver in Germany, Greece, Ireland, Italy, Luxembourg and Portugal. More detailed data on interest payments gives a common explanation linked to the reduction in government interest payments during the pre-EMU fiscal consolidation phase eased by lower interest rates<sup>19</sup>.

**Graph II-4.4 Composition of the denominator of ITR on capital income**  
Difference 2001 to 1995 - in %-points of GDP



\*1999 to 1995. \*\*2000 to 1995.  
Source: Commission Services

More detailed data on the composition of generated profits also points to a genuine reduction in profits of market activities. The household sector's operating surplus mainly consisting of imputed rents, where it can be calculated, is not responsible for the drop in the relative tax base<sup>20</sup>. This means that, in most countries, companies including self-employed businesses could not increase their profits in line with the overall economic growth. As mentioned before, this relative decrease of profits from market activities in relation to GDP in an upswing is somewhat unusual.

<sup>19</sup> Only in Luxembourg, where all net property income is included in the denominator, the relative reduction in net property income can be assigned to less property income received from the rest of the world.

<sup>20</sup> Profits of household sector consists of self-employment mixed income and an operating surplus which accounts mainly for imputed rents of owner occupied houses. In most Member States these imputed rents are not taxed. Unfortunately they can only be separated for very few countries.

Table II-4.3 identifies the main driving forces behind this pattern, by reviewing the changes in the composition of GDP explained by the side of income distribution measured by a de- or increase in %-points. Increases in indirect taxes or cuts in subsidies can be identified as an explanation for this unusual feature in the majority of countries. High competitive pressure on companies during that period, leaving no room for a price increase as a response to the rise in indirect taxes and reduction in subsidies, would be an economic interpretation explaining this statistical finding. In Sweden and the United Kingdom a rising share for the compensation of employees played an important role for the relative profit squeeze. The relative increase in consumption of fixed capital (depreciation) puts additional pressure on the development of net profits, but this occurred to a remarkable extent only in Belgium, Spain and Austria.<sup>21</sup>

**Table II-4.4 Development of primary income distribution**

Difference 2001 to 1995 - in %-points of GDP

	Indirect taxes less subsidies	Compen- sation of employees	Gross operating surplus <sup>1)</sup>		
			Government	Private sector	
				Depreciation	NOS <sup>2)1)</sup>
B	0.5	0.4	-0.2	1.0	-2.5
DK	1.1	1.3	-0.6	0.4	-2.5
D	0.7	-1.2	-0.2	0.5	-0.2
EL	1.7	0.7	0.0	-0.1	-1.6
E	1.3	0.2	0.0	0.9	-2.7
F	-0.1	0.8	0.0	0.2	-1.5
IRL	-0.1	-4.0	0.0	0.0	2.3
I	2.6	-1.8	0.7	0.0	-1.6
L	0.9	-1.5	-0.5	-1.7	-1.6
NL	1.6	0.5	-0.4	0.5	-1.9
A	0.1	-2.5	-1.2	1.4	2.2
P*	0.8	0.5	0.1	0.3	-1.3
FIN	0.9	-0.9	-0.3	-1.6	1.6
S**	2.6	2.6	0.2	0.6	-6.6
UK	0.4	2.4	-0.2	-0.9	-1.5

\* 1999 to 1995. \*\*2000 to 1995. - 1) including mixed income. - 2) Net operating surplus.

Source: Commission Services

The conclusion so far is that the net operating surplus of the private sector has decreased in relative terms, without a corresponding reduction in corporate tax revenues. This hides effects that are different from the impact of the business cycle and the specific features of that period. Moreover, the relative reduction in property income is of similar importance in explaining the rising trend in the ITRs on capital.

<sup>21</sup> The calculation of consumption of fixed capital in national accounts differs a lot from the methods applied in company accounts for tax reasons. This is an additional source of bias in measuring the effective tax burden on capital using data from national accounts (European Commission 2003a).

#### 4.3.3. *Structural factors affecting the development of capital ITR*

Beyond the effects of the business cycle, the changes in the ITRs might also reflect more structural changes, in particular in the composition of income. For example, in a period of booming stock markets during the years 1995 to 2000 it is likely that companies and households could increase their financial income through realising capital gains. This change in the composition of income is not reflected in national accounts and it is also not included in the tax base of the ITR. The additional tax revenues related to this kind of income have induced a rise in the ITRs on capital income overestimating the effective tax burden on capital income of the private sector. By the same reasoning, the subsequent downturn in stock markets would be an important element in explaining the reduction in the ITR on capital income in 2001.

In addition, two other mechanisms are at work: 1) different tax provisions for different sources of income and 2) a netting off of capital flows within the private sector in an aggregate measure of the tax base.

Specific tax rates or special types of tax relief apply to different sources of income or expenditures. A common feature of corporate tax systems, for instance, is to favour debt finance relative to financing new investments by issuing new equity. For the ITR, dividend and interest payments are aggregated within the tax base. If financial markets would induce a shift from interest to dividend payments, the taxable base will increase. In this case companies will pay more tax and hence capital tax revenues will rise since the deduction of interest expenditures for determining taxable profits is phased out. At the same time, however, the aggregate and consolidated tax base of the ITR will net off all flows of dividend distributions or interest payments between different companies (for instance between non-financial companies as borrower and banks or insurance companies as creditor) and private households. If a shift occurs from interest to dividend payments it will not show up in the denominator, and hence the capital ITR will remain constant. The overall result of the higher tax revenues will be an increase in the ITR reflecting a higher effective tax burden that is caused by the effects of the tax legislation. However, the tendency for the ITR to increase can be offset to some extent by the fact that interest is often more highly taxed than dividends in the hands of personal investors<sup>22</sup>.

Asymmetries in the taxation of company profits and household income also matter. The composition of income might change as a result of structural changes in investment and saving behaviour. If, for instance, companies increase their dividend payments to households whilst they are not making more profits, this does not affect the base because of the netting off within the private sector. This hardly affects the corporate income tax paid, but households pay taxes on these dividend receipts. As a result, the ITR on capital will increase. The same reasoning also applies to interest payments. In this case, the net result on taxes is the difference between the increase in taxes households have to pay on these revenues from interest and the reduction in corporate taxes due to higher interest payments.

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<sup>22</sup> Only countries with classical tax systems tax interest as much as dividends at the personal level. Others have some form of relief for double taxation of dividends. So there could be more personal income tax on interest than on dividends, offsetting some of the effect mentioned.

All in all, the implicit tax rate on capital income in an expansion phase will not only reflect the resulting increase in profits but also related changes in savings and private sector investment behaviour. Detailed data for dividend and interest payments of corporations and households from national accounts indicate significant shifts in corporate property income, in particular relative shifts from interest to dividend payments<sup>23</sup>. This happened against the background of dropping interest rates. In relative terms this has resulted into lower interest tax deductions that pushed the capital ITR upward. This change is also reflected on households' property income with a similar shift of revenues from interest to dividends.

#### **4.4. Will the indication of the higher tax burden on capital last?**

The ITR on capital exhibits large increases within the expansionary phase lasting until 2000. The response of taxes to the expansion during these five years has been atypical. This period was a period of fiscal consolidation and macroeconomic stabilisation. The reduction in the public debt, the increase in the tax burden through indirect taxes, the changes in savings and investment behaviour of the private sector and higher capital gains in the time of booming stock markets, all these have resulted in significant shifts in the profit and income distribution. Overall this has led to increases in the ITR on capital income which are likely larger than usually experienced during a long lasting upswing. With longer ESA95 time series for sector accounts and a split of this indicator between households and corporations it will be possible to test the relevance of the identified factors in more detail. With the slowdown in economic growth and stock market performance in 2001, a decline in the ITR on capital income is already visible for some countries. However, if the structural changes in the distribution of income last into the future, it is unlikely that this indicator will decline to its initial level that was observed at the beginning of the last upswing.

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<sup>23</sup> The only exceptions are the Netherlands and the United Kingdom, where interest payments by corporations increased faster compared to dividend payments. In Germany interest and dividend payments increased at the same rate.

## Part III Developments in the Member States

Part III presents country data. It describes, for each Member State, the 1995-2001 trends in the overall tax burden and structures of taxes as well as tax policy changes in the period.

It includes a standard country table, which compiles the various indicators described in part I and II in the publication. Part A of the table presents the classification of taxes by types of taxes (indirect, direct and social contributions) in % of GDP. Part B presents the total of taxes in % of GDP broken down by levels of government. Part C presents the economic classification of taxes in % of GDP (consumption, labour and capital). For these 3 parts of the country table, the sum of the categories add up to the total tax-to-GDP ratio reported in the line 'Total'. The next line gives the sub-category of environmental taxes. Part D presents the implicit tax rate on consumption, employed labour and capital (total and capital income). The explanatory notes on data sources and definitions are to be found in annex C. The full list of detailed taxes used for each country and the split of taxes between taxes on consumption, labour and capital is reproduced in Annex B. Annex D presents a description of the methods used in the Member States to allocate the revenue of the personal income across the different sources of income.

## 1. BELGIUM

### 1.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

Meeting the EMU criteria, in particular reducing significantly the debt-to-GDP ratio, was the main challenge for Belgium and has ruled out any major tax cut in the run-up to the EMU. After a rise in the beginning of the 1990s, the tax burden stabilised at 45-46% of GDP over the 1995-2001 period, setting Belgium largely above the Community average. In 2000, general government reached budgetary equilibrium. These recent developments offered Belgium some room for manoeuvre and in 1999 it initiated a far-reaching tax reform plan stretching over the period 2000-2006.

Over the period 1995-1999 there was no major reform in the tax system. The structure of the tax system remained therefore relatively stable. It is characterised by a relatively high weight of direct taxes, reflecting a heavy reliance on corporate and households income tax, and a relatively lower weight of indirect taxes.

#### *Features of the tax structure and recent developments in tax policy*

Roughly, two distinct periods can be identified. The period 1995-1999 is shaped by a package of measures introduced in 1993 to bring the fiscal deficit below the 3% of GDP threshold. The period 1999 up to now starts with the announcement of a fiscal stop, and introduced a multi-annual tax reform.

Taxation through the personal income tax increased during the 1995-99 period. The full and automatic indexing of personal income tax provisions was suspended: only zero-rate bands were indexed yearly (cumulative inflation between 1995 and 1999 was around 14,5%); a crisis tax of 3% levied on all statutory rates in the income tax code and a solidarity levy on personal income, including pensions were introduced.

For the same period, structural employer's social contributions rebates were introduced to encourage employers to take on more unemployed, youngsters and low-paid workers (MARIBEL). Originally the scope for these rebates was limited to specific schemes, but gradually additional schemes were launched over time.

Between 1995 and 1999 specific measures were taken in the field of business taxation in order to encourage business initiative: the time limit on recovery of business losses was dropped. These tax measures were counterbalanced by a broadening of the tax base, largely initiated in the first half of the nineties: thin capitalisation rules were strengthened, interest income was re-defined to close existing loopholes in legislation and stricter rules were applied for recovery of losses resulting from the take-over of a loss-making company.

As far as capital taxation is concerned, the relatively low capital taxation remained unaffected, except for a broadening of the definition of the interest concept in 1996. Taxing private capital gains is almost non-existent, short-term savings are taxed at a modest flat rate and pension savings enjoy an EET tax regime resulting in negative effective tax rates, as in many other EU countries. In 1995 the final withholding tax on dividends was lowered from 25% to 15% for new shares issues.



## Taxes & Social contributions in BELGIUM <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	13,3	13,7	13,9	13,9	14,1	14,0	13,6
VAT	6,8	6,9	6,9	6,9	7,2	7,3	7,0
Excise duties and consumption taxes	2,5	2,6	2,6	2,6	2,6	2,5	2,4
Other taxes on products (incl. import duties)	2,1	2,2	2,3	2,3	2,3	2,4	2,3
Other taxes on production	1,9	2,0	2,0	2,0	2,0	1,9	1,9
Direct taxes	17,1	17,0	17,4	18,1	17,5	17,8	18,1
Personal income	13,7	13,3	13,5	13,6	13,2	13,4	13,7
Corporate income	2,6	2,7	2,9	3,4	3,3	3,3	3,3
Other	0,9	1,0	1,0	1,0	1,1	1,1	1,1
Social Contributions	14,8	14,6	14,5	14,5	14,4	14,2	14,4
Employers'	8,9	8,8	8,8	8,8	8,7	8,5	8,6
Employees'	4,6	4,5	4,4	4,4	4,4	4,4	4,5
Self- and non-employed	1,3	1,3	1,3	1,3	1,2	1,2	1,2
<b>B. Structure according to level of government as % of GDP <sup>3)</sup></b>							
Central Government	15,9	15,9	15,9	16,5	16,1	16,8	15,9
State Government	10,3	10,4	10,6	10,8	10,9	10,5	11,1
Local Government	2,2	2,3	2,3	2,2	2,2	1,9	2,1
Social Sec. Funds	15,6	15,7	15,9	16,0	15,9	15,8	15,9
EC Institutions	1,1	1,0	1,0	1,0	0,9	1,0	1,0
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	10,9	11,3	11,3	11,2	11,5	11,4	11,0
Labour	25,1	24,8	24,9	25,0	24,7	24,7	25,2
Employed	23,0	22,6	22,7	22,8	22,6	22,7	23,0
Paid by employers	8,9	8,8	8,8	8,8	8,8	8,5	8,6
Paid by employees	14,1	13,8	14,0	14,0	13,8	14,1	14,4
Non-employed	2,1	2,1	2,2	2,2	2,1	2,1	2,2
Capital	9,1	9,3	9,5	10,2	9,9	9,9	9,8
Capital and business income	6,0	6,0	6,0	6,6	6,3	6,3	6,2
Income of corporations	2,6	2,7	2,9	3,4	3,3	3,3	3,3
Income of households	0,9	0,7	0,7	0,6	0,5	0,5	0,5
Income of self-employed (incl. sc)	2,6	2,6	2,4	2,5	2,5	2,5	2,5
Stocks (wealth) of capital	3,1	3,3	3,5	3,6	3,6	3,5	3,5
<b>Total</b>	<b>45,1</b>	<b>45,4</b>	<b>45,8</b>	<b>46,4</b>	<b>46,0</b>	<b>46,0</b>	<b>46,0</b>
Of which environmental taxes	2,5	2,8	2,8	2,7	2,7	2,5	2,5
Energy	1,6	1,7	1,7	1,6	1,6	1,5	1,5
Transport	0,8	0,9	0,9	0,9	0,9	0,8	0,9
Pollution/Ressources	0,2	0,2	0,2	0,2	0,2	0,2	0,2
<b>D. Implicit tax rates</b>							
Consumption	21,2	21,8	22,1	21,8	22,6	22,3	21,5
Labour employed	44,2	43,8	44,3	44,6	43,8	44,2	43,8
Capital	23,8	24,4	25,6	27,1	27,7	27,8	28,7
Capital and business income	15,7	15,8	16,2	17,5	17,6	17,8	18,4

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

3) Additional information from the Belgian administration was used for this classification of taxes.

Source: Commission Services

As regards indirect taxation, the VAT rate was regularly increased during the last two decades up to 21% in 1996. During the last decade, the medium-term rate of the excise duties increased in Belgium, primarily on tobaccos and fuels. Finally, environmental taxes appear among the lowest ones in the Union.

The tax policy stance changed in 1999. The full and automatic indexing of personal income tax provisions was re-established. A new favourable tax treatment of stock options for employees was introduced (tax on the price of the option, not on the resulting capital gain). The next step was the stepwise removal through a yearly reduction by 1% point of the supplementary crisis contribution of 3% starting with the lowest incomes in 2000, followed by the intermediary incomes in 2001 and the high incomes in 2002.

A major reform program was introduced in 2000 ending the continuous increase in the tax burden, especially on labour, over the last years. The program started to have some effect in 2000, with a major impact expected in 2003 and 2004 and results in radical change of the tax system in 2006. A refundable tax credit was introduced in the personal income tax specifically targeted at the low incomes. It also removes the rates of 52.5 and 55% (as from 2001). In 2000, the budget line for employer's social contributions rebates was doubled from 1.5 billion euro to 3.5 billion euro per annum and the system was extended to include the social profit sector and older unemployed.

Finally Belgium is a Federal State, divided into 3 regions and 3 communities, each having their own legislative powers that are on equal footing with laws on the Federal level. In 2001 a constitutional reform granted further fiscal autonomy to the regions.

## **1.2. Trends in taxation of consumption, labour and capital**

Belgium imposes relatively heavy taxes on labour with an implicit tax rate of around 44%. The tax policy in the second half of the 1990s has hardly influenced these features. Throughout the whole period targeted employer's social contributions rebates were used as the instrument to reduce labour costs and compensate for the increase in the taxation of personal income. The reform initiated in 1999 has introduced a fiscal stop and paved the way for easing the tax burden on labour and more recently the implicit tax rate on labour fell again in the last year of the 1990s.

Contrary to labour, the taxation of capital and consumption in Belgium is very close to the EU average and the developments over the period are also quite in line with EU trends. The implicit tax rate on consumption has increased by around 1 percentage point between 1995 and 2000, reflecting increases in the VAT standard rate and excise duties on fuels and tobacco.

Taxation of capital has not been significantly changed over the period and the increase in the implicit tax rate reflects mainly changes in the tax base. In spite of wage moderation introduced in 1994, the profit share continued to decline in the second half of the 1990s, probably reflecting an increasing share of companies making losses. Moreover, with the fall in the service of the public debt, its share in GDP having fallen by 2.2 percentage points, private savings has been redirected to financial markets and dividends have increased and fully compensated the fall in interest payments. After Finland, Belgium is the country of the EU that has recorded the largest increase in dividend income received by the private sector over the period. These trends are reflected in an increase of the ITR on capital and business income by around 3 percentage points, to 18.4% in the year 2001. The broadening of the corporate income tax base and the reduction in the statutory rate applied to dividend income had opposite effects. The absence of taxation of capital gains explains why the changes in the financial income have not generated increases in the taxation of capital as large as other countries that have experienced similar structural shifts.

## 2. DENMARK

### 2.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

On a steady fiscal consolidation path since 1993, the government budget balance turned into surplus in 1997 (0.4% of GDP), facilitated by several years of strong economic growth. The surplus was estimated 2.7% by 2001. This process of consolidation relied primarily on reductions in expenditure (especially unemployment transfers and interest expenditures), whilst tax revenue as percentage of GDP remained largely unchanged<sup>1</sup>. Under the impact of the multi-annual (1999-2002) tax reform package that started to phase in (the so-called ‘Withsun package’), the overall tax burden increased by almost one percentage point to 51,5% of GDP in 1999. It dropped to around 49,5% in 2000 and 48,9% in 2001 under the influence of economic slowdown. Today, Denmark has a relatively high tax-to-GDP ratio, the second highest in the Union, after Sweden.

#### *Features of the tax structure and recent developments in tax policy*

The Danish tax structure stands out in a number of respects. Social contributions are the lowest in Europe as most welfare spending is financed out of general taxation, notably personal income taxation. But also indirect taxes in relation to GDP are the highest in the European Union. At about 4%-5% of GDP, Denmark has the highest share of environmental taxes in the Union, the majority being raised through energy and transport taxes. Denmark also stands out for raising a non-negligible amount of pollution and resource taxes. There are taxes on several polluting products, such as pesticides, retail containers, carrier bags batteries, as well as effluent charges and a duty on waste. Resource taxes are related to water consumption.

A tax reform package (the so-called ‘Withsun-package’) was adopted in June 1998. It introduced a series of changes in the Danish tax system gradually being phased in from 1999 to 2002. The package aims at shifting the tax burden, to some extent, from labour to environmental taxes in order to stimulate private saving and to encourage labour participation. The main elements of this reform are a lowering of statutory personal income tax rates, especially for low-incomes, and a rise of energy taxes (on petroleum products, electricity, gas and coal, and petrol duty). In addition, the interest relief and deductions for other kind of expenses (*e.g.* transport expenses) are being reduced and there are tax changes related primarily to pension savings with a view to making the tax system more neutral between different types of savings. Notably, the taxation of interest from pension savings was reorganised. In the early 1980s, a real interest rate tax with a variable tax rate was introduced in order to dampen the effect of high and very volatile inflation and interest rates. The variable rate has been replaced by a flat rate in view of the different economic climate. At the same time, the taxable base was made broader by abolishing some previous exemptions.

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<sup>1</sup> Økonomisk Redegørelse, December 2002, European Commission 2002a.

## Taxes & Social contributions in DENMARK <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	17,2	17,5	17,7	18,5	18,3	17,4	17,5
VAT	9,5	9,7	9,8	9,9	9,9	9,7	9,7
Excise duties and consumption taxes	3,7	3,9	3,8	4,1	4,2	4,1	4,2
Other taxes on products (incl. import duties)	2,3	2,3	2,5	2,7	2,5	2,0	1,8
Other taxes on production	1,6	1,5	1,6	1,8	1,8	1,6	1,8
Direct taxes	30,6	30,8	30,5	30,1	31,0	29,8	30,1
Personal income	26,6	26,6	26,2	25,8	26,1	26,0	26,3
Corporate income	2,0	2,3	2,6	2,8	3,0	2,4	3,1
Other	2,1	2,0	1,7	1,4	1,8	1,4	0,7
Social Contributions	1,5	1,6	1,6	1,6	2,1	2,3	2,2
Employers'	0,3	0,3	0,3	0,4	0,3	0,3	0,3
Employees'	1,2	1,2	1,2	1,2	1,8	2,0	1,9
Self- and non-employed							
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	32,1	32,6	32,4	32,4	33,0	30,2	30,6
State Government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Local Government	15,5	15,5	15,6	15,9	16,1	16,2	16,8
Social Sec. Funds	1,5	1,6	1,6	1,6	2,1	2,3	2,2
EC Institutions	0,2	0,2	0,2	0,2	0,2	0,2	0,2
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	15,6	15,9	16,0	16,4	16,5	15,9	15,8
Labour	28,0	28,1	27,7	27,1	27,7	27,6	27,7
Employed	21,8	22,0	22,2	21,8	22,6	22,6	22,8
Paid by employers	0,8	0,8	0,9	1,0	0,9	0,8	0,9
Paid by employees	21,0	21,2	21,3	20,8	21,6	21,8	21,9
Non-employed	6,2	6,1	5,5	5,3	5,2	5,0	5,0
Capital	5,7	5,9	6,1	6,6	7,3	6,1	6,3
Capital and business income	3,8	4,1	4,2	4,6	5,3	3,6	3,7
Income of corporations	3,1	3,4	3,5	3,5	4,1	3,0	3,1
Income of households	-0,6	-0,6	-0,5	-0,2	-0,1	-0,6	-0,6
Income of self-employed (incl. sc) <sup>3)</sup>	1,3	1,3	1,2	1,3	1,3	1,1	1,1
Stocks (wealth) of capital	1,9	1,8	1,8	2,0	2,0	2,5	2,6
<b>Total</b>	<b>49,3</b>	<b>49,9</b>	<b>49,8</b>	<b>50,1</b>	<b>51,5</b>	<b>49,5</b>	<b>49,8</b>
Of which environmental taxes	4,4	4,7	4,7	5,1	5,2	4,7	4,7
Energy	2,1	2,3	2,2	2,4	2,6	2,6	2,7
Transport	2,1	2,1	2,1	2,3	2,1	1,8	1,7
Pollution/Ressources	0,2	0,3	0,4	0,4	0,4	0,4	0,3
<b>D. Implicit tax rates</b>							
Consumption	31,3	32,2	32,4	32,7	33,2	33,0	33,0
Labour employed	40,8	41,2	41,5	39,9	41,2	41,9	41,5
Capital	26,3	27,5	28,9	34,6	37,3	29,0	30,2
Capital and business income	17,5	19,0	20,2	24,2	27,0	17,1	17,6

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

3) Data for social contributions paid by self-employed and non-employed persons do not exist.

n.a.: not applicable

Source: Commission Services

In connection with the Budget for 2002, a change made to special pension contribution has been adopted. The special pension contribution consists of 1 per cent of the wage bill for all employees being paid into a special pension scheme where the benefits would be paid out as a lump sum. The change implies relating the size of the benefits paid out to the contributions made, thereby removing the redistributive element. The new government, which took office in late November 2001, is committed to a tax-freeze policy.

## 2.2. Trends in taxation of consumption, labour and capital

Taxes on consumption as a percentage of GDP are the highest in the Union, because of the single and high VAT rate of 25% and of high excise duties and environmental taxes mainly paid by households. Consequently, the implicit tax rate on consumption, of about 33 % on average (95-01), is the highest amongst the Member States. It has risen during recent years, which can partially be explained by the increase in environmental taxes<sup>2</sup>.

Taxes on labour in relation to GDP are also among the highest in the EU. High taxes on non-employed labour (transfers) play an important role. The implicit tax rate on labour (which stands at a level of 41.5% in 2001) consists most notably of personal income tax. Employers' social contributions are negligible (as most welfare spending is financed out of general taxation). The implicit tax rate on labour has been rising steadily since the early 1970s, but a stabilisation is visible since the late 1990s. The slight reduction in recent years stemmed most notably from the reductions in personal income tax targeted at the lower end of the pay scale<sup>3</sup>.

The overall implicit tax rate on capital is in line with the European average<sup>4</sup>. However in 2000 and 2001, the implicit tax rate on capital and business income is one of the lowest in the Union. In the years before it has risen between 1995 and 1999 due to the higher profits of corporations and higher capital income taxes from households. The relatively sharp increase in the ITR on capital and business income in 1999 can be attributed to a legislative change in the corporate income tax system, which led to exceptional high tax revenues in 1999. For this reason a drop occurs in the year 2000. In 2001, the drop in the value of shares and the resulting capital loss in pension funds also

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<sup>2</sup> It is also partly related to the methodology. The ITR on consumption is defined as all indirect taxes divided by the final consumption of private households in the economic territory. But the relative size of the expenditure of private households to the total taxable VAT-base decreased from 62.4 % in 1996 to 59 % in 2001.

<sup>3</sup> The slight increase in the implicit tax rate on labour in 2000 can be attributed to the method of the split of the personal income tax. From 2000 onwards the rental value of owner-occupied housing is no longer a part of the personal income tax system. This has also affected the estimated part of the personal income tax that is raised on labour income (and hence also the evolution of the implicit tax rate on labour).

<sup>4</sup> In this respect, it should be noted that the method for splitting the personal income tax tends to overestimate the effect of tax base deductions for interest payments. By including the net interest payments in the tax base of capital, the Danish ministry of taxation has taken into account how tax relief for mortgage interest payments and other interest payments on loans reduce the tax base of capital income. But from 2001 onwards, negative capital income can only be deducted in the municipal income tax. This implies that the method used for splitting the personal income tax in Denmark tends to underestimate the capital income tax revenue from 2001 onwards.

contributed to this development (from mid 1998 onwards non-realised capital losses and gains on shares in pension funds are taxed. From 1998 to 2000 they are taxed at a rate of 5 per cent, and from 2001 onwards they are taxed at a rate of 15 per cent). Also the changes in taxation on the rental value of owner-occupied housing contributed to the drop in the ITR on capital income from 1999 to 2000 and 2001. From 2000 onwards the rental value of owner-occupied housing is no longer part of the personal income tax system and for this reason it is not classified as a tax on capital income. Instead, the rental value of owner-occupied housing is now taxed in the property value tax, and it has therefore been classified as a tax on stocks (wealth) of capital.

### 3. GERMANY

#### 3.1. Overall trend in taxation and tax policy

##### *Overall tax burden*

The total-tax-to-GDP ratio in Germany is above the European average. Due to the unification process in particular, the tax-to-GDP ratio rose significantly in the early 1990s. Most of this increase stemmed from increases in social contributions. In the second half of the 1990s, the tax-to-GDP ratio increased by almost 2 percentage points to around 43% in the year 2000, mostly because of increases in indirect taxes. It fell back again in 2001, in particular as a result of reductions in personal income tax and corporate income tax due to the tax reform that was adopted in 2000. The share of indirect taxes in total receipts increased in recent years as a result of the ecological tax reform in 1999, whilst the share of social contributions decreased accordingly.

##### *Features of the tax structures and tax policy in recent years*

Germany stands out with the highest share of social contributions in total tax receipts. The shares of direct taxes and indirect taxes are among the lowest in the Union. The relatively low share of indirect taxes can largely be explained by moderate rates on excise duties and also by relatively low other taxes on products and production. Although Germany has a standard VAT rate of only 16%, its revenues are however quite in line with the European average. The use of reduced VAT rates and exemptions is rather limited compared to other Member States. Environmental taxes in Germany are low compared to the Union's average, as indicated by the ratio of tax revenues to GDP. Due to the ecological tax reform this ratio increased slightly after 1999. The relatively low share of corporate income taxes is to a large extent the result of the high share of unincorporated companies that are taxed under personal income tax and comparatively generous depreciation rules.

Looking at the classification of taxes by receiving level of government, Germany furthermore stands out with relatively high tax revenues that are apportioned to state government (besides the previously indicated high share of tax receipts that goes to social security institutions). In Germany, the so-called 'Länder' have a substantial share in the revenue of VAT, the wage withholding tax, the personal income tax collected by assessment and the withholding tax on interest distributions. The 'Länder' are also entitled to revenues from other taxes, such as general wealth tax (abandoned in 1997), estate, inheritance and gift taxes, taxes on transfer of property and tax on motor vehicles.

The ecological tax reform entered into force on 1 April 1999. It was the most prominent change in indirect taxation in recent years apart from an increase in VAT from 15% to 16% in 1998. As a first step, a new tax on electricity was introduced and taxes on mineral oils and gas were increased. The additional revenues from the ecological tax reform are being used to decrease contributions to the old age pension system (i.e. non-wage labour costs) from 20.3% to 19.3% of gross wages at the end of 1998. Annual increases of the tax on mineral oils and the new tax on electricity were agreed. Reduced rates are foreseen, *inter alia*, for storage heating systems made before 1 April 1999 and for public transport, including the German railway company (Deutsche Bahn AG), trams and buses. The manufacturing industry and agriculture are only taxed at 20% of the standard rate. Manufacturing companies, which pay 20% more in energy taxes than they receive in the form of reduced social contributions, are refunded 80% of the energy taxes.



## Taxes & Social contributions in GERMANY <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>3)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	12,3	12,2	12,2	12,3	12,8	12,7	12,5
VAT	6,7	6,6	6,6	6,7	7,0	6,9	6,7
Excise duties and consumption taxes	2,0	2,0	1,9	1,9	2,1	2,2	2,3
Other taxes on products (incl. import duties)	1,8	1,6	1,7	1,7	1,6	1,6	1,6
Other taxes on production	1,8	1,9	2,0	2,0	2,1	2,0	1,9
Direct taxes	11,2	11,6	11,3	11,6	12,1	12,6	11,2
Personal income	9,6	9,6	9,5	9,7	10,0	10,4	10,1
Corporate income	0,9	1,2	1,3	1,4	1,5	1,7	0,6
Other	0,8	0,8	0,6	0,6	0,6	0,6	0,6
Social Contributions	17,7	18,3	18,5	18,2	17,9	17,6	17,5
Employers'	7,7	7,7	7,8	7,7	7,7	7,6	7,5
Employees'	6,9	7,0	7,2	7,1	6,9	6,9	6,9
Self- and non-employed	3,1	3,6	3,6	3,4	3,3	3,1	3,1
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	11,3	11,0	10,9	11,1	11,8	12,1	11,4
State government	8,7	9,3	9,1	9,2	9,5	9,7	8,9
Local Government	2,6	2,7	2,7	2,9	3,0	3,0	2,8
Social Sec. Funds	17,7	18,3	18,5	18,2	17,9	17,6	17,5
EC Institutions	0,9	0,8	0,8	0,7	0,6	0,7	0,6
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	10,6	10,4	10,2	10,3	10,7	10,7	10,7
Labour	24,9	25,2	25,3	25,0	24,8	24,8	24,6
Employed	21,9	21,8	21,9	21,8	21,6	21,8	21,6
Paid by employers	7,7	7,7	7,8	7,7	7,7	7,6	7,5
Paid by employees	14,2	14,0	14,1	14,1	14,0	14,2	14,0
Non-employed	3,0	3,4	3,4	3,3	3,2	3,0	3,0
Capital	5,8	6,6	6,5	6,8	7,3	7,4	6,0
Capital and business income	4,6	5,3	5,4	5,6	6,1	6,3	4,9
Income of corporations	2,1	2,5	2,6	2,7	2,9	3,0	1,8
Income of households	0,3	0,3	0,3	0,4	0,4	0,4	0,4
Income of self-employed (incl. sc) <sup>2)</sup>	2,2	2,5	2,4	2,6	2,8	2,9	2,7
Stocks (wealth) of capital	1,2	1,2	1,1	1,1	1,2	1,1	1,1
<b>Total</b>	<b>41,3</b>	<b>42,1</b>	<b>42,1</b>	<b>42,1</b>	<b>42,9</b>	<b>42,9</b>	<b>41,2</b>
Of which environmental taxes	2,4	2,3	2,2	2,2	2,3	2,4	2,6
Energy	2,0	1,9	1,8	1,8	2,0	2,1	2,2
Transport	0,4	0,4	0,4	0,4	0,4	0,3	0,4
Pollution/Ressources	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>D. Implicit tax rates</b>							
Consumption	19,6	19,1	18,7	18,8	19,6	19,5	19,1
Labour employed	39,5	39,7	40,6	40,7	40,5	40,2	39,9
Capital	21,1	23,9	22,7	23,6	26,3	27,6	22,6
Capital and business income	16,9	19,4	18,8	19,6	21,9	23,4	18,4

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Data for contributions paid by self-employed and non-employed persons do not exist.

3) provisional data

Source: Commission Services

On 1 April 1999 the income tax reform ('Steuerentlastungsgesetz 1999/2000/2002') entered into force. In July 2000 another comprehensive income tax reform was passed. The latest stage of this reform will come into effect in 2005. The highest personal income tax rate will be reduced from 53% (1998) to 42% (2005) and the lowest rate from 25,9% (1998) to 15% (2005). At the same time the tax-exempt income will be increased by nearly a fourth compared to 1998. As of 1<sup>st</sup> of January 2000 child benefit was increased to 138 euro for the first and second child and a new child care tax allowance of almost 1,550 euro was introduced for children up to the age of sixteen. As of 1<sup>st</sup> of January 2002 child benefit was again increased to 154 euro and child allowance had been enlarged to 3,648 euro (previously 3,564 euro).

In order to (partly) finance the tax reductions and transfer increases, a number of one-off measures have been introduced with the aim of broadening the base for capital income. In particular, a minimum taxation was introduced, by reducing the number of different kinds of income tax against which profits and losses can be offset, and the tax-free interest income from savings was halved (January 2000).

The corporation tax system was reformed in two major steps. As of January 2000, the corporate tax rate for non-distributed profits was reduced from 45% to 40%, and more importantly, as of January 2001 only a single tax rate of 25% on corporate income was introduced replacing the 40% rate for non-distributed profits and the 30% rate for distributed profits. In order to finance the corporate income tax reductions, rates for writing off machinery and buildings were reduced. At the same time, the imputation system was replaced by a 'half-income system' in order to avoid double taxation of corporate profits by corporation tax and personal income tax of the shareholder. Only 50% of distributed profits are subject to the shareholder's individual income tax, there is no imputation of taxes paid by corporations. From 2002 onwards, corporate profits from the sale of shares of other corporations are tax-free if the shares have been held for at least one year. As already mentioned, the revenue derived from corporate business in Germany is relatively small, because a lot of companies have the legal form of business partnerships. The local tax on trade and industry ('Gewerbesteuer') from unincorporated businesses is credited against their income tax. As a result many companies will effectively no longer bear an additional burden from taxes on trade and industry.

In 2001, revenues from corporation tax fell dramatically from about 26 million euro to 2 million euro. This can partially be explained by the special effect of changes in legislation related to the first reduction of the corporate tax rate for distributed profits. Until the end of 2001 corporations could claim the difference in taxation of retained profits - taxed with a rate of 45% in former years - and the new rate of 30% if they distributed these profits. Corporations massively applied these rules resulting in substantial refunds. At the same time, revenues from dividend tax and PIT increased due to the taxation of distributed profits at the individual level.

### 3.2. Trends in the taxation of consumption, labour and capital

As a consequence of the rather low indirect taxes, consumption taxes as percentage of GDP are among the lowest in the European Union. With constant statutory tax rates the ratio tends to slightly decrease over time. The increase observed for 1999, that slightly outbalanced the former reduction, can be explained by a higher VAT-rate and also by higher energy taxes. The same development is reflected in the implicit tax rate on consumption. The level of this tax burden indicator is in line with the European average, indicating that in Germany sectors other than private households bear these taxes to a comparatively greater extent.

The high share of social contributions<sup>1</sup> in Germany accounts for two thirds of the taxation on employed labour; the remaining third consists of personal income taxes on wages. The implicit tax rate on labour is above the European average. It has been increasing until 1997 when it reached its top level of 40.7%, and levels off in the years thereafter due to the ecological tax reform that stabilised the social contributions to the pension system. The implicit tax rate on labour decreased substantially in 2001 as a result of the income tax reform.

The amount of tax derived from capital (as a % of GDP) is one of the lowest in Europe. A low level of capital taxes on stocks and their transaction like succession and gift taxes or wealth taxes (abandoned in 1997) is an important reason. Taxes on capital and business income are more or less in line with the European average. This holds also for the implicit tax rates on capital and on capital and business income respectively, whose rates increased remarkably from 1995 to 2000. During this period companies in Germany were able to improve their profitability as indicated by an increasing profit share. At the same time revenues from taxes on capital income rose more. As already mentioned, a broadening of the tax base might be the most relevant explanation in addition to the diminishing loss carry-overs during that upswing. In 2001 the effects of the tax reform as well as the economic downturn result in a substantial fall in the ITR on capital.

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1) Social contributions are shared almost equally between employers and employees. The only exception is for insurance against accidents at work that is paid entirely by the employer.

## 4. GREECE

### 4.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

Greece has made significant progress in correcting fiscal imbalances during the last decade. Having peaked at 16% of GDP in 1990, the government deficit fell to 1.9% in the year 1999 and to 1.2% in 2001. For the year 1999, the stance of fiscal policy was especially tightened in an effort to contain inflationary pressures stemming from the exchange rate adjustment of the drachma entering the Exchange Rate Mechanism in March 1999. The improvement of the budgetary position was mostly the result of increased budget revenues<sup>1</sup>. The total tax-to-GDP ratio increased to around 38,5% in the financial year 2000. The ratio declined in 2001. Despite the recent increases, the total tax-to-GDP ratio in Greece remained among the lowest in the Union.

#### *Features of the tax structure and recent developments in tax policy*

Like other Member States with a relatively low overall tax burden, Greece relies relatively heavily on indirect taxes as a means of collecting revenue. The share of indirect taxes in total tax revenue amounts to around 41% in 2001, while the shares of direct taxes and social contributions amount to around 28% and 31%, respectively. Most of the increases in tax revenue in recent years seem to have originated from increases in direct taxes, as a result of the successive changes in the tax system and of successfully combating tax evasion.

Greece stands out, with its shipping lines owning a large share of the world's merchant tonnage (together with Japan). This importance is evident in Greece's special tax regimes. Resident and non-resident companies owning Greek-flagged ships are subject to tonnage tax. This tonnage tax is a substitute for the corporate income tax as regards profits arising from the operation of ships. The tax liability depends on the age and gross tonnage of each vessel.

Environmental elements have been incorporated in the tax system during the last decade. To promote the use of cleaner fuels, for example, the difference between the tax on unleaded fuel compared to leaded fuel was 40 euro/1,000 litres until the year 2001. Since 2002 the circulation of leaded petrol has been abolished. Natural gas is tax-exempt when used as vehicle engine fuel. On the other hand, lignite/coal, which is used to generate 66% of the Nation's electricity, is not taxed. Moreover, fuels are not taxed according to their carbon dioxide emissions. Total environmental taxes amount to about 2.8% of GDP in 2001.

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<sup>1</sup> European Commission (2002a)

## Taxes & Social contributions in GREECE <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	14,4	14,8	14,9	15,1	15,6	15,9	15,0
VAT	6,9	7,0	7,2	7,5	7,8	8,1	8,2
Excise duties and consumption taxes	4,7	4,8	4,2	4,0	3,7	3,5	3,4
Other taxes on products (incl. import duties)	2,2	2,3	2,9	3,0	3,5	3,6	2,8
Other taxes on production	0,6	0,7	0,6	0,6	0,7	0,7	0,5
Direct taxes	7,8	7,4	8,2	9,8	10,2	11,2	10,4
Personal income	4,1	4,1	4,5	5,5	5,6	5,2	4,8
Corporate income	2,6	2,3	2,6	3,1	3,3	4,4	3,2
Other	1,1	1,0	1,1	1,2	1,3	1,5	2,4
Social Contributions	10,5	10,8	11,1	11,5	11,4	11,4	11,4
Employers'	4,8	5,0	5,2	5,3	5,2	5,3	5,3
Employees'	4,3	4,4	4,5	4,5	4,5	4,5	4,4
Self- and non-employed	1,4	1,4	1,5	1,7	1,7	1,7	1,6
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	21,2	21,2	22,6	24,4	25,0	26,3	24,6
State government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Local Government	0,3	0,3	0,3	0,3	0,3	0,3	0,4
Social Sec. Funds	10,3	10,6	10,7	11,0	11,1	11,2	11,2
EC Institutions	0,8	0,8	0,7	0,7	0,7	0,6	0,7
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	14,1	14,2	13,8	14,1	14,2	14,7	15,4
Labour	11,8	12,3	12,8	13,5	13,5	13,3	13,0
Employed	11,1	11,4	11,8	12,4	12,4	12,2	12,0
Paid by employers	4,8	5,0	5,2	5,3	5,2	5,3	5,3
Paid by employees	6,3	6,3	6,7	7,1	7,2	7,0	6,7
Non-employed	0,7	0,9	1,0	1,1	1,1	1,1	1,0
Capital	6,7	6,5	7,7	8,7	9,5	10,4	8,4
Capital and business income	4,9	4,5	5,0	6,0	6,2	7,2	5,9
Income of corporations	2,6	2,3	2,6	3,1	3,3	4,4	3,2
Income of households	0,7	0,7	0,8	1,0	1,1	1,3	2,0
Income of self-employed (incl. sc)	2,3	2,2	2,4	2,9	2,9	2,8	2,6
Stocks (wealth) of capital	1,8	2,0	2,7	2,7	3,3	3,2	2,5
<b>Total</b>	<b>32,6</b>	<b>33,0</b>	<b>34,3</b>	<b>36,3</b>	<b>37,2</b>	<b>38,5</b>	<b>36,8</b>
Of which environmental taxes	3,5	3,5	3,4	3,2	3,0	2,6	2,8
Energy	2,8	2,8	2,5	2,3	2,0	1,8	1,7
Transport	0,7	0,7	0,9	0,9	1,0	0,8	1,1
Pollution/Ressources	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>D. Implicit tax rates</b>							
Consumption	18,4	18,5	18,0	18,5	19,0	20,0	21,2
Labour employed	34,4	35,6	36,1	37,3	37,1	37,0	36,5
Capital	10,8	10,5	13,3	15,3	17,4	19,4	15,5
Capital and business income	7,9	7,3	8,6	10,6	11,4	13,4	10,9

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

n.a.: not applicable

Source: Commission Services

A reduction of the highest statutory personal income tax rate was implemented, from 45% to 42.5% (for income earned in 2001) and to 40% (for income earned in 2002). Also, the level of tax-exempt income was raised, and the income tax brackets were indexed to the consumer price index, every two years starting from 2001 onwards. The 2001 Budget furthermore implemented an exemption from National Insurance Contributions for low-paid earners. In addition, tax relief was increased for the elderly and disabled persons, and also for families with children.

The statutory tax rate for non-listed companies has been reduced from 40% to 37.5% in 2001 and to 35% in 2002, in order to reduce disparities between listed and unlisted companies. In addition, the tax relief for venture capital was introduced and the tax on stock exchange was reduced in 2001.

As regards social contributions, the firm's taxable income was reduced by 50% of the pension contributions paid for newly employed persons. Also, a reduction was implemented for employers' pension contributions for low-paid workers. Those earning the minimum wage were also exempted from paying employees' social contributions.

#### **4.2. Trends in taxation of consumption, labour and capital**

Looking at the economic classification of taxes for Greece, taxes on consumption and on labour have the same importance for raising revenues. The implicit tax rate on labour and the slightly below the EU average implicit tax rate on consumption are.

The implicit tax rate on labour consists mostly of social contributions, of which employers pay a slightly higher share. It shows an increase up to 1998. The recent reductions in the personal income tax and social contributions show up in a slight decline. These reductions were targeted, and are probably therefore not fully reflected in the most recent figures. In addition, personal income tax brackets were only indexed to the consumer price index from 2001 onwards.

The relatively low contribution of taxes on capital to total tax revenue is also reflected in the overall tax burden on capital in the Greek economy, the implicit tax rate on capital, at 15.5% in 2001, being the lowest in the Union. The increase in the implicit tax rate on capital and capital and business income in the years before is above average compared to other Member States.

## 5. SPAIN

### 5.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

Substantial fiscal consolidation has been achieved since the mid-1990s, with a budget deficit declining from 6.6% of GDP in 1995 to 0.6% in 2000. This result has largely been achieved with an expenditure restraint. Despite weakening growth, these positive results continued in 2001. A balanced budget was reached due to the expenditure restraints and increased VAT receipts and social contributions, whilst direct taxes remained constant in percentage of GDP. The overall tax burden increased slightly between 1995 and 2001, but remained the second lowest in the Union, before Ireland.

#### *Features of the tax structure and tax policy in recent years*

The shares of indirect taxes, direct taxes and social contributions in the total tax burden are not substantially different, the amount of direct taxes as percentage of GDP being however somewhat lower. The shares of indirect taxes, direct taxes and to a lesser extent social contributions are all below the Union's average.

Indirect taxes in percentage of GDP are among the lowest of in EU. This can partly be attributed to the standard VAT rate, which is also one of the lowest in the Union. But this also stems from excise duties and other taxes on production that are also low by EU standards. It is also reflected by one of the lowest shares of environmental taxes to GDP, together with countries like Austria, Germany and France.

The low taxation in Spain is particularly visible in direct taxes. Over recent years, the Spanish Government implemented two important tax reforms, in 1995 for the corporate income tax and in 1998 for the personal income tax. The reforms were aimed at simplification and neutrality of the tax system, enhanced incentives for work, for saving, risk-taking and investment. In addition, the revenue-raising powers of the regions were recently enhanced.

The corporate tax reform was aimed at increasing tax neutrality between different sources of income and at reducing compliance costs. A correction was made as regards the international double taxation of dividends and capital gains applied to corporations owning 5% (previously 25%) of the capital of foreign companies. Also in 1997, a low statutory tax rate was introduced for small and medium sized companies and the period for carrying forward losses was raised from five to seven years. By the year 1999, this period had been raised to ten years.

## Taxes & Social contributions in SPAIN <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	10,9	10,9	11,2	11,8	12,3	12,3	12,0
VAT	5,3	5,5	5,6	5,7	6,2	6,3	6,1
Excise duties and consumption taxes	2,6	2,6	2,6	2,9	2,8	2,7	2,6
Other taxes on products (incl. import duties)	1,7	1,6	1,7	1,8	1,9	2,0	2,0
Other taxes on production	1,3	1,3	1,3	1,4	1,3	1,3	1,3
Direct taxes	10,5	10,6	10,8	10,5	10,6	10,9	10,8
Personal income	7,9	7,9	7,3	7,2	6,8	6,8	7,1
Corporate income	1,9	2,1	2,8	2,6	3,0	3,2	3,0
Other	0,7	0,7	0,7	0,8	0,8	0,8	0,8
Social Contributions	12,0	12,2	12,2	12,1	12,2	12,4	12,7
Employers'	8,3	8,5	8,5	8,4	8,5	8,7	8,9
Employees'	1,9	2,0	1,9	2,0	1,9	2,0	2,0
Self- and non-employed	1,8	1,7	1,8	1,7	1,8	1,8	1,8
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	16,3	16,5	16,0	16,0	16,4	16,8	16,5
State government	1,6	1,6	2,4	2,6	2,7	2,8	2,7
Local Government	2,9	2,9	3,0	3,2	3,2	3,2	3,1
Social Sec. Funds	11,9	12,1	12,1	12,0	12,1	12,3	12,6
EC Institutions	0,8	0,7	0,7	0,7	0,7	0,6	0,6
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	9,0	9,1	9,3	9,8	10,3	10,3	10,0
Labour	16,7	16,9	16,5	16,3	15,9	16,2	16,6
Employed	14,4	14,7	14,4	14,3	14,1	14,4	14,7
Paid by employers	8,3	8,5	8,5	8,4	8,5	8,7	8,9
Paid by employees	6,1	6,2	5,9	5,9	5,6	5,7	5,9
Non-employed	2,3	2,2	2,0	1,9	1,8	1,8	1,8
Capital	7,8	7,8	8,4	8,4	9,0	9,2	9,1
Capital and business income	5,1	5,2	5,8	5,7	6,2	6,3	6,2
Income of corporations	1,9	2,1	2,8	2,6	3,0	3,2	3,0
Income of households	0,8	0,8	0,7	0,8	0,8	0,9	0,9
Income of self-employed (incl. sc)	2,3	2,3	2,4	2,3	2,3	2,3	2,3
Stocks (wealth) of capital	2,6	2,6	2,6	2,8	2,8	2,9	2,9
<b>Total</b>	<b>33,4</b>	<b>33,8</b>	<b>34,2</b>	<b>34,5</b>	<b>35,2</b>	<b>35,7</b>	<b>35,6</b>
Of which environmental taxes	2,2	2,2	2,2	2,3	2,4	2,3	2,2
Energy	1,8	1,8	1,8	1,9	1,9	1,8	1,8
Transport	0,4	0,4	0,4	0,4	0,5	0,4	0,4
Pollution/Ressources	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>D. Implicit tax rates</b>							
Consumption	14,3	14,5	14,8	15,6	16,3	16,4	16,0
Labour employed	28,9	29,5	29,0	28,7	28,1	28,7	29,4
Capital	20,8	21,2	23,6	24,4	27,5	28,9	28,2
Capital and business income	13,7	14,2	16,3	16,4	18,8	19,8	19,3

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

Source: Commission Services



The personal income tax system was simplified. The number of tax brackets was reduced to six, the maximum rate changed from 56% to 48% and the minimum rate from 20% to 18%. Also, different kinds of tax relief were replaced by personal and family tax allowances that depend on the characteristics of the tax unit, such as number of dependants, their age and income. In addition, withholding tax payments were redesigned to take into account individuals' characteristics, and the threshold for filing an income tax return was raised.

Spain stands out with a quasi-federal system with three levels of Government: central, regional and local government. There are seventeen autonomous regions. The 1997-2001 fiscal arrangements have recently been replaced by a revised system of indefinite duration to come into effect from 2002 onwards. A clear increase in regional taxes as a percentage of GDP (or, state in the table) is visible from 1997 onwards, reaching around 2.7% of GDP in the year 2001.

From 2002 onwards, the main features of the new financing agreement between the Central government and the autonomous regions are (*cf.* European Commission (2002a)):

- Regional governments receive a significantly larger percentage of the total tax revenue (33% of personal income tax; 35% of VAT; 40% of excise duties on hydrocarbons, tobacco, beer and alcohol; 100% of excise duties on electricity and car registration). Indirect tax revenues are transferred according to a territorial consumption index;
- By type of taxes, statutory personal income tax rates can be modified provided the structure retains progression and the number of tax brackets remains that set by the Central Government. Taxes on wealth, inheritance and gift tax, registration duties and fees on lotteries and gambling are totally assigned to territorial governments with almost complete jurisdictional powers. The car registration tax can be only partially modified. Shares of VAT, excise duties and other consumption taxes are assigned to territorial governments but without jurisdictional powers;
- For the base year each region receives sufficient resources to cover estimated expenditure. If the estimated expenditure exceeds potential revenues, the regional government receives a compensatory transfer from the Central government. The fund is to be increased annually with the Governments' retained tax revenues (revenues excluding those transferred to regions).
- In addition, guarantees have been established to avoid sharp disparities between regions' resources.

## 5.2. Trends in taxation of consumption, labour and capital

The ratio of consumption taxes in proportion to GDP is at the lowest point at the EU level in 2001. Despite the observed increasing trend throughout the 1995-2001 period (2.4% of average annual growth), the implicit tax rate on consumption remains also the lowest in the Union in 2001.

The ratio of taxes on employed labour income as percentage of GDP is situated at 14.7% in 2001, some 4.3 percentage points below the EU average (19%). Spain shows an average implicit tax rate on labour of 28.9% throughout the 1995-2001 period that is, just like in Ireland, among the lowest in the Union. The lowest implicit tax rate on labour was recorded in 1999 (28.1%), as a consequence of the personal income tax reform which took place that year. Subsequent increases in the implicit tax rate on labour, as shown for 2000 and 2001, should be attributed by a noticeable increase in wages and salaries subject to tax as a result of a strong job creation process observed in the Spanish economy in the last few years.

The taxation of capital appears to be in line with the EU average. Like in other EU countries the ratio capital taxes in proportion to GDP has increased substantially during recent years, particularly since the year 1999. The implicit tax rate on capital shows a similar trend and this trend can actually be attributed to increasing tax revenues raised on capital income of corporations, whereas capital taxes raised on households or the self-employed show no differences throughout this period.

Throughout the period the figures for Spain show an increase of taxes levied on capital of 1.3 percentage points of GDP. Consumption taxes also show a positive difference of 1 percentage point of GDP, whereas labour taxes show a decline of -0.2 percentage point in the same period.

## 6. FRANCE

### 6.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

In the mid-1990s, the overall public deficit reached the 3% limit laid down in the Maastricht Treaty. Against this background, the priority of fiscal policy in France has been to respect the budgetary framework for EMU. As a result, the French government had to temporarily increase the fiscal pressure on firms and households in 1997 and 1998. Public finances improved in 1999, with the deficit falling from 2.7% of GDP in 1998 to 1.6% of GDP. The evolution was largely due to buoyant tax receipts. From 1999 onwards, fiscal policy has pursued a complementary objective, which is to lower the tax burden. Exceptional increases in tax receipts in 1999, however, have meant that the overall tax burden increased to 45.7% of GDP, in spite of earlier government pledges. The budgets for 2000 and 2001 also contained tax cuts worth 0.4% GDP. Together with less buoyant tax receipts in 2001 due to the economic slowdown, this resulted in a stabilisation of the overall tax burden. The tax-to-GDP ratio is still largely above the Community average.

#### *Features of the tax structure and tax policy in recent years*

The share of indirect taxes in total tax revenue is around the Union's average, while the share of direct taxes is somewhat below average. Social contributions constitute an important share of total tax revenue in France. Employers pay by far the largest share. A significant reduction of social contributions as a percentage of GDP becomes visible in the year 1998, because of cuts in employees' social contributions for sickness insurance.

France has one of the lowest shares of environmental taxes compared to GDP, together with Spain, Austria and Germany. Together with Denmark, however, France is one of the only countries in the Union with non-negligible revenue from pollution/resource taxes related to water consumption.

The share of and local government is relatively high compared to other countries in the Union. It consists mainly of the local business tax, patent levies, real estate and housing taxes. Nevertheless, the share of central government is overvalued in so far as central government in fact takes care of a large part of the local tax relief.

In the 1995-2000 period of fiscal consolidation, tax policy has been geared towards increasing tax revenues, without increasing further the tax burden on labour. This has been achieved through gradual adjustments to the existing tax system. Apart from an increase of the VAT standard rate from 18.6% to 20.6% in 1995, a major feature over the period 1995-2000 period were regular increases in rates and broadening of bases of corporate and personal income taxation. A generalised social contribution (CSG) was instituted in the year 1991 in order to remedy financing problems of social security institutions. Similarly, a contribution for the refunding of the debt of social security institutions (CRDS) was introduced in 1996, with a lower rate but a broader contribution base. Furthermore, a social levy of 2% was instituted, levied on the inheritance incomes and investment earnings of natural persons fiscally domiciled in France. In addition, in 1996 the threshold for the taxation of capital gains on sales of shares has been suppressed, taxation of the exercise of stock options has been introduced and the relief for investment income has been reduced.

## Taxes & Social contributions in FRANCE <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	16,2	16,8	16,7	16,6	16,5	16,1	15,7
VAT	7,5	7,8	7,8	7,7	7,7	7,5	7,4
Excise duties and consumption taxes	2,8	2,8	2,7	2,7	2,7	2,7	2,5
Other taxes on products (incl. import duties)	1,9	1,9	1,9	2,0	1,9	1,9	1,9
Other taxes on production	4,1	4,2	4,2	4,2	4,2	4,0	4,0
Direct taxes	9,0	9,4	10,1	12,2	12,7	12,9	13,2
Personal income	5,3	5,6	6,0	8,1	8,3	8,5	8,5
Corporate income	1,8	2,0	2,3	2,3	2,7	2,9	3,1
Other	1,9	1,8	1,8	1,7	1,7	1,5	1,6
Social Contributions	18,7	18,9	18,4	16,3	16,5	16,4	16,5
Employers'	11,5	11,4	11,4	11,3	11,4	11,3	11,3
Employees'	5,8	5,9	5,5	4,0	4,0	4,0	4,1
Self- and non-employed	1,4	1,5	1,4	1,0	1,0	1,1	1,1
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	18,5	19,3	19,5	19,4	19,8	19,2	18,9
State Government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Local Government	4,6	4,8	4,7	4,7	4,7	4,3	4,3
Social Sec. Funds	20,1	20,3	20,3	20,4	20,6	21,2	21,6
EC Institutions	0,8	0,7	0,7	0,6	0,6	0,6	0,6
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	12,7	13,1	13,0	12,9	12,8	12,3	12,1
Labour	23,0	23,2	23,2	22,9	23,2	23,1	23,2
Employed	22,5	22,8	22,7	22,6	22,9	22,9	22,9
Paid by employers	12,7	12,6	12,6	12,4	12,5	12,3	12,4
Paid by employees	9,8	10,2	10,1	10,3	10,4	10,5	10,5
Non-employed <sup>3)</sup>	0,5	0,4	0,5	0,3	0,3	0,3	0,3
Capital	8,3	8,7	9,0	9,3	9,7	9,9	10,1
Capital and business income	3,9	4,3	4,5	4,7	5,1	5,4	5,7
Income of corporations	1,8	2,0	2,3	2,3	2,7	2,9	3,1
Income of households	0,5	0,6	0,6	0,9	1,0	1,0	1,0
Income of self-employed (incl. sc)	1,6	1,8	1,6	1,4	1,5	1,6	1,5
Stocks (wealth) of capital	4,3	4,4	4,6	4,6	4,6	4,5	4,4
<b>Total</b>	<b>44,0</b>	<b>45,0</b>	<b>45,2</b>	<b>45,1</b>	<b>45,7</b>	<b>45,3</b>	<b>45,4</b>
Of which environmental taxes	2,5	2,5	2,4	2,4	2,4	2,1	2,0
Energy	1,9	2,0	1,9	1,9	1,9	1,8	1,6
Transport	0,4	0,4	0,4	0,4	0,4	0,3	0,3
Pollution/Ressources	0,1	0,2	0,1	0,1	0,1	0,1	0,1
<b>D. Implicit tax rates</b>							
Consumption	22,9	23,4	23,5	23,4	23,3	22,4	21,9
Labour employed	43,2	43,7	43,7	43,9	44,2	43,9	43,3
Capital	30,8	33,0	34,2	34,5	36,8	37,3	39,1
Capital and business income	14,6	16,4	17,0	17,3	19,4	20,3	22,0

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

3) Only social contributions. Estimates for income tax raised on social transfers and pensions not available.

n.a.: not applicable

Source: Commission Services

As for corporate taxation, a temporary surtax of 10% on corporate profits was introduced in 1995 and raised to 25% in 1997. Restrictions were imposed on the imputation credit attached to French dividends (*Avoir fiscal*), with finally a reduction of this credit in 1999. The application of the reduced rate of 19% on capital gains has also been limited. In addition, in order to finance the accompanying measures for employers to reduce the working week to 35 hours, a special social contribution on profits (CSB), applicable to large enterprises, was introduced on the corporate tax base.

In recent years (notably from 1999 onwards), fiscal policy has been aimed at lowering the tax burden. In August 2000, the French government announced a multi-annual tax-cutting programme distributed over the period 2001-2003. Most of the reductions have accrued to households.

The standard VAT rate has been reduced by one percentage point (from 20.6% to 19.6%). In contrast, duties on diesel fuel were increased in order to bring them more in line with those on other fuels. In autumn 2000, a measure aimed at limiting the scale of the increase in fuel prices was incorporated in the Finance Act.

Fiscal policy has made lower taxes on labour income a priority objective. The various measures as regards the taxation of labour are part of the multi-annual tax-cutting programme (2001-2003), and are mostly targeted on low-paid and low-qualified workers. The main tax cutting measures for labour consist in:

- Reduction of statutory personal income tax rates. On the whole, in 2003 the rates were scheduled to be reduced by –3.5 points for the lowest four brackets and by –1.5 for the highest brackets.
- Reduction in social contributions, notably for the low-paid workers, and as support measures for the scheme to switchover to the 35-hour working week, through cuts in employers' social contributions.
- Creation of a reimbursable tax credit, the *Prime pour l'emploi*, to encourage low-paid and skilled workers to resume active employment.
- Reform of the local business tax (*Taxe professionnelle*) with the gradual phasing out of the wages component from the tax base.

In the late 1990s, the increases in corporate taxes were reversed with the gradual phasing out of the surtax on corporate profits introduced in 1997. The cuts in corporate taxes would become deeper with the lifting, in three stages, of the 10% surtax in 1999. Part of these reductions in corporate taxation would be funded, in part, by a broadening of the tax base (reduction of depreciation allowance, modification of the system for correcting double taxation of dividends distributed between firms).

## 6.2. Trends in taxation of consumption, labour and capital

The taxation of consumption is on the whole stable, at an effective rate of around 22%-23%. Reductions are visible for 2000 and 2001, notably because of reductions in the VAT rates. The implicit tax rate on consumption is slightly above the community average.

The tax burden on labour income has risen steadily since the early 1970s, but seems now to have stabilised since the late 1990s. In National Accounts, both the CSG, CRDS as well as the social levy of 2% are booked as taxes on personal income, and the revenue has been split in the table between taxes on employed labour and taxes on capital income. These charges have been the main drivers of the increase in the implicit tax rate on labour in the second half of the 1990s. They have apparently offset the effects of reductions in social contributions and personal income taxes at the aggregate level. By 2001, the implicit tax rate on labour is still well above the Community average.

The taxation of capital in percentage of GDP is relatively high in France. The implicit tax rate on capital is the highest in the Union. But this is not related to a heavy taxation of capital and business income. The taxation of households' capital income is even low by European standards. However, the French system relies on a number of other taxes on capital, such as the real estate tax, the housing tax, the wealth tax and the local business tax. Most of them are classified under taxes on capital stock (-wealth) which altogether represent almost 4.5% of GDP against less than 3% in the EU. Focusing on the taxation of capital and business income, the increasing trend in the implicit tax rate lies above the European average reflecting mainly an increasing taxation of corporation in that period.

## 7. IRELAND

### 7.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

The Irish economy has been performing very well since the mid-1990s. Ireland witnessed uninterrupted budgetary surpluses in the period 1997 to 2001 and tax revenues were also often far more buoyant than expected at Budget time. Ireland has maintained the lowest overall tax-to-GDP ratio in the Union. It witnessed reductions in both direct taxes and indirect taxes, but also social contributions. A clear reduction in the total tax-to-GDP ratio is visible in the year 2001, following the Government's tax-cutting package and also less buoyant tax revenue growth than expected, notably for direct taxes.

#### *Features of the tax structure and recent developments in tax policy*

The structure of the Irish tax system stands out with a relatively high weight of indirect taxes reflecting a heavy reliance on VAT and excise duties. The share of social contributions in total government receipts is on the other hand remarkably low compared to the Union's average.

As promised to the electorate in 1997, the Irish government has shown a clear resolve to lower the tax pressure for households and enterprises, notably by reductions in personal income tax and corporate income tax, but also social contributions (notably for employees).

During its term in office, the government clearly aimed at rewarding work, especially for those on relatively lower pay. As a result of five consecutive Budgets, over 380,000 taxpayers have been removed from the personal income tax net by increasing basic tax allowances including the so-called PAYE allowance (since April 2000, personal allowances are available only in the form of a credit against the individual's tax liability). Also, both statutory personal income tax rates –Ireland has only two statutory rates– have been reduced substantially (from 27% in 1996 to 20% in 2001 and from 48% to 42%, respectively), along with employees' social contributions and levies. The rates for employees' Pay-Related-Social-Insurance ('PRSI') contributions were reduced and the entrance earnings threshold for paying PRSI was raised several times, granting PRSI exemption to a greater number of individuals on lower incomes. Also, since 1997, the income tax exemption limits for people aged 65 or more were increased in four Budgets by over 150%.

The Government is working towards progressively widening the standard rate band and placing it on a per person basis with a view to achieving a position where 80% of income earners pay tax no more than the standard rate. The objective is that ultimately each person will have his or her own non-transferable standard rate band<sup>1</sup>. The measure also has the effect of encouraging labour force participation.

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<sup>1</sup> The system prior to 2000 was that the standard rate band was fully transferable between spouses. However, this resulted in single people on less than the average industrial wage paying tax at the higher rate and, in the case of two-earner married couples on an average income, the second earner paying tax at the higher rate on all his or her income.

## Taxes & Social contributions in IRELAND <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	14,7	14,6	14,2	14,0	13,8	13,9	13,6
VAT	7,1	7,2	7,2	7,2	7,1	7,4	7,0
Excise duties and consumption taxes	4,9	4,9	4,6	4,5	4,3	4,2	4,5
Other taxes on products (incl. import duties)	1,6	1,5	1,6	1,5	1,6	1,6	1,5
Other taxes on production	1,0	1,0	0,8	0,7	0,7	0,6	0,6
Direct taxes	13,7	14,2	14,2	13,9	13,9	14,1	13,1
Personal income	10,3	10,4	10,2	9,8	9,0	9,0	8,3
Corporate income	2,8	3,1	3,2	3,4	3,8	3,8	3,6
Other	0,6	0,7	0,8	0,8	1,0	1,2	1,2
Social Contributions	5,0	4,6	4,4	4,2	4,3	4,4	4,5
Employers'	2,9	2,7	2,6	2,6	2,6	2,6	2,8
Employees'	1,9	1,8	1,5	1,4	1,5	1,5	1,5
Self- and non-employed	0,2	0,2	0,2	0,2	0,2	0,2	0,2
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	27,1	27,8	27,6	27,0	27,1	27,5	26,3
State government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Local Government	0,9	0,8	0,8	0,7	0,7	0,6	0,6
Social Sec. Funds	4,2	3,9	3,7	3,5	3,5	3,5	3,7
EC Institutions	1,2	0,9	0,8	0,9	0,7	0,7	0,7
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	13,1	13,0	12,7	12,5	12,2	12,3	12,0
Labour	13,6	13,2	12,8	12,1	11,7	11,8	11,4
Employed	13,5	13,1	12,6	12,0	11,6	11,7	11,3
Paid by employers	2,9	2,7	2,6	2,6	2,6	2,6	2,8
Paid by employees	10,6	10,4	10,1	9,4	9,0	9,1	8,4
Non-employed	0,1	0,1	0,1	0,1	0,1	0,1	0,1
Capital	6,7	7,2	7,3	7,5	8,1	8,2	7,9
Capital and business income	4,6	5,1	5,3	5,5	5,9	6,2	5,9
Income of corporations	2,8	3,1	3,2	3,4	3,8	3,8	3,6
Income of households	0,5	0,6	0,7	0,8	0,8	1,1	1,1
Income of self-employed (incl. sc)	1,4	1,4	1,4	1,4	1,3	1,3	1,2
Stocks (wealth) of capital	2,0	2,1	2,0	2,0	2,1	2,1	2,0
<b>Total</b>	<b>33,4</b>	<b>33,5</b>	<b>32,8</b>	<b>32,1</b>	<b>31,9</b>	<b>32,3</b>	<b>31,2</b>
Of which environmental taxes	3,1	3,1	3,0	3,0	3,0	2,9	2,4
Energy	1,7	1,7	1,7	1,7	1,6	1,5	1,2
Transport	1,3	1,4	1,3	1,3	1,4	1,5	1,2
Pollution/Ressources	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>D. Implicit tax rates</b>							
Consumption	25,3	25,2	25,7	26,1	26,2	26,7	26,6
Labour employed	29,7	29,5	29,7	28,9	28,6	28,8	27,3
Capital	21,8	24,6	24,9	24,0	29,5	31,8	29,2
Capital and business income	15,2	17,5	18,1	17,6	21,8	23,9	21,7

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

n.a.: not applicable

Source: Commission Services



Corporation taxes play an important role in Ireland's total governments revenue (around 10.5%) compared to the Union's average (6%). The recent increase in corporation taxes (as percentage of GDP) can largely be attributed to the rapid economic growth in Ireland in recent years, which has apparently offset the effects of the recent reductions in the statutory rates. The standard rate for corporation tax for trading companies is reduced in phases from 40% in 1995 to 16% from 1 January 2002. Also in 1995, a new lower corporation rate of 30% was introduced for small and medium sized enterprises, which was subsequently reduced to 12½% in 2001. A special 10% rate applies to manufacturing companies and qualifying income of International Financial Services Centre and Shannon companies<sup>2</sup>.

Also in the area of business taxation, there have been several reductions in the highest and the lowest rate for employers' PRSI. The entrance earnings threshold for paying the higher rate of employers' PRSI was also raised regularly. From 2001 onwards, however, employers must pay PRSI contributions on the full salaries of the employees due to the abolition of the ceiling.

Also, in 2001, the government reduced the VAT rate to 20% and the probate tax –payable to capital taxes office on the entire net value of the deceased's estate– has been abolished. Also, excise duties on auto diesel were reduced.

## **7.2. Trends in taxation of consumption, labour and capital**

Taxes on consumption represent more than 38% of total taxation in Ireland, which is the highest value in the European Union. The implicit tax rate on consumption reached around 26,6%, which is around 6 percentage points higher than the Union's average.

Taxes on employed labour, on the other hand, are particularly low in Ireland compared to the Union's average. The relatively low tax burden on employed labour can largely be attributed to the relatively low level of social contributions. Like in many EU countries the implicit tax rate on labour has steadily increased from 1970 onwards until the late 1980s. It remained rather stable during the first half of the 1990s. Significant reductions are visible since the late 1990s, as a result of the successive cuts in personal income tax and social contributions. Ireland has in fact recorded the largest fall in the implicit tax rate on labour during recent years.

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<sup>2</sup> This special 10% rate will expire between 2003 and 2010 (depending on the type of company in question and when it received approval for the 10% rate) and will be replaced by the then standard corporate income rate of 12½%. The 2002 Budget furthermore announced that, over the next five years, the government will move to a situation in which their main corporation tax payments will be made on a current year basis (like in the other OECD countries such as the United States), instead of the existing system under which all corporation tax is paid well after the end of the financial accounting year.

The overall implicit tax rate on capital is below the Union's average. Like in other EU countries it has however increased substantially during recent years, notably reflecting an increase in the implicit tax rate on capital and business income. This trend can partly be attributed to increasing tax revenues raised on income from corporations and, to a lesser extent, also from households. Apparently the strong economic growth during recent years has offset the effects of the recent reductions in corporate income tax rates since the mid-1990s. Ireland witnessed an increasing share of profits in proportion to the size of the economy, which was mirrored by a decreasing share for the compensation of employees, but saw a significant reduction of the relative share for property income. In Ireland - due to lacking sector account data - only a simplified measure for the property income of the private sector can be used. This leads likely to an overestimation of the effective tax burden on business and capital income. Like in other countries in the Union, the decreasing share for property income can probably be linked to a reduction in interest payments to households, as the Irish government saw uninterrupted budgetary surpluses during the past six years. Recent reforms and slower economic growth resulted in a lower implicit tax rate on capital in 2001 and probably also in the years ahead.

## 8. ITALY

### 8.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

The total tax-to-GDP ratio increased rapidly since the early 1990s. It approached a level of 44.7% in 1997, and then decreased to around 43% in 1998 and remained rather stable in the years thereafter. The upswing in the tax burden since the early 1990s can largely be attributed to budgetary consolidation efforts. Meeting the EMU criteria and in particular reducing the total debt-to-GDP ratio was an important challenge for Italy. Until 1997, the structure of the tax revenues in Italy remained virtually unchanged. In the year 1998, however, an important tax reform was implemented. Significant reductions in employer's social contributions and corporate income taxes were partly compensated by an increase in indirect taxes (in particular other taxes on production, by the introduction of the new regional tax on productive activities, commonly abbreviated as 'IRAP').

#### *Features of the tax structure and tax policy in recent years*

The present structure of the tax revenues in Italy is mainly characterised by a relatively high share of direct taxes, in particular personal income taxes. In 1998 a major tax reform was implemented. A major aim of the tax reform was a simplification of the tax procedures and a rationalisation of local taxation systems. Another goal of the tax package was to enhance the neutrality of the tax system and to stimulate investment. As a result of the tax reform, indirect taxes replaced social contributions as the second source of government revenues, while the revenues from corporate income taxes were substantially reduced.

The 1998 tax reform introduced changes with respect to capital taxation in the personal income tax. The tax base was effectively broadened: all categories of capital income are taxed, whereas previously only interest, defined as non-speculative gain from investment, was subject to taxation. The change increased neutrality of taxation between taxation of capital derived from financial activities and capital derived from business activities. Both types of capital are now subject to a final withholding tax of 27%. In addition, a special new regime on Italian Investment Funds was adopted, introducing a substitute levy of 12.5% on realised annual capital gain even if not cashed in.

Also in 1998, the rules for company taxation were changed to substantially ease the tax burden on incorporated businesses. A two-tier system was introduced with the intent of reducing the relative cost of financing new investment via own capital – the dual income tax, or DIT model. Besides the standard corporate rate of 37%, a reduced rate of 19% is applied on the portion of income that is deemed to be derived from the increase in equity capital of the company (qualifying increases are contributions in cash or retained profits). The income taxable at the reduced rate of 19% is calculated by applying a certain rate of remuneration (currently set by legislation at 7%; in addition, a risk premium of 2.8% applies) to the qualifying increases in equity capital. In the year 2000, a 'super' DIT was introduced which allows the qualifying increases in equity capital to be multiplied by a factor of 1.2 (this factor was increased to 1.4 in the year 2001). The overall corporate tax rate still remained one of the highest in the Union (it reached a level of 40.25% in the year 2001, if surcharges and local profit taxes are incorporated).

## Taxes & Social contributions in ITALY <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	12,7	12,5	12,9	15,9	15,6	15,5	15,0
VAT	5,7	5,5	5,8	6,2	6,2	6,6	6,4
Excise duties and consumption taxes	3,3	3,2	3,1	3,0	3,0	2,7	2,5
Other taxes on products (incl. import duties)	2,6	2,6	2,7	2,9	3,0	2,7	2,6
Other taxes on production	1,2	1,2	1,4	3,8	3,4	3,4	3,6
Direct taxes	15,4	15,7	16,9	14,9	15,3	14,8	15,2
Personal income	10,8	11,0	11,4	11,4	11,5	10,8	11,2
Corporate income	3,4	3,8	4,2	2,5	2,8	2,4	2,9
Other	1,3	0,9	1,3	1,0	1,0	1,6	1,1
Social Contributions	13,0	14,6	14,9	12,5	12,4	12,4	12,3
Employers'	8,7	10,2	10,6	8,7	8,6	8,6	8,6
Employees'	2,5	2,6	2,7	2,5	2,4	2,3	2,4
Self- and non-employed	1,9	1,8	1,7	1,3	1,4	1,4	1,4
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	24,6	24,0	25,8	24,4	25,0	23,9	23,4
State government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Local Government	3,2	3,5	3,5	5,8	5,4	6,0	6,3
Social Sec. Funds	12,7	14,6	14,9	12,5	12,4	12,4	12,3
EC Institutions	0,7	0,6	0,5	0,6	0,5	0,5	0,5
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	10,5	10,1	10,4	10,7	11,0	11,0	10,4
Labour	18,6	20,2	21,1	21,0	20,6	20,2	20,6
Employed	16,7	18,2	19,1	18,8	18,4	18,1	18,3
Paid by employers	8,8	10,3	11,0	10,6	10,1	10,1	10,2
Paid by employees	7,9	7,9	8,1	8,1	8,3	8,0	8,2
Non-employed	1,9	2,0	2,1	2,2	2,3	2,2	2,2
Capital	12,1	12,4	13,2	11,5	11,6	11,5	11,7
Capital and business income	8,0	8,6	9,2	8,0	8,5	8,7	8,9
Income of corporations	2,9	3,4	3,8	2,9	3,3	2,9	3,6
Income of households	1,8	2,0	2,1	1,7	1,7	2,2	1,8
Income of self-employed (incl. sc.)	3,2	3,2	3,3	3,4	3,5	3,5	3,6
Stocks (wealth) of capital	4,1	3,8	4,0	3,5	3,1	2,8	2,7
<b>Total</b>	<b>41,2</b>	<b>42,8</b>	<b>44,7</b>	<b>43,2</b>	<b>43,3</b>	<b>42,7</b>	<b>42,6</b>
Of which environmental taxes	3,7	3,6	3,5	3,4	3,6	3,2	3,0
Energy	3,2	3,1	3,0	2,9	2,9	2,6	2,4
Transport	0,5	0,4	0,5	0,5	0,6	0,6	0,6
Pollution/Ressources	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>D. Implicit tax rates</b>							
Consumption	17,2	16,8	17,0	17,4	17,6	17,6	16,7
Labour employed	37,8	41,4	43,1	42,8	41,9	41,3	41,6
Capital	26,3	26,5	29,9	27,4	28,7	28,2	28,3
Capital and business income	17,3	18,4	20,8	19,1	20,9	21,3	21,7

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

n.a.: not applicable

Source: Commission Services

The 1998 tax reform also abolished the employer's compulsory health contributions, bringing the overall employer's social contribution rate down. At the same time, however, a new regional tax on productive activities based on value added net of depreciation (called the 'IRAP') was introduced.

The level of tax revenues attributed to local governments has become quite substantial in Italy. The new regional tax on productive activities ('IRAP'), the municipal tax on immovable property ('ICI') represent the major contribution to budgets of local governments. From 2000 onwards, revenues from VAT are the main transfers from central to local government.

In the year 2001 a new tax reform was adopted with the aim of reducing the tax burden on both labour and incorporated businesses over the period 2002-2003. In 2001 the first tax bracket in the personal income tax was reduced and the deductions for interest paid on loans for the purchase of principal residence, lease charges and medical charges were increased for employed persons, the minimum income earners and the self-employed. The standard corporate tax rate has been reduced from 37% in 2000 to 36% in 2001 and will be further reduced to 34% in 2003. A special regime was also introduced for new entrepreneurial activities and self-employed people, and a tax credit was granted to encourage employers to hire new employees.

At the end of the year 2001 the Italian Government has envisaged a structural reform of the entire tax system to be enacted gradually as from the tax year 2003. The reform will lead to the reduction in the number of income tax brackets, and the abolishment of the Dual Income Tax (DIT) and of the regional tax on productive activities ('IRAP').

## 8.2. Trends in taxation of consumption, labour and capital

The implicit tax rate on consumption increased to around 18% in 1998. The increase can largely be explained by an increase in excise duties and, to a lesser extent, also VAT. The intermediate VAT rate of 16% was abolished and replaced by a standard rate of 20%.

Italy imposes a relatively high tax burden on labour income. The main measure towards a reduction of tax burden on labour was taken in the year 1998 when the employer's social contributions were substantially reduced. At the same time, however, the new regional tax on productive activities based on value added was introduced. Part of the tax revenue from this new tax has in fact been allocated to labour income in the table; the other part has been allocated to the capital income of households (including self-employed). Seen over the entire period 1995-2001, the implicit tax rate on labour income remained rather stable.

The implicit tax rate on capital increased only slightly, whereas in other Member States a sharp increase has been registered. An increase in the implicit tax rate on capital is still visible between 1995 and 1997, but the 1998 tax reform resulted in a significant reduction in the tax burden on capital income (for both households and corporations) and also on the stocks (wealth) of capital. The self-employed paid substantially less social contributions as a result of the 1998 tax reform. Italy also experienced relative decreases in the overall tax base in proportion to GDP, which corresponds mostly to a decrease in the share of property income and, to a lesser extent, a decreasing share of profits from the private sector. Shifts from interest payments to dividend payments against the background of decreasing interest rates have taken place. The latter development has however resulted in slight increase in the measured tax burden on capital income, offsetting the reductions in corporate income tax that were implemented in 1998. The reduction in the measured tax burden on

stocks (wealth) of capital can also be attributed to the substantial reduction of revenue from the firm's net wealth tax.

### A different treatment of self-employed

In the analysis presented so far taxes and social contributions paid by self-employed are allocated to the capital and business income category<sup>1</sup>. As mentioned in Part II, Italy proposed to split tax revenues from income of self-employed in 80% and 20%, because most of the self-employed in Italy are more comparable to dependent employed workers. The 80% are related to labour and the 20% are linked to capital income of self-employed. The mixed income of self-employed should be split accordingly. Social contributions of self-employed are attributed to labour in the Italian method. The following table shows the results of this different treatment of self-employed that change most ratios of table C and D:

<b>Method Italy:</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001<sup>2)</sup></b>
<b>C. Structure according to economic function as % of GDP</b>							
Labour	21,5	23,1	24,1	23,9	23,7	23,3	23,7
Employed	16,7	18,2	19,1	18,8	18,4	18,1	18,3
Paid by employers	8,8	10,3	11,0	10,6	10,1	10,1	10,2
Paid by employees	7,9	7,9	8,1	8,1	8,3	8,0	8,2
Self-employed (80% incl. scc)	2,9	2,9	2,9	2,9	3,1	3,1	3,1
Non-employed	1,9	2,0	2,1	2,2	2,3	2,2	2,2
Capital	9,2	9,5	10,3	8,6	8,5	8,4	8,5
Capital and business income	5,0	5,7	6,3	5,1	5,4	5,6	5,8
Income of corporations	2,9	3,4	3,8	2,9	3,3	2,9	3,6
Income of households	1,8	2,0	2,1	1,7	1,7	2,2	1,8
Income of self-employed (20%)	0,3	0,3	0,3	0,4	0,4	0,4	0,4
Stocks (wealth) of capital	4,1	3,8	4,0	3,5	3,1	2,8	2,7
<b>D. Implicit tax rates</b>							
Labour employed	36,5	39,4	40,8	40,7	40,2	39,7	40,0
Capital	26,3	26,6	31,2	27,8	29,1	28,5	28,4
Capital and business income	14,4	16,0	19,0	16,4	18,4	18,9	19,4

<sup>1</sup> Except the income and taxes of "continuous and co-ordinated collaborations" that are allocated to the labour category. The income of these self-employed workers is treated, for tax purposes, as income of employed workers.

## 9. LUXEMBOURG

### 9.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

With an overall tax burden between 41 and 42% of GDP, Luxembourg is close to the EU average. The tax burden has been slightly declining over the 1995-2001 period, in particular as a result of the stepwise tax reduction reforms. However, by its size, location and economic structure, the Luxembourg economy has a large external sector. It is therefore necessary to be very cautious when comparing the figures for Luxembourg with the data for the other Member States, especially when relating total revenue from taxation with gross domestic income.

#### *Features of the tax structure and tax policy in recent years*

Compared to most Member States, Luxembourg relies relatively heavily on direct taxes for raising tax revenues. Direct tax revenues have however slightly decreased in recent years (in % of GDP), as Luxembourg implemented reductions in the rates of both the personal income tax and the corporate income tax. Indirect taxes in percentage of GDP and of total taxes are close to the EU average. In this respect, low excise and VAT nominal rates are partly compensated by the earnings of cross-border trade.

The relatively large weight of direct taxes is mainly related to the corporate income tax: it represents 7.6% of GDP on average over the 1995-2001 period against 2.5 % for the EU. However, relatively low (by European standards) statutory rates of personal income tax result in a share of personal income tax in GDP below the EU average.

Several tax reforms were undertaken in the 1990s. Most of these reforms aimed at reducing the tax burden on individuals and businesses, as well as encouraging investment in Luxembourg. A tax relief was implemented in 1998: the corporate income tax rate (IRC) was lowered to 30% (after the reform, the 'all-in' statutory corporate tax rate (including surcharges) amounted to 37.45%), while at the same time the wealth tax could be attributed to this tax under condition of reinvestment. This measure was taken mainly to safeguard the competitive position of resident companies in the international market.. Until 1997, the municipal business tax was composed of two parts: a tax on corporate profits and a tax on capital. The municipal business tax on capital was abolished in 1997. However, there continues to exist a municipal business tax, but it is now mainly assessed on the basis of corporate profits. Also in 1998, several measures were taken to reduce the burden of taxation in the personal income tax.

The reform program 2001-2002 introduces budgetary measures that are not compensated by alternative taxes on other factors or green taxes. It consolidates the trend of a decreasing tax burden. It involves an across the board reduction of personal income taxes achieved through an increase of the exemption threshold, a reduction of the top rate in two stages (from 46% to 42% in 2001 and to 38% in 2002) and a modification in the structure of the brackets. As to the consumption taxes, in 2001 the contribution of 6% paid by the electricity sector was replaced by a tax on electricity consumption.

## Taxes & Social contributions in LUXEMBOURG <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	13,5	13,4	13,6	13,5	14,4	14,8	14,3
VAT	5,9	5,9	5,8	5,8	5,9	5,9	6,2
Excise duties and consumption taxes	4,6	4,5	4,6	4,4	4,8	4,8	4,3
Other taxes on products (incl. import duties)	1,4	1,3	1,4	1,5	1,5	1,6	1,4
Other taxes on production	1,6	1,7	1,7	1,8	2,1	2,5	2,3
Direct taxes	17,6	18,0	17,5	16,5	16,0	15,9	16,0
Personal income	9,2	9,2	8,6	7,7	7,7	7,5	7,3
Corporate income	7,5	7,7	7,9	7,8	7,1	7,4	7,7
Other	0,9	1,1	1,0	1,0	1,2	1,0	1,0
Social Contributions	11,2	11,0	10,5	10,2	10,4	10,6	11,6
Employers'	5,2	5,1	4,8	4,7	4,6	4,7	5,2
Employees'	4,5	4,4	4,2	4,2	4,5	4,6	5,1
Self- and non-employed	1,6	1,5	1,4	1,3	1,3	1,2	1,3
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	27,6	28,1	28,0	27,1	27,7	28,0	27,7
State government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Local Government	2,7	2,8	2,5	2,5	2,3	2,4	2,4
Social Sec. Funds	11,1	10,8	10,2	10,0	10,1	10,2	11,2
EC Institutions	1,0	0,8	0,8	0,7	0,6	0,6	0,6
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	11,5	11,2	11,2	11,0	11,5	11,4	11,2
Labour	16,8	16,7	16,1	15,1	15,5	15,7	16,6
Employed	15,9	15,9	15,3	14,4	14,7	15,0	15,8
Paid by employers	5,2	5,1	4,8	4,7	4,6	4,7	5,2
Paid by employees	10,7	10,7	10,5	9,6	10,1	10,3	10,7
Non-employed <sup>3)</sup>	0,9	0,8	0,8	0,7	0,8	0,7	0,8
Capital	14,1	14,5	14,2	14,2	13,8	14,2	14,0
Capital and business income	11,1	11,2	10,9	10,6	9,7	9,7	10,0
Income of corporations	7,5	7,7	7,9	7,8	7,1	7,4	7,7
Income of households and self-employed (incl. sc) <sup>4)</sup>	3,6	3,5	2,9	2,8	2,6	2,4	2,3
Stocks (wealth) of capital	3,0	3,3	3,4	3,5	4,1	4,4	4,1
<b>Total</b>	<b>42,4</b>	<b>42,4</b>	<b>41,6</b>	<b>40,2</b>	<b>40,8</b>	<b>41,3</b>	<b>41,8</b>
Of which environmental taxes	3,4	3,3	3,1	3,0	3,0	2,9	2,9
Energy	3,2	3,2	3,0	2,9	2,8	2,8	2,8
Transport	0,2	0,2	0,1	0,1	0,1	0,1	0,1
Pollution/Ressources	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>D. Implicit tax rates</b>							
Consumption	22,0	21,7	22,6	23,5	24,3	25,5	24,4
Labour employed	29,8	29,9	30,2	29,0	29,7	30,8	30,3
Capital	30,6	24,5	25,9	29,8	29,4	38,4	36,8
Capital and business income	24,0	18,9	19,8	22,4	20,7	26,4	26,2

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

3) Only social contributions. No estimates for income tax raised on social transfers and pensions available.

4) No separate estimates for income tax of capital income of households and self-employed available.

n.a.: not applicable

Source: Commission Services



## 9.2. Trends in taxation of consumption, labour and capital

The specific features of Luxembourg's tax system and economy result in a close to average weight of consumption taxes, relatively low labour taxes and relatively high capital taxes. Measured in percentage of GDP or of total taxation, taxes on capital income are even the highest of the EU and capital stocks are also well above the Union average.

Consumption taxes (in % of GDP) are close to the EU average, although the implicit tax rate is substantially higher. As mentioned above, relatively low nominal rates are partly compensated by the earnings of cross-border trade. The implicit tax rate on consumption is biased upward because it includes taxes that are not exclusively collected on household consumption. This might be particularly true for a small country like Luxembourg, which collect a significant part of consumption taxes from excises, including fuel taxes.

The relatively low level of labour taxation is a result of both the taxation of personal income and the level of social contributions. The implicit tax rate on labour is close to 7 percentage points below the EU average.

Luxembourg belongs to the group of EU Member States which tax capital relatively heavily. Taxes on capital represent on average around a third of total taxes against roughly 21.5% in the EU. This is nearly entirely related to the large proceeds of the corporate income tax, which are the largest in the EU in % of GDP (or in % of total taxes). The implicit tax rate (ITR) on capital is relatively high. However, due to data availability in national accounts, the tax base had to be simplified and does not include the correction for dividends paid abroad and earnings on foreign direct investment. These are significant in a small open economy like Luxembourg with a large financial industry. This omission pushes the ITR on capital upwards compared to other Member States.

## 10. NETHERLANDS

### 10.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

Considerable fiscal consolidation has been achieved in the Netherlands since the mid-1990s with the government deficit falling from 4.2% of GDP in 1995 to 0.8% in 1998. In accordance with budgetary rules (so-called ‘Zalm-norm’), all public spending has been subject to strict spending limits, and extra spending could not be financed out of additional tax revenue. The process of consolidation continued in 1999 when a general government surplus of 0.7% was recorded, which then reached 2.2% in 2000. This outcome was largely due to fast economic growth, which also resulted in an increase in the overall tax burden to 41.7% in 1999 and 41.5% in 2000. Important reforms were undertaken on the revenue side: a major fiscal reform has been decided in the 1998 coalition government and was implemented on 1 January 2001. As a result, both personal income tax and social contributions were substantially reduced (*ex ante* 1.3% GDP), and indirect taxes, notably VAT and energy taxes, were increased (*ex ante* 0.7% GDP). The reform in 2001 thus implied a shift from direct to indirect taxation and also an across-the-board decrease in the overall tax burden. In addition, due to the economic slowdown in 2001, significant shortfalls occurred in tax revenues. The level of the overall tax burden declined to 40% in 2001. It is currently below the Community average<sup>1</sup>.

#### *Features of the tax structure and tax policy in recent years*

Indirect taxes, direct taxes and social contributions, each account for about one third of total tax revenues. In the last decade a shift occurred from direct to indirect taxation, which makes the tax revenue less sensitive to the business cycle. The weight of personal income tax has decreased in recent years because of gradual erosion of the aggregate tax base and a reduction in the statutory income tax rates. The slightly increased ratio of taxes on corporations between 1995 and 2000 to the level of GDP reflects the relatively improved position of companies. The relatively higher ratio for indirect taxes largely reflects the increase in the VAT rate, a change of the consumption patterns in favour of the standard VAT rate, and the increase in revenues from other taxes on products, notably energy levies, real estate transfer tax and taxes on passenger cars and motorcycles (BPM).

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<sup>1</sup> In the late 1980s and the early 1990s the Netherlands was still reported to consistently belong to the group of jurisdictions with the highest tax burden in the Union. It must be recognised that country positions may vary according to the charges that are taken into account. This is especially important as regards the inclusion or the exclusion of social contributions. It should be noted that, as a result of the transition from ESA79 to ESA95 classification of national accounts, the level of recorded social contributions has substantially declined. Some social arrangements provided through labour contracts, for example, are not considered to belong to the government anymore.

## Taxes & Social contributions in THE NETHERLANDS <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	11,9	12,2	12,5	12,5	13,1	13,0	13,5
VAT	6,6	6,8	6,9	6,9	7,2	7,2	7,6
Excise duties and consumption taxes	2,8	2,7	2,8	2,8	2,9	2,7	2,6
Other taxes on products (incl. import duties)	1,4	1,6	1,8	1,8	2,0	2,1	2,2
Other taxes on production	1,1	1,1	1,0	1,0	1,1	1,1	1,1
Direct taxes	12,7	13,2	12,7	12,5	12,5	12,4	12,2
Personal income	7,8	7,3	6,5	6,2	6,2	6,3	6,5
Corporate income	3,1	4,0	4,4	4,3	4,2	4,2	4,1
Other	1,7	1,9	1,9	1,9	2,1	2,0	1,7
Social Contributions	16,0	15,5	15,5	15,3	16,0	16,0	14,2
Employers'	2,0	1,9	1,8	4,6	4,6	4,6	4,6
Employees'	10,5	10,0	10,2	7,7	8,1	8,0	6,8
Self- and non-employed	3,6	3,5	3,4	3,0	3,3	3,4	2,9
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	22,1	22,9	22,7	22,6	23,3	23,1	23,4
State government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Local Government	1,3	1,4	1,4	1,4	1,4	1,4	1,4
Social Sec. Funds	16,0	15,5	15,5	15,3	16,0	16,0	14,2
EC Institutions	1,1	1,0	1,0	1,0	0,9	0,9	0,9
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	10,9	11,3	11,4	11,4	11,8	11,8	12,2
Labour	22,1	21,1	20,5	20,1	20,7	20,7	18,9
Employed	17,8	17,2	16,8	17,1	17,5	17,5	16,3
Paid by employers	2,0	1,9	1,8	4,6	4,6	4,6	4,6
Paid by employees	15,9	15,3	15,0	12,4	12,9	12,9	11,7
Non-employed	4,3	3,9	3,7	3,0	3,2	3,1	2,6
Capital	7,5	8,4	8,9	8,9	9,2	9,0	8,9
Capital and business income	5,2	6,0	6,4	6,3	6,4	6,2	6,3
Income of corporations	3,1	4,0	4,4	4,3	4,2	4,2	4,1
Income of households	-0,5	-0,5	-0,5	-0,2	0,0	-0,1	0,6
Income of self-employed (incl. sc)	2,6	2,5	2,5	2,1	2,2	2,2	1,6
Stocks (wealth) of capital	2,3	2,4	2,5	2,6	2,8	2,8	2,7
<b>Total</b>	<b>40,6</b>	<b>40,8</b>	<b>40,7</b>	<b>40,3</b>	<b>41,7</b>	<b>41,5</b>	<b>40,0</b>
Of which environmental taxes	3,5	3,7	3,7	3,8	3,9	3,9	3,8
Energy	1,7	1,8	1,9	1,9	2,0	2,0	2,0
Transport	1,3	1,5	1,3	1,4	1,5	1,4	1,4
Pollution/Ressources	0,5	0,4	0,4	0,4	0,4	0,4	0,4
<b>D. Implicit tax rates</b>							
Consumption	22,9	23,2	23,6	23,6	24,2	24,3	25,3
Labour employed	35,1	34,1	33,4	33,6	34,1	34,4	31,7
Capital	24,8	27,4	28,2	28,9	31,6	30,2	31,8
Capital and business income	17,2	19,4	20,3	20,5	22,0	20,8	22,3

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

n.a.: not applicable

Source: Commission Services

Since the mid-1980s the share of social contributions in total tax revenues has decreased, notably because of the reduction in unemployment, the privatisation of the general sickness act, and a reduction of the level of social benefits compared to average wages. The share of social contributions to GDP is however still relatively high. Before the year 1990, the shares in social contributions paid by employers and employees were roughly equal. The successive important reforms to the personal income tax and social security system (the so-called ‘Oort operation’ in 1990 and ‘Pemba operation’ in 1998) have shifted liabilities for some important social contributions between employees and employers, but with little influence on total labour costs<sup>2</sup>.

Contrary to a number of Member States, wage withholding tax and social contributions are not only levied on wages and salaries and pension benefits, but also on social benefits.

The Netherlands has one of the highest shares of environmental taxes as percentage of GDP in the Union, after Denmark and Portugal. The Netherlands has significant transport taxes and is one of the few countries in the Union with a non-negligible contribution of pollution taxes, originating from tax on pollution of surface waters and sewerage charges.

After the tax reform in 1990 (‘Oort operation’) that, among other important changes, harmonised the tax base for personal income tax and social contributions, and shifted two major social contributions from the employer to the employee, few tax legislative changes in the second half of the 1990s would qualify as fundamental reform. Of course, the rates and tax base deductions of the major taxes were regularly adapted, reflecting also budgetary positions and effects of general economic performance on the public budget. Also, new environmental taxes were introduced, as well as a number of tax expenditures, such as wage costs reductions for employers aimed at hiring and training low-paid and low-qualified workers and long-term unemployed, and fiscal facilities for saving through labour contracts.

A major reform of the tax system was implemented as of 1 January 2001, leading to an across-the-board tax reduction for households of as much as 0.6% GDP (*ex ante* estimate). It was mostly notably financed out of economic growth, by reducing allowable deductions against taxable income (notably for contributions to private pension schemes through life-insurance companies, for interest payments on consumer loans and real labour costs for the employee) and an increase in indirect taxes. Its main features are:

- Rise in indirect taxes: standard VAT rate was raised from 17.5% to 19% and existing environmental levies were increased.
- Substantial - across-the-board - reduction in statutory personal income tax rates and social contributions. The employed person’s tax base allowance was replaced by a non-refundable earned income tax credit for employees and self-employed persons in order to raise the net after-tax income from labour and to raise incentives to search for work. The tax credit is not withdrawn and remains flat as income increases above the minimum wage level. Also, basic personal tax allowances were transformed into individual tax liability credits, also in order to increase job incentives for non-working partners.

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<sup>2</sup> Employees were given a taxable compensation amount on top of their gross wages in 1990, which was adjusted accordingly in 1998.

- Reform of the taxation of wealth and capital income: both the wealth tax and personal income taxation of interest, dividends and other distributions were replaced by a single tax on imputed income from wealth. A 4% yield imputed on all assets is now taxed at a flat rate of 30%, which basically implies a 1.2% tax rate on the total wealth.

A reduced corporate income tax rate of 30% against 35% for the standard rate was introduced and applies to companies with low levels of profits.

## 10.2. Trends in taxation of consumption, labour and capital

The implicit tax rate on consumption continues to show a moderate upward trend. Since 1995 it increased by more than 2 percentage points, partly as a result of increases in revenues from VAT and environmental taxes.

Mainly as a consequence of the increases in social contributions, the tax burden on labour grew steadily since the early 1970s. Since the mid-1990s, however, concerns about excessive labour costs and tax wedges have prompted a number of initiatives primarily directed towards reductions in marginal tax rates and the wedge between wage costs and take-home pay. Notably, labour costs were reduced by reductions in social contributions and personal income tax across-the-board. Also, labour costs for employers were reduced by providing specific tax rebates for low-paid workers (commonly abbreviated as ‘SPAK’) and reductions for hiring long-term unemployed (‘VLW’) and for providing training. The implicit tax rate on labour went down gradually; a significant reduction is visible in 2001 as a result of the personal income tax reform.

The implicit tax rate on capital increased significantly. This increase stems mainly from business cycle effects, and higher revenues from taxes paid by corporations in particular, and to a lesser extent from increases in revenues from the dividend tax, personal income tax raised on capital income, motor vehicle tax, tax on passenger cars and motorcycles (BPM), and real estate (transfer) tax. It should furthermore be noted that national account figures do not follow a real accrual principle. Most statistical offices in fact use time-shifted cash figures and declare them as accrual. It is believed that the increase in ITR on capital income in the Netherlands is actually affected by differences over time in the way the tax administration determines the final tax liabilities, and actually collects the tax revenues<sup>3</sup>. As for dividends, the Netherlands is the country that has recorded the largest increase in net dividend payments from abroad in the second half of the 1990s.

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<sup>3</sup> Separate calculations by the Ministry of Finance in the Netherlands using other (unpublished) accrual figures (in which the effect of such differences in collection methods has been eliminated) actually suggest a moderate increase in the ITR on capital income between 1995 and 2001.

## 11. AUSTRIA

### 11.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

In Austria, the overall tax burden (including social contributions) is around 3 percentage points of GDP higher than the EU average, which places it in the same group as Finland, Belgium and France. Government finances improved strongly in the run-up to EMU, with general government deficit of 5% of GDP in 1995 falling to 2.3% in 1999. In 2001 a small budgetary surplus could be achieved. This development is reflected by an increase in the overall tax-to-GDP ratio between 1995 and 1997, mainly an impact of tax measures broadening the taxable base. By 1998 and 1999 it was stable at a level of about 44.4% and it decreased in 2000 to 43.5%. It increased again to 45.6% in 2001. Austria witnessed a rather sharp increase in direct tax revenues in that year. This increase is related to base-broadening measures and significantly increasing tax pre-payments, in reaction to the introduction of interest charges on tax arrears from October 2001 onwards.

#### *Features of the tax structure and tax policy in recent years*

The tax structure in Austria is more or less in line with the European average. Taxes on employed labour and also social contributions are above the average (measured in % of GDP). In 1994, the main tax reform of the early nineties took effect with restructuring and abolition of taxes on businesses while increasing the corporate income tax rate to 34% (previously 30%), and simplification to the (final) withholding tax on dividends and interest to a uniform rate of 22%. With the aim of improving revenues in order to prepare for EMU, in 1995-1996 mineral oil tax was increased and an energy tax on electricity and natural gas was introduced. At the same time depreciation deductions and loss-carry over possibilities for companies have been reduced and the withholding tax on dividends and interests was increased to 25%.

Following recommendations from the committee on the income tax reform set up in 1997, the Austrian Parliament adopted in June 1999 the year-2000 Tax Reform, which took effect as from the beginning of 2000. In Austria - like in Germany - a substantial part of enterprises are unincorporated (business partnerships) and their partners are individually taxed under the personal income tax (PIT). Therefore, the changes in the tax reform on PIT have affected both individuals and enterprises. The marginal tax rates for all income tax brackets were reduced by one point, except for the highest income bracket. Furthermore, the tax reform introduced a system of variable tax credits. The general credit is 887 euro per year and is increased or reduced depending on the taxpayer's personal circumstances, declining in the case of higher incomes. All professional training expenses have been made deductible and an education allowance was introduced. These measures have eased the burden on the taxpayer in particular for the low-income earner. In general it is a final withholding tax of 25%. In addition, a new model for pension saving was introduced with subsidies of 10% for contributions up to 1,000 euro p.a.

## Taxes & Social contributions in AUSTRIA <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	15,2	15,4	15,8	15,6	15,8	15,3	15,4
VAT	7,8	8,3	8,4	8,2	8,5	8,1	8,1
Excise duties and consumption taxes	2,6	2,9	3,0	2,9	2,9	2,8	2,8
Other taxes on products (incl. import duties)	1,3	1,2	1,3	1,3	1,3	1,3	1,3
Other taxes on production	3,5	3,0	3,2	3,2	3,1	3,2	3,2
Direct taxes	12,0	13,2	13,5	13,7	13,4	13,3	15,2
Personal income	9,5	10,0	10,6	10,6	10,6	10,2	10,9
Corporate income	1,7	2,2	2,2	2,3	2,0	2,2	3,3
Other	0,9	1,0	0,8	0,8	0,8	0,9	1,0
Social Contributions	15,2	15,3	15,3	15,2	15,2	14,9	15,0
Employers'	7,4	7,4	7,4	7,3	7,3	7,1	7,0
Employees'	6,5	6,5	6,4	6,2	6,3	6,1	6,2
Self- and non-employed	1,3	1,3	1,4	1,7	1,7	1,6	1,7
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	20,5	21,6	22,6	22,8	22,7	22,3	24,2
State Government	3,4	3,7	3,4	3,4	3,4	3,3	3,4
Local Government	5,1	5,3	5,3	5,2	5,2	5,1	5,2
Social Sec. Funds	12,4	12,4	12,5	12,3	12,3	12,1	12,1
EC Institutions	1,0	0,9	1,0	0,8	0,8	0,7	0,7
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	11,5	12,6	12,7	12,5	12,7	12,4	12,4
Labour	24,2	24,1	24,7	24,4	24,6	24,0	24,3
Employed	22,2	21,9	22,4	22,1	22,2	21,6	21,8
Paid by employers	10,2	10,0	10,0	9,8	9,8	9,6	9,6
Paid by employees	12,0	11,9	12,4	12,2	12,3	12,0	12,2
Non-employed	2,0	2,1	2,3	2,3	2,4	2,3	2,5
Capital	6,7	7,2	7,3	7,5	7,0	7,2	9,0
Capital and business income	5,1	6,0	6,0	6,2	5,8	5,9	7,7
Income of corporations	1,6	2,1	2,1	2,2	1,9	2,1	3,3
Income of households	1,2	1,3	1,3	1,2	1,2	1,1	1,3
Income of self-employed (incl. sc)	2,3	2,6	2,6	2,8	2,8	2,7	3,2
Stocks (wealth) of capital	1,6	1,1	1,3	1,3	1,2	1,3	1,3
<b>Total</b>	<b>42,4</b>	<b>43,9</b>	<b>44,7</b>	<b>44,4</b>	<b>44,4</b>	<b>43,5</b>	<b>45,6</b>
Of which environmental taxes	2,0	2,3	2,4	2,3	2,3	2,4	2,6
Energy	1,3	1,6	1,7	1,6	1,6	1,6	1,7
Transport	0,7	0,7	0,7	0,7	0,7	0,8	0,9
Pollution/Ressources	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>D. Implicit tax rates</b>							
Consumption	20,5	22,2	22,1	22,0	22,4	21,8	21,6
Labour employed	39,0	39,5	40,5	40,2	40,3	39,9	40,2
Capital	24,4	24,9	25,3	25,7	25,0	24,2	31,3
Capital and business income	18,6	21,0	20,9	21,3	20,6	20,0	26,8

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

Source: Commission Services

As regards the taxation of enterprises, the 2001 Budget law package contains several new provisions. The 2001 Budget law limited the deduction for losses to 75% but introduced an indefinite loss carry-forward period, which was previously 7 years. To reduce the relative advantage of debt finance and to stimulate companies' capitalisation, the deductibility of notional interest payments on an increase in equity as operating expense was introduced. The government sets annually the applicable interest rate. The remaining profit is taxed with the corporate tax rate of 34%, whereas that part of profits equal to the imputed interest payments is taxed at 25%. A tax allowance of ATS 5 million was introduced for inheritance (gift) tax in the case of enterprise transfers. Moreover, the invention allowance, in particular for research and development, was increased and a training allowance of 9% of the training expenses for employees was introduced.

The main emphasis of the reform was on easing the tax burden on private households. According to calculations by the Wifo Institute consumer demand is expected to increase by a cumulative 1.8 percent in real terms by 2005 (ex-ante estimates). With direct incentives for investors being extremely modest, investments are expected to grow by no more than 0.6 percent on a medium-term basis. Changes to tax legislation introduced in 2001 focused on closing loopholes and eliminating preferential treatments resulting in a broadening of the tax base both for enterprises and private households.

### **11.2. Trends in taxation of consumption, labour and capital**

More than a third of Austria's taxes are indirect taxes, the most important of which is VAT. Revenues from excise duties are rather low. Unlike most other European countries Austria raises a substantial amount from other taxes on production, namely an employer's contribution to the fund for equalisation of family burdens and a payroll tax. Despite the rather low share of excise duties revenues from consumption taxes are slightly above the EU average when measured as a percentage of GDP. The implicit tax rate on consumption of 21.6% lies roughly one percentage point above the average.

Taxes on employed labour represented roughly 22% of GDP in 2001, which represents almost one half of the total tax burden. As in most EU countries, taxes on employed labour consist mainly of social contributions. Almost 30% of the taxes on employed labour are accounted for by the personal income tax on labour income that is levied in the form of a withholding tax on wages and salaries. There are also important indirect labour taxes, especially a contribution by employers to the fund for equalization of family burdens and a payroll tax. The Austrian implicit tax rate on labour lies 3 percentage points above the European average. Between 1995 and 1997 the rate increased steadily and stabilised in the years after at a level just above 40%. In 2000 it decreased slightly due to the measures of the income tax reform.



The share of taxes on capital in GDP is low compared to the European average. This is also true for the implicit tax rate on capital. This is mainly influenced by a comparatively low taxation of capital stocks and their transaction. The implicit tax rate on capital and business income is slightly above the average in the Union. Taxes raised on corporate income in relation the GDP are very low because of the big share of unincorporated companies in Austria. The ITR on capital and business income rose in 1996 due to the tax measures that broadened the taxable base. In the following years it remained at a level of roughly 21%. An increased profitability of companies was offset by a relative decline in property income. In 2000 the tax burden on capital decreased because of the reduced marginal tax rates in PIT as well as because of more favourable possibilities of deductions for companies.

The implicit tax rate on capital and business income increased again to almost 27% in 2001. The latter increase can largely be attributed to the sharp increase in direct tax revenues between 2000 and 2001 (as mentioned above), due to base-broadening measures and in reaction to the introduction of interest payments on tax arrears from October 2001 onwards.

## 12. PORTUGAL

### 12.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

Fiscal consolidation has been under way in Portugal for some years, with the government budget deficit falling from 4.6% of GDP in 1995 to 2% in 1999. The consolidation resulted most notably in an increase in the tax-to-GDP ratio, together with an accumulated fall in interest payments, which both have offset the rapid rise in current primary expenditure between the years 1995 and 1999. Tax revenue was stronger than foreseen due to a growth pattern in favour of domestic demand and, in particular, private consumption<sup>1</sup>. From being down to 1.5% in 2000, however, the downward trend in the government budget deficit has been reversed, and it has increased to 4.1% in 2001. One of the causes of this reversed pattern in the year 2001 is a significant shortfall of tax revenues, partly due to the economic slowdown, but also as a result of the tax reform in 2001. Despite the increase in recent years, the total tax-to-GDP ratio still remains among the lowest in the Union.

#### *Features of the tax structure and tax policy in recent years*

Portugal relies relatively heavily on indirect taxation for collecting budget revenue. By the year 2001 the share of indirect taxes amounts to roughly 41%, whereas the shares of direct taxes and social contributions both amount to around 27% and 30%, respectively. These shares have been relatively stable during recent years. Portugal collects a quite substantial level of environmental taxes (around 3,5% on average between 1995 and 2001), notably in the form of energy taxes, but it also raises a non-negligible amount of transport taxes.

Average tax rates were kept largely unchanged in 1998 and 1999, although a number of measures were adopted to reinforce the fight against tax evasion and fraud. Given a fiscal consolidation strategy that relied primarily on an increase in the revenue to GDP ratio<sup>2</sup>, there has been little room to implement any ambitious tax reforms during recent years. The major aim of the implemented and announced measures during the current term of Parliament (1999-2002) is to increase fairness and improve business competitiveness. These objectives were pursued by broadening the taxable base, and improving the efficiency of tax administration, with the adoption of further measures to combat tax evasion and fraud, which should secure tax revenue in order to make further reductions of the corporate tax possible.

Deductible allowances in personal income tax were converted into tax credits in 1999. In 2001 statutory personal income tax rates were generally reduced. Also, tax credits for savings, housing, health and education expenses were made more favourable. The rates of social contributions for the self-employed and the employed were harmonised. In addition, exemptions or reductions of employers' social contributions for recruiting young people, long-term unemployed or people with disability were implemented.

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<sup>1</sup> European Commission (2000a, 2002b)

<sup>2</sup> European Commission (2000a)

## Taxes & Social contributions in PORTUGAL <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	14,6	14,7	14,5	15,0	15,4	15,1	14,9
VAT	7,5	7,8	7,7	8,0	8,2	8,4	8,3
Excise duties and consumption taxes	3,9	3,8	3,6	3,7	3,5	3,0	3,0
Other taxes on products (incl. import duties)	2,7	2,6	2,6	2,8	3,2	3,0	2,9
Other taxes on production	0,5	0,5	0,6	0,6	0,6	0,7	0,6
Direct taxes	8,9	9,6	9,7	9,4	9,9	10,5	10,0
Personal income	5,9	6,1	5,8	5,7	5,7	6,0	6,0
Corporate income	2,5	2,9	3,3	3,3	3,8	4,1	3,6
Other	0,6	0,6	0,5	0,4	0,3	0,4	0,3
Social Contributions	10,1	10,2	10,5	10,5	10,6	10,9	11,1
Employers'	6,3	6,5	6,7	6,8	6,8	7,0	7,1
Employees'	3,3	3,1	3,2	3,2	3,3	3,4	3,4
Self- and non-employed	0,5	0,6	0,6	0,5	0,5	0,5	0,5
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	20,5	21,3	21,2	21,4	22,2	22,4	22,1
State government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Local Government	1,7	1,8	1,8	1,9	2,2	2,2	2,2
Social Sec. Funds	10,4	10,6	10,9	10,9	11,0	11,2	11,1
EC Institutions	1,0	0,7	0,7	0,7	0,6	0,6	0,6
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	12,6	12,7	12,4	12,6	12,6	12,4	12,2
Labour	14,1	14,2	14,3	14,2	14,4	14,8	15,1
Employed	13,7	13,8	13,9	13,8	14,0	14,4	14,7
Paid by employers	6,4	6,6	6,8	6,8	6,8	7,0	7,1
Paid by employees	7,2	7,2	7,1	7,0	7,1	7,4	7,5
Non-employed	0,4	0,4	0,4	0,4	0,4	0,4	0,4
Capital	7,0	7,5	8,0	8,1	9,0	9,1	8,6
Capital and business income	4,3	4,9	5,3	5,2	5,6	6,0	5,5
Income of corporations	2,5	2,9	3,3	3,3	3,8	4,1	3,6
Income of households	0,9	0,9	0,9	0,8	0,8	0,9	0,9
Income of self-employed (incl. sc)	1,0	1,1	1,1	1,0	1,0	1,0	1,0
Stocks (wealth) of capital	2,6	2,6	2,7	2,9	3,3	3,2	3,1
<b>Total</b>	<b>33,6</b>	<b>34,4</b>	<b>34,7</b>	<b>34,9</b>	<b>36,0</b>	<b>36,4</b>	<b>35,9</b>
Of which environmental taxes	3,7	3,7	3,5	3,6	3,6	3,1	3,0
Energy	2,7	2,7	2,5	2,5	2,4	1,9	1,9
Transport	0,9	1,0	1,0	1,1	1,2	1,2	1,2
Pollution/Ressources	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>D. Implicit tax rates</b>							
Consumption	19,3	19,5	19,3	19,8	19,8	19,7	19,6
Labour employed	31,1	31,6	32,5	32,9	33,1	33,7	34,1
Capital	20,7	23,2	25,5	26,6	30,7	n.a.	n.a.
Capital and business income	12,9	15,1	16,9	17,1	19,3	n.a.	n.a.

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

n.a.: not applicable

Source: Commission Services

## 12.2. Trends in taxation of consumption, labour and capital

Indirect taxes in Portugal are important due to a high share of VAT and taxes on products. The implicit tax rate on consumption lies rather stable under the Union's average at about 19.6%. The implicit tax rates on labour and capital are also below the Union's average.

The implicit tax rate on labour continued to increase slightly during recent years, whereas in most other Member States a decline or at least a stabilisation in the increasing trend can be observed. The recent reductions in personal income tax and social contributions were often targeted, or may not be fully reflected in the latest figures due to economic growth (see also par II-3). The implicit tax rate on labour still remains below the Union's average.

The implicit tax rate on capital and business income is slightly below the European Union's average. Tax revenues of corporations are relatively high whereas taxes on business income from self-employed are less important. Although the statutory corporate tax rate was reduced with 4 percentage points in the period 1995-2001, corporation tax revenues have increased. However, during the period of fiscal consolidation and preparation to EMU, Portugal experienced a sharp reduction in interest rates. This resulted in a significant reduction in interest payments by corporations, as proved by detailed capital income data. As a result, deductions for interest have been more limited than before. Moreover, it should be kept in mind that the indicator of ITR tends to overestimate increases in the tax burden in periods of large capital gains (capital gains could not be included in the base/denominator of the tax ratio).

## 13. FINLAND

### 13.1. Overall tax burden

In the mid-1990's, the Finnish economy had nearly recovered from the deep economic recession that hit the country at the beginning of the decade. In the years before, the unemployment rate rose from the low pre-depression level of 3% to over 16% in 1994. Under these conditions also the public sector financial balance deteriorated rapidly despite the attempts of the government to curb public expenditure and to tighten taxation. The public sector financial deficit rose to 7.3% of GDP in 1993.

After the depression years the recovery was rapid. Between 1994 and 2000 the Finnish economy grew at an average annual rate of 4.6%. Total tax revenues grew accordingly, due to the increasing economic activity and the public financial deficit turned to a surplus for the first time in 1998, reaching 6.9% of GDP in 2000. The overall tax burden in Finland is among the highest in the Union. Between 1995 and 2000 the tax-to-GDP-ratio oscillated around 47-48%, despite measures that were taken to ease the level of direct taxation, in particular the taxation of labour income. A significant reduction in the tax-to-GDP ratio became visible in 2001.

#### *Specific features of the tax system and recent developments in tax policy*

Finland - like other Nordic countries - stands out with a relatively high ratio of direct taxes to total taxes. In particular this translates into a relatively heavy tax burden on labour income. Another particular feature of the Finnish tax system is the relatively high level of certain excise duties. This concerns, in particular, the excise on alcoholic drinks, the level of which exceeds the EU minimum rates and most other EU countries significantly. The registration tax on passenger cars is currently 100% of the purchase price minus 760 euro (catalytic converter discount)<sup>1</sup>. Nine other EU countries apply a similar car tax but only in Denmark and Greece the level exceeds or is comparable to the Finnish level.

Environmentally related taxes (incl. energy, transport and resource taxes) constituted around 6.6% of total tax revenues in 2001, which is just slightly below the EU average. The level of the tax rates has been nominally fixed since 1998. The tax base of energy taxation is rather broad and covers certain energy products that are not taxed in many Member States (coal, peat). The tax rates are relatively high by EU standards, in particular on industrial energy uses.

Since 1993, in the Finnish tax system personal income is divided into two separate components: earned income and capital income. The two components are taxed according to different rates and principles. The central government taxation of earned income is progressive. Municipal taxes are proportional to income, but because of several deductions the average rate is lower for low-income earners. The average municipal tax rate in 2002 was 17.78%. Social contributions are also levied according to a proportional rate.

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<sup>1</sup> The registration tax on passenger cars will change in 2003.

## Taxes & Social contributions in FINLAND <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
ESA95							
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	14,1	14,2	14,9	14,6	14,8	14,1	13,7
VAT	7,8	7,9	8,5	8,3	8,4	8,3	8,1
Excise duties and consumption taxes	4,0	3,9	4,0	3,8	3,9	3,4	3,4
Other taxes on products (incl. import duties)	2,1	2,1	2,2	2,2	2,3	2,1	1,9
Other taxes on production	0,1	0,2	0,2	0,2	0,2	0,2	0,2
Direct taxes	17,6	19,2	18,7	19,1	19,1	21,7	19,8
Personal income	14,3	15,5	14,3	13,9	13,8	14,7	14,5
Corporate income	2,3	2,8	3,5	4,3	4,4	6,0	4,3
Other	0,9	1,0	0,9	0,9	1,0	1,0	1,0
Social Contributions	14,6	14,0	13,2	12,9	13,1	12,2	12,5
Employers'	10,1	9,8	9,3	9,3	9,5	8,9	9,2
Employees'	2,9	2,8	2,6	2,5	2,5	2,3	2,3
Self- and non-employed	1,6	1,4	1,3	1,1	1,0	0,9	0,9
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	21,8	23,0	23,8	24,0	24,2	25,9	23,8
State Government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Local Government	10,2	10,8	10,1	10,1	10,2	10,4	10,2
Social Sec. Funds	13,5	13,0	12,2	11,9	12,1	11,2	11,5
EC Institutions	0,7	0,7	0,6	0,6	0,6	0,5	0,5
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	13,8	13,8	14,5	14,1	14,4	13,8	13,4
Labour	26,5	27,1	25,0	24,4	24,4	24,1	24,4
Employed	22,3	22,9	21,4	21,3	21,4	21,2	21,5
Paid by employers	10,1	9,8	9,3	9,3	9,5	8,9	9,2
Paid by employees	12,2	13,1	12,1	12,0	11,8	12,3	12,3
Non-employed	4,2	4,1	3,6	3,2	3,0	3,0	2,9
Capital	6,0	6,6	7,3	8,0	8,3	10,1	8,2
Capital and business income	4,8	5,3	6,0	6,7	7,0	8,8	6,9
Income of corporations	2,3	2,8	3,5	4,3	4,4	6,0	4,3
Income of households	0,6	0,7	0,8	0,8	1,0	1,2	1,1
Income of self-employed (incl. sc)	1,9	1,7	1,8	1,6	1,6	1,6	1,6
Stocks (wealth) of capital	1,2	1,3	1,3	1,3	1,3	1,3	1,3
<b>Total</b>	<b>46,2</b>	<b>47,4</b>	<b>46,8</b>	<b>46,6</b>	<b>47,0</b>	<b>48,0</b>	<b>46,0</b>
Of which environmental taxes	2,9	3,1	3,3	3,3	3,5	3,2	3,0
Energy	2,2	2,1	2,3	2,2	2,3	2,0	2,0
Transport	0,8	1,0	1,0	1,1	1,2	1,1	1,0
Pollution/Ressources	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>D. Implicit tax rates</b>							
Consumption	27,7	27,3	29,5	29,3	29,4	28,6	28,0
Labour employed	44,7	45,6	44,0	44,3	43,9	44,3	44,2
Capital	27,6	29,9	30,1	31,5	33,1	36,3	27,1
Capital and business income	22,2	24,0	24,9	26,4	27,9	31,4	22,9

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

n.a.: not applicable

Source: Commission Services

Personal income taxation of capital income is based on a uniform flat rate, which currently amounts to 29%. The tax base is relatively broad and includes dividends, interest income, rental income, capital gains, a share of entrepreneurial income and sales income on forest property. Certain interest payments, including interest payments on owner-occupied houses, and certain other expenses are deductible. If these expenses exceed the amount of capital income, 29% of deficit can be deducted from taxes paid on earned income.

The statutory corporate tax rate of 29% is one of the lowest in the Union. However, due to a relatively broad taxable base, the ratio of corporate income tax revenues to GDP is relatively high compared to the other Member States. This relatively high corporate income tax ratio can also partly be explained by the improved profitability of companies in the period.

Finland applies a so-called imputation system in corporate taxation in order to avoid the double taxation of dividends.

In 1999 the new government continued the programme measures to ease the level of both direct and indirect taxation of labour income, targeting these measures partly to middle- and low- income earners. The main measures taken have been the decrease of marginal tax rates in state taxation across all income brackets, the rise in the minimum limit for taxable income in state taxation and the rise of work-related deductions in municipal taxation<sup>2</sup>. The reductions of labour taxation were to be financed partly by the increases in capital income and corporate taxation, and also energy and environmental taxation. In 2000 the government increased the tax rate on capital and corporate income from 28% to 29%, the impact of which was about 0.1% out of GDP. The rates of energy and environmental taxes, however, have not been changed between 1999 and 2001<sup>3</sup>.

### 13.2. Trends in the taxation of consumption labour and capital

The relatively high overall tax burden in Finland is also reflected in relatively high tax burdens on the different economic functions. The average implicit tax rate on consumption of 28.5% (average over the period 1995-2001) is among the highest in the Union, notably due to high excise duties and VAT<sup>4</sup>.

Labour income is also taxed relatively heavily. Only in Sweden the implicit tax rate on labour is currently higher. Tax policy measures have been implemented in order to reduce the tax burden on labour income notably through reductions in central government and local income tax (partly aimed at the bottom- to the middle end of the pay scale; see also above), and also through reductions in social contributions. The implicit tax rate on labour declined moderately over the 1995-2001 period.

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<sup>2</sup> The size of the measures taken in the years 1999-2003 is (*ex ante*) estimated to be 2% of GDP.

<sup>3</sup> Rates of environmental and energy taxes were increased only in 2003.

<sup>4</sup> However, because Finland adapted the VAT system in 1994 with transitional arrangements lasting until 1996 the VAT-tax revenues were lower in 1995 and 1996 than they would have been without these transitional arrangements. Consequently the share of consumption taxes as percentage of GDP and the ITR on consumption are not fully comparable to the later years 1997-2001.

The ITR on capital and business income is among the highest in the Union. This can partly be explained by the fact that the taxable base is relatively broad (see also above). However, it should also be noted that the ITR on capital and business income is biased upwards, due to the fact that capital gains are not included in the actual base/denominator of the tax ratio. An increase in the statutory corporate tax rate of 4 percentage points between 1995 and 2001 and the generally improved profitability of companies during the strong economic upswing can explain the sharp rise over this period. Other important factors are the shift from interest to dividend payments. This trend is particularly pronounced in Finland, although the upward bias in the ITR related to capital gains - particularly strong in 2000 - has also played a role. The significant drop in the ITR in 2001 can probably also be related to capital losses due to the down turning stock market. The overall ITR on capital (including the taxation of stocks (wealth) of capital), however, is only slightly above the European average for the whole period due to the relatively low taxes on production.



## 14. SWEDEN

### 14.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

Sweden experienced a severe recession in the beginning of the 1990's. GDP growth was negative for three consecutive years 1991-1993. This negative GDP growth was accompanied with a sizeable governmental deficit, which peaked at 11.9% in 1993. A major fiscal consolidation process took place in the following years, turning it into a surplus of 1.9% in 1998 (2001: 4.8%). This fiscal consolidation process is a result of both tax increases and reductions of expenditure, in combination with a period of positive GDP growth. The overall tax-to-GDP ratio increased from around 49% in 1995 to 54% in 2001, with some visible reductions in the years 1999 and 2000. Sweden still has the highest tax-to-GDP ratio in the European Union.

#### *Features of the tax structure and recent developments in tax policy*

The Swedish tax system relies relatively heavily on direct taxation, in particular personal income taxation, for raising tax revenues. Direct taxes account for around 40% of the Swedish tax revenue, while indirect taxes and social contributions both account for roughly 30% of the tax revenue. This tax mix has remained rather stable during the period of 1995-2001.

The major tax reform in 1991 transformed the tax system into a so-called 'dual' income tax system. It combines a high progressive taxation of labour income, with a lower general rate on capital income. The local government levies a flat rate of around 30% (depending on municipality and county) on earned income (i.e. labour income and income from unincorporated business). A low uniform state tax (SEK 200) is levied on all incomes and for incomes above 29,330 euro (in 2001) there is an additional tax bracket with a tax rate of 20%. For capital income, there is a flat tax rate of 30%. Generally, the reform resulted in a shift from direct to indirect taxes, in combination with a broadening of the tax bases. For example, the VAT base was broadened to include services and energy consumption, and the carbon-dioxide tax was introduced.

As a result of the recession and the budget deficit, which was worsened by the fact that the reform was under-financed, several measures have been taken since the reform with the objective to increase tax revenue. Only in the latest years, starting in 1999 or 2000, reductions in tax rates can be observed.

In 1995, the statutory state income tax of 20% was increased to 25% for a period of 3 years. This increase became permanent in 1999, but for incomes at a higher threshold (4,420 euro in 2001). As a result, there are now three tax brackets in the income tax. The employer's social contributions were also reduced in 1993, but have since then been raised to some extent. The employee's general pension contributions were introduced in 1993 and have then gradually been phased in and increased until 1998, and are now a part of the new pension system.

In the latest years, the major changes in taxation policy relate to reductions of the income tax, mainly through the compensation for the employee's general pension contribution, and the strategy for a green tax reform. Continuous downward adjustments have also been made in the real estate and wealth tax in response to increases in property prices.

## Taxes & Social contributions in SWEDEN <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	16,3	16,8	17,1	17,8	19,0	16,9	16,9
VAT	9,4	8,8	8,9	9,1	9,1	9,0	9,0
Excise duties and consumption taxes	3,5	3,8	3,6	3,6	3,4	3,2	3,2
Other taxes on products (incl. import duties)	0,9	0,7	0,7	0,7	0,7	0,7	0,7
Other taxes on production	2,6	3,5	3,9	4,5	5,7	4,0	4,0
Direct taxes	19,7	20,9	21,0	21,8	21,3	21,4	22,3
Personal income	16,9	17,1	17,4	17,9	17,4	17,4	17,6
Corporate income	1,9	2,9	2,7	3,0	2,9	2,9	3,7
Other	0,8	0,9	0,9	1,0	1,0	1,1	1,0
Social Contributions	13,1	14,2	14,0	14,0	12,7	14,3	14,9
Employers'	11,1	11,7	11,1	10,8	9,5	11,1	11,6
Employees'	1,7	2,1	2,5	3,0	3,0	3,0	3,0
Self- and non-employed	0,3	0,3	0,3	0,2	0,2	0,2	0,3
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	29,1	30,7	31,2	33,1	32,7	30,9	31,6
State Government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Local Government	14,8	15,8	15,5	15,2	15,2	15,4	15,9
Social Sec. Funds	4,5	4,7	4,7	4,7	4,5	5,6	6,0
EC Institutions	0,7	0,7	0,7	0,7	0,6	0,6	0,6
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	13,6	13,3	13,2	13,3	13,2	12,8	12,8
Labour	31,2	32,2	32,4	33,6	32,7	32,1	33,1
Employed	26,4	27,8	28,1	29,3	28,7	28,3	29,2
Paid by employers	12,7	13,7	13,3	13,7	13,8	13,6	14,4
Paid by employees	13,6	14,1	14,7	15,6	14,9	14,7	14,8
Non-employed	4,8	4,4	4,3	4,3	4,1	3,9	3,9
Capital	4,4	6,4	6,5	6,8	7,0	7,6	8,2
Capital and business income	2,8	4,3	4,2	4,6	4,8	5,4	6,3
Income of corporations	1,9	2,9	2,7	3,0	2,9	2,9	3,7
Income of households	0,2	0,6	0,8	0,9	1,3	1,8	1,8
Income of self-employed (incl. sc)	0,7	0,7	0,7	0,7	0,7	0,7	0,8
Stocks (wealth) of capital	1,6	2,1	2,3	2,2	2,2	2,2	1,9
<b>Total</b>	<b>49,1</b>	<b>51,9</b>	<b>52,0</b>	<b>53,6</b>	<b>53,0</b>	<b>52,5</b>	<b>54,1</b>
Of which environmental taxes	2,8	3,2	3,0	3,0	2,9	2,8	2,9
Energy	2,5	2,7	2,6	2,7	2,5	2,4	2,5
Transport	0,3	0,4	0,3	0,3	0,3	0,4	0,4
Pollution/Ressources	0,0	0,1	0,0	0,0	0,0	0,1	0,1
<b>D. Implicit tax rates</b>							
Consumption	28,8	28,1	27,9	28,4	28,4	27,5	28,0
Labour employed	48,6	49,1	49,7	51,3	49,8	48,9	49,1
Capital	16,9	27,5	27,1	30,6	32,5	34,5	n.a.
Capital and business income	10,7	18,4	17,6	20,7	22,4	24,5	n.a.

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

n.a.: not applicable

Source: Commission Services

In 2000, the first step was taken to compensate employees for the introduction of their pension contribution. Technically, this is made through the introduction of a tax credit. At the same time the allowance for the contribution is removed. The credit is to be phased in over four years, but each step is conditioned on the state of government finances. Currently the credit amounts to 75% of the contribution, and it is already clear that the final step will not be taken in 2003. In addition to this credit, the threshold for the state income tax has also been increased with the objective to reduce the number of income earners that pay this tax.

A strategy for a green tax reform amounting to a tax swap of SEK 30 billion over 10 years started in 2001. In total it corresponds to almost 1.4 % of GDP (2001). During the first two years, around SEK 3 billion have been swapped annually. The tax increases have mainly affected the energy taxes for households and the service sector, while the reductions have been allocated to the income tax and the employer's social contributions. Total environmental taxes amounted to around 2,9% of GDP in 2001.

#### **14.2. Trends in taxation of consumption, labour and capital**

The ratio of consumption taxes in proportion to GDP is well above the Union's average. With one of the highest statutory VAT-rates and also above average rates for excise duties, Sweden clearly belongs to the group of countries with relatively high consumption taxes, together with Denmark and Finland. The implicit tax rate on consumption stood at around 28% during the 1995-2001 period, which was some 8 percentage points above the Union's average.

The ratio of taxes on labour in proportion to GDP is the highest in the Union. The ratio for employed labour showed an upward trend until 1998 mainly as a consequence of different fiscal measures to increase tax revenue. The implicit tax rate on (employed) labour shows a similar trend with its peak at 51.3% in 1998. Since then, the implicit tax rate has started to come down slowly. In 2001, it was with a rate of around 49% close to its initial level in 1995. This mirrors the different policy decisions taken during the 1995-2001 period. Initially, different measures increased the income tax and the social contributions, while in the last couple of years, some of these measures have been rolled back.

The implicit tax rate on capital has increased substantially. At the beginning of the period, Sweden still had a relatively low level of the implicit tax rate on capital, while towards the end of the period 1995-2000 the level was above the Union's average. The major part of this increase relates to the measured overall tax burden of capital and business income. Tax revenues in percentage of GDP from both corporations and households increased. As regards to the denominator of the implicit tax rate (that is computed using national accounts data), it should be noted that corporations have witnessed diminishing profits in relation to GDP due to increases in labour costs and higher indirect taxes that they could not fully shift into higher prices during that period (see chapter II-4). The relative shift from interest to dividend payments resulting in smaller deductions for the taxable base could also partly explain the increasing tax burden on capital and business income between 1995 and 2000<sup>1</sup>.

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<sup>1</sup> Calculations by the Swedish Ministry of Finance for a comparable average effective tax rate using comprehensive micro data (FRIDA database of the Ministry of Finance in Sweden) also show an

The increased capital tax burden for households can partly be explained by the taxation of increased capital gains due to the booming stock markets<sup>2</sup>. Another explanation lies in deductible net interest payments that have diminished substantially due to dropping interest rates. This development can be related to incentives in response to the tax reform, in combination with periods with a relatively high real interest rate.

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increasing trend until 1998, although the actual taxable base in relation to GDP increased slightly until 2000. In 2000 this alternative indicator starts to decline. Taking the time-lag and the asymmetric influence of losses from national accounts into account, it is likely that a similar pattern would have been visible in the years after 2000 for the implicit tax rate on capital.

<sup>2</sup> It is not possible within national accounts to account for the capital gains part of taxable income. For this reason the increase in capital tax burden for Sweden is overestimated in that period.

## 15. UNITED KINGDOM

### 15.1. Overall trend in taxation and tax policy

#### *Overall tax burden*

Since the early 1990s, action was taken to consolidate the public finances in the United Kingdom in the form of both direct and indirect tax increases and tight restraint on government expenditure. The public finances in the United Kingdom reached a surplus in the years 1998 to 2001. This has notably resulted from better-than-expected economic growth and buoyant tax revenues. The total tax-to-GDP ratio has shown a steadily increasing trend (notably due to increases in direct tax revenue, in particular from corporate income tax), despite various stimulatory tax measures in recent years. The tax-to-GDP ratio remains however among the lowest in the Union.

#### *Features of the tax structure and recent developments in tax policy*

The present structure of the tax revenues in the United Kingdom is mainly characterised by a relatively high weight of direct taxes, which largely reflects a rather heavy reliance on personal income tax. The share of social contributions is on the other hand among the lowest in the Union. The United Kingdom also stands out with the highest share of central government's tax revenues in total tax receipts.

Since the May 1997 election, the Labour government has announced and implemented a number of reforms to the structure of the tax system in the United Kingdom. They relate most notably to the personal income tax code, National Insurance Contributions (NIC) and also indirect taxes.

During recent years, fiscal policy has clearly focused on 'making work pay'. This is meant to increase the attractiveness of work by improving the financial incentives to work. There were several measures that the government has introduced on the personal income tax structure and also in the area of National Insurance Contributions.

In 1998, the Working Family Tax Credit in personal income tax was announced to replace the Family Credit from October 1999 onwards, while the 1999 budget brought the introduction of the 10% rate (previously a 20% rate applied on a wider band) and a lower, 22%, basic (middle) rate, and the replacement of the married couple's allowance with the children's tax credit (the married couple's allowance was already restricted as of April 1999 and the government abolished the allowance from April 2000). The Working Family Tax Credit is available to families with children in which at least one of the partners works at least 16 hours a week. It is composed of a basic credit for each child, a credit for those working more than 30 hours a week and a childcare cost tax credit. The credit effectively increases the minimum exempted income when working and guarantees and increases minimum take-home income for a family with someone in full-time work. It is withdrawn at a 55% rate for relatively higher family incomes. The children's tax credit is available to families with one or more children, and will be tapered away for families where there is a high-rate taxpayer. The purpose of all this, in conjunction with other policies, is to reduce the poverty trap for low-earning families. This policy development does not show up for statistical reasons.

## Taxes & Social contributions in UNITED KINGDOM <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001 <sup>2)</sup>
	ESA95						
<b>A. Structure of revenues as % of GDP</b>							
Indirect taxes	14,1	14,0	14,2	14,1	14,4	14,5	14,2
VAT	6,7	6,7	6,8	6,6	6,9	6,8	6,9
Excise duties and consumption taxes	2,1	2,2	2,3	2,4	2,5	2,4	2,2
Other taxes on products (incl. import duties)	3,1	3,0	3,0	3,0	3,1	3,3	3,1
Other taxes on production	2,1	2,1	2,1	2,0	2,0	1,9	2,0
Direct taxes	15,1	14,9	15,2	16,4	16,4	16,8	17,0
Personal income	10,6	10,1	9,6	10,5	10,6	10,9	11,0
Corporate income	2,4	2,7	3,4	3,6	3,3	3,3	3,3
Other	2,1	2,1	2,1	2,3	2,5	2,5	2,6
Social Contributions	6,2	6,1	6,2	6,3	6,1	6,4	6,4
Employers'	3,4	3,4	3,4	3,4	3,4	3,6	3,6
Employees'	2,6	2,5	2,7	2,7	2,5	2,6	2,6
Self- and non-employed	0,2	0,2	0,2	0,2	0,2	0,2	0,2
<b>B. Structure according to level of government as % of GDP</b>							
Central Government	33,1	32,9	33,6	34,7	34,8	35,5	35,4
State government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Local Government	1,3	1,3	1,3	1,4	1,4	1,5	1,5
Social Sec. Funds	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
EC Institutions	1,0	0,9	0,7	0,7	0,7	0,7	0,6
<b>C. Structure according to economic function as % of GDP</b>							
Consumption	13,4	13,4	13,5	13,4	13,6	13,5	13,3
Labour	14,2	13,6	13,4	14,1	14,0	14,6	14,7
Employed	14,0	13,5	13,2	13,9	13,8	14,4	14,5
Paid by employers	3,4	3,4	3,4	3,4	3,4	3,6	3,6
Paid by employees	10,7	10,1	9,9	10,5	10,5	10,8	10,9
Non-employed	0,2	0,2	0,2	0,2	0,2	0,2	0,2
Capital	7,8	8,1	8,8	9,4	9,2	9,6	9,5
Capital and business income	5,2	5,5	6,1	6,7	6,4	6,5	6,6
Income of corporations	2,4	2,7	3,4	3,6	3,3	3,3	3,3
Income of households	1,3	1,3	1,3	1,6	1,7	1,8	1,8
Income of self-employed (incl. sc)	1,5	1,5	1,4	1,5	1,4	1,4	1,5
Stocks (wealth) of capital	2,6	2,6	2,6	2,7	2,8	3,0	2,9
<b>Total</b>	<b>35,4</b>	<b>35,1</b>	<b>35,6</b>	<b>36,8</b>	<b>36,9</b>	<b>37,6</b>	<b>37,5</b>
Of which environmental taxes	2,9	3,0	3,0	3,1	3,2	3,1	2,8
Energy	2,3	2,4	2,3	2,5	2,5	2,4	2,3
Transport	0,6	0,6	0,6	0,6	0,6	0,6	0,5
Pollution/Ressources	0,0	0,0	0,0	0,0	0,0	0,0	0,1
<b>D. Implicit tax rates</b>							
Consumption	21,8	21,5	21,7	21,5	21,7	21,4	21,0
Labour employed	26,1	25,3	24,8	25,7	25,3	26,1	25,8
Capital	27,5	27,7	30,1	31,7	33,6	34,1	35,1
Capital and business income	18,5	18,9	21,1	22,5	23,4	23,3	24,4

1) See annex B for classification of taxes and annex C for explanatory notes.

2) Provisional data

n.a.: not applicable

Source: Commission Services

The government has raised the starting point for paying National Insurance Contributions ('NIC') to the level of the personal income tax personal allowance, both for employers and employees. Entry-‘fees’ and ‘steps’ have also been abolished for both employers and employees, which previously resulted in high marginal effects. On the employer’s side, the reforms have also been aimed at simplification of the NIC system, and thus a reduction of administrative burdens, by moving it more in line with income tax payments. To compensate for the introduction of the climate change levy (see below), the November 1999 Pre-Budget Report furthermore announced reductions of employers’ NIC contributions by 0.3 percentage points from April 2001. The government has also introduced changes in self-employed NICs, based on similar principles to those applied to employee and employer NICs.

The 1998 Budget increased charges on free fuel for private motoring provided by companies to employees with company cars. The government also raised personal income tax allowances as part of a programme under the heading “fairness for pensioners”. Mortgage interest tax relief has been limited and was finally abolished in 2000.

The corporation tax regime has also been changed in recent years. The statutory rate was reduced from 33% in 1997 to 30% in 1999. The same is valid for the small company rate for firms with profits below £300,000, which at present is 19%, down from 24% in 1997. Since 2000, there is also an additional rate initially at 10% for firms with profits below £10,000. Changes have also been made to capital depreciation allowances, and the advance corporation tax on dividends was abolished in 1999.

As regards indirect taxes, the government cut VAT on fuel and power from 8 per cent to 5 per cent in 1997 (until 1994 it was zero rated). Insurance premium tax, after being introduced at 2.5 per cent in 1994, rose to 4 per cent in 1997. The government has also introduced numerous changes to excise duties. Important reforms have been implemented on both tobacco and fuel, with the so-called “tax escalator” playing an important part. This has also led to revenue increases. Tax differentials between leaded and unleaded petrol have been increased and new differentials introduced between ultra-low sulphur and standard petrol and diesel. A landfill tax was introduced in 1996 and a new climate change levy on companies for the use of gas, coal and electricity came into effect in April 2001. The receipts are recycled through a 0.3 percentage cut in employer’s NICs. Total environmental taxes amounted to 2,8% of GDP in 2001.

## **15.2. Trends in taxation of consumption, labour and capital**

The implicit tax rate on consumption has remained rather stable around the Union’s average. The implicit tax rate on labour is one of the lowest in the Union. It has remained remarkably stable since the early 1970s, while in most other EU countries a pronounced upward trend has been registered until the late 1990s. The present relatively low average tax burden on labour can largely be attributed to the relatively low level of social contributions.

The overall tax burden on capital, on the other hand, is above the EU average. A decline was visible in the first half of the 1990s, which was strongly influenced by the relative decline on the taxes on real estate. Both taxes on corporations and taxes on real estate (*i.e.* national domestic rates on business properties and council tax paid by owner-occupiers and tenants on the value of their dwelling) contribute to the present relatively high tax burden on capital.

Like in other Member States an increase in the implicit tax rate on capital is visible since the mid-1990s. This increase not only reflects an increase of the implicit tax rate on capital and business income. The increase of tax revenues in the category 'Stocks (wealth) of capital' also contribute to the increase in the overall implicit tax rate on capital.

The increase in the implicit tax rate on capital and business income can partly be attributed to pro-cyclical behaviour of the implicit tax rate; economic growth has to some extent offset the effects of the reductions in statutory rates. A slight relative decrease in the denominator of the implicit tax rate also contributed to the increasing trend. This relative decrease corresponds mostly to a decreasing share of the net operating surplus of the private sector (without a reduction in corresponding tax revenues), that is mirrored by a rising share for the compensation of employees.

It should also be kept in mind that both the ITR on capital and capital income are upward biased upwards (compared to other European Union countries) because the base ITR does not capture the full extent of taxable profits of financial companies, particularly capital gains. A further reason is that the UK figures allocate all tax on occupational (second pillar) and private pension benefits (third pillar) to capital income whilst for most other Member States the second pillar is allocated to transfer income and the non-employed.



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<sup>1</sup> As modified – notably – by Commission Regulation (EC) No 995/2001 of 22 May 2001. A consolidated version of the Council Regulation (EC) is available on-line on the Eur-Lex web-site on: [http://europa.eu.int/eur-lex/en/consleg/main/1996/en1996/en1996R2223\\_index.html](http://europa.eu.int/eur-lex/en/consleg/main/1996/en1996/en1996R2223_index.html).

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## **ANNEXES**

## **ANNEX A: TABLES**

Table Tot\_G: Total Taxes (incl. SC) as % of GDP

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	45,1	45,4	45,8	46,4	46,0	46,0	46,0	45,8	0,3	0,9
DK	49,3	49,9	49,8	50,1	51,5	49,5	49,8	50,0	0,2	0,5
D	41,3	42,1	42,1	42,1	42,9	42,9	41,2	42,1	0,2	-0,1
EL	32,6	33,0	34,3	36,3	37,2	38,5	36,8	35,5	2,7	4,2
E	33,4	33,8	34,2	34,5	35,2	35,7	35,6	34,6	1,2	2,2
F	44,0	45,0	45,2	45,1	45,7	45,3	45,4	45,1	0,4	1,4
IRL	33,4	33,5	32,8	32,1	31,9	32,3	31,2	32,5	-1,1	-2,1
I	41,2	42,8	44,7	43,2	43,3	42,7	42,6	42,9	0,2	1,4
L	42,4	42,4	41,6	40,2	40,8	41,3	41,8	41,5	-0,4	-0,5
NL	40,6	40,8	40,7	40,3	41,7	41,5	40,0	40,8	0,0	-0,6
A	42,4	43,9	44,7	44,4	44,4	43,5	45,6	44,1	0,7	3,2
P	33,6	34,4	34,7	34,9	36,0	36,4	35,9	35,1	1,3	2,3
FIN	46,2	47,4	46,8	46,6	47,0	48,0	46,0	46,9	0,0	-0,3
S	49,1	51,9	52,0	53,6	53,0	52,5	54,1	52,3	1,2	5,0
UK	35,4	35,1	35,6	36,8	36,9	37,6	37,5	36,4	1,3	2,1
EU	40,8	41,5	41,6	41,6	41,8	41,7	41,1	41,4	0,1	0,3
Euro12	41,1	42,0	42,4	42,0	42,5	42,3	41,5	42,0	0,2	0,4
EU (arithmetic average)	40,7	41,4	41,7	41,8	42,2	42,2	42,0	41,7	0,5	1,3
Euro12 (arithmetic average)	39,7	40,4	40,6	40,5	41,0	41,2	40,7	40,6	0,4	1,0
Ratio st.dev. and mean in %	14,1	14,9	14,7	14,8	14,4	13,3	14,7			0,6
Difference max. and min.	16,7	18,9	19,2	21,5	21,0	20,2	22,9			6,2

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.1\_G: Indirect Taxes as % of GDP: Total**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	13,3	13,7	13,9	13,9	14,1	14,0	13,6	13,8	0,5	0,3
DK	17,2	17,5	17,7	18,5	18,3	17,4	17,5	17,7	0,3	0,3
D	12,3	12,2	12,2	12,3	12,8	12,7	12,5	12,4	0,6	0,2
EL	14,4	14,8	14,9	15,1	15,6	15,9	15,0	15,1	1,2	0,6
E	10,9	10,9	11,2	11,8	12,3	12,3	12,0	11,6	2,2	1,1
F	16,2	16,8	16,7	16,6	16,5	16,1	15,7	16,4	-0,6	-0,5
IRL	14,7	14,6	14,2	14,0	13,8	13,9	13,6	14,1	-1,3	-1,0
I	12,7	12,5	12,9	15,9	15,6	15,5	15,0	14,3	4,0	2,3
L	13,5	13,4	13,6	13,5	14,4	14,8	14,3	13,9	1,5	0,8
NL	11,9	12,2	12,5	12,5	13,1	13,0	13,5	12,7	2,0	1,6
A	15,2	15,4	15,8	15,6	15,8	15,3	15,4	15,5	0,1	0,2
P	14,6	14,7	14,5	15,0	15,4	15,1	14,9	14,9	0,6	0,3
FIN	14,1	14,2	14,9	14,6	14,8	14,1	13,7	14,3	-0,3	-0,3
S	16,3	16,8	17,1	17,8	19,0	16,9	16,9	17,3	0,8	0,6
UK	14,1	14,0	14,2	14,1	14,4	14,5	14,2	14,2	0,3	0,0
EU	13,6	13,7	13,8	14,3	14,5	14,3	14,0	14,0	0,7	0,4
Euro12	13,4	13,4	13,6	14,1	14,3	14,1	13,8	13,8	0,9	0,5
EU (arithmetic average)	14,1	14,2	14,4	14,7	15,1	14,8	14,5	14,6	0,7	0,4
Euro12 (arithmetic average)	13,6	13,8	13,9	14,2	14,5	14,4	14,1	14,1	0,8	0,5
Ratio st.dev. and mean in %	12,7	13,6	13,4	13,5	13,0	10,3	10,7			-2,0
Difference max. and min.	6,2	6,5	6,5	6,7	6,7	5,1	5,5			-0,8

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.1\_T: Indirect Taxes as % of Total Taxation: Total**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	29,5	30,2	30,3	29,9	30,6	30,5	29,6	30,1	0,1	0,1
DK	34,8	35,0	35,6	36,8	35,6	35,1	35,1	35,5	0,4	0,3
D	29,8	29,0	29,0	29,1	29,9	29,6	30,3	29,5	0,2	0,5
EL	44,1	44,8	43,6	41,4	42,1	41,2	40,8	42,6	-1,6	-3,3
E	32,6	32,4	32,7	34,2	35,1	34,6	33,8	33,6	1,6	1,2
F	36,8	37,2	37,0	36,9	36,2	35,5	34,7	36,3	-0,8	-2,2
IRL	43,9	43,6	43,4	43,5	43,1	42,9	43,6	43,4	-0,4	-0,3
I	30,9	29,1	28,9	36,7	36,1	36,3	35,3	33,3	4,8	4,4
L	31,9	31,6	32,7	33,6	35,3	35,9	34,1	33,6	2,7	2,3
NL	29,3	29,9	30,7	31,1	31,5	31,4	33,7	31,1	1,5	4,5
A	35,8	35,2	35,4	35,1	35,5	35,2	33,8	35,2	-0,2	-2,1
P	43,5	42,7	41,8	43,0	42,9	41,4	41,4	42,4	-0,6	-2,1
FIN	30,5	29,9	31,8	31,3	31,4	29,4	29,9	30,6	-0,1	-0,6
S	33,3	32,4	32,8	33,2	35,9	32,1	31,3	33,0	0,4	-2,0
UK	39,9	40,1	39,9	38,3	39,1	38,5	37,8	39,1	-0,9	-2,2
EU	32,4	31,7	32,1	33,6	34,1	33,8	33,7	33,1	1,4	1,4
Euro12	29,2	28,5	28,7	30,8	31,1	30,9	31,1	30,1	1,8	1,9

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table A.1.1\_G: Indirect Taxes as % of GDP: VAT**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	6,8	6,9	6,9	6,9	7,2	7,3	7,0	7,0	0,9	0,2
DK	9,5	9,7	9,8	9,9	9,9	9,7	9,7	9,7	0,2	0,2
D	6,7	6,6	6,6	6,7	7,0	6,9	6,7	6,7	0,6	0,0
EL	6,9	7,0	7,2	7,5	7,8	8,1	8,2	7,5	3,3	1,4
E	5,3	5,5	5,6	5,7	6,2	6,3	6,1	5,8	2,9	0,8
F	7,5	7,8	7,8	7,7	7,7	7,5	7,4	7,6	-0,6	-0,1
IRL	7,1	7,2	7,2	7,2	7,1	7,4	7,0	7,2	0,1	-0,1
I	5,7	5,5	5,8	6,2	6,2	6,6	6,4	6,1	2,9	0,7
L	5,9	5,9	5,8	5,8	5,9	5,9	6,2	5,9	0,6	0,3
NL	6,6	6,8	6,9	6,9	7,2	7,2	7,6	7,0	2,1	1,0
A	7,8	8,3	8,4	8,2	8,5	8,1	8,1	8,2	0,4	0,4
P	7,5	7,8	7,7	8,0	8,2	8,4	8,3	8,0	1,9	0,8
FIN	7,8	7,9	8,5	8,3	8,4	8,3	8,1	8,2	0,8	0,3
S	9,4	8,8	8,9	9,1	9,1	9,0	9,0	9,0	-0,2	-0,4
UK	6,7	6,7	6,8	6,6	6,9	6,8	6,9	6,8	0,3	0,1
EU	6,8	6,8	6,9	6,9	7,1	7,1	7,0	6,9	0,6	0,2
Euro12	6,7	6,7	6,8	6,9	7,0	7,0	6,9	6,9	0,9	0,2
EU (arithmetic average)	7,1	7,2	7,3	7,4	7,6	7,6	7,5	7,4	1,0	0,4
Euro12 (arithmetic average)	6,8	6,9	7,0	7,1	7,3	7,3	7,3	7,1	1,3	0,5
Ratio st.dev. and mean in %	17,4	17,4	17,6	16,9	15,6	14,5	15,0			-2,4
Difference max. and min.	4,2	4,3	4,2	4,1	3,9	3,8	3,6			-0,7

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.1.1\_T: Indirect Taxes as % of Total Taxation: VAT**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	15,1	15,3	15,1	14,8	15,7	15,9	15,2	15,3	0,5	0,2
DK	19,3	19,5	19,7	19,7	19,1	19,5	19,5	19,5	0,0	0,1
D	16,2	15,7	15,6	15,9	16,3	16,1	16,3	16,0	0,3	0,1
EL	21,1	21,2	21,1	20,5	20,9	21,2	22,4	21,2	-0,2	1,3
E	15,9	16,1	16,3	16,6	17,7	17,7	17,2	16,8	2,3	1,3
F	17,0	17,4	17,3	17,1	16,9	16,5	16,2	16,9	-0,7	-0,8
IRL	21,3	21,6	22,0	22,4	22,3	23,0	22,5	22,2	1,5	1,3
I	13,8	12,8	12,9	14,3	14,3	15,5	15,0	14,1	2,9	1,2
L	14,0	13,9	14,0	14,4	14,6	14,3	14,9	14,3	0,9	0,9
NL	16,2	16,6	16,9	17,1	17,3	17,3	18,9	17,2	1,4	2,8
A	18,3	18,9	18,7	18,5	19,1	18,7	17,8	18,6	0,3	-0,5
P	22,4	22,5	22,2	22,8	22,7	23,2	23,2	22,7	0,6	0,8
FIN	16,9	16,7	18,1	17,9	17,9	17,3	17,7	17,5	0,9	0,8
S	19,1	16,9	17,2	16,9	17,2	17,1	16,6	17,3	-1,4	-2,4
UK	19,0	19,2	19,2	18,0	18,7	18,2	18,3	18,7	-1,1	-0,7
EU	16,5	16,1	16,2	16,4	16,9	16,9	17,0	16,6	0,8	0,5
Euro12	15,0	14,6	14,6	15,2	15,5	15,7	15,8	15,2	1,3	0,8

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services



**Table A.1.2\_G: Indirect Taxes as % of GDP: Excise duties and consumption taxes**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	2,5	2,6	2,6	2,6	2,6	2,5	2,4	2,5	-1,1	-0,1
DK	3,7	3,9	3,8	4,1	4,2	4,1	4,2	4,0	2,0	0,4
D	2,0	2,0	1,9	1,9	2,1	2,2	2,3	2,1	2,0	0,2
EL	4,7	4,8	4,2	4,0	3,7	3,5	3,4	4,0	-6,1	-1,3
E	2,6	2,6	2,6	2,9	2,8	2,7	2,6	2,7	0,9	0,1
F	2,8	2,8	2,7	2,7	2,7	2,7	2,5	2,7	-1,6	-0,3
IRL	4,9	4,9	4,6	4,5	4,3	4,2	4,5	4,6	-2,3	-0,5
I	3,3	3,2	3,1	3,0	3,0	2,7	2,5	3,0	-4,1	-0,8
L	4,6	4,5	4,6	4,4	4,8	4,8	4,3	4,6	-0,2	-0,3
NL	2,8	2,7	2,8	2,8	2,9	2,7	2,6	2,8	-0,8	-0,2
A	2,6	2,9	3,0	2,9	2,9	2,8	2,8	2,8	0,2	0,1
P	3,9	3,8	3,6	3,7	3,5	3,0	3,0	3,5	-4,8	-0,9
FIN	4,0	3,9	4,0	3,8	3,9	3,4	3,4	3,8	-2,8	-0,6
S	3,5	3,8	3,6	3,6	3,4	3,2	3,2	3,5	-2,2	-0,3
UK	2,1	2,2	2,3	2,4	2,5	2,4	2,2	2,3	1,4	0,1
EU	2,6	2,7	2,6	2,6	2,7	2,6	2,5	2,6	-0,7	-0,1
Euro12	2,7	2,7	2,6	2,6	2,7	2,6	2,5	2,6	-0,8	-0,1
EU (arithmetic average)	3,3	3,4	3,3	3,3	3,3	3,1	3,1	3,3	-1,5	-0,3
Euro12 (arithmetic average)	3,4	3,4	3,3	3,3	3,3	3,1	3,0	3,3	-2,0	-0,4
Ratio st.dev. and mean in %	35,9	34,5	32,0	29,5	28,8	28,9	30,3			-5,6
Difference max. and min.	2,9	2,9	2,7	2,6	2,7	2,6	2,2			-0,7

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.1.2\_T: Indirect Taxes as % of Total Taxation: Excise duties and consumption taxes**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	5,6	5,8	5,7	5,6	5,6	5,4	5,1	5,6	-1,4	-0,4
DK	7,5	7,8	7,7	8,2	8,3	8,3	8,4	8,0	2,0	0,8
D	4,9	4,8	4,6	4,5	5,0	5,0	5,5	4,9	0,6	0,6
EL	14,4	14,4	12,2	10,9	10,0	9,0	9,3	11,5	-10,2	-5,1
E	7,7	7,8	7,7	8,3	8,0	7,7	7,4	7,8	0,5	-0,3
F	6,4	6,2	6,1	6,1	5,9	5,9	5,5	6,0	-1,5	-0,8
IRL	14,8	14,6	14,1	14,0	13,6	13,1	14,3	14,1	-2,4	-0,5
I	7,9	7,4	7,0	6,8	7,0	6,3	5,9	6,9	-3,8	-2,1
L	10,9	10,6	11,2	11,0	11,8	11,6	10,3	11,1	1,7	-0,6
NL	7,0	6,6	6,8	7,0	6,9	6,5	6,5	6,7	-0,6	-0,5
A	6,2	6,5	6,7	6,5	6,5	6,4	6,1	6,4	0,3	-0,1
P	11,5	11,1	10,4	10,5	9,7	8,2	8,2	10,0	-6,0	-3,3
FIN	8,7	8,3	8,6	8,1	8,2	7,2	7,5	8,1	-3,1	-1,3
S	7,2	7,3	6,8	6,7	6,5	6,1	6,0	6,7	-3,4	-1,2
UK	6,0	6,3	6,4	6,6	6,7	6,4	5,9	6,3	1,6	-0,1
EU	6,4	6,3	6,2	6,2	6,4	6,2	6,1	6,3	-0,3	-0,3
Euro12	6,1	5,9	5,8	5,8	6,0	5,8	5,9	5,9	-0,5	-0,2

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table A.1.3\_G: Indirect Taxes as % of GDP: Other taxes on products (incl. import duties)**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	2,1	2,2	2,3	2,3	2,3	2,4	2,3	2,3	1,7	0,2
DK	2,3	2,3	2,5	2,7	2,5	2,0	1,8	2,3	-3,6	-0,5
D	1,8	1,6	1,7	1,7	1,6	1,6	1,6	1,7	-1,2	-0,2
EL	2,2	2,3	2,9	3,0	3,5	3,6	2,8	2,9	6,8	0,7
E	1,7	1,6	1,7	1,8	1,9	2,0	2,0	1,8	4,0	0,3
F	1,9	1,9	1,9	2,0	1,9	1,9	1,9	1,9	0,3	0,0
IRL	1,6	1,5	1,6	1,5	1,6	1,6	1,5	1,6	-0,9	-0,2
I	2,6	2,6	2,7	2,9	3,0	2,7	2,6	2,7	0,7	0,0
L	1,4	1,3	1,4	1,5	1,5	1,6	1,4	1,5	1,8	0,0
NL	1,4	1,6	1,8	1,8	2,0	2,1	2,2	1,9	7,1	0,8
A	1,3	1,2	1,3	1,3	1,3	1,3	1,3	1,3	-0,1	0,0
P	2,7	2,6	2,6	2,8	3,2	3,0	2,9	2,8	2,8	0,3
FIN	2,1	2,1	2,2	2,2	2,3	2,1	1,9	2,1	-0,5	-0,1
S	0,9	0,7	0,7	0,7	0,7	0,7	0,7	0,7	-3,0	-0,2
UK	3,1	3,0	3,0	3,0	3,1	3,3	3,1	3,1	0,4	-0,1
EU	2,1	2,0	2,1	2,2	2,2	2,2	2,1	2,1	1,2	0,1
Euro12	1,9	1,9	2,0	2,0	2,1	2,0	2,0	2,0	1,0	0,1
EU (arithmetic average)	1,9	1,9	2,0	2,1	2,2	2,1	2,0	2,0	1,4	0,1
Euro12 (arithmetic average)	1,9	1,9	2,0	2,1	2,2	2,2	2,0	2,0	2,1	0,2
Ratio st.dev. and mean in %	29,2	30,1	31,3	32,4	35,4	35,0	31,7			2,5
Difference max. and min.	2,3	2,3	2,4	2,3	2,8	2,9	2,4			0,1

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.1.3\_T: Indirect Taxes as % of Total Taxation: Other taxes on products (incl. import duties)**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	4,6	4,8	5,0	5,1	5,1	5,1	5,0	5,0	1,4	0,4
DK	4,7	4,7	4,9	5,4	4,8	4,0	3,7	4,6	-1,8	-1,0
D	4,3	3,9	4,0	4,0	3,8	3,8	3,9	4,0	-2,0	-0,4
EL	6,7	6,9	8,6	8,4	9,3	9,3	7,7	8,1	7,3	1,1
E	5,1	4,7	4,9	5,3	5,5	5,6	5,6	5,2	3,2	0,5
F	4,3	4,2	4,3	4,4	4,3	4,2	4,2	4,3	0,1	0,0
IRL	4,9	4,6	4,8	4,8	5,0	4,9	4,7	4,8	0,6	-0,2
I	6,3	6,1	6,0	6,7	6,9	6,4	6,1	6,3	1,6	-0,2
L	3,3	3,2	3,4	3,6	3,7	4,0	3,4	3,5	4,1	0,1
NL	3,4	4,0	4,5	4,5	4,8	5,0	5,6	4,5	7,0	2,1
A	3,0	2,8	2,8	2,9	2,8	2,9	2,7	2,9	-0,4	-0,3
P	7,9	7,5	7,5	8,0	8,8	8,2	8,2	8,0	2,0	0,2
FIN	4,5	4,5	4,6	4,8	4,8	4,5	4,2	4,6	0,6	-0,3
S	1,8	1,4	1,3	1,3	1,3	1,3	1,3	1,4	-5,0	-0,5
UK	8,9	8,5	8,5	8,2	8,4	8,7	8,2	8,5	-0,6	-0,7
EU	5,2	5,0	5,2	5,4	5,4	5,5	5,4	5,3	1,5	0,2
Euro12	4,5	4,3	4,5	4,6	4,7	4,6	4,6	4,5	1,2	0,1

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table A.1.4\_G: Indirect Taxes as % of GDP: Other taxes on production**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	1,9	2,0	2,0	2,0	2,0	1,9	1,9	2,0	-0,3	0,0
DK	1,6	1,5	1,6	1,8	1,8	1,6	1,8	1,7	2,2	0,2
D	1,8	1,9	2,0	2,0	2,1	2,0	1,9	2,0	0,6	0,0
EL	0,6	0,7	0,6	0,6	0,7	0,7	0,5	0,6	-2,0	-0,1
E	1,3	1,3	1,3	1,4	1,3	1,3	1,3	1,3	-0,4	-0,1
F	4,1	4,2	4,2	4,2	4,2	4,0	4,0	4,1	-0,6	-0,1
IRL	1,0	1,0	0,8	0,7	0,7	0,6	0,6	0,8	-8,3	-0,3
I	1,2	1,2	1,4	3,8	3,4	3,4	3,6	2,6	22,4	2,4
L	1,6	1,7	1,7	1,8	2,1	2,5	2,3	2,0	7,8	0,8
NL	1,1	1,1	1,0	1,0	1,1	1,1	1,1	1,1	0,1	0,0
A	3,5	3,0	3,2	3,2	3,1	3,2	3,2	3,2	-0,7	-0,3
P	0,5	0,5	0,6	0,6	0,6	0,7	0,6	0,6	3,5	0,1
FIN	0,1	0,2	0,2	0,2	0,2	0,2	0,2	0,2	5,2	0,1
S	2,6	3,5	3,9	4,5	5,7	4,0	4,0	4,0	7,0	1,4
UK	2,1	2,1	2,1	2,0	2,0	1,9	2,0	2,0	-1,2	-0,1
EU	2,1	2,2	2,2	2,6	2,5	2,4	2,4	2,3	2,5	0,3
Euro12	2,1	2,2	2,2	2,6	2,5	2,5	2,4	2,4	3,1	0,3
EU (arithmetic average)	1,7	1,7	1,8	2,0	2,1	1,9	1,9	1,9	2,9	0,3
Euro12 (arithmetic average)	1,6	1,6	1,6	1,8	1,8	1,8	1,8	1,7	2,7	0,2
Ratio st.dev. and mean in %	50,4	51,5	54,0	53,1	59,8	51,8	52,7			2,2
Difference max. and min.	3,9	4,0	4,0	4,2	5,5	3,8	3,8			-0,1

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.1.4\_T: Indirect Taxes as % of Total Taxation: Other taxes on production**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	4,2	4,3	4,5	4,3	4,3	4,1	4,2	4,3	-0,6	0,0
DK	3,2	3,1	3,3	3,5	3,4	3,3	3,6	3,4	1,6	0,4
D	4,5	4,6	4,7	4,8	4,8	4,7	4,6	4,7	1,0	0,1
EL	1,9	2,3	1,7	1,6	1,9	1,8	1,4	1,8	-2,6	-0,5
E	4,0	3,8	3,8	3,9	3,8	3,6	3,6	3,8	-1,3	-0,4
F	9,2	9,4	9,3	9,3	9,1	8,9	8,7	9,1	-0,8	-0,5
IRL	2,9	2,9	2,5	2,3	2,2	1,9	2,0	2,4	-8,3	-0,9
I	2,9	2,8	3,1	8,9	7,9	8,1	8,4	6,0	26,5	5,5
L	3,7	3,9	4,2	4,6	5,2	6,0	5,6	4,7	9,6	1,9
NL	2,7	2,7	2,5	2,5	2,6	2,6	2,8	2,6	-1,0	0,1
A	8,2	6,9	7,2	7,2	7,1	7,2	7,1	7,3	-1,6	-1,2
P	1,6	1,6	1,6	1,7	1,7	1,8	1,8	1,7	2,5	0,2
FIN	0,3	0,4	0,4	0,5	0,5	0,4	0,5	0,4	6,0	0,2
S	5,3	6,7	7,5	8,3	10,8	7,6	7,4	7,7	9,7	2,1
UK	6,0	6,0	5,8	5,5	5,3	5,2	5,4	5,6	-3,2	-0,6
EU	4,3	4,3	4,5	5,5	5,4	5,2	5,3	4,9	5,3	1,0
Euro12	3,7	3,6	3,7	5,2	4,9	4,8	4,9	4,4	7,3	1,2

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table A.2\_G: Direct Taxes as % of GDP: Total**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	17,1	17,0	17,4	18,1	17,5	17,8	18,1	17,6	0,9	1,0
DK	30,6	30,8	30,5	30,1	31,0	29,8	30,1	30,4	-0,4	-0,5
D	11,2	11,6	11,3	11,6	12,1	12,6	11,2	11,7	0,9	0,0
EL	7,8	7,4	8,2	9,8	10,2	11,2	10,4	9,3	6,9	2,6
E	10,5	10,6	10,8	10,5	10,6	10,9	10,8	10,7	0,5	0,4
F	9,0	9,4	10,1	12,2	12,7	12,9	13,2	11,4	7,1	4,2
IRL	13,7	14,2	14,2	13,9	13,9	14,1	13,1	13,9	-0,7	-0,7
I	15,4	15,7	16,9	14,9	15,3	14,8	15,2	15,5	-0,9	-0,2
L	17,6	18,0	17,5	16,5	16,0	15,9	16,0	16,8	-2,3	-1,7
NL	12,7	13,2	12,7	12,5	12,5	12,4	12,2	12,6	-0,8	-0,4
A	12,0	13,2	13,5	13,7	13,4	13,3	15,2	13,5	2,6	3,2
P	8,9	9,6	9,7	9,4	9,9	10,5	10,0	9,7	1,9	1,0
FIN	17,6	19,2	18,7	19,1	19,1	21,7	19,8	19,3	2,2	2,2
S	19,7	20,9	21,0	21,8	21,3	21,4	22,3	21,2	1,5	2,6
UK	15,1	14,9	15,2	16,4	16,4	16,8	17,0	16,0	2,4	1,9
EU	12,8	13,2	13,5	13,8	14,1	14,3	14,1	13,7	1,7	1,3
Euro12	11,7	12,2	12,5	12,7	13,0	13,2	12,8	12,6	1,7	1,1
EU (arithmetic average)	14,6	15,1	15,2	15,4	15,5	15,7	15,6	15,3	1,1	1,0
Euro12 (arithmetic average)	12,8	13,3	13,4	13,5	13,6	14,0	13,8	13,5	1,2	1,0
Ratio st.dev. and mean in %	44,6	44,2	41,8	39,1	38,5	36,5	38,2			-6,4
Difference max. and min.	22,8	23,4	22,3	20,7	21,1	19,3	20,1			-2,7

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.2\_T: Direct Taxes as % of Total Taxation: Total**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	37,8	37,6	38,1	38,9	38,1	38,7	39,2	38,4	0,6	1,4
DK	62,1	61,8	61,3	60,1	60,2	60,2	60,4	60,9	-0,7	-1,7
D	27,2	27,5	26,9	27,7	28,3	29,4	27,3	27,8	1,4	0,1
EL	23,8	22,5	23,9	27,0	27,4	29,1	28,3	26,0	4,9	4,5
E	31,3	31,4	31,6	30,6	30,2	30,5	30,5	30,9	-0,8	-0,9
F	20,5	20,9	22,3	27,0	27,8	28,4	29,1	25,1	7,6	8,5
IRL	41,1	42,5	43,3	43,4	43,5	43,5	41,9	42,8	1,0	0,7
I	37,4	36,7	37,7	34,5	35,3	34,7	35,7	36,0	-1,7	-1,7
L	41,6	42,5	42,1	41,0	39,2	38,5	38,2	40,4	-1,9	-3,4
NL	31,2	32,3	31,3	30,9	30,0	30,0	30,6	30,9	-1,2	-0,6
A	28,4	30,0	30,3	30,8	30,3	30,6	33,4	30,5	1,2	5,0
P	26,6	27,8	27,9	27,0	27,5	28,8	27,8	27,6	1,0	1,2
FIN	38,0	40,6	40,0	41,1	40,7	45,2	43,0	41,2	2,6	5,0
S	40,0	40,4	40,4	40,7	40,2	40,7	41,2	40,5	0,2	1,2
UK	42,6	42,6	42,6	44,5	44,3	44,6	45,2	43,8	1,1	2,6
EU	33,2	33,7	34,1	34,2	34,4	35,1	34,9	34,2	1,0	1,6
Euro12	29,0	29,6	29,7	29,1	29,5	30,0	29,5	29,5	0,4	0,5

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table A.2.1\_G: Direct Taxes as % of GDP: Personal income taxes**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	13,7	13,3	13,5	13,6	13,2	13,4	13,7	13,5	-0,1	0,0
DK	26,6	26,6	26,2	25,8	26,1	26,0	26,3	26,2	-0,3	-0,3
D	9,6	9,6	9,5	9,7	10,0	10,4	10,1	9,8	1,3	0,5
EL	4,1	4,1	4,5	5,5	5,6	5,2	4,8	4,8	4,1	0,7
E	7,9	7,9	7,3	7,2	6,8	6,8	7,1	7,3	-2,4	-0,8
F	5,3	5,6	6,0	8,1	8,3	8,5	8,5	7,2	9,1	3,1
IRL	10,3	10,4	10,2	9,8	9,0	9,0	8,3	9,6	-3,8	-2,1
I	10,8	11,0	11,4	11,4	11,5	10,8	11,2	11,1	0,4	0,5
L	9,2	9,2	8,6	7,7	7,7	7,5	7,3	8,2	-4,3	-1,9
NL	7,8	7,3	6,5	6,2	6,2	6,3	6,5	6,7	-3,2	-1,3
A	9,5	10,0	10,6	10,6	10,6	10,2	10,9	10,3	1,7	1,5
P	5,9	6,1	5,8	5,7	5,7	6,0	6,0	5,9	0,2	0,2
FIN	14,3	15,5	14,3	13,9	13,8	14,7	14,5	14,4	-0,4	0,1
S	16,9	17,1	17,4	17,9	17,4	17,4	17,6	17,4	0,6	0,7
UK	10,6	10,1	9,6	10,5	10,6	10,9	11,0	10,5	1,3	0,4
EU	9,5	9,6	9,5	10,0	10,1	10,1	10,1	9,9	1,2	0,6
Euro12	8,7	8,8	8,8	9,3	9,4	9,4	9,4	9,1	1,5	0,7
EU (arithmetic average)	10,8	10,9	10,8	10,9	10,8	10,9	10,9	10,9	0,1	0,1
Euro12 (arithmetic average)	9,0	9,2	9,0	9,1	9,0	9,1	9,1	9,1	0,0	0,0
Ratio st.dev. and mean in %	58,1	58,3	58,1	53,4	53,2	53,2	54,4			-3,7
Difference max. and min.	22,5	22,5	21,7	20,4	20,5	20,9	21,5			-1,0

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.2.1\_T: Direct Taxes as % of Total Taxation: Personal income taxes**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	30,3	29,4	29,6	29,2	28,6	29,1	29,7	29,4	-0,4	-0,5
DK	53,9	53,3	52,6	51,6	50,7	52,6	52,7	52,5	-0,8	-1,2
D	23,2	22,8	22,5	23,0	23,4	24,2	24,4	23,3	0,9	1,2
EL	12,5	12,4	13,2	15,1	15,0	13,5	12,9	13,5	3,1	0,4
E	23,5	23,3	21,5	20,9	19,4	19,2	19,8	21,1	-4,5	-3,7
F	12,1	12,4	13,2	18,0	18,2	18,7	18,6	15,9	10,3	6,5
IRL	31,0	31,0	31,2	30,4	28,3	28,0	26,5	29,5	-2,3	-4,5
I	26,1	25,7	25,4	26,4	26,5	25,3	26,3	26,0	-0,1	0,2
L	21,7	21,8	20,7	19,1	18,8	18,3	17,5	19,7	-3,9	-4,1
NL	19,2	17,9	15,9	15,5	14,9	15,2	16,2	16,4	-5,0	-3,0
A	22,3	22,7	23,7	23,8	23,9	23,4	24,0	23,4	1,1	1,7
P	17,5	17,7	16,8	16,3	16,0	16,5	16,8	16,8	-1,8	-0,6
FIN	31,0	32,6	30,6	29,9	29,3	30,6	31,4	30,8	-1,2	0,5
S	34,4	32,9	33,5	33,3	32,9	33,1	32,6	33,2	-0,6	-1,9
UK	29,8	28,7	27,1	28,5	28,6	29,0	29,3	28,7	-0,3	-0,5
EU	25,4	24,9	24,5	25,0	24,9	25,1	25,5	25,0	-0,1	0,1
Euro12	22,3	22,2	21,7	22,0	21,9	21,9	22,4	22,1	-0,3	0,1

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table A.2.2\_G: Direct Taxes as % of GDP: Corporate income tax**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	2,6	2,7	2,9	3,4	3,3	3,3	3,3	3,1	4,5	0,7
DK	2,0	2,3	2,6	2,8	3,0	2,4	3,1	2,6	5,8	1,2
D	0,9	1,2	1,3	1,4	1,5	1,7	0,6	1,2	-1,7	-0,3
EL	2,6	2,3	2,6	3,1	3,3	4,4	3,2	3,1	8,0	0,6
E	1,9	2,1	2,8	2,6	3,0	3,2	3,0	2,6	8,3	1,1
F	1,8	2,0	2,3	2,3	2,7	2,9	3,1	2,4	9,3	1,4
IRL	2,8	3,1	3,2	3,4	3,8	3,8	3,6	3,4	4,9	0,8
I	3,4	3,8	4,2	2,5	2,8	2,4	2,9	3,1	-6,4	-0,5
L	7,5	7,7	7,9	7,8	7,1	7,4	7,7	7,6	-0,4	0,2
NL	3,1	4,0	4,4	4,3	4,2	4,2	4,1	4,0	3,0	1,0
A	1,7	2,2	2,2	2,3	2,0	2,2	3,3	2,3	7,1	1,7
P	2,5	2,9	3,3	3,3	3,8	4,1	3,6	3,4	7,0	1,1
FIN	2,3	2,8	3,5	4,3	4,4	6,0	4,3	4,0	12,8	2,0
S	1,9	2,9	2,7	3,0	2,9	2,9	3,7	2,9	7,3	1,8
UK	2,4	2,7	3,4	3,6	3,3	3,3	3,3	3,2	4,6	0,9
EU	2,0	2,3	2,7	2,5	2,7	2,8	2,6	2,5	4,2	0,6
Euro12	1,9	2,3	2,5	2,3	2,5	2,6	2,4	2,4	3,7	0,5
EU (arithmetic average)	2,6	3,0	3,3	3,3	3,4	3,6	3,5	3,3	4,7	0,9
Euro12 (arithmetic average)	2,8	3,1	3,4	3,4	3,5	3,8	3,6	3,4	4,4	0,8
Ratio st.dev. and mean in %	75,0	63,2	55,9	57,2	48,2	53,7	54,0			-21,1
Difference max. and min.	6,6	6,5	6,6	6,5	5,6	5,7	7,1			0,5

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.2.2\_T: Direct Taxes as % of Total Taxation: Corporate income tax**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	5,7	6,0	6,3	7,4	7,1	7,2	7,1	6,7	4,2	1,4
DK	4,0	4,6	5,2	5,6	5,9	4,8	6,3	5,2	5,1	2,3
D	2,2	2,8	3,1	3,3	3,5	3,9	1,4	2,9	10,3	-0,8
EL	8,0	6,8	7,5	8,6	8,9	11,6	8,7	8,6	7,8	0,7
E	5,8	6,1	8,1	7,5	8,5	9,0	8,4	7,6	9,1	2,7
F	4,0	4,5	5,0	5,1	5,9	6,3	6,9	5,4	8,8	2,9
IRL	8,3	9,3	9,8	10,5	12,0	11,7	11,6	10,5	7,3	3,3
I	8,3	8,9	9,3	5,7	6,4	5,6	6,9	7,3	-9,9	-1,4
L	17,7	18,1	19,0	19,4	17,5	17,9	18,3	18,3	-0,1	0,7
NL	7,7	9,7	10,8	10,7	10,0	10,0	10,2	9,9	4,0	2,5
A	3,9	5,0	4,9	5,2	4,5	5,1	7,3	5,1	2,9	3,4
P	7,4	8,4	9,6	9,5	10,7	11,3	10,1	9,6	7,9	2,7
FIN	5,0	5,9	7,5	9,3	9,4	12,5	9,3	8,4	17,5	4,3
S	3,9	5,7	5,1	5,5	5,4	5,6	6,9	5,4	4,9	3,0
UK	6,9	7,8	9,6	9,7	8,9	8,9	8,8	8,7	4,8	2,0
EU	5,0	6,0	6,8	6,3	6,5	6,7	6,2	6,2	4,5	1,2
Euro12	4,4	5,3	6,0	5,2	5,5	5,8	5,1	5,3	3,7	0,6

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

Table A.2.3\_G: Direct Taxes as % of GDP: Other

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	0,9	1,0	1,0	1,0	1,1	1,1	1,1	1,0	4,0	0,3
DK	2,1	2,0	1,7	1,4	1,8	1,4	0,7	1,6	-13,9	-1,4
D	0,8	0,8	0,6	0,6	0,6	0,6	0,6	0,6	-4,5	-0,1
EL	1,1	1,0	1,1	1,2	1,3	1,5	2,4	1,4	12,1	1,4
E	0,7	0,7	0,7	0,8	0,8	0,8	0,8	0,7	3,0	0,1
F	1,9	1,8	1,8	1,7	1,7	1,5	1,6	1,7	-3,4	-0,3
IRL	0,6	0,7	0,8	0,8	1,0	1,2	1,2	0,9	11,8	0,6
I	1,3	0,9	1,3	1,0	1,0	1,6	1,1	1,2	1,9	-0,2
L	0,9	1,1	1,0	1,0	1,2	1,0	1,0	1,0	-0,3	0,0
NL	1,7	1,9	1,9	1,9	2,1	2,0	1,7	1,9	0,4	-0,1
A	0,9	1,0	0,8	0,8	0,8	0,9	1,0	0,9	0,7	0,1
P	0,6	0,6	0,5	0,4	0,3	0,4	0,3	0,4	-11,8	-0,3
FIN	0,9	1,0	0,9	0,9	1,0	1,0	1,0	1,0	1,6	0,1
S	0,8	0,9	0,9	1,0	1,0	1,1	1,0	1,0	2,8	0,1
UK	2,1	2,1	2,1	2,3	2,5	2,5	2,6	2,3	4,4	0,5
EU	1,3	1,3	1,3	1,3	1,3	1,4	1,3	1,3	1,2	0,0
Euro12	1,2	1,1	1,1	1,1	1,1	1,1	1,1	1,1	-0,8	-0,1
EU (arithmetic average)	1,2	1,2	1,1	1,1	1,2	1,2	1,2	1,2	1,2	0,1
Euro12 (arithmetic average)	1,0	1,0	1,0	1,0	1,1	1,1	1,1	1,1	2,1	0,1
Ratio st.dev. and mean in %	41,8	40,8	40,0	40,9	44,0	39,5	48,2			6,5
Difference max. and min.	1,5	1,6	1,6	1,9	2,2	2,2	2,3			0,8

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

Table A.2.3\_T: Direct Taxes as % of Total Taxation: Other

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	1,9	2,1	2,2	2,3	2,4	2,4	2,4	2,3	3,7	0,5
DK	4,2	3,9	3,5	2,8	3,6	2,7	1,4	3,2	-7,5	-2,8
D	1,8	1,9	1,4	1,5	1,4	1,3	1,5	1,5	-6,6	-0,4
EL	3,3	3,2	3,2	3,3	3,4	4,0	6,6	3,9	3,7	3,3
E	2,0	2,1	2,1	2,2	2,2	2,3	2,2	2,2	2,3	0,2
F	4,4	4,0	4,1	3,8	3,8	3,4	3,5	3,9	-4,4	-0,9
IRL	1,9	2,2	2,3	2,5	3,2	3,9	3,8	2,8	14,0	1,9
I	3,0	2,1	2,9	2,4	2,4	3,8	2,5	2,7	3,9	-0,5
L	2,2	2,6	2,4	2,5	2,8	2,4	2,3	2,5	1,6	0,1
NL	4,3	4,7	4,6	4,8	5,1	4,8	4,2	4,6	2,3	-0,1
A	2,1	2,2	1,7	1,7	1,9	2,1	2,1	2,0	-1,4	0,0
P	1,7	1,6	1,5	1,2	0,9	1,0	0,8	1,2	-13,0	-0,9
FIN	2,0	2,0	1,9	1,9	2,1	2,2	2,2	2,0	1,0	0,2
S	1,7	1,8	1,8	1,9	1,9	2,0	1,8	1,8	3,1	0,1
UK	5,9	6,1	5,9	6,3	6,8	6,8	7,0	6,4	3,1	1,1
EU	2,8	2,8	2,8	2,9	3,0	3,3	3,2	3,0	3,2	0,3
Euro12	2,2	2,1	2,0	2,0	2,0	2,3	2,0	2,1	0,3	-0,2

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table A.3\_G: Social contributions as % of GDP: Total**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	14,8	14,6	14,5	14,5	14,4	14,2	14,4	14,5	-0,5	-0,4
DK	1,5	1,6	1,6	1,6	2,1	2,3	2,2	1,8	7,8	0,7
D	17,7	18,3	18,5	18,2	17,9	17,6	17,5	18,0	-0,6	-0,2
EL	10,5	10,8	11,1	11,5	11,4	11,4	11,4	11,2	1,4	0,9
E	12,0	12,2	12,2	12,1	12,2	12,4	12,7	12,3	0,7	0,7
F	18,7	18,9	18,4	16,3	16,5	16,4	16,5	17,4	-2,8	-2,3
IRL	5,0	4,6	4,4	4,2	4,3	4,4	4,5	4,5	-1,5	-0,5
I	13,0	14,6	14,9	12,5	12,4	12,4	12,3	13,2	-2,5	-0,7
L	11,2	11,0	10,5	10,2	10,4	10,6	11,6	10,8	0,0	0,3
NL	16,0	15,5	15,5	15,3	16,0	16,0	14,2	15,5	-0,9	-1,8
A	15,2	15,3	15,3	15,2	15,2	14,9	15,0	15,1	-0,4	-0,2
P	10,1	10,2	10,5	10,5	10,6	10,9	11,1	10,5	1,6	1,0
FIN	14,6	14,0	13,2	12,9	13,1	12,2	12,5	13,2	-2,7	-2,1
S	13,1	14,2	14,0	14,0	12,7	14,3	14,9	13,9	1,1	1,7
UK	6,2	6,1	6,2	6,3	6,1	6,4	6,4	6,2	0,6	0,2
EU	14,3	14,6	14,3	13,4	13,3	13,1	13,1	13,7	-2,0	-1,3
Euro12	16,0	16,4	16,3	15,2	15,2	15,0	14,8	15,6	-1,7	-1,2
EU (arithmetic average)	12,0	12,1	12,0	11,7	11,7	11,7	11,8	11,9	-0,5	-0,2
Euro12 (arithmetic average)	13,2	13,3	13,2	12,8	12,9	12,8	12,8	13,0	-0,8	-0,4
Ratio st.dev. and mean in %	33,4	33,5	34,0	34,2	33,9	33,6	33,1			-0,2
Difference max. and min.	17,2	17,3	17,0	16,6	15,8	15,3	15,3			-1,9

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.3\_T: Social contributions as % of Total Taxation: Total**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	32,7	32,2	31,6	31,2	31,2	30,8	31,2	31,6	-0,9	-1,5
DK	3,1	3,1	3,1	3,1	4,2	4,6	4,4	3,7	8,1	1,3
D	43,0	43,5	44,1	43,2	41,8	41,0	42,5	42,7	-1,1	-0,5
EL	32,1	32,8	32,5	31,6	30,6	29,7	30,9	31,5	-1,8	-1,2
E	36,0	36,2	35,6	35,2	34,8	34,9	35,7	35,5	-0,8	-0,3
F	42,6	41,9	40,7	36,1	36,0	36,1	36,3	38,5	-4,0	-6,3
IRL	15,0	13,9	13,3	13,1	13,4	13,5	14,5	13,8	-1,8	-0,4
I	31,6	34,2	33,4	28,8	28,7	28,9	29,0	30,7	-3,2	-2,7
L	26,5	25,9	25,2	25,4	25,5	25,6	27,7	26,0	-0,6	1,2
NL	39,5	37,9	38,0	38,0	38,5	38,6	35,6	38,0	-0,2	-3,9
A	35,8	34,8	34,3	34,1	34,2	34,2	32,8	34,3	-0,8	-3,0
P	30,0	29,5	30,3	30,0	29,5	29,9	30,9	30,0	-0,1	0,9
FIN	31,5	29,5	28,2	27,6	27,8	25,4	27,1	28,2	-3,6	-4,4
S	26,7	27,3	26,8	26,1	23,9	27,2	27,5	26,5	-0,9	0,8
UK	17,4	17,4	17,5	17,2	16,5	16,9	17,1	17,1	-1,0	-0,4
EU	34,4	34,6	33,8	32,2	31,5	31,1	31,4	32,7	-2,4	-3,0
Euro12	36,1	36,5	36,3	34,6	34,0	33,6	33,9	35,0	-1,7	-2,1

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services



**Table A.3.1\_G: Social contributions as % of GDP: Employers**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	8,9	8,8	8,8	8,8	8,7	8,5	8,6	8,7	-0,5	-0,2
DK	0,3	0,3	0,3	0,4	0,3	0,3	0,3	0,3	1,2	0,0
D	7,7	7,7	7,8	7,7	7,7	7,6	7,5	7,7	-0,4	-0,2
EL	4,8	5,0	5,2	5,3	5,2	5,3	5,3	5,1	1,5	0,5
E	8,3	8,5	8,5	8,4	8,5	8,7	8,9	8,5	0,8	0,5
F	11,5	11,4	11,4	11,3	11,4	11,3	11,3	11,4	-0,3	-0,2
IRL	2,9	2,7	2,6	2,6	2,6	2,6	2,8	2,7	-0,4	-0,1
I	8,7	10,2	10,6	8,7	8,6	8,6	8,6	9,1	-2,1	-0,1
L	5,2	5,1	4,8	4,7	4,6	4,7	5,2	4,9	-0,8	0,0
NL	2,0	1,9	1,8	4,6	4,6	4,6	4,6	3,4	18,6	2,6
A	7,4	7,4	7,4	7,3	7,3	7,1	7,0	7,3	-0,9	-0,4
P	6,3	6,5	6,7	6,8	6,8	7,0	7,1	6,7	2,0	0,8
FIN	10,1	9,8	9,3	9,3	9,5	8,9	9,2	9,5	-1,6	-0,9
S	11,1	11,7	11,1	10,8	9,5	11,1	11,6	11,0	-0,6	0,5
UK	3,4	3,4	3,4	3,4	3,4	3,6	3,6	3,4	1,2	0,2
EU	7,6	7,9	7,8	7,5	7,4	7,4	7,4	7,6	-0,9	-0,2
Euro12	8,4	8,7	8,7	8,5	8,4	8,3	8,3	8,5	-0,4	0,0
EU (arithmetic average)	6,6	6,7	6,7	6,7	6,6	6,7	6,8	6,7	0,3	0,2
Euro12 (arithmetic average)	7,0	7,1	7,1	7,1	7,1	7,1	7,2	7,1	0,3	0,2
Ratio st.dev. and mean in %	44,7	45,1	45,2	41,3	41,0	41,8	42,4			-2,2
Difference max. and min.	11,2	11,4	11,1	10,9	11,0	10,9	11,3			0,0

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.3.1\_T: Social contributions as % of Total Taxation: Employers**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	19,7	19,4	19,1	19,0	19,0	18,5	18,7	19,1	-0,9	-0,9
DK	0,6	0,7	0,7	0,7	0,7	0,7	0,7	0,7	1,8	0,0
D	18,6	18,4	18,6	18,3	17,9	17,7	18,3	18,3	-1,0	-0,3
EL	14,6	15,2	15,1	14,6	13,9	13,7	14,4	14,5	-1,8	-0,2
E	24,9	25,2	24,9	24,4	24,1	24,3	24,9	24,7	-0,8	-0,1
F	26,2	25,4	25,3	25,0	24,9	24,9	25,0	25,2	-1,0	-1,3
IRL	8,7	8,0	7,9	8,1	8,1	8,2	9,0	8,3	-0,7	0,3
I	21,0	24,0	23,7	20,2	20,0	20,1	20,1	21,3	-2,6	-0,9
L	12,2	12,1	11,6	11,8	11,3	11,4	12,3	11,8	-1,5	0,1
NL	4,8	4,8	4,4	11,4	11,0	11,2	11,4	8,4	21,9	6,6
A	17,4	16,9	16,7	16,3	16,4	16,4	15,4	16,5	-1,2	-2,0
P	18,8	18,7	19,3	19,4	19,0	19,2	19,9	19,2	0,5	1,1
FIN	21,9	20,7	19,9	19,9	20,3	18,6	20,1	20,2	-2,5	-1,8
S	22,7	22,6	21,4	20,1	17,9	21,1	21,5	21,0	-3,3	-1,2
UK	9,5	9,6	9,4	9,3	9,1	9,5	9,6	9,4	-0,4	0,1
EU	17,4	18,0	17,6	17,0	16,6	16,6	16,9	17,2	-1,5	-0,5
Euro12	17,5	18,2	18,2	17,7	17,3	17,3	17,7	17,7	-0,6	0,2

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

Table A.3.2\_G: Social contributions as % of GDP: Employees

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	4,6	4,5	4,4	4,4	4,4	4,4	4,5	4,4	-0,3	-0,1
DK	1,2	1,2	1,2	1,2	1,8	2,0	1,9	1,5	9,2	0,7
D	6,9	7,0	7,2	7,1	6,9	6,9	6,9	7,0	-0,3	-0,1
EL	4,3	4,4	4,5	4,5	4,5	4,5	4,4	4,4	0,5	0,1
E	1,9	2,0	1,9	2,0	1,9	2,0	2,0	2,0	0,6	0,1
F	5,8	5,9	5,5	4,0	4,0	4,0	4,1	4,8	-7,7	-1,8
IRL	1,9	1,8	1,5	1,4	1,5	1,5	1,5	1,6	-3,2	-0,3
I	2,5	2,6	2,7	2,5	2,4	2,3	2,4	2,5	-1,9	-0,1
L	4,5	4,4	4,2	4,2	4,5	4,6	5,1	4,5	1,9	0,6
NL	10,5	10,0	10,2	7,7	8,1	8,0	6,8	8,8	-7,1	-3,7
A	6,5	6,5	6,4	6,2	6,3	6,1	6,2	6,3	-1,0	-0,3
P	3,3	3,1	3,2	3,2	3,3	3,4	3,4	3,3	1,0	0,1
FIN	2,9	2,8	2,6	2,5	2,5	2,3	2,3	2,6	-3,7	-0,6
S	1,7	2,1	2,5	3,0	3,0	3,0	3,0	2,6	9,1	1,3
UK	2,6	2,5	2,7	2,7	2,5	2,6	2,6	2,6	-0,1	0,0
EU	4,9	4,8	4,7	4,3	4,2	4,2	4,1	4,5	-3,3	-0,8
Euro12	5,5	5,4	5,3	4,8	4,7	4,7	4,6	5,0	-3,4	-0,9
EU (arithmetic average)	4,1	4,1	4,1	3,8	3,8	3,8	3,8	3,9	-1,3	-0,3
Euro12 (arithmetic average)	4,6	4,6	4,5	4,1	4,2	4,2	4,1	4,3	-2,2	-0,5
Ratio st.dev. and mean in %	51,5	50,1	51,8	45,9	46,7	46,5	43,8			-7,7
Difference max. and min.	9,3	8,8	9,0	6,5	6,6	6,4	5,3			-3,9

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

Table A.3.2\_T: Social contributions as % of Total Taxation: Employees

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	10,1	9,9	9,6	9,5	9,5	9,6	9,8	9,7	-0,6	-0,3
DK	2,5	2,5	2,4	2,4	3,5	3,9	3,8	3,0	9,5	1,3
D	16,8	16,7	17,0	16,8	16,2	16,0	16,7	16,6	-0,9	-0,1
EL	13,2	13,3	13,1	12,3	12,1	11,7	12,1	12,6	-2,7	-1,1
E	5,8	5,9	5,6	5,8	5,5	5,6	5,7	5,7	-1,0	-0,1
F	13,2	13,2	12,2	8,8	8,8	8,9	9,0	10,6	-10,0	-4,3
IRL	5,6	5,3	4,7	4,3	4,7	4,8	4,9	4,9	-3,6	-0,7
I	6,1	6,1	6,0	5,7	5,5	5,5	5,5	5,8	-2,5	-0,6
L	10,6	10,3	10,2	10,4	11,0	11,2	12,1	10,8	1,4	1,5
NL	25,8	24,5	25,2	19,1	19,4	19,2	16,9	21,5	-7,0	-8,9
A	15,4	14,9	14,4	14,0	14,1	14,1	13,6	14,4	-1,7	-1,7
P	9,8	9,1	9,3	9,1	9,1	9,3	9,6	9,3	-0,9	-0,2
FIN	6,2	5,9	5,6	5,4	5,3	4,9	5,1	5,5	-4,5	-1,2
S	3,5	4,1	4,9	5,6	5,7	5,7	5,5	5,0	10,4	2,1
UK	7,3	7,2	7,5	7,3	6,9	6,8	6,8	7,1	-1,4	-0,5
EU	12,0	11,5	11,4	10,8	10,5	10,3	10,3	11,0	-3,0	-1,6
Euro12	12,7	12,3	12,2	11,5	11,3	11,1	11,0	11,7	-2,8	-1,7

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table A.3.3\_G: Social contributions as % of GDP: Self-employed**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	1,3	1,3	1,3	1,3	1,2	1,2	1,2	1,3	-1,6	-0,1
DK	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0
D	3,1	3,6	3,6	3,4	3,3	3,1	3,1	3,3	-1,3	0,0
EL	1,4	1,4	1,5	1,7	1,7	1,7	1,6	1,6	3,4	0,2
E	1,8	1,7	1,8	1,7	1,8	1,8	1,8	1,8	0,7	0,1
F	1,4	1,5	1,4	1,0	1,0	1,1	1,1	1,2	-6,4	-0,3
IRL	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	-3,9	0,0
I	1,9	1,8	1,7	1,3	1,4	1,4	1,4	1,5	-5,2	-0,5
L	1,6	1,5	1,4	1,3	1,3	1,2	1,3	1,4	-3,1	-0,2
NL	3,6	3,5	3,4	3,0	3,3	3,4	2,9	3,3	-2,6	-0,7
A	1,3	1,3	1,4	1,7	1,7	1,6	1,7	1,5	5,0	0,4
P	0,5	0,6	0,6	0,5	0,5	0,5	0,5	0,5	-0,6	0,0
FIN	1,6	1,4	1,3	1,1	1,0	0,9	0,9	1,2	-9,3	-0,7
S	0,3	0,3	0,3	0,2	0,2	0,2	0,3	0,3	-2,7	0,0
UK	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	-0,5	0,0
EU	1,8	1,9	1,8	1,6	1,6	1,6	1,5	1,7	-3,8	-0,3
Euro12	2,2	2,3	2,3	2,0	2,0	2,0	1,9	2,1	-2,9	-0,3
EU (arithmetic average)	1,3	1,4	1,3	1,2	1,3	1,2	1,2	1,3	-1,8	-0,1
Euro12 (arithmetic average)	1,6	1,6	1,6	1,5	1,5	1,5	1,5	1,6	-1,8	-0,1
Ratio st.dev. and mean in %	56,4	55,6	57,4	60,4	63,4	64,6	60,8			4,5
Difference max. and min.	3,6	3,6	3,6	3,4	3,3	3,4	3,1			-0,5

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table A.3.3\_T: Social contributions as % of Total Taxation: Self-employed**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	2,9	2,9	2,9	2,8	2,7	2,7	2,7	2,8	-1,9	-0,3
DK	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0
D	7,6	8,4	8,5	8,1	7,7	7,3	7,5	7,9	-1,5	-0,1
EL	4,3	4,2	4,3	4,7	4,5	4,3	4,4	4,4	0,8	0,2
E	5,3	5,1	5,1	5,0	5,2	5,0	5,1	5,1	-0,8	-0,2
F	3,1	3,3	3,2	2,3	2,3	2,3	2,3	2,7	-8,4	-0,8
IRL	0,6	0,6	0,7	0,7	0,6	0,6	0,5	0,6	-1,5	-0,1
I	4,5	4,2	3,8	2,9	3,2	3,4	3,3	3,6	-7,3	-1,2
L	3,7	3,4	3,4	3,2	3,2	2,9	3,2	3,3	-3,8	-0,5
NL	8,8	8,6	8,5	7,4	8,0	8,2	7,3	8,1	-2,0	-1,5
A	3,0	3,1	3,2	3,7	3,7	3,7	3,8	3,5	5,2	0,7
P	1,4	1,6	1,7	1,5	1,4	1,4	1,4	1,5	-1,9	0,0
FIN	3,4	2,9	2,8	2,3	2,2	2,0	2,0	2,5	-10,7	-1,4
S	0,6	0,6	0,5	0,5	0,4	0,4	0,5	0,5	-7,6	-0,1
UK	0,6	0,7	0,6	0,6	0,5	0,6	0,6	0,6	-3,3	0,0
EU	5,0	5,1	4,8	4,4	4,4	4,1	4,2	4,6	-4,4	-0,9
Euro12	5,9	6,1	5,9	5,5	5,4	5,2	5,2	5,6	-2,9	-0,7

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table B.1\_G: Taxes by level of government as % of GDP: Central Government**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	15,9	15,9	15,9	16,5	16,1	16,8	15,9	16,2	0,4	0,0
DK	32,1	32,6	32,4	32,4	33,0	30,2	30,6	31,9	-1,0	-1,5
D	11,3	11,0	10,9	11,1	11,8	12,1	11,4	11,4	1,0	0,1
EL	21,2	21,2	22,6	24,4	25,0	26,3	24,6	23,6	3,5	3,3
E	16,3	16,5	16,0	16,0	16,4	16,8	16,5	16,4	0,4	0,2
F	18,5	19,3	19,5	19,4	19,8	19,2	18,9	19,2	0,3	0,5
IRL	27,1	27,8	27,6	27,0	27,1	27,5	26,3	27,2	-0,5	-0,9
I	24,6	24,0	25,8	24,4	25,0	23,9	23,4	24,4	-0,7	-1,2
L	27,6	28,1	28,0	27,1	27,7	28,0	27,7	27,7	0,0	0,1
NL	22,1	22,9	22,7	22,6	23,3	23,1	23,4	22,9	0,8	1,3
A	20,5	21,6	22,6	22,8	22,7	22,3	24,2	22,4	2,0	3,7
P	20,5	21,3	21,2	21,4	22,2	22,4	22,1	21,6	1,3	1,6
FIN	21,8	23,0	23,8	24,0	24,2	25,9	23,8	23,8	1,8	2,0
S	29,1	30,7	31,2	33,1	32,7	30,9	31,6	31,3	1,1	2,5
UK	33,1	32,9	33,6	34,7	34,8	35,5	35,4	34,3	1,4	2,4
EU	19,9	20,3	21,1	21,3	21,8	21,9	21,5	21,1	1,5	1,6
Euro12	17,2	17,5	18,0	17,8	18,4	18,2	17,9	17,8	0,8	0,7
EU (arithmetic average)	22,8	23,3	23,6	23,8	24,1	24,1	23,7	23,6	0,8	0,9
Euro12 (arithmetic average)	20,6	21,1	21,4	21,4	21,8	22,0	21,5	21,4	0,8	0,9
Ratio st.dev. and mean in %	30,9	31,0	30,4	30,9	29,8	28,1	29,4			-1,5
Difference max. and min.	21,7	21,8	22,6	23,6	23,0	23,4	24,0			2,3

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table B.1\_T: Taxes by level of government as % of Total Taxation: Central Government**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	35,3	35,1	34,8	35,5	35,0	36,6	34,6	35,3	0,1	-0,7
DK	65,1	65,3	65,1	64,7	64,1	61,0	61,4	63,8	-1,1	-3,6
D	27,5	26,2	26,0	26,4	27,6	28,1	27,7	27,1	0,8	0,2
EL	65,1	64,4	65,8	67,0	67,4	68,4	66,8	66,4	1,1	1,7
E	48,8	48,8	46,7	46,4	46,8	47,0	46,4	47,3	-0,9	-2,3
F	42,0	42,8	43,0	42,9	43,4	42,3	41,7	42,6	0,2	-0,3
IRL	81,3	83,0	84,1	84,1	84,8	85,1	84,1	83,8	0,8	2,8
I	59,8	56,2	57,6	56,5	57,7	55,9	54,9	56,9	-0,8	-4,9
L	65,1	66,2	67,3	67,2	67,9	67,9	66,2	66,8	0,8	1,1
NL	54,5	56,2	55,9	56,1	56,0	55,8	58,6	56,1	0,3	4,2
A	48,4	49,2	50,6	51,2	51,1	51,3	53,0	50,7	1,2	4,7
P	61,0	61,8	61,2	61,4	61,7	61,5	61,5	61,4	0,1	0,5
FIN	47,2	48,5	50,9	51,6	51,5	53,9	51,7	50,7	2,5	4,6
S	59,2	59,3	59,9	61,7	61,7	58,9	58,5	59,9	0,4	-0,8
UK	93,4	93,7	94,2	94,2	94,4	94,3	94,4	94,1	0,2	0,9
EU	49,9	49,7	51,8	52,5	53,4	54,2	54,3	52,3	1,9	4,4
Euro12	39,3	39,1	39,9	39,8	40,7	40,8	41,0	40,1	0,9	1,6

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table B.2\_G: Taxes by level of government as % of GDP: State Government**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	10,3	10,4	10,6	10,8	10,9	10,5	11,1	10,7	1,0	0,9
DK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
D	8,7	9,3	9,1	9,2	9,5	9,7	8,9	9,2	0,8	0,3
EL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
E	1,6	1,6	2,4	2,6	2,7	2,8	2,7	2,3	10,3	1,1
F	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
IRL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
I	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
L	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
NL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
A	3,4	3,7	3,4	3,4	3,4	3,3	3,4	3,4	-0,9	-0,1
P	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
FIN	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
S	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
UK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
EU	3,0	3,0	2,9	2,9	2,9	2,8	2,6	2,9	-1,8	-0,4
Euro12	3,7	3,7	3,6	3,7	3,7	3,7	3,4	3,6	-0,8	-0,2
EU (arithmetic average)	6,0	6,2	6,4	6,5	6,6	6,6	6,5	6,4	1,5	0,6
Euro12 (arithmetic average)	6,0	6,2	6,4	6,5	6,6	6,6	6,5	6,4	1,5	0,6
Ratio st.dev. and mean in %	137,9	141,5	142,0	143,1	143,8	144,7	157,1			19,2
Difference max. and min.	8,7	8,9	8,2	8,2	8,2	7,7	8,4			-0,3

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table B.2\_T: Taxes by level of government as % of Total Taxation: State Government**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	22,7	23,0	23,2	23,3	23,7	22,8	24,2	23,3	0,7	1,5
DK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
D	21,0	22,0	21,6	21,9	22,2	22,5	21,7	21,8	1,1	0,7
EL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
E	4,7	4,6	7,1	7,6	7,7	7,7	7,6	6,7	11,7	2,9
F	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
IRL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
I	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
L	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
NL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
A	8,1	8,3	7,5	7,6	7,6	7,6	7,4	7,7	-1,7	-0,7
P	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
FIN	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
S	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
UK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
EU	9,6	9,5	8,9	8,9	8,9	8,7	8,3	9,0	-1,8	-1,3
Euro12	10,6	10,5	10,2	10,4	10,5	10,4	9,8	10,3	-0,2	-0,8

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table B.3\_G: Taxes by level of government as % of GDP: Local Government**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	2,2	2,3	2,3	2,2	2,2	1,9	2,1	2,2	-1,8	-0,1
DK	15,5	15,5	15,6	15,9	16,1	16,2	16,8	16,0	1,3	1,4
D	2,6	2,7	2,7	2,9	3,0	3,0	2,8	2,8	1,8	0,2
EL	0,3	0,3	0,3	0,3	0,3	0,3	0,4	0,3	1,4	0,1
E	2,9	2,9	3,0	3,2	3,2	3,2	3,1	3,1	1,7	0,2
F	4,6	4,8	4,7	4,7	4,7	4,3	4,3	4,6	-1,4	-0,3
IRL	0,9	0,8	0,8	0,7	0,7	0,6	0,6	0,7	-5,8	-0,2
I	3,2	3,5	3,5	5,8	5,4	6,0	6,3	4,8	12,6	3,1
L	2,7	2,8	2,5	2,5	2,3	2,4	2,4	2,5	-2,9	-0,3
NL	1,3	1,4	1,4	1,4	1,4	1,4	1,4	1,4	1,2	0,1
A	5,1	5,3	5,3	5,2	5,2	5,1	5,2	5,2	-0,1	0,2
P	1,7	1,8	1,8	1,9	2,2	2,2	2,2	2,0	4,3	0,4
FIN	10,2	10,8	10,1	10,1	10,2	10,4	10,2	10,3	-0,3	-0,1
S	14,8	15,8	15,5	15,2	15,2	15,4	15,9	15,4	0,5	1,0
UK	1,3	1,3	1,3	1,4	1,4	1,5	1,5	1,4	2,9	0,2
EU	3,6	3,7	3,6	4,0	3,9	3,9	3,9	3,8	1,6	0,3
Euro12	3,2	3,4	3,4	3,8	3,8	3,8	3,8	3,6	3,0	0,6
EU (arithmetic average)	4,6	4,8	4,7	4,9	4,9	4,9	5,0	4,8	1,2	0,4
Euro12 (arithmetic average)	3,1	3,3	3,2	3,4	3,4	3,4	3,4	3,3	1,3	0,3
Ratio st.dev. and mean in %	137,6	136,7	137,2	125,6	128,2	130,0	134,4			-3,2
Difference max. and min.	15,2	15,5	15,3	15,6	15,8	15,9	16,5			1,3

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table B.3\_T: Taxes by level of government as % of Total Taxation: Local Government**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	4,9	5,0	5,0	4,7	4,8	4,2	4,6	4,7	-2,1	-0,3
DK	31,4	31,1	31,3	31,8	31,3	32,7	33,8	31,9	0,7	2,4
D	6,3	6,4	6,5	6,9	7,0	7,0	6,8	6,7	2,3	0,5
EL	0,9	1,0	1,0	0,9	0,9	0,9	1,0	0,9	-2,8	0,0
E	8,7	8,5	8,8	9,2	9,2	9,0	8,8	8,9	1,2	0,1
F	10,4	10,6	10,4	10,4	10,2	9,6	9,4	10,1	-1,5	-1,0
IRL	2,6	2,5	2,4	2,3	2,1	2,0	2,1	2,3	-5,6	-0,6
I	7,8	8,2	7,9	13,3	12,4	13,9	14,9	11,2	13,4	7,1
L	6,4	6,5	6,1	6,1	5,7	5,8	5,6	6,0	-2,6	-0,7
NL	3,2	3,4	3,5	3,5	3,4	3,4	3,6	3,4	0,8	0,4
A	12,0	12,1	11,9	11,7	11,7	11,6	11,5	11,8	-0,7	-0,5
P	5,2	5,2	5,2	5,6	6,0	6,0	6,0	5,6	3,5	0,8
FIN	22,2	22,7	21,6	21,7	21,6	21,6	22,1	21,9	-0,8	0,0
S	30,2	30,5	29,8	28,3	28,7	29,3	29,3	29,4	-1,1	-0,8
UK	3,7	3,8	3,8	3,8	3,9	3,9	4,1	3,8	1,3	0,4
EU	7,7	8,0	7,8	8,8	8,7	8,9	9,0	8,4	3,2	1,4
Euro12	6,9	7,1	7,1	8,6	8,4	8,7	8,9	7,9	5,4	2,0

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table B.4\_G: Taxes by level of government as % of GDP: Social security funds**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	15,6	15,7	15,9	16,0	15,9	15,8	15,9	15,8	0,2	0,3
DK	1,5	1,6	1,6	1,6	2,1	2,3	2,2	1,8	7,8	0,7
D	17,7	18,3	18,5	18,2	17,9	17,6	17,5	18,0	-0,6	-0,2
EL	10,3	10,6	10,7	11,0	11,1	11,2	11,2	10,9	1,5	1,0
E	11,9	12,1	12,1	12,0	12,1	12,3	12,6	12,2	0,8	0,7
F	20,1	20,3	20,3	20,4	20,6	21,2	21,6	20,6	1,1	1,5
IRL	4,2	3,9	3,7	3,5	3,5	3,5	3,7	3,7	-2,3	-0,5
I	12,7	14,6	14,9	12,5	12,4	12,4	12,3	13,1	-2,2	-0,3
L	11,1	10,8	10,2	10,0	10,1	10,2	11,2	10,5	-0,2	0,1
NL	16,0	15,5	15,5	15,3	16,0	16,0	14,2	15,5	-0,9	-1,8
A	12,4	12,4	12,5	12,3	12,3	12,1	12,1	12,3	-0,5	-0,3
P	10,4	10,6	10,9	10,9	11,0	11,2	11,1	10,9	1,1	0,7
FIN	13,5	13,0	12,2	11,9	12,1	11,2	11,5	12,2	-2,8	-2,0
S	4,5	4,7	4,7	4,7	4,5	5,6	6,0	5,0	4,3	1,5
UK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
EU	13,4	13,7	13,3	12,7	12,6	12,4	12,4	12,9	-1,7	-1,0
Euro12	16,2	16,6	16,7	16,0	16,0	15,9	15,8	16,2	-0,7	-0,3
EU (arithmetic average)	11,6	11,7	11,7	11,4	11,5	11,6	11,7	11,6	0,0	0,1
Euro12 (arithmetic average)	13,0	13,2	13,1	12,8	12,9	12,9	12,9	13,0	-0,3	-0,1
Ratio st.dev. and mean in %	39,3	39,3	40,9	42,0	42,2	42,1	41,3			2,0
Difference max. and min.	18,6	18,7	18,8	18,8	18,5	18,9	19,4			0,8

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table B.4\_T: Taxes by level of government as % of Total Taxation: Social security funds**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	34,6	34,7	34,8	34,4	34,5	34,3	34,5	34,5	-0,1	-0,1
DK	3,1	3,1	3,1	3,1	4,2	4,6	4,4	3,7	8,1	1,3
D	43,0	43,5	44,1	43,2	41,8	41,0	42,5	42,7	-1,1	-0,5
EL	31,4	32,2	31,2	30,2	29,9	29,1	30,5	30,6	-1,8	-0,9
E	35,6	35,8	35,3	34,9	34,4	34,6	35,4	35,1	-0,8	-0,2
F	45,7	45,0	45,0	45,3	45,2	46,7	47,5	45,8	0,4	1,8
IRL	12,6	11,7	11,2	10,9	10,9	10,9	11,9	11,4	-2,8	-0,7
I	30,8	34,2	33,4	28,8	28,6	28,9	28,9	30,5	-2,8	-1,8
L	26,2	25,4	24,6	24,9	24,8	24,8	26,8	25,3	-0,9	0,7
NL	39,5	37,9	38,0	38,0	38,5	38,6	35,6	38,0	-0,2	-3,9
A	29,3	28,3	27,9	27,7	27,8	27,7	26,5	27,9	-0,9	-2,8
P	31,0	30,8	31,4	31,1	30,5	30,8	30,8	30,9	-0,2	-0,1
FIN	29,1	27,4	26,2	25,5	25,7	23,4	25,0	26,0	-3,7	-4,1
S	9,2	9,0	9,0	8,8	8,5	10,7	11,1	9,5	1,6	1,9
UK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			
EU	30,6	30,9	29,7	28,0	27,4	26,6	26,9	28,6	-3,2	-3,7
Euro12	35,5	36,1	35,9	34,3	33,6	33,2	33,5	34,6	-1,7	-2,0

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table B.5\_G: Taxes by level of government as % of GDP: EC Institutions**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	1,1	1,0	1,0	1,0	0,9	1,0	1,0	1,0	-1,9	-0,1
DK	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	-2,2	0,0
D	0,9	0,8	0,8	0,7	0,6	0,7	0,6	0,7	-7,6	-0,4
EL	0,8	0,8	0,7	0,7	0,7	0,6	0,7	0,7	-3,8	-0,2
E	0,8	0,7	0,7	0,7	0,7	0,6	0,6	0,7	-3,1	-0,1
F	0,8	0,7	0,7	0,6	0,6	0,6	0,6	0,7	-4,8	-0,2
IRL	1,2	0,9	0,8	0,9	0,7	0,7	0,7	0,8	-8,8	-0,5
I	0,7	0,6	0,5	0,6	0,5	0,5	0,5	0,6	-4,0	-0,1
L	1,0	0,8	0,8	0,7	0,6	0,6	0,6	0,7	-9,4	-0,5
NL	1,1	1,0	1,0	1,0	0,9	0,9	0,9	1,0	-4,3	-0,3
A	1,0	0,9	1,0	0,8	0,8	0,7	0,7	0,8	-5,5	-0,2
P	1,0	0,7	0,7	0,7	0,6	0,6	0,6	0,7	-6,7	-0,4
FIN	0,7	0,7	0,6	0,6	0,6	0,5	0,5	0,6	-5,7	-0,2
S	0,7	0,7	0,7	0,7	0,6	0,6	0,6	0,6	-3,3	-0,1
UK	1,0	0,9	0,7	0,7	0,7	0,7	0,6	0,8	-8,6	-0,5
EU	0,9	0,8	0,7	0,7	0,6	0,6	0,6	0,7	-6,0	-0,3
Euro12	0,9	0,8	0,7	0,7	0,6	0,6	0,6	0,7	-5,6	-0,3
EU (arithmetic average)	0,9	0,8	0,7	0,7	0,6	0,6	0,6	0,7	-5,5	-0,3
Euro12 (arithmetic average)	0,9	0,8	0,8	0,7	0,7	0,7	0,7	0,8	-5,4	-0,3
Ratio st.dev. and mean in %	27,5	25,6	28,5	27,6	27,9	26,9	28,5			1,0
Difference max. and min.	0,9	0,8	0,8	0,8	0,7	0,8	0,8			-0,1

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table B.5\_T: Taxes by level of government as % of Total Taxation: EC Institutions**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	2,4	2,2	2,2	2,1	2,0	2,1	2,1	2,2	-2,2	-0,3
DK	0,5	0,4	0,4	0,4	0,4	0,4	0,4	0,4	-1,3	-0,1
D	2,3	1,9	1,8	1,6	1,4	1,5	1,4	1,7	-8,9	-0,9
EL	2,6	2,4	2,0	1,9	1,9	1,7	1,8	2,0	-8,1	-0,8
E	2,2	2,2	2,1	1,9	1,9	1,8	1,8	2,0	-4,6	-0,5
F	1,9	1,5	1,5	1,4	1,3	1,4	1,3	1,5	-6,7	-0,6
IRL	3,5	2,8	2,3	2,7	2,2	2,0	2,1	2,5	-9,1	-1,4
I	1,6	1,5	1,1	1,3	1,1	1,2	1,3	1,3	-6,4	-0,3
L	2,4	1,9	2,0	1,8	1,5	1,5	1,3	1,8	-9,0	-1,1
NL	2,8	2,5	2,6	2,4	2,2	2,2	2,1	2,4	-4,8	-0,7
A	2,3	2,1	2,1	1,7	1,7	1,7	1,6	1,9	-6,5	-0,7
P	2,9	2,1	2,1	2,0	1,7	1,7	1,7	2,0	-9,4	-1,2
FIN	1,5	1,4	1,4	1,2	1,2	1,1	1,1	1,3	-6,8	-0,4
S	1,4	1,3	1,4	1,2	1,1	1,1	1,1	1,2	-5,1	-0,3
UK	2,9	2,5	2,0	2,0	1,8	1,8	1,5	2,1	-10,1	-1,4
EU	2,2	2,0	1,8	1,7	1,5	1,6	1,5	1,8	-7,4	-0,7
Euro12	2,0	1,8	1,6	1,5	1,4	1,4	1,4	1,6	-7,3	-0,6

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services



**Table C.1\_G: Taxes on Consumption as % of GDP: Total**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	10,9	11,3	11,3	11,2	11,5	11,4	11,0	11,2	0,2	0,1
DK	15,6	15,9	16,0	16,4	16,5	15,9	15,8	16,0	0,2	0,2
D	10,6	10,4	10,2	10,3	10,7	10,7	10,7	10,5	0,4	0,1
EL	14,1	14,2	13,8	14,1	14,2	14,7	15,4	14,4	1,3	1,4
E	9,0	9,1	9,3	9,8	10,3	10,3	10,0	9,7	2,4	1,0
F	12,8	13,2	12,9	12,9	12,8	12,3	12,1	12,7	-1,0	-0,6
IRL	13,1	13,0	12,7	12,5	12,2	12,3	12,0	12,5	-1,5	-1,1
I	10,5	10,1	10,4	10,7	11,0	11,0	10,4	10,6	0,7	-0,1
L	11,5	11,2	11,2	11,0	11,5	11,4	11,2	11,3	-0,1	-0,3
NL	10,9	11,3	11,4	11,4	11,8	11,8	12,2	11,5	1,6	1,2
A	11,5	12,6	12,7	12,5	12,7	12,4	12,4	12,4	0,6	0,8
P	12,6	12,7	12,4	12,6	12,6	12,4	12,2	12,5	-0,4	-0,4
FIN	13,8	13,8	14,5	14,1	14,4	13,8	13,4	14,0	-0,3	-0,3
S	13,6	13,3	13,2	13,3	13,2	12,8	12,8	13,2	-0,9	-0,8
UK	13,4	13,4	13,5	13,4	13,6	13,5	13,3	13,4	0,0	-0,1
EU	11,6	11,6	11,7	11,7	12,0	11,8	11,6	11,7	0,2	0,0
Euro12	11,2	11,2	11,2	11,2	11,5	11,3	11,2	11,2	0,2	0,0
EU (arithmetic average)	12,3	12,4	12,4	12,4	12,6	12,4	12,3	12,4	0,2	0,1
Euro12 (arithmetic average)	11,8	11,9	11,9	11,9	12,1	12,0	11,9	11,9	0,3	0,2
Ratio st.dev. and mean in %	15,0	15,4	15,1	15,0	13,6	12,9	14,4			-0,6
Difference max. and min.	6,6	6,9	6,7	6,7	6,2	5,6	5,8			-0,8

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.1\_T: Taxes on Consumption as % of Total Taxation: Total**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	24,2	24,9	24,7	24,1	25,0	24,8	24,0	24,5	-0,1	-0,2
DK	31,6	32,0	32,1	32,8	32,0	32,0	31,6	32,0	0,2	0,0
D	25,7	24,6	24,3	24,4	25,0	24,9	25,9	25,0	-0,3	0,2
EL	43,1	43,2	40,2	38,9	38,2	38,2	41,9	40,5	-2,9	-1,2
E	26,8	26,9	27,2	28,4	29,2	28,8	28,0	27,9	1,9	1,2
F	29,0	29,2	28,6	28,5	28,1	27,1	26,7	28,2	-1,3	-2,3
IRL	39,2	38,9	38,7	38,8	38,1	38,1	38,5	38,6	-0,6	-0,8
I	25,5	23,7	23,3	24,9	25,4	25,8	24,4	24,7	0,9	-1,1
L	27,0	26,5	27,1	27,3	28,1	27,5	26,8	27,2	0,8	-0,3
NL	27,0	27,6	28,0	28,3	28,3	28,4	30,5	28,3	1,0	3,5
A	27,1	28,8	28,4	28,1	28,6	28,4	27,1	28,1	0,6	0,0
P	37,4	36,8	35,7	36,1	35,1	34,1	33,9	35,6	-1,7	-3,4
FIN	29,7	29,1	30,9	30,3	30,6	28,7	29,2	29,8	-0,2	-0,5
S	27,7	25,6	25,4	24,8	24,9	24,3	23,7	25,2	-2,2	-4,0
UK	38,0	38,1	37,8	36,3	37,0	35,9	35,5	36,9	-1,2	-2,5
EU	28,1	27,4	27,6	27,8	28,4	28,3	28,3	28,0	0,5	0,2
Euro12	24,9	24,2	24,0	24,6	25,1	25,1	25,2	24,7	0,5	0,3

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.2\_G: Taxes on Labour as % of GDP: Total**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	25,1	24,8	24,9	25,0	24,7	24,7	25,2	24,9	0,0	0,1
DK	28,0	28,1	27,7	27,1	27,7	27,6	27,7	27,7	-0,2	-0,3
D	24,9	25,2	25,3	25,0	24,8	24,8	24,6	24,9	-0,3	-0,3
EL	11,8	12,3	12,8	13,5	13,5	13,3	13,0	12,9	1,8	1,2
E	16,7	16,9	16,5	16,3	15,9	16,2	16,6	16,4	-0,6	-0,2
F	23,0	23,2	23,2	22,9	23,2	23,1	23,2	23,1	0,1	0,2
IRL	13,6	13,2	12,8	12,1	11,7	11,8	11,4	12,4	-3,1	-2,3
I	18,6	20,2	21,1	21,0	20,6	20,2	20,6	20,3	1,0	2,0
L	16,8	16,7	16,1	15,1	15,5	15,7	16,6	16,1	-0,7	-0,2
NL	22,1	21,1	20,5	20,1	20,7	20,7	18,9	20,6	-1,8	-3,3
A	24,2	24,1	24,7	24,4	24,6	24,0	24,3	24,3	0,0	0,1
P	14,1	14,2	14,3	14,2	14,4	14,8	15,1	14,4	1,1	1,0
FIN	26,5	27,1	25,0	24,4	24,4	24,1	24,4	25,1	-1,8	-2,1
S	31,2	32,2	32,4	33,6	32,7	32,1	33,1	32,5	0,7	1,9
UK	14,2	13,6	13,4	14,1	14,0	14,6	14,7	14,1	1,0	0,5
EU	21,5	21,6	21,3	21,2	20,9	20,8	20,7	21,1	-0,7	-0,8
Euro12	22,2	22,4	22,4	22,1	22,0	21,8	21,6	22,1	-0,5	-0,5
EU (arithmetic average)	20,7	20,9	20,7	20,6	20,6	20,5	20,6	20,7	-0,2	-0,1
Euro12 (arithmetic average)	19,8	19,9	19,8	19,5	19,5	19,5	19,5	19,6	-0,4	-0,3
Ratio st.dev. and mean in %	27,9	28,5	28,7	29,3	29,4	28,5	29,5			1,6
Difference max. and min.	19,3	19,9	19,6	21,4	21,0	20,4	21,7			2,4

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.2\_T: Taxes on Labour as % of Total Taxation: Total**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	55,6	54,6	54,5	53,9	53,6	53,8	54,8	54,4	-0,3	-0,8
DK	56,8	56,3	55,7	54,0	53,9	55,7	55,7	55,4	-0,7	-1,1
D	60,3	59,7	60,3	59,5	58,0	57,8	59,6	59,3	-0,9	-0,7
EL	36,2	37,2	37,4	37,2	36,2	34,6	35,4	36,3	-0,9	-0,8
E	50,0	50,1	48,2	47,2	45,2	45,3	46,5	47,5	-2,3	-3,5
F	52,2	51,5	51,3	50,8	50,7	51,0	51,0	51,2	-0,5	-1,2
IRL	40,8	39,6	39,0	37,8	36,7	36,5	36,3	38,1	-2,3	-4,4
I	45,1	47,2	47,3	48,5	47,7	47,4	48,3	47,4	0,9	3,1
L	39,7	39,3	38,7	37,5	38,0	38,1	39,7	38,7	-1,0	0,0
NL	54,5	51,8	50,3	49,8	49,7	49,9	47,2	50,4	-1,7	-7,4
A	56,9	54,8	55,3	54,9	55,5	55,1	53,2	55,1	-0,4	-3,7
P	41,8	41,3	41,3	40,7	40,0	40,8	42,0	41,1	-0,7	0,1
FIN	57,3	57,1	53,5	52,4	51,8	50,3	53,0	53,6	-2,7	-4,3
S	63,4	62,0	62,2	62,6	61,8	61,2	61,1	62,1	-0,5	-2,3
UK	40,1	38,9	37,6	38,3	37,9	38,7	39,1	38,7	-0,7	-1,0
EU	52,9	52,3	51,3	51,1	50,1	49,8	50,4	51,1	-1,3	-2,6
Euro12	51,5	51,2	50,8	50,5	49,5	49,2	49,9	50,4	-1,0	-1,7

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

Table C.2.1\_G: Taxes on Labour as % of GDP: Employed

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	23,0	22,6	22,7	22,8	22,6	22,7	23,0	22,8	0,0	0,0
DK	21,8	22,0	22,2	21,8	22,6	22,6	22,8	22,3	0,7	1,0
D	21,9	21,8	21,9	21,8	21,6	21,8	21,6	21,8	-0,2	-0,3
EL	11,1	11,4	11,8	12,4	12,4	12,2	12,0	11,9	1,5	0,9
E	14,4	14,7	14,4	14,3	14,1	14,4	14,7	14,4	0,0	0,3
F	22,5	22,8	22,7	22,6	22,9	22,9	22,9	22,8	0,2	0,4
IRL	13,5	13,1	12,6	12,0	11,6	11,7	11,3	12,3	-3,0	-2,2
I	16,7	18,2	19,1	18,8	18,4	18,1	18,3	18,2	0,8	1,7
L	15,9	15,9	15,3	14,4	14,7	15,0	15,8	15,3	-0,6	-0,1
NL	17,8	17,2	16,8	17,1	17,5	17,5	16,3	17,2	-0,7	-1,5
A	22,2	21,9	22,4	22,1	22,2	21,6	21,8	22,0	-0,3	-0,4
P	13,7	13,8	13,9	13,8	14,0	14,4	14,7	14,0	1,1	1,0
FIN	22,3	22,9	21,4	21,3	21,4	21,2	21,5	21,7	-1,0	-0,8
S	26,4	27,8	28,1	29,3	28,7	28,3	29,2	28,2	1,3	2,8
UK	14,0	13,5	13,2	13,9	13,8	14,4	14,5	13,9	1,0	0,5
EU	19,4	19,5	19,3	19,3	19,1	19,1	19,0	19,2	-0,5	-0,4
Euro12	20,0	20,2	20,2	20,0	19,9	19,8	19,7	20,0	-0,3	-0,3
EU (arithmetic average)	18,5	18,6	18,6	18,6	18,6	18,6	18,7	18,6	0,1	0,2
Euro12 (arithmetic average)	17,9	18,0	17,9	17,8	17,8	17,8	17,8	17,9	-0,2	-0,1
Ratio st.dev. and mean in %	23,8	24,7	25,3	26,0	26,2	25,3	26,4			2,6
Difference max. and min.	15,3	16,4	16,2	17,2	17,0	16,6	17,9			2,6

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

Table C.2.1\_T: Taxes on Labour as % of Total Taxation: Employed

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	50,9	49,9	49,7	49,2	49,1	49,2	50,0	49,7	-0,3	-1,0
DK	44,2	44,1	44,6	43,5	43,8	45,7	45,7	44,5	0,3	1,5
D	53,0	51,7	52,1	51,7	50,5	50,8	52,4	51,7	-0,8	-0,6
EL	34,0	34,5	34,5	34,2	33,2	31,8	32,6	33,6	-1,3	-1,4
E	43,1	43,5	42,2	41,6	40,0	40,3	41,4	41,7	-1,7	-1,8
F	51,2	50,6	50,2	50,2	50,1	50,4	50,5	50,4	-0,3	-0,7
IRL	40,3	39,2	38,6	37,5	36,4	36,2	36,1	37,8	-2,2	-4,2
I	40,5	42,6	42,6	43,4	42,5	42,3	43,0	42,4	0,6	2,5
L	37,6	37,4	36,8	35,7	36,1	36,4	37,8	36,8	-0,8	0,2
NL	44,0	42,2	41,3	42,3	42,1	42,3	40,8	42,1	-0,5	-3,2
A	52,2	50,0	50,2	49,6	50,0	49,7	47,8	49,9	-0,7	-4,4
P	40,7	40,2	40,1	39,6	38,9	39,6	40,8	40,0	-0,7	0,1
FIN	48,3	48,4	45,8	45,6	45,5	44,1	46,7	46,4	-1,8	-1,5
S	53,7	53,5	53,9	54,6	54,1	53,9	53,9	54,0	0,2	0,2
UK	39,6	38,4	37,1	37,8	37,5	38,3	38,6	38,2	-0,6	-1,0
EU	47,1	46,4	45,8	45,7	44,9	44,9	45,5	45,8	-1,0	-1,6
Euro12	45,2	44,8	44,6	44,5	43,5	43,5	44,2	44,3	-0,8	-1,0

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.2.1.1\_G: Taxes on Labour as % of GDP: Employed paid by employers**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	8,9	8,8	8,8	8,8	8,8	8,5	8,6	8,7	-0,5	-0,2
DK	0,8	0,8	0,9	1,0	0,9	0,8	0,9	0,9	1,6	0,1
D	7,7	7,7	7,8	7,7	7,7	7,6	7,5	7,7	-0,4	-0,2
EL	4,8	5,0	5,2	5,3	5,2	5,3	5,3	5,1	1,5	0,5
E	8,3	8,5	8,5	8,4	8,5	8,7	8,9	8,5	0,8	0,5
F	12,7	12,6	12,6	12,4	12,5	12,3	12,4	12,5	-0,4	-0,3
IRL	2,9	2,7	2,6	2,6	2,6	2,6	2,8	2,7	-0,4	-0,1
I	8,8	10,3	11,0	10,6	10,1	10,1	10,2	10,1	1,1	1,4
L	5,2	5,1	4,8	4,7	4,6	4,7	5,2	4,9	-0,8	0,0
NL	2,0	1,9	1,8	4,6	4,6	4,6	4,6	3,4	18,6	2,6
A	10,2	10,0	10,0	9,8	9,8	9,6	9,6	9,9	-1,0	-0,6
P	6,4	6,6	6,8	6,8	6,8	7,0	7,1	6,8	1,6	0,7
FIN	10,1	9,8	9,3	9,3	9,5	8,9	9,2	9,5	-1,6	-0,9
S	12,7	13,7	13,3	13,7	13,8	13,6	14,4	13,6	1,4	1,6
UK	3,4	3,4	3,4	3,4	3,4	3,6	3,6	3,4	1,2	0,2
EU	8,0	8,2	8,1	8,1	8,0	7,9	8,0	8,0	-0,3	0,0
Euro12	8,7	9,0	9,1	9,1	9,0	8,9	8,9	9,0	0,1	0,2
EU (arithmetic average)	7,0	7,1	7,1	7,3	7,2	7,2	7,4	7,2	0,7	0,4
Euro12 (arithmetic average)	7,3	7,4	7,4	7,6	7,6	7,5	7,6	7,5	0,5	0,3
Ratio st.dev. and mean in %	47,0	47,6	47,9	44,8	46,0	45,4	46,1			-0,9
Difference max. and min.	12,0	12,9	12,5	12,7	12,9	12,9	13,5			1,5

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.2.1.1\_T: Taxes on Labour as % of Total Taxation: Employed paid by employers**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	19,7	19,4	19,2	19,0	19,0	18,5	18,8	19,1	-0,9	-0,9
DK	1,6	1,6	1,8	2,0	1,8	1,6	1,8	1,7	1,6	0,2
D	18,6	18,4	18,6	18,3	17,9	17,7	18,3	18,3	-1,0	-0,3
EL	14,6	15,2	15,1	14,6	13,9	13,7	14,4	14,5	-1,8	-0,2
E	24,9	25,2	24,9	24,4	24,1	24,3	24,9	24,7	-0,8	-0,1
F	28,8	28,0	27,9	27,4	27,3	27,2	27,3	27,7	-1,1	-1,5
IRL	8,7	8,0	7,9	8,1	8,1	8,2	9,0	8,3	-0,7	0,3
I	21,3	24,1	24,5	24,6	23,3	23,6	23,8	23,6	1,2	2,5
L	12,2	12,1	11,6	11,8	11,3	11,4	12,3	11,8	-1,5	0,1
NL	4,8	4,8	4,4	11,4	11,0	11,2	11,4	8,4	21,9	6,6
A	24,0	22,8	22,5	22,1	22,2	22,2	21,1	22,4	-1,4	-2,9
P	19,2	19,1	19,6	19,6	19,0	19,2	19,9	19,4	0,0	0,7
FIN	21,9	20,7	19,9	19,9	20,3	18,6	20,1	20,2	-2,5	-1,8
S	25,9	26,3	25,6	25,5	26,0	26,0	26,6	26,0	-0,1	0,6
UK	9,5	9,6	9,4	9,3	9,1	9,5	9,6	9,4	-0,4	0,1
EU	17,9	18,4	18,2	18,3	17,8	17,7	18,0	18,0	-0,5	0,1
Euro12	17,8	18,5	18,7	19,0	18,4	18,4	18,8	18,5	0,4	1,0

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.2.1.2\_G: Taxes on Labour as % of GDP: Employed paid by employees**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	14,1	13,8	14,0	14,0	13,8	14,1	14,4	14,0	0,3	0,3
DK	21,0	21,2	21,3	20,8	21,6	21,8	21,9	21,4	0,7	0,9
D	14,2	14,0	14,1	14,1	14,0	14,2	14,0	14,1	0,0	-0,1
EL	6,3	6,3	6,7	7,1	7,2	7,0	6,7	6,8	1,6	0,4
E	6,1	6,2	5,9	5,9	5,6	5,7	5,9	5,9	-1,2	-0,2
F	9,8	10,2	10,1	10,3	10,4	10,5	10,5	10,3	1,1	0,7
IRL	10,6	10,4	10,1	9,4	9,0	9,1	8,4	9,6	-3,8	-2,1
I	7,9	7,9	8,1	8,1	8,3	8,0	8,2	8,1	0,5	0,3
L	10,7	10,7	10,5	9,6	10,1	10,3	10,7	10,4	-0,5	-0,1
NL	15,9	15,3	15,0	12,4	12,9	12,9	11,7	13,7	-5,0	-4,1
A	12,0	11,9	12,4	12,2	12,3	12,0	12,2	12,2	0,2	0,2
P	7,2	7,2	7,1	7,0	7,1	7,4	7,5	7,2	0,6	0,3
FIN	12,2	13,1	12,1	12,0	11,8	12,3	12,3	12,3	-0,5	0,1
S	13,6	14,1	14,7	15,6	14,9	14,7	14,8	14,6	1,2	1,2
UK	10,7	10,1	9,9	10,5	10,5	10,8	10,9	10,5	0,9	0,2
EU	11,5	11,3	11,2	11,1	11,1	11,1	11,0	11,2	-0,5	-0,4
Euro12	11,3	11,2	11,1	10,9	10,9	10,9	10,8	11,0	-0,7	-0,5
EU (arithmetic average)	11,5	11,5	11,5	11,3	11,3	11,4	11,3	11,4	-0,3	-0,2
Euro12 (arithmetic average)	10,6	10,6	10,5	10,2	10,2	10,3	10,2	10,4	-0,7	-0,4
Ratio st.dev. and mean in %	34,7	35,2	36,0	34,7	35,8	36,0	36,5			1,9
Difference max. and min.	14,9	15,0	15,4	14,9	16,0	16,1	16,0			1,1

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.2.1.2\_T: Taxes on Labour as % of Total Taxation: Employed paid by employees**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	31,2	30,5	30,5	30,1	30,0	30,7	31,2	30,6	0,0	-0,1
DK	42,6	42,5	42,8	41,5	42,0	44,1	44,0	42,8	0,3	1,3
D	34,3	33,3	33,6	33,4	32,7	33,1	34,1	33,5	-0,7	-0,2
EL	19,4	19,2	19,4	19,5	19,3	18,1	18,2	19,0	-0,9	-1,2
E	18,2	18,3	17,3	17,2	16,0	16,0	16,5	17,1	-3,0	-1,7
F	22,4	22,6	22,3	22,8	22,8	23,2	23,2	22,7	0,7	0,8
IRL	31,6	31,2	30,7	29,4	28,3	28,1	27,0	29,5	-2,7	-4,6
I	19,2	18,5	18,1	18,8	19,2	18,7	19,2	18,8	0,0	0,0
L	25,3	25,3	25,3	23,9	24,8	25,0	25,5	25,0	-0,5	0,1
NL	39,1	37,4	36,9	30,8	31,1	31,1	29,4	33,7	-5,4	-9,8
A	28,2	27,2	27,8	27,5	27,8	27,6	26,7	27,5	-0,2	-1,5
P	21,5	21,0	20,6	20,0	19,9	20,4	20,9	20,6	-1,4	-0,7
FIN	26,4	27,6	25,9	25,7	25,2	25,6	26,7	26,2	-1,3	0,3
S	27,7	27,2	28,3	29,1	28,1	27,9	27,4	28,0	0,4	-0,4
UK	30,1	28,8	27,7	28,5	28,4	28,8	29,0	28,8	-0,7	-1,1
EU	29,2	28,0	27,6	27,5	27,1	27,3	27,5	27,7	-1,3	-1,8
Euro12	27,4	26,3	25,9	25,5	25,1	25,1	25,4	25,8	-1,6	-2,0

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.2.2\_G: Taxes on Labour as % of GDP: Non-employed**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	2,1	2,1	2,2	2,2	2,1	2,1	2,2	2,1	0,2	0,1
DK	6,2	6,1	5,5	5,3	5,2	5,0	5,0	5,5	-4,1	-1,2
D	3,0	3,4	3,4	3,3	3,2	3,0	3,0	3,2	-1,4	-0,1
EL	0,7	0,9	1,0	1,1	1,1	1,1	1,0	1,0	5,5	0,3
E	2,3	2,2	2,0	1,9	1,8	1,8	1,8	2,0	-4,4	-0,5
F	0,5	0,4	0,5	0,3	0,3	0,3	0,3	0,3	-12,3	-0,2
IRL	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	-11,1	-0,1
I	1,9	2,0	2,1	2,2	2,3	2,2	2,2	2,1	2,7	0,3
L	0,9	0,8	0,8	0,7	0,8	0,7	0,8	0,8	-2,5	-0,1
NL	4,3	3,9	3,7	3,0	3,2	3,1	2,6	3,4	-7,6	-1,7
A	2,0	2,1	2,3	2,3	2,4	2,3	2,5	2,3	3,1	0,5
P	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	2,1	0,1
FIN	4,2	4,1	3,6	3,2	3,0	3,0	2,9	3,4	-7,1	-1,3
S	4,8	4,4	4,3	4,3	4,1	3,9	3,9	4,2	-3,3	-0,9
UK	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,1	0,0
EU	2,0	2,1	2,0	1,9	1,8	1,7	1,7	1,9	-3,7	-0,3
Euro12	2,1	2,2	2,2	2,1	2,1	2,0	1,9	2,1	-2,4	-0,2
EU (arithmetic average)	2,2	2,2	2,1	2,0	2,0	1,9	1,9	2,1	-2,9	-0,3
Euro12 (arithmetic average)	1,9	1,9	1,8	1,7	1,7	1,7	1,6	1,8	-2,5	-0,2
Ratio st.dev. and mean in %	92,5	86,9	83,1	84,1	83,8	85,5	85,4			-7,2
Difference max. and min.	6,1	5,9	5,4	5,2	5,1	4,9	4,9			-1,2

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.2.2\_T: Taxes on Labour as % of Total Taxation: Non-employed**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	4,6	4,7	4,8	4,8	4,5	4,5	4,8	4,7	-0,1	0,2
DK	12,6	12,2	11,1	10,5	10,1	10,1	9,9	10,9	-5,0	-2,6
D	7,4	8,1	8,1	7,8	7,4	7,0	7,2	7,6	-1,6	-0,2
EL	2,2	2,7	2,8	3,1	3,0	2,8	2,7	2,8	4,6	0,5
E	6,9	6,6	6,0	5,5	5,1	5,0	5,2	5,8	-6,8	-1,7
F	1,1	1,0	1,1	0,6	0,6	0,6	0,6	0,8	-15,4	-0,5
IRL	0,4	0,4	0,4	0,3	0,3	0,3	0,3	0,3	-10,8	-0,2
I	4,7	4,6	4,7	5,1	5,3	5,1	5,3	5,0	2,8	0,6
L	2,1	1,9	1,9	1,8	1,9	1,7	1,9	1,9	-3,3	-0,2
NL	10,5	9,6	9,0	7,5	7,6	7,6	6,4	8,3	-7,3	-4,1
A	4,7	4,8	5,1	5,3	5,5	5,3	5,4	5,1	3,0	0,7
P	1,1	1,2	1,1	1,1	1,2	1,2	1,2	1,2	0,5	0,1
FIN	9,0	8,7	7,6	6,8	6,3	6,2	6,2	7,3	-8,5	-2,8
S	9,7	8,5	8,3	8,0	7,7	7,3	7,2	8,1	-5,0	-2,5
UK	0,5	0,5	0,4	0,5	0,5	0,4	0,5	0,5	-1,3	0,0
EU	5,8	5,9	5,6	5,3	5,2	4,9	4,9	5,4	-3,8	-1,0
Euro12	6,3	6,5	6,3	6,1	5,9	5,7	5,7	6,1	-2,3	-0,6

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.3\_G: Taxes on Capital as % of GDP: Total**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	9,1	9,3	9,5	10,2	9,9	9,9	9,8	9,7	1,3	0,7
DK	5,7	5,9	6,1	6,6	7,3	6,1	6,3	6,3	2,0	0,6
D	5,8	6,6	6,5	6,8	7,3	7,4	6,0	6,6	1,7	0,2
EL	6,7	6,5	7,7	8,7	9,5	10,4	8,4	8,3	6,5	1,6
E	7,8	7,8	8,4	8,4	9,0	9,2	9,1	8,5	3,1	1,3
F	8,2	8,7	9,1	9,3	9,7	9,9	10,1	9,3	3,4	1,8
IRL	6,7	7,2	7,3	7,5	8,1	8,2	7,9	7,5	3,1	1,2
I	12,1	12,4	13,2	11,5	11,6	11,5	11,7	12,0	-1,4	-0,4
L	14,1	14,5	14,2	14,2	13,8	14,2	14,0	14,2	-0,3	-0,1
NL	7,5	8,4	8,9	8,9	9,2	9,0	8,9	8,7	2,5	1,4
A	6,7	7,2	7,3	7,5	7,0	7,2	9,0	7,4	3,0	2,3
P	7,0	7,5	8,0	8,1	9,0	9,1	8,6	8,2	4,1	1,7
FIN	6,0	6,6	7,3	8,0	8,3	10,1	8,2	7,8	6,8	2,2
S	4,4	6,4	6,5	6,8	7,0	7,6	8,2	6,7	8,3	3,8
UK	7,8	8,1	8,8	9,4	9,2	9,6	9,5	8,9	3,6	1,8
EU	7,7	8,2	8,6	8,7	8,9	9,1	8,8	8,6	2,3	1,1
Euro12	7,8	8,4	8,8	8,7	9,0	9,2	8,7	8,7	1,9	0,9
EU (arithmetic average)	7,7	8,2	8,6	8,8	9,1	9,3	9,0	8,7	2,8	1,3
Euro12 (arithmetic average)	8,1	8,6	8,9	9,1	9,4	9,7	9,3	9,0	2,5	1,2
Ratio st.dev. and mean in %	32,7	28,8	26,9	23,0	20,4	21,5	22,3			-10,4
Difference max. and min.	9,8	8,7	8,2	7,6	6,8	8,1	8,1			-1,7

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.3\_T: Taxes on Capital as % of Total Taxation: Total**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	20,2	20,5	20,8	21,9	21,4	21,4	21,2	21,1	1,0	1,0
DK	11,6	11,7	12,2	13,2	14,2	12,3	12,7	12,5	2,6	1,1
D	14,0	15,6	15,4	16,1	17,0	17,3	14,6	15,7	3,9	0,5
EL	20,6	19,6	22,4	23,9	25,5	27,2	22,7	23,1	6,3	2,1
E	23,2	23,1	24,7	24,5	25,6	25,9	25,5	24,6	2,4	2,3
F	18,7	19,2	20,1	20,7	21,2	21,9	22,2	20,6	3,2	3,5
IRL	20,0	21,5	22,3	23,4	25,3	25,4	25,2	23,3	5,0	5,2
I	29,4	29,1	29,5	26,7	26,9	26,8	27,4	27,9	-2,3	-2,0
L	33,3	34,2	34,2	35,2	33,9	34,4	33,6	34,1	0,5	0,3
NL	18,5	20,7	21,8	21,9	22,1	21,8	22,4	21,3	2,9	3,8
A	15,8	16,3	16,2	16,9	15,9	16,5	19,7	16,8	0,5	3,9
P	20,8	21,9	23,0	23,2	24,9	25,1	24,1	23,3	3,8	3,3
FIN	13,0	13,8	15,6	17,3	17,6	21,1	17,8	16,6	9,2	4,8
S	8,9	12,4	12,4	12,6	13,3	14,5	15,2	12,7	7,7	6,3
UK	21,9	23,0	24,6	25,4	25,1	25,4	25,4	24,4	2,9	3,5
EU	19,0	20,3	21,1	21,1	21,5	21,9	21,4	20,9	2,6	2,4
Euro12	17,9	19,2	19,7	19,4	20,0	20,3	19,5	19,4	2,1	1,6

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.3.1\_G: Taxes on Capital as % of GDP: Capital and business income**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	6,0	6,0	6,0	6,6	6,3	6,3	6,2	6,2	1,0	0,2
DK	3,8	4,1	4,2	4,6	5,3	3,6	3,7	4,2	-0,4	-0,1
D	4,6	5,3	5,4	5,6	6,1	6,3	4,9	5,5	2,3	0,3
EL	4,9	4,5	5,0	6,0	6,2	7,2	5,9	5,7	6,0	0,9
E	5,1	5,2	5,8	5,7	6,2	6,3	6,2	5,8	3,7	1,1
F	3,9	4,3	4,5	4,7	5,1	5,4	5,7	4,8	6,0	1,7
IRL	4,6	5,1	5,3	5,5	5,9	6,2	5,9	5,5	4,2	1,2
I	8,0	8,6	9,2	8,0	8,5	8,7	8,9	8,6	1,0	1,0
L	11,1	11,2	10,9	10,6	9,7	9,7	10,0	10,5	-2,5	-1,1
NL	5,2	6,0	6,4	6,3	6,4	6,2	6,3	6,1	2,2	1,0
A	5,1	6,0	6,0	6,2	5,8	5,9	7,7	6,1	4,1	2,6
P	4,3	4,9	5,3	5,2	5,6	6,0	5,5	5,3	4,2	1,2
FIN	4,8	5,3	6,0	6,7	7,0	8,8	6,9	6,5	8,0	2,1
S	2,8	4,3	4,2	4,6	4,8	5,4	6,3	4,6	10,9	3,5
UK	5,2	5,5	6,1	6,7	6,4	6,5	6,6	6,2	4,0	1,4
EU	5,1	5,6	5,9	6,0	6,3	6,4	6,2	5,9	3,3	1,1
Euro12	5,2	5,8	6,0	6,0	6,3	6,6	6,2	6,0	3,1	1,0
EU (arithmetic average)	5,3	5,8	6,0	6,2	6,4	6,6	6,4	6,1	3,2	1,1
Euro12 (arithmetic average)	5,7	6,0	6,3	6,4	6,6	6,9	6,7	6,4	2,9	1,0
Ratio st.dev. and mean in %	38,7	33,3	30,2	25,6	20,2	23,7	24,7			-14,1
Difference max. and min.	8,3	7,2	6,7	6,0	4,9	6,2	6,3			-2,0

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.3.1\_T: Taxes on Capital as % of Total Taxation: Capital and business income**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	13,3	13,2	13,2	14,2	13,6	13,8	13,6	13,6	0,6	0,3
DK	7,7	8,1	8,5	9,2	10,3	7,2	7,4	8,3	1,3	-0,3
D	11,2	12,7	12,8	13,4	14,2	14,7	11,9	13,0	5,1	0,7
EL	15,1	13,6	14,5	16,5	16,7	18,7	15,9	15,9	5,2	0,8
E	15,3	15,5	17,0	16,5	17,5	17,8	17,4	16,7	3,1	2,1
F	8,9	9,6	9,9	10,4	11,2	11,9	12,5	10,6	5,6	3,6
IRL	13,9	15,3	16,2	17,2	18,6	19,1	18,8	17,0	6,4	4,8
I	19,3	20,2	20,5	18,5	19,6	20,3	21,0	19,9	0,1	1,7
L	26,1	26,5	26,1	26,4	23,9	23,6	23,9	25,2	-2,3	-2,3
NL	12,9	14,7	15,6	15,6	15,4	15,0	15,7	15,0	2,5	2,8
A	12,1	13,7	13,4	14,0	13,1	13,6	16,8	13,8	1,5	4,8
P	12,9	14,2	15,3	14,9	15,7	16,4	15,4	15,0	4,2	2,5
FIN	10,4	11,1	12,9	14,5	14,8	18,3	15,1	13,9	10,7	4,6
S	5,6	8,3	8,1	8,5	9,1	10,3	11,6	8,8	9,6	6,0
UK	14,7	15,7	17,2	18,1	17,5	17,4	17,7	16,9	3,5	3,0
EU	13,4	14,7	15,4	15,5	15,9	16,4	15,9	15,3	3,5	2,4
Euro12	12,9	14,3	14,8	14,6	15,3	15,8	14,9	14,6	3,4	2,0

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services



**Table C.3.1.1\_G: Taxes on Capital as % of GDP: Income of corporations**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	2,6	2,7	2,9	3,4	3,3	3,3	3,3	3,1	4,5	0,7
DK	3,1	3,4	3,5	3,5	4,1	3,0	3,1	3,4	-0,1	0,1
D	2,1	2,5	2,6	2,7	2,9	3,0	1,8	2,5	0,0	-0,3
EL	2,6	2,3	2,6	3,1	3,3	4,4	3,2	3,1	8,0	0,6
E	1,9	2,1	2,8	2,6	3,0	3,2	3,0	2,6	8,3	1,1
F	1,8	2,0	2,3	2,3	2,7	2,9	3,1	2,4	9,3	1,4
IRL	2,8	3,1	3,2	3,4	3,8	3,8	3,6	3,4	4,9	0,8
I	2,9	3,4	3,8	2,9	3,3	2,9	3,6	3,3	0,7	0,7
L	7,5	7,7	7,9	7,8	7,1	7,4	7,7	7,6	-0,4	0,2
NL	3,1	4,0	4,4	4,3	4,2	4,2	4,1	4,0	3,0	1,0
A	1,6	2,1	2,1	2,2	1,9	2,1	3,3	2,2	7,3	1,7
P	2,5	2,9	3,3	3,3	3,8	4,1	3,6	3,4	7,0	1,1
FIN	2,3	2,8	3,5	4,3	4,4	6,0	4,3	4,0	12,8	2,0
S	1,9	2,9	2,7	3,0	2,9	2,9	3,7	2,9	7,3	1,8
UK	2,4	2,7	3,4	3,6	3,3	3,3	3,3	3,2	4,6	0,9
EU	2,3	2,6	3,0	3,0	3,1	3,2	3,0	2,9	4,3	0,7
Euro12	2,2	2,6	2,9	2,8	3,0	3,2	2,9	2,8	4,3	0,7
EU (arithmetic average)	2,7	3,1	3,4	3,5	3,6	3,8	3,7	3,4	4,7	0,9
Euro12 (arithmetic average)	2,8	3,1	3,4	3,5	3,6	3,9	3,7	3,5	4,9	0,9
Ratio st.dev. and mean in %	61,4	52,3	46,4	45,5	38,2	42,4	41,8			-19,6
Difference max. and min.	5,9	5,7	5,8	5,6	5,2	5,2	5,9			0,0

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.3.1.1\_T: Taxes on Capital as % of Total Taxation: Income of corporations**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	5,7	6,0	6,3	7,4	7,1	7,2	7,1	6,7	4,2	1,4
DK	6,3	6,8	7,1	7,1	7,9	6,1	6,3	6,8	1,0	0,1
D	5,1	5,9	6,2	6,4	6,7	7,0	4,3	6,0	5,9	-0,8
EL	8,0	6,8	7,5	8,6	8,9	11,6	8,7	8,6	7,8	0,7
E	5,8	6,1	8,1	7,5	8,5	9,0	8,4	7,6	9,1	2,7
F	4,0	4,5	5,0	5,1	5,9	6,3	6,9	5,4	8,8	2,9
IRL	8,3	9,3	9,8	10,5	12,0	11,7	11,6	10,5	7,3	3,3
I	7,0	7,9	8,5	6,7	7,5	6,9	8,4	7,6	-1,4	1,3
L	17,7	18,1	19,0	19,4	17,5	17,9	18,3	18,3	-0,1	0,7
NL	7,7	9,7	10,8	10,7	10,0	10,0	10,2	9,9	4,0	2,5
A	3,8	4,8	4,8	5,1	4,3	4,9	7,1	5,0	3,0	3,4
P	7,4	8,4	9,6	9,5	10,7	11,3	10,1	9,6	7,9	2,7
FIN	5,0	5,9	7,5	9,3	9,4	12,5	9,3	8,4	17,5	4,3
S	3,9	5,7	5,1	5,5	5,4	5,6	6,9	5,4	4,9	3,0
UK	6,9	7,8	9,6	9,7	8,9	8,9	8,8	8,7	4,8	2,0
EU	5,9	6,8	7,7	7,6	7,7	7,9	7,3	7,3	5,0	1,4
Euro12	5,5	6,4	7,1	6,8	7,1	7,3	6,6	6,7	4,8	1,0

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.3.1.2\_G: Taxes on Capital as % of GDP: Income of households**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	0,9	0,7	0,7	0,6	0,5	0,5	0,5	0,6	-10,0	-0,4
DK	-0,6	-0,6	-0,5	-0,2	-0,1	-0,6	-0,6	-0,4		0,0
D	0,3	0,3	0,3	0,4	0,4	0,4	0,4	0,4	5,2	0,1
EL	0,7	0,7	0,8	1,0	1,1	1,3	2,0	1,1	16,8	1,3
E	0,8	0,8	0,7	0,8	0,8	0,9	0,9	0,8	1,4	0,0
F	0,5	0,6	0,6	0,9	1,0	1,0	1,0	0,8	12,6	0,5
IRL	0,5	0,6	0,7	0,8	0,8	1,1	1,1	0,8	14,3	0,6
I	1,8	2,0	2,1	1,7	1,7	2,2	1,8	1,9	-0,4	0,0
L <sup>3)</sup>	3,6	3,5	2,9	2,8	2,6	2,4	2,3	2,9	-8,0	-1,3
NL	-0,5	-0,5	-0,5	-0,2	0,0	-0,1	0,6	-0,2		1,0
A	1,2	1,3	1,3	1,2	1,2	1,1	1,3	1,2	-0,9	0,1
P	0,9	0,9	0,9	0,8	0,8	0,9	0,9	0,9	0,2	0,0
FIN	0,6	0,7	0,8	0,8	1,0	1,2	1,1	0,9	9,8	0,4
S	0,2	0,6	0,8	0,9	1,3	1,8	1,8	1,1	32,2	1,6
UK	1,3	1,3	1,3	1,6	1,7	1,8	1,8	1,5	7,1	0,6
EU	0,7	0,8	0,8	0,9	1,0	1,1	1,1	0,9	7,5	0,4
Euro12	0,7	0,7	0,8	0,8	0,8	0,9	0,9	0,8	5,4	0,3
EU (arithmetic average)	0,8	0,9	0,9	0,9	1,0	1,1	1,1	1,0	5,2	0,3
Euro12 (arithmetic average)	0,9	1,0	0,9	1,0	1,0	1,1	1,1	1,0	2,8	0,2
Ratio st.dev. and mean in %	139,8	123,4	103,6	80,6	69,5	73,2	70,0			-69,8
Difference max. and min.	4,2	4,1	3,4	3,0	2,7	2,9	2,9			-1,3

1) Estimated annual average growth rate in %. - 2) in %-points of GDP. - 3) including self-employed

See explanatory notes in Annex C

Source: Commission Services

**Table C.3.1.2\_T: Taxes on Capital as % of Total Taxation: Income of households**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	2,0	1,6	1,6	1,3	1,1	1,1	1,0	1,4	-10,4	-0,9
DK	-1,3	-1,2	-0,9	-0,4	-0,2	-1,1	-1,2	-0,9		0,1
D	0,7	0,8	0,7	0,9	0,9	1,0	0,9	0,8	6,9	0,2
EL	2,2	2,2	2,3	2,8	3,0	3,4	5,5	3,1	9,7	3,4
E	2,5	2,4	2,1	2,2	2,4	2,4	2,5	2,4	-0,6	0,0
F	1,2	1,2	1,3	2,0	2,1	2,2	2,2	1,7	14,5	1,0
IRL	1,4	1,7	2,0	2,4	2,6	3,4	3,5	2,4	16,6	2,0
I	4,5	4,8	4,7	4,0	3,9	5,1	4,2	4,5	0,0	-0,2
L <sup>3)</sup>	8,5	8,4	7,1	7,0	6,4	5,8	5,5	6,9	-7,8	-3,0
NL	-1,1	-1,2	-1,2	-0,5	0,1	-0,3	1,4	-0,4		2,5
A	2,8	3,0	2,9	2,7	2,6	2,6	2,8	2,8	-2,4	-0,1
P	2,6	2,6	2,5	2,4	2,3	2,4	2,5	2,5	-1,8	-0,1
FIN	1,4	1,5	1,7	1,7	2,1	2,5	2,3	1,9	11,1	0,9
S	0,4	1,2	1,6	1,7	2,5	3,4	3,3	2,0	36,1	2,9
UK	3,6	3,7	3,6	4,4	4,7	4,7	4,9	4,2	6,3	1,3
EU	2,0	2,2	2,2	2,3	2,5	2,8	2,8	2,4	6,2	0,8
Euro12	1,6	1,9	1,9	1,8	1,9	2,2	2,1	1,9	3,8	0,4

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.3.1.3\_G: Taxes on Capital as % of GDP: Income of self-employed**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	2,6	2,6	2,4	2,5	2,5	2,5	2,5	2,5	-0,4	0,0
DK	1,3	1,3	1,2	1,3	1,3	1,1	1,1	1,2	-2,2	-0,2
D	2,2	2,5	2,4	2,6	2,8	2,9	2,7	2,6	3,6	0,5
EL	2,3	2,2	2,4	2,9	2,9	2,8	2,6	2,6	3,6	0,3
E	2,3	2,3	2,4	2,3	2,3	2,3	2,3	2,3	-0,4	0,0
F	1,6	1,7	1,6	1,4	1,5	1,6	1,5	1,6	-1,8	-0,1
IRL	1,4	1,4	1,4	1,4	1,3	1,3	1,2	1,3	-3,1	-0,2
I	3,2	3,2	3,3	3,4	3,5	3,5	3,6	3,4	2,0	0,3
L <sup>3)</sup>	3,6	3,5	2,9	2,8	2,6	2,4	2,3	2,9	-8,0	-1,3
NL	2,6	2,5	2,5	2,1	2,2	2,2	1,6	2,2	-6,4	-0,9
A	2,3	2,6	2,6	2,8	2,8	2,7	3,2	2,7	3,7	0,8
P	1,0	1,1	1,1	1,0	1,0	1,0	1,0	1,0	-1,0	0,0
FIN	1,9	1,7	1,8	1,6	1,6	1,6	1,6	1,7	-3,0	-0,3
S	0,7	0,7	0,7	0,7	0,7	0,7	0,8	0,7	1,5	0,1
UK	1,5	1,5	1,4	1,5	1,4	1,4	1,5	1,4	-0,3	0,0
EU	2,1	2,2	2,1	2,1	2,2	2,2	2,2	2,2	0,5	0,1
Euro12	2,3	2,4	2,4	2,4	2,5	2,5	2,4	2,4	1,1	0,2
EU (arithmetic average)	2,0	2,1	2,0	2,0	2,0	2,0	2,0	2,0	-0,6	-0,1
Euro12 (arithmetic average)	2,3	2,3	2,2	2,2	2,2	2,2	2,2	2,2	-0,6	-0,1
Ratio st.dev. and mean in %	38,3	36,2	34,7	37,2	37,7	36,7	38,9			0,6
Difference max. and min.	2,9	2,8	2,5	2,7	2,8	2,8	2,8			-0,1

1) Estimated annual average growth rate in %. - 2) in %-points of GDP, - 3) including Income of households

See explanatory notes in Annex C

Source: Commission Services

**Table C.3.1.3\_T: Taxes on Capital as % of Total Taxation: Income of self-employed**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	5,7	5,6	5,3	5,5	5,4	5,4	5,4	5,5	-0,7	-0,2
DK	2,7	2,5	2,3	2,5	2,5	2,3	2,3	2,4	-2,2	-0,4
D	5,4	6,0	5,8	6,1	6,6	6,7	6,7	6,2	4,0	1,3
EL	7,1	6,8	7,0	7,9	7,8	7,2	7,2	7,3	1,7	0,1
E	7,0	6,9	6,9	6,7	6,6	6,4	6,5	6,7	-1,9	-0,5
F	3,7	3,9	3,6	3,2	3,2	3,5	3,4	3,5	-3,0	-0,3
IRL	4,2	4,2	4,4	4,3	4,0	4,0	3,7	4,1	-1,3	-0,5
I	7,8	7,5	7,3	7,8	8,1	8,2	8,4	7,9	1,5	0,5
L	8,5	8,4	7,1	7,0	6,4	5,8	5,5	6,9	-7,8	-3,0
NL	6,3	6,2	6,0	5,3	5,2	5,2	4,0	5,5	-4,4	-2,3
A	5,5	5,9	5,8	6,2	6,2	6,1	7,0	6,1	2,1	1,5
P	2,9	3,2	3,1	2,9	2,7	2,7	2,8	2,9	-2,8	-0,2
FIN	4,0	3,7	3,8	3,5	3,3	3,3	3,4	3,6	-4,0	-0,6
S	1,3	1,4	1,4	1,3	1,3	1,4	1,4	1,4	-0,6	0,1
UK	4,2	4,1	4,0	4,0	3,8	3,8	3,9	4,0	-2,0	-0,3
EU	5,6	5,7	5,5	5,7	5,8	5,8	5,8	5,7	0,6	0,2
Euro12	5,7	6,0	5,9	6,0	6,3	6,3	6,3	6,1	1,8	0,5

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.3.2\_G: Taxes on Capital as % of GDP: Stocks (wealth) of capital**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	3,1	3,3	3,5	3,6	3,6	3,5	3,5	3,4	1,9	0,4
DK	1,9	1,8	1,8	2,0	2,0	2,5	2,6	2,1	6,1	0,7
D	1,2	1,2	1,1	1,1	1,2	1,1	1,1	1,2	-0,9	-0,1
EL	1,8	2,0	2,7	2,7	3,3	3,2	2,5	2,6	7,8	0,7
E	2,6	2,6	2,6	2,8	2,8	2,9	2,9	2,7	2,0	0,2
F	4,3	4,3	4,6	4,7	4,6	4,5	4,4	4,5	0,6	0,1
IRL	2,0	2,1	2,0	2,0	2,1	2,1	2,0	2,0	0,0	0,0
I	4,1	3,8	4,0	3,5	3,1	2,8	2,7	3,4	-7,6	-1,4
L	3,0	3,3	3,4	3,5	4,1	4,4	4,1	3,7	6,0	1,0
NL	2,3	2,4	2,5	2,6	2,8	2,8	2,7	2,6	3,1	0,4
A	1,6	1,1	1,3	1,3	1,2	1,3	1,3	1,3	-1,5	-0,3
P	2,6	2,6	2,7	2,9	3,3	3,2	3,1	2,9	3,8	0,5
FIN	1,2	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,2	0,1
S	1,6	2,1	2,3	2,2	2,2	2,2	1,9	2,1	2,2	0,3
UK	2,6	2,6	2,6	2,7	2,8	3,0	2,9	2,7	2,8	0,4
EU	2,6	2,6	2,7	2,7	2,7	2,7	2,6	2,6	0,1	0,0
Euro12	2,6	2,7	2,8	2,7	2,7	2,6	2,5	2,7	-0,7	-0,1
EU (arithmetic average)	2,4	2,4	2,6	2,6	2,7	2,7	2,6	2,6	1,9	0,2
Euro12 (arithmetic average)	2,5	2,5	2,6	2,7	2,8	2,8	2,6	2,6	1,5	0,1
Ratio st.dev. and mean in %	36,9	35,9	37,3	36,6	38,2	38,7	37,8			0,8
Difference max. and min.	3,1	3,2	3,5	3,5	3,4	3,4	3,3			0,2

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.3.2\_T: Taxes on Capital as % of Total Taxation: Stocks (wealth) of capital**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	6,9	7,3	7,6	7,8	7,8	7,7	7,6	7,5	1,6	0,7
DK	3,9	3,6	3,7	4,0	3,9	5,0	5,3	4,2	4,6	1,4
D	2,8	2,9	2,6	2,7	2,8	2,6	2,7	2,7	-1,4	-0,1
EL	5,5	6,0	7,9	7,4	8,8	8,4	6,8	7,3	9,1	1,3
E	7,9	7,6	7,6	8,0	8,1	8,1	8,0	7,9	1,0	0,1
F	9,8	9,6	10,2	10,4	10,0	10,0	9,7	10,0	0,7	-0,1
IRL	6,1	6,2	6,1	6,2	6,6	6,4	6,4	6,3	1,3	0,4
I	10,0	8,9	9,0	8,1	7,3	6,6	6,4	8,0	-8,1	-3,7
L	7,1	7,7	8,1	8,8	10,0	10,7	9,7	8,9	8,3	2,6
NL	5,6	6,0	6,1	6,4	6,7	6,8	6,7	6,3	3,8	1,1
A	3,7	2,6	2,8	2,9	2,8	2,9	2,8	2,9	-2,9	-0,9
P	7,9	7,7	7,7	8,3	9,2	8,7	8,7	8,3	3,2	0,8
FIN	2,6	2,7	2,7	2,8	2,8	2,8	2,7	2,7	1,6	0,2
S	3,2	4,1	4,4	4,1	4,1	4,2	3,6	4,0	3,6	0,3
UK	7,2	7,3	7,4	7,4	7,6	8,0	7,8	7,5	1,8	0,5
EU	5,6	5,5	5,7	5,6	5,6	5,6	5,5	5,6	0,0	-0,1
Euro12	5,0	4,9	5,0	4,8	4,7	4,5	4,6	4,8	-1,8	-0,4

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.4\_G: Environmental taxes as % of GDP**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	2,5	2,8	2,8	2,7	2,7	2,5	2,5	2,7	-0,9	0,0
DK	4,4	4,7	4,7	5,1	5,2	4,7	4,7	4,8	1,1	0,3
D	2,4	2,3	2,2	2,2	2,3	2,4	2,6	2,3	1,5	0,2
EL	3,5	3,5	3,4	3,2	3,0	2,6	2,8	3,1	-4,9	-0,7
E	2,2	2,2	2,2	2,3	2,4	2,3	2,2	2,3	0,5	0,0
F	2,5	2,5	2,4	2,4	2,4	2,1	2,0	2,3	-3,5	-0,5
IRL	3,1	3,1	3,0	3,0	3,0	2,9	2,4	2,9	-3,4	-0,7
I	3,7	3,6	3,5	3,4	3,6	3,2	3,0	3,4	-2,7	-0,7
L	3,4	3,3	3,1	3,0	3,0	2,9	2,9	3,1	-2,7	-0,5
NL	3,5	3,7	3,7	3,8	3,9	3,9	3,8	3,8	1,3	0,3
A	2,0	2,3	2,4	2,3	2,3	2,4	2,6	2,3	3,0	0,6
P	3,7	3,7	3,5	3,6	3,6	3,1	3,0	3,5	-3,3	-0,6
FIN	2,9	3,1	3,3	3,3	3,5	3,2	3,0	3,2	0,6	0,1
S	2,8	3,2	3,0	3,0	2,9	2,8	2,9	3,0	-0,4	0,1
UK	2,9	3,0	3,0	3,1	3,2	3,1	2,8	3,0	0,1	-0,1
EU	2,8	2,8	2,8	2,8	2,8	2,7	2,7	2,8	-0,6	-0,1
Euro12	2,7	2,7	2,7	2,6	2,7	2,6	2,6	2,7	-0,7	-0,1
EU (arithmetic average)	3,0	3,1	3,1	3,1	3,1	3,0	2,9	3,0	-0,9	-0,2
Euro12 (arithmetic average)	3,0	3,0	3,0	2,9	3,0	2,8	2,7	2,9	-1,3	-0,2
Ratio st.dev. and mean in %	23,5	23,9	24,1	26,9	26,8	24,5	24,6			1,1
Difference max. and min.	2,4	2,4	2,5	3,0	2,9	2,6	2,7			0,3

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.4\_T: Environmental taxes as % of Total Taxation**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	5,6	6,2	6,1	5,8	5,9	5,5	5,5	5,8	-1,2	-0,2
DK	9,0	9,4	9,4	10,2	10,0	9,6	9,4	9,6	1,7	0,4
D	5,8	5,3	5,2	5,1	5,4	5,6	6,2	5,5	-0,3	0,5
EL	10,7	10,5	10,1	8,9	8,1	6,8	7,5	8,9	-9,1	-3,2
E	6,7	6,6	6,3	6,7	6,7	6,4	6,2	6,5	-0,2	-0,4
F	5,6	5,6	5,3	5,3	5,2	4,7	4,4	5,2	-3,2	-1,2
IRL	9,2	9,4	9,3	9,4	9,4	9,1	7,6	9,0	-0,2	-1,6
I	8,9	8,3	7,9	7,9	8,2	7,6	7,1	8,0	-2,4	-1,8
L	8,0	7,8	7,5	7,4	7,3	7,1	6,9	7,4	-2,3	-1,0
NL	8,7	9,2	9,1	9,3	9,4	9,4	9,4	9,2	1,5	0,8
A	4,8	5,2	5,3	5,2	5,2	5,6	5,7	5,3	2,0	0,9
P	10,9	10,7	10,0	10,4	10,0	8,4	8,4	9,8	-4,1	-2,5
FIN	6,4	6,6	7,1	7,1	7,4	6,6	6,6	6,8	1,6	0,2
S	5,7	6,1	5,7	5,6	5,5	5,4	5,4	5,6	-1,8	-0,3
UK	8,3	8,4	8,3	8,5	8,6	8,1	7,6	8,3	0,0	-0,7
EU	7,0	6,9	6,8	6,9	7,0	6,9	6,8	6,9	0,0	-0,2
Euro12	6,5	6,3	6,2	6,2	6,4	6,3	6,4	6,3	-0,3	-0,1

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.4.1\_G: Environmental taxes as % of GDP: Energy**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	1,6	1,7	1,7	1,6	1,6	1,5	1,5	1,6	-1,8	-0,1
DK	2,1	2,3	2,2	2,4	2,6	2,6	2,7	2,4	3,8	0,5
D	2,0	1,9	1,8	1,8	2,0	2,1	2,2	1,9	1,9	0,2
EL	2,8	2,8	2,5	2,3	2,0	1,8	1,7	2,3	-9,2	-1,1
E	1,8	1,8	1,8	1,9	1,9	1,8	1,8	1,8	-0,1	-0,1
F	1,9	2,0	1,9	1,9	1,9	1,8	1,6	1,9	-2,5	-0,3
IRL	1,7	1,7	1,7	1,7	1,6	1,5	1,2	1,6	-5,5	-0,6
I	3,2	3,1	3,0	2,9	2,9	2,6	2,4	2,9	-4,2	-0,8
L	3,2	3,2	3,0	2,9	2,8	2,8	2,8	2,9	-2,7	-0,5
NL	1,7	1,8	1,9	1,9	2,0	2,0	2,0	1,9	2,6	0,3
A	1,3	1,6	1,7	1,6	1,6	1,6	1,7	1,6	2,6	0,4
P	2,7	2,7	2,5	2,5	2,4	1,9	1,9	2,4	-6,7	-0,9
FIN	2,2	2,1	2,3	2,2	2,3	2,0	2,0	2,2	-1,3	-0,1
S	2,5	2,7	2,6	2,7	2,5	2,4	2,5	2,6	-0,9	0,0
UK	2,3	2,4	2,3	2,5	2,5	2,4	2,3	2,4	0,2	0,0
EU	2,2	2,2	2,1	2,1	2,2	2,1	2,0	2,1	-0,7	-0,1
Euro12	2,1	2,1	2,1	2,0	2,1	2,0	2,0	2,1	-1,1	-0,2
EU (arithmetic average)	2,2	2,2	2,2	2,2	2,2	2,1	2,0	2,2	-1,7	-0,2
Euro12 (arithmetic average)	2,2	2,2	2,2	2,1	2,1	1,9	1,9	2,1	-2,5	-0,3
Ratio st.dev. and mean in %	26,4	24,4	21,8	21,1	20,6	20,0	22,1			-4,3
Difference max. and min.	1,9	1,6	1,4	1,3	1,4	1,3	1,6			-0,3

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.4.1\_T: Environmental taxes as % of Total Taxation: Energy**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	3,6	3,7	3,6	3,5	3,5	3,3	3,2	3,5	-2,1	-0,3
DK	4,4	4,6	4,4	4,8	5,1	5,2	5,4	4,8	3,7	1,0
D	4,8	4,4	4,3	4,2	4,6	4,8	5,3	4,6	0,2	0,4
EL	8,5	8,4	7,4	6,4	5,5	4,6	4,6	6,5	-12,8	-3,9
E	5,4	5,4	5,2	5,5	5,4	5,1	5,0	5,3	-0,7	-0,5
F	4,4	4,3	4,2	4,2	4,1	3,9	3,6	4,1	-2,1	-0,8
IRL	5,2	5,2	5,2	5,2	5,0	4,5	3,8	4,9	-2,4	-1,4
I	7,8	7,2	6,8	6,7	6,8	6,2	5,7	6,7	-3,9	-2,1
L	7,6	7,4	7,2	7,1	7,0	6,8	6,6	7,1	-2,3	-1,0
NL	4,2	4,4	4,7	4,7	4,8	4,9	5,0	4,7	2,7	0,8
A	3,1	3,6	3,8	3,5	3,5	3,6	3,8	3,6	2,0	0,6
P	8,1	7,8	7,1	7,2	6,6	5,2	5,2	6,7	-7,7	-2,9
FIN	4,7	4,5	5,0	4,7	4,8	4,2	4,4	4,6	-1,0	-0,3
S	5,0	5,3	5,0	5,0	4,8	4,6	4,6	4,9	-2,1	-0,4
UK	6,6	6,8	6,6	6,7	6,8	6,5	6,1	6,6	-0,3	-0,5
EU	5,5	5,4	5,3	5,3	5,4	5,3	5,3	5,4	-0,5	-0,3
Euro12	5,2	5,0	4,9	4,8	5,0	4,9	4,9	4,9	-0,9	-0,3

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.4.2\_G: Environmental taxes as % of GDP: Transport**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	0,8	0,9	0,9	0,9	0,9	0,8	0,9	0,9	0,6	0,1
DK	2,1	2,1	2,1	2,3	2,1	1,8	1,7	2,0	-3,2	-0,4
D	0,4	0,4	0,4	0,4	0,4	0,3	0,4	0,4	-0,8	0,0
EL	0,7	0,7	0,9	0,9	1,0	0,8	1,1	0,9	6,1	0,4
E	0,4	0,4	0,4	0,4	0,5	0,4	0,4	0,4	2,5	0,0
F	0,4	0,4	0,4	0,4	0,4	0,3	0,3	0,3	-8,3	-0,1
IRL	1,3	1,4	1,3	1,3	1,4	1,5	1,2	1,3	-0,6	-0,1
I	0,5	0,4	0,5	0,5	0,6	0,6	0,6	0,5	4,5	0,1
L	0,2	0,2	0,1	0,1	0,1	0,1	0,1	0,1	-3,7	0,0
NL	1,3	1,5	1,3	1,4	1,5	1,4	1,4	1,4	0,4	0,0
A	0,7	0,7	0,7	0,7	0,7	0,8	0,9	0,7	3,2	0,2
P	0,9	1,0	1,0	1,1	1,2	1,2	1,2	1,1	3,9	0,2
FIN	0,8	1,0	1,0	1,1	1,2	1,1	1,0	1,0	4,4	0,2
S	0,3	0,4	0,3	0,3	0,3	0,4	0,4	0,3	1,5	0,1
UK	0,6	0,6	0,6	0,6	0,6	0,6	0,5	0,6	-1,9	-0,1
EU	0,6	0,6	0,6	0,6	0,6	0,6	0,5	0,6	-0,2	0,0
Euro12	0,5	0,5	0,5	0,5	0,6	0,5	0,5	0,5	0,7	0,0
EU (arithmetic average)	0,8	0,8	0,8	0,8	0,9	0,8	0,8	0,8	0,8	0,0
Euro12 (arithmetic average)	0,7	0,7	0,7	0,8	0,8	0,8	0,8	0,8	1,8	0,1
Ratio st.dev. and mean in %	89,3	93,3	94,0	96,1	93,2	90,9	82,9			-6,4
Difference max. and min.	1,9	1,9	2,0	2,1	2,0	1,7	1,6			-0,4

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.4.2\_T: Environmental taxes as % of Total Taxation: Transport**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	1,7	2,0	2,0	1,8	2,0	1,8	1,9	1,9	0,3	0,2
DK	4,2	4,2	4,3	4,6	4,2	3,7	3,4	4,1	-1,8	-0,8
D	1,0	0,9	0,9	1,0	0,8	0,8	1,0	0,9	-3,1	0,0
EL	2,2	2,0	2,6	2,6	2,6	2,2	2,9	2,4	1,8	0,7
E	1,2	1,2	1,1	1,2	1,3	1,3	1,2	1,2	1,9	0,0
F	0,9	0,9	0,8	0,8	0,8	0,6	0,6	0,8	-8,4	-0,4
IRL	3,9	4,1	4,0	4,1	4,4	4,5	3,7	4,1	2,6	-0,2
I	1,1	1,0	1,0	1,1	1,3	1,3	1,3	1,2	4,6	0,2
L	0,4	0,4	0,3	0,3	0,3	0,3	0,3	0,3	-3,4	-0,1
NL	3,3	3,7	3,2	3,5	3,6	3,5	3,4	3,5	0,9	0,1
A	1,7	1,6	1,5	1,6	1,6	1,8	1,9	1,7	1,6	0,2
P	2,8	3,0	2,9	3,2	3,4	3,2	3,2	3,1	3,6	0,4
FIN	1,7	2,0	2,1	2,3	2,5	2,3	2,2	2,2	6,8	0,5
S	0,7	0,7	0,7	0,6	0,6	0,7	0,7	0,7	-1,2	0,1
UK	1,7	1,7	1,7	1,7	1,7	1,6	1,3	1,6	-0,9	-0,4
EU	1,4	1,4	1,4	1,4	1,5	1,4	1,4	1,4	1,3	0,1
Euro12	1,3	1,2	1,2	1,3	1,3	1,3	1,4	1,3	1,8	0,1

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services

**Table C.4.3\_G: Environmental taxes as % of GDP: Pollution/Resources**

	1995	1996	1997	1998	1999	2000	2001 <sup>P</sup>	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	-0,3	0,0
DK	0,2	0,3	0,4	0,4	0,4	0,4	0,3	0,3	6,8	0,1
D	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0
EL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0
E	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	11,6	0,0
F	0,1	0,2	0,1	0,1	0,1	0,1	0,1	0,1	-6,0	0,0
IRL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-23,0	0,0
I	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0
L	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0
NL	0,5	0,4	0,4	0,4	0,4	0,4	0,4	0,4	-1,3	0,0
A	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	23,0	0,0
P	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0
FIN	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	18,1	0,0
S	0,0	0,1	0,0	0,0	0,0	0,1	0,1	0,0	8,9	0,0
UK	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,0		0,1
EU	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	1,1	0,0
Euro12	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	-1,1	0,0
EU (arithmetic average)	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	2,6	0,0
Euro12 (arithmetic average)	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	-0,3	0,0
Ratio st.dev. and mean in %	210,3	197,6	202,0	213,0	209,7	195,7	192,8			-17,5
Difference max. and min.	0,5	0,4	0,4	0,4	0,4	0,4	0,4			0,0

1) Estimated annual average growth rate in %. - 2) in %-points of GDP

See explanatory notes in Annex C

Source: Commission Services

**Table C.4.3\_T: Environmental taxes as % of Total Taxation: Pollution/Resources**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	0,3	0,5	0,5	0,5	0,5	0,4	0,4	0,4	-0,6	0,0
DK	0,4	0,6	0,7	0,8	0,8	0,7	0,7	0,7	9,8	0,2
D	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		
EL	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		
E	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	12,3	0,0
F	0,3	0,3	0,3	0,3	0,2	0,2	0,2	0,3	-7,5	-0,1
IRL	0,1	0,1	0,1	0,0	0,0	0,0	0,0	0,1	-21,2	-0,1
I	0,0	0,1	0,1	0,1	0,1	0,1	0,1	0,1		0,1
L	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		
NL	1,1	1,1	1,1	1,1	1,0	1,0	1,0	1,1	-1,6	-0,1
A	0,0	0,0	0,0	0,1	0,1	0,1	0,1	0,1	23,6	0,1
P	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		
FIN	0,0	0,0	0,1	0,1	0,1	0,1	0,1	0,1	24,6	0,0
S	0,1	0,1	0,1	0,1	0,1	0,2	0,1	0,1	5,0	0,0
UK	0,0	0,0	0,1	0,1	0,1	0,1	0,1	0,1		0,1
EU	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	7,1	0,0
Euro12	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	4,1	0,0

1) Estimated annual average growth rate in %. - 2) in %-points of Total Taxation

See explanatory notes in Annex C

Source: Commission Services



**Table D.1: Implicit tax rates in %: Consumption**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	21,2	21,8	22,1	21,8	22,6	22,3	21,5	21,9	0,4	0,3
DK	31,3	32,2	32,4	32,7	33,2	33,0	33,0	32,6	0,8	1,7
D	19,6	19,1	18,7	18,8	19,6	19,5	19,1	19,2	0,0	-0,5
EL	18,4	18,5	18,0	18,5	19,0	20,0	21,2	19,1	2,3	2,8
E	14,3	14,5	14,8	15,6	16,3	16,4	16,0	15,4	2,4	1,7
F	22,9	23,5	23,4	23,3	23,3	22,4	21,9	23,0	-0,9	-1,0
IRL	25,3	25,2	25,7	26,1	26,2	26,7	26,6	26,0	1,0	1,3
I	17,2	16,8	17,0	17,4	17,6	17,6	16,7	17,2	0,1	-0,5
L	29,8	29,9	30,2	29,0	29,7	30,8	30,3	30,0	0,3	0,5
NL	22,9	23,2	23,6	23,6	24,2	24,3	25,3	23,9	1,5	2,4
A	20,5	22,2	22,1	22,0	22,4	21,8	21,6	21,8	0,4	1,1
P	19,3	19,5	19,3	19,8	19,8	19,7	19,6	19,6	0,3	0,3
FIN	27,7	27,3	29,5	29,3	29,4	28,6	28,0	28,5	0,5	0,4
S	28,8	28,1	27,9	28,4	28,4	27,5	28,0	28,1	-0,4	-0,9
UK	21,8	21,5	21,7	21,5	21,7	21,4	21,0	21,5	-0,4	-0,8
EU (Base weighted)	20,6	20,5	20,5	20,6	21,0	20,8	20,4	20,6	0,1	-0,2
Euro12 (Base weighted)	19,9	19,8	19,8	19,9	20,3	20,1	19,7	19,9	0,2	-0,1
EU (arithmetic average)	22,7	22,9	23,1	23,2	23,6	23,5	23,3	23,2	0,52	0,6
Euro12 (arithmetic average)	21,6	21,8	22,0	22,1	22,5	22,5	22,3	22,1	0,66	0,7
Ratio st.dev. and mean in %	24,1	24,2	25,3	24,2	23,5	23,6	24,5			0,4
Difference max. and min.	17,0	17,7	17,6	17,1	16,9	16,7	17,0			-0,1

1) Estimated annual average growth rate in %. - 2) in %-points

See explanatory notes in Annex C

Source: Commission Services

**Table D.2: Implicit tax rates in %: Labour**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	44,2	43,8	44,3	44,6	43,8	44,2	43,8	44,1	0,0	-0,3
DK	40,8	41,2	41,5	39,9	41,2	41,9	41,5	41,1	0,3	0,8
D	39,5	39,7	40,6	40,7	40,5	40,2	39,9	40,2	0,2	0,4
EL	34,4	35,6	36,1	37,3	37,1	37,0	36,5	36,3	1,0	2,1
E	28,9	29,5	29,0	28,7	28,1	28,7	29,4	28,9	-0,1	0,5
F	43,2	43,7	43,7	43,9	44,2	43,9	43,3	43,7	0,1	0,1
IRL	29,7	29,5	29,7	28,9	28,6	28,8	27,3	28,9	-1,2	-2,4
I	37,8	41,4	43,1	42,8	41,9	41,3	41,6	41,4	0,9	3,8
L	29,8	29,9	30,2	29,0	29,7	30,8	30,3	30,0	0,3	0,5
NL	35,1	34,1	33,4	33,6	34,1	34,4	31,7	33,8	-0,9	-3,3
A	39,0	39,5	40,5	40,2	40,3	39,9	40,2	39,9	0,4	1,2
P	31,1	31,6	32,5	32,9	33,1	33,7	34,1	32,7	1,5	3,1
FIN	44,7	45,6	44,0	44,3	43,9	44,3	44,2	44,4	-0,3	-0,5
S	48,6	49,1	49,7	51,3	49,8	48,9	49,1	49,5	0,1	0,4
UK	26,1	25,3	24,8	25,7	25,3	26,1	25,8	25,6	0,2	-0,3
EU (Base weighted)	37,5	38,0	37,9	38,0	37,6	37,4	37,0	37,6	-0,3	-0,5
Euro12 (Base weighted)	39,0	39,6	40,2	40,2	39,9	39,7	39,3	39,7	0,1	0,3
EU (arithmetic average)	36,9	37,3	37,5	37,6	37,4	37,6	37,3	37,4	0,16	0,4
Euro12 (arithmetic average)	36,4	37,0	37,3	37,2	37,1	37,3	36,9	37,0	0,16	0,4
Ratio st.dev. and mean in %	18,1	18,6	19,1	19,6	19,3	18,4	19,1			1,1
Difference max. and min.	22,5	23,8	24,9	25,5	24,5	22,9	23,2			0,7

1) Estimated annual average growth rate in %. - 2) in %-points

See explanatory notes in Annex C

Source: Commission Services

**Table D.3: Implicit tax rates in %: Capital**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	23,8	24,4	25,6	27,1	27,7	27,8	28,7	26,4	3,2	4,9
DK	26,3	27,5	28,9	34,6	37,3	29,0	30,2	30,6	2,8	3,9
D	21,1	23,9	22,7	23,6	26,3	27,6	22,6	24,0	2,2	1,4
EL	10,8	10,5	13,3	15,3	17,4	19,4	15,5	14,6	13,1	4,7
E	20,8	21,2	23,6	24,4	27,5	28,9	28,2	24,9	6,0	7,4
F	30,8	33,0	34,2	34,5	36,8	37,3	39,1	35,1	3,7	8,4
IRL*	21,8	24,6	24,9	24,0	29,5	31,8	29,2	26,6	6,8	7,3
I	26,3	26,5	29,9	27,4	28,7	28,2	28,3	27,9	1,1	2,0
L	30,6	24,5	25,9	29,8	29,4	38,4	36,8	30,8	5,2	6,2
NL	24,8	27,4	28,2	28,9	31,6	30,2	31,8	29,0	3,8	7,0
A	24,4	24,9	25,3	25,7	25,0	24,2	31,3	25,8	2,4	7,0
P*	20,7	23,2	25,5	26,6	30,7	n.a.	n.a.	25,3	8,5	6,0
FIN	27,6	29,9	30,1	31,5	33,1	36,3	27,1	30,8	1,5	-0,5
S**	16,9	27,5	27,1	30,6	32,5	34,5	n.a.	28,2	12,0	17,6
UK	27,5	27,7	30,1	31,7	33,6	34,1	35,1	31,4	4,5	7,6
EU (Base weighted)	24,5	26,1	27,4	27,9	30,0	30,6	29,8	28,0	3,6	5,3
Euro12 (Base weighted)	24,2	25,8	26,9	27,0	28,6	29,7	27,7	27,1	2,7	3,5
EU (arithmetic average)	23,6	25,1	26,4	27,7	29,8	30,5	29,5	27,5	4,23	5,9
Euro12 (arithmetic average)	22,0	23,5	24,7	25,9	28,0	28,6	27,3	25,7	4,16	5,3
Ratio st.dev. and mean in %	21,4	19,0	17,1	17,7	16,5	17,3	20,3			-1,1
Difference max. and min.	20,0	22,5	20,9	19,4	20,0	19,0	23,6			3,6

1) Estimated annual average growth rate in %. - 2) in %-points

See explanatory notes in Annex C

Source: Commission Services

\* 1995-1999. \*\*1995-2000

**Table D.3.1: Implicit tax rates in %: Capital and business income**

	1995	1996	1997	1998	1999	2000	2001	Average 1995-2001	Change <sup>1)</sup> 1995-2001	Difference <sup>2)</sup> 1995 to 2001
B	15,7	15,8	16,2	17,5	17,6	17,8	18,4	17,0	2,9	2,7
DK	17,5	19,0	20,2	24,2	27,0	17,1	17,6	20,4	0,4	0,2
D	16,9	19,4	18,8	19,6	21,9	23,4	18,4	19,8	2,8	1,5
EL	7,9	7,3	8,6	10,6	11,4	13,4	10,9	10,0	11,9	3,0
E	13,7	14,2	16,3	16,4	18,8	19,8	19,3	16,9	6,6	5,6
F	14,6	16,4	17,0	17,3	19,4	20,3	22,0	18,1	6,4	7,4
IRL	15,2	17,5	18,1	17,6	21,8	23,9	21,7	19,4	8,2	6,5
I	17,3	18,4	20,8	19,1	20,9	21,3	21,7	19,9	3,5	4,4
L	24,0	18,9	19,8	22,4	20,7	26,4	26,2	22,6	2,5	2,2
NL	17,2	19,4	20,3	20,5	22,0	20,8	22,3	20,4	3,5	5,0
A	18,6	21,0	20,9	21,3	20,6	20,0	26,8	21,3	3,5	8,2
P *	12,9	15,1	16,9	17,1	19,3	n.a.	n.a.	16,3	9,6	4,2
FIN	22,2	24,0	24,9	26,4	27,9	31,4	22,9	25,7	2,7	0,7
S **	10,7	18,4	17,6	20,7	22,4	24,5	n.a.	19,0	14,0	13,8
UK	18,5	18,9	21,1	22,5	23,4	23,3	24,4	21,7	4,8	5,9
EU (Base weighted)	16,2	17,8	18,9	19,3	21,0	21,7	21,0	19,4	4,6	4,8
Euro12 (Base weighted)	16,0	17,6	18,5	18,5	20,1	21,3	19,6	18,8	3,9	3,7
EU (arithmetic average)	16,2	17,6	18,5	19,6	21,0	21,7	21,0	19,4	4,71	4,8
Euro12 (arithmetic average)	15,1	16,5	17,4	18,4	19,8	20,4	19,6	18,2	4,70	4,4
Ratio st.dev. and mean in %	25,2	21,0	19,1	19,7	18,4	20,2	19,9			-5,3
Difference max. and min.	16,1	16,8	16,3	15,9	16,5	18,1	16,0			-0,2

1) Estimated annual average growth rate in %. - 2) in %-points

See explanatory notes in Annex C

Source: Commission Services

\* 1995-1999. \*\*1995-2000

## **ANNEX B: LISTS OF TAXES**

## 1. BELGIUM

### 1. Structure According to Economic Function as a % of GDP

#### Consumption

D2	Taxes on Production and Imports
D21	Taxes on Products
D211	Value added type taxes (VAT)
D212	Taxes and duties on imports except. VAT
D2121	Import duties
D212100	Import duties (incl ECSC)
D2122	Taxes on imports exc. VAT and import duties
D2122A	Levies on imported agricultural products
D2122B	Monetary compensation amounts
D2122C00	Excise duties
D2122C01	Excise duties on mineral oils
D2122C02	Excise duties on petroleum gas and other liquefied hydrocarbon gases and on benzoles
D2122C03	Excise duties on Tobacco
D2122C04	Excise duties on Brandy (eaux-de-vie)
D2122C05	Consumption duties on alcohol and brandy (Taxe de consommation sur les alcools et eaux-de-vie)
D2122C06	Excise duties on fermented sparkling beverages
D2122C07	Excise duties on fermented beverages of fruit
D2122C08	Excise duties on Beer
D2122C09	Excise duties on drinking water and lemonade
D2122C10	Excise duties on sugar and refined syrup (sirops de raffinage)
D2122C11	Excise duties on coffee
D2122C12	Excise duties on intermediate products
D2122C13	Inspection charge on domestic fuel
D2122C20	Ecotaxes
D2122D00	General sales taxes
D2122D01	Taxes with equivalent effect to stamp duty (Taxes assimilées au timbre)
D2122E00	Taxes on specific services
D2122F00	Profits of import monopolies
D214	Taxes on products, except VAT and import taxes
D214A00	Excise duties and consumption taxes
D214A01	Excise duties on mineral oils
D214A02	Excise duties on petroleum gas and other liquefied hydrocarbon gases and on benzoles
D214A03	Excise duties on Tobacco
D214A04	Excise duties on Brandy (eaux-de-vie)
D214A05	Consumption duties on alcohol and brandy (Taxe de consommation sur les alcools et eaux-de-vie)
D214A06	Excise duties on fermented sparkling beverages
D214A07	Excise duties on fermented beverages of fruit
D214A08	Excise duties on Beer
D214A09	Excise duties on drinking water and lemonade
D214A10	Excise duties on sugar and refined syrup (sirops de raffinage)
D214A11	Excise duties on coffee
D214A12	Excise duties on intermediate products
D214A13	Contribution to the control on domestic fuel
D214A30	Energy contribution (Cotisation sur l'énergie)
D214A31	Taxes on water (Taxes sur les eaux (VG, RW et R B-C))
D214A40	Sugar contribution
D214A41	Co-responsability tax on milk (Taxe de co-responsabilité sur le lait)
D214A42	Co-responsability tax on cereals (Taxe de co-responsabilité sur les céréales)
D214A43	Co-responsability tax on meat of sheep (Taxe de co-responsabilité sur la viande de mouton)
D214A44	Fine for exceeding milk quota (Pénalisation dépassement du quota laitier)
D214A45	Obligatory contributions on animal producers and Animal Products ((Cotisations obligatoires des producteurs d'animaux et de produits animaux (SANITEL))
D214A50	ECSC levy (Prélèvement CECA)
D214A20	Ecotaxes
D214E00	Taxes on entertainment
D214F00	Taxes on lotteries, gambling and betting
D214F01	Taxes on gambling and betting
D214G00	Taxes on insurance premiums
D214G01	Taxes on insurance contracts
D214G03	Supplementary amount on car insurance premiums (Supplément au montant des primes d'assurance automobile)
D214G04	Supplementary amount on fire insurance premiums (Supplément au montant des primes d'assurance incendie)
D214G05	Supplementary amount on hospitalization insurance premiums (Supplément au montant des primes d'assurance hospitalisation)
D214G06	Revenues for the Belgian Red Cross (Recettes au profit de la Croix-Rouge de Belgique)
D214H00	Other taxes on specific services
D214I00	General sales or turnover taxes
D214I01	Taxes with equivalent effect to stamp duty (Taxes assimilées au timbre)
D214J00	Profits of fiscal monopolies
D214J01	Profits of State Lottery (Bénéfices de la loterie nationale)
D214K	Export duties and monetary comp.amounts exports
D214K00	Export duties and monetary comp.amounts exports

D29D00	Taxes on international transactions
D29E00	Business and professional licenses
D29F00	Taxes on pollution
D29F01	Taxes on industrial waste (Taxes sur les déchets industriels (VG))
D29F02	Taxes on liquid manure (Taxe sur le lisier (VG))
D29G	Under-compensation of VAT (flat rate system)
D29G00	Under-compensation of VAT (flat rate system)
D59B	Poll taxes
	Taxes on domestic waste (Taxe sur les déchets ménagers (RW))
D59C	Expenditure taxes
D59D	Payments by households for licenses
	Circulation taxes paid by households
	Taxes with equivalent effect to excise duties paid by households (Taxe assimilée au droit d'accise payée par les ménages)
D59E	Taxes on international transactions
D59F	Other current taxes n.e.c.
	Other taxes
<b>Labour</b>	
<b>Employer</b>	
D29C	Total wage bill and payroll taxes
	Taxes on co-ordination centres (Taxe sur les centres de coordination)
D6111	Employers' actual social contributions
<b>Employee</b>	
D51A	Taxes on individual or household income
	% of advance payment (Précompte professionnel (PP))
	% of advance payment (Versements anticipés (PP))
	% of income tax based on assessment (Rôles)
	% of other taxes on income (autres impôts sur le revenu)
	Special contribution to social security (Cotisation spéciale de sécurité sociale)
	Contribution on high income (Cotisation sur les hauts revenus)
D51E	Other taxes on income
	Non-residents tax (Impôts des non-résidents (PP))
D214G	In taxes on insurance premiums:
	Supplementary amount on accidents at work insurance premiums (Supplément au montant des primes d'assurance accidents de travail)
D6112	Employees' actual social contributions
<b>Non-employed</b>	
D51A	In taxes on individual or household income
	% of advance payment (Précompte professionnel (PP))
	% of advance payment (Versements anticipés (PP))
	% of income tax based on assessment (Rôles)
	% of other taxes on income (autres impôts sur le revenu)
D6113	% of social contributions self- and non-employed
<b>Capital</b>	
<b>Business and capital income</b>	
<b>Income corporations</b>	
D51B	Advance levy on income derived from securities (Précompte mobilier)
D51B	Advance payment (Versements anticipés)
D51B	Taxes on non-resident companies (Impôts de non-résidents soc)
D51B	Assessed income tax
D51B	Other taxes on income (Autres impôts sur le revenu)
<b>Income households</b>	
D51A	Taxes on individual or household income
	Annual tax on profit sharing (Taxe annuelle sur les participations bénéficiaires)
	% of advance payment (Précompte professionnel (PP))
	% of advance payment (Versements anticipés (PP))
	% of income tax based on assessment (Rôles)
	% of other taxes on income (autres impôts sur le revenu)
D51A	Advance levy on income derived from securities (Précompte mobilier (PP))
D51E	Taxes on non residents (Impôts des non-résidents)
D51E	Other taxes on income (Autres impôts sur le revenu)
<b>Income self-employed</b>	
D51A	In taxes on individual or household income
	% of advance payment (Précompte professionnel (PP))
	% of advance payment (Versements anticipés (PP))
	% of income tax based on assessment (Rôles)
	% of other taxes on income (autres impôts sur le revenu)
D6113	% of social contributions self- and non-employed

**Stocks (wealth) of capital**

D214B	Stamp taxes
D214C00	Taxes on financial and capital transactions
D214C01	Registration duties (Droits d'enregistrement)
D214C02	Mortgage duty (Droits d'hypothèque)
D214C03	Court duties (Droits de greffe)
D214C04	Tax on stock exchange (Taxe sur les opérations de bourse et de reports)
D214D00	Registration tax (Taxe d'immatriculation)
D214L00	Other taxes on "nda" products (Autres impôts sur les produits nda)
D214L01	Tax on bills (Taxe d'affichage)
D214L02	Contribution on the turnover of the pharmaceutical industry (Cotisation sur le chiffre d'affaire de l'industrie pharmaceutique)
D214L03	Levy on certain pharmaceutical products (Redevance sur certains produits pharmaceutiques)
D29A00	Taxes on land, buildings and other structures
D29A01	Tax on real estate (Précompte immobilier (PP))
D29A02	Tax on real estate (Précompte immobilier (Soc))
D29B00	Taxes on the use of fixed assets
D29B01	Circulation taxes paid by companies (Taxe de circulation payée par les entreprises)
D29B02	Taxes with equivalent effect to excise duties paid by companies (Taxe assimilée au droit d'accise payée par les entreprises)
D29C01	Taxes on co-ordination centres (Taxe sur les centres de coordination)
D29H00	Other taxes on the production of "nda" (Autres impôts à la production nda)
D29H01	Tax on the opening of establishments for the sale of fermented beverages (Taxe d'ouverture)
D29H02	Licensing tax on establishments for the sale of spirituous beverages (Taxe de patente)
D29H03	Annual tax on securities listed on the stock exchange (Taxe annuelle sur les titres cotés en bourse)
D29H04	Tax on deliveries of bearer securities (Taxe sur les livraisons de titres au porteur)
D29H05	Tax on automatic amusement machines (Taxe sur les appareils automatiques de divertissement)
D29H06	Annuity on patents (Annuité de brevets)
D29H07	Monopoly tax (Rente de monopole (Belgacom))
D29H08	Monopoly tax (Rente de monopole (Loterie nationale))
D29H09	Unique contribution for companies (Cotisation unique des sociétés)
D29H10	Remboursement biologie clinique
D29H12	Euro-toll disc (Eurovignette)
D29H13	Exceptional contribution for electricity producers (Cotisation exceptionnelle des producteurs d'électricité)
D29H99	Other taxes on production
D.91	Capital taxes
D91A	Taxes on capital transfers
	Taxes on gifts inter-vivos (Droits sur les donations)
D91B	Capital levies
	Succession duties (Droits de succession)
	Taxes on long-term savings (Taxe sur l'épargne à long terme)
D91C	Other capital taxes
D59A	Current taxes on capital
	Taxes on immovable property (Taxes sur le patrimoine (terrains et bâtiments))
	Taxes on non-profit making associations (Taxe sur les associations sans but lucratif)
	Annual tax on collective investment organisations (Taxe annuelle sur les organismes de placement collectif)
	Private transfers to the funds for accidents at work (Transfert au Fonds des accidents de travail en provenance des caisses privées)



**2. Environmental split**

<b>Energy</b>	D.2122 C	Excise duties Excise duties on mineral oils
	D.214 A	Excise duties and consumption taxes Excise duties on mineral oils Contribution on energy (Cotisation sur l'énergie) Redevance de contrôle sur le fuel domestique
	D.29 H to S1313	Local energy taxes (35% of Autres impôts à la production n. d. a.)
<b>Transport</b>	D.214 D	Car registration taxes Vehicle registration tax
	D214 G	Taxes on insurance premiums Additional tax on car insurance premium
	D.29 B	Taxes on the use of fixed assets Circulation taxes paid by companies Taxes treated as excise duties paid by companies (Taxe assimilée au droit d'accise payée par les entreprises)
	D29H	Other taxes on production n.e.c. Eurovignette
	D.59 D	Payments by households for licenses Circulation taxes paid by households Taxes with equivalent effect to excise duties paid by households (Taxe assimilée au droit d'accise payée par les ménages)
<b>Pollution</b>	D.214 A	Excise duties and consumption taxes Tax on water consumption Ecotaxes
	D.29 F	Taxes on pollution Taxes on industrial waste (Taxes sur les déchets industriels (VG)) Taxes on liquid manure (Taxe sur le lisier (VG))
	D.59 B	Poll taxes Tax on household waste
	D.29 H to S1313	Local pollution taxes (2,5 % of Autres impôts à la production n. d. a.)

## 2. DENMARK

### 1. Structure According to Economic Function as a % of GDP

#### Consumption

Motor vehicle weight duty from households  
 VAT  
 Labour market contributions  
     Concerning imports  
     Concerning value added  
 Customs duties  
 Import and export duties on agricultural produce  
 Duty on petrol  
 Motor vehicle registration duty  
 Aircraft registration duty, etc.  
 Cigarette and tobacco duty  
 Duty on cigars, cheroots and cigarillos  
 Income from sale of revenue labels  
 Sales duties on chocolate and sugar confectionery, etc.  
 Raw material duty on chocolate and sugar confectionery, etc.  
 Special tax on chocolate and sugar confectionery, etc.  
 Sugar storing duty  
 Duty on ice-cream  
 Duty on coffee, etc.  
 Duty on mineral water  
 Duty on beer  
 Duty on wine  
 Duty on spirits  
 Duty on grammophone records  
 Duty on electric bulbs and fuses, etc.  
 Duty on perfumery and toilet articles  
 Duty paid to European Coal and Steel Community  
 Income from sale of number plates  
 Duty on building certificates  
 Duty on the production of sugar  
 Duty on tea  
 Duty on electricity  
 Duty on certain oil products  
 Duty on certain retail containers  
 Milk co-responsibility levy  
 Duty on gas  
 Duty on extraction and import of raw materials  
 Duty on disposable tableware  
 Duty on insecticides, herbicides, etc.  
 Duty on coal, etc.  
 Grain co-responsibility levy  
 Large yachts registration duty  
 Duty on waste  
 Duty on CFC  
 Duty on CO2  
 Duty on cigarette paper  
 Duty on piped water  
 Duty on carrier bags made of paper or plast, etc.  
 Duty on nickel/cadmium batteries  
 Duty on tires  
 Duty on sulphur  
 Duty on chlorinated solvents  
 Duty on natural gas  
 Effluent charges  
 Duty on nitrogen  
 Duty on special growth stimulants  
 Duty on PVC film  
 Duty on PVC and phthalates  
 Gambling tax on racing  
 Sales tax on football pools  
 Duty on motor vehicle third-party liability insurance  
 Duty on insurance on pleasure boats  
 Duty on charter flights  
 Duty on casinos  
 Passenger duty  
 Duty on the Danish State Lottery  
 Duty on oil pipeline  
 Other duties on goods and services  
 Other production taxes, total

**Labour**

**Employed**

**Employers**

- Social contributions from employers
  - Labour market supplementary pension scheme contributions from employers in private sector
  - Labour market supplementary pension scheme contributions from employers in government sector
  - Labour market supplementary pension scheme contributions from government social protection schemes
  - Contributions to employees' wage guarantee fund
- Labour market contributions
  - Contributions to scheme for refunding trainee cost
  - Contributions to scheme for refunding trainee cost
  - Labour market contributions from employers
  - General work environment duty
- Duty on wage and salary costs

**Employees**

- Social contributions from employees, etc.
  - Unemployment insurance contributions
  - Labour market supplementary pension scheme contributions
  - Special pension-scheme savings
  - Early retirement contributions
  - Flexible benefit contributions
- Labour market contributions
  - From employees, etc.
    - Contributions to labour market training fund
  - % of Central government income tax
  - % of County income tax
  - % of Municipality income tax
  - % of Church tax
  - % of Special income tax
    - % of To central government
    - % of To municipalities

**Non-employed**

- % of Central government income tax
- % of County income tax
- % of Municipality income tax
- % of Church tax
- % of Special income tax
  - % of To central government
  - % of To municipalities
- Taxes on pension schemes with lump sum disbursements
  - To central government
  - To municipalities

**Capital**

**Business and capital income**

**Income corporations**

- Corporation tax
  - To central government
  - To municipalities
- Municipality income tax from public (state) enterprises
- Corporation tax on hydrocarbon manufacturing
  - To central government
  - To municipalities
- Tax on funds and associations
  - To central government
  - To municipalities
- Tax on yields of certain pension scheme assets
  - From insurance companies, private pensionsfonds etc.

**Income households**

- % of Central government income tax
- % of County income tax
- % of Municipality income tax
- % of Church tax
- % of Special income tax
  - % of To central government
  - % of To municipalities
- Tax on income of deceased persons
- Tax on yields of certain pension scheme assets
  - From households

**Income self-employed**

- % of Central government income tax
- % of County income tax
- % of Municipality income tax
- % of Church tax
- % of Special income tax
  - % of To central government
  - % of To municipalities

**Stocks (wealth) of capital**

- Duty on released rent increases to central government and municipalities
- Duty on releases from fund for employers' index-regulated pay increases to central government and municipalities
  - To central government
  - To counties
- Taxes on real property
  - To central government
  - To counties
  - To municipalities
- Compulsory fines, etc.
- Motor vehicle weight duty from producers
- Property release duty
  - To central government
  - To municipalities
- Taxes on specific transactions
  - Stamp duties
  - Duty on issues of shares
  - Land development duty
  - Duties to the register of companies and associations
  - Duty on transfers of shares
- Tax on imputed income from owner-occupied dwelling (the so-called 'property value tax')
  - To counties
  - To municipalities
- Tax on wealth
  - Wealth tax on persons
  - Wealth tax on deceased person's estate
- Estate duty and gift tax
  - Inheritance duty
- Duties in connection with control and supervision, etc.
  - Duty on credit cards
  - Duties paid to the working environment fund
- Duties in connection with licences, authorizations, etc.
  - Pharmacy fees, etc.
  - Fees to Danish Cultural Foundation
  - Fees submitted for operation of training ship »Danmark«

**2. Environmental split**

<b>Energy</b>	Duty on petrol	6.3.1
	Duty on electricity	6.3.38
	Duty on certain oil products	6.3.39
	Duty on gas	6.3.42
	Duty on coal, etc.	6.3.47
	Duty on CO2	6.3.53
	Duty on natural gas	6.3.61
<b>Transport</b>	Motor vehicle weight duty	5.3
	Motor vehicle registration duty	6.3.2
	Aircraft registration duty, etc.	6.3.3
	Income from sale of number plates	6.3.32
	Large yachts registration duty	6.3.50
	Duty on tires	6.3.58
	Duty on motor vehicle third-party liability insurance	6.5.4
	Duty on insurance on pleasure boats	6.5.5
	Duty on charter flights	6.5.6
	Passenger duty	6.5.10
<b>Pollution</b>	Duty on electric bulbs and fuses, etc.	6.3.27
	Duty on certain retail containers	6.3.40
	Duty on disposable tableware	6.3.44
	Duty on insecticides, herbicides, etc.	6.3.45
	Duty on waste	6.3.51
	Duty on CFC	6.3.52
	Duty on carrier bags made of paper or plast, etc.	6.3.56
	Duty on nickel/cadmium batteries	6.3.57
	Duty on sulphur	6.3.59
	Duty on chlorinated solvents	6.3.60
	Effluent charges	6.3.62
	Duty on nitrogen	6.3.63
	Duty on special growth stimulants	6.3.64
	Duty on PVC film	6.3.65
	Duty on PVC and phthalates	6.3.66
<b>Resource</b>	Duty on extraction and import of raw materials	6.3.43
	Duty on piped water	6.3.55

### 3. GERMANY

#### 1. Structure According to Economic Function as a % of GDP

##### Consumption

D2	TAXES ON PRODUCTION AND IMPORTS
D21	Taxes on products (Gütersteuern)
D211	Value added type taxes (Mehrwertsteuern)
D212	Taxes and duties on imports excluding VAT (Importangaben)
D2121	Import duties (Zölle)
	Customs on agricultural products (Abschöpfungs-u. Währungsausgleichsbeträge)
	Import duties (Importsteuern)
D2122	Taxes on imports, excluding VAT and import duties
D214	Taxes on products, except VAT and import taxes (sonstige Güternsteuern)
	Excise duties and consumption taxes (Verbrauchssteuern)
	Duties on electricity (Stromsteuer)
	Duties on mineral oil (Mineralölsteuer)
	Duties on tobacco (Tabaksteuer)
	Duties on wine (Branntweinabgaben)
	Duties on coffee (Kaffeesteuer)
	Duties on tea (Teesteuer)
	Duties on sugar (Zuckersteuer)
	Duties on salt (Salzsteuer)
	Duties on sparkling wines (Schaumweinsteuer)
	Duties on acetic acid (Leuchtmittelsteuer)
	Duties on beer (Biersteuer)
	Other excise duties (sonstige Verbrauchssteuern)
	Fire insurance tax (Feuerschutzsteuer)
	(Produktionsabgaben für Zucker)
	(Montanunion-Umlage)
	Coal tax (Kohlepfennig)
D29	Other taxes on production (sonstige Produktionsabgaben)
	Undercompensation VAT (Unterkompensation Umsatzsteuer)
D59	Other current taxes (sonstige direkte Steuern und Abgaben)
	Other current taxes (Steuer im Zusammenhang mit dem privaten Verbrauch)
	Tax on Motor Vehicles for private Households (KFZ-steuern von privaten Haushalten)
	Other community taxes (sonstige Gemeindesteuern der Stadtstaaten)
	Taxes on dogs (Hundesteuer)
	Hunting and Fishing tax (Jagd- und Fischereisteuer)
	Administrative charges for private households (Verwaltungsgebühren von privaten Haushalten)

##### Labour

###### Employed

###### Employers

D6111	Employers' actual social contributions
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###### Employees

TRD51A	Taxes on individual or household income (Einkommensteuer von privaten Haushalten)
	% of assessed income tax (Veranlagte Einkommensteuer) and wage tax (Lohnsteuer)
D6112	Employees' social contributions

###### Non-employed

TRD51A	% of Taxes on individual or household income (Einkommensteuer von privaten Haushalten)
	% of assessed income tax (Veranlagte Einkommensteuer)
	% of wage tax (Lohnsteuer)
	% of other income tax, incl. Capital yields tax for households (Zinsabschlag)
D6113	% of social contributions by self- and non-employed persons

##### Capital

###### Business and capital income

###### Income corporations

D29	Other taxes on production
	Tax on industry and trade (Gewerbesteuer)
D51B	Taxes on the income or profits of corporations (Einkommensteuer von Kapitalgesellschaften)
	Corporation tax (Körperschaftsteuer)
	Other income tax, incl. Capital yields tax for corporations (Zinsabschlag)

###### Income households

TRD51A	% of Taxes on individual or household income (Einkommensteuer von privaten Haushalten)
	% of assessed income tax (Veranlagte Einkommensteuer)
	% of wage tax (Lohnsteuer)
	% of other income tax, incl. Capital yields tax for households (Zinsabschlag)
	Income taxes from rest of the world (Einkommensteuer von der übrigen Welt)

**Income self-employed**

TRD51A	% of Taxes on individual or household income (Einkommensteuer von privaten Haushalten)
	% of assessed income tax (Veranlagte Einkommensteuer)
	% of wage tax (Lohnsteuer)
	% of other income tax, incl. Capital yields tax for households (Zinsabschlag)
D6113	% of social contributions by self- and non-employed persons

**Stocks (wealth) of capital**

	Real estate transfer tax (Grunderwerbsteuer)
	Capital duty (Gesellschaftssteuer)
	Stock exchange turnover tax (Börsenumsatzsteuer)
	Bills of exchange tax (Wechselsteuer)
	Tax to support sales of products in the field of fishing and agriculture (Absatzfondsgesetz)
	Other community taxes (übrige Gemeindesteuern)
	Tax on overproduction of milk and corn paid by Farmers (Milch-u. Getreidemitverantwortungsabgaben)
	Tax on real estate (Grundsteuer A und B)
	Tax on motor vehicles paid by enterprises (Kfz-Steuer von Unternehmen)
	Administrative charges for enterprises (Verwaltungsgebühren von Unternehmen)
	Quasi tax receipts (steuerähnliche Einnahmen)
	Other taxes on production (übrige Produktionsabgaben)
	Wealth tax for private households (Vermögensteuer von privaten Haushalten)
	Wealth tax for corporations (Vermögensteuer von Kapitalgesellschaften)
D91	Capital taxes (Vermögenswirksame Steuern)
	Succession and gift tax (Erbschaftsteuer)

**2. Environmental split**

**Environmental**

**Energy**

Excise duties and consumption taxes (Verbrauchssteuern)  
 Duties on electricity (Stromsteuer)  
 Duties on mineral oil (Mineralölsteuer)  
 Coal tax (Kohlepfennig)

**Transport**

TRD59	Other current taxes (sonstige direkte Steuern und Abgaben)
	Tax on Motor Vehicles for private Households (KFZ-steuern von privaten Haushalten)
TRD29B	Tax on motor vehicles paid by enterprises (Kfz-Steuer von Unternehmen)

**Pollution**

Excise duties and consumption taxes (Verbrauchssteuern)  
 Duties on acetic acid (Leuchtmittelsteuer)

## 4. GREECE

### 1. Structure According to Economic Function as a % of GDP

<b>Consumption</b>		
	D211	Value added type taxes
	D212	Taxes and duties on imports excluding VAT Import duties
	D2122	Taxes on imports, excluding VAT and import duties
	D2122A	Levies on imported agricultural products
	D2122B	Monetary compensatory amounts on imports
	D2122C	Excise duties
	D2122D	General sales taxes
	D2122E	Taxes on specific services
	D2122F	Profits of import monopolies
	D214A	Excise duties and consumption taxes Excise duties on cars Excise duties on oil products (benzin, petroleum etc) Excise duties on tobacco products Taxes on beer Taxes on alcoholic drinks Taxes on other products
	D214E	Taxes on entertainment Amusement taxes
	D214F	Taxes on lotteries, gambling and betting Taxes on lotteries Taxes on gambling and betting Duty on casino
	D214G	Taxes on insurance premiums Taxes on insurance premiums
	D214H	Other taxes on specific services Taxes on advertising Taxes on hotels, restaurants, etc
	D214I	General sales or turnover taxes Wholesale sale taxes Other general sales taxes
	D214J	Profits of fiscal monopolies
	D214K	Export duties and monetary comp. amounts on exports
	D29B	Taxes on the use of fixed assets Taxes on the use of dogs, streets, lighting
	D29D	Taxes on international transactions
	D29F	Taxes on pollution
	D29G	Under-compensation of VAT (flat rate system)
	D59B	Poll taxes
	D59C	Expenditure taxes
	D59D	Payments by households for licences
	D59E	Taxes on international transactions
	D59F	Other current taxes n.e.c.
<b>Labour</b>		
	<b>Employers</b>	D6111 Employers' actual social contributions
	<b>Employees</b>	D6112 Employees' social contributions
		D51A % of Taxes on individual or household income % of Income taxes on individuals % of Taxes on interest and other taxes on individuals
	<b>Self-employed</b>	D6113 % of Social contributions by self- and non-employed persons
		D51A % of Taxes on individual or household income % of Income taxes on individuals % of Taxes on interest and other taxes on individuals
<b>Capital</b>		
<b>Business and capital income</b>		
<b>Income corporations</b>		
	D51B	Tax on income or profits of corporations Income taxes on corporations Taxes on shipowners Various corporations taxes
<b>Income households</b>		
	D51A	% of Taxes on individual or household income % of Income taxes on individuals % of Taxes on interest and other taxes on individuals
	D51C	Taxes on holding gains
	D51D	Taxes on winnings from lottery or gambling
	D51E	Other taxes on income n.e.c. Tax penalties and fines Various



**Stocks (wealth) of capital**

D214B	Stamp taxes
	Stamp taxes on products
	Stamp taxes on legal documents
D214C	Taxes on financial and capital transactions
	Taxes on the sale of non-financial assets
	Taxes on the sale of financial assets
D214D	Car registration taxes
D29A	Taxes on land, buildings or other structures
D29E	Business and professional licenses
	Professional licences
	Vehicle licences for businesses
	Various
D29H	Other taxes on production n.e.c.
	Taxes on capital accumulation
	Various
D59A	Current taxes on capital
	Taxes on household buildings
D91A	Taxes on capital transfers
D91B	Capital levies
D91C	Other capital taxes

**2. Environmental split**

<b>Energy</b>	Excise duties on oil products (gas, petroleum, etc.)
<b>Transport</b>	Excise duties on cars
	Car registration taxes
	Vehicle licences for businesses
	Car registration licenses

## 5. SPAIN

### 1. Structure according to economic function as % of GDP

#### Consumption

D211	Value added type taxes
D2121	Import duties
	Import duties
	Canary island duties on nationally produced goods
	Duties on nationally produced goods from Ceuta and Melilla
	Other duties
D2122A	Levies on imported agricultural products
	Agricultural levies
	Other levies
D2122B	Monetary compensatory amounts on imports
D2122C	Excise duties
D214A	Excise duties and consumption taxes
	Excise duties on hydrocarbon oil
	Excise duties on electricity
	Excise duties on alcoholic drinks
	Excise duties on tobacco
	Canary island duties on nationally produced goods
	Duties on nationally produced goods from Ceuta and Melilla
	Other excise duties
D214E	Taxes on entertainment
D214F	Taxes on lotteries, gambling and betting
D214G	Taxes on insurance premiums
D59D	Payments by households for licences
D59F	Other current taxes n.e.c.

#### Labour

##### Employers

D6111	Employers' actual social contributions
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##### Employees

D51	Taxes on income
D51A	% of Taxes on individual or household income
D6112	Employees' social contributions

##### Non-employed

D51	Taxes on income
D51A	% of Taxes on individual or household income
D6113	% of Social contributions by self- and non-employed persons

#### Capital

##### Business and capital income

###### Income corporations

D51B	Taxes on the income or profits of corporations
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###### Income households

D51	Taxes on income
D51A	% of Taxes on individual or household income
D51E	Other taxes on income n.e.c.

###### Income self-employed

D51	Taxes on income
D51A	% of Taxes on individual or household income
D6113	% of Social contributions by self- and non-employed persons

##### Stocks (wealth) of capital

D214	Taxes on products, except VAT and import taxes
D214B	Stamp taxes
D214C	Taxes on financial and capital transactions
D214D	Car registration taxes
D214L	Other taxes on products n.e.c.
D29	Other taxes on production
D29A	Taxes on land, buildings or other structures
D29B	Taxes on the use of fixed assets
D29E	Business and professional licences
D59	Other current taxes
D59A	Current taxes on capital
D91	Capital Taxes
D91A	Taxes on capital transfers
D91B	Capital levies

**2. Environmental split**  
**Environmental**

<b>Energy</b>	TRD214A	Excise duties and consumption taxes Excise duties on hydrocarbon oil Excise duties on electricity
<b>Transport</b>	TRD214D TRD29B TRD59D	Car registration taxes Taxes on the use of fixed assets (Tax on mechanically powered vehicles (enterprises)) Payments by households for licences Tax on mechanically powered vehicles (households)
<b>Pollution</b>	D29F	Taxes on pollution Tax on waste (Canon de vertidos) Taxes on the environment and atmospheric pollution (impuestos sobre el medio ambiente y contaminación atmosférica)

## 6. FRANCE

### 1. Structure According to Economic Function as a % of GDP

#### Consumption

D59	% of Tax on housing
D59	Motor vehicle duty paid by households
D21	Value Added Tax on products
D212	Import duties
D214	Levies on agricultural production
D212	Other taxes on imports
D214	Inland duty on petroleum products
D214	Special duty on tobacco and matches
D214	Excise duties on beers and mineral waters
D214	Duty on sugar
D214	Duty on cereals and sugar beet
D214	Tax on oils intended for human consumption
D214/211/292	Tax on forestry products
D212/214	State health tax on meat
D214	Metered water consumption charge
D214	Other duties on goods
D214	Special tax on insurance contracts
D214	Surcharge on insurance contracts accruing to the agricultural disaster
D214	Surcharge on insurance contracts accruing to the compensation funds for building insurance
D214	Surcharge on insurance contracts accruing to the motor guarantee fund
D214secu	Tax on motor vehicle insurance
D214	Municipal entertainments tax
D214	Surcharge on the price of cinema seats
D214	Levy on betting
D214	Levy on the loterie nationale and loto
D214	Casino gaming tax
D214	Funeral taxes
D214	Mining duties
D214	Tax accruing to the navigation office
D214	Hallmark duties on gold and silver
D214	Other taxes on services
D214	Duty on manufactured tobaccos
D214	Consumption and production duties on spirits

#### Labour

##### Employed

##### Employers

D51	Receipts of solidarity fund
D291	Tax charged by the Syndicat des transports
D291	Employers participation in financing continuous vocational training
D291	Apprenticeship tax
D611	Employers' actual social contributions

##### Employees

TRD51A	% of Personal income tax (cf. Direction de la Prevision)
TRD51A	% of CRDS (cf. Direction de la Prevision)
TRD51A	% of CSG (cf. Direction de la Prevision)
D291	Flat rate contribution from earnings
D612	Employees' actual social contributions

##### Non-employed

D613	% of Social contributions by self-employed and non-employed persons
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**Capital**

**Business and capital income**

**Income corporations**

D51B	Exceptional tax on oil companies
D51B	Corporation tax
D51B	Advance payments by companies on distributed profits
D51B	Profit taxes deducted at source from non-commercial profits
D51B	Withholding tax on profits derived from building construction
D51B	Special levy on credit establishments
D51B	Special levy on credit institutions and insurance firms

**Income households**

D51A	Withholding tax on income from investments
D51A	% of Personal income tax (cf. Direction de la Prevision)
D51A	Social levies of 2%
D51A	% of CRDS (cf. Direction de la Prevision)
D51A	% of CSG (cf. Direction de la Prevision)
D51A	Tax deducted in application of the rules for multiple sources of earnings

**Income self-employed**

D51A	% of Personal income tax (cf. Direction de la Prevision)
D613	% of Social contributions by self-employed and non-employed persons

**Stocks (wealth) of capital**

D214	Flat rate duty on precious metals
D214	Tax on the notional rental value of dwellings
D214	Tax on the notional rental value of commercial property
D214	Tax on stock exchange turnover
D214	Registration duties
D214	Lease registration
D214	Local equipment tax
D214	Tax on preparation of medicines
D214	Electricity meter charge
D291	Tax charged for the housing fund
D291/D292	Other taxes linked to production
D292	Motor vehicle duty paid by enterprises
D292	Motor vehicle duty paid by enterprises on private motor cars
D292	Tax on licenced premises
D292	Special tax on certain road vehicles
D292	Abattoir fee
D292	Tax accruing to the chambers of trade
D292	Employers' wage-based contribution (1%) to the social housing fund
D292/D214	Levy for Agences Financieres de Bassin
D59	Levy on saving banks
D59	Wealth tax
D59	Levy charged on commission by the Credit Foncier
D292	Property tax on developed property
D59/D292	Property tax on land without buildings
D59/D292	Dues payable to chambers of agriculture
D59/D292	Stamp duties
D59/D292	Current taxes on income and wealth paid by public admin.
D292	Local business tax
D59	% of Tax on accomodation (cf. Direction de la Prevision)
D91	Duties on capital gifts
D91	Exceptional levy on insurance enterprises and repatriation of capital
D91	Other taxes on capital
D91	Solidarity social contributions of companies (CSS)

**2. Environmental split**

<b>Energy</b>	Inland duty on petroleum products Electricity meter charge
<b>Transport</b>	Motor vehicle duty paid by households Motor vehicle duty paid by enterprises on private motor cars Tax on motor vehicle insurance Motor vehicle duty paid by enterprises Vehicle registration certificate Special tax on certain road vehicles Surcharge on insurance contracts accruing to the motor guarantee fund (includes 3.4.4.)
<b>Pollution</b>	Levy for Agences Financières de Bassin
<b>Resources</b>	Metered water consumption charge Mining duties

## 7. IRELAND

### 1. Structure According to Economic Function as a % of GDP

#### Consumption

TRD59D	Payments by households for licences Motor vehicle duties paid by households
TRD214E	Taxes on entertainment Entertainment licenses
TRD214F	Taxes on lotteries, gambling and betting Sweepstake duties Betting taxes
TRD214G	Taxes on insurance premiums Taxes on insurance policies
TRD211	Value added type taxes Value added taxes
TRD2121	Import duties Customs duties
TRD2122A	Levies on imported agricultural products Levies on agricultural products
TRD214A	Excise duties and consumption taxes Duties on mineral hydrocarbon light oil Duties on other sorts of oil Duties on tobacco Duties on spirits Duties on wine Duties on beer Duties on cider and perry Duties on motor vehicle parts and access

#### Labour

##### Employed

###### Employers

D6111	Employers' actual social contributions
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###### Employees

D51A	% of Taxes on individual or household income
D6112	Employees' social contributions

##### Non-employed

D51A	% of Taxes on individual or household income
D6113	% of Social contributions by self-and non-employed persons

#### Capital

##### Business and capital income

###### Income corporations

D51B	Tax on income or profits of corporations
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###### Income households

D51A	% of Taxes on individual or household income
D51C	Capital gains tax
D51E	Other taxes on income Levies under sect. 93/94 finance act, 1986 Fees under petroleum and mineral development acts Estate duties

###### Income self-employed

D51A	% of Taxes on individual or household income
D6113	% of Social contributions by self-and non-employed persons

##### Stocks (wealth) of capital

D214B	Stamp taxes Stamp duties Fee stamps
D214C	Taxes on financial and capital transactions Bank levy
D214D	Car registration taxes Motor vehicle duties paid by enterprises
D214H	Other taxes on specific services
D214H	Broadcasting licence fees
D29A	Taxes on land, buildings or other structures Rates Residential property tax
D29E	Business and professional licenses
D91	Capital taxes
D91A	Capital acquisition tax
TRD29H	Other taxes on production n.e.c. Other taxes linked to production

**2. Environmental taxes as % of GDP**

<b>Energy</b>	Excise duty on mineral hydrocarbon oil Excise duty on other sorts of oil
<b>Transport</b>	Motor vehicles duties paid by producers Motor vehicles duties paid by households Excise duty on motor vehicle parts and access
<b>Pollution/ ressources</b>	Fees under the petroleul and mineral development acts



## 8. ITALY

### 1. Structure according to economic function as % of GDP

#### Consumption

D211	VAT total to S13
D211	VAT to EC
D2121	Import duties to EC
D2122C	In-bond surcharge on mineral oils
D2122C	In-bond surcharge on liquefied petroleum gases and other surcharges of which environmental (data on LPG from A. Del Santo, ISTAT)
D2122C	Excise duty on coffee
D2122C	Excise duty on cocoa
D2122C	Excise duty on bananas
D2122C	Other taxes on imports
D2122C	Excise duties to EC
D214A	Excise duty on mineral oils
D214A	Excise duty on liquefied petroleum gases
D214A	Excise duty on methane
D214A	Excise duty on beer
D214A	Excise duty on sugars
D214A	Excise duty on electricity
D214A	Local surcharge on electricity duty
D214A	Excise duty on sound and video recording and playing equipment
D214A	Special duty on table waters
D214A	Surcharges accruing to National Rice Administration
D214A	Water consumption tax
D214A	Excise duties to EC
D214B	Excise duty on tobacco
D214B	Excise duty on spirits
D214B	Receipts from sale of denaturing agents and government seals
D214E	Entertainment tax
D214E	Casino takings, special duties, etc.
D214F	Tax on lotto, lotteries and betting
D214F	Single tax on games of skill and betting-levied indirectly on production
D214F	Tax on Totip game and horse races bets
D214F	Tax on Totocalcio game
D214G	Provincial tax on motor vehicle insurances
D214J	Excise duty on products of Monopoli di Stato
D214L	Special duties similar indirect tax on products
D29H	Tourist and temporary residence tax
D29H	Other taxes on production
D29H	Surcharges accruing to provincial tourist offices
D59D	Driving licence and passport tax
D59D	Motor vehicle duty paid by household
D59F	Tax on dogs

#### Labour

##### Employers

D29C	Contribution to GESCAL - employers' contribution
D29H	% of regional tax on productive activities (IRAP)
D91B	Withholding tax on the severance pay
D6111	Employers' actual social contributions

##### Employees

D51A	% of Personal income tax
D51A	Contributions to GESCAL - employees' contribution
TRD59F	% of Substitute tax on income derived from the appreciation of severance indemnity funds
D6112	Employees' actual social contributions

##### Non-employed

D6113	% of Social contributions by self-employed and non-employed persons
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#### Capital

##### Business and capital income

##### Income corporations

D29H	% of Regional tax on productive activities (IRAP)
D51B	Withholding tax on income from deposits paid by firms
D51B	Corporation tax
D51B	Local income tax paid by firms
D51B	Withholding tax on company dividends paid by firms
D51B	New tax on imputed income derived from the appreciation of corporate assets

**Income households**

D51A	% of Personal income tax
D51A	Withholding tax on income from deposits paid by households
D51A	Local income tax paid by households
D51A	Tax on income from investments
D51A	10% Surcharge on income
D51A	Withholding tax on company dividends paid by households
D51C	Capital gains tax on shares
D51C	Tax on investment funds
D51D	Tax on games of skill and betting-levied on current income and assets

**Income self-employed**

D29H	% of Regional tax on productive activities (IRAP)
D51A	% of Personal income tax
D6113	% of Social contributions by self-employed and non-employed persons

**Stocks (wealth) of capital**

D214A	Regional special tax on dumping
D214B	Stamp duties
D214B	Registration tax
D214B	Duty in lieu of registration and stamp duties (excl. Insurance tax)
D214B	Mortgage taxes and land registry duties
D214B	Public motor vehicle register tax
D214B	Surcharges accruing on cadastral acts
D214H	Municipal tax on advertising
D214H	Municipal tax on building licences
D214L	Municipal surcharges accruing on slaughters
D29A	Municipal real estate tax (ICI) - Part on buildings
D29B	Motor vehicle duty paid by firms
D29E	Surcharge accruing to chambers of commerce
D29E	Duty on official franchises
D29E	Refunds of taxes on production and imports
D29F	SO <sub>2</sub> and NO <sub>x</sub> pollution tax
D29H	Other special duties on production
D29H	Telecommunication licences tax
D29H	Surcharges accruing on notarial acts
D51A	Municipal tax on industry, crafts and professions
D51A	Municipal capital gains tax on buildings paid by households
D51B	Company franchise and liabilities tax
D51B	Tax on net wealth of enterprises
D51B	Municipal capital gains tax on buildings paid by firms
D51E	Surcharges on state and local taxes
D59A	Municipal real estate tax (ICI) - Part on building plots
D59F	% of Substitute tax on income derived from the appreciation of severance indemnity funds
D91A	Inheritance and gift duty
D91A	Estate duty
D91B	Tax on imputed income derived from the appreciation of corporate assets
D91B	Special tax fo Europe
D91B	Extraordinary property tax on the value of buildings (ISI)
D91B	Extraordinary tax on the value of deposits, current accounts and deposit certificates
D91B	Substitute tax on assets of enterprises
D91B	Extraordinary tax to which owners of certain luxury goods are liable (Decree-Law No 384 of 19/9/92)
D91C	Recover of paid taxes in delay
D91C	Penalties and settlements - direct taxes
D91C	Penalties and sttlements -indirect taxes

**2. Environmental split**

**Environmental**

<b>Energy</b>	TRD214A	Excise duty on mineral oils
	TRD2122C	In-bond surcharge on mineral oils
	TRD214A	Excise duty on liquefied petroleum gases
	TRD2122C	In-bond surcharge on liquefied petroleum gases and other surcharges
	TRD214A	Excise duty on methane
	TRD214A	Excise duty on electricity
<b>Transport</b>	TRD214A	Local surcharge on electricity duty
	TRD59D	Motor vehicle duty paid by household
	TRD29B	Motor vehicle duty paid by firms
	TRD214B	Public motor vehicle register tax
	TRD214G	Provincial tax on motor vehicle insurances
<b>Pollution</b>	TRD29F	SO <sub>2</sub> and NO <sub>x</sub> pollution tax
	TRD214A	Regional special tax on landfill dumping
<b>Resources</b>	TRD214A	Water consumption tax

## 9. LUXEMBOURG

### 1. Structure according to economic function as % of GDP

#### Consumption

D211	Value added type taxes (VAT)
D212	Taxes and duties on imports except. VAT
D214A	Excise duties and consumption taxes
D214C	Taxes on financial and capital transactions
D214C01	Consumption tax (part on the national production)
D214C02	Excises on domestic beer (Droits d'accises sur les bières indigènes)
D214C03	Excises on tobacco (part on national production)
D214E	Taxes on entertainment
D214F	Taxes on lotteries, gambling and betting
D214F01	Levies on gambling in casinos (Central state part) (Prélèvements sur les jeux de casino (partie Etat central))
D214F02	Levies on gambling in casinos (Communes part) (Prélèvements sur les jeux de casino (partie communes))
D214F03	Taxes on lotto
D214F04	Taxes and levies on betting on sporting events
D214G	Taxes on insurance premiums
D214H	Other taxes on specific services
D214H04	Taxes on construction in Central sectors (Taxe due pour la construction dans les secteurs centraux)
D214H06	Tourist tax
D214H07	Taxes on cabarets
D214L	Other taxes on products n.e.c.
D214L01	Additional taxes on electricity
D214L02	Taxes on distribution of electricity
D214L03	Taxes on production of electricity
D59F	Other current taxes n.e.c.
D59F04	Taxes on dogs
D59F05	Taxes on motor vehicles for household expenses (Taxe sur véhicules automoteurs à charge des ménages)

#### Labour

##### Employers

D29C	Total wage bill and payroll taxes
D6111	Employers' actual social contributions

##### Employees

D51A	Taxes on individual or household income
D51A01	Withholding tax on wages and salaries
D6112	Employees' actual social contributions

##### Non-employed

D6113	% of Social contributions by self- and non-employed persons
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#### Capital

##### Business and capital income

###### Income corporations

D51B	Taxes on the income or profits of corporations
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###### Income households and self-employed

D51A	Taxes on individual or household income
D51A03	Taxes on individual income calculated by assessment
D51A04	Solidarity surcharge on personal income tax
D51A05	Withholding tax on income from capital
D51A06	Tax on company directors' fees (Impôt sur les tantièmes)
D6113	% of Social contributions by self- and non-employed persons

##### Stocks (wealth) of capital

D214C	Taxes on financial and capital transactions
D214C04	Additional taxes on transfer of property (Surtaxe sur les mutations immobilières)
D214C05	Car Registration taxes
D214C06	Mortgage taxes
D214C07	Wage related mortgage taxes
D29A	Taxes on land, buildings and other structures
D29A01	Tax on land and buildings (Impôt foncier)
D29A02	Commuter tax (Taxe sur les résidences secondaires)
D29B	Taxes on the use of fixed assets
D29B01	Taxes on motor vehicles paid by companies
D29B02	Tax on the registration of Ships (Taxe d'immatriculation des navires)
D29H	Other taxes on production n.e.c.
D29H01	Business registration tax by companies (Registre aux firmes)
D29H02	ECSC levy (Prélèvement CECA)
D29H03	Annual tax on securities (Taxe d'abonnement sur les titres de société)
D29H04	VAT reclassified as other production taxes (TVA reclassée en autres impôts sur la production)

D51A	Taxes on individual or household income
D51A02	Income taxes on non-resident income
D59A	Current taxes on capital
D59A01	Wealth tax (Impôt sur la fortune)
D59A02	Tax on land and buildings (Impôt foncier)
D59F	Other current taxes n.e.c.
D59F01	Stamp duty
D59F02	Tax receipts from foreign affair administrartions Recettes concernant les départements des affaires étrangères
D59F03	Chancellery stamps (Timbres de chancellerie)
D91A	Taxes on capital transfers
D91A01	Inheritance tax

## 2. Environmental split

<b>Energy</b>	D2122C01	Consumption tax on imported alcohol
	D2122C02	Independent excise duties on certain mineral oils
	D2122C03	Excise duties on mineral oils
	D2122C04	Additional tax withheld on fuels
	D2122C05	Charges on domestic fuels
	D2122C06	Excise duties on liquified gas
	D2122C07	Excise duties on gas
	D214L01	Additional tax on electricity
	D214L02	Tax on the distribution of electricity
D214L03	Tax on the production of electricity	
<b>Transport</b>	D214H08	Tax on transports
	D29B01	Motor vehicle tax paid by producers
	D59F05	Motor vehicle tax paid by households

## 10. NETHERLANDS

### 1. Structure According to Economic Function as a % of GDP

#### Consumption

D21	Taxes on production and imports
D211	Value added tax (VAT) o.w. transfer of VAT to the EU
D212	Import duties to the EU EU levies on food products
D214	Taxes on products
D214A	Excise duties Motor spirits Other mineral oils Tobacco Alcohol Other excise duties Tax on non-alcoholic beverages etc. Energy levies
D214F	Tax on lotteries and gambling
D214G	Insurance premium tax
D59	Current taxes on income and wealth Motor vehicle tax (paid by households) Environmental taxes Sewerage charges Levies on water pollution Polder-board levies
D29	Other taxes on production
D29F	Environmental taxes
D29F	Sewerage charges
D29F	Levies on water pollution
D29F	Polder-board levies
D29F	Other environmental taxes

#### Labour

##### Employers

D6111 Employers' actual social contributions

##### Employees

D6112 Employees' social contributions

D51A % of Wage tax, income- and wealth tax and social contributions

##### Non-employed

D6113 % of Social contributions by self- and non-employed persons

D51A % of Wage tax, income- and wealth tax and social contributions

#### Capital

##### Business and capital income

###### Income corporations

D51B Tax on income or profits of corporations

###### Income households

D51A % of Wage tax, income- and wealth tax and social contributions

D51C Dividend tax

D51D Tax on lotteries and gambling

###### Income self-employed

D6113 % of Social contributions by self- and non-employed persons

D51A % of Wage tax, income- and wealth tax and social contributions

##### Stocks (wealth) of capital

D29A Real estate tax (paid by enterprises and households)

D29B Motor vehicle tax (paid by enterprises incl. Eurovignet)

Taxes on passenger cars and motor vehicles (BPM)\*

Real estate transfer tax

Other taxes on wealth

Other taxes on production

D91 Capital taxes (incl. Inheritance taxes)

D214B Tax on capital (stock exchange turnover)

\* BPM tax is paid by both consumers and enterprises. It was assumed that 50% is paid by enterprises (assigned to capital) and the other 50% by households (assigned to consumption).

**2. Environmental taxes**

**Energy**

Excise duties on gas  
Excise duties on other mineral oils  
Energy levies

**Transport**

Motor vehicle tax paid by enterprises  
Motor vehicle tax paid by households  
Taxes on passenger cars and motorcycles

**Pollution/resources**

Sewerage charges producers  
Sewerage charges households  
Levies on water pollution producers  
Levies on water pollution households  
Other environmental taxes

## 11. AUSTRIA

### 1. Structure According to Economic Function as a % of GDP

#### Consumption

##### VAT and turnover

TRD211	Value added type taxes Value added tax Under-compensation of VAT (flat rate system)
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##### Excise duties

TRD2121	Import duties Other import duties Customs duties
TRD2122A	Levies on imported agricultural products Import equalization duties
TRD2122C	Excise duties Import duties not collected on the national border
TRD2122E	Contribution to promote foreign trade
TRD214A	Excise duties and consumption taxes Duty on starch products Duty promotion milk distribution Contribution to the Agricultural Fund Duty on spirit Tax on beer Tax on energy Beverage tax Tax on mineral oils Duty on vehicles based on fuel consumption Tax on sparkling wine Special duty on alcoholic drinks Special tax on mineral oils Other receipts - Market Organisation Act Tax on tobacco Tax on wine Levy on sugar  ▪ Duty on vehicles based on fuel consumption + Duty on vehicles based on fuel consumption*share households

##### Others

TRD29H	In other taxes on production n.e.c.: Hunting and fishing duties
TRD59F	In other current taxes n.e.c.: Dog tax Tax on radio and TV-licences Motor vehicles tax 1, paid by households Contribution for the promotion of arts Motor vehicles tax 2, paid by households Contribution to the Road Safety Fund, paid by households
TRD214E	Taxes on entertainment
TRD214F	Taxes on lotteries, gambling and betting
TRD214G	Taxes on insurance premiums
TRD214H	Other taxes on specific services:
TRD214J	Profits of fiscal monopolies
TRD29G	Under-compensation of VAT (flat rate system)

#### Labour

##### Employers

TRD51E	In other taxes on income n.e.c.: Promotion residential buildings* 0,5
TRD51A	In taxes on individual or household income: Contribution to chambers * 0,14
TRD51B	Taxes on the income or profits of corporations Contribution to chambers * 0,14
TRD29C	Total wage bill and payroll taxes
TRD6111	Employers' actual social contributions

**Employees**

TRD51E	In other taxes on income n.e.c.: Promotion residential buildings* 0,5
TRD51A	In taxes on individual or household income: Contribution to chambers * 0,21
TRD51B	In taxes on the income or profits of corporations: Contribution to chambers * 0,21
TRD51A	In taxes on individual or household income: Wage tax
	- <b>taxes on pensions (transfers) calculated by the ministry of finance LSt</b>
TRD6112	+ Employees' social contributions
	- <b>taxes on pensions (transfers) calculated by the ministry of finance SV</b>

**Non-employed**

TRD59F	In other current taxes n.e.c.: Contributions to students' association
TRD6113	% of Social contributions by self- and non-employed persons

**Capital**

**Business and capital income**

**Income Corporations**

TRD51B	In taxes on the income or profits of corporations: Corporation tax Tax on industry and trade Tax on capital yields Tax on interest Contribution to chambers * 0,65
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**Income households**

TRD51A	In taxes on individual or household income: % of Income tax Tax on capital yields Tax on interest
TRD51B	In taxes on the income or profits of corporations: Directors tax

**Income self-employed**

TRD51A	In taxes on individual or household income: % of Income tax Contribution to chambers * 0,65 Tax on industry and trade
TRD6113	% of Social contributions by self- and non-employed persons

**Stocks (wealth) of capital**

TRD214B	Stamp taxes
TRD214C	In taxes on financial and capital transactions: Land transfer tax Capital transfer tax
TRD29A	Taxes on land, buildings or other structures
TRD29H	In other taxes on production n.e.c.: Administration duties Certain users fee Fines related to tax offences, taxes on production and imports Other taxes, taxes on production n.e.c. Accrual adjustment, taxes on production and imports Other fees, taxes on production n.e.c. Embossment fee
TRD51E	other taxes on income n.e.c.
TRD59A	taxes on holding gains:
TRD59F	In other current taxes n.e.c.: Fines related to tax offences, taxes on income, wealth etc. Accrual adjustment, taxes on income, wealth etc.
TRD91	Capital Taxes



**2. Environmental split**  
**Environmental**

<b>Energy</b>	TRD214A	Tax on energy Tax on mineral oils Special tax on mineral oils
	<b>Transport</b> TRD214A	Duty on vehicles based on fuel consumption
	TRD214H	Duty for airways security
	TRD29H	Motor vehicles tax 1, paid by enterprises Motor vehicles tax 2, paid by enterprises Road transport duty
	TRD59F	Motor vehicles tax 1, paid by households Motor vehicles tax 2, paid by households
<b>Pollution</b>	TRD214H	Levy on dangerous waste

## 12. PORTUGAL

### 1. Structure According to Economic Function as a % of GDP

#### Consumption

D2	Taxes on production and imports
D21	Taxes on products
D211	Value added type taxes
	VAT on products
D212	Taxes and duties on imports excluding VAT
D2121	Import duties
	Import levies
	Import surtax
D2122	Taxes on imports, excluding VAT and import duties
D2122A	Levies on imported agricultural products
	Agricultural levies
	Production levy on sugar and isoglucose
D2122B	Monetary compensatory amounts on imports
D2122C	Excise duties
	Excise duties on tobacco
	Excise duties on alcohol
	Excise duties on alcoholic beverages
	Excise duties on beer
	Tax on imported alcoholic beverages
D2122D	General sales taxes
D2122E	Taxes on specific services
D2122F	Profits of import monopolies
D214	Taxes on products, except VAT and import taxes
D214A	Excise duties and consumption taxes
	Excise duties on tobacco
	Excise duties on alcohol
	Excise duties on alcoholic beverages
	Excise duties on beer
	Tax on petroleum products
D214C	Taxes on financial and capital transactions
D214E	Taxes on entertainment
	Duty on consumption in places of entertainment
D214F	Taxes on lotteries, gambling and betting
	Gambling tax
D214G	Taxes on insurance premiums
	Tax on accidents and life insurance premiums
	Tax on fire insurance premiums
	Tax on crop insurance premiums
D214H	Other taxes on specific services
	Tax on energy services
	Safety tax - civil aviation
	License on television activities
	Tax on gambling inspections and checks
D214I	General sales or turnover taxes
	Tax on liqueur wine sales
	Tax on embroidery, tapestry and craftwork sales
D214J	Profits of fiscal monopolies
	Profits of fiscal monopolies - public lotto and football betting game
D214K	Export duties and monetary comp. amounts on exports
D29	Other taxes on production
D29C	Total wage bill and payroll taxes
	Local tax on transportation
D29D	Taxes on international transactions
D29F	Taxes on pollution
D29G	Under-compensation of VAT (flat rate system)
D5	Current taxes on income and wealth
D59	Other current taxes
D59A	Current taxes on capital
D59B	Poll taxes
D59C	Expenditure taxes
D59D	Payments by households for licences
	Tax on the use, carrying and possession of weapons
	Hunting licenses
	Other payments by households for miscellaneous licenses
D59E	Taxes on international transactions
D59F	Other current taxes n.e.c.
	Fees received by the CGT (General Courts Treasury)
	Stamp duty on interests
	Road taxes - compensation
	Tax on vehicles
	Other miscellaneous taxes

**Labour**

**Employed**

**Employers**

D51E	Other taxes on income n.e.c. Stamp duty on wages and salaries
D6111	Employers' actual social contributions
D61111	Compulsory employers' actual social contributions
D61112	Voluntary employers' actual social contributions

**Employees**

D51A	% of Taxes on individual or household income % of Individual income tax
D6112	Employees' social contributions
D61121	Compulsory employees' social contributions
D61122	Voluntary employees' social contributions

**Non-employed**

D51A	% of Taxes on individual or household income % of Individual income tax
D6113	% of Social contributions by self- and non-employed persons
D61131	% of Compulsory social contributions by self- and non-employed persons
D61132	% of Voluntary social contributions by self- and non-employed persons

**Capital**

**Business and capital income**

**Income corporations**

D51B	Taxes on the income or profits of corporations Corporate income tax Local tax
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**Income households**

D51A	% of Taxes on individual or household income % of Individual income tax
D51C	Taxes on holding gains
D51D	Taxes on winnings from lottery or gambling

**Income self-employed**

D51A	% of Taxes on individual or household income % of Individual income tax
D6113	% of Social contributions by self- and non-employed persons
D61131	% of Compulsory social contributions by self- and non-employed persons
D61132	% of Voluntary social contributions by self- and non-employed persons

**Stocks (wealth) of capital**

D29A	Taxes on land, buildings of other structures Real estate tax
D29B	Taxes on the use of fixed assets Road taxes – traffic Road taxes – haulage Tax on vehicles
D29E	Business and professional licences Duties on public entertainments Tax on the distribution and showing of films Duties levied by IVM (Madeira Wine Institute) Taxes collected by Azores Cultural Action Fund Tax on fishery General services and licenses granted to firms Other miscellaneous business and professional licences
D29H	Other taxes on products n.e.c. Fees received by the CGT (General Courts Treasury) Licenses and taxes collected by civil authorities Other miscellaneous taxes
D214B	Stamp taxes Fiscal stamps Stamp duty on bank transactions Stamp duty on insurance premiums Stamp duty on entertainment services Stamp duty on leasing of buildings Stamp duty on debt related operations Stamp duty on registration and mortgages Stamp duty on commercial transactions Stamp duty - miscellaneous
D214D	Car registration taxes Taxes on motor vehicle sales
D214L	Other taxes on products n.e.c. Duties levied by IROMA (Agricultural Markets Regulation and Guidance Inst.) Fire Service tax Tax on the value of public contracts
D91	Real estate transfer tax Capital Taxes

**2. Environmental split**

<b>Energy</b>	TRD214A	Excise duties and consumption taxes Tax on petroleum products
<b>Transport</b>	TRD214D	Car registration taxes Tax on motor vehicle sales
	TRD29B	Taxes on the use of fixed assets Road taxes - traffic Road taxes - haulage Tax on vehicles
	TRD59F	Other current taxes n.e.c. Tax on vehicles

## 13. FINLAND

### 1. Structure According to Economic Function as a % of GDP

#### Consumption

D211	VAT / Turnover tax
D2121	Customs duties
D2121	Other taxes
D2121	Repayments
D2121	Levies on agricultural goods_S13
D2121	Levies on agricultural goods_S212
D2122	Equalization tax
D2122	Import levies to Price Stabilisation Fund
D214A	Excise duty on tobacco
D214A	Excise duty on confectionery
D214A	Excise duty on beer
D214A	Excise duty on alcoholic beverages
D214A	Excise duty on non-alcoholic beverages
D214A	Excise duty on certain food products
D214A	Excise duty on liquid fuels
D214A	Excise duty on margarine
D214A	Excise duty on sugar
D214A	Excise duty on electricity
D214A	Excise duty on fertilizers
D214A	Excise on oil based concentrated feed
D214A	Excise duty on fertilizers
D214A	Excise on feeding stuffs
D214A	Excise duty on albumen
D214A	Levies for price reduction on butter
D214A	Marketing levy on agricultural products
D214A	Marketing levy on agricultural products
D214A	Equalization fee on agricultural products
D214A	Milk quota levy
D214A	Oil waste levy
D214A	Plant-breeding levy
D214A	Penalties for late payments of taxes
D214A	Repayments
D214A	Price difference compensations
D214A	Stock-building levies on liquid fuels
D214A	Oil damage levy
D214E	Tax on motion pictures
D214F	Tax on lottery prizes
D214F	Net revenue on betting
D214F	Net revenue on betting
D214F	Net revenue on betting
D214F	Tax on lottery prizes_S1313
D214G	Tax on fire insurance
D214G	Tax on insurance premiums
D214H	Telecommunication tax
D214I	Pharmacy levy
D214I	Pharmacy levy_S1313
D214I	Excise duty on motor cars
D214J	Excess profits from spirits monopoly
D29F	Tax on waste
D59D	Hunting and fishing licenses
D59D	Tax on dogs (S1313)
D59E	Tax on charter flights

#### Labour

##### Employed

###### Employers

D6111	Employers' actual social contributions
D61111	Compulsory employers' actual social contributions
D61112	Voluntary employers' actual social contributions
D29C	Seamens welfare and rescue levy

###### Employees

D6112	Employees' social contributions
D61121	Compulsory employees' social contributions
D61122	Voluntary employees' social contributions
D51A	Taxes on individual or household income
D51A	% of Taxes on individual or household income_S1311
D51A	% of Taxes on individual or household income_S1313

##### Non-employed

D6113	Social contributions by self- and non-employed persons
D61131	% of Compulsory social contributions by self- and non-employed persons
D61132	% of Voluntary social contributions by self- and non-employed persons
D51A	Taxes on individual or household income
D51A	% of Taxes on individual or household income_S1311

**Capital**

**Business and capital income**

**Income corporations**

D51B Taxes on the income or profits of corporations  
 D51B Taxes on the income or profits of corporations\_S1311  
 D51B Taxes on the income or profits of corporations\_S1313

**Income households**

D51A Taxes on individual or household income  
 D51A % of Taxes on individual or household income\_S1311  
 D51A % of Taxes on individual or household income\_S1313  
 D51D Taxes on winnings from lottery or gambling  
 D51D Taxes on winnings from lottery or gambling\_S1311  
 D51D Taxes on winnings from lottery or gambling\_S1313  
 D51A Duty on interests  
 D51E Penalties for late payments of taxes

**Income self-employed**

D51A Taxes on individual or household income  
 D51A % of Taxes on individual or household income\_S1311  
 D51A % of Taxes on individual or household income\_S1313  
 D6113 Social contributions by self- and non-employed persons  
 D61131 % of Compulsory social contributions by self- and non-employed persons  
 D61132 % of Voluntary social contributions by self- and non-employed persons

**Stocks (wealth) of capital**

D214B Stamp duties  
 D214C Transfer tax  
 D214C Credit tax  
 D214L Other taxes\_S1311  
 D214L Local import duties (town dues)\_S1313  
 D29B Tax on motor vehicles paid by enterprises  
 D29B User charge on passenger vehicles paid by enterprises  
 D29B Penalties for late payments of taxes  
 D59A Wealth tax  
 D59A Tax on real estate (S1313)  
 D91A Inheritance and gift tax\_S1311  
 D91A Inheritance and gift tax\_S1313

**2. Environmental split**

**Energy** TRD214A Excise duty on electricity  
 TRD214A Excise duty on liquid fuels  
 TRD214A Stock-building levies on liquid fuels

**Transport** TRD29B Tax on motor vehicles paid by enterprises  
 TRD29B User charge on passenger vehicles paid by enterprises  
 TRD214I Excise duty on motor cars  
 TRD59D Tax on motor vehicles paid by households  
 TRD59D User charge on passenger vehicles paid by households  
 TRD59E Tax on charter flights

**Pollution/ ressources**  
 TRD214A Excise duty on fertilizers  
 TRD214A Oil damage levy  
 TRD214A Oil waste levy  
 TRD29F Tax on waste

## 14. SWEDEN

### 1. Structure According to Economic Function as a % of GDP

#### Consumption

D21	In Taxes on products
D211	Value added type taxes (VAT)
D2121	Import duties
D2122	In Taxes on imports excluding VAT and import duties
D2122A	Levies on imported agricultural products
D2122B	Monetary compensatory amounts on imports
D2122C	Excise duties
D2122D	General sales taxes
D2122E	Taxes on specific services
D2122F	Profits of import monopolies
D214A	In Excise duties and consumption taxes
D214A1	Taxes on fuels
D214111	Energy tax on fuels
D214112	Carbon dioxide tax on fuels
D214113	Energy tax on petrols
D214114	Carbon dioxide tax on petrols
D214115	Tax on sulphur fuel
D214116	Tax on diesel oil
D214A2	In Taxes on electric power
D214121	Energy tax on electricity
D214122	Taxes on water power
D214123	Special tax on electric power from nuclear station
D214124	Tax on nuclear fuel
D214A3	In Taxes on natural gravels
D2141906	Taxes on natural gravels
D214A4	In Other excise duties and consumption taxes
D214131	Tax on spirits
D214132	Tax on wine
D214133	Tax on beer
D21414	Tobacco tax
D2141907	Various excise duties
D214F	In Taxes on lotteries, gambling and betting
D21441	Tax on gambling
D21444	Tax on good gambling
D214H	Other taxes on specific services
D21451	Tax on advertising
D214I	General sales or turnover taxes
D21462	Turnover tax for central testings
D214J	Profits of fiscal monopolies
D21471	Profits of fiscal monopol, alcoholic beverages
D21472	Surplus from gambling
D21473	Surplus from pools
D21474	Surplus from lotteries
D59D	Payments by households for licences
D592	Tax on motor vehicles paid by households
D29F	Taxes on pollution
D2951	Environmental protection fee
D2952	Environmental tax on internal air traffic

#### Labour

##### Employed

##### Employers

D29C	In Total wage bill and payroll taxes
D2931	General payroll tax
D2932	Part of pension fee to state budget
D2933	Tax on salaried employees life insurance
D2934	Special payroll tax
D2935	Tax for occupational safety
D6111	Employers' actual social contributions
D6111101	Retirement Pension contribution, social security sector
D6111102	Pension contribution, National Debt Office
D6111103	Retirement pension contribution, the old system
D6111104	Sick insurance contribution
D6111105	Part-time pension contribution
D6111106	Industrial injuries, contributions
D6111107	Labour market, employment, contributions
D6111108	Survivors pension, contribution
D6111109	Parental insurance contributions
D6111110	Wages guarantee, contributions
D6111111	Sailors pensions, contributions
D6111119	Miscellaneous, contributions

**Employees**

D51A	% of taxes on individual or household income
D519	% of income tax households
D6112	Employees' social contributions
D61121	Compulsory contributions
D611211	General health insurance
D611212	General pension contribution
D61122	Voluntary contributions
D611221	Pension
D611222	Unemployment

**Non-employed**

D51A	% of taxes on individual or household income
D519	% of income tax households
D6113	% of social contributions by self- and non-employed persons
D6113101	% of pension contributions to social security sector
D6113102	% of pension, National Debt Office
D6113103	% of pension, old system
D6113104	% of sick insurance contribution
D6113105	% of part time pension
D6113106	% of industrial injuries
D6113107	% of unemployment
D6113108	% of survivors pension, contribution
D6113109	% of parental insurance contributions

**Capital**

**Capital and business income**

**Income corporations**

D51B	Taxes on income or profits of corporations
D519	Income tax enterprises

**Income households**

D51A	% of taxes on individual or household income
D519	% of income tax households
D51C	Taxes on holding gains
D511	Capital yields tax
D51D	Taxes on winnings from lottery or gambling
D512	Tax on winnings on lotteries or gambling

**Income self-employed**

D51A	% of taxes on individual or household income
D519	% of income tax households
D6113	% of social contributions by self- and non-employed persons
D6113101	% of pension contributions to social security sector
D6113102	% of pension, National Debt Office
D6113103	% of pension, old system
D6113104	% of sick insurance contribution
D6113105	% of part time pension
D6113106	% of industrial injuries
D6113107	% of unemployment
D6113108	% of survivors pension, contribution
D6113109	% of parental insurance contributions

**Stocks (wealth) of capital**

D29A	Taxes on land, buildings and other structures
D2911	Tax on real-estate
D29B	Taxes on the use of fixed assets
D2921	Tax on motor vehicles paid by enterprises
D91	Capital taxes
D91	Succession and gift tax
D59A	Current taxes on capital
D591	Wealth tax from households
D591	Wealth tax from enterprises
D29E	Business and professional licences
D2941	Tax on roulette
D2942	Fee to a check-up committee for radio and TV
D2943	Licenses for lottery
D2944	Licenses for local radio stations
D2945	Fee for lorries
D29H	Other taxes on production n.e.c.
D2991	Concession fee for telecasting
D2992	Guarantee-fee for deposits in banks
D2993	Fee for telecommunication
D214C	Taxes on financial and capital transactions
D2142	Stamp taxes
D214D	Car registration taxes



**2. Environmental split**

<b>Energy</b>	D214A	Taxes on fuels
	D214111	Energy tax on fuels
	D214112	Carbon dioxide tax on fuels
	D214113	Energy tax on petrols
	D214114	Carbon dioxide tax on petrols
	D214116	Tax on diesel oil
	D214A	Taxes on electric power
	D214121	Energy tax on electricity
	D214122	Taxes on water power
	D214123	Special tax on electric power from nuclear station
D214124	Tax on nuclear fuel	
<b>Transport</b>	D214D	Car registration taxes
		Sales tax on motor vehicles
	D29B	Taxes on the use of fixed assets
		Tax on motor vehicles paid by enterprises
	D59D	Payments by households for licences
		Tax on motor vehicles paid by households
<b>Pollution</b>	D214A	Taxes on fuels
	D21497	Tax on waste
	D214115	Tax on sulphur fuel
	D214A4	2% of 'Other excise duties and consumption taxes'
		Estimate of tax on fertiliser
	D29F	Taxes on pollution
	D2951	Environmental protection fee
D2952	Environmental tax on internal air traffic	
<b>Resources</b>	D214A	Taxes on natural gravels

## 15. UNITED KINGDOM

### 1. Structure According to Economic Function as a % of GDP

#### Consumption

D211	Value added type taxes
D214A	Excise duties and consumption taxes
D214A	Customs duty on beer
D214A	Customs duty on wines, cider, perry & spirits
D214A	Customs duty on tobacco
D214A	Customs duty on hydrocarbon oils
D212	Taxes and duties on imports exc VAT
D2121	Import duties
D214F	Taxes on lotteries, gaming and betting (Camelot payments)
D214G	Taxes on insurance premiums
D214I	General sales or turnover taxes
D214I	Cartax
D214I	Purchasetax
D214I	Betting,gamingandlottery
D214I	Airpassengerduty
D214I	Landfilltax
D214I	Other
D214I	Fossilfuellevy
D214I	Gaslevy
D214I	Leviesonexports(3rdcountry)
D59B	Community charge
D59D	Payments by households for licences
D59D	Motorvehicledutypaidbyhouseholds
D59D	Licences

#### Labour

##### Employed

###### Employers

D29C	Selective employment tax
D6111	Employers' actual social contributions
	National insurance surcharge

###### Employees

D51A	% of Taxes on individual or household income
D6112	Employees' actual social contributions

##### Non-employed

D51A	% of Taxes on individual or household income
D6113	% of Social contributions by self and non-employed

#### Capital

##### Business and capital income

###### Income corporations

D51B	Taxes on the income or profits of corporations
D51B-1	Corporationtax
D51B-2	Petroleumrevenue tax
D51B-3	Windfalltax

###### Income households

D51A	% of Taxes on individual or household income
D51C	Taxes on holding gains

###### Income self-employed

D51A	% of Taxes on individual or household income
D6113	% of Social contributions by self and non-employed

##### Stocks (wealth) of capital

D214B	Stamp duties
D214L	Sugar levy
D214L	European Coal and Steel Community
D29A	National non-domestic rates
D29A	Old style rates paid to local government
D29A	Old style rates paid to central government
D29B	Motor vehicle duties paid by businesses
D29E	IBA levy
D29E	ITC franchise payments
D29E	Regulator fees
D29E	Consumer and credit act fees
D91A	Inheritance tax
D91A	Other capital transfers
D91B	Development land tax and others
D214	Hydro benefit
D29	London regional transport levy
D29	Levies paid to CG levy funded bodies

**2. Environmental split**

<b>Energy</b>	TRD214A-4	Excise duty on hydrocarbon oils
	TRD214I-7	Fossil fuel levy
	TRD214I-8	Gas levy
	TRD29F	Climate change levy
<b>Transport</b>	TRD214I-1	Car tax
	TRD214I-4	Air passenger duty
	TRD29B	Motor vehicle duties paid by producers
	TRD59D-1	Motor vehicle duties paid by households
<b>Pollution</b>	TRD214I-5	Landfill tax

## ANNEX C: EXPLANATORY NOTES

### Explanatory notes for the data presented in part III and Annex A

#### Part A: Evolution and Structure as % of GDP

Data sources: Data are national accounts data and extracted from the New Cronos database of EUROSTAT. However, for a number of Member States we used additional more detailed tax data submitted to EUROSTAT. All 1995-2001 data is historical, except for Portugal where the ESA95 tax categories for 2001 are available for total taxes and major categories only. Estimates at the detailed level have been computed using the growth rate of the corresponding aggregate tax category.

#### Definition of the aggregates:

The aggregates have been defined on the basis of the ESA95 classification of taxes presented in Box 1 of this publication.

Indirect taxes are defined as the sum of the following ESA95 tax categories:

- VAT: D211: Value added tax type.
- Excise duties and consumption taxes: Excise and consumption taxes (D214A) + Excise duties (D2122C).
- Other taxes on products (incl. import duties): Taxes and duties on imports except VAT (D212), excluding excise duties (D2122C), Taxes on products other than VAT and import duties (D214), excluding excise duties (D214A).
- Other taxes on production (D29).

Direct taxes are defined as the sum of the following ESA categories:

- Personal income tax: Taxes on individual or households income (D51A).
- Corporate income tax: Taxes on the income or profits of corporations (D51B).
- Other income and capital taxes: other taxes on income corresponding to taxes on holding gains (D51C), taxes on winnings from lottery or gambling (D51D) and other taxes on income (D51E); taxes on capital defined as other current taxes (D59) and capital taxes (D9).

Social contributions (D611) include:

- Employers' actual social contributions (D6111) (incl. voluntary contributions).
- Employees' actual social contributions (D6112) (incl. voluntary contributions).
- Self-employed and non-employed social contributions (D6113).

Indirect taxes, direct taxes and social contributions add up to the total of taxes received by the General Government, reported below part C. Total taxes are defined as: taxes on production and imports (D2), current taxes on income and wealth (D5), capital taxes (D9), actual social contributions (D611).

**Part B: Splitting by level of government as % of GDP**

Data sources: same as in part A

Definitions of the aggregates: total taxes received by the General Government (institutional sector S13 in ESA95) are broken down as taxes received by:

- Central government (S1311)
- State (Region) Government for federal States(S1312)
- Local Government (S1313)
- Social security Funds (S1314)
- the EC Institutions (S212)

The taxes that are reported under these headings represent ‘ultimately received’ tax revenues. This means, for example, that not only the ‘own’ taxes are included, but mostly also the part of the tax revenue that is automatically and unconditionally ‘shared’ between the government sub-sectors, even if these government sub-sectors have no power to vary the rate or the base of those particular taxes. Additional information was used for the classification of taxes for Belgium. Indirect taxes, direct taxes and social contributions add up to the total of taxes received by the General Government, reported below part C. Total taxes are defined as: taxes on production and imports (D2), current taxes on income and wealth (D5), capital taxes (D9), actual social contributions (D611).

**Part C: Structure according to the Economic Function as % of GDP**

Data sources: same as part A with additional data:

- detailed tax data per country as listed in annex B.
- A split of the personal income tax according to four sources of taxable income (labour, capital, self-employment income, and social transfers and pensions) according to a country specific methodology using data sets of individual tax payers (B, DK, D, F, IRL, NL, FIN, S and UK ) or income class data based on data-set of individual taxpayers (EL, E, I) or tax receipts from withholding and income tax statistics with certain corrections (A, L, P)<sup>1</sup>. Some Member States were not able to provide a full time-series coverage for all calendar years. In these cases a trend has been assumed using simple linear interpolations or the fractions were assumed to remain constant. Annual data were provided for B (1995-2000), DK(1995-2000), D (1995-2001), E (1995-2000), LUX (1995-2001), A (1995-2001), FIN (1995-2001), S (1995-2000) and the UK (1995-2000). Point estimates for some years were provided for EL (1995, 1996), F (1999), IRL (1995, 1997, 1998, 1999), I(1995, 1998), NL (1995,1997, 2001) and P (1999). When not provided by the Member State, the 2001 split has been considered equal to that of 2000.
- Social contributions of self-employed and non-employed (D6113) needed to be split between non-employed (considered as part of labour) and self-employed considered as part of capital. The split is not available in the New Cronos database from EUROSTAT, although some national sources of national accounts make it available. The split has been computed by applying to D6113 the share of non-employed and self-employed as reported by the Member States as

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<sup>1</sup> The methodology is described in more detail in annex D to this report.

part of the social protection data in New Cronos, the so-called ESSPROS module of Eurostat<sup>2</sup>. The data were available only until 2000 for B, D, E, E, IT and 1999 for the other countries. The stability of the shares of self-employed and non-employed shares allowed keeping the shares constant, equal to their latest value in the computations.

Because of the additional data needed to split some of the tax data, the data for 2001 have to be considered as provisional in all Member States.

Definition of the taxes by categories

Taxes on consumption:

D211: VAT type taxes
D212: Taxes and duties on imports
D214: Taxes on products except:
- D214B: stamp taxes
- D214C: taxes on financial and capital transactions
D29: Other taxes on production except:
- D29A: taxes on land, building and other structures
- D29C: payroll taxes
D59B: Poll taxes
D59C: Payments by households for licences

Taxes on labour

<i>Employed labour</i>	
From D51	Taxes on income:
D51A	Taxes on individual or household income (part raised on labour income)
D29C	Wage bill and payroll taxes
From D611	Actual social contributions:
D6111	Employers' actual social contributions
D6112	Employees' actual social contributions
 <i>Non-employed labour</i>	
From D51	Taxes on income:
D51A	Taxes on individual or household income (part raised on social transfers and pensions)
D6113	Social contributions of non-employed (part paid by social transfer recipients)

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<sup>2</sup> Eurostat (1996)

Taxes on capital

*Capital and business income taxes:*

From D51-Taxes on income:

D51A	Taxes on individual or household income (part paid on capital and self-employed income)
D51B	Taxes on the income or profits of corporations
D51C	Taxes on holding gains
D51D	Taxes on winnings from lottery and gambling
D51E	Other taxes on income n.e.c.

From D611-Actual social contributions

D6113	Social contributions of self-employed
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*Taxes on stocks (wealth)*

From D214-Taxes on products, except VAT and import taxes:

D214B	Stamp taxes
D214C	Taxes on financial and capital transactions
D214D	Car registration tax

From D29-Other taxes on production

D29A	Taxes on land, buildings and other structures
D29B	Taxes on the use of fixed assets
D29E	Business and professional licenses
D29H	Other taxes on production n.e.c.

From D59-Other current taxes

D59A	Current taxes on capital
D59F	Other current taxes on capital
D91	Capital taxes

Taxes on consumption, labour and capital add up to the total of taxes received by the General Government, reported below part C.

**Total and environmental taxes as % of GDP:**

- Total taxes correspond to the total taxes received by the General Government. They include: taxes on production and import (D2), Current taxes on income and wealth (D5), capital taxes (D9), actual social contributions (D611).
- Environmental taxes include energy taxes, transport taxes (including registration and circulation car taxes), and pollution taxes. This is a sub-category of indirect taxes or consumption taxes. The taxes included for each Member State are listed in annex B<sup>3</sup>.

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<sup>3</sup> The methodology is described in European Commission (2001b).

**Part D: Implicit Tax rates**

Data sources: Data are national accounts data and extracted from the New Cronos database of Eurostat. For taxes, same as part C. The definition of the implicit tax rate on capital and capital income also includes data from the production and income accounts by different sectors of national accounts. The data has been extracted from the New Cronos database on the 26<sup>th</sup> of March 2003. In Portugal, data for the full accounts of institutional sectors stop in 1999. In Sweden it stop in 2000. Moreover Ireland and Luxembourg have derogation to the ESA95 regulation to provide simplified income and distribution accounts.

The implicit tax rates are defined for each economic function. They are computed as the ratio of total tax revenues of the category (consumption, labour, and capital) to a proxy of the potential tax base defined using the production and income accounts of the national accounts.

Consumption:

Ratio	Definition
Implicit tax rate on consumption (ESA95)	Taxes on Consumption / (P31_S14dom)
<i>Numerator:</i> see box 3	
<i>Denominator:</i> P31_S14dom: Final consumption expenditure of households on the economic territory (domestic concept).	

Since companies or parts of the government on intermediate consumption also pay some of the taxes, such as VAT and excises, the implicit tax rate on consumption is overestimated.

Labour:

Ratio	Definition
Adjusted implicit tax rate on employed labour (ESA95)	Direct taxes, indirect taxes and social contributions paid by employers and employees, on employed labour income/ (D1 + D29C)
<i>Numerator:</i> see box 4	
<i>Denominator:</i> D1 Compensation of employees D29C Wage bill and payroll taxes	

The implicit tax rate of labour is calculated for employed labour only (excluding the tax burden falling on social transfers, including pensions).



Implicit tax rate on capital (income) (ESA95)	$\frac{\text{Capital (income) taxes/}}{B2n\_S11-12 + B2n\_S14-15 + B3n\_S14 + D41\_S11-12rec - D41\_S11-12pay + D45\_S11-12rec - D45\_S11-12pay + D42\_S11-12rec - D42\_S11-12pay + D42\_S13rec + D42\_S2rec + D41\_S14-15rec - D41\_S14-15pay + D45\_S14-15rec - D45\_S14-15pay + D42\_S14-15rec}$
<i>Numerator:</i>	see box 5
<i>Denominator:</i>	
B2n_S11-12	Net operating surplus of non-financial and financial corporations (incl. quasi-corporations)
B2n_S14-15	Imputed rents of private households and net operating surplus of non-profit institutions
B3n_S14	Net mixed income of self-employed
D41_S11-12rec	Interest received by non-financial and financial corporations
D41_S11-12pay	Interest paid by non-financial and financial corporations
D45_S11-12rec	Rents on land received by non-financial and financial corporations
D45_S11-12pay	Rents on land paid by non-financial and financial corporations
D42_S11-12rec	Dividends received by non-financial and financial corporations
D42_S11-12pay	Dividends paid by non-financial and financial corporations
D42_S13rec	Dividends received by general government
D42_S2rec	Dividends received by rest of the world
D41_S14-S15rec	Interest received by households, self employed and non-profit organisations
D41_S14-S15pay	Interest paid by households, self employed and non-profit organisations
D45_S14-S15rec	Rents on land received by households, self employed and non-profit organisations
D45_S14-S15pay	Rents on land paid by households, self employed and non-profit organisations
D42_S14-15rec	Dividends received by private households, self-employed and non-profit organisations

The implicit tax rate is calculated for total capital taxes and for the sub-category of capital income tax<sup>4</sup>. Both indicators have the same denominator. The denominator corresponds to total profit and property income from both corporations and households. For taxes on capital income, the denominator does not correspond to the actual tax base. It is in some ways narrower (omitting capital gains) and in other ways broader (excluding some deductions from the tax base). For capital taxes on stocks and wealth, it does not take into account any asset or wealth on which the tax is levied.

European Averages: The averages for the European Union and the EMU (Euro12) are calculated by weighting the different ratios with the respective nominal GDP. Only for the implicit tax rates the appropriate denominators of the ratios are used to calculate the averages. In addition for all indicators in relation to GDP and the implicit tax rates arithmetic averages for the European Union and EMU are calculated.

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<sup>4</sup> The methodology is described in: European Commission, Directorate-General for Taxation and Customs Union (2003).

## ANNEX D: METHODS USED IN THE MEMBER STATES TO SPLIT THE REVENUE OF PERSONAL INCOME TAX

This annex provides more insight into the methods employed by ministries of finance and taxation in the individual Member States to allocate the recorded personal income tax revenue between four main types of taxable personal income. These income types are broadly defined as:

- *Income from employed labour*, including wages and salaries, fringe benefits in kind, director's remuneration, financial participation schemes (*e.g.* stock options), deemed income from private uses of company cars and foreign source earned income;
- *Income from self-employed labour*, or income from unincorporated businesses such as profits from agriculture or forestry, profits from trade or business and proceeds from independent professional services;
- *Income from capital*, including income from movable property (*e.g.* interest, dividend distributions, royalties), immovable property (*e.g.* rents earned on letting a private dwelling), periodic transfers and private pensions and taxable capital gains for some Member States;
- *Social transfer and pension income*, including taxable social benefits (*e.g.* unemployment, health care and social assistance benefits) and benefits from both State and occupational pension schemes.

After introducing the background for estimating the allocation of the personal income tax revenue, the next section presents a brief description of the methods employed in the Member States. These methods are classified under four main general approaches: (1) approach using comprehensive micro (taxpayer-level) data-sets; (2) approach using both micro-and aggregate tax receipt data; (3) approach using tax return data aggregated at the level of income classes or tax brackets and (4) approach using aggregate withholding tax- and final assessment income tax data with a number of adjustments. The final paragraph presents the resulting estimates and comments on some noticeable differences.

### *Background*

A main concern associated with average effective (implicit) tax rate analysis is the manner in which estimates are derived for the aggregate amount of personal income tax revenue raised from different types of income included in a given country's personal income tax base. Under an approach using only aggregate data from National Accounts, for example, total personal income tax raised in respect of labour (or capital or other forms of personal taxable income, for example social transfer- or pension income) is often estimated as the proportion of aggregate labour (or capital) income in the aggregate taxpayer personal income. This approach implicitly assumes that labour and capital income (or other forms of taxable income) is subject to one (common) average effective tax rate<sup>1</sup>. This assumption is generally unrealistic, and could be expected to lead to imprecise estimates of notional

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<sup>1</sup> This approach has been introduced by Mendoza, Razin and Tesar (1994) and was used in internal studies by Economics and Financial Affairs departments of both the European Commission and the OECD. See Martinez-Mongay (2000) and Carey and Rabesona (2002) for more details.

tax revenues raised in respect of different taxable income types and therefore imprecise estimates of average effective tax rates by economic income source<sup>2</sup>.

Actually splitting the revenue of personal income tax on the basis of detailed tax receipt/return data is complicated both conceptually, and in practice, due to certain data set limitations and differences between taxation systems in Member States. The main difficulties arise because certain income tax receipts, and certain tax breaks, are taxed or granted at source, whilst others are collected from the wage packet or within the individual taxpayer's final tax return. There are further conceptual and practical problems with the treatment of pensions, for example, to which there are no straightforward answers. In past editions of the publication 'Structures of the Taxation Systems in the European Union'<sup>3</sup>, personal income tax raised in respect of labour income was often estimated from the wage withholding tax (whenever available in the National Accounts), while the final personal income tax often served as a proxy for personal income tax raised in respect of other taxable personal income. Some Member States indicated the percentage of tax revenue that could be attributed to labour or other forms of taxable personal income. These fractions were mostly kept constant. In a number of cases the implicit tax rate has clearly proven to over-estimate the average effective tax burden on labour income, as for example the wage withholding tax is also levied on social transfer and pension income for which no corrections were made. Given the importance of the personal income tax in total tax revenue, these shortcomings have called for more detailed work as covered in this annex.

As outlined in the main text of this publication, it is believed that the new (refined) methods employed in the Member States generally lead to significantly improved estimates of the split of the personal income tax. However, sources of heterogeneity between Member States may still arise, due to data set limitations and certain conceptual problems. A number of Member States were able to provide annual estimates, whilst in some cases only some point estimates for some years (for 1995, 1997 and 2000, for example) could be made with linear interpolations for the intervening years or constant fractions for future years.

Member States have used the best methods available to them. Although the Member States do not apply the same method, the different approaches can usefully be classified into four main headings.

*(A) Approach using comprehensive micro (taxpayer-level) data sets*

Examples by the Ministries of Finance and/or Taxation in the Netherlands, Finland, Denmark and Italy illustrate how micro (taxpayer-level) rather than aggregate data can permit more direct measurement of tax revenue raised from labour, self-employed businesses, capital and social transfers and pensions (see also box 1). Nine out of the fifteen Member States have access to comprehensive micro data sets to carry out the estimates (Belgium, Denmark, France, the Netherlands, Ireland, Finland, Sweden and the United Kingdom). The majority of these Member States use micro simulation models relying on samples from the entire taxpayer population, while others use exhaustive tax return data sets (Belgium and Ireland). In the majority of the cases, Member States basically multiply individual income tax payments by proportions of the selected

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<sup>2</sup> See also OECD (2000, 2002b) and De Haan, Sturm and Volkerink (2002).

<sup>3</sup> See European Commission (2000b).

income types in the total taxpayer's income. The corresponding estimates obtained at the taxpayer's level are consequently aggregated to obtain estimates of the personal income tax raised in respect of the selected income types. For example, the amount of income tax raised on labour income,  $PIT(Labour)$  say, could be estimated as follows:

$$PIT(labour) = \sum_j (W_j / Y_j) * PIT_j = \sum_j w_j * PIT_j$$

where  $W_j$  measures the labour income of the  $j$ -th taxpayer in a sample of individuals ( $j=1,..,n$ ) and where  $PIT_j$  measures the personal income tax payment of the  $j$ -th taxpayer on his total taxable income  $Y_j$ . The above equation therefore measures the total personal income tax raised on labour income as a weighted average of each individual taxpayer's payment  $PIT$ , with the weights  $w_j = (W_j/Y_j)$  attached to these individual payments reflecting the distribution of total wages and salaries across taxpayers. It assumes that all income types are subject to an average effective tax rate at the level of the individual taxpayer.

In most Member States the personal income tax system is comprehensive in the sense that all sub-categories of taxable personal income are pooled at the individual level, and the result is taxed at ascending statutory rates. However, some Member States apply a given statutory rate to a specific income category, as can occur under a dual income tax system. In the Netherlands, Finland and Sweden, for example, capital income is taxed at a fixed (relatively lower) rate as compared to other earned income. In most cases, however, there is no actual split of the tax revenue, but the tax receipts data are used to isolate the amount of tax collected on that particular income type.

The income types are also as much as possible measured after the effect of tax base deductions that are exclusively earned on the income types (*e.g.* tax base deduction for labour costs, or mortgage interest payments). Some Member States also directly incorporate the revenue effects of tax credits that are exclusively earned on these income types (*e.g.* earned income tax credit).

As stated before, there are some noticeable differences in the methods across Member States, which are highlighted below. References to the years for which the estimates were made are indicated between brackets.

- *Belgium (1995-2001; all years)*: The split of the personal income tax was estimated by the Ministry of Finance using detailed revenue statistics from the national tax administration based on individual tax returns. The data set covers any assessed income, and is exhaustive. In fact, the national tax administration already splits and allocates the aggregate personal income tax revenue raised on the so-called "global income" to the different income sources on a case-by-case basis, in order to derive entitlements of individual taxpayers to certain tax credits that are related to specific income sources. For example, the tax credits for pensions, sickness or unemployment are limited to the income tax that relates proportionally to the corresponding net income. This allocation of the tax revenue raised on the "global income" is calculated by multiplying individual tax payments by proportions of the income types in the total taxpayer's "global income", as outlined above. The income types are measured net of tax base deductions that are exclusively earned on these income types. Subsequently, the estimated fractions of the aggregate personal tax revenue that is raised on the selected income types depend on a proportional division of the personal income tax that is due on the "global income" and the income tax due on "distinct income" sources that are taxed separately. The resulting fractions are consequently

applied to the sum of revenues from advance payments on earnings, advance payments of tax on self-employed persons and the amount of the final income tax assessment. The revenue from withholding tax on income from movable capital and real estate tax is not included in the above calculations; they are directly assigned to the capital income.

- *Denmark (1995-2000; all years)*: The split of the personal income tax was estimated by the Ministry of Taxation using a micro-simulation model that is based on a sample of with micro (taxpayer-level) data. The model incorporates the information of withholdings/prepayments and final income tax returns. The model is updated annually, and used in planning the national tax policies and estimating policy alterations on tax revenues and on the income tax liabilities of taxpayers on different income levels. The model also covers other legislative areas, such as unemployment benefits, housing subsidies, social assistance and so on. The method basically multiplies individual tax payments by proportions of the income types in the total taxpayer's income, as outlined above. The income types are measured net of tax base deductions that are exclusively earned on these income types. By including net interest payments in the tax base of capital, for example, the ministry of taxation has taken into account the way the tax relief for mortgage interest payments and other interest payments on loans reduces the tax base of capital. This explains why the estimated part of capital income is lower than zero. As regards the employed labour income, it should be recognised that in 1995 and 1999 wage income was taxed as follows. On the one hand the tax base for the municipal income tax and the lower limit central government tax were wage income less transport expenses and unemployment insurance contributions. On the other hand the tax base for the so called mean limit and upper limit income tax were the part of the wage income - without any reduction for expenses - that exceeded a certain amount. If one reduces the tax base with deductible "wage expenses", then the part of the mean limit and an upper limit income tax that is attributed to wage income is too small. Whereas if it is not taken into account the part of the municipal income tax and lower limit central government tax that is attributed to wage income is too big. The Ministry of Taxation has chosen the latter approach as it is believed that the bias will be the smallest in this case.
- *Germany (1995-2001; all years)*: The split of the personal income tax was estimated by the Federal Ministry of Finance using a micro simulation model. This model is based on a representative sample of micro (taxpayer-level) tax return data that is used for tax forecasting purposes and pre-assessing the consequences of changes in income tax legislation. In addition, the model allows the assessment of the solidarity tax, child benefits, the church tax and social contributions. The sample was drawn from a data set constructed by the Federal statistical office. The simulation model incorporates the information on withholdings/prepayments and final income tax returns (in Germany, nearly every private household liable to income tax must file an income tax return, employees only paying wage withholding tax are also included in the sample). The calculations do not take into account child benefits and tax-free cash grants for acquiring or constructing new occupational dwellings, which are credited against the income tax liability. These transfers are deemed as separate transfers in the context of social policy programmes. Basically, personal income tax payments were multiplied by the selected income sources at the micro level, as outlined above. The income sources are measured net of tax base deductions that are exclusively earned on these income sources. Germany employs a comprehensive income tax base. There are no income-specific rates such as lower flat rates on income from capital investment as in countries with dual income tax systems, nor does Germany grant lower tax rates or tax credits

on low wages. However, the tax base may be washed out by income specific allowances (such as the saving allowance), tax incentives or arrangements in computing income, but these effects are captured within the calculations, because the average effective tax rate is multiplied by the net taxable income sources.

- *France (1999 and 2000; point estimates)*: The split of the personal income tax was estimated by the Ministry of Finance using a micro-simulation model that is based on a sample with micro (taxpayer-level) data. The method basically multiplies individual tax payments by proportions of the income types in the total taxpayer's income, as outlined above. The income types are measured net of tax base deductions that are exclusively earned on these income types. In addition, corrections were made for the revenue effects of tax credits that are exclusively earned on the selected income types (e.g. the reimbursable tax credit, the '*prime pour l'emploi*', to encourage low-paid and low-skilled workers to resume active employment). It is worth noting that France employs a joint assessment of the taxable income in the household. For example, the principal earner in the household may earn labour income whereas the spouse receives social benefits, but the total amount of personal income is jointly assessed. In the calculations for the split of the personal income tax, however, in this case the same effective tax rate has been applied to the partners jointly assessed. No estimates are available for the amount of personal income tax raised in respect of social transfers and pension benefits.
  
- *The Netherlands (1995, 1997 and 2001; point estimates)*: The split of the personal income tax was estimated by the Ministry of Finance using a micro-simulation model that is based on a sample with micro (taxpayer-level) data. The information is collected by Statistics Netherlands. The model is not updated annually, but annual projections are made for future years for planning the national tax policies and estimating policy alterations on tax revenues. It covers the combined tax burden of wage withholding tax, personal income tax, social contributions and wealth tax. The method basically multiplies individual tax payments by proportions of the income types in the total taxpayer's income, as outlined above. In the Netherlands, the lowest two income tax rates consist of personal income tax and social contributions; the highest two rates consist solely of personal income tax. The split has therefore been computed for both personal income tax and social contributions (which are in principle levied on all taxable personal income types). The income types are measured net of tax base deductions that are exclusively earned on these income types. A special provision applies to the capital income of owner-occupied property. This is taxed at a notional rental value, which represents the balance of revenue and expenses connected with the use of the dwelling, and is assessed using statutory tables. As normal expenses are included in the notional rental value, no expenses other than mortgage interest and ground rent may be deducted. The deduction for mortgage interest payments explains why the estimated part of capital income is lower than zero for some years. A major tax reform was implemented in January 2001. Among a number of other important changes, this reform replaced the wealth tax and personal income taxation of interest, dividend and other capital income by a single tax on the imputed income from wealth. A 4% yield imputed on all assets is now taxed at a flat rate of 30%, which basically implies a 1.2% tax rate on the total wealth. The tax reform also replaced the basic employed person's tax base allowance by a non-refundable tax credit for all employees and self-employed persons. Both measures are reflected in the estimates for 2001.

- *Ireland (1995, 1997, 1998 and 1999; point estimates):* The split of the personal income tax was estimated by the Inland Revenue using an exhaustive data-set with micro (taxpayer-level) tax-return data. The data set covers all taxpayers for which a return was received. The method basically multiplies individual tax payments by proportions of the income types in the total taxpayer's income, as outlined above. However, because there are some taxable personal income components that are taxed at a flat rate only, there is no actual split of tax revenues raised on these particular income components. The tax raised on such components is directly calculated from the tax return data. At this stage, the income types are not yet measured net of tax base deductions that are exclusively earned on these income types. This could be done in future updates of the split of the personal income tax.
- *Finland (1995-2001; all years):* The split of the personal income tax was estimated by the Ministry of Finance using a micro-simulation model that is based on a sample of micro (taxpayer-level) data. The information is collected by Statistics Finland. The model is updated annually, and used in planning the national tax policies and estimating policy alterations on tax revenues and on the income tax liabilities of taxpayers on different income levels. The method basically multiplies individual tax payments by proportions of the income types in the total taxpayer's income, as outlined above. However, because of the dual income tax system, there is no actual split of tax revenues raised on capital income. The tax raised on capital income is directly calculated from the tax return data. The income types are measured net of tax base deductions that are exclusively earned on these income types. The statistical information on dividend income in the model contains both dividend income of the self-employed that is treated as the capital part of the income, and the dividend income from investors, that is not income from self-employed labour but capital income from for example owning shares in a listed company. The statistical information is split into dividend income from self-employment and dividend income from saving and investments using an estimate. Mortgage interest payments are not deducted from the capital income, since no rental value taxation of income from home-ownership is applied.
- *Sweden (1995-2000; all years):* The split of the personal income tax was estimated by the Ministry of Finance using micro-simulation models that are mainly based on administrative sample data. The models are updated annually, and mainly used in planning the national tax policies and estimating policy alterations on tax revenues and on the income tax liabilities of taxpayers on different income levels. The method basically multiplies individual tax payments by proportions of the income types in the total taxpayer's income, as outlined above. However, because of the dual income tax system, there is no actual split of tax revenues raised on capital income. The tax raised on capital income is directly calculated from the tax return data. The income types are measured net of tax base deductions that are exclusively earned on these income types. An alternative way to describe the method is to say that the individual specific average effective income tax rate is calculated to split the personal income tax across different taxable income sources. Note, however, that these average effective tax rates are computed while incorporating the revenue effects of tax credits that are exclusively earned on the selected income sources. The revenue effects of general tax credits for all taxpayers are proportionally allocated across all selected income sources.



**Box 13 Micro vs. Macro-data approach<sup>4</sup>**

To illustrate the properties of the **micro-data approach**, consider an economy with only two taxpayers ( $j=1,2$ ). One can model taxpayer 1's personal income tax liability as follows:

$$PIT_1 = t(W_1 - DW_1 + O_1 - DO_1 - A_1) - C_1 - CW_1 - CO_1$$

where  $t(\cdot)$  denotes a progressive tax rate function,  $W$  measures gross income from labour,  $O$  measures "other" gross taxable income,  $DW$  measures deductible expenses incurred in earnings and maintaining labour income,  $DO$  measures deductible expenses incurred in earnings and maintaining "other" taxable income,  $A$  measures a personal basic tax-base allowance (depending on tax filing status),  $C$  measures a basic tax credit (may also depend on tax filing status),  $CW$  measures a tax credit earned on labour income and  $CO$  measures a tax credit earned on "other" taxable income. The portion of taxpayer 1's income tax linked to labour income can be estimated as:

$$PIT(labour)_1 = \tau_1 \cdot (W_1 - DW_1)$$

with the amount raised on "other" taxable income given by:

$$PIT(other)_1 = \tau_1 \cdot (O_1 - DO_1)$$

where  $\tau$  measures the taxpayer's 1 average effective tax rate on the aggregate of labour and "other" taxable income:

$$\tau_1 = \frac{PIT_1}{(W_1 - DW_1 + O_1 - DO_1)}$$

- This effective income tax rate, which is an increasing function of the progressive tax rate schedule,  $t(\cdot)$ , and a decreasing function of the tax base allowances, deductions and tax liability credits, reflects taxpayer 1's position. In fact, the average effective tax rate for taxpayer 1 will differ from that of taxpayer 2 to the extent that:
- Taxpayer 1 and taxpayer 2 have the same amount of aggregate taxable income, but different amounts of labour and "other" taxable income, and the tax system treats these two types of income differently, for example, by way of special tax credits earned on labour income or "other" taxable income;
- Taxpayer 1 and taxpayer 2 have different levels of total taxable income, and the personal income tax is progressive.
- In contrast to the micro-data approach, when relying on macro data, the notional personal income tax allocation and the measurement of the effective tax rate must rely on a single average effective tax rate estimate only, computed both across all income sources and all taxpayers. By applying this single effective tax rate to estimate the notional amount of taxes raised on the different income sources, one would omit important taxpayer- and tax treatment variation that are implicitly caught in the micro data.

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<sup>4</sup> See also Clark (2002).

- In order to illustrate the degree of precision that can be reached with using micro rather than macro data, the Netherlands, Finland, Denmark and Italy have made additional calculations on the basis of only aggregate tax return data for some years. It appears that the differences for the estimated amounts of personal income tax raised on labour income were rather small. The reason is that labour income is by far the most important taxable personal income source, which means that the overall effective income tax rate (measured on the basis of the aggregate taxable income across all taxpayers) is strongly influenced by the average effective tax rate on labour income. The differences are however significant for the other taxable personal income types. If only aggregate data would be used, generally higher fractions would be computed for capital income and social transfer and pension income, and generally lower fractions would be computed for income from unincorporated businesses.

*(B) Approach using both micro- and aggregate tax receipts data*

The method employed in the United Kingdom is based on combining micro and aggregate tax record data. Also, unlike the methods outlined above, the method does not assume that the individual taxpayer has the same average effective income tax rate over all income sources. Instead, income source specific tax rates are multiplied by the selected income sources at the taxpayer level.

- *United Kingdom (1995-2000; all years):* The split of the personal income tax was estimated by the Inland Revenue using a micro simulation model and aggregate tax receipt data. The micro simulation model incorporates the information of withholding taxes (PAYE), self-assessment tax returns and claims by non-taxpayers for overpaid tax deducted at sources. The method does not assume that the individual taxpayer has the same average income tax rate over all selected income sources. Instead, income-source specific tax rates are computed, because the personal income tax law prioritises the order of different types of income. For example, labour income is at the bottom of the taxable income and dividend income is treated as the top-slice of the taxable income. The total tax liability that results from the micro simulation model, grossed up to the total taxpayer population for sampling, does not exactly correspond to the total recorded tax receipts from macro tax receipt data, due to differences in definition and sampling error. The main differences between the micro and macro tax receipt data occur because some components (i.e. company income tax and unallocated tax receipts) are not modelled. Also, there are various repayments of personal income tax which are made directly at source and are not captured in the model data, including payments to pension funds, charities, special savings schemes, life insurance relief, mortgage interest relief at source, working family tax credits and vocational training relief. These elements of the macro tax receipt data have also been allocated across the selected income types, whenever this was possible.

*(C) Approach using tax-return data aggregated at the level of income classes or tax brackets*

In some Member States tax return data is used that is aggregated at the level of a number of income classes or tax brackets. Basically, the recorded personal income tax payments are multiplied by the selected income types over the sum of the taxable personal income sources at the level of income classes or tax brackets. This approach thus implicitly assumes that a (common) average effective tax rate applies to all selected income types at the level of the income class. The corresponding estimates are consequently aggregated to obtain the estimate of the split of the personal income tax. Calculations by Italy have shown that differences from using either macro tax return data or micro

data aggregated by income classes turn out to be significant for the taxable personal income types that are less important from a quantitative point of view. Although the method cannot provide the degree of accuracy of micro (taxpayer-level) data, it is believed that it is likely to capture the effects of progression of the personal income tax system and the distribution of income sources across different groups of taxpayers.

- *Italy (1995, 1998; point estimates)*: The split of the personal income tax was estimated by the Ministry of Finance using a micro data set containing IRPEF tax return data for all taxpayers. Instead of computing an average tax rate for each individual taxpayer, the information was allocated to thirty-five classes of gross income. Basically, the recorded personal income tax payments were multiplied by the selected net taxable income sources over the sum of the net taxable income sources at the income class level. The income types are measured net of tax base deductions that are exclusively earned on these income types. In addition, corrections were made for the revenue effects of tax credits that are exclusively earned on the selected income types. In addition to the recorded IRPEF tax revenues, IRPEF payments received by the treasury on denominations other than IRPEF were incorporated in the calculations. These include tax on dividend distributions and dividend withholdings, which were directly allocated to the capital income category.
  
- *Spain (1995-2000; all years)*: The split of the personal income tax was estimated by the Ministry of Finance using tax return data aggregated in 46 income classes or intervals of the taxable base. For each individual taxpayer, the final income tax liability of the annual declaration can be obtained as the function of the taxable personal income types, certain tax allowances in the taxable base, a double tax schedule, their allotment between the regular taxable base and the irregular one (for incomes or capital gains realised in more than one year) and a series of tax credits to the tax liability. Following this structure and certain procedures specified for the assignment of deductions to certain income sources, it is supposed that the tax liability corresponding to the regular part of the taxable base is distributed among the income types in a proportional way to the weight of each one in the total amount of the declared income, as outlined above. The personal income tax reform of 1999 has changed the structure of the tax system. The method has been adapted to take account of the most important changes. The fraction of the personal income tax raised in respect of social transfers and pension benefits could not be estimated by using the personal income tax statistics. The Ministry of Finance used statistics from the National Accounts for this purpose. It is however believed that this leads to an overestimation of the fraction of personal income tax that can be attributed to social transfers and pension benefits. The social transfers in National Accounts also include some social transfers which are not taxed. Furthermore, the amount of some social transfers is probably situated below the income tax threshold, and therefore, may not be included in the personal income tax returns. A much more detailed (technical) description of the method employed by the Ministry of Finance is available upon request.
  
- *Greece (1995, 1996; point estimates)*: The split of the personal income tax was estimated by Geogakopoulos (1998) in co-operation with the Ministry of Finance, using information of Statistics Greece on the various sources of reported income and the income tax due. These statistics provide information not only concerning the size but also the bracket allocation of the income coming from each source separately, as well as of the total tax revenues originating from sources by income bracket. Basically, the method multiplies tax payments by proportions of the

income types in the total taxpayer's income, as outlined above, but aggregated at the level of income classes. The income types are measured as net taxable personal incomes. One problem that arises here is that the data provided in the tax returns refer to the calendar year during which the income is generated and the tax revenues corresponding to this income do not coincide with actual tax receipts given in the revenue statistics, since tax receipts have a three month lag. Therefore the tax receipts data were corrected to take account of this lag. Another problem that arises is the presence of a considerable amount of personal income tax revenues not declared, for example, when the tax on dividends is withheld at source and not declared. Revenue restitutions for the tax withheld at source also constitute a considerable proportion of the total personal income tax collected.

*(D) Approach using aggregate withholding tax- and final assessment income tax data with certain adjustments*

In some Member States the estimates of the split of the personal income tax were computed on the basis of aggregates statistics of withholding tax and the final personal income tax by assessment.

- *Austria (1995-2001; all years)*: The split of the personal income tax was estimated by the Ministry of Finance using statistical information from the wage withholding tax and the final income tax by assessment. Taxes raised on income from employed labour are withheld by the employer at source, and the wage tax system is designed to approximate the final personal income tax as closely as possible, but in some cases certain repayments have to be made by the tax administration. This can for example occur if the taxpayer receives income from several jobs or pensions during one year, or if there are different payments per month or deductions for special expenses etc. As these repayments concern only wage taxpayers, the total net amount of the repayments was deducted from the total recorded wage tax, and the recorded income tax was adjusted accordingly. Also, the income from employment includes income in the form of social transfers and pension benefits received. The recorded revenue of the wage tax was also corrected for the relevant amount to arrive at the fraction of income tax levied on labour income. The revenue of the personal income tax by assessment largely reflects entrepreneurial income and income from capital. The (corrected) recorded revenue from the personal income was split between the two sources, using tax-return data aggregated at the level of a number of income classes as outlined above.
- *Portugal (1999; point estimate)*: The split of the personal income tax was estimated by the Ministry of Finance using information from personal income tax returns except for the amount of tax raised on capital income, which was estimated using information of both withholding taxes and personal income tax returns. The estimates are based on three data-sets: (1) aggregate net taxable incomes by category of income type; (2) aggregate net taxable incomes and tax liabilities by category of income or groups of categories, depending on the type of tax returns. Some households only earn income from one category of income, and so the tax liability is directly imputable to that category but other households simultaneously earn income from more than one category. (e.g. income from labour and income from self-employed labour); (3) aggregate data from withholding tax returns relating to incomes subject to a final withholding tax, which, in general, are not reported in tax returns (e.g. interest on bank deposits or dividends). The split of the personal income tax was estimated according to the following procedure. As the first step, the tax liability of households with one source of taxable personal income was directly allocated. As the second step, from the aggregates of the net taxable incomes by category of income the

net taxable incomes of households with one source of income were subtracted. Third, the aggregate tax liability of households which earn more than income was split. This split was made in proportion to the aggregate net taxable incomes for each category that resulted from the second step. In this step it was thus assumed that all categories of income are subject to a common average effective tax rate. Finally, the revenue from the final withholding tax was added to the relevant categories. It should be noted that this assumes that none of the incomes subject to a final withholding tax is reported in the tax return and so could cause the problem of double counting. However, in practice, it is believed that this problem is not important. In fact, although the taxpayer could choose to report this income, it would generally be taxed at a higher rate.

- *Luxembourg (1995-2001)*: Estimates for the split were directly derived from the National Accounts. The recorded amount of the wage withholding tax was allocated to employed labour income without corrections for wage tax raised on social transfers or pension benefits. The amount of the final income tax by assessment was allocated to capital and self-employed labour without corrections.

*Estimates of the split of the personal income tax*

The following tables present the resulting estimates for the split of the personal income tax. Looking at the estimates, there are some noticeable differences, in particular for the income tax allocated to capital and social transfer and pensions benefits. By including net interest payments in the tax base of capital, for example, some Member States (*e.g.* Denmark and the Netherlands) have taken into account the way the tax relief for mortgage interest payments and other interest payments on loans effectively reduces the tax base of capital. This explains why the estimated fraction for personal income tax raised on capital income is sometimes relatively low (or even negative) for a number of Member States. In some Member States such deductions are less significant or non-existent, while others were unable to take the revenue effects of such specific tax base deductions yet into account. Also, some Member States were unable to estimate the amount of personal income tax on (taxable) social transfers, while others could not distinguish (between different types of) pension benefits. Inevitably this may have had some consequences for the implicit tax rates on labour and capital. The estimates for the amount of personal income tax allocated to capital income and social transfers and pensions would benefit from future work. What is furthermore noteworthy from the table is the fact that the personal income tax revenue allocated to (employed) labour income appears to be relatively low in Italy and Greece.

**Table E: Estimates for the split of the personal income tax**  
1995-2001, in % of total revenue of personal income tax

Personal income tax revenue allocated to employed labour income <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001
B	<b>0,749</b>	<b>0,741</b>	<b>0,747</b>	<b>0,740</b>	<b>0,744</b>	<b>0,751</b>	<b>0,744</b>
DK	<b>0,725</b>	<b>0,728</b>	<b>0,738</b>	<b>0,725</b>	<b>0,729</b>	<b>0,760</b>	<i>0,760</i>
D	<b>0,757</b>	<b>0,729</b>	<b>0,734</b>	<b>0,724</b>	<b>0,704</b>	<b>0,705</b>	<b>0,715</b>
EL	<b>0,497</b>	<b>0,477</b>	<i>0,477</i>	<i>0,477</i>	<i>0,477</i>	<i>0,477</i>	<i>0,477</i>
E	<b>0,527</b>	<b>0,535</b>	<b>0,544</b>	<b>0,545</b>	<b>0,538</b>	<b>0,544</b>	<i>0,544</i>
F	<i>0,740</i>	<i>0,740</i>	<i>0,740</i>	<i>0,740</i>	<b>0,740</b>	<b>0,720</b>	<i>0,720</i>
IRL	<b>0,839</b>	<i>0,836</i>	<b>0,833</b>	<b>0,824</b>	<b>0,834</b>	<i>0,834</i>	<i>0,834</i>
I	<b>0,589</b>	<i>0,578</i>	<i>0,567</i>	<b>0,556</b>	<i>0,556</i>	<i>0,556</i>	<i>0,556</i>
L	<b>0,681</b>	<b>0,686</b>	<b>0,729</b>	<b>0,709</b>	<b>0,734</b>	<b>0,751</b>	<b>0,762</b>
NL	<b>0,655</b>	<i>0,651</i>	<b>0,647</b>	<i>0,647</i>	<i>0,647</i>	<i>0,647</i>	<b>0,678</b>
A	<b>0,628</b>	<b>0,604</b>	<b>0,625</b>	<b>0,623</b>	<b>0,625</b>	<b>0,629</b>	<b>0,591</b>
P	<i>0,672</i>	<i>0,672</i>	<i>0,672</i>	<i>0,672</i>	<b>0,672</b>	<i>0,672</i>	<i>0,672</i>
FIN	<b>0,661</b>	<b>0,676</b>	<b>0,673</b>	<b>0,686</b>	<b>0,683</b>	<b>0,679</b>	<b>0,695</b>
S	<b>0,705</b>	<b>0,702</b>	<b>0,699</b>	<b>0,706</b>	<b>0,681</b>	<b>0,670</b>	<i>0,670</i>
UK	<b>0,764</b>	<b>0,755</b>	<b>0,747</b>	<b>0,743</b>	<b>0,751</b>	<b>0,756</b>	<i>0,756</i>

Source: Commission services on the basis of estimates by Member States.

<sup>1)</sup> The numbers printed in **bold** are the actual estimates; the numbers printed in *italics* represent either linear interpolations or fractions that were assumed to remain constant.

Personal income tax revenue allocated to income of the self-employed <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001
B	<b>0,127</b>	<b>0,130</b>	<b>0,122</b>	<b>0,129</b>	<b>0,132</b>	<b>0,129</b>	<b>0,128</b>
DK	<b>0,058</b>	<b>0,057</b>	<b>0,054</b>	<b>0,061</b>	<b>0,062</b>	<b>0,055</b>	<i>0,055</i>
D	<b>0,190</b>	<b>0,221</b>	<b>0,214</b>	<b>0,224</b>	<b>0,242</b>	<b>0,238</b>	<b>0,233</b>
EL	<b>0,281</b>	<b>0,264</b>	<i>0,264</i>	<i>0,264</i>	<i>0,264</i>	<i>0,264</i>	<i>0,264</i>
E	<b>0,153</b>	<b>0,144</b>	<b>0,148</b>	<b>0,145</b>	<b>0,143</b>	<b>0,134</b>	<i>0,134</i>
F	<i>0,180</i>	<i>0,180</i>	<i>0,180</i>	<i>0,180</i>	<b>0,180</b>	<b>0,200</b>	<i>0,200</i>
IRL	<b>0,115</b>	<i>0,116</i>	<b>0,117</b>	<b>0,120</b>	<b>0,120</b>	<i>0,120</i>	<i>0,120</i>
I	<b>0,162</b>	<i>0,169</i>	<i>0,175</i>	<b>0,182</b>	<i>0,182</i>	<i>0,182</i>	<i>0,182</i>
L	<b>0,239</b>	<b>0,236</b>	<b>0,203</b>	<b>0,218</b>	<b>0,200</b>	<b>0,187</b>	<b>0,179</b>
NL	<b>0,185</b>	<i>0,196</i>	<b>0,207</b>	<i>0,207</i>	<i>0,207</i>	<i>0,207</i>	<b>0,162</b>
A	<b>0,169</b>	<b>0,186</b>	<b>0,166</b>	<b>0,169</b>	<b>0,162</b>	<b>0,159</b>	<b>0,196</b>
P	<i>0,098</i>	<i>0,098</i>	<i>0,098</i>	<i>0,098</i>	<b>0,098</b>	<i>0,098</i>	<i>0,098</i>
FIN	<b>0,082</b>	<b>0,074</b>	<b>0,079</b>	<b>0,075</b>	<b>0,074</b>	<b>0,074</b>	<b>0,075</b>
S	<b>0,022</b>	<b>0,025</b>	<b>0,026</b>	<b>0,026</b>	<b>0,027</b>	<b>0,028</b>	<i>0,028</i>
UK	<b>0,121</b>	<b>0,122</b>	<b>0,126</b>	<b>0,120</b>	<b>0,116</b>	<b>0,113</b>	<i>0,113</i>

Source: Commission services on the basis of estimates by Member States.

<sup>1)</sup> The numbers printed in **bold** are the actual estimates; the numbers printed in *italics* represent either linear interpolations or fractions that were assumed to remain constant.

Personal income tax revenue allocated to income of the self-employed <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001
B	<b>0,127</b>	<b>0,130</b>	<b>0,122</b>	<b>0,129</b>	<b>0,132</b>	<b>0,129</b>	<b>0,128</b>
DK	<b>0,058</b>	<b>0,057</b>	<b>0,054</b>	<b>0,061</b>	<b>0,062</b>	<b>0,055</b>	<i>0,055</i>
D	<b>0,190</b>	<b>0,221</b>	<b>0,214</b>	<b>0,224</b>	<b>0,242</b>	<b>0,238</b>	<b>0,233</b>
EL	<b>0,281</b>	<b>0,264</b>	<i>0,264</i>	<i>0,264</i>	<i>0,264</i>	<i>0,264</i>	<i>0,264</i>
E	<b>0,153</b>	<b>0,144</b>	<b>0,148</b>	<b>0,145</b>	<b>0,143</b>	<b>0,134</b>	<i>0,134</i>
F	<i>0,180</i>	<i>0,180</i>	<i>0,180</i>	<i>0,180</i>	<b>0,180</b>	<b>0,200</b>	<i>0,200</i>
IRL	<b>0,115</b>	<i>0,116</i>	<b>0,117</b>	<b>0,120</b>	<b>0,120</b>	<i>0,120</i>	<i>0,120</i>
I	<b>0,162</b>	<i>0,169</i>	<i>0,175</i>	<b>0,182</b>	<i>0,182</i>	<i>0,182</i>	<i>0,182</i>
L	<b>0,239</b>	<b>0,236</b>	<b>0,203</b>	<b>0,218</b>	<b>0,200</b>	<b>0,187</b>	<b>0,179</b>
NL	<b>0,185</b>	<i>0,196</i>	<b>0,207</b>	<i>0,207</i>	<i>0,207</i>	<i>0,207</i>	<b>0,162</b>
A	<b>0,169</b>	<b>0,186</b>	<b>0,166</b>	<b>0,169</b>	<b>0,162</b>	<b>0,159</b>	<b>0,196</b>
P	<i>0,098</i>	<i>0,098</i>	<i>0,098</i>	<i>0,098</i>	<b>0,098</b>	<i>0,098</i>	<i>0,098</i>
FIN	<b>0,082</b>	<b>0,074</b>	<b>0,079</b>	<b>0,075</b>	<b>0,074</b>	<b>0,074</b>	<b>0,075</b>
S	<b>0,022</b>	<b>0,025</b>	<b>0,026</b>	<b>0,026</b>	<b>0,027</b>	<b>0,028</b>	<i>0,028</i>
UK	<b>0,121</b>	<b>0,122</b>	<b>0,126</b>	<b>0,120</b>	<b>0,116</b>	<b>0,113</b>	<i>0,113</i>

Source: Commission services on the basis of estimates by Member States.

<sup>1)</sup> The numbers printed in **bold** are the actual estimates; the numbers printed in *italics* represent either linear interpolations or fractions that were assumed to remain constant.

Personal income tax revenue allocated to capital and business income <sup>1)</sup>

	1995	1996	1997	1998	1999	2000	2001
B	<b>-0,016</b>	<b>-0,016</b>	<b>-0,017</b>	<b>-0,016</b>	<b>-0,017</b>	<b>-0,017</b>	<b>-0,017</b>
DK	<b>-0,036</b>	<b>-0,037</b>	<b>-0,031</b>	<b>-0,018</b>	<b>-0,015</b>	<b>-0,033</b>	<i>-0,033</i>
D	<b>0,019</b>	<b>0,023</b>	<b>0,023</b>	<b>0,025</b>	<b>0,026</b>	<b>0,029</b>	<b>0,025</b>
EL	<b>0,103</b>	<b>0,103</b>	<i>0,103</i>	<i>0,103</i>	<i>0,103</i>	<i>0,103</i>	<i>0,103</i>
E	<b>0,108</b>	<b>0,105</b>	<b>0,097</b>	<b>0,107</b>	<b>0,124</b>	<b>0,125</b>	<i>0,125</i>
F	<i>0,080</i>	<i>0,080</i>	<i>0,080</i>	<i>0,080</i>	<b>0,080</b>	<b>0,080</b>	<i>0,080</i>
IRL	<b>0,032</b>	<i>0,035</i>	<b>0,038</b>	<b>0,045</b>	<b>0,036</b>	<i>0,036</i>	<i>0,036</i>
I	<b>0,048</b>	<i>0,049</i>	<i>0,049</i>	<b>0,050</b>	<i>0,050</i>	<i>0,050</i>	<i>0,050</i>
L	<b>0,080</b>	<b>0,079</b>	<b>0,068</b>	<b>0,073</b>	<b>0,067</b>	<b>0,062</b>	<b>0,060</b>
NL	<b>-0,008</b>	<i>-0,008</i>	<b>-0,008</b>	<i>-0,008</i>	<i>-0,008</i>	<i>-0,008</i>	<b>0,042</b>
A	<b>0,032</b>	<b>0,035</b>	<b>0,031</b>	<b>0,032</b>	<b>0,031</b>	<b>0,030</b>	<b>0,037</b>
P	<i>0,147</i>	<i>0,147</i>	<i>0,147</i>	<i>0,147</i>	<b>0,147</b>	<i>0,147</i>	<i>0,147</i>
FIN	<b>0,024</b>	<b>0,029</b>	<b>0,041</b>	<b>0,047</b>	<b>0,063</b>	<b>0,075</b>	<b>0,060</b>
S	<b>-0,010</b>	<b>0,014</b>	<b>0,028</b>	<b>0,028</b>	<b>0,058</b>	<b>0,080</b>	<i>0,080</i>
UK	<b>0,100</b>	<b>0,107</b>	<b>0,112</b>	<b>0,121</b>	<b>0,117</b>	<b>0,116</b>	<i>0,116</i>

Source: Commission services on the basis of estimates by Member States.

<sup>1)</sup> The numbers printed in **bold** are the actual estimates; the numbers printed in *italics* represent either linear interpolations or fractions that were assumed to remain constant.