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(*)The opinions expressed in this document are the responsibility of the authors and, therefore, do not necessarily coincide with those of the Banco de España or the Eurosystem.

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Abstract

This paper describes the revenue-raising capacity and structure of the Spanish tax system, in comparison with the economies of the European Union. Spain stands out for the low weight of its tax revenues in GDP relative to the EU27 average. This lower weight of tax revenue is mainly a consequence of indirect taxes (VAT, excise duties and environmental taxes). In fact, Spain has the lowest weight of consumption taxation in the European Union. As regards labour taxation, revenue raised as a proportion of GDP is similar to the EU27 average, although the weight of social security contributions in GDP, in particular those charged to employers, is higher. Spain also raises relatively more revenue from the taxation of capital, in particular from the taxation of wealth.

Keywords: tax burden, tax structure, taxation in the EU.

JEL classification: H20, E62, H23, H24, H25.

Resumen

En este documento se presenta una descripción de la capacidad recaudatoria y la estructura tributaria del sistema fiscal español en comparación con las economías de la Unión Europea. España destaca por presentar un peso de los ingresos tributarios sobre PIB relativamente reducido en relación con la media de la UE27. Esta menor recaudación relativa se debe esencialmente a la imposición indirecta (IVA, impuestos especiales y medioambientales). De hecho, España tiene el menor peso en imposición sobre el consumo de todos los países de la UE27. En cuanto a la imposición sobre el trabajo, la recaudación en porcentaje del PIB en España es similar a la media de la UE27. Sin embargo, el peso de las cotizaciones sociales sobre PIB es superior, en particular las que recaen sobre las empresas. Por su parte, los ingresos derivados de la imposición sobre el capital son también más elevados en el caso español, en particular los relativos a la tributación sobre la riqueza.

Palabras clave: presión fiscal, estructura impositiva, imposición en la UE.

Códigos JEL: H20, E62, H23, H24, H25.

1 Introduction

The deterioration of public finances has been one of the most visible and persistent consequences of the recent economic crisis in most developed countries. As a result, in recent years fiscal policy has been shaped by the need to reduce the deficit and public debt to sustainable levels. In this respect Spain has been no exception: the budget deficit rose significantly during the crisis, peaking at 11.1% of GDP in 2009, and then decreased to 6.6% of GDP in 2013 (7.1% including the impact of the aid to the financial sector) as a result of the fiscal consolidation process. The adjustment should continue in coming years, with the aim of reaching a structural balance and breaking away from the trend of rising public debt followed by its subsequent reduction.

The most recent economic literature stresses the importance of budgetary consolidation measures being appropriately shared between the different public expenditure and revenue headings, as there is evidence that this can make or break the success of the process and its impact on economic activity both in the short and the long term. In this setting, in June 2013 the European Council recommended that the Spanish fiscal adjustment be accompanied by a systematic expenditure review and a review of the tax system,¹ to identify the composition of the adjustment that would be most conducive to economic growth. In the tax field, in July 2013 the Spanish government tasked a Committee of Experts to produce a report including a diagnosis of the problems of the tax system and a proposed set of reforms. The report was presented in March 2014 (see Committee of Experts, 2014). Subsequently, in August 2014, the government submitted to Parliament the bills for reform of various taxes, essentially personal income tax (IRPF) and corporate income tax, resulting in amendments which would come into force in January 2015.

Tax revenue played a crucial part in the deterioration of the budgetary situation in Spain during the crisis and in the fiscal consolidation process. Specifically, the decline in public revenue explains almost 50% of the increase in the budget deficit between 2007 and 2009.² Subsequently, in the period 2009 to 2013, 60% of the decline in the budget deficit (by 4.5 pp of GDP) was due to the increase in revenue (2.5 pp of GDP in the same period).

Aside of the key role played by public revenue as a proportion of GDP in the recent performance of Spain's public finances, the tax burden and tax structure in Spain are both unique compared with the European Union (EU) economies with similar levels of economic development and public services. This paper precisely aims to document these unique characteristics, examining the recent performance of the revenue-raising capacity of the Spanish tax system and its main components, compared with the other EU countries. For this purpose, the second

¹ See Council of the European Union (2013): COUNCIL RECOMMENDATION with a view to bringing an end to the situation of an excessive government deficit in Spain, 20 June 2013.

² The deficit rose by 13.1 pp of GDP in that period, while revenue fell by 6 pp of GDP.

section analyses the level and comparative development of the revenue-raising capacity of the Spanish tax system. The relative position of Spain's main taxes is then discussed in greater detail; specifically in five sections, dedicated to the taxation of labour, consumption, the environment, capital and property, respectively. The last section sums up the main conclusions drawn. There is also a box which analyses tax collection trends in Spain during the economic crisis.

2 The tax burden and tax structure: Spain and the EU

The tax burden is generally analysed and compared from one country to another on the basis of tax revenue as a proportion of GDP and the average effective rates of the main taxes, defined as the ratio of tax revenue to macroeconomic variables that proxy the tax base. These are also the measures used in this paper, based on the information released by Eurostat and the OECD, available up to 2012.³

It should be noted, however, that these measures entail some methodological issues concerning both levels and trends, making comparisons from one country to another difficult (OECD 2000). In particular, they exclude key aspects affecting the actual tax burden, such as whether welfare benefits are subject to tax, the redistributive impact of public spending funded through tax, or the existence of a black economy that results in tax evasion. In consequence, the conclusions that may be drawn from these magnitudes must be viewed with caution.

2.1 Tax burden

The development of the welfare state in the countries of western Europe in the second half of the 20th century obliged those countries to increase their revenue-raising capacity. This stylised fact may be seen in the gradual and persistent increase in tax revenue as a proportion of GDP in the EU15⁴ countries between 1965 and the end of the century (see Chart 1). Subsequently this variable steadied, with just minor fluctuations essentially linked to the economic cycle. As a result, the revenue-raising capacity of the EU15⁵ in weighted average terms in 2012 was almost 40% of GDP, 13 pp higher than in 1965. This tax burden is higher than that recorded in the main OECD developed economies.⁶

Although this variable has performed similarly in the EU countries overall, there is a high level of heterogeneity from one country to another. Specifically, the tax burden⁷ amounted to 36.3% of GDP in average terms in 2012 for the EU27 countries, and 39.4% of GDP in weighted average terms (see Chart 2). However, in Belgium, the Netherlands, France and Italy the ratio was over 44% of GDP, whereas at the opposite end of the scale, in Lithuania, Bulgaria, Latvia, Rumania, Slovakia and Ireland the figures were below 30% of GDP. Spain's tax revenue as a proportion of GDP is quite low, at 32.5% (see Charts 2 and 3).

3 The main data sources used in this paper are *Taxation Trends in the European Union* (Eurostat 2014) and *OECD Tax Statistics* (OECD 2013).

4 The EU15 benchmark is used here because it has the longest historical series available. The EU15 comprises Germany, France, Italy, Belgium, the Netherlands, Luxembourg, the United Kingdom, Denmark, Ireland, Greece, Spain, Portugal, Austria, Finland and Sweden.

5 In this paper the term "average" will be used to refer to the arithmetic average. Any reference to a weighted average will be made explicitly. The arithmetic average treats all economies equally, irrespective of their size, whereas the weighted average is more representative of the larger EU countries, especially Germany and France.

6 For example, the Japanese tax burden reached 29.5% of GDP in 1989, before steadying around 25%-30%, and in the United States the ratio has been steady around 25% for the past five decades.

7 The tax burden is measured as the revenue obtained from taxes on production and imports (ESA 95 code D.2), current taxes on income and wealth (ESA 95 code D.5), capital taxes (D.91) and compulsory actual social contributions (D.61111 + D.61121 + D.61131), minus the adjustment for uncertain collection. For details of this definition and others used in this paper, see *Taxation trends in the European Union, edition 2014, Annex B: Methodology and explanatory notes*.

Analysing how the ratio has evolved over time, Spain has not been impervious to the European trend, although there are certain differences largely deriving from its low level of taxation at the onset. Thus, the gap between the level of taxation in Spain and the EU15 remained at around 14 pp of GDP up to 1977. A process of convergence then ensued, as a result, among other factors, of the 1978 tax reform, with the tax burden growing by 15 pp of GDP between 1977 and 1989, narrowing the gap with the EU15 to approximately 5 pp of GDP in that year. Convergence in tax collection came to a standstill in the 1990s, but during the last expansionary phase of the Spanish economy (1997-2007), which was accompanied by a sharp increase in tax collection, the tax burden gap narrowed further, to 2 pp of GDP compared with the EU15 average and complete convergence with the EU27. Nevertheless, the recent economic crisis showed that the increase in tax collection in the expansionary phase was essentially owing to temporary factors, linked to the financial and property boom. As a result, the crisis triggered an abrupt drop in tax collection (from 37.1% of GDP in 2007 to 30.7% in 2009) and a marked increase in the taxation differences relative to the EU average (see Box 1 for a more detailed explanation of tax collection trends in Spain during the crisis). Specifically, considering that the tax burden was virtually constant throughout the recession in the EU economies overall, Spain's revenue-raising capacity was approximately 7 pp of GDP below the weighted average of the EU27 (3.7 pp of GDP relative to the EU27 average) in 2012, which relative levels are similar to those seen in the 1990s.

2.2 Tax structure

Analysis of the tax revenue structure (see Chart 4) shows that indirect taxes⁸ are the main taxes in the EU27, accounting for 38.9% of total revenue, followed by social contributions⁹ and direct taxes,¹⁰ which each have a similar weight (30.9% and 30.4%, respectively). However, the differences in the weight of the three groups of taxes are smaller if the weighted average of the EU27 is used.¹¹

As in the case of tax burden levels, there are significant differences in the tax structure of the EU member states. For example, in Denmark, Ireland, Sweden, Malta and the United Kingdom social contributions account for less than 20% of total tax revenue, significantly lower than in the Netherlands, Lithuania, the Czech Republic, Slovenia and Slovakia where they account for more than 40%. In turn, indirect taxes account for less than 30% of the total tax burden in Belgium and Germany, but for more than 50% in Bulgaria and Croatia. There is also a high degree of heterogeneity in the case of direct taxes, which account for more than 40% of the total in Denmark, Ireland, Malta, Sweden and the United Kingdom, but for less than 20% in the new Member States such as Lithuania, Bulgaria, Croatia and Slovakia that have adopted a flat tax.

8 Indirect taxes are equivalent to taxes on production and imports (D2), which include value added tax (D.211; VAT and IGIC, the Canary Islands general indirect tax, in the case of Spain), taxes and duties on imports excluding VAT (D.212), taxes on products except VAT and import taxes (D.214) and other taxes on production (D.29).

9 Social contributions are defined as compulsory actual social contributions and include those paid by employers (D.61111) and employees (D.61121) and those paid by self- and non-employed persons (D.61131).

10 Direct taxes are defined as current taxes on income and wealth (D.5) plus capital taxes (D.91).

11 The European tax structure is quite different from the tax structures of the United States or Japan. In the US, direct taxes on individuals and corporations account for a very large portion (47% of all tax raised) and indirect taxes for a very small portion. In Japan more than 40% of revenue is collected through social contributions.

The particular characteristics of the Spanish tax structure lie in the higher weight of social contributions as a proportion of total tax revenue (36.8% of the total, 6 pp above the EU27 average in 2012). This is offset by the lower weight of indirect taxes (32.9% of the total, 6 pp below the average), while direct taxes (30.4% of the total) are 2.3 pp higher than the EU27 average (but below the weighted average).

In terms of GDP (see Chart 5) the lower level of taxation in Spain is due, essentially, to indirect taxes which are some 3 pp below the (arithmetic and weighted) average of the EU27, owing in particular to a lower weight of VAT (2.4 pp of GDP lower) and of excise duties and other taxes on consumption (1 pp of GDP lower). In turn, the weight of direct taxes in GDP in Spain is also lower: 0.7 pp of GDP below the EU27 average and 2.5 pp below the weighted average. Conversely, the weight of social contributions in Spain is 0.9 pp of GDP higher than the EU27 average, although it is 0.8 pp of GDP lower than the weighted average.

Turning to how the tax structure has evolved, the above-mentioned increase in the tax burden in the EU15 (see Chart 4), which amounted to 13 pp of GDP between 1965 and 2000, was essentially explained by social contributions, which rose by almost 5 pp of GDP. The remainder was shared between direct taxes on individuals (3.4 pp of GDP), indirect taxes (1.6 pp of GDP) and direct taxes on corporations (1.8 pp of GDP). Since 2000 the tax structure has remained relatively stable in the EU15.

The Spanish tax structure has evolved similarly to that of the EU, although with a stronger growth profile. The tax burden rose by almost 20 pp of GDP in the period 1965 to 2000. Contributing to this increase, social contributions rose by more than 8 pp of GDP, growing particularly in the 1980s. The remainder is split between direct taxes on individuals (4.3 pp of GDP), indirect taxes (4.2 pp of GDP), direct taxes on firms (1.7 pp of GDP) and property taxes (1.2 pp of GDP). In turn, in the last expansionary phase the growth in the tax burden in Spain was the result of higher tax revenue obtained from direct taxes on firms and indirect taxes. The fall in tax revenue during the crisis was also concentrated on these two groups.

If the tax structure is organised by taxes on labour (including social contributions),¹² capital¹³ and consumption¹⁴ (see Chart 6), the first group proves to be the main source of revenue in the EU27, accounting for 47% of total revenue in average terms, compared with 35% obtained from taxes on consumption and 18% from taxes on capital. There are also significant differences between Spain and the EU27 in terms of the weight in GDP of the three groups. In the case of taxes on consumption, Spain has the lowest relative weight of all the EU27 countries in 2012 (8.6% of GDP compared with the EU average of 12.3%). Spanish taxes on labour have a similar weight in GDP to the EU27 average (around 17% of GDP), although the breakdown is different. Specifically, taxes on labour paid by employers are 1.5 pp of GDP higher, while taxes on labour

¹² Taxes on labour include compulsory actual social contributions (D.61111+ D.61121) and total wage bill and payroll taxes (D.29c) and the part of personal income tax (D.51a) related to earned income (but which also includes other sources of income such as pensions, unemployment, etc.), specifically taxes on individual or household income excluding holding gains (D.51a). It is important to note that personal income tax and contributions of self-employed persons are included not as taxes on labour but as taxes on capital.

paid by employees are 1.8 pp lower. Lastly, Spanish taxes on capital are above the EU27 average (7.5% and 6.7% of GDP, respectively).

In terms of implicit tax rates, which are computed as the ratio of tax revenue to macroeconomic variables that provide the closest proxy to the tax base,¹⁵ the comparative analysis shows that the greatest differences are to be found in taxes on consumption, which in Spain are 7.6 pp lower than the EU27 average in 2012 (14% compared with 21.6%) (see Chart 7). Implicit tax rates on labour are similar (33.5% in Spain and 34.2% in the EU), while in the case of taxes on capital they are slightly higher (25.3% in Spain compared with 23.5% in the EU).

In addition, Spain obtains less tax revenue from environmental taxes,¹⁶ approximately 1 pp of GDP less than the EU27 average, owing to revenue from taxes on energy and on transport (excluding taxes on oil and gas). Conversely, Spain obtains more revenue from property taxes¹⁷ (0.8 pp of GDP more than the EU27 average) owing to the higher taxation on property transactions and, following the recent increases in property tax, on property holdings also.

Lastly, in respect of the distribution of tax powers among different levels of government, Spain is one of the most highly decentralised countries in Europe, as more than 40% of taxes are ceded to or received by regional and local governments, which is the highest level of all the EU countries and well above the average, at 10% (see Chart 8).

13 There are two groups of capital taxes. First, taxes on capital and business income, which include the part of personal income tax paid on dividends, interest and holding gains, along with self-employed income (part of D.51a + D.51c1), social contributions paid by self-employed persons (part of D.61131), corporate income tax (D.51b + D.51c2 + D.51c3) and taxes on winnings from lottery and gambling (D.51d). Second, wealth taxes, including some current taxes on capital (D.59a: wealth tax and property tax on empty housing), capital taxes (D.91, which include inheritance and gift tax, excise duties, urban development charges and tax on the increase in urban land value), taxes on land, buildings or other structures (D.29a, which in Spain includes property tax, the special levy on the property of non-resident entities, the tax on large retail outlets and other taxes on land, buildings and other structures), taxes on the use of fixed assets (D.29b, in the case of Spain the tax on motor vehicles for firms), the taxes paid by firms to obtain business and professional licences (D.29e, in particular in the case of Spain the tax on economic activities, charges for obtaining business and professional licences, charges for private or special use of public property and zoning permits (planning permission), and the motor ordinance test (MOT) charge, among others), other taxes on production (D.29h, which include the tax on deposits at credit institutions, among others) and certain taxes on products (part of D.214 relating to transfer tax and stamp tax).

14 Taxes on consumption include value added type taxes (ESA 95 code D.211; in the case of Spain VAT and IGIC, the Canary Islands general indirect tax), taxes and duties on imports excluding VAT (D.212), taxes on products, except VAT and import taxes (D.214: in the case of Spain these include a large number of taxes such as those on hydrocarbons, electricity, alcohol and tobacco; they do not include transfer tax and stamp tax, taxes on financial and capital transactions and export duties), taxes on pollution (D.29f) and payments by households for licences (D.59d), among others.

15 See *Taxation trends in the European Union, edition 2014, Annex B: Methodology and explanatory notes*.

16 There are three groups of environmental taxes. First, energy taxes, which in the case of Spain include the tax on oil and gas, the tax on electricity, the tax on oil-derived fuels, the tax on retail sales of certain oil and gas products, the charges established by the National Energy Commission and the surcharge applied (since 2008) under the Energy Saving and Efficiency Plan, petrol tax and the tax on energy generation and transmission that affect the environment. Second, transport taxes, which in the case of Spain include the excise duty on certain means of transport, the tax on motor vehicles and the motor ordinance test (MOT) charge. And third, taxes on pollution, which in Spain include waste water taxes and charges, oil and gas and mining royalties, taxes and charges on gas emissions and air pollution, the tax on hunting and fishing, the tax on stays in holiday accommodation (up to 2002, on installations that affected the environment) and hunting and fishing licences.

17 There are two groups of property taxes. First, recurrent taxes on property which cover some current taxes on capital (D.59a; in the case of Spain, the part of wealth tax relating to property and property tax on empty housing) and taxes on land, buildings or other structures (D.29a, which in Spain includes property tax, the special levy on property of non-resident entities, the tax on large retail outlets and other taxes on land, buildings and other structures). And second, other taxes on property, which include all other current taxes on capital (D.59a; all other parts of wealth tax), taxes on capital transfers (D.91a; in the case of Spain, inheritance and gift tax), transactions tax and stamp tax (D.214b,c) and capital levies (D.91b; excise duties, urban development charges, the tax on the increase in urban land value and urban land use).

3 Taxes on labour

Taxes on labour are the main source of revenue in the EU, amounting to 17.2% of GDP in the EU27 in average terms in 2012 (20% of GDP in weighted average terms) and to more than 47% of total revenue. In the case of Spain, taxes on labour amount to a similar weight in terms of GDP (17.2%), and to 53% of total revenue.

Implicit tax rates on labour stood at 34.2% in the EU27 in average terms in 2012, trending down slightly from 35.6% in 2000. However, this pattern conceals significant differences from one country to another, with marked decreases in that period in countries such as Bulgaria, Lithuania, Sweden and Denmark and sharp increases in Cyprus, Greece and the Netherlands. There is also considerable divergence in the level of implicit tax rates in the EU, which are over 40% in Italy, Austria, Finland or Belgium and close to 25% in the United Kingdom, Bulgaria and Portugal. Spain is between the two extremes, close to the EU27 average with an implicit tax rate of 33.5% in 2012.

The combined effect of social contributions and personal income tax is best measured in terms of the average tax wedge, which is the ratio between personal income tax on employment income and social contributions, on the one hand, and the average full-time gross wage in the private sector on the other. In Spain, the tax wedge thus measured is higher than the OECD average for all income brackets and types of taxpayers (for example, see Chart 9 for the most representative cases of a single taxpayer with no children and a married taxpayer with two children), but it is lower than the EU27 average.¹⁸ For instance, in the case of a single person with no children earning the average wage in the economy, the labour tax wedge in Spain in 2012 was 41%, compared with 35% in the OECD. The impact of tax benefits for certain family situations means that the tax wedge is lower in Spain (37%) for a married taxpayer with two children, although it continues to be higher than the OECD average (28%). Moreover, the labour tax wedge increased in Spain in the period 2000-2012, whereas in the OECD it declined significantly.

3.1 Social contributions

Social contributions constitute the lion's share of taxes on labour in the EU27, amounting to 11.1% of GDP and accounting for 31% of total tax revenue in 2012. However, despite their prominence overall, the figures differ considerably from one EU country to another. In particular, revenue from social contributions as a percentage of GDP are high (over 15%) in France, the Netherlands, the Czech Republic, Germany and Slovenia, and very low in Denmark (1%), Ireland (4%), Malta (6%) and the United Kingdom (6.7%). In Spain revenue from social contributions is

¹⁸ The data source used for this analysis is the OECD database Taxing Wages, as there are no comparable data for the EU27 countries. In some cases, European Commission publications (see, for example, Tax reforms in EU Member States, an annual serial publication) include those data for the EU countries; when this is the case, those results are mentioned in the text.

above the EU27 average, with a relative weight of 12% of GDP in 2012, accounting for 37% of total revenue (see Chart 10). Social contributions in Spain have remained constant at around 12% of GDP since 1995, while in the EU27 they have declined somewhat (by 0.5% of GDP in average terms and by 1.3% of GDP in weighted average terms).

The breakdown between social contributions paid by employers and by employees shows that Spain has a relatively higher weight of contributions paid by employers (70% compared with 58% in the EU27) and of contributions received from the self-employed (15% compared with the EU27 average of 10%).

The high revenue-raising capacity of social contributions is a consequence of the tax rates applied to the contribution bases, which are generally determined by wages. In the OECD, legal rates of employees' social contributions stood at 27.6% on average in 2012, compared with 36.25% in Spain.

At the same time it is important to note that the effective rate of social contributions has been affected by the introduction of contribution ceilings and floors that have a redistributive impact on taxes on labour. In the OECD, 10 countries have established floors and 18 have established ceilings on contribution bases to which the legal rates are applied. In Spain there are both ceilings and floors on contribution bases for the different contingencies and professional categories. In 2012 the contribution ceiling was 1.55 times higher than the average wage in the economy, well below the average established in the OECD countries that have contribution ceilings.

3.2 Personal income tax

Personal income tax in the EU27 amounted to 9.1% of GDP in weighted average terms and to 7.7% of GDP in arithmetic average terms in 2012, compared with 7.8% in Spain. Personal income tax is usually characterised by its progressiveness, with marginal tax rates that are higher than average rates in the different income brackets. In this respect, a trend towards simplification of personal income tax is observed, reflected in the generalised cut in the number of tax brackets, which in the case of the OECD went from 14 in 1981 to six in 1990, remaining steady thereafter at around five (see Chart 11). In Spain this simplification process was more pronounced, as the number of tax brackets went from more than 30 in the 1980s to just four in 2010, although it was raised again to seven in 2012.

Cuts in the number of tax brackets have been associated with a general trend towards cuts in top legal rates of tax (see Chart 12). The latter were very significant in the 1980s, when top rates of tax in the OECD countries fell on average by 15 pp, from 65.7% in 1981 to 50.6% in 1990. The cuts continued, although at a slower pace, in the 1990s, with a drop of 4 pp to 46.5% in 2000, and in the following decade, with a drop of 5 pp to 41.7% in 2010. This trend was also observed in Europe: before the recent economic crisis, top rates of tax stood at 37% in the EU27 on average and at 40.8% in the EU17. However, as a result of the fiscal consolidation processes needed to correct the fiscal imbalances that accompanied the economic crisis, top

rates of tax rose on average by 1.7 pp in the EU27 and by 3.7 pp in the EU17 in the period 2009-2013. In this setting, Spain, with a top rate of tax of 52% since 2012, is currently one of the countries with the highest top rates of personal income tax.

However, the impact of the top rate of tax on labour income must take into account the wage level at which it comes into play, measured, for example, as a proportion of the average wage in the economy. In the OECD average, in 2010 the top rate of tax came into play at a level of labour income that tripled the average wage in the economy, in a descending pattern compared, for example, with the year 2000, when it came into play at income levels that were five or more times higher than the average wage in the economy (see Chart 13). In general, therefore, as top rates of tax were lowered in that period the income levels at which they came into play decreased.¹⁹ That income level also fell sharply in Spain, from 4.2 times to 2.2 times in 2010. Conversely, the recent hike in top rates of tax was accompanied by an increase in the level at which they come into play.

The minimum rate of tax was 15.5% on average in the OECD in 2010, with notable differences from one country to another as to the level of the minimum rate of tax and its development over the previous decade (see Chart 14). Specifically in that period, 17 countries cut their minimum rates, 13 raised them and only four left them unchanged, with the highest minimum rate of tax standing at 36.5% in Austria and the lowest at 2.3% in the Netherlands. In this setting, Spain raised its minimum rate significantly, up to 24%, which is one of the highest levels in the OECD. At the same time, tax exemptions for low-income earners were raised and/or personal (tax-free) allowances were introduced. Specifically, that exemption, measured as a percentage of the average wage in the economy, was 23% in the OECD in 2010, compared with 21% of the average wage (19% in 2000) in Spain. The effect of these exemptions may also be measured according to the average wage level at which taxpayers start to pay personal income tax. In the OECD countries on average this level is around one-third of the average wage, having risen by 10% between 2000 and 2010 (see Chart 15); in Spain it is around 40% of the average wage, which is one of the highest levels observed.

It may generally be asserted that personal income tax rates, brackets and exemptions have led to a reduction in the marginal rates applicable to a representative worker in the OECD countries (see Chart 16). For example, an employee earning the average wage in the economy, with no possibility of applying deductions for family reasons, saw his/her marginal rate decline from 30.5% to 27.4% from 2000 to 2010. In Spain, however, there was an increase from 24% to 28% over this same period. As to the average effective rates applicable to the average wage in the economy, these fell from 16% in 2000 to 14.5% in 2012 in the OECD on average (see Chart 17). In Spain, however, average effective rates held stable at levels close to the OECD average.

As indicated in the introduction, the proposed tax reform submitted in August 2014 that is in passage through Parliament includes a significant amendment to this tax which, if

¹⁹ In the period 2000-2010, in 19 of the 26 countries where top rates of tax were cut, the income level at which they came into play decreased.

approved, will substantially alter the results of the international comparison detailed above, bringing Spain closer to the European average in several respects. Specifically, the proposal includes a reduction in the number of brackets in the standard personal income tax schedule from seven to five, with a minimum rate that would fall from 24.75% to 19% in 2016 (20% in 2015) and a maximum rate that would decline from 52% at present to 45% in 2016 (47% in 2015) and which would be applicable as from yearly income of €60,000.²⁰

²⁰ Other proposed amendments include extending the base of the personal and family allowance by increasing the general personal allowance and minimum family allowance on the basis of the number of children, dependent ascendant relatives and disabled persons. Further, deductions for income from employment or economic activities are eliminated and, in their place, a new tax-exempt deductible expense is introduced which reduces taxable income by €2,000 for those earning employment income. At the same time, a deduction of €3,700 is set for net income less than €11,250, with this deduction progressively diminishing from €3,700 to €0 for income between €11,250 and €14,450.

4 Taxes on consumption

The taxation of consumption in the EU rests essentially on value added tax (VAT) and on a set of taxes levied on specific consumption commonly grouped under the name of excise duties. The revenue raised in 2012 by these taxes accounted for 12.3% of GDP in the EU27. Among all the EU economies, Spain evidences the lowest revenue-raising capacity in terms of taxes on consumption, posting a figure of 8.6% of GDP in 2012.

Analysis of the implied rates on consumption reveals (see Chart 7) that these have held relatively stable over the past 15 years, at around 21% in the EU27. Against this background, Spain stands out in that it has the lowest implied rate in the EU27 (14%), and that this rate has oscillated strongly over the recent business cycle. During the forceful upturn prior to the economic crisis, the implied rate in Spain stood at 16.6% in 2006, falling sharply to 12.5% in 2009. The successive tax rises applied in Spain throughout the fiscal consolidation process gave rise to a partial recovery in the implied rate on consumption in the 2010-2012 period, which stood at 14% in this latter year, though still some distance off the EU27 average.

4.1 Value Added Tax

VAT is the main tax levied on consumption in Europe, accounting for 7.9% of GDP on average in the EU27 in 2012. Despite being a harmonised EU tax, the extensive regulatory leeway the Member States enjoy has given rise to notable heterogeneity both in the marginal rates applied and in the breadth of the base subject to VAT. As regards standard VAT rates, prior to the crisis they ranged from 25% in Denmark and Sweden to 15% in Luxembourg. In relation to the base, some Member States apply reduced super-reduced rates – substantially below the standard rate – to a wide range of goods in the consumer basket. This divergence in rates and in the width of the VAT bases has given rise to notable differences in the VAT revenue-raising capacity of the EU countries, with levels of over 9% of GDP in Croatia, Denmark, Sweden, Bulgaria, Hungary and Finland compared with 5.5% in Spain in 2012 (see Chart 18).

The fiscal consolidation processes initiated in 2009 resorted in a generalised fashion to rate rises and to the widening of VAT bases in order to reduce the high budget deficits generated, a phenomenon especially visible in the countries most affected by the crisis. The reforms prioritised rises in the standard rate. As a result of these rises, the standard VAT rate in the EU27, which had held stable around 19.5% since 2002, has increased by 1.8 pp since 2009 to 21.3% at present (see Charts 19 and 20). Against this background, Spain has been one of the countries with the biggest VAT rises, both in the standard rate (from 16% in 2009 to 21% at present) and in the reduced rate (from 7% to 10%). At the same time, Spain has widened the VAT base. Despite these measures, and as earlier indicated, Spain's VAT revenue-raising capacity stands at the lowest levels in the EU (5.5% of GDP in 2012 and 6% of GDP in 2013).

In order to examine the impact of goods exempt from or subject to reduced rates in the revenue-raising capacity of this tax, the VAT Revenue Ratio (VRR) indicator is habitually used. This metric compares actual VAT revenue with those that would theoretically be obtained were the standard rate to be applied to private consumption in its entirety, taking National Accounts data. In this respect, the indicator measures the revenue loss associated with the existence of reduced rates but also with the presence of tax fraud, and it likewise depends on the consumption structure of the countries.²¹ The results provided by the European Commission (2012 and 2013) show that in the period 2000-2011, the combined effect of exemptions, reduced rates and tax evasion led to VAT raising (expressed in average EU27 terms) 50% of the theoretical revenue that would be obtained in the absence of tax evasion and reductions in the tax base (see Chart 21). In this analysis, Spain stands out along with Greece, Italy and Portugal in that it evidences the lowest VRR levels in the EU27, raising 45% of its potential revenue over the period on average.

In a quantification using uniform criteria for all the EU27 countries, based on data on final household spending and on effective average rates obtained from the Harmonised Index of Consumer Prices (HICP), Borselli et al (2012) estimate that the existence of exemptions and reduced rates lowered the effective VAT rate by 25.6% on average in the EU27 in 2011. In Spain, this reduction in the effective rate was magnified to 33%, owing to the application of reduced rates that affected more than 40% of consumer spending in 2011, and with 12% of additional spending that was exempt or to which VAT was not applied. The combination of these two effects means that more than 50% of household spending in Spain was not subject to the standard VAT rate, a percentage only exceeded by Greece, Ireland and Portugal. In Spain's case, the definition of the base entails a difference in the effective as opposed to the standard VAT rate of 5.9 pp, which breaks down into 2.2 pp due to food processing; 1.4 pp to hotels, restaurants and package holidays; 1 pp to healthcare, education and culture; 0.7 pp to housing; 0.2 pp to transport and 0.3 pp to other exemptions or reduced rates.

An alternative approach to quantify the impact on VAT revenue in Spain of the existing reduced rates and exemptions is obtained from the information provided in the Notes to Tax Benefits accompanying the State Budget (see Table 1). Tax benefits are estimated according to this source as the difference between projected revenue and that which would be obtained were all transactions subject to VAT taxed at the standard rate (21%) instead of at an estimated effective weighted rate (13% in 2014). Under this methodology, the estimated revenue loss in Spain due to the limited scope of the VAT tax base stood at around 3% of GDP in 2014, representing 50% of effective revenue in 2013.

4.2 Excise duties

Included under the heading of excise duties are a heterogeneous set of taxes levied on the consumption of specific goods such as alcohol, tobacco, hydrocarbons, coal, electricity and

²¹ It should further be borne in mind that the measure of private consumption used approximates to but does not exactly match the consumption subject to VAT. For example, included under private consumption are the services generated by house ownership or financial expenses, but excluded is the purchase of a new house considered as under investment. These factors may contribute to explaining the low levels observed in the VRR and part of the differences among countries with a consumer spending structure that is also different.

certain modes of transport. In aggregate terms, these taxes account for around one-third of tax on consumption in the EU, albeit with differences in revenue-raising capacity relative to GDP across the Member States (see Chart 18). These differences are due to the maintenance of extensive regulatory power by the Member States, despite the harmonisation process pursued in successive EU directives defining the structure, instalments and minimum rates of these taxes. This regulatory capacity is discernible in the heterogeneity of implied rates across the EU countries, which range from 26% in Sweden to 40% in the Netherlands, Greece and Italy (Eurostat 2013).

The contribution in terms of revenue of excise duties in the Spanish tax system has been systematically below that observed in the EU countries: 2.2% of GDP in 2012 against 3.2% of GDP on average in the EU27. This lesser tax burden affects excise duties as a whole, but it is particularly significant in the case of tobacco and alcohol, with revenue-raising capacity of 0.9% of GDP in 2012 compared with 1.2% on average in the EU27. Regarding tobacco taxes, the data provided by the European Commission (2013) show, however, that the weight accounted for by taxes relative to the weighted average price of tobacco in Spain is now aligned with the EU27 average, following the successive increases made in recent years. Overall, taxation accounts for 70% of the average price, with the lesser revenue-raising capacity due to the lower relative price of tobacco in Spain (in relation to the EU27 average) and to the structure of this taxation. Specifically, Spain is notable in that it has a specific component in respect of tobacco consumption with a very low weight (around 15%) compared with the ad valorem component. Also of note is the scant relative revenue raised from taxes on alcohol (0.1% of GDP), owing to the lower rates on the consumption of the various alcoholic beverages taxed, ranging from spirits to intermediate products, namely beer and wine, with the latter permanently among the lowest in the EU27.

Among excise duties, the biggest contribution to revenue-raising capacity is made by taxes on hydrocarbons, which in Spain accounted in 2012 for 1% of GDP, including revenue from the tax on retail sales of specific hydrocarbons (recently repealed). This revenue-raising level is, however, lower than the EU27 average, standing at 1.6% of GDP in 2012. A more detailed analysis follows of environmental taxes.

5 Environmental taxes

In the 1990s, the Nordic countries and Germany launched a tax reform, introducing new taxes pursuing environmental goals. Throughout this period, new taxes on energy and pollutant activities were created, and previously existing taxes such as those on hydrocarbons were adjusted to this end, setting definitions for bases and differential tax rates according to the attendant impact on the environment. “Green” taxes spread across the various EU members, with Spain proving a laggard in their application.

In quantitative terms the revenue-raising capacity of these taxes in Spain is still limited, standing at 1.6% of GDP in 2012 compared with the EU27 average of 2.6% (see Charts 22 and 23). The lesser weight of these taxes in Spain is largely due to the lesser tax burden in relation to energy (1.3% of GDP in Spain against 1.9% in the EU27), attributable above all to the lower taxes on hydrocarbons and transport. Indeed, in 2012 Spain was the EU country that raised least revenue from taxes on energy. In any event, fiscal consolidation requirements fomented the creation of new taxes in the 2012-13 period, such as the tax on electrical energy production, and an increase in the rates on excise duties for energy products and those used in electricity generation. These new taxes increased the tax burden by 0.2% of GDP, taking it to 1.8% in 2013.

Analysis of the implied rates on these taxes indicates that lower revenue in Spain is partly due to lower tax rates. Specifically, the data for 2012 show an implied rate on energy (in real terms) that is 20% lower than the average rate for the EU27 (see Chart 23).

6 Taxes on capital

Included under the category of taxes on capital are those levied on wealth²² and those on corporate income and on capital. The latter include corporate income tax and personal income tax which is levied on the income of the self-employed and the capital returns and gains of households. Overall, these taxes provide for revenue-raising capacity of 6.7% of GDP in the EU27 and of 7.5% in Spain in 2012; however, they are more relevant in the bigger economies, meaning that, in the case of the EU weighted average, the revenue-raising capacity of these taxes amounts to 8.2% of GDP.

In terms of implied rates, these stand at 24.4% in the EU27²³ in 2012, rising to 28.9% in the case of the EU weighted average. Generally, the trend of these rates in the EU over the past decade has been stable, or on a mildly declining path, despite notable cross-country heterogeneity and the successive reforms of taxes on capital. The divergence of implied rates in 2012 ranges from 44.9% in France and 35.7% in the United Kingdom to 8.1% in Estonia and 9.8% in Lithuania and Latvia. In Spain's case, the implied rate is at 25.3%, slightly higher than the EU27 average.

The implied rate on capital may be broken down in to that levied on the income of companies and on capital, and that relating to wealth.²⁴ The former stood at around 17% in 2012 on average in the EU27 and slightly lower in Spain (15.7%), although once again with significant differences from one country to another, from 6% in Estonia to 25.4% in Italy. As to the implied rate of taxes on wealth, this was 16.7% in 2012 on average in the EU27²⁵ and 17.8% in Spain. Cross-country differences are once again most significant, from 6% in Ireland to 28.6% in Cyprus.

6.1 Taxes on corporations

The tax on corporations is one of the main capital levies of the developed countries. Cross-country comparisons are, in any event, difficult, not only because of the very complexity of the tax but also because its revenue-raising capacity is strongly affected by the impact of the economic cycle and business profits. This procyclicality accounts for the strong increase in the attendant revenue in the EU27 to 2007, when it stood at 3.6% of GDP, and the heavy fall during the economic crisis, to 2.6% of GDP in 2010, which held unchanged in 2012 (see Chart 24). In Spain, the procyclicality of the tax on corporations has been even greater, with a sharp fall from 4.8% of GDP in 2007 to 1.9% of GDP in 2010, and a subsequent recovery brought on by the tax increases approved as part of the fiscal consolidation process, to 2.2% in 2012.

In any event, the revenue-raising capacity of the tax on corporations in the EU may be said to have been maintained despite the declining trend of the legal rate applied to corporate

22 The significance and composition of taxes on asset ownership will be discussed in greater detail in section 7.

23 These calculations only include the data of 21 countries, given that the figures for Bulgaria, Greece, Luxembourg, Malta and Romania are not available. In the case of Denmark the 2011 figure was taken, as this was the last available year.

24 See the details in footnote 13 of this paper.

25 Nor are data available here for Germany.

income (see Chart 25). This reduction, from an average rate of 35.3% in 1995 to 23.5% in 2011, is partly due to the lower rates applied in the new EU member countries. The dispersion of legal rates in the tax on corporations in the EU ranges from a minimum of 10% in Cyprus and Bulgaria to a maximum of 36.1% in France (see Chart 26). Spain, despite successive reforms that have lowered legal rates, maintains a 30% rate for large corporations, which is relatively high in the context of the EU (the sixth highest legal rate in the EU27). However, Spain retains special arrangements for SMEs. Specifically, companies that do not exceed a certain turnover threshold, set at €10 million since 2011, are taxed at a legal rate of 25% on an amount of profit subject to taxation (specifically on the first €300,000), and enjoy advantages in the carrying of tax expenses such as accelerated depreciation.

The introduction of deductions and rebates associated with the carrying out of specific business activities reduces the effective rate borne by corporations below the legal rate. The estimate of this effect in the EU27 by Sanz et al. (2011) shows that in 2009 the effective marginal rate in the EU27 was 7.85%, and the effective average rate 11%. Spain is notable in that it has one of the highest effective rates in the EU, with an estimated marginal rate of 19.5% and an average rate of 22%, as a result not only of its high legal rates but also of the fiscal adjustments that penalise the carrying as tax expenses of accounting expenses arising from specific amortisation criteria, and the scant quantitative impact of the related deductions and rebates.

With a similar methodology, ZEW (2012) analyses the combined impact of the tax structure and the marginal rates of the tax on corporations on business investment decisions, based on the calculation of the effective average rate on investment. This measure, obtained in accordance with the methodology proposed by Devereux and Griffith (2003), enables the impact of economic factors unrelated to tax policy on business decisions to be isolated. In the EU27 as a whole, the effective average rates on investment was 20.9% in 2012, but with significant cross-country differences (see Chart 27). The lowest average effective rates are in the 12 new EU Member States, such as Bulgaria (9%), Cyprus (11.2%) and Latvia (12.2%), and the highest rates are in France (34.2%) and Spain (32.4%). At the same time, these effective rates have been seen to move on a significant declining trend in the past decade, moving from 29.3% in 1998 to 20.9% in 2012. Spain followed the same path, declining from 36.5% to 32.4% over the same period.

However, the deductions and rebates that affect large corporations are those that have the greatest impact on the reduction of the corporate tax burden. Figures from the tax authorities show, in fact, that despite having a higher legal rate, large corporations have a significantly lower effective rate, by between 5-8 pp, than SMEs and large corporations in the 2007-2011 period (see Chart 28).

The impact of low rates and tax benefits on revenue raised from the tax on corporations in Spain may be quantified drawing on the information provided by the Memoria de Beneficios Fiscales (Notes to Tax Benefits; see Table 1). The sum is calculated as the difference between projected revenue this year and that which would be obtained were the existing measures not to be applied to reported tax bases. In the case of the reduced rate, estimated forgone revenue is €1,250 million. The impact of tax credits is estimated at €1,618 million, with €547 million most

notably relating to SMEs' reinvestment of earnings and €243,000,000 to R+D activities. Overall, tax benefits in the tax on corporations are estimated at 0.3% of GDP in 2014, accounting for 15% of envisaged revenue.²⁶

Furthermore, a general matter relating to the developed countries' tax systems is that the structure of deductions and rebates under the tax on corporations generates incentives for corporate indebtedness (see Chart 28). This bias is due to the preferential treatment granted to external financing, via the deductibility of financial expenses, to the detriment of corporate financing via equity or the reinvestment of earnings. In Spain's case, this differential treatment translates into a difference in the average effective rate of 10 pp between self-financing (35%) and debt financing (25%), which is not very different from that observed in other EU countries (ZEW 2012). In recent years, however, certain limitations on the deductibility of corporations' financial expenses have been introduced.

The proposed tax reform submitted to Parliament in August 2014 also includes substantial changes in this tax which, as in the case of personal income tax, will significantly alter the international comparison described in the foregoing paragraphs. Among other aspects, the reform proposes a reduction in the tax rate for large corporations from 30% to 25% in 2016 (28% in 2015), closer, therefore, to the average rate of the EU27 countries. The 25% rate will also be applicable to SMEs, but for these companies a levelling reserve has been set up, meaning they may avail themselves of a 10% reduction in taxable income with a ceiling of €1 million, which will be offset by negative tax bases within a period of five years. For all corporations, a capitalisation reserve is set up consisting of a 10% reduction in the tax base further to the assignment of profit to own funds, which seeks to promote the earmarking of profit to increasing companies' own funds. In any event, the ceiling on the deductibility of financial expenses is maintained.

6.2 Other taxes on capital

Of note regarding other taxes on capital are those arising from the income of the self-employed and the returns on the saving and capital gains of households, which are taxed under personal income tax.²⁷ The revenue obtained from these income sources in the EU27 amounted in 2012 to 1.4% of GDP in the case of the income of the self-employed and to 0.6% in the income from capital of households. Spain's revenue-raising capacity in both sources of income is higher, at 1.7% of GDP and 0.8% of GDP, respectively. Finally, regarding the taxes on wealth, the resulting revenue accounted for around 2.8% of GDP in Spain in 2012 compared with 1.9% on average in the EU27. A more detailed analysis is conducted below on taxes on property in Spain and the related comparison with the EU.

²⁶ Nonetheless, forgone revenue is greater when an analysis is made of the difference between reported corporate earnings and earnings subject to tax resulting from applying tax adjustments, positive and negative alike, to book profit. According to AEAT (2013), the adjustments entail a 20% reduction in the tax base amount (€27 billion), whose estimated impact on revenue is around €5 billion (25% of expected revenue).

²⁷ In the EU, most of this income is subject to the progressive tax brackets under the personal income tax schedule, though in a good number of EU countries the returns on capital are taxed at a single rate lower than the average personal income tax rate, or with a schedule evidencing less progressivity owing both to its lower rates and to the greater width of the base subject to taxation.

7 Taxes on property

A portion of the taxes on capital may be grouped together under a heading known as taxes on property, which includes taxes levied on both ownership of assets and the transfer thereof between economic agents.

The relative weight of taxes on property on average for the EU27 accounted for 1.4% of GDP in 2012, having moved on a stable trend over the past decade (see Chart 29). Spain stands out for the greater relative weight of these taxes and for their strong increase over the past upturn, when they climbed from 1.5% in 1995 to 3.3% in 2006. Much of this increase was due to the rise in real estate and financial transfers associated with the real estate boom, meaning that the economic crisis, which significantly reduced the volume of transactions and asset values, prompted a substantial decline in the revenue raised from this type of tax to 2.2% of GDP in 2012.

Despite this notable fall-off, the contribution of these taxes to Spain's revenue-raising capacity is above the EU27 average and is similar to its weighted average (2.3% of GDP in 2012). The heterogeneity across European countries is, in any event, significant; while in the United Kingdom the weight of these types of taxes rises to 4% of GDP, and exceeds 3% in France and Belgium, in Estonia, Croatia and the Czech Republic it is below or equal to 0.5% of GDP.

As regards their composition, most (60%) of the attendant revenue in the EU27 is attributable to the so-called recurrent tax on real estate property, averaging 0.8% of GDP in 2012, which is held stable in the past decade. However, these types of taxes are particularly relevant in Denmark and France, where the take exceeds 2 pp of GDP, and especially in the United Kingdom, where it accounts for 3.4% of GDP. Spain, with a weight in terms of GDP averaging 0.8% in the EU27 since 1995, has seen notable increases since 2010 that have placed its contribution at 1.2% of GDP in 2012. These rises in taxes on real estate property have partly corrected the bias existing in Spain towards the taxation of asset transactions, at the expense of recurrent taxes on property, which came to account for 80% of this type of taxation in 2006 (compared with 50% in 2012). In any event, the weight of transactions taxes relative to total tax revenue on property remains more than 10 pp higher in Spain than the European average.

The remaining taxes on property (other than recurrent taxation on real estate property and which includes the tax on transactions) account for a lesser weight in the EU27, averaging 0.5% of GDP in 2012. Spain is characterised by its systematically higher tax-raising capacity in these taxes, which rose from 1.5% of GDP in 2000 to 2.6% in 2006 as a result of the sharp economic growth over that period. The collapse in real estate transfers in the latter phase of the recessionary cycle placed the weight of these taxes at 1% of GDP in 2012.

8 Conclusions

This paper compares the structure and revenue-raising capacity of the Spanish tax system with those observed in the European Union. The following conclusions may be drawn from the analysis.

Spain is notable for its relatively low weight of tax revenue as a proportion of GDP compared with the EU average. This lower tax-take is essentially due to indirect taxation. Indeed, it evidences the lowest weight in terms of taxes on consumption of all the EU27 countries and its implied rates are significantly lower. This is the outcome above all of lower VAT takings due partly to the fact that the standard rate, despite standing at the EU27 average, affects a lower percentage of consumer spending than is the case in most of the Member States. Excise duty revenues are also lower, particularly in the case of hydrocarbons, transport and alcohol, on which goods the implied rates are relatively low. Furthermore, less revenue is derived from environmental taxes.

As to labour taxation, revenue as a percentage of GDP in Spain is similar to that of the EU27 average (though lower than the weighted average of the EU27), while the weight of social security contributions is greater, in particular those levied on firms. The average tax wedge, measured as the ratio of the sum of personal income tax derived from taxes on labour and social security contributions, on one hand, to the average gross wages of full-time employees in the private sector, on the other, is above the OECD average in Spain for all income brackets and types of individuals by household position.

The weight in GDP of revenue arising from taxes on capital is higher than the EU27 average, owing to higher taxes on wealth, while the taxes on corporate income and on capital are similar. Generally, the implied rates on capital are slightly higher than those of Spain's Community counterparts. In the specific case of corporate income tax, the effective theoretical rates (average and marginal) are also higher. Further, revenue arising from taxes on property is higher, in particular that derived from asset transactions.

As regards the distribution of tax competencies among the different tiers of government, Spain is among Europe's most decentralised countries, given that more than 40% of taxes are assigned to or received by regional and local government.

In the cases of taxes on labour and on capital, it should nevertheless be borne in mind that the proposed tax reform submitted by the government to Parliament last August will alter some of the results of the comparison mentioned above once it comes into force as from 2015. The reason is that this reform focuses essentially on personal income tax and corporate income tax. Specifically, under personal income tax, consideration is given to a reduction in the number of brackets (including the attendant minimum and maximum rates), and increases in

the personal and household minimum, which will involve a reduction in average rates. In the case of corporate income tax, a reduction in the tax rate for large corporations from 30% to 25% in 2016, which will likewise be applicable to SMEs, is proposed alongside various changes to the tax base and to allowances. However, no far-reaching amendments are proposed in respect of indirect taxation or social security contributions.²⁸ Overall, the reform would have an ex post revenue-raising cost, according to estimates by the Ministry of Finance and Public Administration, of €7.6 billion in the 2017 horizon.

Finally, some of the limitations of the analysis in this paper should be highlighted. They arise, above all, from the fact that the comparison of the Spanish tax system with those of the other EU countries is made drawing on the ratios of tax revenue to GDP and on the calculation of effective average rates. These metrics are habitually used to measure tax pressure. However, they pose certain methodological problems that affect both their level and how they change over time, and which hamper cross-country comparison. In particular, these measures do not take into account aspects such as the means of funding specific public policies via public spending or via tax expenditure, the subjection or not of welfare benefits to taxation, the effects of the business cycle and/or the existence of a black economy or of tax evasion. All these factors mean the conclusions that may be drawn from the changes in these ratios should be viewed with caution.

²⁸ However, in the case of social security contributions, various rebates for new hires have been approved in recent years. These include most notably, owing to their wide reach and amount, that included in Royal Decree-Law 3/2014 of 28 February 2014, approving a reduction in the social security contribution for common contingencies payable by firms of up to €100 per worker per month over two years (flat rate, irrespective of the contribution base) for all permanent employee hires entailing job creation in the firm made before 31 December 2014.

Box 1. Tax revenue in Spain during the economic crisis

The economic crisis has had a most significant adverse impact on public revenue (see Table 2). Specifically, public revenue raised stood in 2013 at €386,250 million (37.8% of GDP), down €46,851 million (3.4 pp of GDP) on 2007, a decline of 11%. Moreover, it should be borne in mind that during this period tax measures were adopted that gave rise to an estimated increase in revenue of around 2.7 pp of GDP. If the impact of these increases in revenue in 2013 is eliminated, the decline in tax revenue over the 2007-2013 period would be 17%, equivalent to 6 pp of GDP.

Stripping out the effect of the tax measures during the period, two taxes have performed particularly negatively during the crisis. Specifically, corporate income tax and VAT revenue, net of the impact of the measures approved, declined by 2.5 pp and 1.7 pp of GDP, respectively. In the case of VAT, however, the various tax rises approved impacted revenue by around 1.8 pp of GDP, meaning that actual VAT takings would have increased by 0.1% of GDP in the period, despite the notable decline in VAT bases.

The economic crisis also had a significant impact on transfer and stamp tax revenue, takings for which declined by 1.1 pp of GDP, and on taxes on consumption, which fell by 0.7% of GDP. In this latter case, however, the measures approved managed to curb its reduction to 0.1% of GDP. Finally, the reductions in revenue in respect of personal income tax and of social security contributions were, on the contrary, lower.

Accordingly, the reduction in tax revenue can be seen to be concentrated in those taxes that depend on developments in corporate profits (corporate income tax), consumption (excise duties and VAT) and the housing market (VAT and transfer and stamp tax). All these moved on a particularly negative trend during the economic crisis, and nominal GDP does not approximate well to their tax base.

Overall, there was a collapse in tax revenue during the economic crisis associated with the disappearance of the extraordinary revenue built up in the previous upturn and related in particular to the real estate boom, and the strong decline in business profits and in domestic demand.²⁹ This analysis should be borne in mind in light of the projected future course of tax revenue in Spain. Specifically, although revenue may be expected to improve in step with the recovery in the business cycle, any pick-up in the extraordinary revenue linked to the pre-crisis boom should be ruled out.

²⁹ For a detailed analysis of revenue in the period prior to the economic crisis and its attendant transitory component, see "La recaudación impositiva en el último decenio" by A.L. Gómez, P. Hernández de Cos and F. Martí (Banco de España, Boletín Económico, April 2005) and "Una aproximación al componente transitorio del saldo público en España", by F. de Castro, A. Estrada, P. Hernández de Cos and F. Martí (Banco de España, Boletín Económico, June 2008).

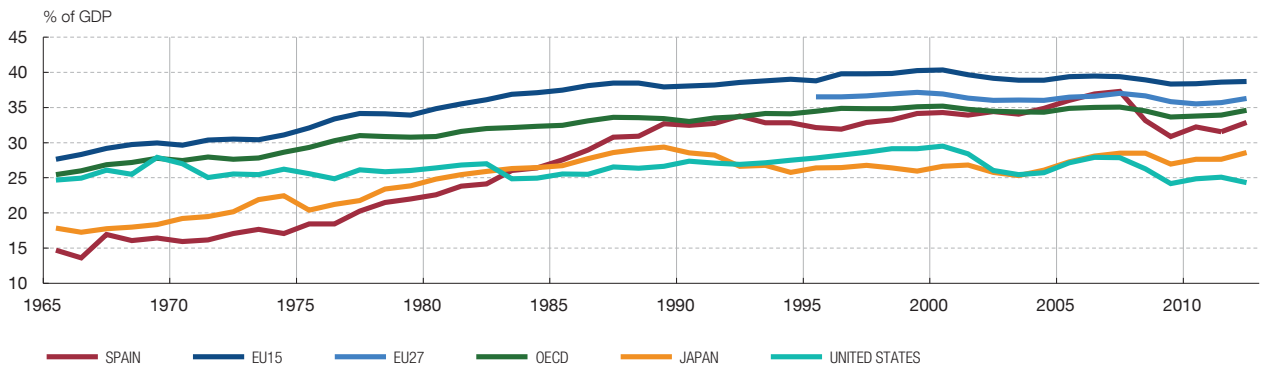
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9 Appendix: Graphs and Tables

TAX REVENUE AS A % OF GDP IN THE EU AND OECD (1965-2012) (a)

CHART 1

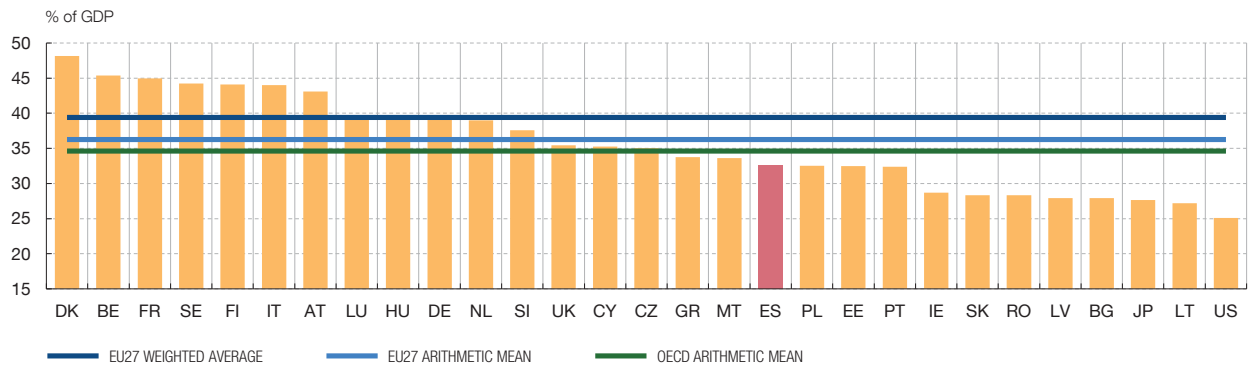


SOURCES: Eurostat (2014) and OECD (2013).

a. Arithmetic means of the EU15, EU27 and OECD aggregates.

TAX REVENUE AS A % OF GDP IN 2012: BREAKDOWN BY EU AND OECD COUNTRY

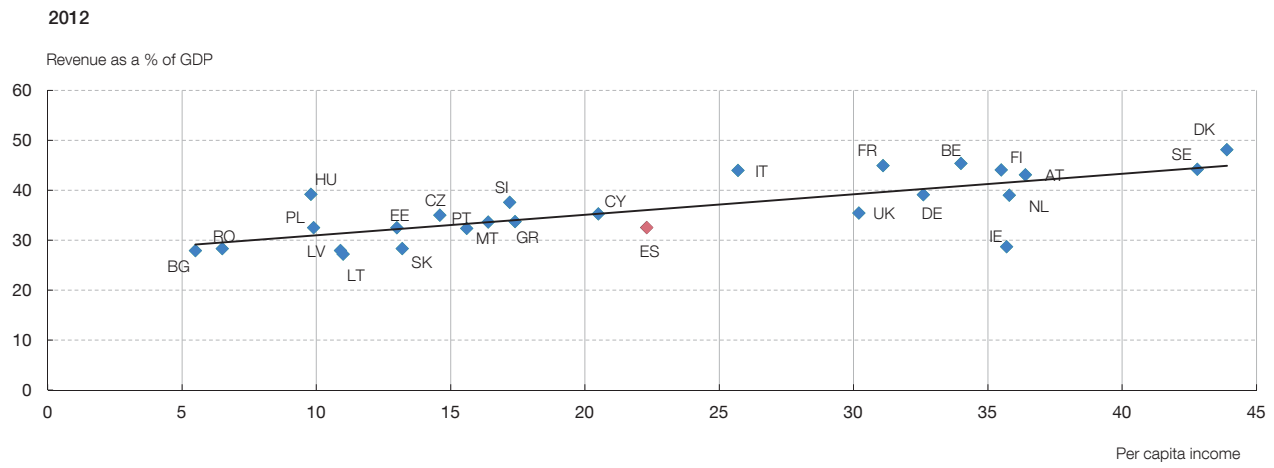
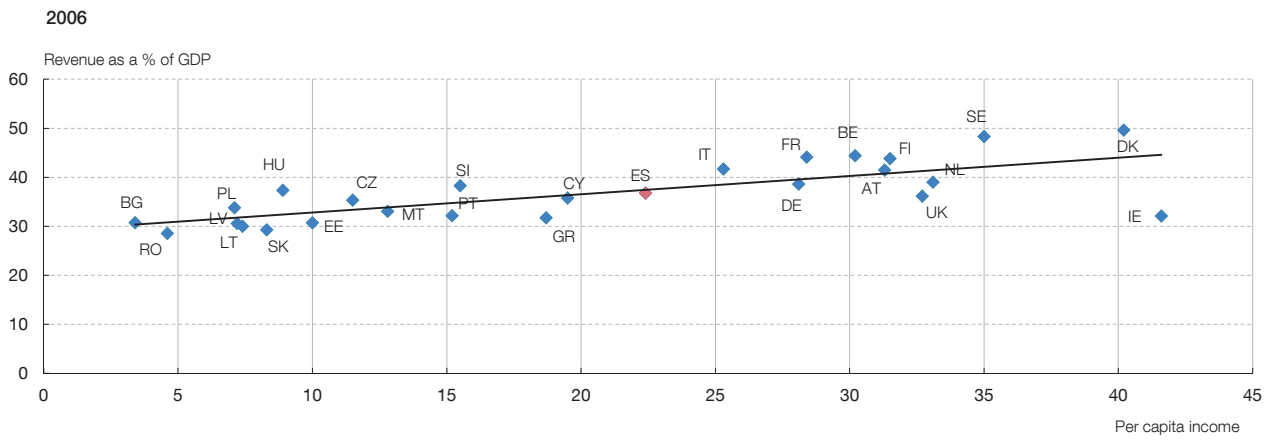
CHART 2



SOURCES: Eurostat (2014) and OECD (2013).

REVENUE-RAISING CAPACITY AND PER CAPITA INCOME (a)

CHART 3



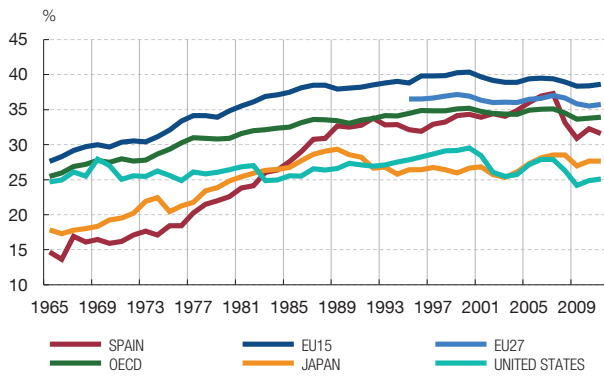
SOURCES: European Commission 2012 and 2013, Eurostat 2014.

a Regression using data on EU countries in real terms, excluding Luxembourg figure in light of its outlier status.

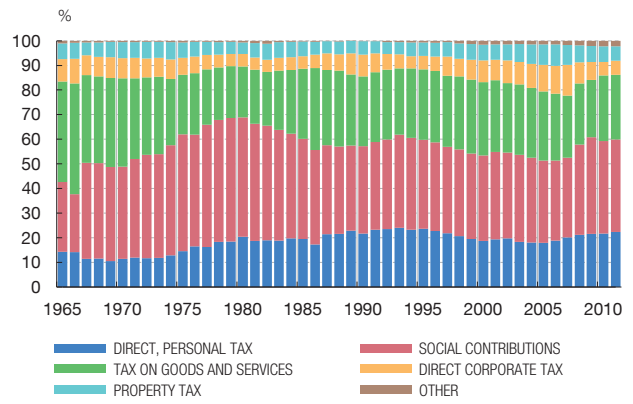
TAX STRUCTURE IN THE EU AND OECD (1965-2012)

CHART 4

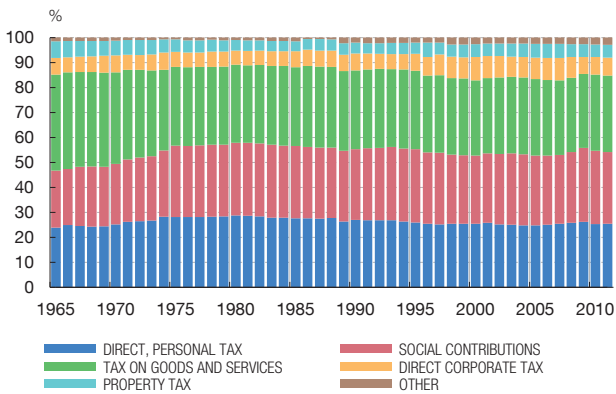
TOTAL TAX REVENUE AS A % OF GDP



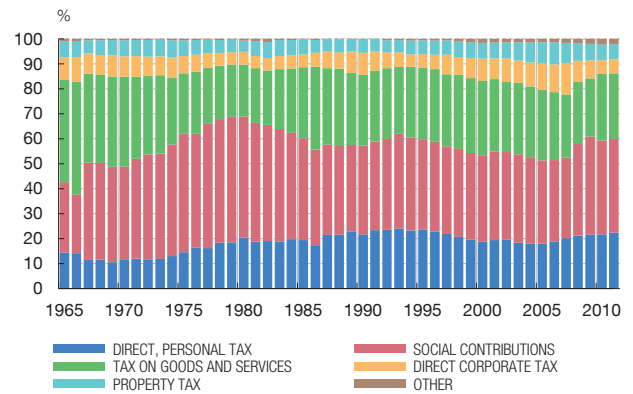
OECD



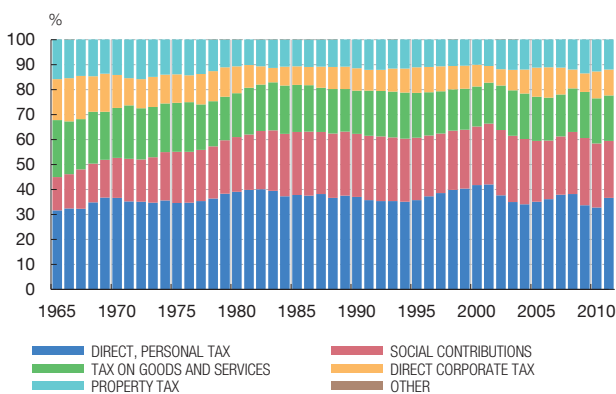
EU15



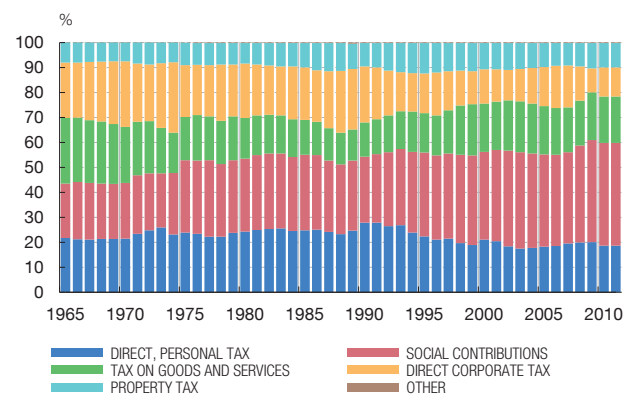
SPAIN



UNITED STATES



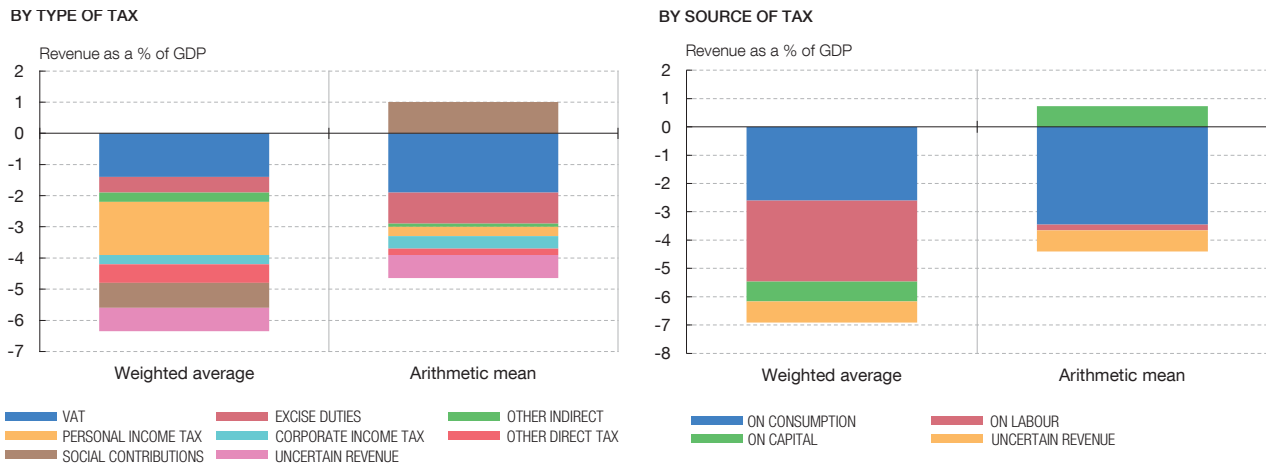
JAPAN



SOURCE: OECD (2013).

DIFFERENCES BETWEEN THE TAX STRUCTURE IN SPAIN AND THE EU AVERAGE IN 2012

CHART 5

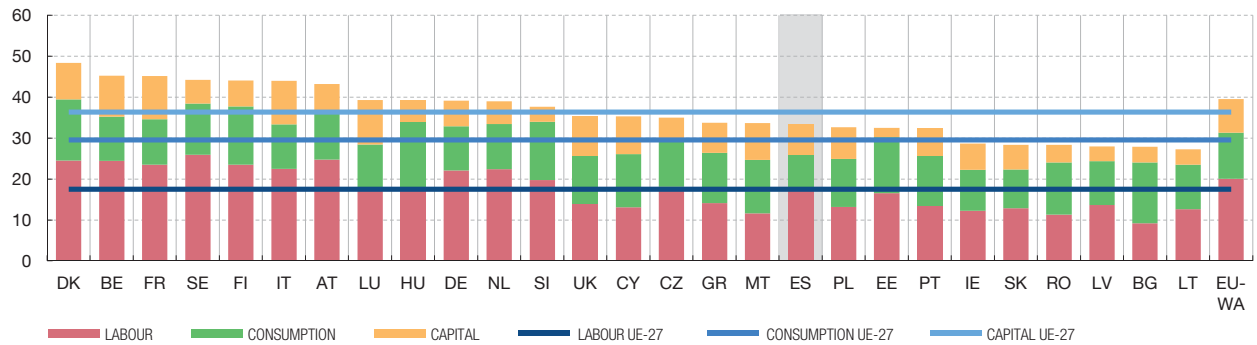


SOURCE: Eurostat (2014).

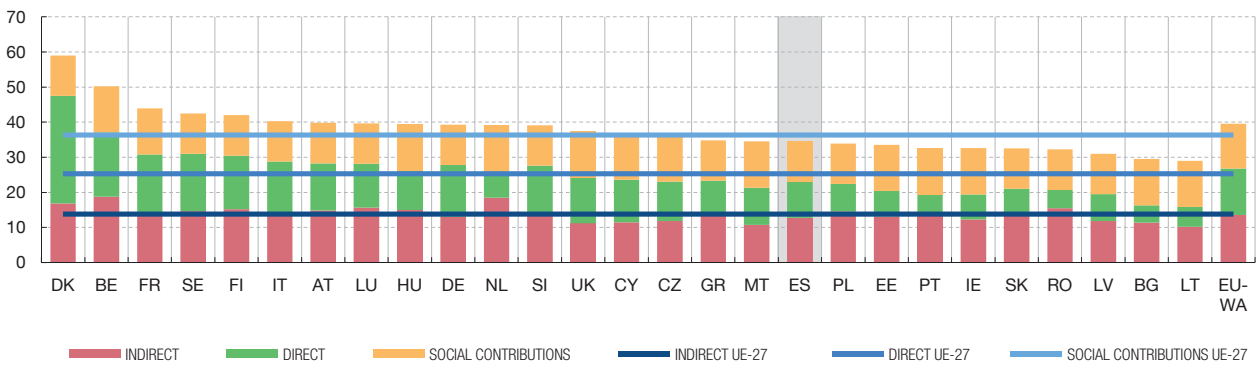
TAX STRUCTURE IN THE EU COUNTRIES IN 2012

CHART 6

FUNCTIONAL CLASSIFICATION OF TAXES: REVENUE AS A % OF GDP



CLASSIFICATION BY TYPE OF TAX: REVENUE AS A % OF GDP



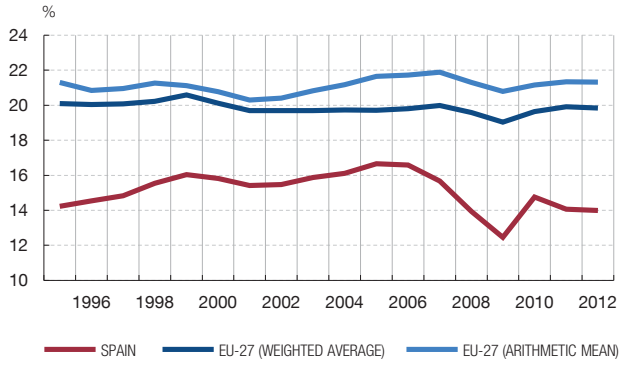
SOURCE: Eurostat (2014).

NOTE: The horizontal lines depict the arithmetic means of the tax structure in the EU27.

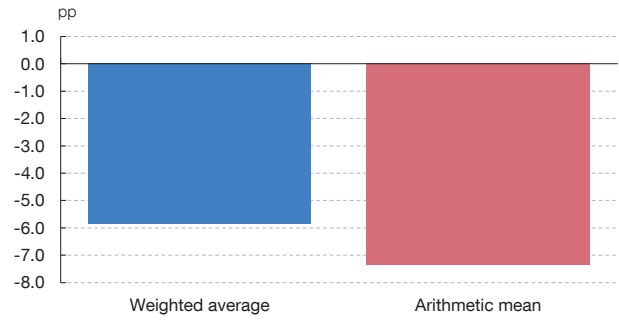
IMPLIED RATES IN SPAIN AND THE EU (1995-2012)

CHART 7

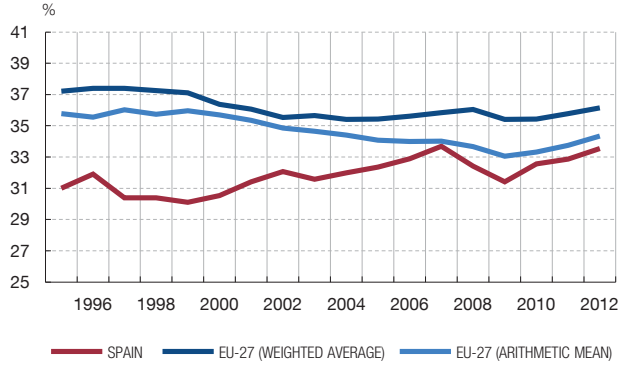
ON CONSUMPTION



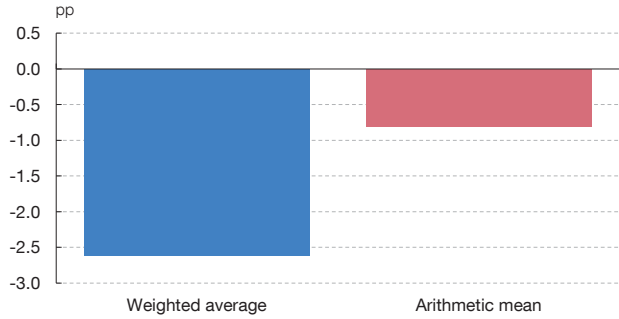
IMPLIED RATES ON CONSUMPTION: DIFFERENCE BETWEEN SPAIN AND EU-27. 2012



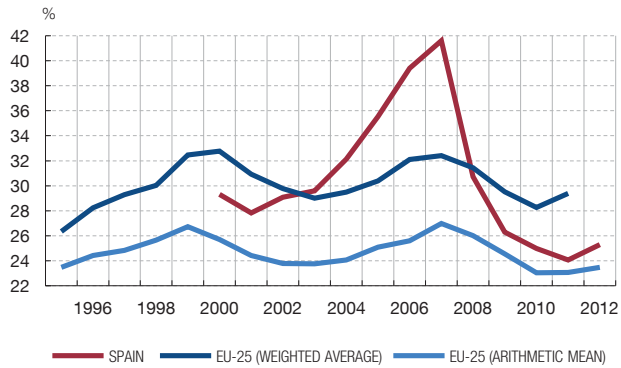
ON LABOUR



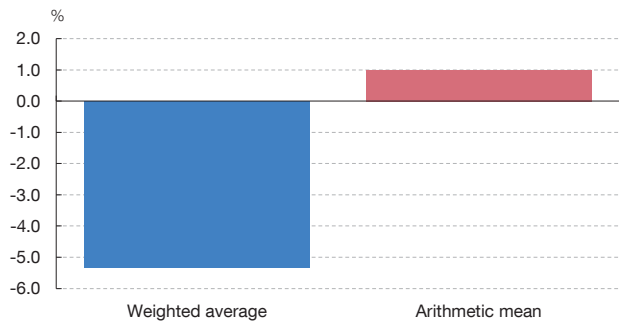
IMPLIED RATES ON LABOUR: DIFFERENCE BETWEEN SPAIN AND EU27. 2012



ON CAPITAL



IMPLIED RATES ON CAPITAL: DIFFERENCE BETWEEN SPAIN AND EU25. 2011 (a)

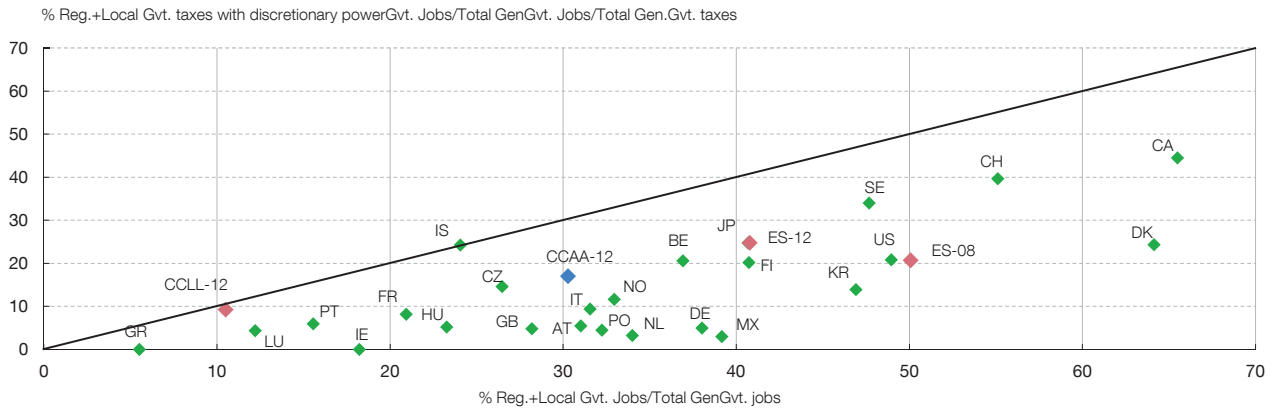


SOURCES: Eurostat (2013 and 2014).

a Latest year for which weighted average is available.

TAX AUTONOMY: OECD (2008) AND SPAIN, REG.GVT. and LOCAL GVT. (2012)

CHART 8



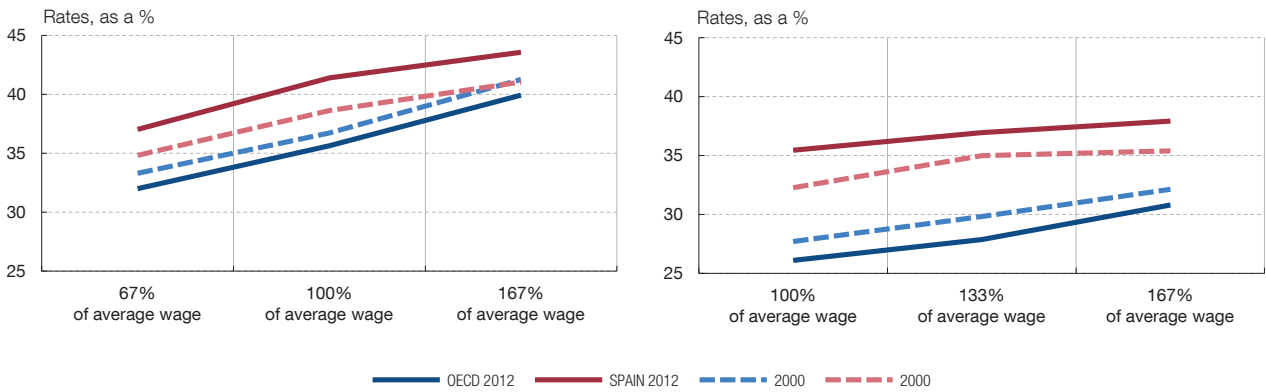
SOURCES: OECD (2013) and IGAE.

AVERAGE TAX WEDGE ON LABOUR INCOME IN SPAIN AND THE OECD IN 2012 (a)

CHART 9

AVERAGE TAX WEDGE FOR A TAXPAYER WITH NO CHILDREN

AVERAGE TAX WEDGE FOR A MARRIED TAXPAYER WITH TWO CHILDREN

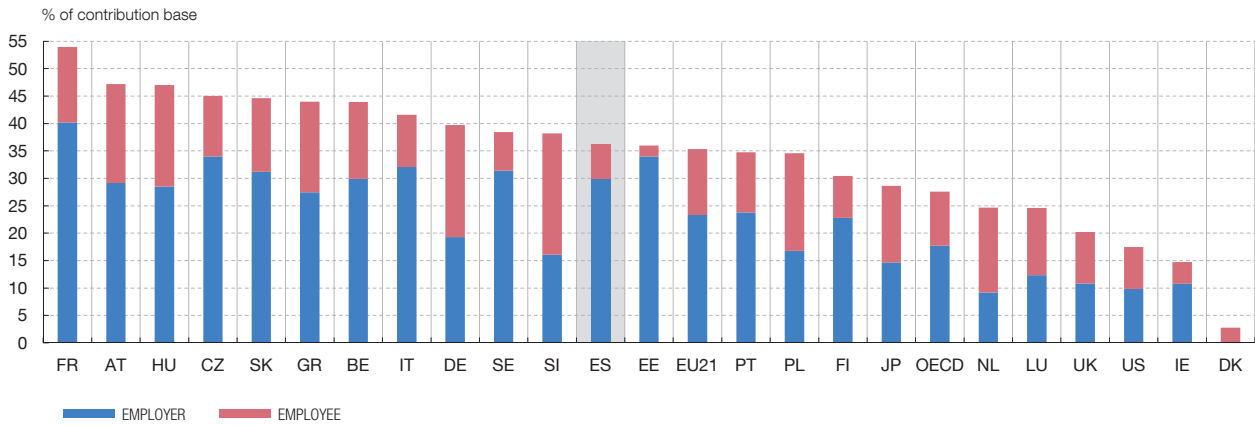


SOURCE: Taxing Wages Database (2013).

a The average tax wedge on labour income for each type of individual is the ratio between personal income tax on employment income and social contributions, on the one hand, and the average full-time gross wage in the private sector on the other.

AVERAGE RATES FOR SOCIAL CONTRIBUTIONS IN THE EU AND THE OECD IN 2013 (a)

CHART 10

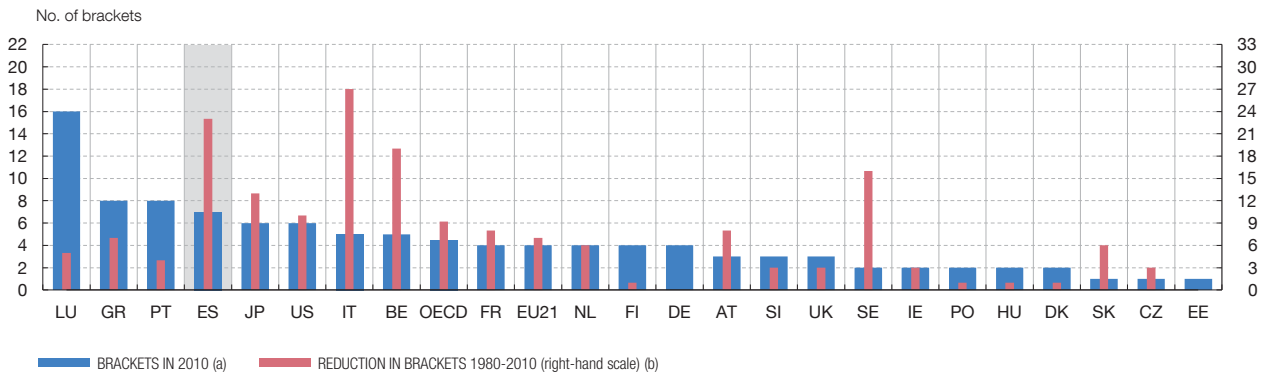


SOURCE: OECD (2014).

a The analysis is conducted for 21 EU countries belonging to the OECD, Japan and the United States.

PERSONAL INCOME TAX BRACKETS IN THE EU AND OECD

CHART 11



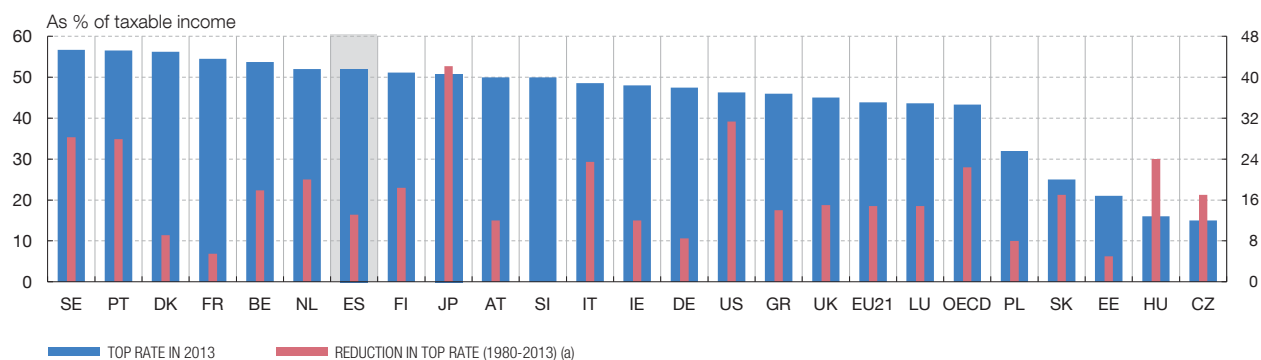
SOURCE: OECD (2012).

a The figures for Spain are for 2014.

b Right-hand scale: reduction in number of brackets. The reduction in brackets for Poland, Hungary, Czech Republic, Slovakia and Estonia is for the 2000-2010 period.

TOP PERSONAL INCOME TAX RATES IN THE EU AND OECD

CHART 12

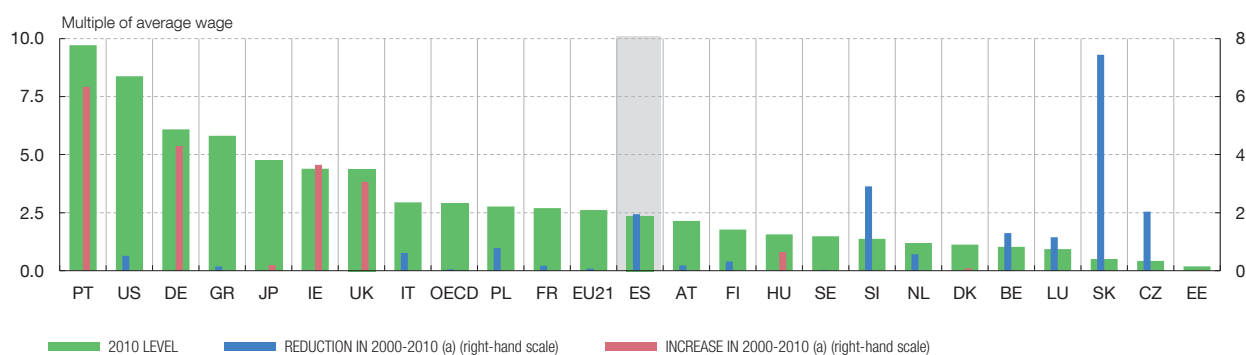


SOURCE: OECD (2014).

a Right-hand scale: reduction in top rate expressed as a %. The reduction in top rates for Poland, Hungary, Czech Republic, Slovakia, Slovenia and Estonia refers to the 2000-2013 period.

WAGE INCOME LEVEL AT WHICH TOP PERSONAL INCOME TAX RATE IS APPLIED IN THE EU AND OECD

CHART 13

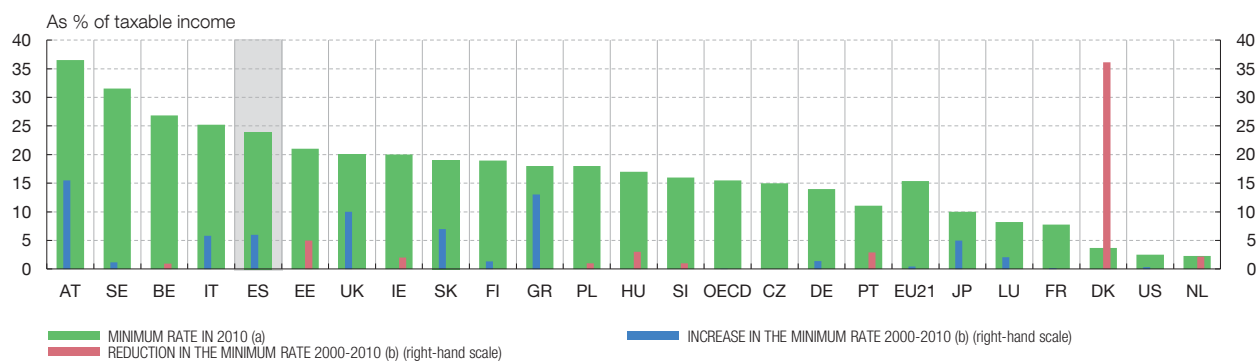


SOURCE: OECD (2012).

a Right-hand scale: change in income level expressed as multiples of average wage.

MINIMUM PERSONAL INCOME TAX RATE IN THE EU AND THE OECD

CHART 14



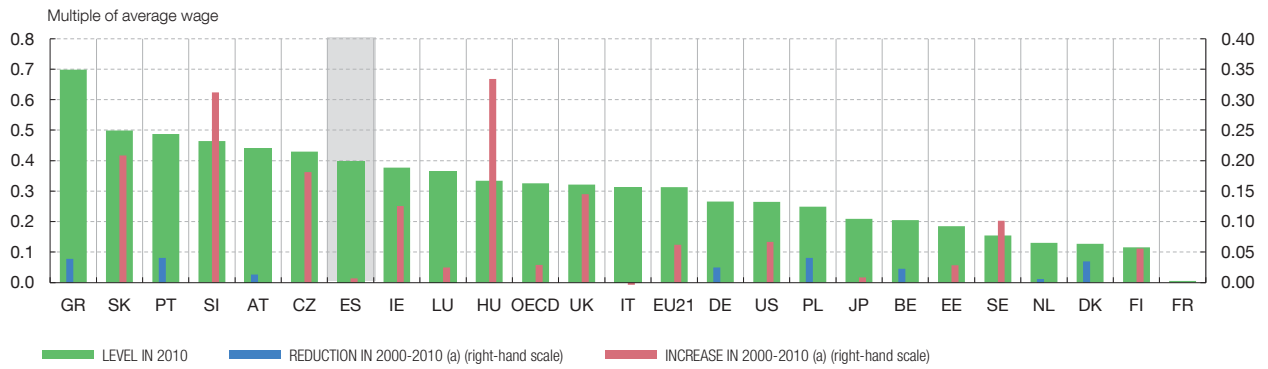
SOURCE: OECD (2012).

a The figures for Spain are for 2014.

b Right-hand scale: change in minimum rate expressed as a %.

WAGE INCOME THRESHOLD FOR PAYING PERSONAL INCOME TAX IN THE EU AND THE OECD

CHART 15

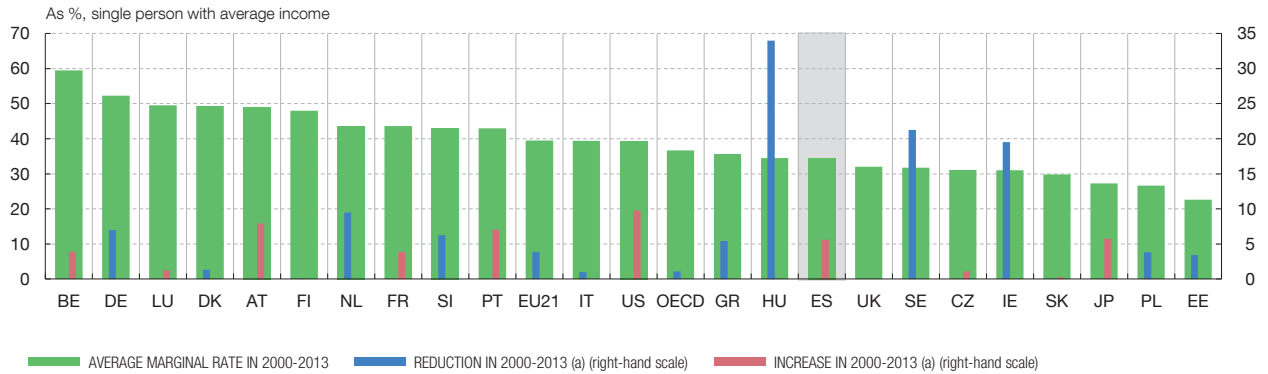


SOURCE: OECD (2012).

a Right-hand scale: change in wage level expressed as a multiple of average wage.

AVERAGE MARGINAL PERSONAL INCOME TAX RATE IN THE EU AND THE OECD

CHART 16

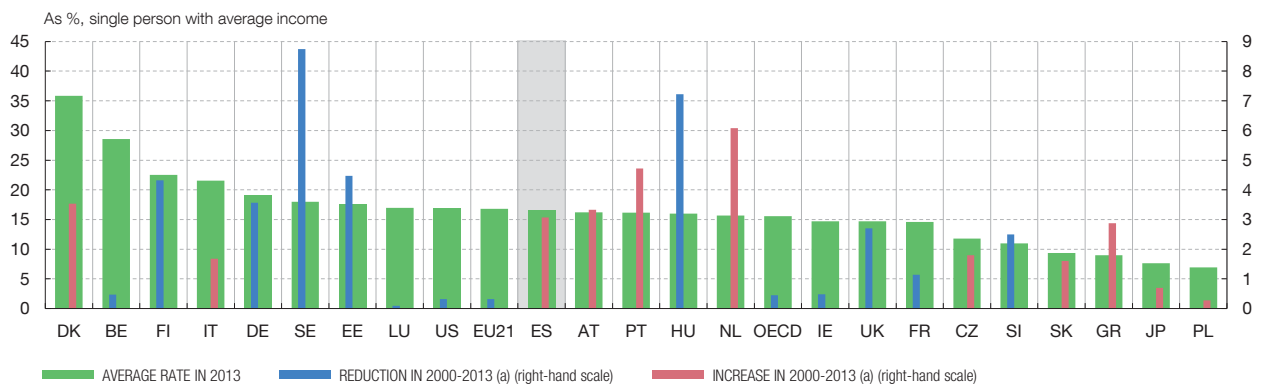


SOURCE: OECD (2012).

a Right-hand axis: change in marginal rate expressed as a %.

AVERAGE PERSONAL INCOME TAX RATE IN THE EU AND THE OECD

CHART 17

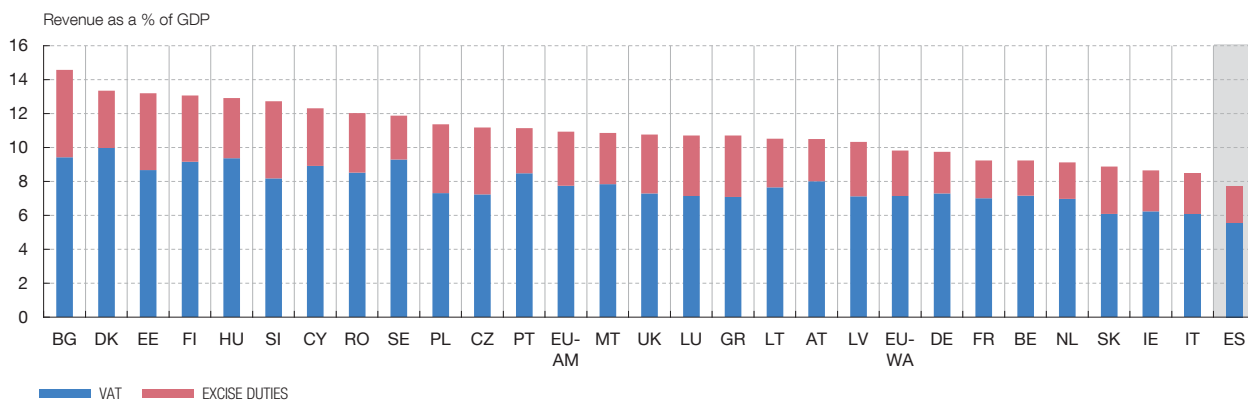


SOURCE: OECD (2014).

a Right-hand scale: change in average rate expressed as a %.

REVENUE FROM CONSUMPTION TAXES IN THE EU IN 2012

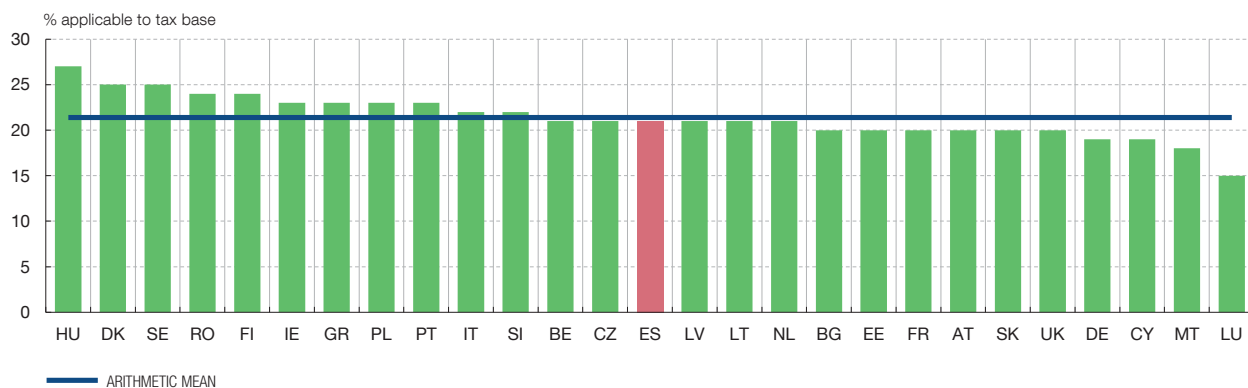
CHART 18



SOURCE: Eurostat (2014).

STANDARD RATE OF VAT IN SPAIN AND THE EU IN 2014

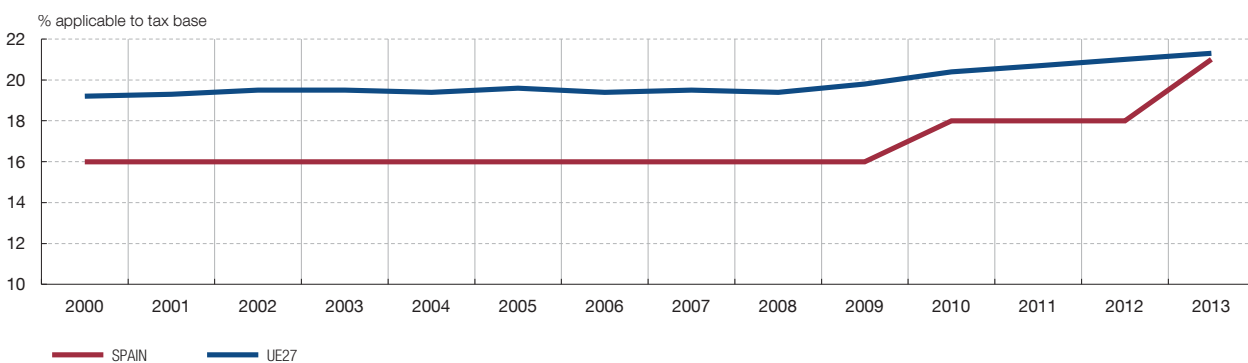
CHART 19



SOURCE: European Commission (2014).

STANDARD RATE OF VAT IN SPAIN AND THE EU (2000-2014)

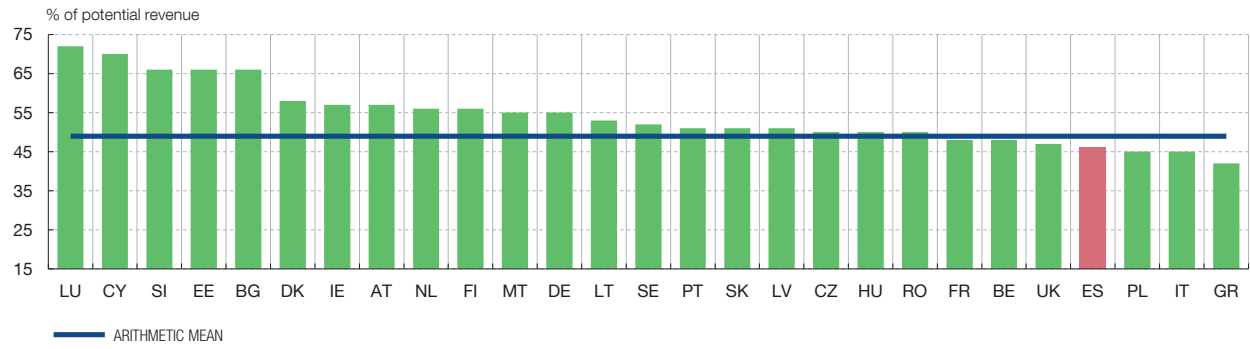
CHART 20



SOURCE: European Commission (2014).

VAT REVENUE RATIO IN THE EU (2000-2011)

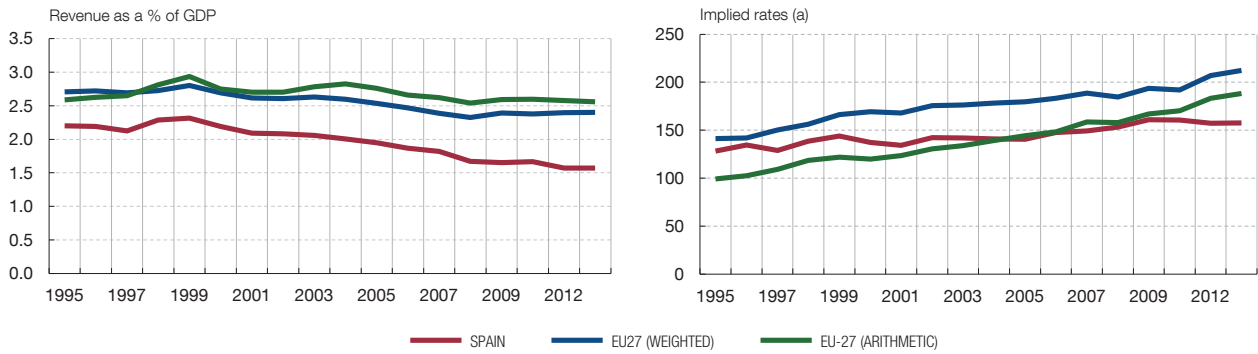
CHART 21



SOURCE: European Commission (2013).

ENVIRONMENTAL TAXES IN SPAIN AND THE EU (1995-2012)

CHART 22

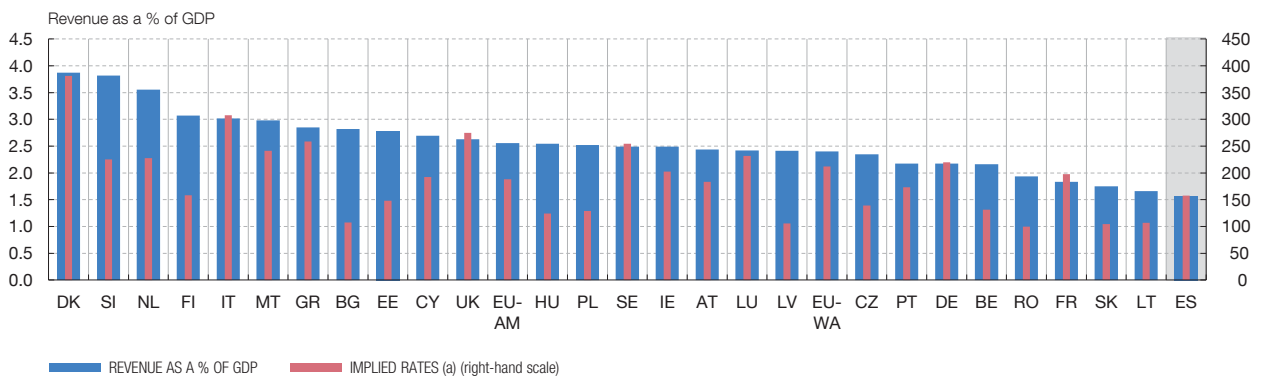


SOURCES: Eurostat (2013) and Eurostat (2014).

a Expressed in euro per tonne of oil equivalent (TOE).

ENVIRONMENTAL TAXES IN THE EU IN 2012

CHART 23

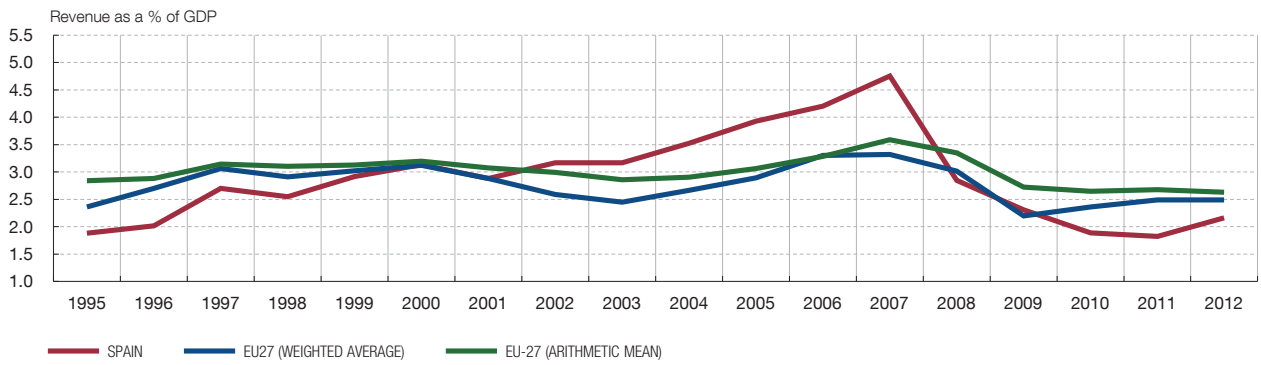


SOURCE: Eurostat (2014).

a Right-hand scale: expressed in euro per tonne of oil equivalent (TOE).

TAX ON CORPORATIONS IN SPAIN AND THE EU (1995-2012)

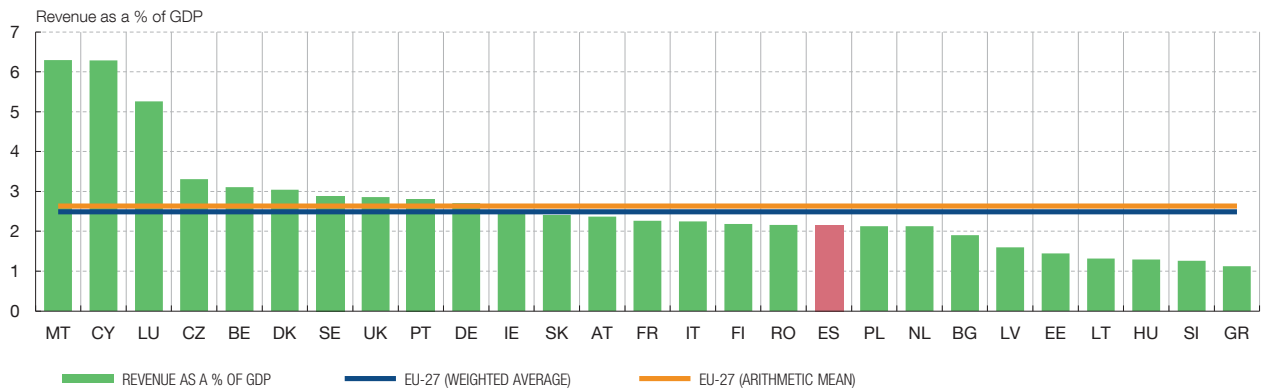
CHART 24



SOURCE: Eurostat (2014).

TAXES ON CORPORATIONS IN THE EU IN 2012

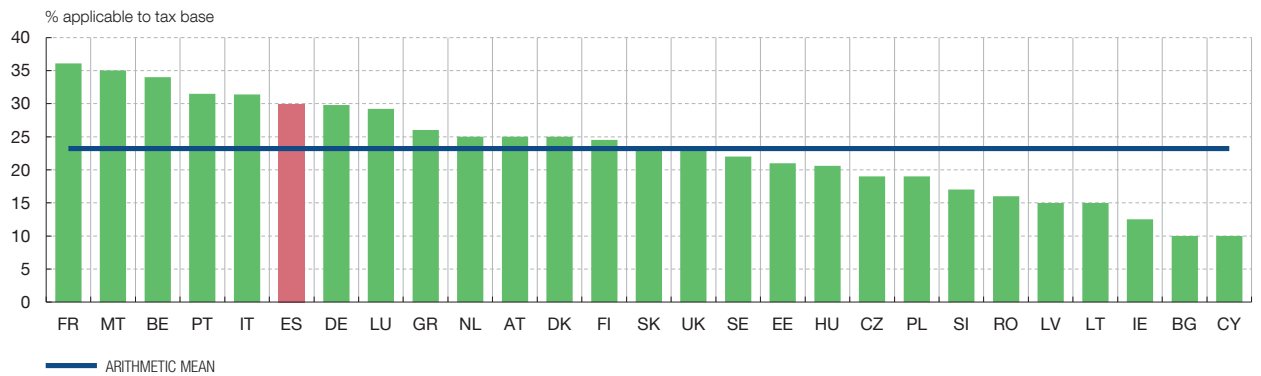
CHART 25



SOURCE: Eurostat (2014).

LEGAL RATES IN THE TAX ON CORPORATIONS IN SPAIN AND THE EU IN 2013

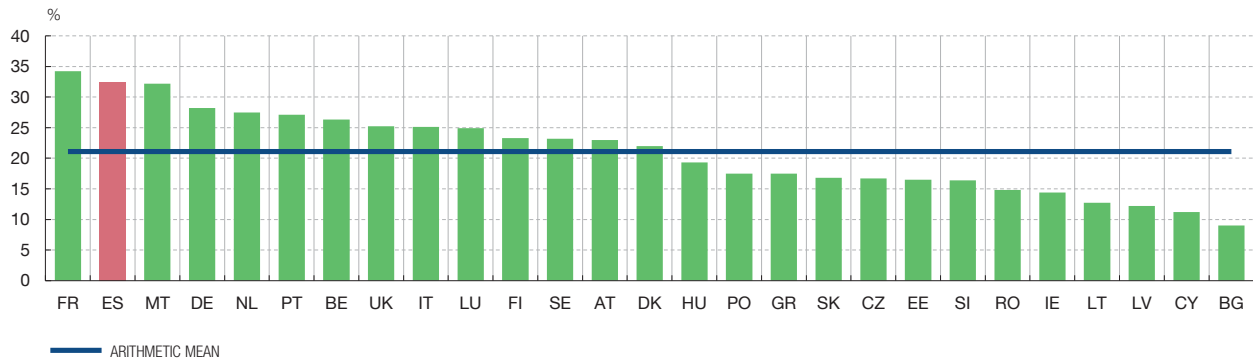
CHART 26



SOURCE: European Commission (2013).

EFFECTIVE RATES ON INVESTMENT IN TAXES ON CORPORATIONS IN SPAIN AND THE EU IN 2011

CHART 27



SOURCE: ZEW (2012).

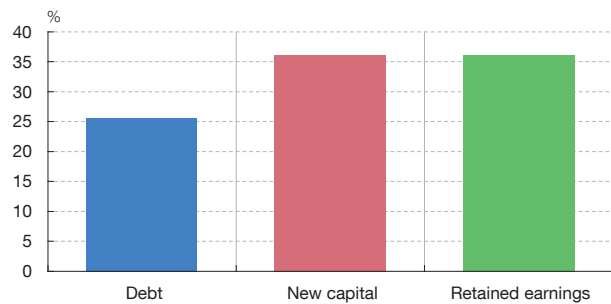
EFFECTIVE RATES OF THE TAX ON CORPORATIONS IN SPAIN

CHART 28

BY SIZE OF CORPORATION (a)



BY SOURCE OF FINANCING IN 2011 (b)



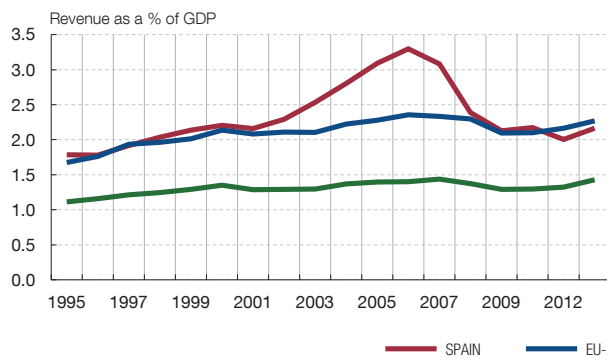
SOURCES: AEAT (2013) and ZEW (2012).

- a AEAT methodology.
- b ZEW methodology.

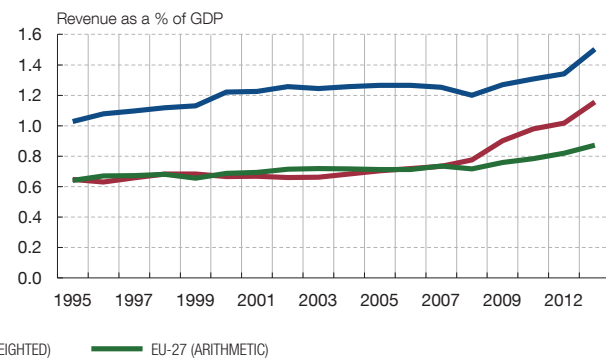
TAXES ON PROPERTY IN SPAIN AND THE EU (1995-2012)

CHART 29

REVENUE FROM TAXES ON PROPERTY



RECURRENT REAL ESTATE PROPERTY TAX REVENUE



SOURCES: Eurostat (2013) and Eurostat (2014).

TAX BENEFITS IN 2014

TABLE 1

	EUR millions
VAT-related tax benefits	33,256.64
Exemptions	13,642.88
Super-reduced rate (4 %)	5,551.88
Reduced rate (10 %)	14,061.88
Excise duty-related tax benefits	1,966.67
a. Duty on hydrocarbons	1,895.45
Exemptions	757.74
Reduced rates	906.76
Refunds	230.95
b. Duty on alcohol and derivative beverages	72.40
Exemptions	61.14
Reduced rates	11.26
Personal income tax-related tax benefits	31,027.30
Tax reductions	21,256.00
<i>Of which: salary income</i>	<i>13,864.92</i>
<i>Of which: combined taxes</i>	<i>3,609.44</i>
<i>Of which: pension plan contributions</i>	<i>2,173.84</i>
Tax credits	7,058.98
<i>Of which: purchase of principal residence</i>	<i>3,570.86</i>
Exemptions	2,441.92
Corporation tax-related tax benefits	3,309.95
Tax deductions	251.74
Reduced rates	1,251.57
<i>Of which: 25% rate applicable to SMEs</i>	<i>495.53</i>
<i>Of which: reduced SME job-creation rate</i>	<i>365.76</i>
Rebates	188.23
Tax credits	1,618.41
<i>Of which: R+D activities</i>	<i>243.27</i>
<i>Of which: SMEs' reinvestment of earnings</i>	<i>547.00</i>

SOURCE: Notes to Tax Benefits 2014 (2013).

TAX REVENUE IN SPAIN DURING THE 2007-2013 CRISIS

TABLE 2

	EUR millions				As a %	As a % of GDP			As a % of GDP		As a %
	2007 (1)	2009 (2)	2013 (3)	2013-2007 (4) = (3) - (1)	2013-2007 (5) = (3)/(1)	2007 (6)	2013 (7)	2013-2007 (8) = (7) - (6)	Discretionary measures (9)	2013-2007 excl. discretionary measures (10) = (7) - (9)	2013-2007 excl. discretionary measures (11) = ((3) - (9))/(1)
Taxes on production and imports	122,005	92,355	112,914	-9,091	-7.5	11.6	11.0	-0.5	2.7	-3.2	-29.9
VAT (excl. EU)	61,261	41,878	60,593	-668	-1.1	5.8	5.9	0.1	1.8	-1.7	-31.6
Transfer/Stamp tax	17,399	8,483	5,688	-11,711	-67.3	1.7	0.6	-1.1	0.0	-1.1	-68.4
Taxes on consumption	25,328	23,447	23,240	-2,088	-8.2	2.4	2.3	-0.1	0.6	-0.7	-30.5
Property tax	7,267	8,853	11,368	4,101	56.4	0.7	1.1	0.4	0.1	0.3	43.8
Other indirect taxes	10,750	9,694	12,025	1,275	11.9	1.0	1.2	0.2	0.2	0.0	-5.9
Current taxes on income and wealth	136,921	100,839	105,107	-31,814	-23.2	13.0	10.3	-2.7	-0.1	-2.6	-22.5
Personal income tax	79,731	71,480	78,039	-1,692	-2.1	7.6	7.6	0.1	0.3	-0.3	-6.2
Corporate income tax	50,179	24,198	21,312	-28,867	-57.5	4.8	2.1	-2.7	-0.2	-2.5	-53.6
Other direct taxes	7,011	5,161	5,757	-1,255	-17.9	0.7	0.6	-0.1	-0.2	0.1	14.9
Taxes on capital	5,352	4,318	5,036	-316	-5.9	0.5	0.5	0.0	0.0	0.0	-5.9
Social security contributions	136,752	140,144	130,438	-6,314	-4.6	13.0	12.8	-0.2	0.1	-0.3	-5.3
Adjustment for uncertain revenue	-4,837	-9,351	-6,661	-1,824	37.7	-0.5	-0.7	-0.2			
Other revenue	36,908	38,948	39,416	2,508	6.8	3.5	3.9	0.3	0.0	0.3	6.8
Total resources	433,101	367,253	386,250	-46,851	-10.8	41.1	37.8	-3.4	2.7	-6.0	-17.1

SOURCES: INE and IGAE.

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