SPAIN'S TAX STRUCTURE IN THE CONTEXT OF THE EUROPEAN UNION

2018

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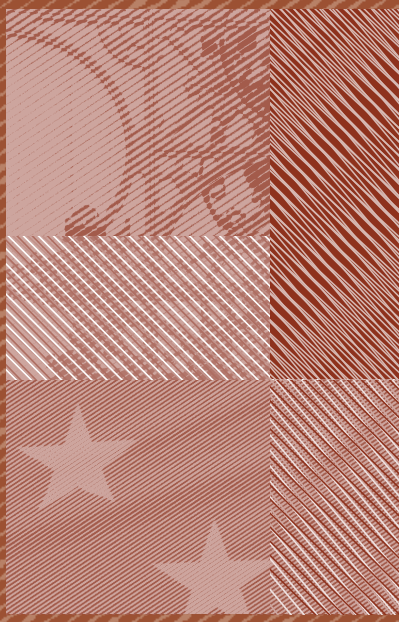

Documentos Ocasionales
N.º 1810

BANCO DE ESPAÑA
Eurosistema

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David López-Rodríguez (**) and Cristina García Ciria

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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. We thank Pablo Burriel, Rafael Frutos, Javier Pérez and Javier Vallés for their comments.
(**) This article updates and expands on Banco de España Occasional Paper No 1406, *Tax structure and revenue-raising capacity in Spain: a comparative analysis with the EU,* by Pablo Hernández de Cos and David López-Rodríguez.

Documentos Ocasionales. N.º 1810

2018

ISSN: 1696-2230 (on-line edition)

Abstract

This document describes the structure of the Spanish fiscal system in comparison with the European Union economies. Spain is notable for the persistently lower weight of its tax revenue relative to GDP compared with the EU28 average. This lower tax revenue/GDP ratio is mainly due to indirect taxes (VAT, excise duties and environmental taxes); Spain systematically has one of the lowest implicit tax rates relative to consumption in the EU28. Regarding the taxation of labour, the attendant revenue relative to GDP is also lower than the EU28 average, although the weight of social security contributions relative to GDP is higher, in particular the contributions charged on employees. The latter shows the lower fiscal pressure on labour income in respect of personal income tax in Spain. Spain evidences higher tax revenue on capital, in particular regarding wealth tax.

Keywords: fiscal system, tax structure, taxation in the EU.

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

Resumen

En este documento se presenta una descripción de la estructura del sistema fiscal español en comparación con los patrones observados en las economías de la Unión Europea. España destaca por presentar una ratio de ingresos impositivos sobre el PIB inferior al promedio de la UE-28. Esta menor recaudación relativa se debe en buena medida a la inferior presión fiscal ejercida por la imposición indirecta a través del IVA, los impuestos especiales y los medioambientales. En concreto, España destaca por presentar sistemáticamente uno de los menores tipos efectivos sobre el consumo de todos los países de la UE-28. En cuanto a la imposición sobre el trabajo, la recaudación en porcentaje del PIB en España es también inferior a la media de la UE-28. Sin embargo, el peso de las cotizaciones sociales sobre el PIB es superior, en particular las que recaen sobre las empresas, indicando la menor tributación en los impuestos que gravan la renta laboral de los individuos. Por su parte, los ingresos derivados de la imposición sobre el capital son más elevados en el caso español, en particular los relativos a la tributación sobre la riqueza.

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

Códigos JEL: H20; E62; H23; H24; H25.

CONTENTS

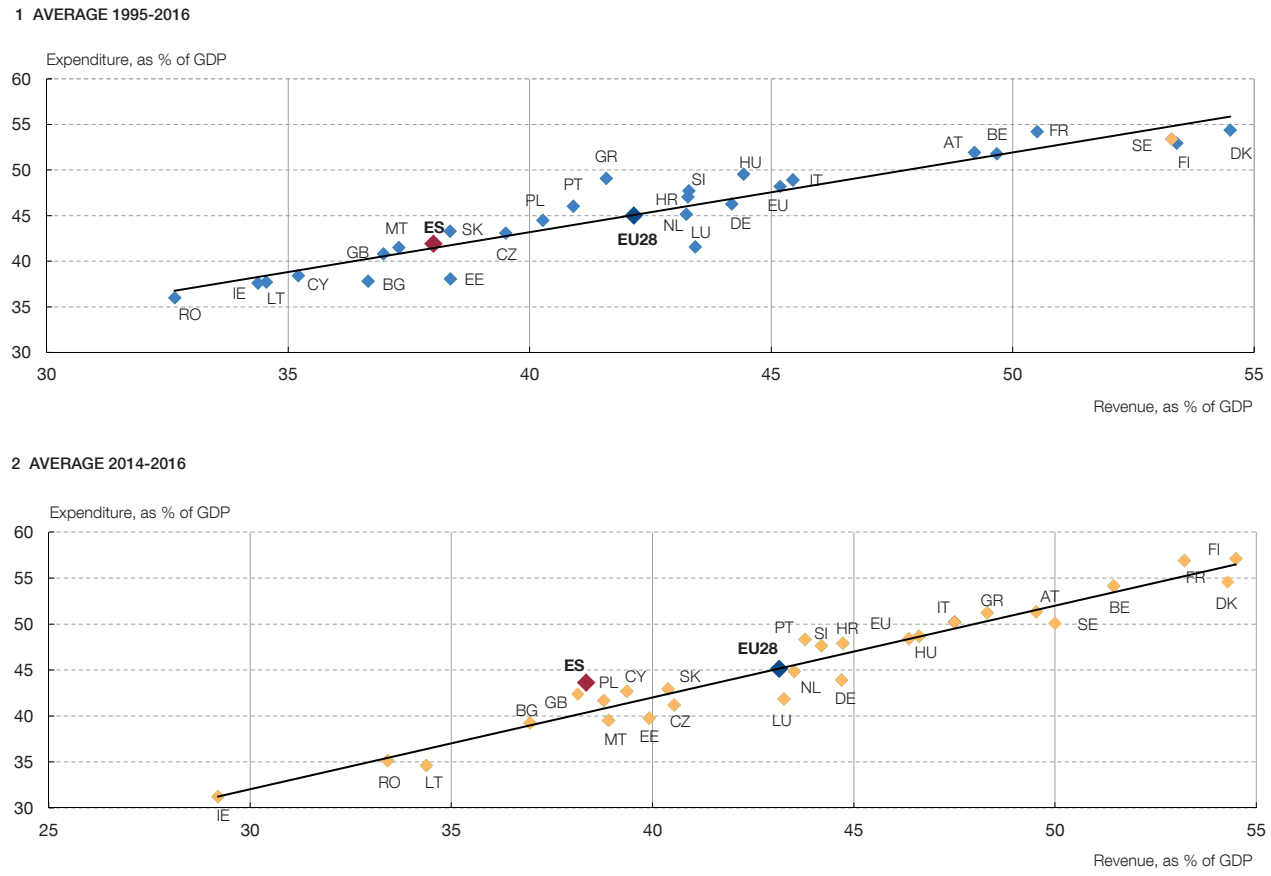
1 Introduction

In the advanced countries' welfare states, the provision of public (collective and individual alike) goods and services, across the board and universally in most cases, has led to the design of wide-ranging revenue-raising tax systems that provide for the regular financing of such services (see Chart 1). At the same time, the tax structure is designed in many cases to achieve specific goals, mainly in respect of its distributive consequences and its economic cycle-stabilising capacity.

Tax structures in the advanced economies, however, show significant cross-country differences. In this respect, the economic literature has stressed that there are direct links between a country's tax structure, its level of public spending, its social preferences in terms of income redistribution and its degree of economic development. From this perspective, it is worth having a detailed description of the structure of public revenue in Spain, compared with the main EU and OECD economies.

This is, indeed, the aim of this paper. We will set out a detailed picture of the Spanish tax system, over a medium-term horizon. This will be done from a descriptive standpoint, and taking

PUBLIC REVENUE AND EXPENDITURE IN THE EU ECONOMIES (a) **CHART 1**



SOURCE: Banco de España (2018).

a Regressions with average values for the EU28 countries in the periods 1995-2016 and 2014-2016.

as the context Spain's peer economies (in the EU and OECD). It will complement other, previous papers, some of which have offered an ambitious diagnosis of the Spanish tax system.[1] This description is an appropriate starting point for a more in-depth analysis of deeper-seated issues such as the analysis of the tax system's efficiency, the impact of taxes on agents' decisions, the incidence of such taxes and the distributive capacity thereof, and their stabilising properties over the course of the economic cycle. All these important matters are not addressed in this paper. These considerations mean the conclusions and the judgements that may be drawn from the simple tracking of the variables described in this paper must be viewed with all due caution.

The rest of the paper is structured as follows. The second section analyses the level and the comparative course both of the aggregate tax burden and the main sources of taxable income, taking a broad time and international perspective (1965-2016), which includes in the analysis not only the EU members but also the main OECD economies (United States and Japan). The following sections discuss in greater detail Spain's relative position regarding revenue raised on the main taxes in relation to the EU economies. Specifically, the analysis is divided into five sections. These document the taxation of labour, consumption, the environment, capital and property. Further complementing the analysis is a box which describes both in Spain and for the EU economies the relative contribution of non-tax revenue to overall public revenue. The eighth section draws the main conclusions.

1 An exhaustive discussion of the Spanish tax system, in relation to the EU economies, during the economic crisis and a broad set of proposals for the reform of its different taxes can be found in the report commissioned by the Spanish Government in July 2013 to a commission of experts and presented in March 2014 (see *Commission of Experts' Report on the Reform of the Spanish Tax System* (2014)). See also Hernández de Cos and López-Rodríguez (2014) and Zubiri (2017). For a detailed description of the tax reforms adopted in recent decades, see Burriel et al. (2017), Martí and Pérez (2015) and Gil et al. (2018).

2 Tax burdens and tax structures: Spain and the EU

Analysis of the tax burden and the attendant cross-country comparisons is habitually performed using tax revenue/GDP ratios and the implicit rates of the main taxes, with the latter defined as the ratio of tax revenue to the macroeconomic variables proxying their taxable bases. These are also the measures that are used in this paper drawing on the information published by Eurostat and the OECD, which are available to 2016.[2] Notably, however, the tax burden measures available[3] have methodological limitations that affect both the calculation of their level and path, and these limitations hamper cross-country comparison (see section 1 and OECD (2000)). These considerations mean that the conclusions and judgements that may be drawn from the simple course of the magnitudes described in this section should be viewed with caution.

2.1 Tax burden

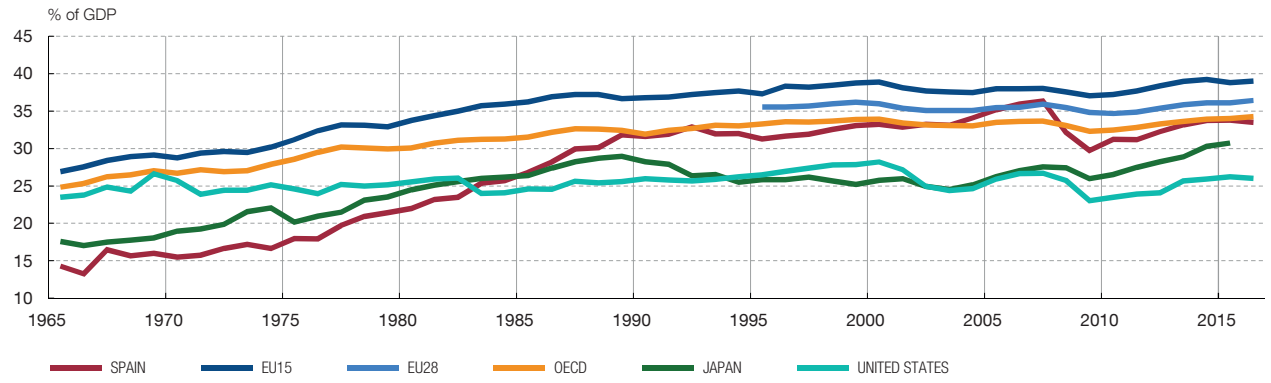
The development of welfare states in the Western European countries in the second half of the 20th century required notable increases in tax revenue-raising capacity. This stylised fact can be observed in the changes in the ratio of tax revenue to GDP at the international level, which shows a progressive and permanent increase in the EU15[4] members' tax burden from 1965 to the end of the 20th century (see Chart 2). Thereafter this variable has stabilised, showing slight fluctuations linked essentially to the changes in the economic cycle. As a result, the tax burden

2 The main data sources used in this paper are Taxation Trends in the European Union (Eurostat (2017), and its prior versions) and *OECD Revenue Statistics 1965-2016* (OECD (2017a)).

3 The tax burden is measured as the revenue derived from the following taxes: taxes on production and imports (D.2 under ESA 2010), current taxes on income and wealth (D.5 under ESA 2010), taxes on capital (D.91) and actual obligatory social contributions (D.611C + D.613C under ESA 2010). These revenues are discounted for the so-called "adjustment for uncertain tax collection". For details of this definition and others used in this paper, see the methodological appendix in Eurostat (2017).

4 The EU15 grouping is used in this initial reference to the tax burden as there is a longer time series available for it. The EU15 comprises Germany, France, Italy, Belgium, the Netherlands, Luxembourg, the United Kingdom, Denmark, Ireland, Greece, Spain, Portugal, Austria, Finland and Sweden.

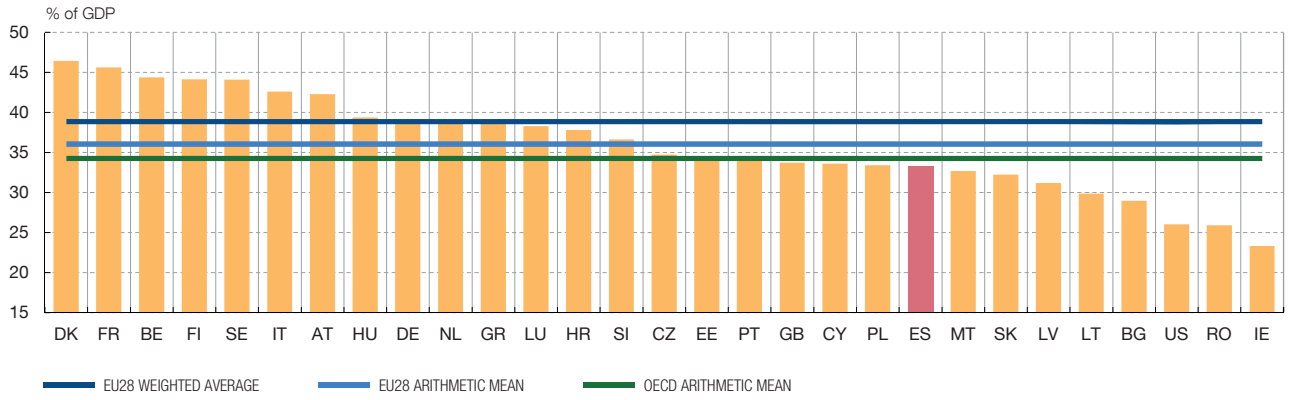
TAX REVENUE IN THE EU AND THE OECD (1965-2016) (a) CHART 2



SOURCES: Eurostat (2017) and OECD (2017a).

a Arithmetic means for EU15, EU28 and OECD.

TAX REVENUE IN 2016: BREAKDOWN BY EU AND OECD COUNTRIES (a) CHART 3



SOURCES: Eurostat (2017) and OECD (2017a).

a European Commission geonomenclature.

taking the weighted average of the EU15[5] in 2016 was 12 percentage points (pp) of GDP higher than that observed in 1965, standing close to 40% of GDP. This average EU tax burden is higher than that observed in the main OECD developed economies.[6]

While the long-term path of the tax burden has been similar taking the EU countries as a whole, high heterogeneity among economies is observed in terms of levels. Specifically, the level of the burden stood at 36.1% of GDP in 2016 on average in the EU28 countries, with this ratio rising to 38.9% of GDP in terms of the weighted average (see Chart 3). Nonetheless, in France, Belgium and the Nordic countries this ratio stands above 44% of GDP, whereas at the opposite extreme, in Ireland, Lithuania and Bulgaria, the levels are below 30% of GDP. Spain is among the group of EU economies with a relatively lower tax burden; in 2016 its tax revenue/GDP ratio was 33.3% (see Chart 3), in line with its average observed tax burden since 1990.[7]

In terms of the developments since 1965, Spain has generally been in step with the European trend towards a greater tax burden; however, its dynamics to 1990 show particularities derived largely from its low starting level of taxation. As a result, the distance between the level of taxation in Spain and that in the EU15 held at around 14 pp of GDP until 1977. Thereafter, owing among other factors to the 1978 tax reform, a process of convergence began. The tax burden grew by 15 pp of GDP between 1977 and 1989, placing the distance from the EU15 at around

5 Hereafter, this paper uses the expression "average" to refer to the arithmetic mean. If there is a reference to the weighted average, which uses the GDP of the economies considered as a weighting factor, this is spelt out in the text. The arithmetic mean treats all the economies in the same way, irrespective of their size, while the GDP-weighted average is more representative of the bigger EU countries, in particular Germany and France.

6 For example, in Japan's case it reached 29% of GDP in 1989, stabilising subsequently around 25%-30%; and in the United States the ratio has been seen to be stable around 25% in the past five decades.

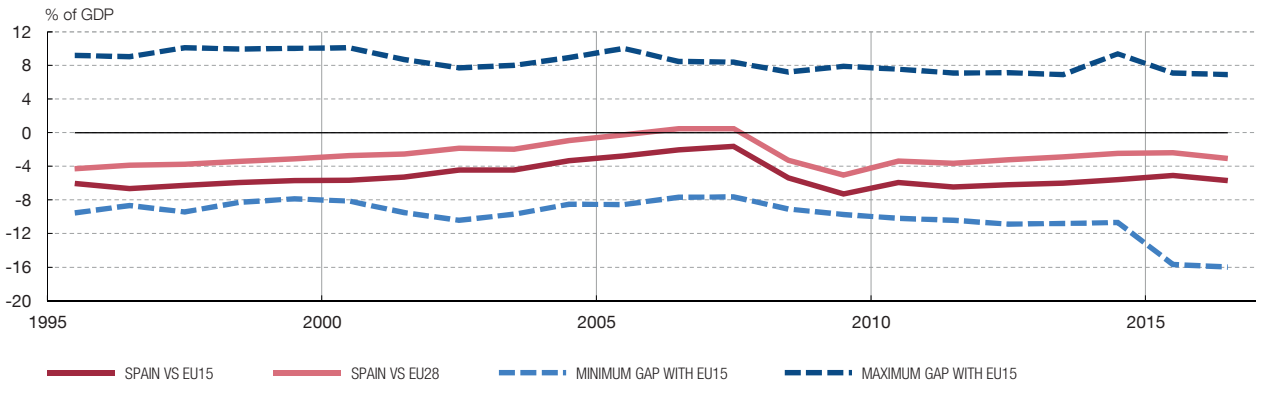
7 The tax burden measure used in this article (see footnote 4) does not consider non-tax public revenue, which arises mainly from public charges and prices, interest and income on property and transfers from abroad (see Box 1). In Spain's case, these revenues stand on average at around 4% of GDP, setting the public revenue/GDP average around 38% over the past 25 years (see Burriel, López-Rodríguez and Pérez (2017) for a more detailed discussion of the course and macroeconomic determinants of public revenue in Spain since the onset of EMU).

5 pp of GDP in 1990. The ongoing revenue-raising convergence came to a halt in the 1990s, with the tax burden difference holding constant at 5 pp of GDP until 2001. The expansionary phase of the Spanish economy in the first decade of the new millennium, associated with the 2002-2007 expansion in the real estate market, was accompanied by a strong increase in tax revenue collection. This saw a notable reduction in Spain's tax burden difference to below 2 pp of GDP compared with the EU15 average, and led to convergence being achieved with the EU28 average.

However, the onset of the economic crisis in 2008 showed that a sizeable portion of the increase in tax revenue experienced during the prior economic expansion was underpinned by transitory factors, associated with the significant expansion of the financial and real estate markets. The weakness of Spain's tax bases, coupled with the legislative measures approved in that period to reduce the tax burden, prompted an abrupt fall in tax revenue (from 36.4% of GDP in 2007 to 29.8% of GDP in 2009), in contrast to the notable stability of the tax burden in the EU economies as a whole during the 2008-2013 recession.[8] As a result of these heterogeneous developments in revenue-raising during the crisis, there has been a strong increase in Spain's relative taxation differences compared with the EU average. Specifically, over the crisis period as a whole, Spain's tax burden difference in relation to the EU15's arithmetical mean amounted to 6.2 pp of GDP (peaking at 7.2 pp in 2009), with the gap relative to the arithmetical mean of the EU28 standing at 3.6 pp of GDP (see Chart 4). The recovery that began in 2014, along with the legislative changes in recent years, has slightly reduced these figures: Spain's average tax-burden difference with the EU over the 2014-2016 period was 5.4 pp of GDP compared with the arithmetical mean of the EU15 and 2.6 pp compared with the average tax burden of the EU28. Spain's tax-burden differences are at similar levels to those observed in the 1990s.

8 For a more detailed explanation of tax revenue developments in Spain during the crisis, see Box 1 in Hernández de Cos and López-Rodríguez (2014) and Martí and Pérez (2015).

TAX BURDEN, DIFFERENCE BETWEEN SPAIN AND THE EU (1995-2016) (a) **CHART 4**



SOURCE: Eurostat (2017).

a The tax burden difference for each economy compared with the EU arithmetic mean is calculated for each year in the period 1995-2016. The chart includes for each year the minimum and maximum gap between the EU economies compared with the average tax burden in the EU.

2.2 Tax structure

Analysis of the structure of tax revenue (see Chart 5) reveals that indirect taxes[9] are the main tax figure in the EU, accounting in 2016 for 39.5% of total tax revenues. It is followed by direct taxes[10] and social contributions,[11] which have similar relative weights in revenue (31% and 29.6%, respectively). However, the differences in the significance of the three groups of taxes diminish when we take as a reference the EU28 weighted average (34.8%: indirect taxes; 34.1%: direct taxes; and 31.1%: social contributions). This EU tax structure, which is diversified among the three tax revenue components, has held relatively stable over the past three decades and is in contrast to the composition of tax revenue in other advanced OECD economies, in which indirect taxes have a significantly lower relative weight.[12]

As with tax burden levels, the differences are also high regarding tax structures across the EU28 economies. For example, there is significant heterogeneity with regard to social contributions as a proportion of total tax revenue, with this weight standing below 20% in Sweden, Ireland, United Kingdom and Malta, compared with levels of around 40% in Germany, Lithuania, the Czech Republic, Slovenia and Slovakia.[13] The percentage that indirect taxes account for in the total tax burden stands at around 30% in Belgium, Germany and the Netherlands, while it rises to over 50% in Sweden, Croatia and Bulgaria. Finally, heterogeneity is also significant in terms of direct taxes, whose weight exceeds 40% in Denmark, Ireland, Malta, Sweden and the United Kingdom, and stands below 20% in the new Member States that adopted a flat tax, such as Lithuania, Bulgaria, Croatia and Hungary.

The particularity of Spain's tax structure compared with the EU28 lies in the persistence of a lower weight of indirect taxes, offset by the greater relative weight of social contributions. Specifically, in 2016 the weight of social contributions in tax revenue was 4.6 pp above the EU28 average, standing at 34.2%, offsetting the less relative significance of indirect taxes (4.2 pp below the average and amounting to 35.4% of total taxes). As regards direct taxes, their relative weight in tax revenue in Spain in 2016 (31.4% of the total) stood at 0.5 pp above the EU28 average, although this difference turns negative of the order of 2.8 pp when compared with the weighted average of the EU28. Despite the lower weight of indirect taxes in Spain in relation to the EU28, it should be borne in mind that, since 2013, a gain in the relative weight of this revenue has been taking hold. This gain has narrowed the gap with the EU28 by 3 pp, from the 7.6 pp recorded during the 2008-2012 crisis period, placing the level of indirect taxes relative to total tax revenue in line with the pre-crisis average (35%).

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9 Indirect taxes are equivalent to taxes on production and imports (D2), which include value-added-like taxes (D.211) (VAT and the equivalent Canary Islands tax in Spain's case); taxes and duties on imports, excluding VAT (D.212); taxes on products, excluding VAT, and taxes on imports (D.214), and other taxes on production (D.29).

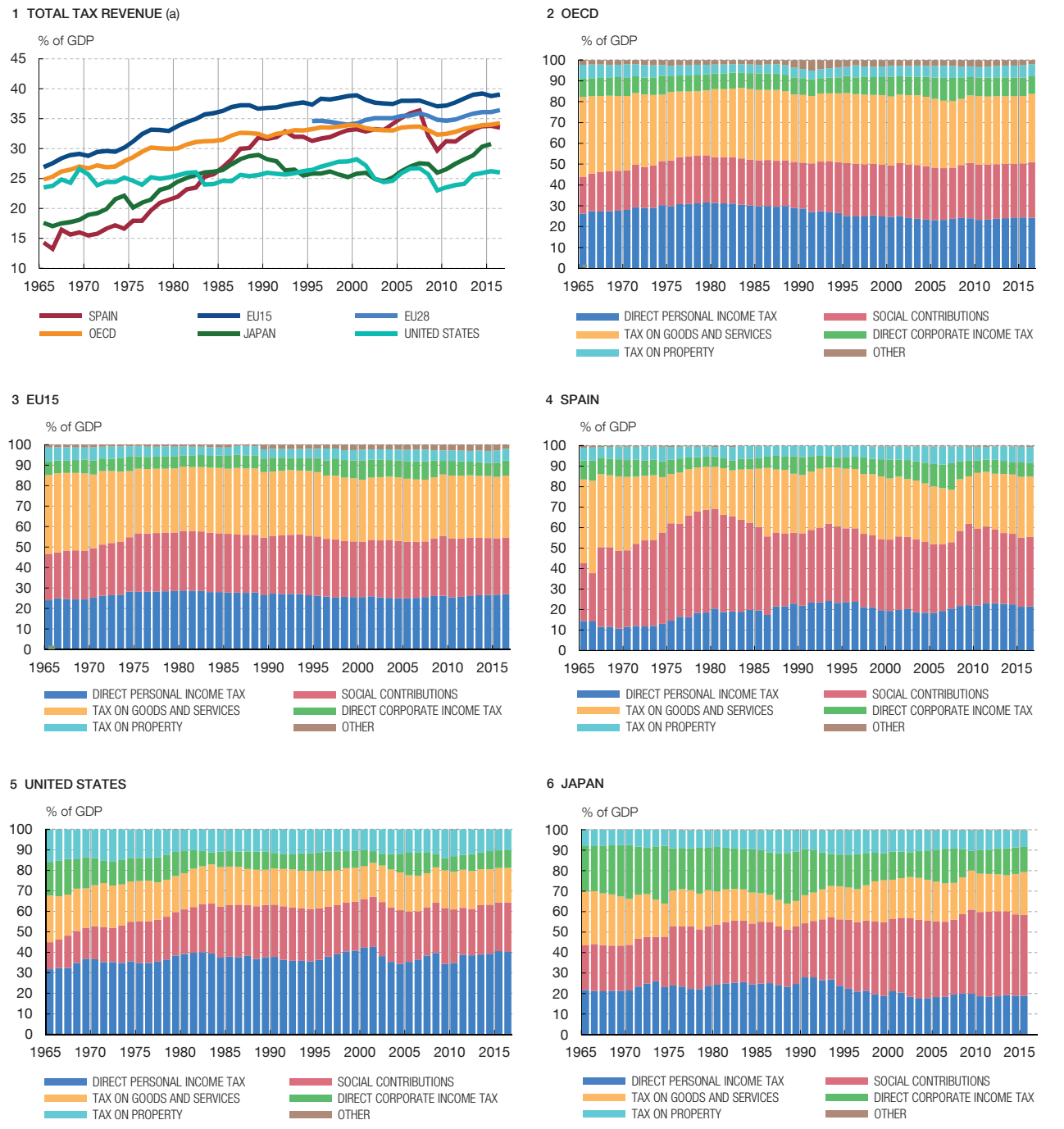
10 Direct taxes are defined as current taxes on income and wealth (D.5) plus taxes on capital (D.91).

11 Social contributions are defined as actual obligatory social contributions and include those paid by employers (D.611C) and employees (D.613CE), along with those made by the self-employed and the unemployed (D.613CS and D.613CN).

12 The European tax structure diverges substantially from that seen in the United States and Japan. In the case of the United States, the high weight of direct taxes on individuals and companies (48% of total taxes) is notable, as is the scant significance of indirect taxes (17%). In Japan, 40% of revenue is from social contributions.

13 Denmark is of note in the EU 28 as it has but a token level of social contributions (0.1%) relative to its total tax revenue; it thus finances its public spending largely with direct taxes (65%), supplemented with indirect taxes (35%).

TAX STRUCTURE IN THE EU AND THE OECD (1965-2016) CHART 5

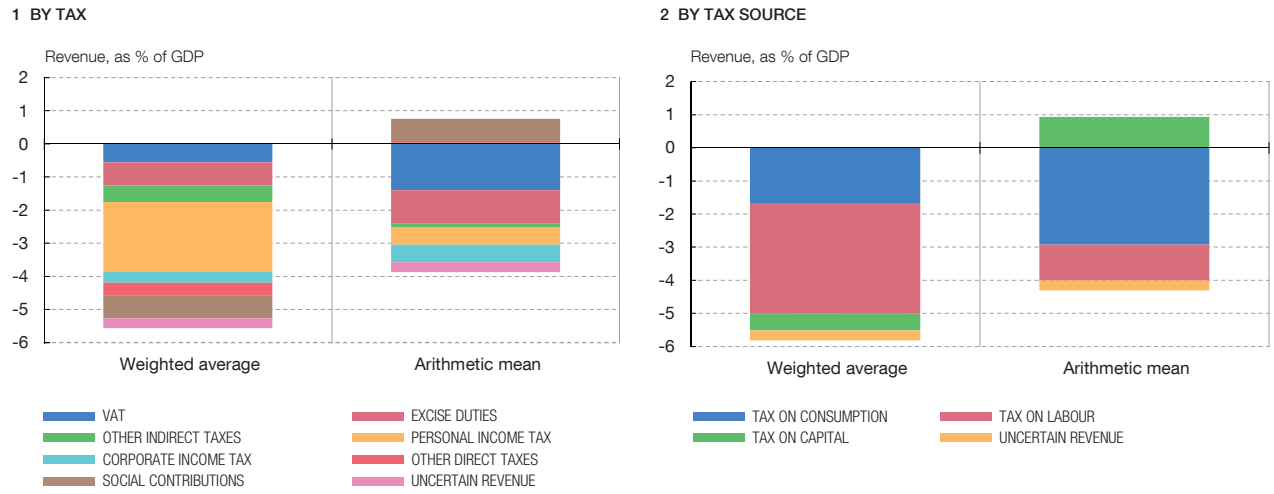


SOURCES: OECD (2017a) and Eurostat (2017).

a Arithmetic means calculated for OECD and EU15.

The lower relative weight of indirect taxes in Spain largely explains its lower tax burden in terms of GDP compared with the EU28 (see Chart 6). Specifically, 75% of the difference in Spain's tax revenue in 2016 with average takings in the EU28 (3.1 pp of GDP) is due to lower VAT revenue (1.4 pp of GDP lower) and to excise duties and other taxes on consumption (1 pp of GDP lower). Lower direct tax revenue contributes, of the order of 1 pp of GDP, to Spain's lower tax

TAX STRUCTURE, DIFFERENCES BETWEEN SPAIN AND EU28 AVERAGE IN 2016 CHART 6



SOURCE: Eurostat (2017).

burden in relation to the EU28 average. This lower relative tax burden in respect of direct taxes in the Spanish tax system is due to the lower revenue both from personal income tax and from corporate income tax (0.5 pp of GDP in both cases). Additionally, the reduction in tax revenue attributable to the adjustment for uncertain tax collection[14] widens Spain's differential by 0.3 pp of GDP. These differences are mitigated by the greater relative weight of social contributions in Spain, by 0.7 pp of GDP, compared with the EU28 average.

Comparison of the contribution of the main taxes in terms of Spain's GDP in relation to the weighted average of the EU28 shows the greater significance of direct taxes in the tax burden differential (5.6 pp of GDP in 2016). In particular, around 50% of the difference is due to direct taxes (2.8 pp of GDP, while one-third is attributable to indirect taxes (1.8 pp of GDP). The rest of Spain's lower tax burden is due to social contributions (0.7 pp of GDP) and the adjustment for uncertain tax collection (0.3 pp of GDP).

Over the long term, the contributions of direct taxes and social contributions are the main factors behind the increase (by 12 pp of GDP) in the EU tax burden from 1965 to 2000 (see in Chart 5 the changes in the tax burden for the EU aggregate available since 1965, that of the EU15). This increase in the tax burden is distributed among social contributions, with an increase of close to 4.4 pp of GDP, direct taxes on individuals (3.5 pp of GDP), indirect taxes (1.4 pp of GDP) and direct taxes on companies (1.9 pp of GDP). Of note in terms of relative composition is the increase in the weight of social contributions and of direct taxes on companies at the expense of indirect taxes, with a loss in relative weight of close to 10 pp. Since

14 The adjustment for uncertain tax collection deducts those amounts not filed with the tax authority the obtaining of which is considered unlikely from the tax revenue accrued by taxpayers over a tax year. Estimates of the amount of uncollected taxes whose future receipt is doubtful are made drawing on the historical information between tax revenue accrued and that finally paid in. In Spain, the amount of the adjustment for uncertain tax collection was particularly high during the economic crisis, rising to 0.7% of GDP on average in the 2008-2013 period.

the turn of the new millennium, the notable persistence of the EU15 tax burden in terms of GDP has coincided with a markedly stable tax structure.

In Spain's case the relative contribution of the tax structure to the tax burden has followed the EU trend, albeit with sharper growth profiles. Contributing to the increase by almost 20 pp of GDP in the tax burden from 1965 to 2000 were social contributions (7.5 pp of GDP), particularly in the 1980s. The rest can be distributed among direct taxes on individuals (4.3 pp of GDP), indirect taxes on companies (1.7 pp of GDP) and taxes on property (1.2 pp of GDP). The growth of tax revenue observed in Spain over the last phase of the expansion in the 2000s is largely due to the increase in revenue arising from direct taxes on companies and to the increase in taxes on property. Finally, the decline in tax revenue during the crisis was concentrated in indirect taxes and in direct taxes on companies.

We conduct an alternative analysis of the relative contribution of the tax structure to the aggregate tax burden using the classification of revenue by source of taxable income, separating sources on the basis of the taxation of labour,[15] capital[16] and consumption.[17] This classification shows (see Charts 7 and 8) how the taxation of labour income is the main source of tax revenue in the EU28. In 2016 it accounted for 46.3% of revenue, compared with 34.5% obtained from the taxation of consumption and 19.2% from the taxation of capital. These relative contributions to aggregate tax revenue in the EU28 as a whole have held stable throughout the past decade.

The relative contributions of revenue by taxation source in Spain reveal differences with the EU28 as a whole. In particular, the Spanish tax system in 2016 contributed less in terms of the taxation of consumption (28.2% of tax revenue, 5.6 pp below the EU28 average), this being offset by a greater contribution of the taxation of capital (23.7%, 4.6 pp above the EU28 average) and of labour (48.1%, 1.1 pp up on the EU28 average).

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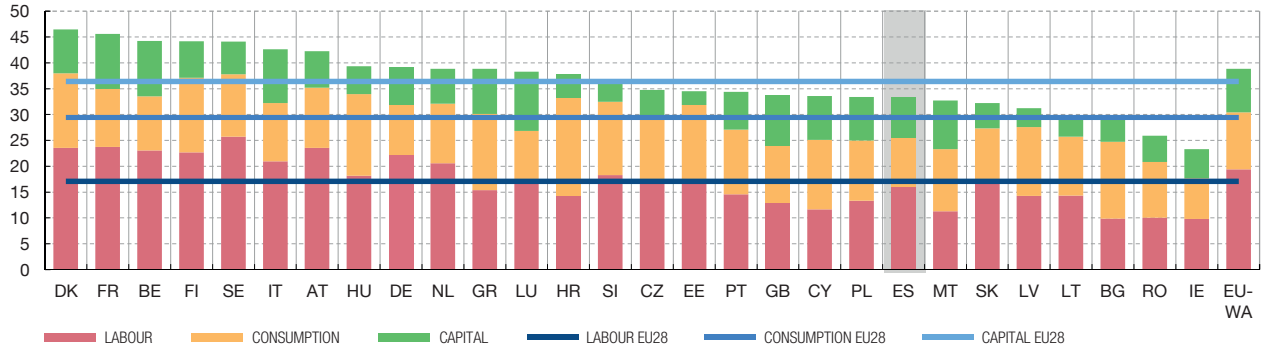
15 The taxation of labour includes actual obligatory social contributions levied on employers and employees (D.611C + D.613CE), total wage bill and payroll taxes (D.29C), and the portion of personal income tax that is related to earned income (D.51A + D.51C1) but which also includes other sources of income associated with non-employed labour, such as pension or unemployment income. It should be borne in mind that the taxation of personal income and self-employed contributions are included as taxes not on work, but on capital.

16 There are two groups of capital taxes. First, taxes on capital and business income, which include the portion of personal taxation of dividends, interest and profits, along with self-employed income (portion of D.51A + D.51C1), social contributions paid by self-employed persons (portion of D.613CS), 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 unoccupied dwellings), 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 tax on the property of non-resident institutions, 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 road tax), 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).

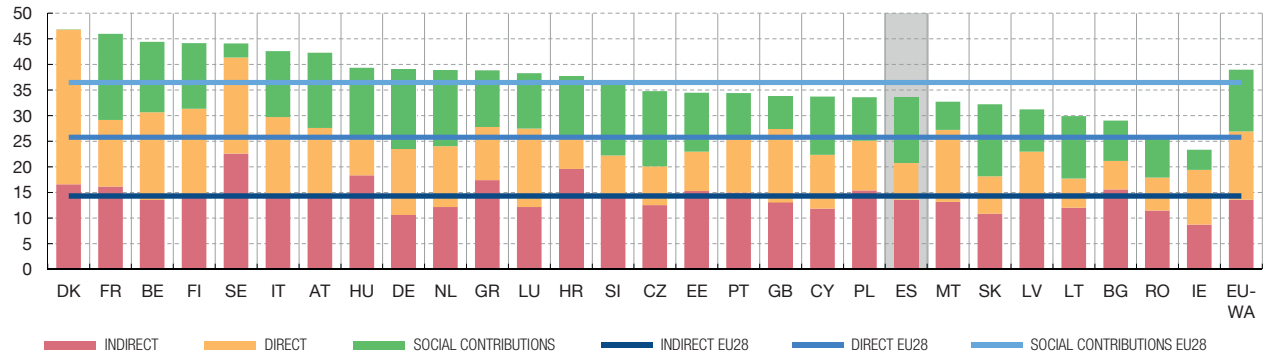
17 Taxes on consumption include value added type taxes (D.211; in the case of Spain VAT and IGIC, the Canary Islands general indirect tax), taxes and duties on imports excluding VAT (D.212), taxes on products, except VAT and import taxes (D.214: in the case of Spain these include a large number of taxes 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.

TAX STRUCTURE IN EU COUNTRIES IN 2016 (a) CHART 7

1 FUNCTIONAL TAX CLASSIFICATION: REVENUE, AS % OF GDP



2 CLASSIFICATION BY TAX TYPE: REVENUE, AS % OF GDP



SOURCE: Eurostat (2017).

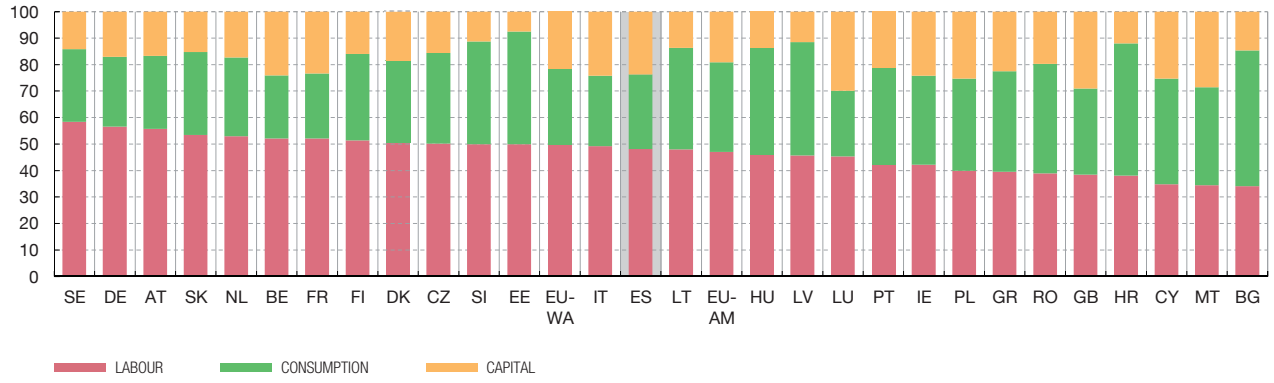
a The horizontal lines denote the arithmetic means of the tax structure in the EU28. The EU-WA aggregate denotes the weighted average of the EU28 economies.

The lower relative contribution of tax on consumption in Spain is also reflected in the tax burden difference with the EU28 in terms of revenue raised as a percentage of GDP. Specifically, Spain is among the EU28 economies where tax revenue raised on consumption in 2016 was lowest (9.4% of GDP), exceeded only by Ireland (7.8% of GDP). Although the tax burden on consumption in Spain has picked up from the lower levels recorded during the crisis (7.6% of GDP on average in the 2008-2012 period), the current levels stand at pre-crisis tax revenue/GDP levels. As a result, in relation to the EU28 average, Spain persistently evidences lower taxes on consumption, with this being the main component (2.9 pp of GDP in 2016) of the tax burden difference with the EU28 (3.1 pp of GDP in 2016).

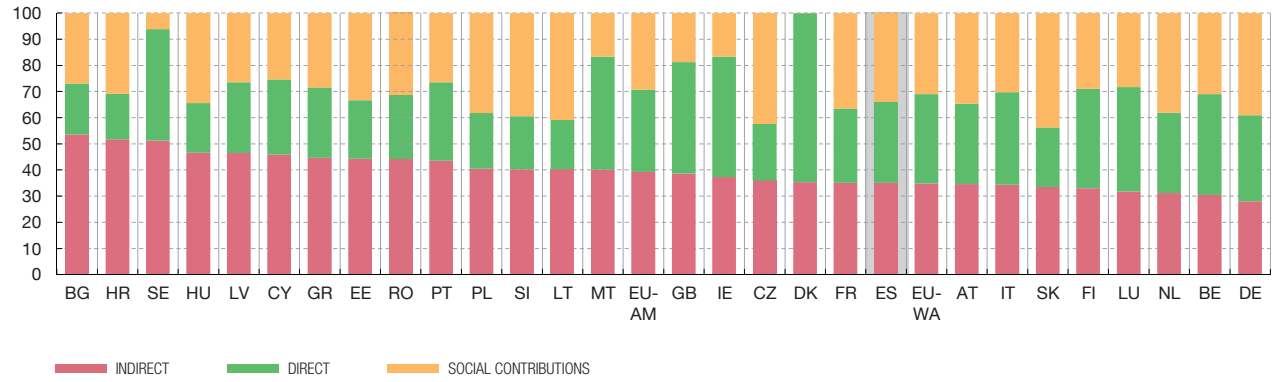
In 2016, the taxation of labour income in Spain contributed 1.1 pp of GDP to the tax burden difference with the EU28. This spread can be explained by the lower taxation of the labour income of employees and non-employed taxpayers, which respectively stood at 2.3 pp and 0.2 pp of GDP below the EU28 average. The gap with the EU28 average was mitigated by greater tax on labour income borne by companies (1.4 pp of GDP in 2016). The difference in respect of revenue raised by the taxation of labour income in Spain is even greater compared with the weighted average of the EU28 (3.3 pp of GDP in 2016), showing a lower tax burden,

TAX STRUCTURE IN EU COUNTRIES IN 2016 (a) CHART 8

1 FUNCTIONAL TAX CLASSIFICATION: REVENUE, AS % OF TAX REVENUE



2 CLASSIFICATION BY TAX TYPE: REVENUE, AS % OF TAX REVENUE



SOURCE: Eurostat (2017).

a The EU-AM aggregate denotes the arithmetic mean of the EU28 economies and the EU-WA aggregate the weighted average of the EU28 economies.

derived from the taxation of labour income in Spain in relation to the major EU28 economies. For example, in 2016 revenue relating to the taxation of labour income accounted for 16% of GDP in Spain, 7.7 pp of GDP below the revenue raised in France, 6 pp of GDP below that in Germany and 5 pp of GDP below that in Italy.

Finally, the taxation of capital is higher in Spain than for the EU28 average (7.9% of GDP and 7% of GDP, respectively, in 2016), narrowing the tax burden gap with the EU28 by 0.9 pp of GDP. This greater relative contribution of revenue as a proportion of GDP of the taxation of capital in Spain matches the amount observed for the 2008-2016 period on average, although it stands below the higher tax burden on capital recorded in Spain during the latter phase of the intense real estate cycle from 2004 to 2007 (3.3 pp of GDP up on the EU28 average).

A complementary analysis of the tax burden on the main sources of taxable income is conducted on the basis of the implicit rates on labour, consumption and capital. These rates are

obtained from the ratio of the tax revenue raised on these three categories to their potential tax base, with this base proxied by the macroeconomic variables available in the National Accounts published by Eurostat.[18] The comparative analysis of these implicit rates between Spain and the EU28 (see Chart 9) shows the persistence of significant divergences in the effective tax burden on the main sources of income.

Specifically, over the past two decades, Spanish taxation of labour and consumption has been lower relative both to the EU28 average and to its weighted average, this being largely reflected in taxation by the major EU28 economies (Germany, France, Italy and the United Kingdom). The main difference in effective taxation between Spain and the EU28 average is in tax on consumption, with effective rates in 2016 in Spain standing 6.7 pp below the EU28 average (15.8% compared with 22.5%). Though this consumption tax gap has narrowed from its 2009 peak of 9.6 pp, the difference in implicit rates in 2016 is equivalent to that recorded in the 2000-2007 period, despite the nominal rate rises in the taxes on consumption introduced during the recent fiscal consolidation process. Effective tax on the labour factor is also lower in Spain relative to the EU28, with an implicit rates differential in 2016 of 3.4 pp (30.9% against 34.3%). This difference is greater in relation to the EU28 weighted average (5.2 pp in 2016), persisting over time and reflecting significant differences in the tax burden on labour income between Spain and the main EU28 economies. The differences in the effective taxation on consumption and labour in Spain relative to the EU28 are partly offset by higher taxation of capital, which is in line with that observed for the EU28 weighted average. Specifically, the implicit rates on capital in Spain stood in 2015 (the latest available year in Eurostat) 5.4 pp above the EU28 average (30.3% as opposed to 24.9%). Analysis of these implicit rates identifies tax on capital as the main component of the sources of income that explains the temporary reduction in the tax burden differential between Spain and the EU28 over the 2003-2007 period. Effective tax on capital in Spain is at very high levels compared with the EU28. This reflects exceptional revenue from both corporate income tax and from taxes linked to asset transfers and, in particular, to real estate transactions. The notable capital gains associated with sales of assets subject to tax have not been fully reflected in the macroeconomic approximation of the capital tax base, which accounts for the strong increase in the implicit rate on capital in Spain during this period (see sections 6 and 7 for a more detailed discussion of the growth of tax on capital over the 2003-2007 period).

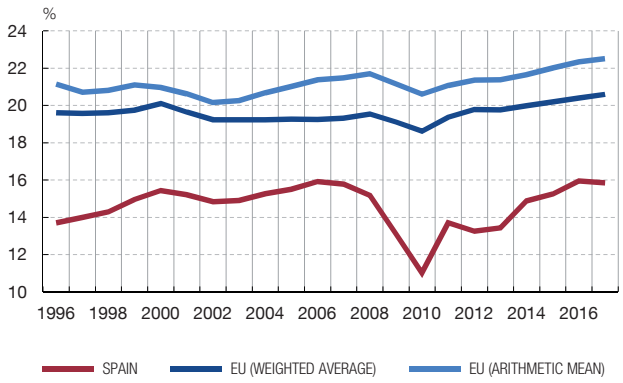
In addition, the analysis of Spain's tax burden difference relative to the EU28 average highlights two categories of taxes where contributions in terms of GDP are running in a contrary direction to the EU. First, Spain is of note for the persistence of lower revenue raised from

18 See the methodological discussion on implicit rates on labour, consumption and capital included in the Part F of the Eurostat (2017) methodological annex. These measures proxy the effective direct and indirect taxation of the main tax bases and activities that may potentially be subject to taxation. However, regard must be had to the limitations of these measures. An accurate analysis of the effective tax burden on sources of income would require the inclusion of an analysis of the incidence of taxes in a general equilibrium analytical framework.

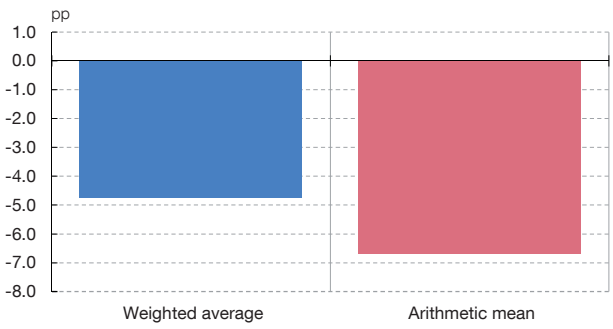
IMPLICIT TAX RATES IN SPAIN AND THE EU (1995-2016) (a)

CHART 9

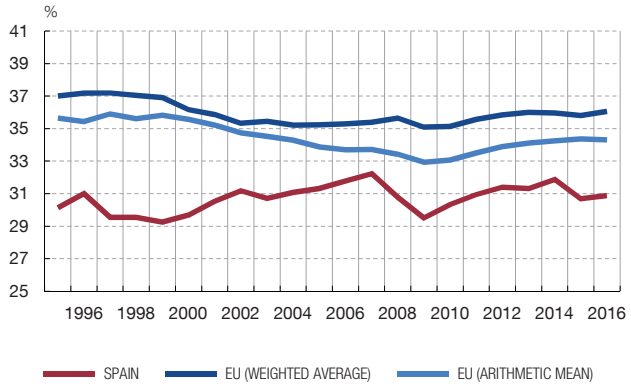
1 TAX ON CONSUMPTION



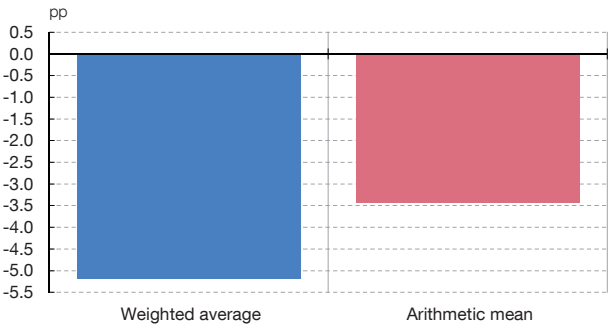
2 IMPLICIT TAX RATES ON CONSUMPTION, SPAIN-EU GAP (2016)



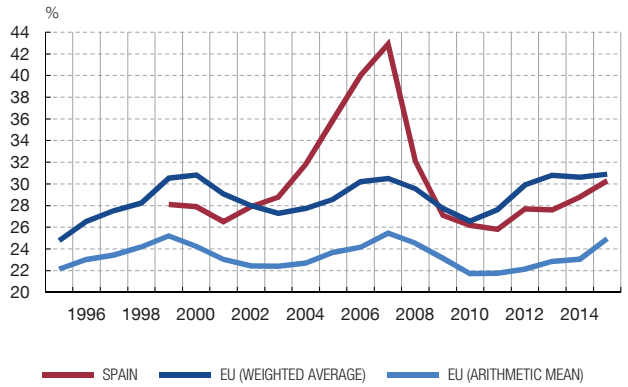
3 TAX ON LABOUR



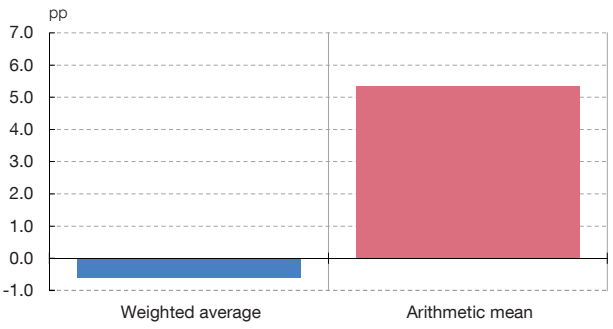
4 IMPLICIT TAX RATES ON LABOUR, SPAIN-EU GAP (2016)



5 TAX ON CAPITAL



6 IMPLICIT TAX RATES ON CAPITAL, SPAIN-EU GAP (2015) (b)



SOURCE: Eurostat (2017).

a The implicit tax rates on labour, consumption and capital are obtained from the ratio of tax revenue raised from these three functional categories divided by their potential tax base. This base is proxied drawing on macroeconomic variables available in the National Accounts published by Eurostat. These measures proxy effective direct and indirect taxation on the main tax bases and potentially taxable activities. The average implicit tax rates for the EU exclude Croatia as there is no historic data available for this economy.

b The last year for which the implicit tax rate on capital is available. The EU averages exclude Malta and Luxembourg.

environmental taxes (see section 5),[19] around 1 pp of GDP below the EU28 average. This is due both to the lower tax burden on energy and on transport. Contrary to this, tax on property (see section 7)[20] raises 1.1 pp of GDP more than the EU28 average, owing to greater taxation of transactions (0.8 pp of GDP) and, more recently, following the recent rises in taxes on property ownership, of tax on immovable property (0.3 pp of GDP).

19 These taxes include three groups. First, taxes on energy that have a bearing on the environment, which in Spain's case include the tax on hydrocarbons, the tax on electricity, the tax on fuel oils, the tax on retail sales of specific hydrocarbons, the charges applied by the Comisión Nacional de la Energía (National Energy Commission), the surcharge under the Saving and Energy Efficiency Plan, the levy on petrol and the tax on the production and transport of energy. Second, taxes on transport, which in Spain's case include the excise duty on specific means of transport, road tax and the motor ordinance test (MOT) charge. Finally, the taxes on pollution and the use of natural resources, which in Spain include the taxes and charges on waste disposal, the charge on the use of hydrocarbons, the charge for mine surfaces, the taxes and charges on gas emissions and atmospheric 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 licenses.

20 There are two groups of property taxes. First, recurrent taxes on property which cover some current taxes on capital (D59A; 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 (D59A; 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

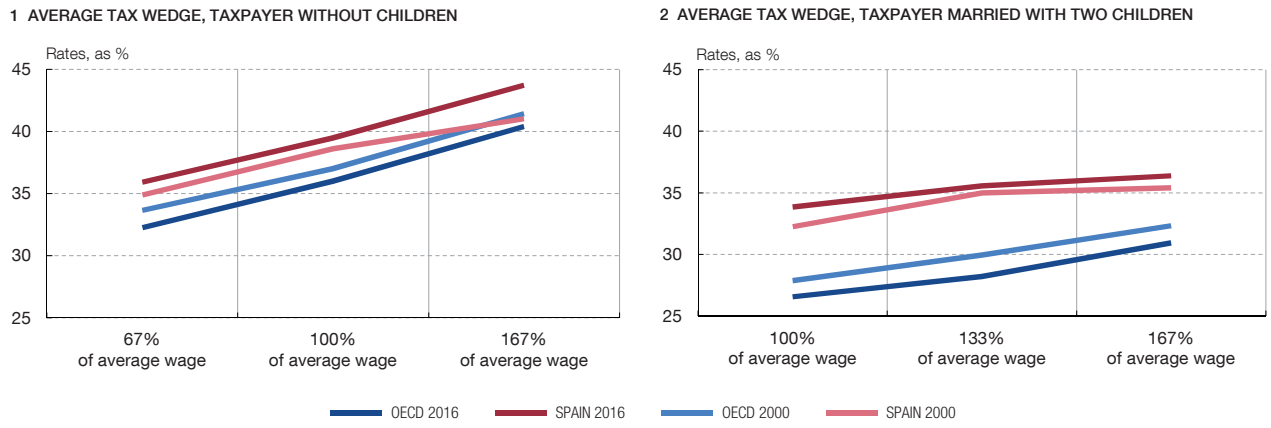
The taxation of labour is the main source of tax revenue for the EU economies. In 2016 it accounted for 17.1% of GDP on average in the EU28 (19.3% of GDP in terms of the weighted average), exceeding 46.3% of total revenue. In Spain's case, this type of taxation provides lower revenue in terms of GDP (16%), representing 48.1% of its tax revenue. Taking a broader timespan, the relative contribution of taxes on labour to overall tax revenue has held overall at 46% for the EU28 average (50% in terms of the weighted average), acting as the mainstay of financing for public spending. In the case of Spain, this relative contribution of taxes on labour to overall tax revenue peaked during the economic crisis that broke in 2008 (54.8% of tax revenue in 2009), with their relative weight gradually falling during the recovery to 48% of revenue in 2016. This contribution is in an intermediate position considering all the EU28 economies.

The implicit rates of tax on labour stood at 34.3% for the EU28 on average in 2016 (36.1% in terms of the weighted average), with observable stability over the past decade in the effective tax burden on labour income in the EU28 as a whole of around 34%. However, these averages mask significant cross-country differences, both in the levels of implicit rates and in their recent trends. Specifically, notable increases have been observed in the taxation of labour income in Portugal, Ireland, Luxembourg, Greece, France and the Netherlands, while implicit rates have fallen significantly in the past decade in Bulgaria, Sweden, Lithuania and Latvia. Further, there is a notable disparity in the levels of implicit rates on labour in the EU, with a figure of over 40% in Italy, France, Austria, Sweden, Finland and Belgium, in contrast to rates of close to 25% in the United Kingdom, Bulgaria, Cyprus and Malta. Spain had an implicit rate on labour of 30.9% in 2016, 3.5 pp below the EU28 average and in line with the rate observed since 1995.

The combined impact on the labour factor of social contributions and of personal income tax can be measured more appropriately in terms of what is known as the "average tax wedge". This measure is obtained as the ratio between the sum of taxes on personal income derived from labour income and social contributions, on one hand, and the average gross wage of full-time employees in the private sector, on the other. The tax wedge thus measured is, in Spain, above the OECD average for all income brackets and types of individuals in accordance with their parental/marital status (e.g. see Chart 10 for the most representative cases of unmarried without children and married with two children), albeit lower than the EU28 average.[21] For instance, in the case of an unmarried individual without children who earns the average wage for the economy, the labour tax wedge in 2016 stood in Spain at 39.5%, compared with 36% in the OECD. The effect of the tax benefits associated with parental/marital status gives rise to a lower tax wedge for a married taxpayer and with two children (33.8% in Spain, which continues to be higher than the figure of 26.6% on average in the OECD). A tendency for the tax wedge in Spain to increase can be observed in the 2000-2016 period, while there was a decline in the OECD. Nonetheless, in Spain there has since 2012 (see Hernández de Cos and López-

21 For this analysis, the information source used is the OECD's *Taxing Wages* database, given that there is no comparable information for the EU28 countries.

AVERAGE TAX WEDGE ON LABOUR INCOME IN SPAIN AND THE OECD IN 2016 (a) CHART 10



SOURCE: OECD (2017b).

a The average tax wedge on labour income for each taxpayer group is obtained as the ratio of the sum of personal income tax on labour income plus employee and employer social contributions, on the one hand, to the gross average wage of full-time private sector employees, on the other.

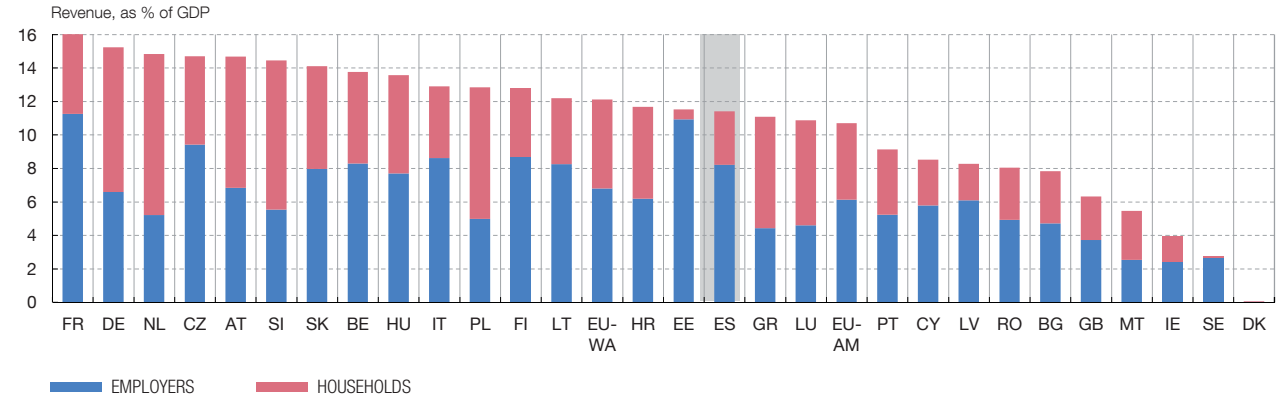
Rodríguez (2014)) been a reduction in the labour wedge for a taxpayer earning the average wage of 1.5 pp if the taxpayer has no children and of 3.2 pp for a taxpayer with two children.

3.1 Social contributions

Social contributions are the main component of taxes on labour in the EU28, accounting for 10.7% of GDP in 2016 for the EU28 economies as a whole (12.1% for the weighted average) and 29.6% of their tax revenue (31.2% in terms of the EU28 weighted average). Despite their generalised relevance, revenue across the EU countries is notably heterogeneous. Of note in particular are the high levels of revenue relative to GDP in France (16.8%) and in a group of economies with revenue around 15% of GDP (Germany, Austria, the Netherlands and the Czech Republic). This is in contrast to the very low levels of Denmark (0.1%), Sweden (2.7%), Ireland (3.9%), Malta (5.5%) and the United Kingdom (6.3%). Spain stands above the EU28 average with a social contributions tax burden of 11.4% of GDP in 2016 (see Chart 11), accounting for 34.2% of its tax revenue. Revenue from social contributions in terms of GDP held constant in Spain – at around 12% of GDP – from 1995 until 2012, at which point they began falling, down to 0.5% of GDP in 2016. In the opposite direction, and in terms of the EU 28 averages (simple and weighted), a growing trend in the tax burden relative to GDP derived from social contributions was observed in the 2007-2016 period, resulting in an increase of around 0.5% of GDP in 2016. Finally, in terms of the relative distribution of social contributions revenue between employers and employees, Spain is among the economies with a higher relative weight of contributions paid by employers (72%, compared with 58% in the EU28) (see Chart 11).

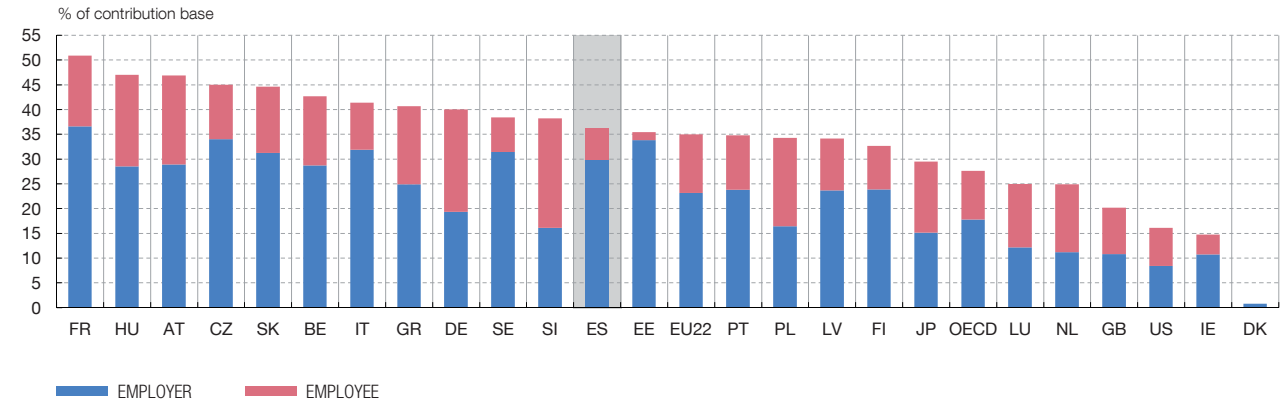
The high revenue-raising capacity of social contributions is determined by the tax rates applied to contribution bases, which are generally determined by employee wages. The legal rates of social contributions stood on average in the OECD at 27.6% in 2016, compared with

SOCIAL CONTRIBUTIONS REVENUE IN THE EU IN 2016 CHART 11



SOURCE: Eurostat (2017).

AVERAGE LEGAL RATE OF SOCIAL CONTRIBUTIONS IN THE EU AND THE OECD IN 2016 (a) CHART 12



SOURCE: OECD (2017b).

a The average rate is calculated as the ratio of social contributions to the gross wage in the market economy. The calculation considers the social contributions of individuals who make full (100%) contributions, with no consideration of their personal situation as made in certain economies. The analysis is made for the 22 EU economies that belong to the OECD, plus Japan and the United States, and the arithmetic means of the OECD and the 22 EU member countries.

36.25% in Spain and 35% on average in the 22 EU countries belonging to the OECD (see Chart 12). At the same time, it should be stressed that the effective rate of social contributions is affected by the introduction of maximum and minimum bases, which generates a redistributive effect on the taxation of labour. In Spain, both limits are in place in the contribution base for the different professional contingencies and categories of employees. In the case of the maximum base, its level was more than 1.6 times the average wage in the economy in 2016, a significantly lower level than the average ratio in the OECD economies that have maximum bases, whose ratio stood close to fourfold the average wage (see OECD (2017b)).

3.2 Taxation of personal income

In the case of the taxation of personal income, the weight of revenue relative to GDP amounted in 2016 to 9.3% and 7.8% for the weighted and arithmetical means of the EU 28 economies,

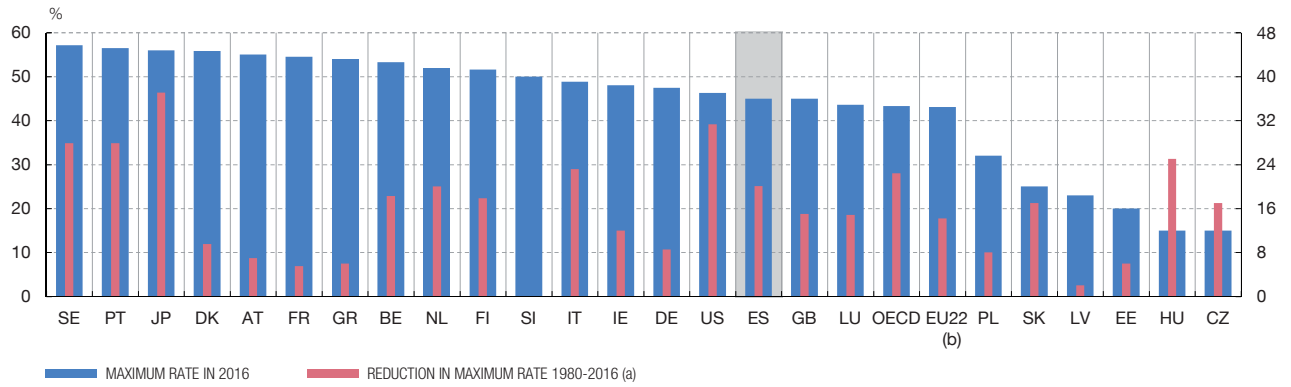
respectively, compared with 7.3% in Spain.[22] This tax rate is normally characterised by its progressivity, with marginal rates that exceed the average rates in the different income brackets. In this respect, there has been a discernible tendency to simplify the tax, which has taken the form of a generalised reduction in the number of brackets in the past three decades, moving from 14 in 1981 to 6 in 1990 in the OECD as a whole, stabilising subsequently at around 5 brackets (see OECD (2017b)). In Spain, simplification has been more intense, with the number of personal income tax brackets declining from over 30 in the 1980s to 4 brackets in 2010, although they increased again to 7 in 2012 and were then reduced again to 5 as from 2015.

The reduction in the number of brackets in personal income tax has been associated with a likewise general tendency to reduce maximum legal rates (see Chart 13). This reduction was most notable in the 1980s, with a 15 pp decline in the OECD countries on average, from 65.7% in 1981 to 50.6% in 1990. The tendency continued, albeit at a lesser pace, in the 1990s, with a reduction of 4 pp to 46.5% in 2000, and in the opening decade of the new millennium, with a decline of 5 pp to 41.7% in 2010. Europe moved on a similar path meaning that, at the outset of the recent economic crisis, the maximum average rate in the EU28 in 2008 was 38.5%, compared with 47.2% (see Eurostat (2017)). However, this declining trend in rates reversed as a result of the fiscal consolidation processes needed to correct the significant fiscal imbalances generated during the economic crisis. Specifically, maximum rates increased on average by 1.2 pp in the EU28 in the 2009-2014 period, with the rises concentrated in economies with greater fiscal consolidation needs, such as Portugal (14 pp increase, to a rate of 56.5%), Spain (9 pp and a rate of 52%), Greece (6 pp and a rate of 54%) and France (5 pp and a rate of 54.5%). The increase in the maximum personal income tax rate in Spain placed it among the EU28 economies with the highest rates, along with the Nordic countries and the Netherlands, although the 2014 reform once again lowered the maximum rate, reducing it to 45% in 2016.

The tax-raising and distributive impact of the maximum rate on labour income depends, however, on the wage level as from which this rate begins to be applied, measured, for instance, as a proportion of the average wage in the economy (see Chart 14). In the OECD on average, the maximum rate in 2016 was applied to labour income that exceeded the average wage almost fivefold, in line with the ratios observed in 2000, and thereby reversing the declining trend observed pre-crisis, with a maximum rate in 2008 that was applied on average to income levels three times greater than the average wage in the economy. Generally, this increase in the income level to which the maximum rate is applied has been due to the introduction during the crisis of special taxes on the highest incomes. Spain has moved on a similar path to that of the OECD as a whole, with an initial phase in which the level of wage income was sharply reduced. This saw the maximum rate applied to wage income fall from a ratio of 4.3 in 2000 to 2.5 in 2008. This trend reversed with the strong increase in the maximum rate introduced in 2012, placing the ratio of income to which this rate is applied relative to the

22 Personal income subject to this type of taxation mainly includes remuneration from work which, for example, in the case of Spain accounted for 80% of personal income tax revenue in 2016. However, also taxed in connection with personal income are the remuneration of the self-employed and the returns on capital and capital gains obtained by households. The tax-raising component of the capital income of households and the self-employed included in personal income tax is discussed in detail in section 6.

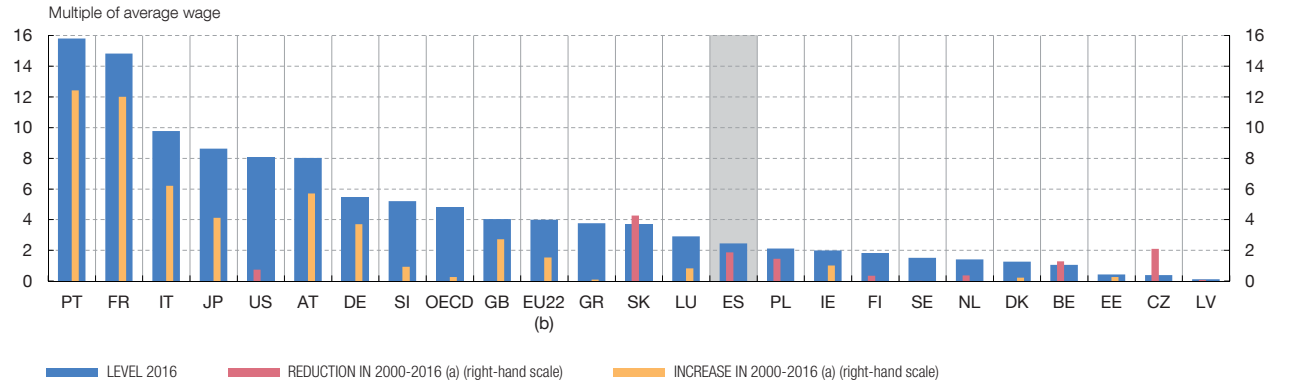
MAXIMUM RATE OF PERSONAL INCOME TAX IN THE EU AND THE OECD IN 2016 CHART 13



SOURCE: OECD (2017b).

a Right-hand axis: reduction in the maximum rate expressed as a %. The reduction in maximum rates for Poland, Hungary, Czech Republic, Slovakia, Slovenia, Latvia and Estonia refer to the period 2000-2016.
b The EU22 aggregate denotes the arithmetic mean of the 22 EU countries that belong to the OECD.

LEVEL OF WAGE INCOME TO WHICH MAXIMUM PERSONAL INCOME TAX RATE APPLIES IN THE EU AND THE OECD CHART 14



SOURCE: OECD (2017b).

a Right-hand axis: change in income level expressed in multiples of the average wage.
b The EU22 aggregate denotes the arithmetic mean of the 22 EU countries that belong to the OECD.

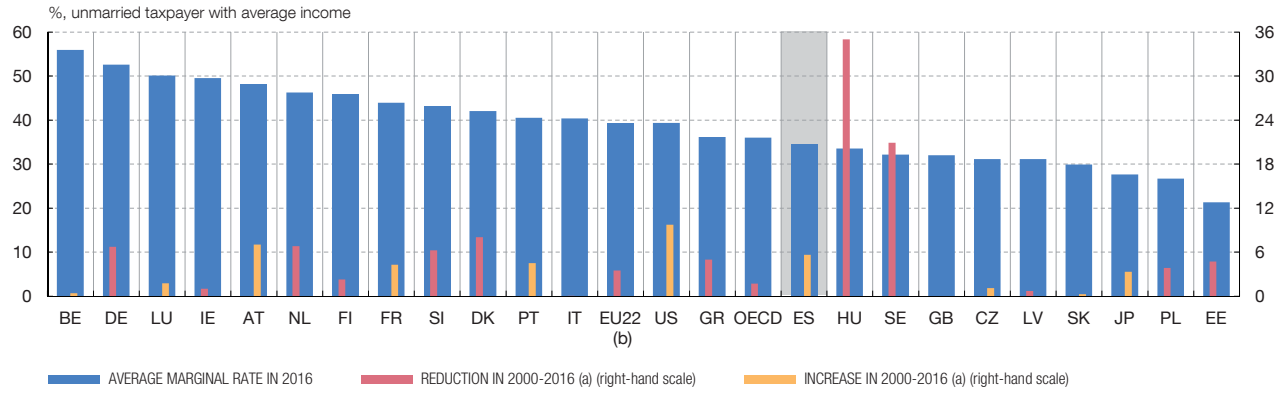
average wage at 11.7 in 2014. Conversely, the reduction in the maximum rate introduced in the 2015 personal income tax reform has once more brought this ratio back to around the figure of 2.5 recorded in 2008, below the EU22[23] average, at four times the average wage.

Broadly, it can be said that the changes in rates, the reduction in the number of brackets and the introduction of tax-exempt living-wage minimums, along with the increase in exceptions for the lowest incomes, have led to a reduction in the marginal rate that a representative employee faces in OECD countries and in the EU (see Chart 15). For example, a single taxpayer who earns the average wage in the economy, and who has no possibility of applying deductions

23 The EU22 aggregate refers to the arithmetical mean of the 22 EU countries belonging to the OECD.

MARGINAL RATE OF PERSONAL INCOME TAX

CHART 15

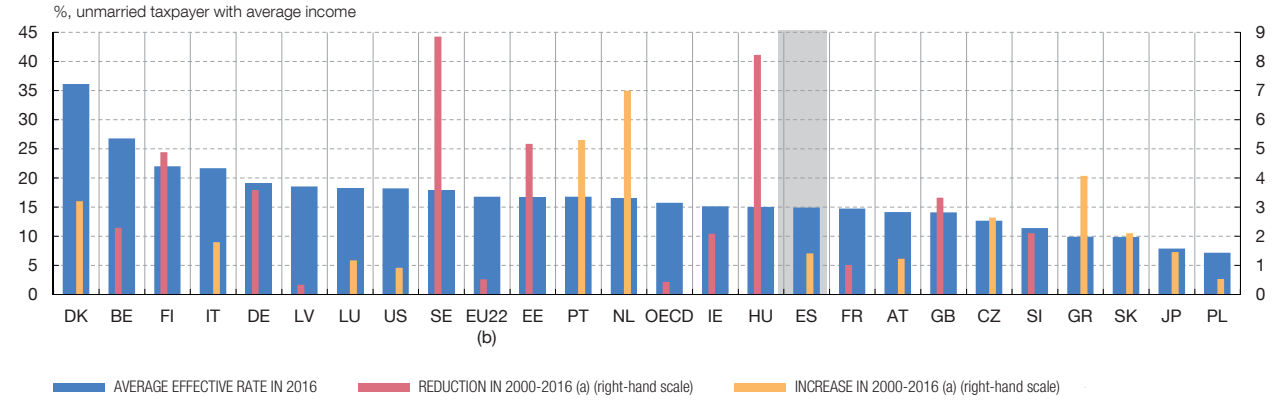


SOURCE: OECD (2017b).

a Right-hand axis: change in the marginal rate applicable to an unmarried taxpayer with average income, expressed as a %.
b The EU22 aggregate denotes the arithmetic mean of the 22 EU countries that belong to the OECD..

EFFECTIVE AVERAGE RATE OF PERSONAL INCOME TAX IN THE EU AND THE OECD

CHART 16



SOURCE: OCED (2017b).

a Right-hand axis: change in the average effective rate applicable to an unmarried taxpayer with average income, expressed as a %.
b The EU22 aggregate denotes the arithmetic mean of the 22 EU countries that belong to the OECD.

for parental-status reasons, has seen his/her marginal rate fall between 2000 and 2016 by 3.5 pp on average in the EU countries, from 42.8% to 39.4%, while on average in the OECD the reduction has been 1.7 pp, from 37.7% to 36%. In Spain, however, there has been an increase from 28.8% to 34.4% over this same period. This level of marginal rate, and the increase therein, faced by a taxpayer with average income, no children, and who files an individual tax return in Spain, is in contrast to the lower average marginal rate applied to a married taxpayer with two children and the same level of wage income; this latter rate stood at 28.8% in 2016, the same marginal rate as that faced in 2006 and 6.5 pp below the OECD average. This reflects the relative relevance that the reductions and exemptions associated with the taxpayer's personal and parental status have for the marginal rate in Spain. These circumstances reduce the marginal rate a representative taxpayer faces by close to 6 pp, compared with a reduction of 1 pp in the OECD as a whole.

The combined impact of marginal rates and of the personal income tax structure (brackets, exemptions, reductions and deductions) is reflected in the effective average rate borne by taxpayers. This effective average rate is calculated as the ratio between the income tax charge and a taxpayer's gross income. In the case of a single employee who obtains the average wage in the economy, the effective average rate in the OECD on average fell slightly, from 16.1% in 2000 to 15.7% in 2016 (see Chart 16). However, the effective average rate in Spain for an individual taxpayer with no children increased by 10.5%, from 13.5% in 2000 to 14.9% in 2016. The effective average taxation for a taxpayer in Spain with the same level of wage income, who is married and has two children, stands in 2016 at 7.6%, and at 10.1% in the OECD as a whole. The personal and parental status of the main taxpayer thus entails a reduction of 7.3 pp and 5.6 pp in effective taxation in Spain and in the OECD on average, respectively.

4 Taxes on consumption

In the European Union, taxes on consumption[24] consist essentially of value added tax (VAT), which accounts for almost two-thirds of consumption tax revenue on average in the EU28 economies. This revenue is complemented by that raised by taxes on the consumption of certain specific products; these account on average for 30% of consumption tax revenue in the EU28. Notable among these are excise duties, which are levied on specific items of consumption, such as hydrocarbons (oil and gas), alcohol and tobacco products, coal or electricity. Import taxes and duties, excluding VAT, play a residual role, accounting for 5% of consumption tax revenue in the EU28 average.

The consumption tax revenue raised in 2016 amounted to 12.3% of GDP in the EU28 (see Chart 17). Among all the EU economies, Spain has the lowest relative consumption tax burden (9.4% of GDP in 2016) with the sole exception of Ireland[25] (7.8% of GDP). Moreover, this is systematically the case over a longer time horizon (from 1995, see Chart 18). Indeed, this lower level of consumption tax revenue in terms of GDP was even maintained in the period 2004-2007 when consumption tax revenue associated with the real estate market rose sharply in Spain.[26] The onset of the crisis in 2008 coincided with a brusque drop in these tax revenues: in 2009 consumption tax revenue in Spain fell to 6.3% of GDP, the lowest level recorded since 1995 and the lowest level in the EU28 overall. This decline widened the gap with the consumption tax burden in the EU28 to a peak of 5.2 pp of GDP in 2009. The gap has since gradually narrowed, to 3 pp of GDP in 2016, largely as a result of the tax increases approved during the fiscal consolidation process in 2010-2013.[27] These measures meant that Spain was no longer

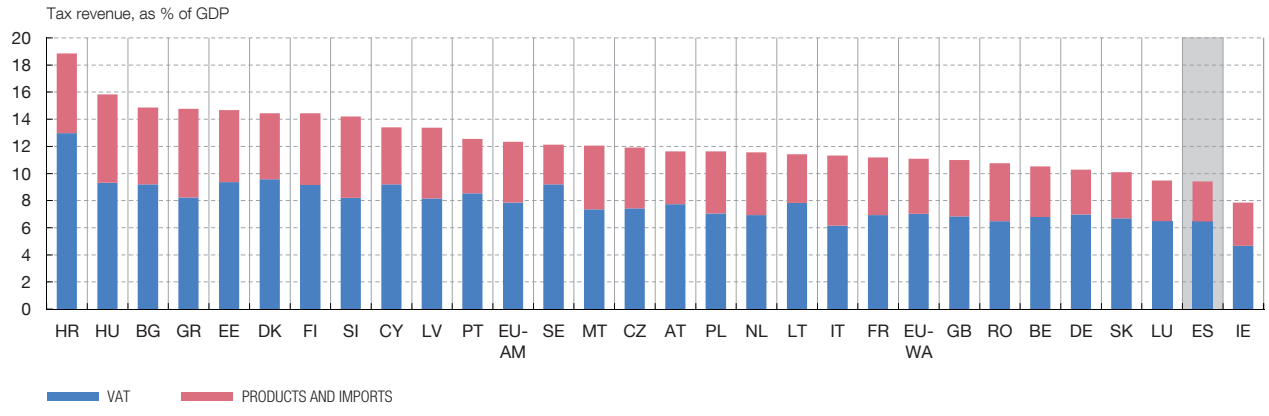
24 See footnote 17 (section 2) for a detailed description of taxes on consumption in force in Spain.

25 The share of taxation on consumption as a percentage of GDP has fallen sharply in Ireland, from around 10% of GDP in the previous decade to 7.8% of GDP in 2016.

26 For instance, VAT revenue associated with new housing purchases amounted to 0.55% of GDP in 2006, compared with 0.15% in 2017.

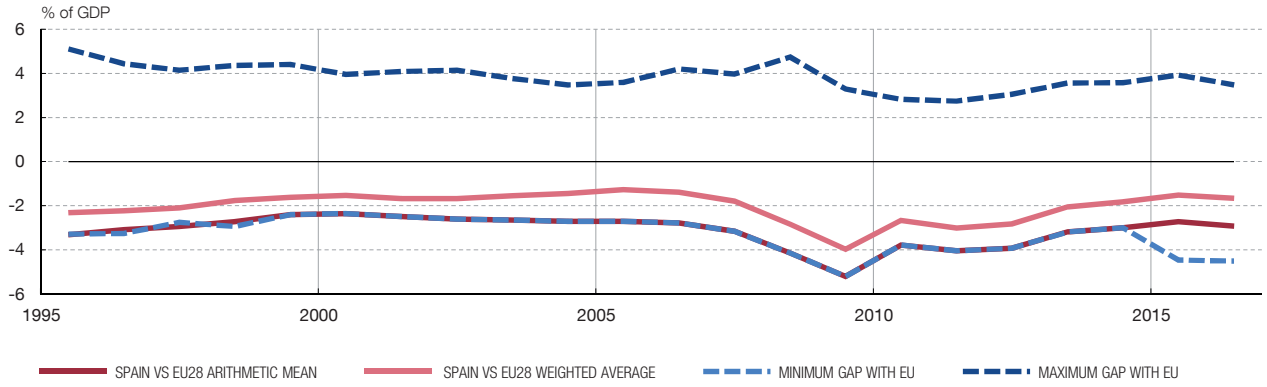
27 On AEAT estimates, the revenue impact of the higher VAT rates was 0.3 pp of GDP in 2010 and 2011, 0.2 pp in 2012 and 0.7 pp in 2013.

CONSUMPTION TAX REVENUE IN THE EU IN 2016 CHART 17



SOURCE: Eurostat (2017).

CONSUMPTION TAX BURDEN IN SPAIN AND THE EU (1995-2016) (a) CHART 18



SOURCE: Eurostat (2017).

a The difference in the tax burden in each economy compared with the EU arithmetic mean is calculated for each year in the 1995-2016 period. The chart includes for each year the minimum and maximum gap between the EU economies compared with the average tax burden in the EU.

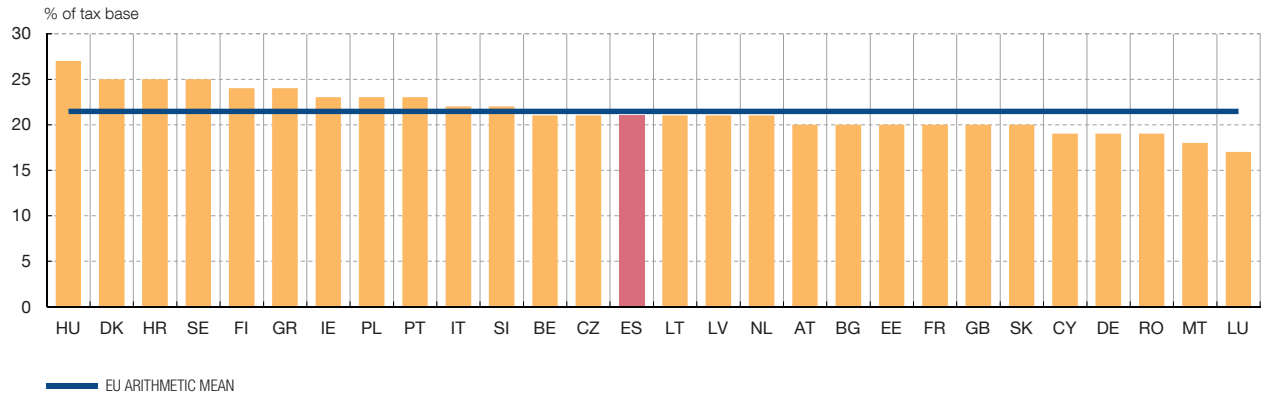
the EU28 economy with the lowest consumption tax burden in terms of the EU28 arithmetic mean (the light blue dotted line in Chart 18). However, despite these measures, consumption tax revenue in terms of GDP in Spain in 2016 is comparable to the 2004-2006 levels. Also, the difference in the consumption tax burden in Spain is equivalent in 2016 to the difference in the aggregate tax burden between Spain and the EU28 and explains one-third of the difference with the EU28 weighted average.

Analysis of implicit rates of tax on consumption (see Chart 9.1) shows how these have remained relatively stable in the EU28 over the last 20 years, rising somewhat since 2010. The average implicit rates show that 21% of the macroeconomic base that proxies consumption is liable for taxation in the EU28 average (22.5% in 2016). In this setting, Spain has the lowest implicit rate of tax on consumption in the EU28 (14.6% on average in the last two decades and 15.8% in 2016), with a sharp fall in this rate during the last economic crisis. In the strong growth phase pre-crisis, the implicit rate of tax in Spain reached 15.8% in 2006, but then fell sharply to 11% in 2009. The tax increases introduced in Spain from 2010 contributed to a partial recovery in the implicit rate of tax on consumption in the period 2010-2012, which rose to 13.4% in 2012, but which is still very distant from the EU28 average of 21.3%. In 2016, despite the tax increases, the implicit rate of tax on consumption in Spain was the same as in 2006 (see Chart 9.1).

4.1 Value Added Tax

VAT is the main tax levied on consumption in Europe, accounting for 7.8% of GDP in the EU28 average in 2016. Despite being a harmonised EU tax, the extensive regulatory powers the Member States enjoy has given rise to marked heterogeneity, both in the nominal rates applied and in the breadth of the VAT tax base (see European Commission (2018a)). In particular, the VAT tax base is affected not only by common tax exemptions across Europe but also by country-specific exemptions. Standard VAT rates in 2017 (see Chart 19) ranged from 27% in Hungary and 25% in Denmark, Sweden and Croatia to 17% in Luxembourg. In addition, EU

STANDARD RATE OF VAT IN SPAIN AND THE EU IN 2017 CHART 19



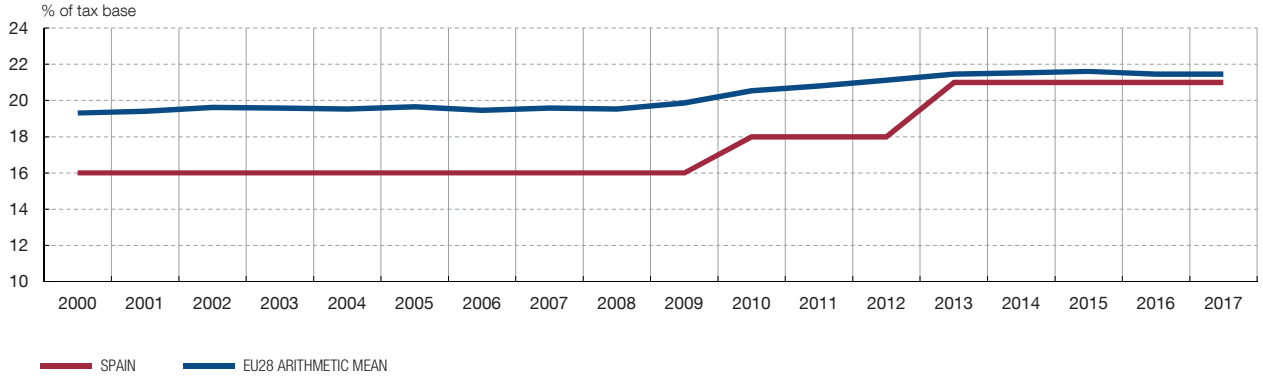
SOURCE: European Commission (2018a).

countries apply reduced and super-reduced rates, substantially below the standard rate, to a broad range of consumption basket goods. As a result of this divergence in the VAT tax base and in the tax rates applied, there are considerable differences in the revenue raised across the EU countries as a proportion of GDP. Specifically, in 2016 a wide gap was observed in the VAT tax burden, between the highest level in Croatia (13% of GDP), followed by levels over 9% of GDP in the Nordic countries (Denmark, Sweden and Finland), and the lowest level of 4.7% of GDP in Ireland, followed by countries that persistently record the lowest relative levels, such as Italy and Spain (6.1% and 6.4%, respectively, of GDP in 2016) (see Chart 17).

The fiscal consolidation processes initiated in the European Union in 2009 largely consisted of increases in nominal tax rates and broadening of the VAT tax base. These reforms were especially visible in the countries most affected by the crisis. In particular, the VAT reforms introduced in the European Union in the period 2009-2013 prioritised increases in the standard rate of tax. In consequence, after holding steady around 19.5% since 2002, the standard VAT rate in the EU28 average rose by 2 pp between 2009 and 2013, up to 21.6% currently (see Chart 20). In this setting, Spain was one of the countries with the highest relative increases in VAT rates, both in the standard rate (a rise of 5 pp, from 16% in 2009 to 21% currently) and in the reduced rates (from 7% to 10%). As a result of these measures, VAT revenue in terms of GDP in the EU28 average in 2016 was 0.6 pp of GDP higher than in 2008. The revenue increases were particularly significant in the countries most affected by the economic crisis and with greater fiscal consolidation requirements, such as Portugal, Greece or Spain. In the case of Spain, the increase in revenue in 2016 compared with 2008 was 1.4 pp of GDP, comparable to the estimated impact of the measures implemented in the period 2010-2013 (see note 27).

Despite these measures, and as indicated earlier, VAT revenue in Spain continues to represent one of the lowest levels of fiscal pressure in the European Union (6.4% of GDP in 2016). This is above the average levels observed during the economic crisis (5% of GDP), but

CHANGE IN STANDARD RATE OF VAT IN SPAIN AND THE EU (2000-2017) CHART 20



SOURCE: European Commission (2018a).

only modestly higher than those recorded in the upturn in 2000-2007 when, with lower nominal tax rates, the VAT tax burden in Spain stood at 6.1% of GDP.[28]

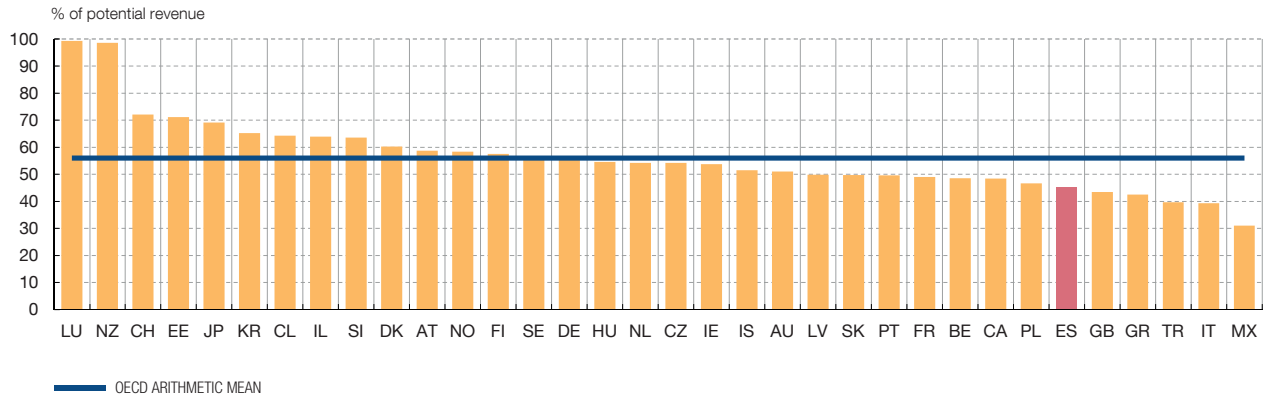
To examine the ex-ante revenue impact of the existence of goods and services that are either VAT exempt or subject to reduced VAT rates, the international institutions use the VAT Revenue Ratio (VRR) indicator. This measure is considered an indicator of VAT efficiency (see Keen (2013)) and compares actual VAT revenue with the potential revenue obtainable if the standard rate of VAT were applied to private consumption in its entirety, taking National Accounts data to estimate the theoretical VAT liability.[29] In this respect, the indicator measures the overall revenue loss associated, on the one hand, with the existence of reduced rates and exemptions and, on the other, with lower tax revenue as a result of tax planning, tax avoidance and tax evasion. It is also influenced by the structure of each country's consumption basket.

The OECD (2016) periodically calculates the VRR indicator. On average in the period 2000-2014 (see Chart 21) the data show a high degree of heterogeneity in VAT efficiency across the Member States. The VAT efficiency measure estimates that in the OECD economies on average, 56% of potential VAT revenue is obtained, considering a broad definition of the theoretical VAT liability determined by aggregate private consumption (54% for the EU15 average). Among the European economies, Spain stands out, along with Italy, Greece and the United Kingdom, for recording persistently lower VAT efficiency ratios over time (around 45% of

28 The measures approved during the crisis help explain the significant increase in the average effective rate of VAT from 11.1% in 2009 to 15.3% in 2016 (AEAT (2017)). This rate is calculated as the ratio of actual VAT revenue to the taxable amounts reported. The impact of the significant increase (40%) in the average rate of VAT on the revenue-to-GDP ratio is limited by the decline in the share of the VAT tax base in nominal GDP (7 pp of GDP lower in 2016 than in 2007). This decline is concentrated on general government expenditure subject to VAT and household expenditure on purchase of new housing, both of which with an average effective rate below household expenditure on goods and services.

29 Although the VRR serves as a proxy for potential VAT revenue, it should be borne in mind that the measure of private consumption used in the VRR as the theoretical VAT liability proxies but does not exactly match consumption subject to VAT. For example, private consumption includes services generated by home ownership (i.e. imputed income) but not the purchase of new housing which is included under investment. For a discussion of the limitations of the VRR measure and possible adjustments taking into consideration the treatment of financial services or public sector activities see, for example, Keen (2013) and OECD (2016).

VAT EFFICIENCY INDICATOR - VAT REVENUE RATIO IN THE OECD (2000-2014) (a) CHART 21



SOURCE: OECD (2016).

a The VAT Revenue Ratio (VRR) is a VAT revenue efficiency indicator. It compares the actual VAT revenue raised in an economy with the potential revenue obtainable if the standard rate of VAT were applied to private consumption in its entirety, taking National Accounts data to estimate the theoretical VAT liability. The VRR measures the overall revenue loss associated, on the one hand, with the existence of reduced rates and exemptions and, on the other, with lower tax revenue as a result of tax planning, tax avoidance and tax evasion by taxpayers.

potential revenue and 10 pp below the EU15 average). By contrast, Denmark, Slovenia, Austria, Finland and Sweden have the highest VAT efficiency ratios, with a VRR of around 60%.[30]

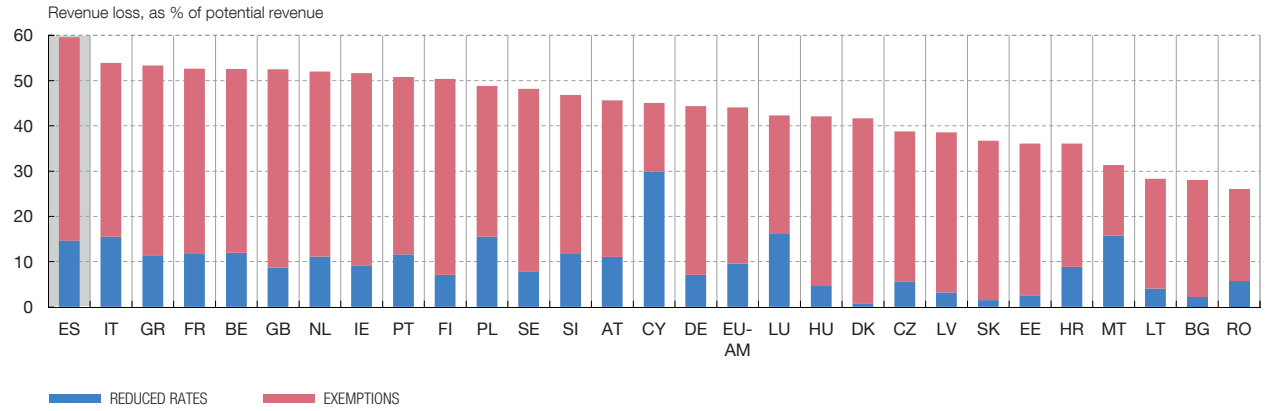
The European Commission (2017a) performs a regular quantitative analysis of the ex-ante revenue impact that the existence of reduced VAT rates and VAT exempt expenditure has in the different EU28 economies. Specifically, it estimates the policy gap, which measures the loss of potential VAT revenue explained by economic policy decisions and that may be broken down between reduced rates and exempt expenditure. The calculations for 2015 (see Chart 22) show how, in the EU28 average, the policy gap accounts for some 44% of theoretical VAT revenue in accordance with the estimates for each country based on the theoretical tax liability.[31] They also show that this gap is mainly due to the existence of exempt expenditure (34.5%) and, to a lesser extent, to reduced rates of VAT (9.5%). Among the EU28 economies Spain has the largest policy gap (59.5%), with the highest impact both of exempt expenditure (45%) and reduced rates (14.5%).

In addition, the European Commission, in accordance with the adjustment proposed by Barbone et al. (2013), provides an estimate of the feasible policy gap that would correct, in the VAT exemptions, the exempt expenditure on publicly provided goods and services, imputed property income and financial services which, although included in the theoretical VAT liability, in principle cannot be subject to VAT under EU regulations. Once this adjustment to exemptions

30 Luxembourg's high VRR ratio (close to 100) is due to the impact on revenue of e-commerce and international financial activity. In particular, revenue from expenses that are subject to VAT but not deductible stands out, as this is associated with the provision of financial services that are VAT exempt. These activities are not included in the definition of final consumption in the theoretical base of the VRR indicator but they are considered in VAT revenue. Luxembourg is an atypical example, but it illustrates the limitations of the VRR as an accurate measure of ex-ante potential VAT revenue.

31 The theoretical VAT liability is proxied by a macroeconomic base subject to VAT calculated drawing on National Accounts data on the level and breakdown of final consumption and investment of households, general government and private non-profit institutions serving households.

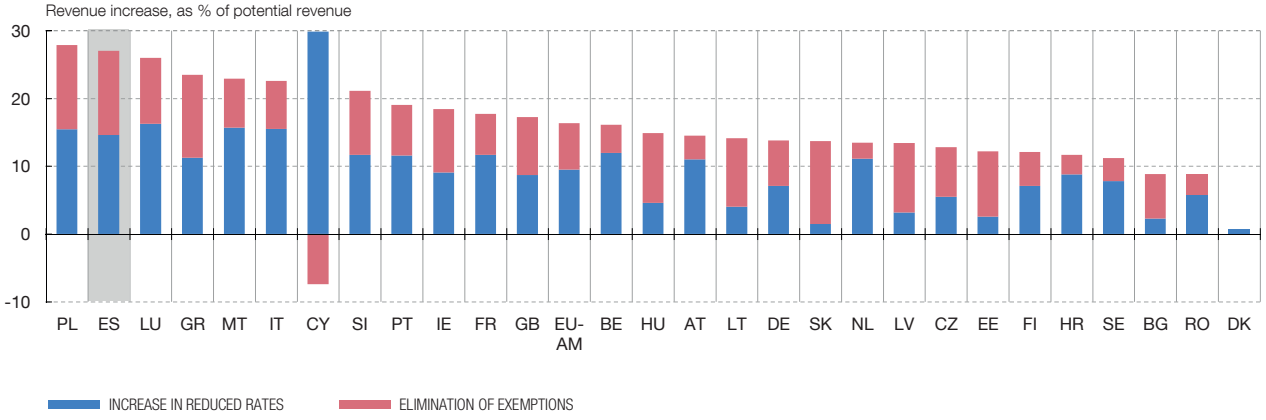
VAT POLICY GAP IN THE EU IN 2015 (a) CHART 22



SOURCE: European Commission (2017a).

a The VAT Policy Gap is an indicator that measures the loss of potential VAT revenue owing to economic policy decisions. These decisions, associated with revenue losses, may be broken down between reduced rates and VAT exempt expenditure.

POTENTIAL VAT REVENUE INCREASE IN THE EU IN 2015 (a) CHART 23



SOURCE: European Commission (2017a).

a The potential VAT revenue increase is obtained by applying the Actionable Policy Gap. This indicator excludes from discretional economic policy decisions the possibility of taxing final expenditure that is exempt under the EU VAT regulations. In particular, the theoretical VAT liability is reduced by the exempt expenditure corresponding to publicly provided goods and services, imputed property income and financial services.

is made, the policy gap in 2015 in the EU28 average (see Chart 23) narrows by 28 pp to 16.4%. In the case of Spain, the policy gap narrows by 32 pp, estimating revenue loss resulting from exemptions that may feasibly be adjusted at the domestic level of 12.4% and an aggregate policy gap of 27% of potential revenue. As the chart shows, Spain remains, along with Poland, the EU28 economy with the highest VAT revenue loss as a result of reduced rates and potentially liable exempt expenditure. In accordance with this methodology, the ex-ante potential revenue increase generated by elimination of the policy gap in Spain is estimated for the 2015 expenditure level and composition as 1.8 pp of GDP.

TAX RELIEF IN THE SPANISH TAX SYSTEM

TABLE 1

	2014 % of GDP	2015 % of GDP	2016 % of GDP	2017 % of GDP	2018 % of GDP	2018 €m
Tax relief - VAT	**3.20**	**3.40**	**3.44**	**3.26**	**3.38**	**41,028**
Exemptions	1.31	1.38	1.44	1.35	1.42	17,232
Super-reduced rate (4%)	0.53	0.58	0.58	0.51	0.53	6,460
Reduced rate (10%)	1.35	1.44	1.42	1.40	1.43	17,337
Tax relief - Excise duties	**0.19**	**0.20**	**0.20**	**0.18**	**0.19**	**2,288**
a. Duty on hydrocarbons	0.18	0.19	0.19	0.17	0.18	2,172
Exemptions	0.07	0.07	0.08	0.08	0.08	1,005
Reduced rates	0.09	0.09	0.09	0.08	0.08	977
Refunds	0.02	0.02	0.02	0.01	0.02	190
b, Duty on alcohol and tobacco products	0.01	0.01	0.01	0.01	0.01	116
Exemptions	0.01	0.01	0.01	0.01	0.01	100
Reduced rates	0.00	0.00	0.00	0.00	0.00	16
Tax relief - Personal income tax	**2.99**	**2.82**	**1.49**	**1.34**	**1.29**	**15,693**
Deductions against taxable income	2.05	1.94	0.62	0.52	0.52	6,359
Of which: salary income	*1.34*	*1.28*	*0.13*	*0.10*	*0.12*	*1,462*
Of which: joint taxation	*0.35*	*0.33*	*0.24*	*0.20*	*0.18*	*2,235*
Of which: pension scheme contributions	*0.21*	*0.19*	*0.16*	*0.13*	*0.13*	*1,542*
Tax credits	0.68	0.63	0.64	0.60	0.54	6,598
Of which: investment in principal residence	*0.34*	*0.31*	*0.22*	*0.20*	*0.17*	*2,069*
Of which: maternity	*0.15*	*0.14*	*0.14*	*0.13*	*0.13*	*1,564*
Of which: large family or disabled persons	—	—	*0.20*	*0.20*	*0.18*	*2,204*
Exemptions	0.24	0.22	0.21	0.17	0.18	2,172
Tax relief - Corporate income tax	**0.32**	**0.37**	**0.34**	**0.18**	**0.28**	**3,453**
Adjustments to tax base	0.02	0.02	0.02	0.02	0.11	1,319
Reductions in tax base	—	—	0.09	0.03	0.03	323
Of which: capitalisation reserve	—	—	0.05	0.02	0.02	242
Of which: levelling reserve	—	—	0.04	0.01	0.01	81
Reduced rates	0.12	0.14	0.10	0.03	0.05	618
Of which: 25% for SMEs	*0.05*	*0.05*	*0.02*	—	—	—
Of which: reduced rate for SME job creation	*0.04*	*0.03*	*0.02*	—	—	—
Of which: reduced rate for newly-established firms	*0.02*	*0.03*	*0.03*	*0.02*	*0.02*	*253*
Allowances	0.02	0.03	0.02	0.02	0.03	323
Tax credits	0.16	0.18	0.12	0.08	0.07	871
Of which: R&D activities	*0.02*	*0.06*	*0.06*	*0.03*	*0.02*	*224*
Of which: SME reinvestment of earnings	*0.05*	*0.05*	*0.00*	*0.00*	*0.00*	*3*

SOURCE: Memoria de Beneficios Fiscales. Presupestos Generales del Estado (2014-2018).

Alternatively, the impact on VAT revenue of the reduced rates and exemptions in place in Spain may be quantified drawing on the detailed information provided in the Notes to Tax Relief *(Memoria de Beneficios Fiscales)* accompanying the State Budget (see Table 1). According to this source, tax relief is estimated as the difference between projected revenue and that which would be obtained if all transactions potentially liable for VAT were taxed at the

standard rate (21%) rather than at the estimated actual rate (13.1% in 2018).[32] In accordance with this methodology, the estimated revenue loss for Spain in 2018 owing to the existence of reduced rates and exempt expenditure would be 3.4% of GDP, in line with the average estimate of VAT tax relief included in the State Budget since the recovery that started in 2014 up to 2017. This tax relief amounts to 50% of actual VAT revenue in that period. According to the State Budget, the breakdown of this VAT revenue loss, on average since 2014, is 1.4% of GDP due to reduced rates, 0.55% of GDP due to super-reduced rates and 1.4% of GDP as a result of exemptions.

4.2 Excise duties

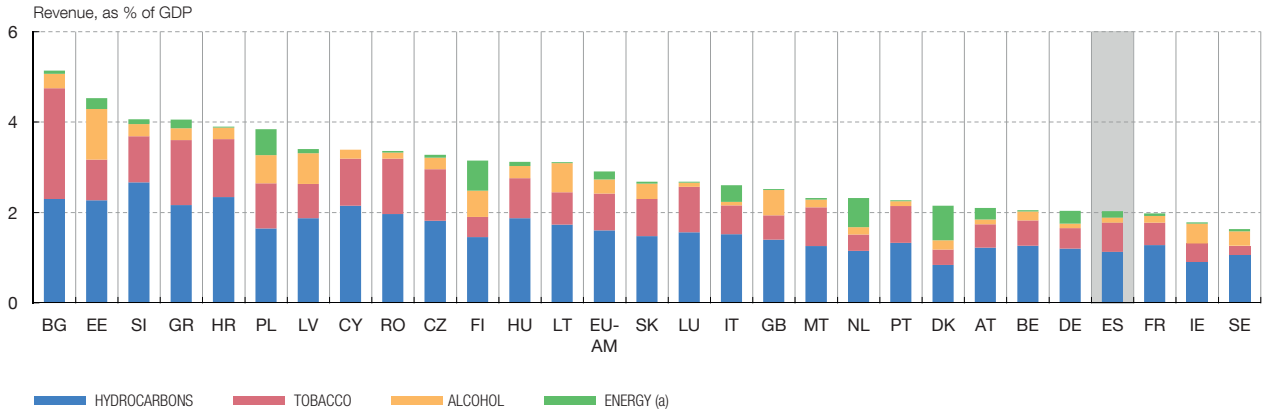
Excise duties include a wide range of levies on the consumption of specific goods such as alcohol and tobacco products, hydrocarbons (oil and gas), coal, electricity or certain modes of transport. In aggregate terms, they account for around 25% of consumption tax revenue in the EU28, albeit with significant differences across Member States (see Chart 24). Their relative share of consumption tax ranges from 15% for Sweden or Denmark to 35% for Poland or Bulgaria. These differences are explained by the extensive regulatory powers that are still enjoyed by the Member States (see European Commission (2018b)), despite the harmonisation process pursued in successive EU directives defining the structure, payments and minimum rates of these excise duties. The effect of these regulatory powers is evident in the broad range of implicit tax rates in place in the EU28 countries. In particular, in the contribution that these duties make to the aggregate implicit tax rate on consumption, which ranges between more than 10 pp on aggregate consumption in the Netherlands, Slovenia, Denmark and Hungary and 5 pp in Spain (see Eurostat (2017)).

The contribution to revenue of excise duties in the Spanish tax system has been systematically below that observed in the EU28 average, with a difference in fiscal pressure of 1 pp of GDP per annum on average in the last decade. In 2016, aggregate revenue from excise duties amounted to 2% of GDP, compared with 2.9% for the EU28 average: 43% of this difference was due to the lower effective taxation on alcohol and tobacco products and 53.5% to the lower effective taxation on hydrocarbons. Of all the excise duties, those on hydrocarbons make the largest contribution to this fiscal pressure, with revenue in 2016 amounting to 1.1% of GDP in Spain, compared with 1.6% of GDP in the EU28 average. This lower fiscal pressure in Spain is a result of the lower rates of tax on petrol and diesel/heating oil.[33] Duties on the consumption of alcohol and tobacco products come second in terms of revenue, which

32 The tax relief generated by application of reduced rates is estimated since 2017 using detailed tax information on tax expenses subject to VAT, drawn from the annual VAT summary statements filed by taxpayers in the last year available. These expenses subject to VAT are projected for the current year in accordance with the macroeconomic forecast included in the State Budget. The estimated final expenses subject to VAT are assigned to the tax rates applicable in accordance with the estimated proportion of expenses subject to each rate; specifically, for 2018, 8.25% to the super-reduced rate and 34.25% to the reduced rate. The tax relief resulting from the reduced rates of VAT is calculated as the difference between the tax estimated at those rates and the theoretical tax if the final expenses subject to VAT were taxed at the standard rate. The tax relief resulting from the VAT exemptions is calculated drawing on the macroeconomic data available. In particular, drawing on National Accounts data, both the theoretical VAT liability and the exempt expenses of households, general government and private non-profit institutions serving households are estimated. The estimated tax relief is obtained by applying the standard rate of VAT to the exempt portion of the theoretical VAT liability.

33 Taxes on hydrocarbons are discussed in more detail in the section on environmental taxes.

EXCISE DUTY REVENUE IN THE EU IN 2016 CHART 24



SOURCE: Eurostat (2017).

a Excise duties on energy do not include taxes on hydrocarbons. This figure includes, in particular, duties on electricity, coal, natural gas and other smaller items.

amounts to 1.1% of GDP in the EU28 average, compared with 0.7% of GDP in Spain. However, in the case of tobacco products, the share of excise duties as a proportion of their weighted average price is now in line with the EU28 average, following the successive increases in recent years (see European Commission (2018)). Overall, excise duties account for more than 60% of the average price, with the lower fiscal pressure being largely on account of the lower relative price of tobacco products in Spain (compared with the EU28 average) and the structure of the excise duty. Specifically, Spain is notable in that the specific component of the excise duty on tobacco products is small (around 15%) compared with the ad valorem component. Also of note is the low level of revenue raised from duties on alcohol in Spain (around 0.1% of GDP in 2016), owing to the lower rates on consumption of the various types of alcoholic beverages, ranging from spirits to intermediate products (beer and wine), with the latter permanently recording the lowest rates of duty in the EU28.

5 Environmental taxes

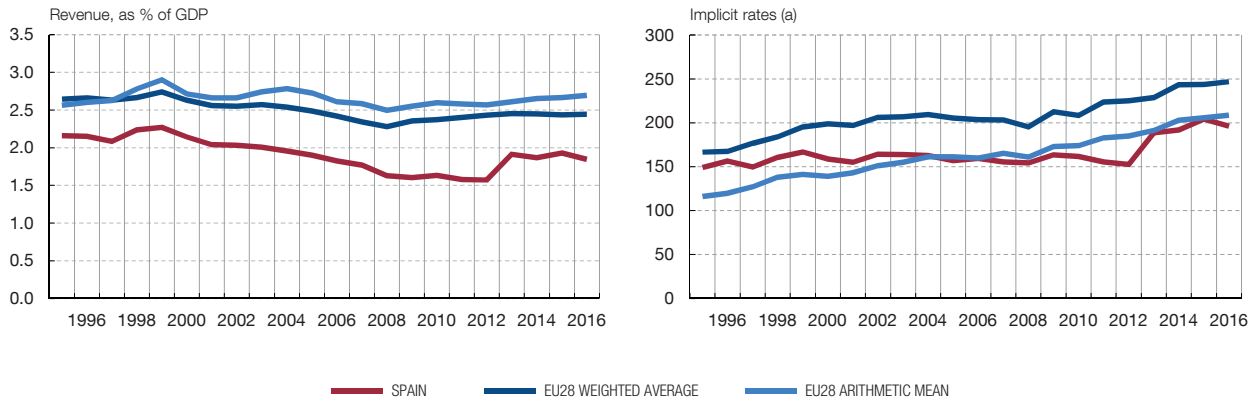
According to the Eurostat definition, environmental taxes are those whose tax base is a physical unit (or a proxy thereof) of a product or activity that has a negative impact on the environment. Accordingly, these taxes are designed to provide agents with incentives to change their behaviour, by increasing the price of products or the cost of activities that have such an adverse impact. Environmental taxes are grouped into three categories: i) energy taxes; ii) transport taxes; and iii) pollution and resource taxes.[34] They are indirect taxes levied mostly on consumption, although a small portion are levied on capital.

Since the 1990s, environmental tax revenue has become a steady source of tax revenue for the EU28 as a proportion of GDP, averaging 2.6% of GDP from 1995 to 2016 (see Chart 25). Among the taxes levied on activities or products that are considered damaging for the environment, in terms of revenue obtained energy taxes stand out, amounting to 75% of environmental tax revenue. A further 20% of the total are obtained from transport taxes and the remaining 5% from pollution and resource taxes. Among energy taxes, those levied on hydrocarbon consumption in transport provide the most tax revenue, amounting to 1.6 pp of GDP on average in the EU28 and accounting for 60% of total environmental tax revenue.

The differences in fiscal pressure across the EU28 economies are also evident in environmental tax revenue (see Chart 26), which in 2016 ranged from around 4% of GDP in Denmark, Slovenia or Greece to 1.8% of GDP in Luxembourg, Slovakia, Ireland and Spain.

34 Energy taxes include taxes on energy products used for both transport and stationary purposes. Hydrocarbons are the main component of energy products used for transport purposes; energy products used for stationary purposes include fuel, natural gas, coal and electricity. Transport taxes mainly include taxes on the ownership and use of motor vehicles. Taxes on hydrocarbons are excluded from this category as they are included under energy taxes. Pollution taxes include those on estimated polluting emissions to air and water and solid waste management. They do not include taxes on C02 emissions, as these are included under energy taxes.

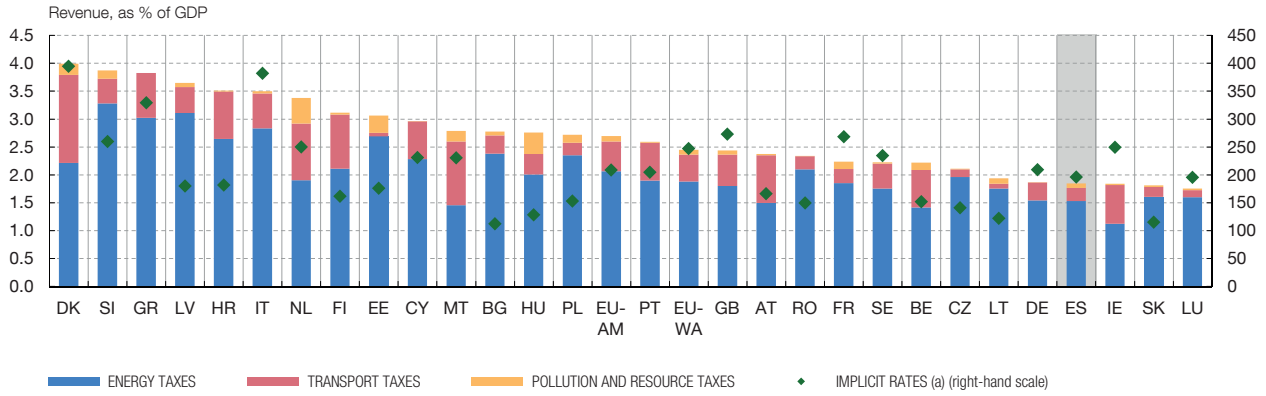
ENVIRONMENTAL TAXES IN SPAIN AND THE EU (1995-2016) CHART 25



SOURCE: Eurostat (2017).

a Implicit rates refer to taxes on energy. The implicit tax rate on energy is calculated by Eurostat as the ratio of energy tax revenue to final energy consumption, expressed in euro per tonne of oil equivalent (TOE) and reported in real terms using the final demand deflator with base year 2010.

ENVIRONMENTAL TAX REVENUE IN THE EU IN 2016 CHART 26



SOURCE: Eurostat (2017).

a Implicit rates refer to taxes on energy. The implicit tax rate on energy is calculated by Eurostat as the ratio of energy tax revenue to final energy consumption, expressed in euro per tonne of oil equivalent (TOE) and reported in real terms using the final demand deflator with base year 2010.

Spain[35] remains persistently among the EU28 economies that raise the least revenue as a percentage of GDP from environmental taxes. The difference in 2016 was 0.9 pp of GDP, a figure mitigated only by the measures[36] introduced in 2012 and 2013 which helped narrow this gap from the maximum of 1 pp of GDP averaged in the period 2009-2012. The lower revenue obtained from energy taxes accounts for 60% of this difference, and in particular the lower revenue obtained from hydrocarbon taxes. Specifically, revenue from hydrocarbon taxes in 2016 was 0.45 pp of GDP below the EU28 average and in line with the average difference observed over the last decade. In addition, 35% of the difference is due to the low weight of transport taxes in Spain (0.2% of GDP, compared with 0.5% in the EU28).

Analysis of implicit tax rates on energy[37] shows that the lower tax rates on energy consumption in Spain help explain the lower revenue obtained from these taxes compared with the average EU28 revenue (see Charts 25 and 26). Although the higher energy tax rates introduced in Spain in 2013 narrowed this gap, the data for 2016 show an implicit tax rate on energy in Spain which, in real terms, is 6% below the EU28 average rate and 20% below the weighted average.

35 See footnote 19 (section 2) for an exhaustive description of the numerous environmental taxes in force in Spain.

36 Fiscal consolidation requirements in 2012-2013 prompted the introduction in Spain of new environmental taxes, such as the tax on electricity generation (IVPEE), and higher excise taxes (natural gas, diesel, oil and coal) on energy products and products used in electricity generation.

37 The implicit tax rate on energy is calculated by Eurostat as the ratio of energy tax revenue to final energy consumption, expressed in euro per tonne of oil equivalent and reported in real terms using the final demand deflator with base year 2010.

6 Taxes on capital

Taxes on capital[38] include taxes on wealth[39] and taxes on corporate income and capital. The latter include corporate income tax and the tax levied on self-employment income (including social contributions) and on the returns on capital and capital gains obtained by households. Overall, these taxes provide tax revenue amounting to 7% of GDP in the EU28, compared with 7.9% in Spain in 2016. However, taxes on capital account for a higher share of tax revenue in the larger economies and for 8.4% of GDP in terms of the EU weighted average.

In terms of implicit tax rates, the effective rate of tax on capital in the European Union was 24.9% in 2015, and 30.9% in terms of the EU weighted average. In general, these rates have risen significantly in the EU economies since 2010, after the decline observed during the first stage of the crisis in 2008-2009. And yet there is considerable cross-country heterogeneity, owing both to the share of capital in each country's national income and to successive capital tax reforms. The difference between implicit rates in 2015 ranges from 52.7% in France and 38% in Belgium to 12.1% in the Netherlands, 12.3% in Lithuania and 12.5% in Estonia. Spain lies among the group of economies with a relatively high level of tax on capital, with an implicit rate of 30.3%, in line with the EU weighted average.[40]

6.1 Corporate income tax

Corporate income tax (CIT) is one of the main taxes on capital in the developed countries. In 2016 it accounted for around 35% of taxes on capital in the EU28 on average and for 2.8% of GDP. Developments in corporate income tax revenue are very closely tied to the impact of the economic cycle on corporate profits. This impact is observed from a broader angle in the change in average aggregate CIT revenue as a proportion of GDP in the EU28 since 1995 (see Chart 27). Specifically, corporate income tax revenue grew sharply during the upturn of the first decade of the 2000s, reaching a peak of 3.4% of GDP in 2007. It then fell abruptly during the 2009-2012 crisis (2.5% of GDP) and subsequently recovered gradually, up to 2.8% of GDP in 2016. However, over a longer time horizon, in the last two decades CIT revenue amounted to around 2.7% of GDP, both on average in the EU28 and in weighted average terms.

The cross-country heterogeneity of the corporate income tax burden among the EU28 economies is extremely high (see Chart 28),[41] largely owing to the differences between the smaller economies. Indeed, in 2016, in three of these economies CIT revenue was in excess of 4% of GDP – Luxembourg (4.6%), Cyprus (5.8%) and Malta (6.5%) – whereas in four others – Estonia, Latvia, Lithuania and Slovenia – it was around 1.5% of GDP. In 2016, CIT revenue in

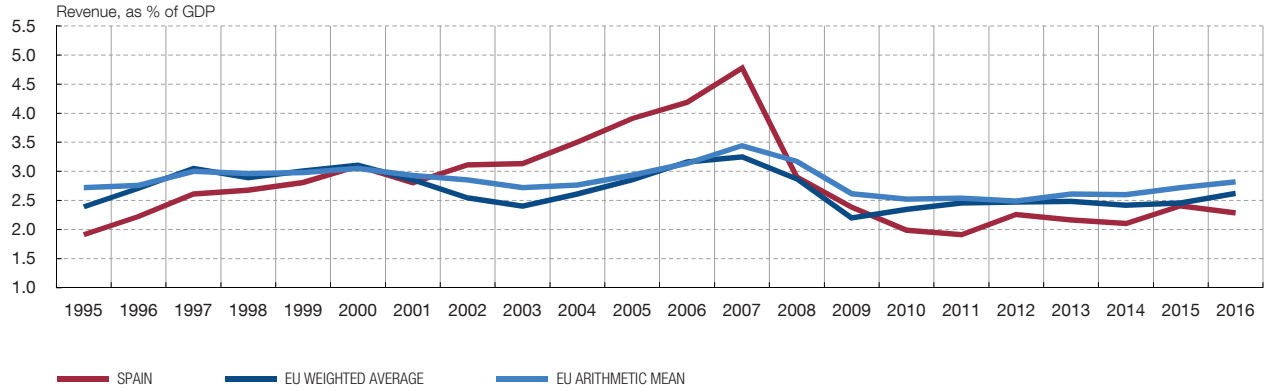
38 See footnote 16 (section 2) for a detailed description of the capital taxes in force in Spain.

39 Property taxes are the main component of taxes on wealth and are discussed in detail in section 7.

40 See section 2 for a broader conceptual discussion of implicit tax rates by source of taxation and how they have evolved in the European Union overall.

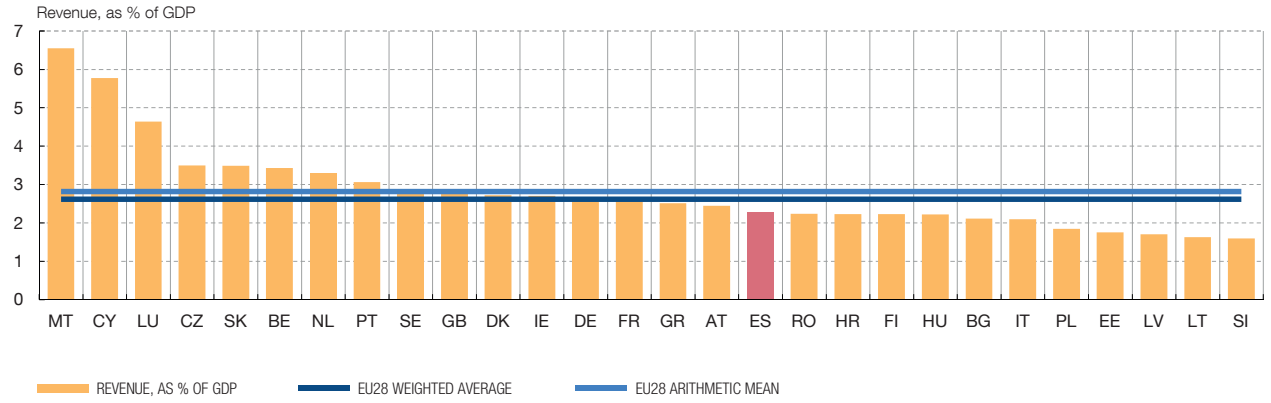
41 It should be borne in mind, however, that comparing the corporate income tax burden across countries in any given year is, in any event, highly complicated. The need for caution when making comparisons between countries is chiefly a result of the complexity of the tax per se and of the significance of corporate income tax levied on large multinationals in certain small countries, in addition to the existence of different cyclical positions and corporate profit dynamics among the EU28 economies.

CORPORATE INCOME TAX REVENUE IN SPAIN AND THE EU (1995-2016) CHART 27



SOURCE: Eurostat (2017).

CORPORATE INCOME TAX REVENUE IN THE EU IN 2016 CHART 28

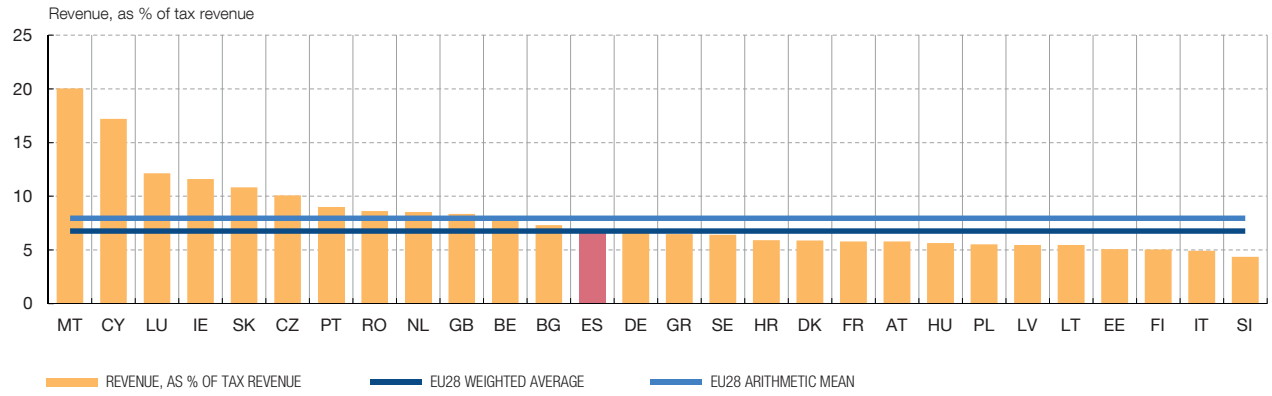


SOURCE: Eurostat (2017).

the main EU28 economies – Germany, France and the United Kingdom – was close to the EU28 average and to their respective averages over a longer time horizon, with averages around 2.5% of GDP since 1980.

Over the last two decades, Spain has seen one of the largest swings in corporate income tax revenue among the EU28 economies, and most especially among the larger ones. Specifically, CIT revenue rose significantly from 1995 (1.9% of GDP) and then accelerated during the upturn of the first decade of the 2000s (averaging more than 3% of GDP), reaching a record high of 4.8% of GDP in 2007 (see Chart 27). The economic crisis and certain legislative changes brought about a sharp fall in corporate income tax revenue in Spain of almost 3 pp of GDP, which took it back to its 1995 level (1.9% of GDP) in 2011. The measures implemented to broaden the corporate income tax bases during the process of fiscal consolidation in 2011-2013 and the subsequent recovery in corporate profits as from 2014 helped gradually restore the corporate income tax burden in Spain, up to 2.3% of GDP in 2016. This level of CIT revenue

CORPORATE INCOME TAX REVENUE IN THE EU IN 2016 CHART 29



SOURCE: Eurostat (2017).

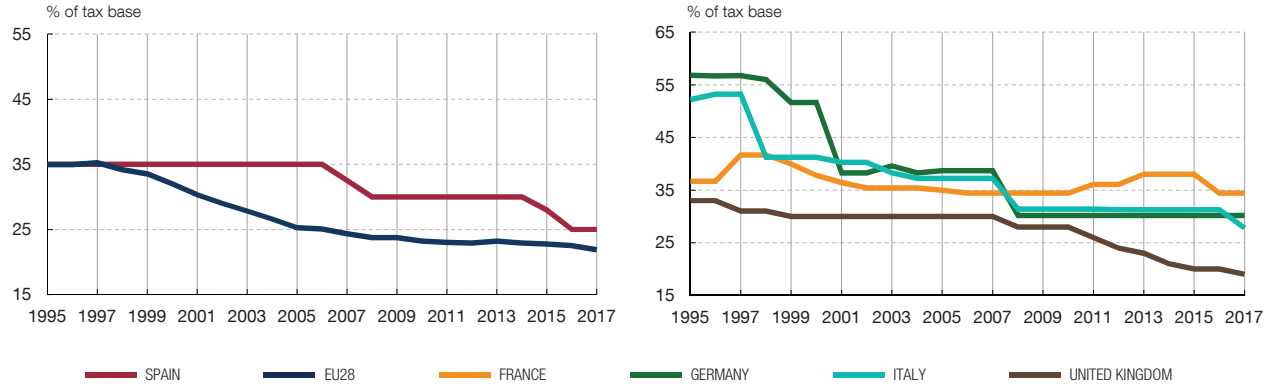
in Spain is 0.5 pp of GDP below the EU28 average and in line with the estimated annual revenue loss, averaged over the recovery years, associated with offset of the losses built up during the crisis (see AEAT, 2018a).

In terms of its share of overall tax revenue, corporate income tax makes a modest contribution both to the EU28 average and among the main EU economies (see Chart 29).[42] Specifically, in 2016 corporate income tax accounted for 7.9% of tax revenue in the EU28 on average. However, it had a relatively higher share in small economies that are home to a large proportion of international capital, such as Malta, Luxembourg, Cyprus, Ireland and Slovakia where it contributed more than 10% of tax revenue. In Spain it accounted for 6.9%, slightly above the EU28 weighted average, on a par with Germany and ahead of other large EU economies such as France or Italy. Over a longer time horizon, before the crisis the CIT contribution to aggregate tax revenue in Spain was for a decade higher than the EU28 average and on a level with that of the small EU economies, amounting to more than 10% of revenue in the period 2004-2007. One factor that illustrates the exceptional nature of a considerable portion of CIT revenue in Spain in the period (see Chart 27) is the scale of the contribution of extraordinary income to CIT revenue.[43] The high gains obtained on sales of business assets, whose value increased rapidly in the period, are largely responsible for this extraordinary income. During the real estate boom (2003-2007), Spanish firms' extraordinary income amounted to an annual average of 2.4% of GDP, with a record high of 4.4% of GDP in 2006 (AEAT, several years).

42 The smaller proportion of corporate income tax revenue in the main advanced economies has been justified by the academic consensus by the important constraints on and practical complexities of CIT (see, for example, Auerbach et al. (2010)); in particular, on account of its distorting effect on investment decisions and, specifically, its negative impact on business investment and capital accumulation. In addition, over the last two decades these economies have faced the challenges to tax revenue posed by the erosion of the corporate income tax base, against a backdrop of high international tax competition (see Devereux et al. (2008) and Devereux et al. (2015)).

43 In accordance with information published by the Spanish tax authorities (AEAT annual tax revenue reports for several years), up to 2008 extraordinary income reflects real income flows that are not from firms' ordinary activity and, therefore, are not reflected in their operating income. Such extraordinary income includes capital gains or losses on sales of intangible assets (rights and patents) and tangible assets (real estate), as well as control portfolio assets (controlling interests). It also includes income from the investment portfolio from transactions with treasury stock and own shares, such as the sale of securities and subscription rights.

NOMINAL CORPORATE INCOME TAX RATE (1995-2017) (a) CHART 30



SOURCE: Eurostat (2017).

a The nominal rate of tax is equivalent to the tax rate that is generally applied to CIT taxable income.

This income, which is not linked to firms' ordinary activity, would be a one-off and its potential impact on revenue would be 0.6 pp of annual GDP in period-average terms.[44]

Corporate income tax in the EU28 economies has undergone successive reforms over the last two decades, albeit with no major progress made in terms of greater harmonisation between Member States. The CIT reforms have consisted chiefly of a broadening of the tax base, permitting a decrease in the high top marginal rates observed in the 1990s (for example, 56.8% in Germany or 52.2% in Italy in 1995).[45] These decreases in marginal rates have given rise to a significant drop in the average maximum rate in the EU28, from 35% in 1995 to 21.9% in 2016 (see Chart 30). It is important to note, however, that despite this decrease in the tax rate, the average corporate income tax burden as a proportion of GDP has remained stable.

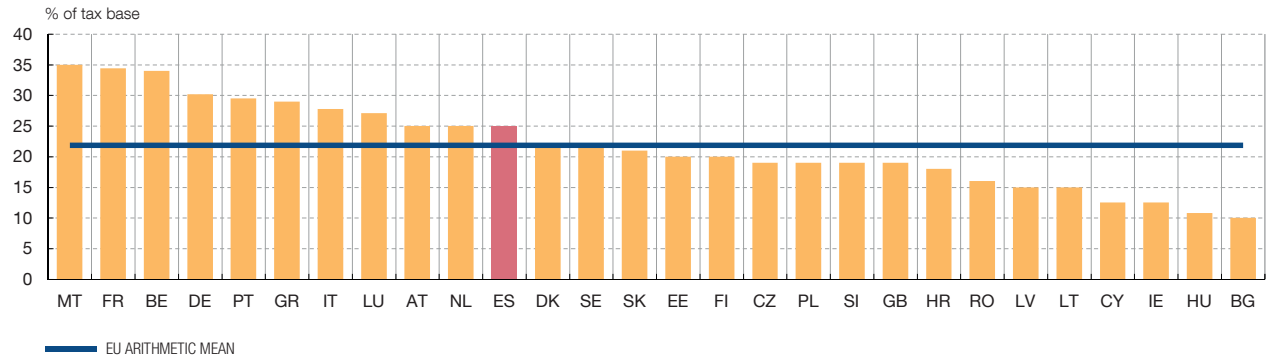
This decline in the maximum rate of corporate income tax from the levels at the end of the 1990s has been observed in most of the big EU28 economies, with the exception of France. But it is the smaller economies that have seen the most significant falls and that record the lowest tax rates. Indeed, low corporate income tax rates are one of the main factors identified in the literature (see Devereux et al. (2015)) as an economic policy instrument to enable small economies to attract international capital. As a result of such policies, there is considerable disparity between the maximum tax rates applicable in the EU28 in 2017 (see Chart 31), with low rates in Bulgaria (10%), Hungary (10.8%) or Ireland and Cyprus (both 12.5%) that contrast with the high rates in France (34.4%) or Belgium (34%).

In the case of Spain, among the main legislative changes in the design of corporate income tax in the last decade, the reduction of 10 pp in the maximum rate of tax, from 35%

44 The estimated potential revenue-raising capacity of these gains is obtained by multiplying their reported value by the average effective tax rate on the taxable income of the period analysed (e.g. the average effective rate on taxable income in the period 2003-2007 is 25%).

45 Reforms in line with the economic policy recommendations stemming from the optimal taxation literature (see Mirrlees et al. (2010)).

NOMINAL CORPORATE INCOME TAX RATES IN SPAIN AND THE EU IN 2017 (a) CHART 31



SOURCE: Eurostat (2017).

a The nominal rate of tax is equivalent to the tax rate that is generally applied to CIT taxable income.

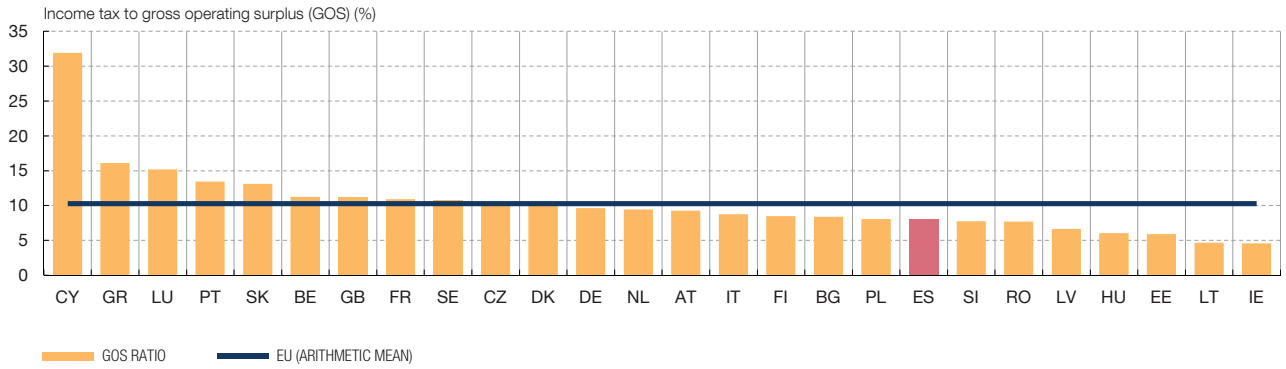
in 2006 to 25% from 2016,[46] stands out. These reductions were introduced in the last two comprehensive corporate income tax reforms (Law 35/2006 and Law 27/2014). As a result of these lower tax rates, the marginal CIT rate in Spain is now close to the EU28 average, but well below the rate applicable in the three main euro area economies (9.4 pp, 5.2 pp and 2.8 pp below the nominal rates applicable in France, Germany and Italy, respectively). At the same time, among the broad set of recent changes to CIT in Spain, especially noteworthy is the elimination of the tax discrimination linked to firm size and the reduction in tax incentives and exemptions, approved both in the comprehensive 2014 reform and in successive legislative packages, with the aim of broadening the tax base. These measures to broaden the corporate income tax base in Spain have, since 2012, helped maintain and subsequently increase fiscal pressure in terms of GDP, despite the decline in the marginal tax rate.[47]

An approximation of the effective rate of tax levied on firms' income in the EU28 economies may be calculated drawing on the ratio of income tax paid by non-financial corporations to their gross operating surplus (both figures available in aggregate terms in the National Accounts). This average effective tax rate is an imperfect measure of fiscal pressure on firms, as the gross operating surplus (GOS) in consolidated taxable income differs for each economy and is not available for all the EU28 economies. The GOS proxies book income, which is the starting point for corporate income tax, which differs from CIT taxable income in that book income has to be adjusted for exempt income, adjustments between accounting and tax regulations and offset of previous years' losses. Bearing in mind these limitations, the corporate income tax burden proxied by this effective rate of tax shows (see Chart 32)

46 Law 27/2014 establishes, as an exception to the general rule of a maximum rate of tax of 25%, a rate of 30% to be applied to credit institutions and to entities engaged in exploration and drilling for underground hydrocarbon (oil and gas) reserves.

47 In August 2011 (RDL 9/2011) the revenue impact of the offset of tax losses built up in previous periods was limited and the prepayment rate was raised. These measures apply for 2012 and 2013 and other new measures were approved limiting the possibility of deduction of financial costs and offset of losses by large firms. In December 2016 (RDL 2/2016 and RDL 3/2016) stricter limits were placed on the offset of tax losses built up in previous periods and on double taxation tax credit and a positive adjustment to book income linked to impairment reversal was introduced. The impact of these measures on revenue is estimated as an additional 0.2 pp of GDP in 2012 and 2013 and an additional 0.8 pp in 2016 and 0.15 pp in 2017.

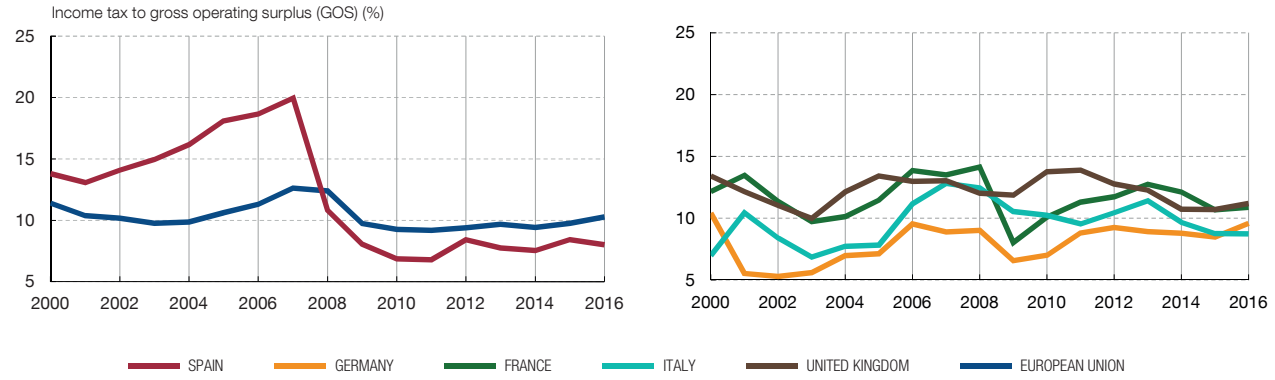
EFFECTIVE RATE OF TAX ON FIRMS' INCOME IN THE EU IN 2016 (a) CHART 32



SOURCE: Eurostat (2017).

a The effective rate of tax on firms' income is calculated as the ratio of aggregate income tax paid by non-financial corporations to their aggregate gross operating surplus (both figures available in the National Accounts). The analysis does not include either Croatia or Malta as there is no updated information available to calculate the effective rate. The figure for Hungary is for 2015 which is the last year for which information is available.

EFFECTIVE RATE OF TAX ON FIRMS' INCOME IN THE EU (2000-2016) (a) CHART 33



SOURCE: Eurostat (2017).

a The effective rate of tax on firms' income is calculated as the ratio of aggregate income tax paid by non-financial corporations to their aggregate gross operating surplus (both figures available in the National Accounts). The calculation of the EU arithmetic mean does not include either Croatia or Malta as there is no updated information available to calculate the effective rate. The figure for Hungary is for 2015 which is the last year for which information is available.

average fiscal pressure in the European Union of 10.3% in 2016. Spain is below this average, with an aggregate effective CIT rate of 8%, in line with the lower fiscal pressure observed in Spain since 2008 (see Chart 33) compared with the EU28 average and with the average of the main EU economies.

A more accurate calculation of the corporate income tax burden in Spain may be made drawing on the detailed information on corporate income tax published by the AEAT. This information provides for calculation based on the actual CIT paid by firms, measured by their aggregate net tax payable, the effective tax rates on book income before and after tax and

EFFECTIVE CORPORATE INCOME TAX RATES IN SPAIN TABLE 2

Percentages calculated drawing on aggregate net corporate income tax payable	All firms		Consolidated groups		Other firms	
	2016	Average 2008-2016	2016	Average 2008-2016	2016	Average 2008-2016
Effective rate on book income before CIT (a)	8.9	9.4	5.4	5.9	13.2	13.1
Effective rate on book income	10.2	10.1	6.1	5.9	15.4	15.2
Effective rate on tax base	21.2	20.3	19.0	17.3	22.6	22.1
Adjustments to book income that result in taxable income (in €bn)	-103,235	-86,403	-75,700	-60,706	-27,534	-25,696
Owing to:						
International double taxation	-105,332	-48,156	-86,303	-34,923	-19,029	-13,233
Intragroup consolidation	-42,948	-53,137	-42,948	-53,137	0	0
Offset of losses	-15,984	-15,337	-4,436	-3,421	-11,548	-11,917
Accounting and other adjustments (b)	61,029	30,228	57,986	30,775	3,043	-547
Tax credits (in €bn)	-3,370	-6,780	-2,292	-3,775	-1,078	-3,005

SOURCE: AEAT (several years and 2018a).

a Book income before CIT is obtained by adding the adjustment for CIT charged, which is the accounting charge provisioned for payment of CIT, to book income. Although book income is the relevant *legal aggregate,* as it is the starting point for taxable income, book income before CIT is a relevant *economic aggregate* for assessing the fiscal pressure exerted by CIT on gross corporate income.
b Includes deductions against book income for foreign-equity holding companies and for zero rate or 1% tax bases.

the effective rate of tax on taxable income,[48] i.e. firms' income subject to CIT (see Table 2). The evidence shows that the average effective rate on book income before tax in 2016 was 8.9%[49] for firms with taxable income in Spain. This is considerably lower than both the marginal tax rate and the effective rate of tax on consolidated taxable income (21.2% in 2016). There is also a difference between the effective rate of tax on book income and on taxable income taking the average for the period 2008-2016 (9.4% compared with 20.3%).

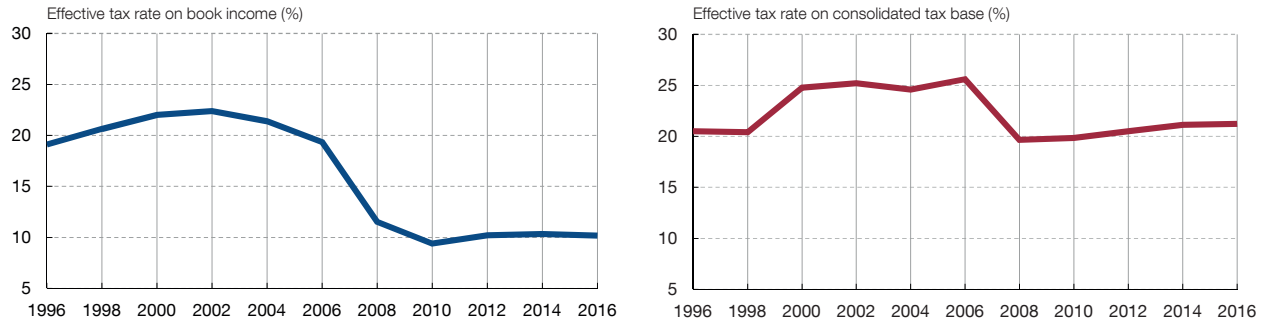
This lower average effective rate of tax on reported income before tax compared with the taxable income is explained (see Table 2) by the existence of income that is tax exempt to prevent double taxation (at the international and national level), the application of tax adjustments to the allocation of income and expenses envisaged in the accounting regulations or the offset of previous years' tax losses that erode the tax base. This erosion of the tax base is most important for large consolidated groups[50] whose average effective rate of tax on book income

48 The definition of aggregate taxable income used here is the Consolidated Tax Base published by the AEAT. This is the result of adjusting book income, with the additions and deductions established in the CIT regulations (chiefly non-accounting adjustments, tax exemptions and tax relief against taxable income). The corporate income figure is obtained from the book income reported to the tax authorities by financial and non-financial firms.

49 This effective rate of tax calculated drawing on AEAT data coincides exactly with the fiscal pressure proxied drawing on the GOS in National Accounts, considering both financial and non-financial firms.

50 Consolidated tax groups include 90% of large corporations, as well as smaller companies whose activity is linked to the main company and that must be consolidated according to the tax regulations (Chapter VI of Title VII of the Corporate Income Tax Law). From a tax standpoint, companies are considered large corporations if they have net turnover as per the VAT Law over €6 million. Large corporations without a tax group structure are not included in the category of consolidated group. The proportion of CIT revenue, measured in terms of the net tax payable, obtained from consolidated tax groups has shown strong growth since 2000. Indeed, tax groups currently account for some 35% of CIT revenue, while the companies that make up tax groups account for just 2.3% of total corporate income taxpayers (34,320 firms included in 4,946 tax groups).

AVERAGE EFFECTIVE CORPORATE INCOME TAX RATES IN SPAIN (1995-2016) (a) CHART 34



SOURCE: AEAT (2018a).

a Average effective tax rates for corporate income taxpayers overall are calculated as the ratio of the net tax payable to, respectively, book income and the Consolidated Tax Base. All three aggregates are obtained from individual corporate income tax returns.

before tax averaged 5.9% between 2008 and 2016, 7.2 pp lower than the average rate of tax on book income of all other corporate income taxpayers, largely owing to profits abroad and intragroup consolidation adjustments. The presence of high profits abroad, already taxed in other jurisdictions, and typical business consolidation adjustments point to the effective rate of tax on the consolidated tax base as a more appropriate measure of fiscal pressure on taxable corporate income in Spain.[51]

Over a longer time horizon (1995-2016, see Chart 34), aggregate average effective CIT rates on book income in Spain have declined significantly since 2008 (10 pp), in contrast to the relative stability of the tax rate on taxable income. This shows that, despite the considerable reduction in the nominal tax rate, the tax rate on taxable income has been maintained, thanks to the broadening of the tax base and the reduction in tax relief in the form of tax credits.

It is possible to quantify the revenue impact of corporate income tax relief in Spain by drawing on the information provided by the Notes to Tax Relief *(Memoria de Beneficios Fiscales)* (see Table 1). Corporate income tax relief is calculated as the difference between the revenue expected in a given year and the revenue that would be obtained if these measures were not applied to the reported tax bases. Overall, on average since 2014 CIT relief amounts to 0.3% of GDP, accounting for 15% of annual CIT revenue.

Firms' productive investment is one of the economic variables on which CIT revenue may have the greatest impact. In its annual report for the European Commission, ZEW-Centre for European Economic Research (2016) offers a comparative analysis for the EU28 economies of the impact of corporate income tax on business investment incentives. Drawing on the

51 See AEAT (2018b) for a detailed descriptive analysis for 2016 of the effective rate of tax on the corporate income tax base, dividing the firms filing tax returns into those that belong to consolidated groups and all other firms. This analysis includes the effective rates of tax on taxable income by sector of activity and firm size, showing the aggregate impact for each of these categories of the lower fiscal pressure on the income reported owing to profits already taxed abroad, consolidation adjustments and offset of previous years' tax losses.

methodology developed by Devereux and Griffith (1998 and 2003), the report quantifies an average effective tax rate on investment that would affect firms' decisions to make and locate investment. These effective tax rates aim to proxy the total average tax burden on the return on a business investment in a jurisdiction, considering the set of taxes affecting the cost of corporate capital, essentially corporate income tax.[52] These average effective rates largely depend on the nominal CIT rate, but also, and significantly, on the differences between the tax amortisation criteria applied to corporate assets and their economic depreciation rate. In particular, accelerated tax amortisation criteria reduce the effective rate of tax and encourage investment, whereas a tax amortisation rate that is lower than the economic depreciation rate increases the effective tax rates, possibly even taking them above the nominal rates net of tax credits.

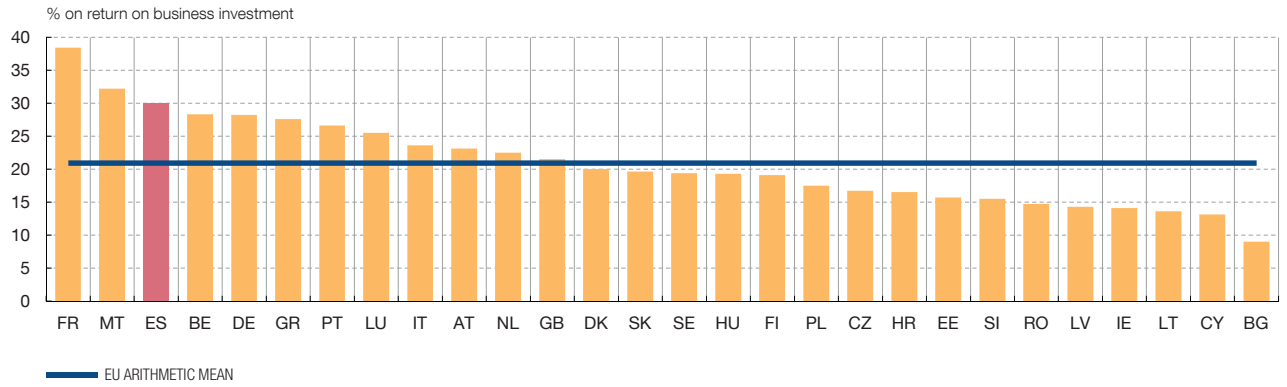
In the EU28 overall, the estimated average effective tax rate on investment for 2016 is 20.9%, although with considerable differences across countries (see Chart 35). The lowest average effective rates are in the countries with the lowest marginal CIT rates, such as Bulgaria (9%), Cyprus (13.1%) or Ireland (14.1%), and the highest in France (38.4%), Malta (32.2%) and Spain (30.1%). At the same time, over the last decade effective CIT rates in the big EU economies have fallen significantly: in Germany by 6.7 pp, in the United Kingdom by 7.8 pp or in Italy by 8.2 pp. Spain has also followed this downward path, although the decline in the effective tax rate over the last 20 years (6.5 pp) is less than the decline in the nominal CIT rate (10 pp). This is largely on account of the difference between the rates of economic and tax depreciation applied to the acquisition of corporate assets, as the latter allows for lower inter-temporal tax deductible expenses than the economic expense incurred for the acquisition of assets. Effective tax rates in Spain on the five asset categories considered are higher than the EU28 average, but the difference is particularly marked in the case of intangible assets,[53] given the lower rate of tax depreciation applied to these assets in Spain (see Chart 36 for the effect of the differences in depreciation rates on average effective tax rates by corporate asset type in Spain and in the EU28). In addition, local taxes on activity applied to large corporations and recurrent property taxes explain an effective tax rate on investment in Spain that is higher than the nominal CIT rate.

Moreover, a common issue in developed economies' tax systems is the possible bias in favour of corporate debt, encouraged by corporate income tax through its structure of tax credits and deductions against taxable income. This bias is on account of the preferential treatment afforded to external financing, through the tax deductibility of financial costs, to the detriment of corporate financing through capital or retained non-deductible earnings. In the case of Spain, despite the recent measures that limit the deductibility of financial costs and encourage the accumulation of capital reserves, there is an estimated difference in 2016 (see Chart 36) in

52 The calculation of the average effective tax rate on investment also includes local taxes levied on transfer or ownership of assets (e.g. recurrent property tax (IBI) in Spain) and on firms' economic activity (e.g. economic activity tax (IAE) in Spain). The inclusion of local taxes on activity in countries such as Spain is warranted because these are limited to large corporations that account for a high proportion of aggregate investment.

53 According to the ZEW-Centre for European Economic Research report, Spain would be the EU28 economy with the highest effective tax rate on business investment via accumulation of intangible assets (34.7% in 2016, significantly higher than the EU28 average of 19.2%).

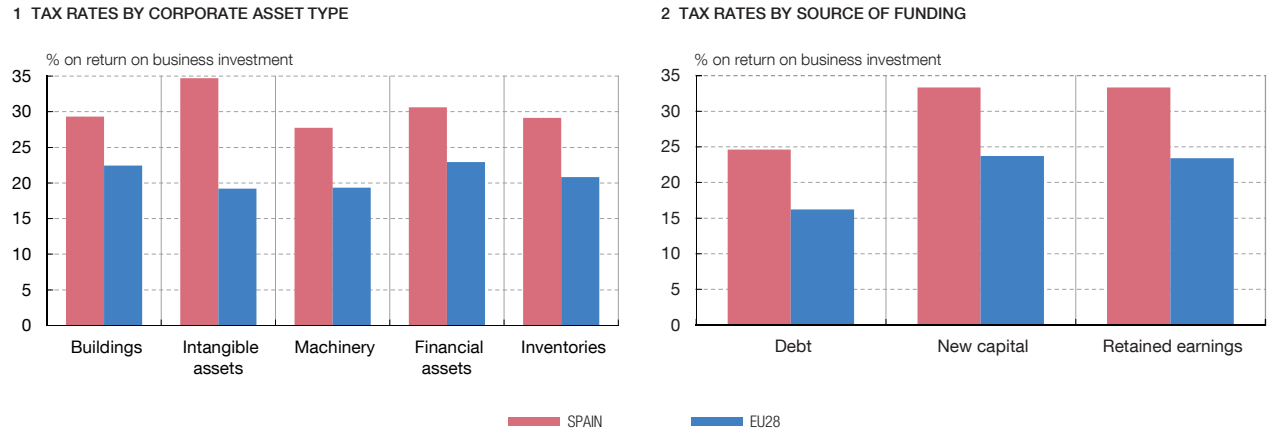
AVERAGE EFFECTIVE TAX RATES ON BUSINESS INVESTMENT IN SPAIN AND THE EU IN 2016 (a) CHART 35



SOURCE: ZEW-Centre for European Economic Research (2016).

a The average effective tax rate is calculated drawing on the methodology of Devereux and Griffith (1998 and 2003). This rate proxies the tax burden that decisions to make and/or locate investment entail for a company. The return on the investment will be affected by the impact of the tax system on the cost of corporate capital. This impact largely depends on the CIT rate, but also on the differences between the tax amortisation criteria applied to corporate assets and their economic depreciation rate. The effective rate will also be increased by other taxes levied on the acquisition and/or ownership of productive assets.

AVERAGE EFFECTIVE TAX RATES ON BUSINESS INVESTMENT IN SPAIN AND THE EU28 IN 2016 (a) (b) CHART 36



SOURCE: ZEW-Centre for European Economic Research (2016).

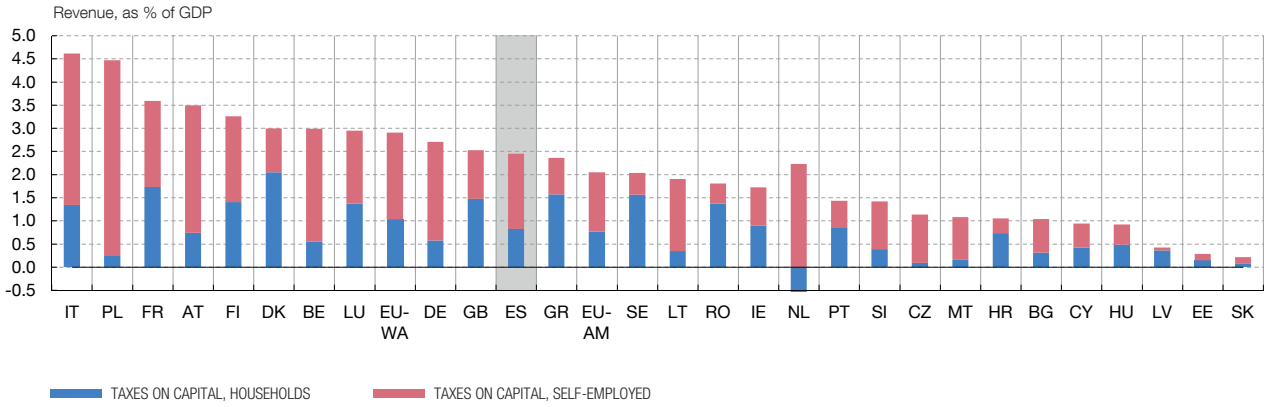
a The average effective tax rate is calculated drawing on the methodology of Devereux and Griffith (1998 and 2003). This rate proxies the tax burden that decisions to make and/or locate investment entail for a company. The return on the investment will be affected by the impact of the tax system on the cost of corporate capital. The chart shows how this impact depends not only on the CIT rate but also on the differences between the tax amortisation criteria applied to the different corporate assets and their economic depreciation rate. The effective rate is also affected by the tax treatment of the source of financing of the business investment.
b For each category of corporate asset and source of financing, the left-hand column denotes the average effective rate for Spain and the right-hand column the average effective rate for the EU28 arithmetic mean.

the average effective tax rate of 8.7 pp (7.3 pp in the EU28) between internal investment (33.3%, compared with 23.5% in the EU28) and external investment (24.6%, compared with 16.2% in the EU28).

6.2 Other taxes on capital

Notable among other taxes on capital are those on self-employment income, including social contributions, and those on the returns on savings and capital gains obtained by households

TAXES ON RETURNS ON CAPITAL AND CAPITAL GAINS IN THE EU IN 2016 CHART 37



SOURCE: Eurostat (2017).

that are taxed under personal income tax.[54] The revenue obtained from these sources of taxation in the EU28 in 2016 amounted to 1.3% of GDP (taxes on self-employment income) and 0.8% of GDP (taxes on households' capital income). However, this fiscal pressure is very uneven across the Member States (see Chart 37), with revenue accounting for more than 3.5 pp of GDP in economies such as Italy, France, Austria or Poland, and for less than 0.5% of GDP in Slovakia, Latvia or Estonia. Taxes on self-employment income are the main revenue component in the economies with a larger proportion of these taxes (4.2% of GDP in Poland or 3.3% in Italy), while households' capital income accounts for a considerable share in Denmark (2% of GDP), France (1.7%), Sweden and Greece (1.6% in both cases). In relative terms, Spain is close to the EU28 average, with fiscal pressure on households' capital income in line with the average (0.8% of GDP) but with a higher proportion of taxes on self-employment income (1.6% of GDP).

Lastly, revenue from taxes on wealth amounted to 3.2% of GDP in Spain in 2016, compared with the EU28 average of 2.1% and weighted average of 2.8%. Property taxes are the main component of taxes on wealth: in 2016 in Spain they accounted for 85% of the total (compared with the EU28 average of 75%) and are analysed in more detail in the next section.[55]

54 In the European Union, most of this income is subject to the progressive personal income tax schedule. However, in many EU countries, returns on capital are taxed at a single rate that is lower than the average personal income tax rate, or according to a less progressive schedule (lower rates and broader tax base).

55 In addition to property taxes, taxes on wealth include taxes on the use of fixed assets (e.g. road tax (IVTM) for firms), taxes paid by firms to obtain business and professional licences (in particular, in Spain, economic activity tax (IAE), charges for business and professional licences and for private or special use of public property and planning permission or the technical vehicle inspection charge) and other taxes on production such as, for example, the tax on credit institutions' deposits.

7 Property taxes

A set of taxes on capital may be grouped together as "property taxes".[56] This tax category includes taxes on ownership of assets and on transfer thereof between economic agents. This category is the main component of taxes on wealth.

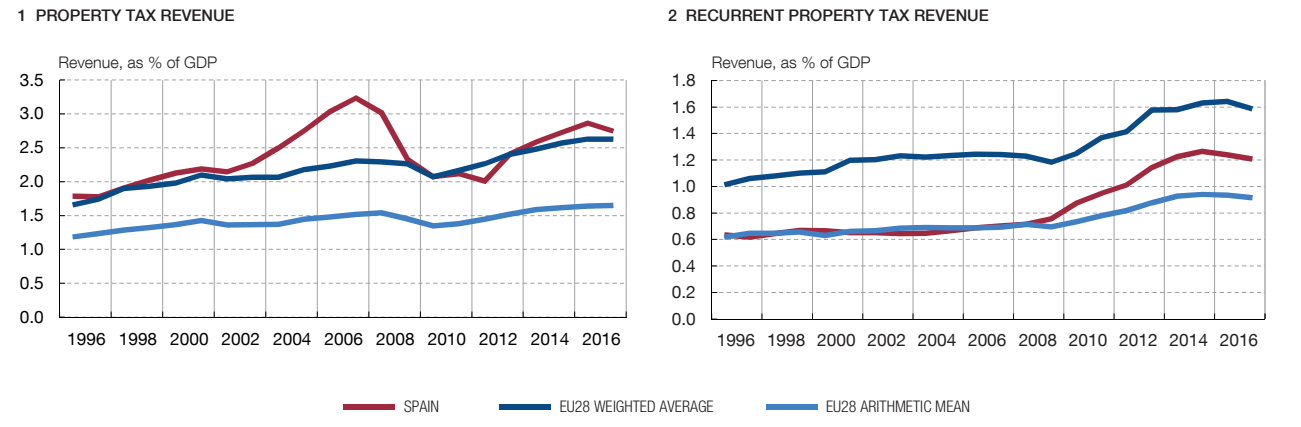
Revenue from property taxes accounted for 1.6% of GDP for the EU28 average in 2016, rising slightly in the last decade (see Chart 38.1). Spain systematically lies between the group of economies with a higher relative share of these taxes (2.7% of GDP in 2016), with fiscal pressure in line with the EU28 weighted average (2.6% of GDP). Thus, property taxes account for 8.2% of aggregate tax revenue in Spain in 2016, significantly above their share of tax revenue in both the EU28 average and weighted average (4.4% and 6.8%, respectively).

Taxation on asset ownership in Spain has increased considerably since 2011 (by 0.7 pp of GDP, although it is still below the peak of 3.2% of GDP recorded in 2006). The level of revenue in 2006 and the increase of 1.5 pp of GDP compared with the 1996 level were largely due to the surge in property and financial transactions associated with the property boom in the period. From 2008, both the volume and value of asset transactions fell significantly as a result of the economic crisis, giving rise to a drop in property tax revenue in 2011 of 1.2 pp of GDP compared with the 2006 peak.

The property tax burden is highly uneven across Europe (see Chart 39), with revenue accounting for more than 4% of GDP in countries such as France or the United Kingdom, and for less than 0.5% of GDP in Estonia, Slovakia, Croatia or Lithuania. The bulk (60%) of property

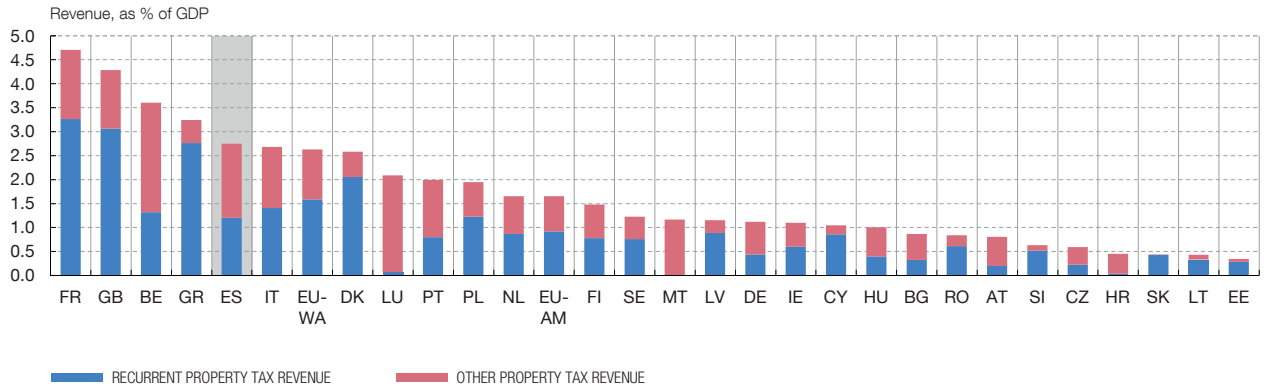
56 See footnote 20 (section 2) for a detailed description of the property taxes in force in Spain. The main recurrent real estate taxes are recurrent property tax (IBI) and the part of wealth tax levied on real estate property. Notable among the other property taxes, for their importance in terms of revenue, are transfer tax and stamp tax (ITP-AJD), inheritance and gift tax, the part of wealth tax not levied on ownership of real estate property, and the tax on increase in urban land value (IIVTNU).

PROPERTY TAX REVENUE IN SPAIN AND THE EU (1995-2016) CHART 38



SOURCE: Eurostat (2017).

PROPERTY TAX REVENUE IN THE EU IN 2016 CHART 39



SOURCE: Eurostat (2017).

tax revenue in the EU28 average is from recurrent property taxes whose main component is essentially comparable with Spain's recurrent property tax (IBI). Specifically, revenue from recurrent property taxes in 2016 accounted for 0.9% of GDP on average, a ratio that held steady over the previous five years (see Chart 38.2). But recurrent property tax revenue is particularly important in the United Kingdom and France, where it accounts for more than 3 pp of GDP, and in Greece and Denmark where it accounts for more than 2 pp of GDP. Up to 2007, recurrent property tax revenue in Spain was considerably lower (averaging 0.7 pp of GDP in 1995-2007), but in line with the tax take as a percentage of GDP in the EU28 average in that period. However, since 2008 it has grown significantly, resulting in an increase of 0.5 pp of GDP in 2016 and pushing its contribution up to 1.2% of GDP, over the EU28 average. This growth in real estate property taxation partly corrected the strong bias in Spain towards taxation of asset transactions (mainly those subject to transfer and stamp tax (ITP-AJD)), to the detriment of recurrent property taxation which accounted for 80% of the total in 2006, compared with 45% in 2016. In any event, as a proportion of total property tax revenue, tax on transactions is still more than 10 pp higher in Spain than in the European Union on average.

Property taxation other than recurrent property tax, mainly tax on asset transactions, accounts for a lower share of the tax burden in the EU28, averaging 0.7% of GDP in 2016. In this setting, Spain's persistently high level of tax revenue from asset transactions stands out (1.5% of GDP in 2016), outflanked only by Belgium and Luxembourg which both record tax revenue from such transactions over 2% of GDP. Tax revenue from these transactions in Spain has increased from 1% of GDP in 2011, which was the low associated with the sharp drop in transactions and in the value of real estate assets, but it is still some distance from its peak of 2.5% of GDP in 2006.

8 Conclusions

This paper compares, in a merely descriptive fashion, the tax burden and the composition of the Spanish fiscal system's tax structure with the patterns observed in the EU economies. The analysis is conducted both for the figures recorded in 2016 and the recent changes therein. The following stylised facts may be drawn from it.

Spain is of note in that it persistently shows over time a tax revenue/GDP ratio lower than the EU28 average and, in particular, lower than the ratio of the main EU28 economies. This lower relative tax revenue-raising is largely due to the lesser tax burden imposed by indirect taxes. Spain stands out as it recurrently evidences a lower tax burden in terms of GDP on consumption and implicit rates on this tax source significantly lower than the EU28 average. This lower taxation of consumption is chiefly due to a lower VAT take as a result, above all, of the fact that the standard VAT rate affects a smaller percentage of spending on consumption than it does in most of the EU28 countries. In addition, excise duty revenue is also lower, particularly on hydrocarbons, transport, tobacco and alcohol, goods for which the implicit rates on their consumption are lower than the average implicit rates in the EU28. Further, Spain raises less revenue in terms of GDP from overall environmental taxes.

As to taxes on labour, revenue as a percentage of GDP in Spain is lower than the EU28 average and, in particular, it is significantly lower than that of the main EU28 economies. However, the weight of social contributions in GDP is higher, especially those payable by firms. That indicates that Spain's revenue difference in terms of GDP is due to the lower take in personal income tax on labour income. Hence the average tax wedge, measured as the ratio between the sum of taxes on personal income derived from labour income and social contributions, on one hand, and the gross average wages of full-time employees in the private sector, on the other, places Spain above the average for the OECD economies for all income brackets and types of individuals based on their parental/marital status.

The weight in GDP of revenue from taxes on capital is higher in Spain than in the EU28 on average. This is due to higher taxation on wealth, while revenue arising from corporate income tax, and that on the capital gains and capital income of households and the self-employed, is – in aggregate terms – at similar levels. Reflecting this higher revenue are higher implicit rates on capital in Spain than those prevailing among its European partners. In the case of corporate income tax, nominal rates on the tax base are higher than the EU28 average, and this gap is even greater when effective average rates on business investment returns are considered. However, effective rates on corporate income are below the EU28 average. Also, the revenue arising from taxes on property is higher than the EU28 average, in particular that from asset transactions. Indeed, in the past decade there has been an increase in the revenue from recurrent property taxes.

Finally, some of the limitations of the analysis in this paper should be underscored. These stem, above all, from the difficulties entailed in comparing the effective tax burden of

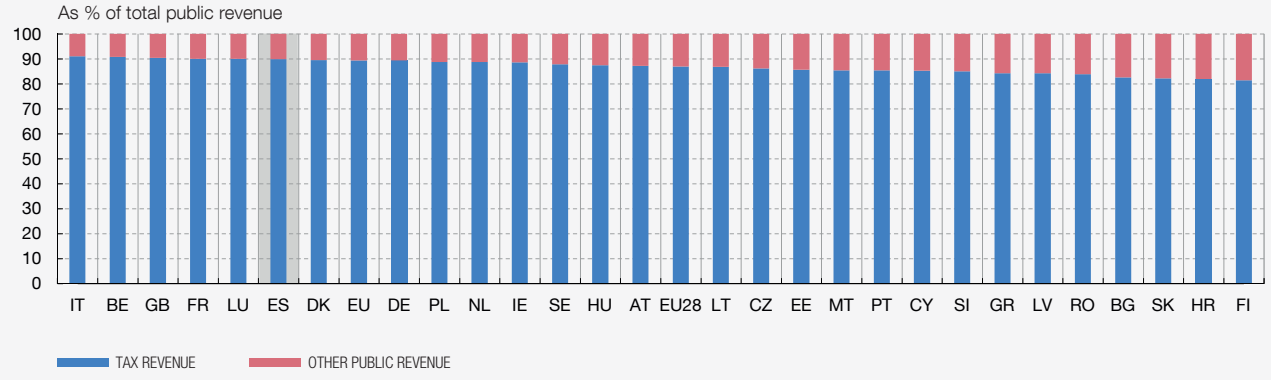
the Spanish fiscal system with that of other economies on the basis of tax revenue/GDP ratios and of the calculation of the implicit rates on the main sources of taxable income. These ratios and calculations are habitually used to measure both the aggregate tax burden and that arising from taxing the main sources of taxable income (labour, capital and consumption), the quantification of which is through macroeconomic proxies. However, there are several methodological problems to this approach. They affect both the level of and the changes in the measures of tax burden, which hampers cross-country comparisons. In particular, the tax burden measures do not take into account aspects such as the pass-through of the tax charge to other agents not taxed by the agents that are formally obliged to pay in the taxes; the means of financing specific public policies through public spending or through fiscal expenditure; the subjection or not to tax of welfare benefits; the effects of the economic cycle and the presence or not of a hidden economy or tax evasion. At the same time, it should be remembered that an economy's tax burden level, and more broadly the aggregate volume of public revenue, is closely related to and conditional upon the public spending that such revenue has to finance. These considerations mean that the conclusions and assessments that may be drawn from the simple tracking of the magnitudes described in this paper should be viewed with all due caution.

Overall general government public revenue is the result of aggregating non-tax revenue into tax revenue. Tax revenue, which is discussed in detail in the main body of this paper, comprises the revenue raised from taxes on production and imports, current taxes on income and wealth, taxes on capital and effective obligatory social contributions. This tax revenue is diminished by the so-called "adjustment for uncertain tax collection". The second component comprises non-tax public revenue, which arises from general government market sales and production, mainly in the form of public charges and prices, current revenue arising on interest earned and income on property owned by general government, and capital revenue in the form of investment subsidies and capital transfers.

In terms of the EU28 average in 2016 (see Chart 40), revenue obtained from other public revenue on the whole accounted for 13.1% of total public revenue (13.8% on average in the 1995-2016 period). The biggest economies tend to be less reliant on non-tax revenue, with relative weights of 10% of total public revenue. Meantime, in the smaller economies there is a greater relative weight, of around 18% in Finland, Hungary and Slovakia. Spain is among the group of countries whose public revenue rests to a greater extent on tax revenue, with a small relative weight of other public revenue (10.1% in 2016); indeed, there has been a tendency towards the relative reduction of this latter fiscal component (11.6% on average in the 1995-2016 period).

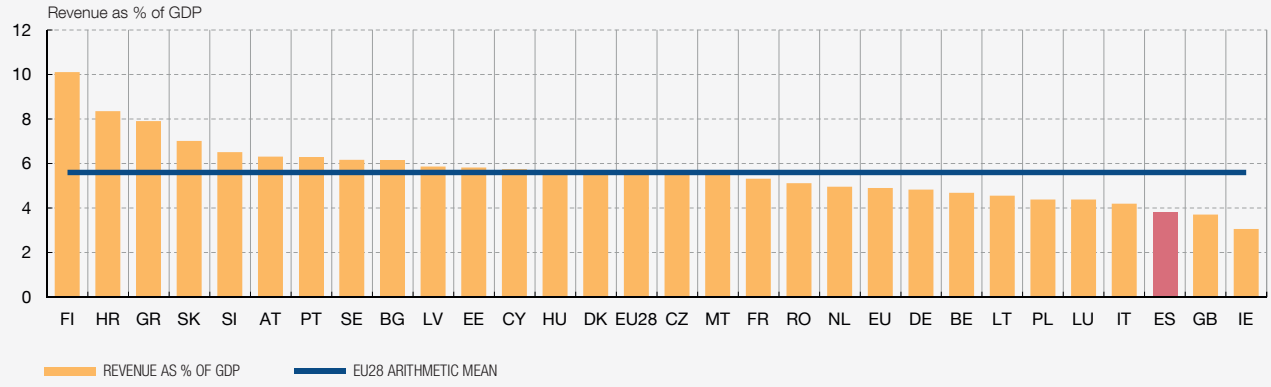
Other public revenue is a complementary source of revenue to that obtained through taxes, with a take in terms of GDP of 5.6% on average in the EU28 in 2016 (see Chart 41), and of 5.8% of GDP on average in the 1995-2016 period. The countries in which this source of revenue makes a greater relative contribution also tend to record bigger takes in terms of GDP, with Finland the economy that persistently posts higher non-tax revenue in terms of GDP (revenue of around 10% of GDP). The main component of other public revenue in the EU28 (see Chart 42) is the revenue arising on the production of goods and services supplied by general government that are subject to public prices and charges. On average in the EU28, this category accounts for 60% of other non-tax public revenue (3.3% of GDP in 2016), with higher relative weights

COMPOSITION OF PUBLIC REVENUE IN THE EU IN 2016 CHART 40



SOURCE: Banco de España (2018).

OTHER PUBLIC REVENUE IN THE EU IN 2016 CHART 41



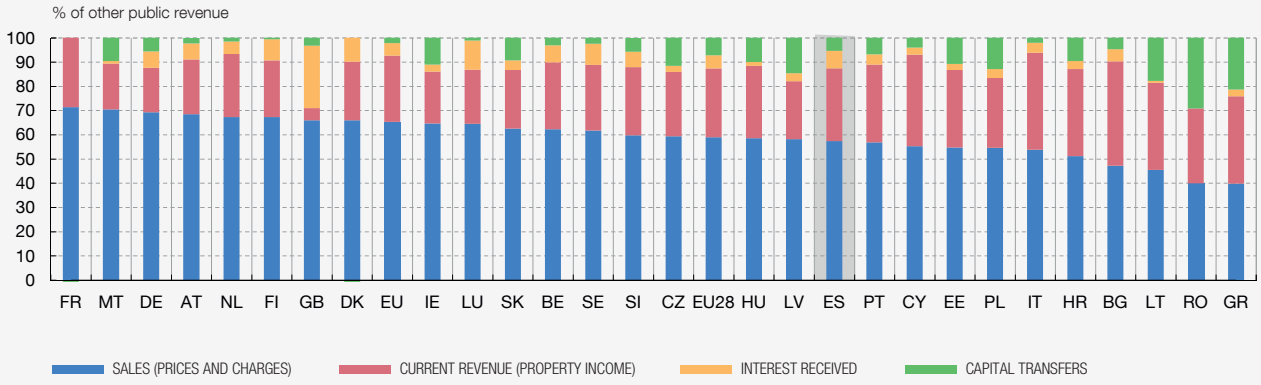
SOURCE: Banco de España (2018).

(between 65% and 70% of the total) being recorded in economies with an extensive public sector presence in the supply of goods and services, such as France, Germany, Austria, the Netherlands, Finland, Denmark and the United Kingdom. Revenue arising on income from property held by general government accounts for around 30% of other public revenue (1.6% of GDP on average in the EU28 in 2016), with the highest relative weights standing at close to 40% in Italy, Greece and Bulgaria. The remaining revenue, from interest earned and capital transfers, plays a secondary role in other public revenue taken as a whole (10% on average in the EU28 and 0.7% of GDP in 2016).[1]

In 2016 Spain posted overall takings in respect of other public revenue of 3.8 pp of GDP, placing it among the economies with the lowest figures for this item, together with Ireland, the United Kingdom and Italy. The relative composition of other public revenue (see Chart 42) in Spain is very similar to that of the EU28 average, with a relative weight of revenue obtained from the general government provision of market goods and services of 57%, a weight of 30% for revenue on property income and of 13% arising on capital transfers and interest earned. Taking a longer time span, funds arising from the provision of goods and services can be seen to be moving on a rising trend (2.2% of GDP in 2016, against 1.7% of GDP at the end of the 1990s). This increase partly offsets the decline in investment subsidies and capital transfers (0.2% of GDP in 2016, compared with 0.9% of GDP over the 1995-2006 period), owing to the reduction in EU funds-related revenue received by Spain. Overall general government public revenue in Spain, which is the aggregate of tax revenue and of other non-tax revenue, averages 38% of GDP in the 1995-2016 period as a whole.

1 Although these sources of revenue played a secondary role in most EU28 countries in 2016, revenue on interest earned contributed significantly in the United Kingdom (1 pp of GDP in 2016), accounting for 25% of funds in respect of other public revenue. Elsewhere, funds relating to capital transfers and investment subsidies were significant in countries such as Greece (1.7% of GDP in 2016) and Romania (1.5% of GDP in 2016).

COMPOSITION OF OTHER PUBLIC REVENUE IN THE EU IN 2016 CHART 42



SOURCE: Banco de España (2018).

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