

Revenue Statistics 2016

Tax revenue trends in the OECD

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Introduction

Revenue Statistics 2016 presents detailed internationally comparable data on tax revenues of OECD countries for all levels of government. The latest edition provides final data on tax revenues in 1965-2014. In addition, provisional estimates of tax revenues in 2015 are included for almost all OECD countries.¹

Box 1 Revenue Statistics in OECD Countries – definitions & classifications

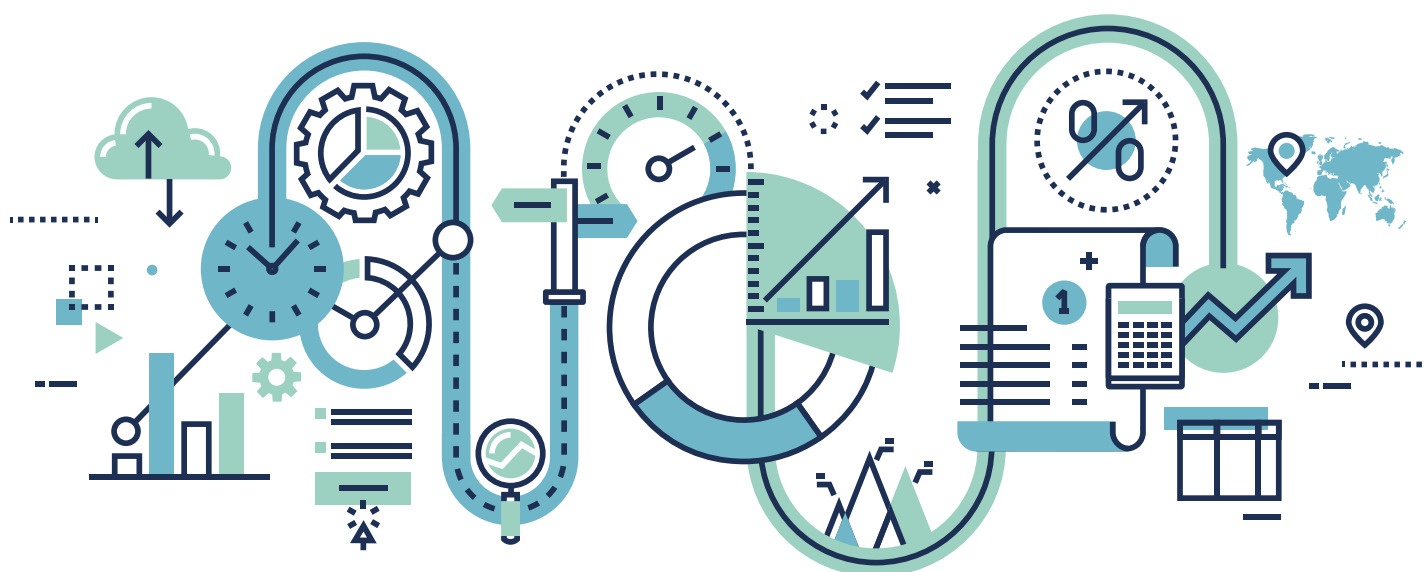
In *Revenue Statistics 2016*, taxes are defined as compulsory, unrequited payments to general government. Taxes are unrequited in the sense that benefits provided by government are not normally in proportion to their payments.

In the OECD classification, taxes are classified by the base of the tax:

- Income and profits (heading 1000)
- Compulsory social security contributions paid to general government, which are treated as taxes (heading 2000)
- Payroll and workforce (heading 3000)
- Property (heading 4000)
- Goods and services (heading 5000)
- Other (heading 6000)

Much greater detail on the tax concept, the classification of taxes and the accrual basis of reporting is set out in the OECD Interpretative Guide at Annex A of *Revenue Statistics 2016*.

All of the averages presented in this summary are unweighted.



1. Provisional 2015 figures were not available for Australia and Poland and provisional figures on social security contributions in Japan are also not available as at the time *Revenue Statistics 2016* was published.

Tax to GDP ratios



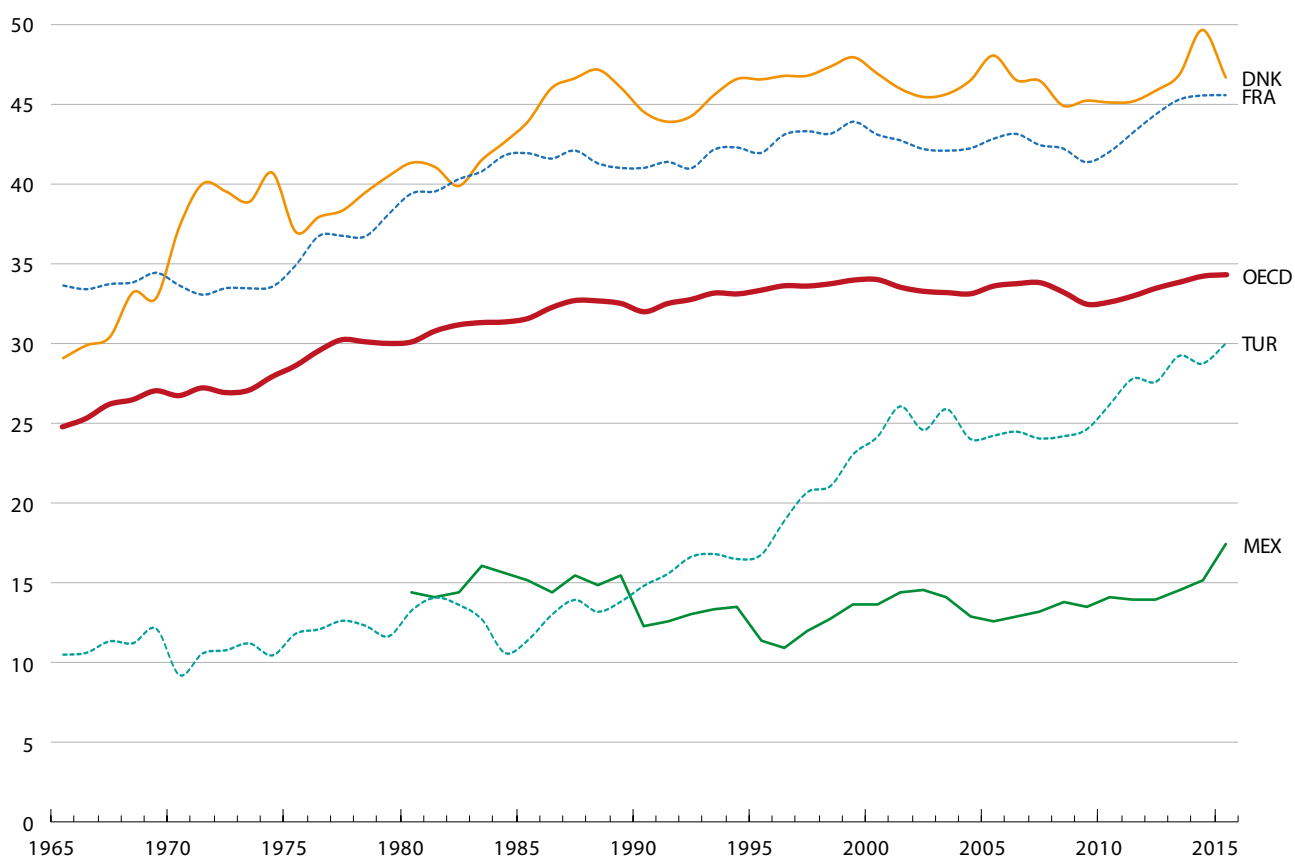
A. TAX RATIOS FOR 2015 (PROVISIONAL DATA)

New OECD data in the annual *Revenue Statistics* publication show that tax revenues as a percentage of GDP (i.e. the tax to GDP ratio) continue to recover gradually from the decline experienced in almost all countries in 2008 and 2009 as a result of the financial and economic crisis. The average tax to GDP ratio in OECD countries was 34.3%² in 2015 compared with 34.2% in 2014 and 33.8% in 2013. The 2015 figure is the highest recorded OECD average tax to GDP ratio since records began in 1965 (Figure 1).

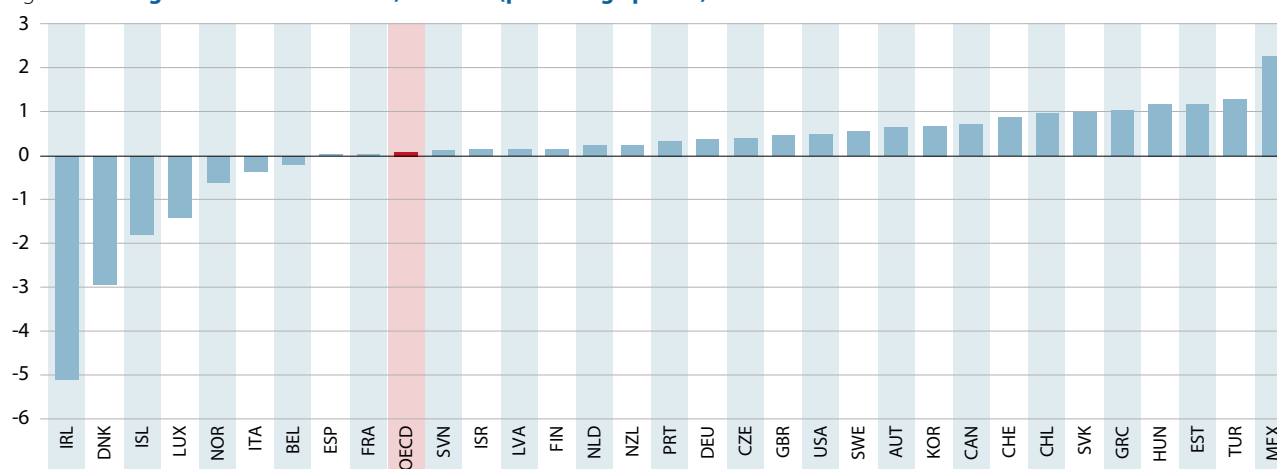
- Denmark had the highest tax to GDP ratio in 2015 (46.6%) and Mexico the lowest (17.4%).
- Of the 32 countries for which data for 2015 are available, the ratio of tax revenues to GDP compared to 2014 rose in 25 and fell in 7.
- Between 2014 and 2015, the largest tax ratio increases were in Mexico (2.3 percentage points explained by an increase in taxes on income and profits and in taxes on goods and services as a percentage of GDP) and in Turkey (1.3 percentage points due to higher revenues from taxes on goods and services and higher social security contribution revenues). Other countries with increases in their tax to GDP ratio between 2014 and 2015 of more than one percentage point were Estonia, Greece, Hungary and the Slovak Republic (Figure 2).

2. Calculated by applying the unweighted average percentage change for 2015 in the 32 countries providing data for that year to the overall average tax to GDP ratio in 2014.

Figure 1. **Trends in tax to GDP ratios, 1965-2015 (as % of GDP)**



Source: Data from *Revenue Statistics 2016*, <http://www.oecd.org/tax/tax-policy/revenue-statistics.htm>

Figure 2. **Changes in tax to GDP ratios, 2014-15 (percentage points)**

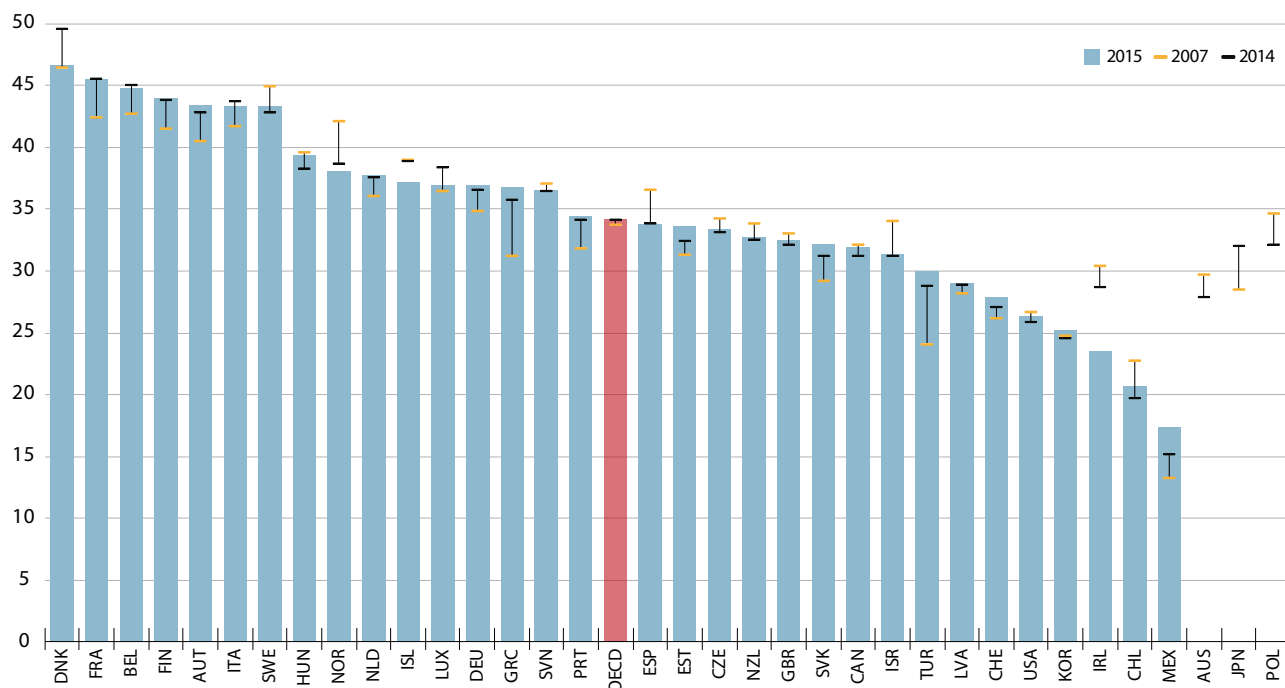
Source: Data from *Revenue Statistics 2016*, <http://www.oecd.org/tax/tax-policy/revenue-statistics.htm>

- The largest falls in the tax to GDP ratio between 2014 and 2015 were in Ireland (5.1 percentage points, due to exceptionally high GDP growth in 2015), Denmark (3 percentage points, due to a fall in revenues from taxes on income and profits) and Iceland (1.8 percentage points). Luxembourg also showed a fall of more than one percentage point.
- Compared with 2007 (pre-crisis) tax to GDP ratios, the ratio in 2015 remains at least 3 percentage points lower in two countries; Ireland and Norway. The biggest fall has been in Ireland, from 30.4% in 2007 to 23.6% of GDP in 2015, largely due to the strong increase in GDP in 2015. Excluding Ireland, the largest fall has been in Norway, from 42.1% of GDP in 2007 to 38.1% in 2015 (Figure 3).
- In Turkey, the tax to GDP ratio increased from 24.1% to 30.0% between 2007 and 2015. Two other countries, Greece and Mexico, experienced increases of 4 percentage points or more over the same period.

Between 2014 and 2015, Ireland experienced unusually high GDP growth, at 32.4% in nominal terms (26.3% in real terms). This exceptionally high GDP growth was driven by transfers of intangible assets, including licences and patents, into the Irish jurisdiction by a number of multinational enterprises. The increase in the stock of intangible assets, used in supporting contract manufacturing arrangements, resulted in higher production that was attributable to Ireland, as well as to higher exports and depreciation. Together with increased aircraft leasing activities in Ireland in 2015, this has led to the unusually high GDP growth.

Although the nominal amount of tax revenues increased by 8.8% from 2014 to 2015 (measured in national currency), the higher GDP growth during this period caused the tax to GDP ratio in Ireland to fall sharply, decreasing from 28.7% in 2014 to 23.6% in 2015. The fall in the tax to GDP ratio in Ireland lowered the unweighted OECD average tax to GDP ratio in 2015. Inclusive of Ireland, the unweighted OECD tax to GDP ratio in 2015 was 34.3%, a 0.1 percentage point increase since 2014. Excluding Ireland, the average tax to GDP ratio for the remaining OECD countries is 34.6% in 2015, an increase of 0.3 percentage points since 2014 for the remaining 34 countries.

Figure 3. Tax to GDP ratios in 2007, 2014 and 2015 (as % of GDP)



Source: Data from Revenue Statistics 2016, <http://www.oecd.org/tax/tax-policy/revenue-statistics.htm>. Preliminary data for 2015 was not available for Australia, Japan and Poland.

B. TAX TO GDP RATIOS FOR 2014 (FINAL DATA)

The latest year for which tax to GDP ratios are based on final revenue data and available for all OECD countries is 2014 (Figure 3). These data show that tax ratios vary considerably across countries.

- In 2014, Denmark had the highest tax to GDP ratio (49.6%), followed by France (45.5%), Belgium (45.0%) and Finland (43.8%) and Mexico had the lowest ratio at 15.2% followed by Chile at 19.8%.
- Seven countries – Austria, Belgium, Denmark, Finland, France, Italy and Sweden – had tax to GDP ratios of above 40%.
- In contrast, nine countries – Australia, Chile, Ireland, Korea, Latvia, Mexico, Switzerland, Turkey and the United States - had tax to GDP ratios of below 30%.
- The tax to GDP ratio in the OECD area as a whole (unweighted average) was 34.2% in 2014 and rose by 0.4 percentage points from 2013.
- Relative to 2013, overall tax ratios rose in 26 OECD member countries and fell in 9.
- The largest increases in the tax to GDP ratio were in Iceland (2.9 percentage points), Denmark (2.8 percentage points), Japan (1.7 percentage points) and New Zealand (1.3 percentage points).
- Three countries – Estonia, Netherlands and the Slovak Republic – experienced increases between 0.9 and 1.0 percentage points from 2013 to 2014.
- The largest reductions were in Norway (1.2 percentage points) and the Czech Republic (1.0 percentage points).

Table 1. **Tax structures in the OECD area, 2013 and 2014 (unweighted average as % of GDP)**

	2013	2014
Taxes on income (personal and corporate income taxes)	11.4	11.5
Of which: Personal income tax	8.3	8.4
Corporate income tax	2.9	2.8
Social security contributions	9.1	9.1
Payroll taxes	0.4	0.4
Property taxes	1.9	1.9
Taxes on goods and services	10.8	11.0

Source: Revenue Statistics 2016, <http://www.oecd.org/tax/tax-policy/revenue-statistics.htm>

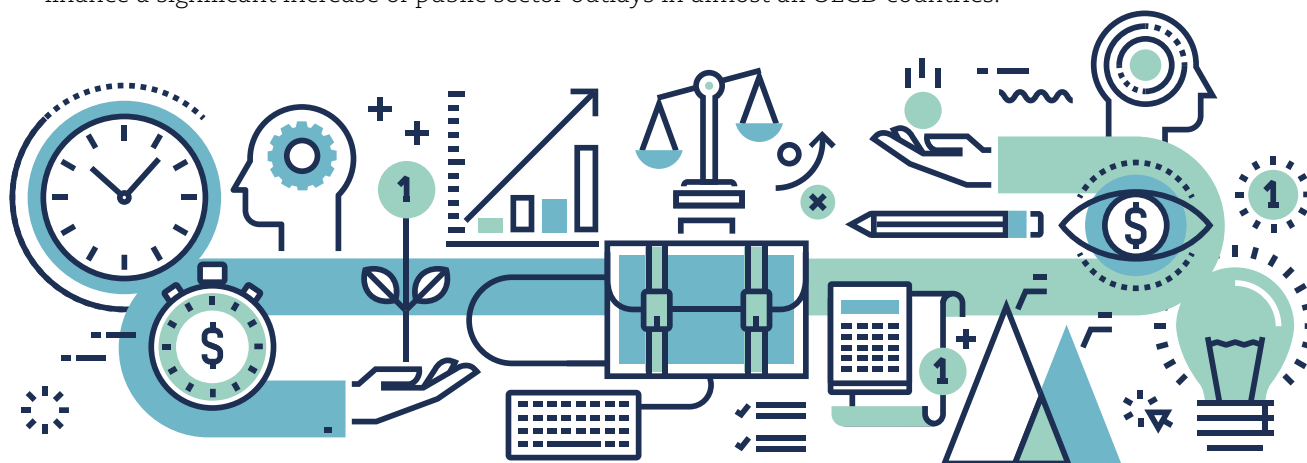
The key changes in the tax to GDP ratio of the main tax headings between 2013 and 2014 were as follows:

- Revenues from taxes on income (personal and corporate income taxes together) as a percentage of GDP increased from 11.4% in 2013 to 11.5% in 2014 on average (Table 1). The largest increases were in Denmark (2.9 percentage points) and Iceland (1.3 percentage points). Norway and Italy reported the largest falls in this ratio (by 1.7 and 0.6 percentage points of GDP respectively). Revenues from personal income taxes increased from 8.3% in 2013 to 8.4% in 2014, while revenues from corporate income tax decreased from 2.9% to 2.8% over the same period.
- The other ratios were largely unchanged between 2013 and 2014, as shown in Table 1.

C. TAX RATIO CHANGES BETWEEN 1965 AND 2014

The evolution of tax to GDP ratios between 1965 and 2014 can be summarised as follows:

- The average tax to GDP ratio in the OECD area increased from 24.8% to 34.2% (an increase of 9.4 percentage points) between 1965 and 2014 (Figure 1). Despite the increase in the average across the OECD countries, total tax revenues as a percentage of GDP have fallen in some countries.
- Between 1965 and 2000, the average OECD tax to GDP ratio rose from 24.8% to 34.0% (9.2 percentage points), its highest recorded level at that time. It decreased slightly between 2001 and 2004, but then rose again between 2005 and 2007 before falling back following the crisis. Taking these changes together, the average tax to GDP level in the OECD area increased by 0.2 percentage points between 2000 and 2014.
- The OECD average conceals the great variety in national tax to GDP ratios. In 1965, tax to GDP ratios in OECD countries ranged from 10.6% in Turkey to 33.6% in France. By 2014 the corresponding range was from 15.2% in Mexico to 49.6% in Denmark. The trend towards higher tax levels over this period reflects the need to finance a significant increase of public sector outlays in almost all OECD countries.



Tax structures



Tax structures are measured by the share of major taxes in total tax revenue. While, on average, tax levels have generally been rising, the tax structure or tax ‘mix’ has been remarkably stable over time. Nevertheless, several trends have emerged up to 2014 – the latest year for which data is available for all 35 OECD countries (Figure 4).

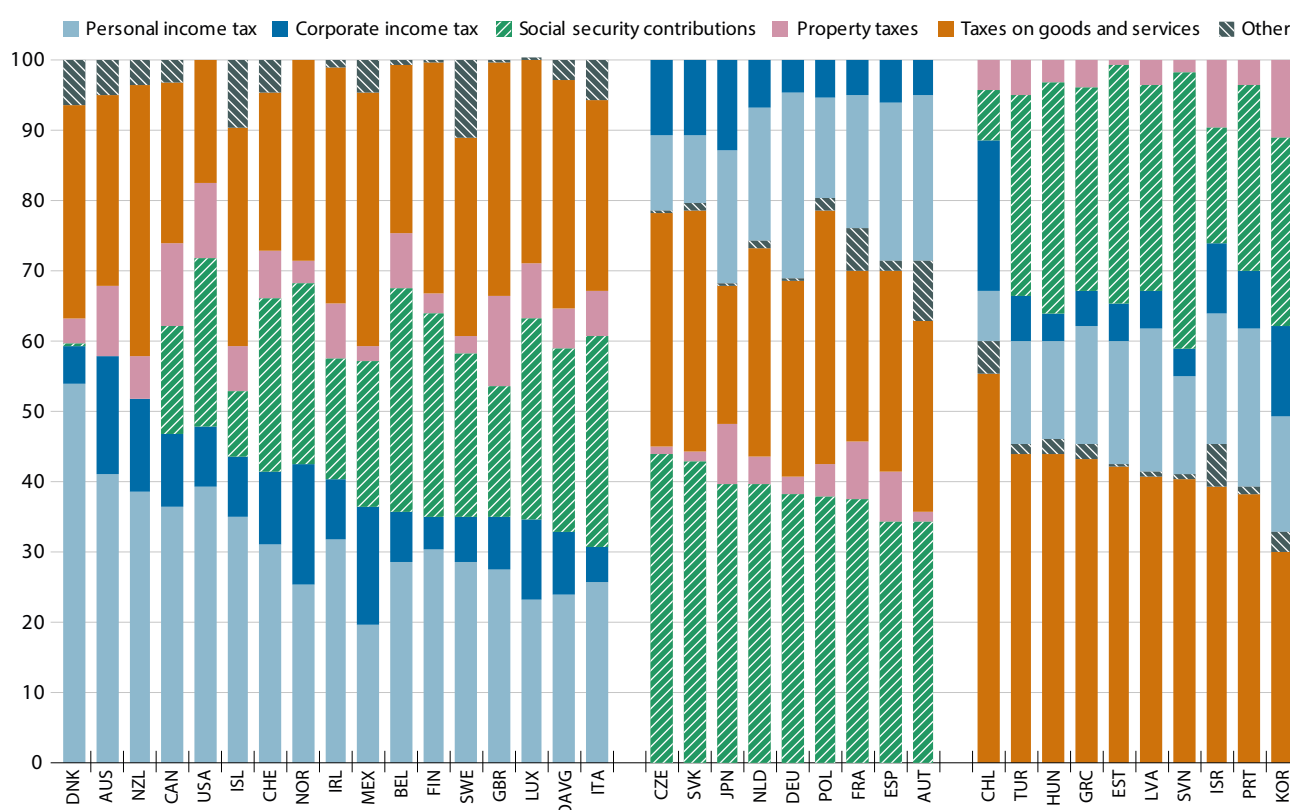
TAXES ON INCOME AND PROFITS

- On average, OECD countries collected 33.7% of their tax revenues through taxes on income and profits (personal and corporate income taxes taken together). Taxes on personal and corporate incomes remain the most important source of revenues used to finance public spending in 16 OECD countries, and in nine of them – Australia, Canada, Denmark, Iceland, Ireland, New Zealand, Norway, Switzerland and the United States – the share of income taxes in the tax mix exceeds 40%.
- Revenues from personal income taxes are 24% of total taxes on average in 2014 compared with around 30% in the 1980s. About two percentage points of this reduction can be attributed to the impact on the average of a number of relatively new entrants to the OECD from Eastern Europe for which tax revenue data is only available from the 1990s onwards. These countries tend to have relatively low personal income tax revenues and high revenues from social security contributions, but this impact is observed on the post 1990 data only.
- The variation in the share of the personal income tax between countries is considerable. In 2014, it ranged from a low of 7% and 10% in Chile and the Slovak Republic respectively to 41% in Australia and 54% in Denmark (Figure 4).
- The sharp fall in the share of revenues from corporate income taxes in total taxation in 2008 and 2009 did not continue into 2011 and 2012, but the share of these taxes in total revenues remains, at 9% of total tax revenues in 2014, below its 11% share in 2007.
- The share of the corporate income tax in total tax revenues varies considerably across countries from around 4% (Finland, Hungary and Slovenia) to 17% (Norway) and 21% (Chile). Apart from the spread in statutory rates of the corporate income tax, these differences are at least partly explained by institutional and country specific factors, such as, for example:
 - the degree to which firms in a country are incorporated,
 - the breadth of the corporate income tax base, for example some narrowing may occur as a consequence of generous depreciation schemes and of tax incentives,
 - the degree of cyclicity of the corporate tax system, for which one of the important elements are loss offset provisions,
 - the extent of reliance upon tax revenues from the exploitation of oil and/or mineral deposits, and
 - other instruments to postpone the taxation of earned profits.

SOCIAL SECURITY CONTRIBUTIONS

- Social security contributions as a share of total tax revenues on average across the OECD accounted for 26% in 2014. They were highest in the Czech Republic and the Slovak Republic (43% and 44%, respectively). In contrast, Australia and New Zealand do not levy social security contributions (Figure 4). There is also wide variation across OECD countries in the relative proportions of social security contributions paid by employees and employers.

Figure 4. Tax structures in 2014 (as % of total tax revenue)



Source: Data from Revenue Statistics 2016, <http://www.oecd.org/tax/tax-policy/revenue-statistics.htm>

PROPERTY TAXES

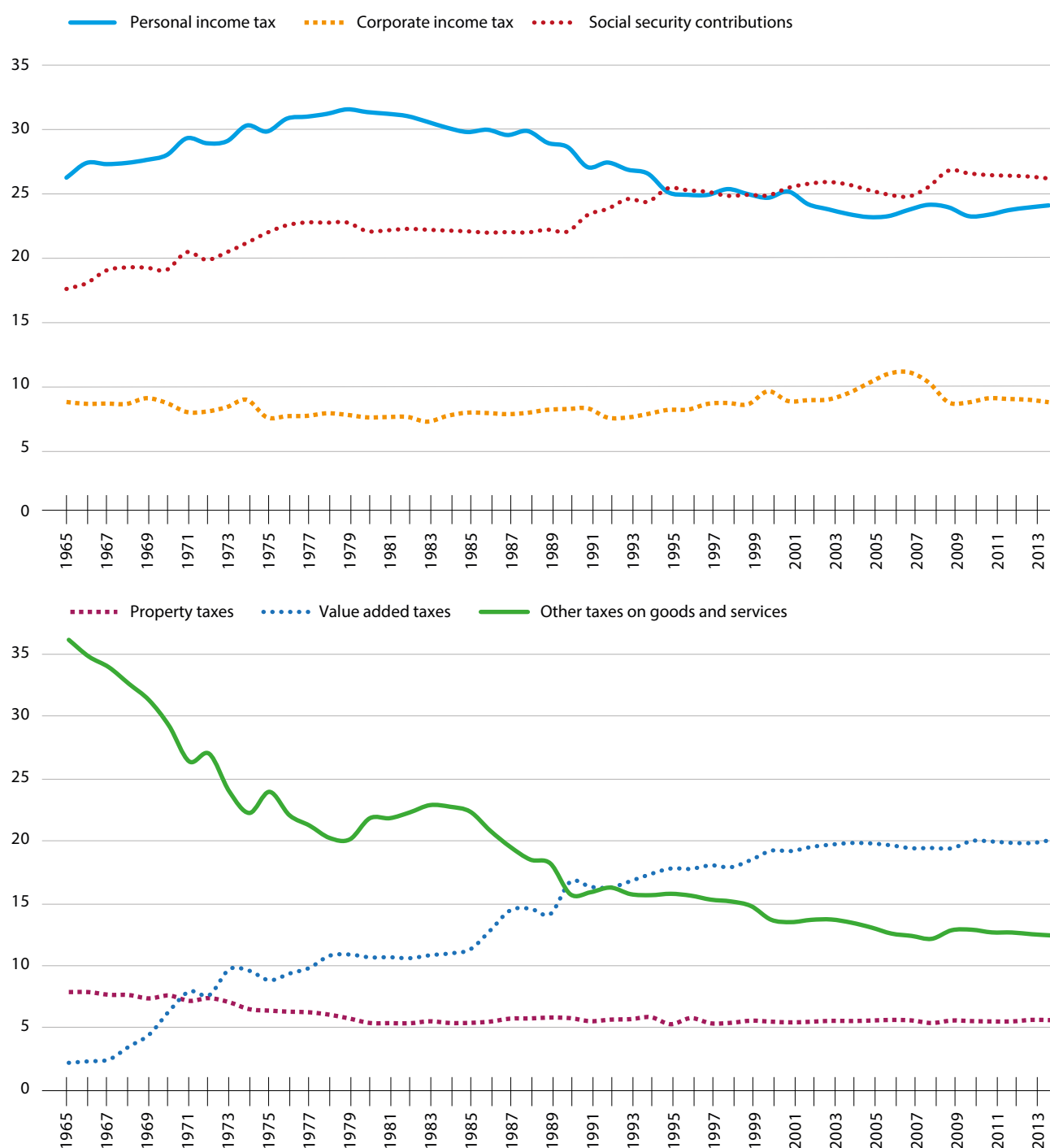
- Between 1965 and 2014, the share of taxes on property fell from 8% to 6% of total tax revenues on average across the OECD (Figure 5).
- In relative terms, property taxes account for more than 10% of total tax revenue - in five countries (Australia, Canada, Korea, the United Kingdom and the United States).

CONSUMPTION TAXES

- The share of taxes on consumption (general consumption taxes plus specific consumption taxes) fell from 36% to 31% between 1965 and 2014.
- During this period, the composition of taxes on goods and services has fundamentally changed. A fast-growing revenue source has been general consumption taxes, especially the value-added tax (VAT) which is now imposed in thirty-four of the thirty-five OECD countries³.
- General consumption taxes presently account for 21% of total tax revenue, compared with only 12% in the mid-1960s.
- The substantially increased importance of the value-added tax has served to counteract the diminishing share of specific consumption taxes, such as excises and customs duties (Figure 5).

3. The terms "value added tax" and "VAT" are used to refer to any national tax that embodies the basic features of a value added tax by whatever name or acronym it is known e.g. "Goods and Services Tax" ("GST").

- Between 1965 and 2014 the share of specific taxes on consumption (mostly on tobacco, alcoholic drinks and fuels, including some newly introduced environment-related taxes) more than halved.
- Rates of taxes on imported goods were considerably reduced across all OECD countries, reflecting a global trend to remove trade barriers.
- Nevertheless, countries such as Estonia (around 14%), Slovenia (around 15%) and Turkey (around 22%) still collect a relatively large proportion of their tax revenues through taxes on specific goods and services.

Figure 5. **Trends in tax structures in the OECD area, 1965-2014 (unweighted average as % of total tax revenue)**Source: Data from Revenue Statistics 2016, <http://www.oecd.org/tax/tax-policy/revenue-statistics.htm>

Taxes by level of government



Table 2 shows the relative share of tax revenues attributed to the various sub-sectors of general government in 2014.

Table 2. **Attribution of tax revenues to sub-sectors of general government as % of total tax revenue**

	Supranational	Central government	State or Regional government	Local government	Social Security Funds
	2014	2014	2014	2014	2014
Federal countries					
Australia	–	80.0	16.5	3.5	0.0
Austria	0.3	66.5	1.6	3.2	28.5
Belgium	0.7	57.4	5.3	4.6	31.9
Canada	–	41.4	39.1	10.3	9.2
Germany	0.4	31.2	22.0	8.2	38.1
Mexico	–	73.3	4.4	1.6	20.6
Switzerland	–	35.2	24.7	15.3	24.9
United States	–	42.1	19.7	14.1	24.1
<i>Unweighted average</i>	0.5	53.4	16.7	7.6	22.2
Regional country					
Spain ¹	0.4	42.3	13.6	10.0	33.6
Unitary countries					
Chile	–	86.7	–	7.6	5.8
Czech Republic	0.5	54.5	–	1.2	43.8
Denmark	0.3	74.6	–	25.0	0.1
Estonia	0.5	82.0	–	1.1	16.5
Finland	0.2	47.4	–	23.5	28.9
France	0.2	33.1	–	13.0	53.7
Greece	0.2	68.6	–	3.0	28.2
Hungary	0.3	60.8	–	5.7	33.2
Iceland	–	75.5	–	24.5	0.0
Ireland	0.5	82.4	–	2.8	14.3
Israel	–	75.6	–	8.0	16.4
Italy	0.3	53.4	–	16.5	29.8
Japan	–	36.9	–	23.5	39.7
Korea	–	56.2	–	16.9	26.9
Latvia	0.5	50.8	–	19.5	29.1
Luxembourg	0.1	68.8	–	3.3	27.8
Netherlands	1.0	55.6	–	3.8	39.6
New Zealand	–	93.3	–	6.7	0.0
Norway	–	86.1	–	13.9	0.0
Poland	0.3	48.2	–	13.4	38.1
Portugal	0.3	67.8	–	7.2	24.7
Slovak Republic	0.5	54.6	–	2.7	42.1
Slovenia	0.4	50.0	–	10.6	39.0
Sweden	0.3	50.0	–	36.9	12.7
Turkey	–	62.0	–	9.4	28.5
United Kingdom	0.6	75.8	–	5.0	18.7
<i>Unweighted average</i>	0.4	63.5	–	11.7	24.5

1. Spain is constitutionally a non-federal country with a highly decentralised political structure.

Source: Data from *Revenue Statistics 2016*, <http://www.oecd.org/tax/tax-policy/revenue-statistics.htm>

FEDERAL AND REGIONAL COUNTRIES

- In 2014, the share of central government receipts in the eight federal OECD countries varied from 31% in Germany to 80% in Australia.
- In 2014, the share of the states varied from 2% in Austria, 4% in Mexico and 5% in Belgium to 39% in Canada. The share of local government varied from 2% in Mexico to 15% in Switzerland.
- Between 1975 and 2014 the share of federal government revenues declined by about eight percentage points in Belgium and to a lesser extent in Canada, Germany and the United States.
- The share of federal government revenues increased in Austria and Switzerland by 15 and five percentage points respectively. There was little change in Australia and Mexico.
- Of the seven federal countries with social security funds, the share increased in five, the exceptions being Canada and Mexico where it slightly declined.
- Spain is classified as a regional rather than a unitary country because of its highly decentralised political structure. In 2014 the share of central government receipts was 42% compared with 14% for the regional government. Between 1975 and 2014, the share of local government receipts increased from 4% to 10% and the share of social security funds declined from 48% to 34%.

UNITARY COUNTRIES

- In unitary OECD countries, the share of central government receipts in 2014 varied from 34% in France and 37% in Japan to 93% in New Zealand.
- The local government share varied from 1% in Estonia and in the Czech Republic to 37% in Sweden.
- Between 1975 and 2014 there have been shifts to local government of 5 percentage points or more in six countries – France, Iceland, Italy, Korea, Portugal and Sweden and a smaller increase in the Netherlands. Shifts of 5 percentage points or more in the other direction occurred in two countries - Norway and the United Kingdom⁴.
- Between 1975 and 2014, there were increases in the share of social security funds of 7 or more percentage points in four countries - Finland, France, Japan and Korea and corresponding decreases in three other countries - Italy, Norway and Portugal.
- The guidelines for attributing these revenue shares to the different levels of government are based on the final version of the 2008 System of National Accounts. These guidelines are discussed in the special feature S.1 in the 2011 edition of OECD Revenue Statistics.

4. For 1975 data, please see table 1.4 of *Revenue Statistics 2016*.

Box 2 Methodology: tax levels & GDP

The tax to GDP ratios shown in *Revenue Statistics 2016* express aggregate tax revenues as a percentage of GDP. It is important to recognise that the value of this ratio depends on its denominator (GDP) as well as its numerator (tax revenue), and that the denominator – GDP – is subject to historical revision.

The numerator (tax revenue)

- For the numerator, the OECD Secretariat uses revenue figures that are submitted annually by correspondents from national Ministries of Finance, Tax Administrations or National Statistics Offices. Although provisional figures for most countries become available with a lag of about six months, finalised data become available with a lag of around one and a half years. Final revenue data for 2014 were received during the period May–August 2016.
- In thirty-one OECD countries the reporting year coincides with the calendar year. Four countries — Australia, Canada, Japan and New Zealand — have different reporting years. Reporting year 2013 includes Q2/2013–Q1/2014 (Canada, Japan) and Q3/2013–Q2/2014 (Australia, New Zealand) respectively (Q = quarter).

The denominator (GDP)

- For the denominator, the GDP figures used for *Revenue Statistics 2016* are the most recently available on 1 September 2016. By that time, the 2014 and 2015 GDP figures were available for all OECD countries.
- Using these GDP figures ensures a maximum of consistency and international comparability for the reported tax to GDP ratios.
- The GDP figures are based on the OECD Annual National Accounts (ANA – SNA) for the thirty-one OECD countries where the reporting year is the actual calendar year.
- Where the reporting year differs from the calendar year, the annual GDP estimates are obtained by aggregating quarterly GDP estimates provided by the OECD Statistics Directorate for those quarters corresponding to each country's fiscal (tax) year. For example, in the case of Canada Q2/2013–Q1/2014.





Source: Revenue Statistics 2016

www.oecd.org/tax/tax-policy/revenue-statistics.htm

Further reading:

OECD Interpretative Guide

www.oecd.org/tax/tax-policy/oecd-classification-taxes-interpretative-guide.pdf

Revenue Statistics in Africa

www.oecd.org/tax/africa-revenue-statistics.htm

Revenue Statistics in Asian Countries

www.oecd.org/tax/revenue-statistics-in-asian-countries-2016-9789264266483-en.htm

Revenue Statistics in Latin America & the Caribbean

www.oecd.org/tax/revenue-statistics-in-latin-america-and-the-caribbean-24104736.htm

For more information:

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🌐 www.oecd.org/tax/tax-policy/

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