Tax Policy Reforms 2019

OECD AND SELECTED PARTNER ECONOMIES

OECD

Tax Policy Reforms 2019

OECD AND SELECTED PARTNER ECONOMIES

OECD
BETTER POLICIES FOR BETTER LIVES

This document, as well as any data and any map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Please cite this publication as:
OECD (2019), *Tax Policy Reforms 2019: OECD and Selected Partner Economies*, OECD Publishing, Paris, *https://doi.org/10.1787/da56c295-en*.

ISBN 978-92-64-45646-4 (print)
ISBN 978-92-64-76888-8 (pdf)

Tax Policy Reforms
ISSN 2617-3425 (print)
ISSN 2617-3433 (online)

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Photo credits: Cover image word cloud © Tagul.com

Corrigenda to OECD publications may be found on line at: *www.oecd.org/about/publishing/corrigenda.htm*.

© OECD 2019

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgement of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to *rights@oecd.org*. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at *info@copyright.com* or the Centre français d'exploitation du droit de copie (CFC) at *contact@cfcopies.com*.

Foreword

This is the fourth edition of *Tax Policy Reforms: OECD and Selected Partner Economies*, which is an annual publication that provides comparative information on tax reforms across countries and tracks tax policy developments over time. The report covers the latest tax policy reforms in all OECD countries, as well as in Argentina, Indonesia and South Africa.

This report was produced by the Tax Policy and Statistics Division of the OECD's Centre for Tax Policy and Administration. It was led by Sarah Perret and written jointly with Véronique Salins (Economics Department), Luisa Dressler and Sean Kennedy (Centre for Tax Policy and Administration), under the supervision of Bert Brys. The authors would like to thank the delegates of Working Party No.2 on Tax Policy Analysis and Tax Statistics and the Committee on Fiscal Affairs for their inputs. The authors would also like to acknowledge Piet Battiau, Sveinbjorn Blondal, David Bradbury, Michelle Harding, Nigel Pain and Kurt Van Dender for their helpful comments, and Karena Garnier, Natalie Lagorce and Michael Sharratt for their assistance with formatting and communication.

This report was approved by the Committee on Fiscal Affairs on 19 July 2019 and prepared for publication by the OECD Secretariat.

Table of contents

Foreword 3

Executive summary 7

1 Macroeconomic background 9
1.1. Global growth, labour market and investment trends 10
1.2. Public debts and budget balances 16
1.3. Trends in income inequality 19
References 22
Notes 23

2 Tax revenue trends 24
2.1. Trends in tax revenue levels 25
2.2. Trends in the composition of tax revenues 33
References 36
Notes 37

3 The latest tax policy reforms 38
3.1. Personal income taxes and social security contributions 39
3.2. Corporate income taxes and other corporate taxes 54
3.3. VAT/GST and other taxes on goods and services 74
3.4. Environmentally related taxes 87
3.5. Property taxes 96
References 98
Notes 100

Tables

Table 3.1. Changes to PIT rates 44
Table 3.2. Changes to PIT bases 46
Table 3.3. Changes to tax rates on personal capital income 50
Table 3.4. Changes to personal capital income tax bases 51
Table 3.5. Changes to SSC rates 52
Table 3.6. Changes to SSC bases 53
Table 3.7. Changes in corporate income tax rates 60
Table 3.8. Changes to corporate tax bases 64
Table 3.9. Unilateral measures on digital taxation 74
Table 3.10. Changes to reduced VAT/GST rates 79
Table 3.11. Changes to taxes on energy use 93
Table 3.12. Changes to taxes on motor vehicles and other transport taxes 95

Table 3.13. Changes to other environmentally related taxes 96
Table 3.14. Property tax changes 98

Figures

Figure 1.1. Real GDP growth 11
Figure 1.2. Evolution of OECD real GDP per capita growth 11
Figure 1.3. Real GDP growth in OECD and selected countries 12
Figure 1.4. Unemployment rates in OECD and selected countries 13
Figure 1.5. Employment and real income growth 13
Figure 1.6. Real private consumption expenditure growth and inflation 14
Figure 1.7. Gross fixed capital formation growth in OECD countries and selected countries 15
Figure 1.8. Labour productivity in OECD countries since the crisis 16
Figure 1.9. General government gross debt and budget balance 17
Figure 1.10. General government gross debt, 2018 or latest 17
Figure 1.11. General government budget balance, 2018 or latest 18
Figure 1.12. Gross government interest payments in OECD and selected countries 18
Figure 1.13. Market income (before taxes and transfers) Gini coefficients 20
Figure 1.14. Market income, post-transfer and disposable income Gini coefficients 20
Figure 1.15. Disposable income (post taxes and transfers) Gini coefficients 21
Figure 1.16. Household real disposable income growth 21
Figure 2.1. Tax revenues as a share of GDP by country in 2017 25
Figure 2.2. Distribution of tax-to-GDP ratios in 2016 27
Figure 2.3. Tax revenues as a share of GDP and GDP per capita in 2017 27
Figure 2.4. Tax revenues and total government spending as a share of GDP in 2017 28
Figure 2.5. Percentage point changes in tax-to-GDP ratios by country between 2016 and 2017 29
Figure 2.6. Percentage point changes in tax-to-GDP ratios by country between 2016 and 2017 (without Iceland) 29
Figure 2.7. Percentage point changes in tax-to-GDP ratios by country between 2007 and 2017 30
Figure 2.8. Long-term evolution of the OECD average tax-to-GDP ratio 31
Figure 2.9. Dispersion of tax-to-GDP ratios in OECD countries, 1995-2016 32
Figure 2.10. Evolution of tax-to-GDP ratios in low-, mid- and high-tax countries since 1990 32
Figure 2.11. Tax structures by country in 2016 33
Figure 2.12. OECD average tax mix in 2000, 2008 and 2016 34
Figure 2.13. Cumulative percentage point changes in tax revenues since 2008 35
Figure 2.14. Distance from the OECD average tax structure (D-index), 1995 and 2016 36
Figure 3.1. SSCs and payroll taxes as a share of total tax revenues by country in 2017 40
Figure 3.2. PIT, SSCs and payroll tax revenue as a share of total tax revenues, OECD average, 1965 - 2016 41
Figure 3.3. Evolution of the average tax wedge on labour income in the OECD between 2000 and 2018 41
Figure 3.4. Changes in labour income tax wedges in OECD countries before and after the financial crisis by family type 42
Figure 3.5. Change in tax wedges and its components across OECD countries between 2017 and 2018 43
Figure 3.6. Corporate income tax revenues as a share of GDP in 2000 and 2017 55
Figure 3.7. Corporate income tax revenues as a share of total tax revenues in 2000 and 2017 56
Figure 3.8. Evolution of the average combined statutory CIT rate and average CIT revenues in OECD countries since 2000 57
Figure 3.9. Evolution of the OECD average combined statutory CIT rate and dispersion of OECD CIT rates between 2000 and 2019 58
Figure 3.10. The distribution of combined statutory CIT rates in 2000 and 2019 58
Figure 3.11. Evolution of combined statutory CIT rates in different groups of countries 59
Figure 3.12. Selected corporate income tax rate reductions 61
Figure 3.13. Combined statutory CIT rates by country in 2000, 2008 and 2019 61
Figure 3.14. Reduced CIT rates under selected non-harmful intellectual property regimes in 2018 62
Figure 3.15. Composite marginal effective tax rates in 2017 65
Figure 3.16. Implied tax subsidy rates on R&D expenditures 67
Figure 3.17. Consumption tax revenues as a share of total taxation in 2017 75
Figure 3.18. General consumption tax revenues (left panel) and specific consumption tax revenues (right panel) as a share of total tax revenues, OECD average from 1975 to 2016 75
Figure 3.19. VAT revenues as a share of GDP by country in 2000, 2008 and 2017 76

Figure 3.20. Evolution of the OECD average standard VAT rate from 1975 to 2019 77
Figure 3.21. Standard VAT rates by country in 2008 and 2019 77
Figure 3.22. VAT/GST registration and collection thresholds in OECD countries in 2019 80
Figure 3.23. VAT Revenue Ratios in 2016 82
Figure 3.24. Total tax burden on cigarettes as a share of retail selling prices 86
Figure 3.25. Revenues from environmentally related taxes as a share of GDP in 2016, by country 89
Figure 3.26. The carbon pricing gap at EUR 30 per tonne of CO_2 by country in 2015 92
Figure 3.27. Property tax revenues as a share of GDP in 2000 and 2017 96
Figure 3.28. Evolution of property tax revenues as a share of total taxation in the OECD since 1965 97

Boxes

Box 2.1. The OECD Global Revenue Statistics Database 26
Box 3.1. The OECD Annual Tax Policy Reform Questionnaire 39
Box 3.2. The Potential of Tax Microdata for Tax Policy 45
Box 3.3. Reshaping the personal income tax in Slovenia 54
Box 3.4. The 2019 Dutch Tax Reform 60
Box 3.5. The Swiss tax reform proposal 63
Box 3.6. Italy's main corporate tax measures 66
Box 3.7. Addressing the tax challenges arising from digitalisation 73
Box 3.8. The distributional effects of reduced VAT rates in OECD countries 78
Box 3.9. OECD report on "The role of digital platforms in the collection of VAT/GST on online sales" 85
Box 3.10. The potential of environmentally related taxes to improve the tax policy toolkit, while reducing harmful behaviour: the case of road transport 88
Box 3.11. Careful design and tailored communication is essential for the success of environmental tax reform 90

Follow OECD Publications on:

http://twitter.com/OECD_Pubs

http://www.facebook.com/OECDPublications

http://www.linkedin.com/groups/OECD-Publications-4645871

http://www.youtube.com/oecdilibrary

http://www.oecd.org/oecddirect/

Executive summary

This is the 2019 edition of *Tax Policy Reforms: OECD and Selected Partner Economies*, an annual publication that provides comparative information on tax reforms across countries and tracks tax policy developments over time. The report covers the latest tax policy reforms in all OECD countries, as well as in Argentina, Indonesia and South Africa.

Fewer countries have introduced comprehensive tax reform packages in 2019 compared to previous years. The most comprehensive tax reform was introduced in the Netherlands. Other significant tax changes are being implemented in Lithuania (labour taxes), Australia (personal and corporate income taxes), Italy (corporate income tax) and Poland (personal and corporate income taxes). In other countries, tax reforms in 2019 have been less significant and have often been undertaken in a piecemeal fashion. The challenges ahead, including the prospects of weakening economic growth in some countries, income and wealth inequality, the changing nature of work as well as climate change will require bolder tax reforms, implemented in conjunction with other structural reforms.

The report identifies a number of common tax reform trends across countries:

- In the area of personal income taxes (PIT), the report confirms that countries are continuing to cut labour taxes, after several years of PIT increases following the crisis. In 2019, most of the countries that have introduced PIT reforms are cutting PIT rates and narrowing PIT bases. These reforms are expected to reduce tax revenues, at least in the short term. A stated rationale for these reforms among many countries is to support employment and those on low and middle incomes. While this trend represents a broad continuation of PIT reforms in recent years, the previous focus on tax rate cuts has slowed while base narrowing has intensified. Regarding the taxation of personal capital income, reforms have tended towards modest increases in tax rates on capital gains and dividends. Some countries have also expanded tax incentives to support pension savings and small savers.
- With respect to social security contributions (SSCs), reforms have been modest in 2019 and SSCs remain high in many countries. Broadly, SSC reforms in 2019 tended to focus on SSC rate cuts rather than increases and were evenly split between base narrowing and broadening measures.
- Corporate income tax (CIT) rate cuts have continued in 2019, but these rate reductions have been less significant than the ones introduced in 2018. Interestingly, the countries that are introducing the most significant CIT rate reductions tend to be those that exhibit higher initial CIT rates, leading to further convergence in CIT rates across countries. Many countries have also reinforced the generosity of their corporate tax incentives to stimulate investment and innovation.
- With regard to international taxation, efforts to protect CIT bases against corporate tax avoidance have continued with the adoption of significant reforms in line with the OECD/G20 Base Erosion and Profit Shifting (BEPS) project. The tax challenges arising from the increasing digitalisation of the economy continue to give rise to concern among countries. Efforts to achieve a consensus-based multilateral solution to address those challenges are ongoing, but some countries are considering or have implemented interim measures to tax certain revenues from digital services in the meantime.

- The stabilisation of standard value-added tax (VAT) rates observed across countries in the last couple of years is continuing. High standard VAT rates in many countries have limited the room for additional rate increases without generating potentially high efficiency and equity costs. Instead, many countries have concentrated their efforts on the fight against VAT fraud to raise additional revenues and strengthen the functioning and fairness of VAT systems. Importantly, some of the recent anti-fraud measures, especially the expansion of the domestic reverse charge mechanism and split payments, involve major changes to the way VAT has traditionally been collected. In addition, significant efforts are being made to ensure the effective taxation of cross-border trade. Partly to compensate for high standard VAT rates, a number of countries have expanded the scope of their reduced VAT rates. While these measures are typically justified as a way to enhance fairness or support specific industries, evidence has shown that they tend to be poorly targeted policy instruments. Trends in excise duties show continuing tax increases to deter harmful consumption, focused in particular on tobacco products and sugar-sweetened beverages. Finally, new trade tariffs have been introduced, which could lead to further escalations in the future.
- The pace of environmentally related tax reform has slowed. In particular, efforts to strengthen energy taxes (fuel excise and carbon taxes) have weakened. Compared to previous years, far fewer countries have introduced reforms to extend the use of energy taxes and increase tax rates. On the contrary, several countries have lowered taxes on energy use or reversed reforms that had been introduced to better align energy taxation with climate costs. These findings seem to conflict with countries' climate and environmental preservation objectives and their desire to improve the efficiency of their tax systems. Aside from energy taxation, taxation in the transport sector has also seen very limited progress. Some of the reforms in that area have involved the taxation of less traditional tax bases including air travel and road use. Finally, progress on other environmentally related taxes, such as taxes on waste production, plastic or the use of chemicals, has been exceptionally limited.
- Finally, the property tax reforms introduced in 2019 were limited in number and in scope, confirming that the revenue-raising and equity-enhancing potential of property taxes remains under-utilised. Some of the reforms introduced in 2019 have focused on increasing taxes on high-value immovable property.

The report is structured as follows: Chapter 1 gives an overview of the macroeconomic background in 2018; Chapter 2 presents the latest trends in tax revenues and tax mixes; and Chapter 3 gives an overview of the latest tax reform trends.

1 Macroeconomic background

This chapter gives an overview of the main macroeconomic trends up until 2018. The purpose of this overview is to provide background information to help understand tax revenue trends as well as tax policy changes. Tax policy reforms are closely connected with economic trends: tax revenues are affected by changes in macroeconomic conditions and economic trends themselves are key drivers of tax reforms.

1.1. Global growth, labour market and investment trends

This section provides background information on macroeconomic conditions up until 2018 in order to help understand tax revenue trends and tax policy changes. It covers recent trends in growth, inflation, productivity, investment, the labour market, public finances and inequality. Tax policy developments are closely connected with economic trends: tax revenues are affected by changes in macroeconomic conditions and these developments are also important factors behind tax reforms.

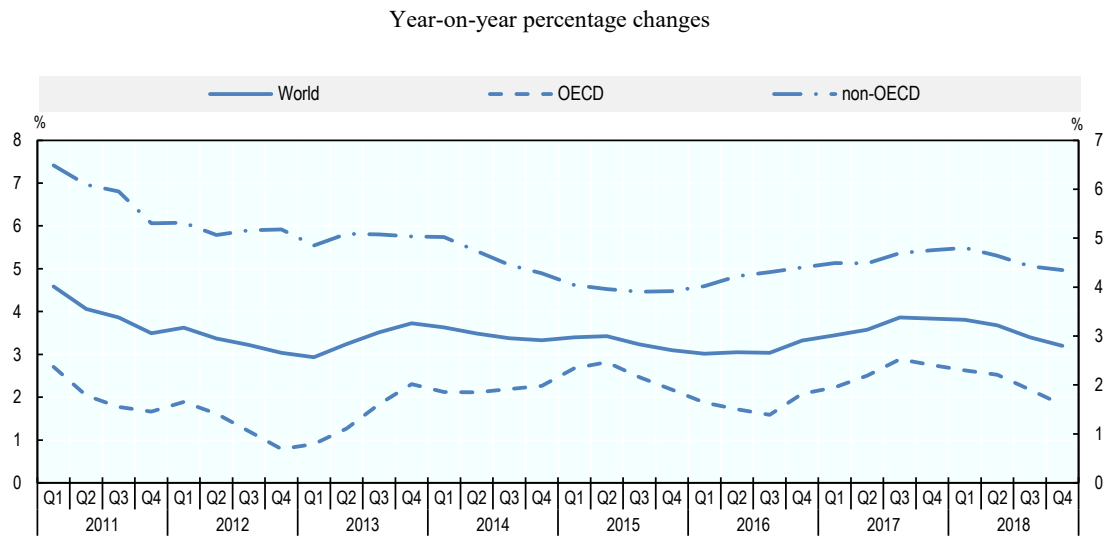
1.1.1. Global growth slowed in 2018 with diverging developments in major economies

Global GDP growth is estimated to have been 3.5% in 2018, losing momentum from its 2017 pace and continuing to fall short of the longer-term average of around 4% seen in the two decades prior to the financial crisis (Figure 1.1). Output and trade growth both moderated amidst heightened policy uncertainty, persistent trade tensions and tighter financial conditions, with the extent of the slowdown increasing in the latter half of 2018 (OECD, 2019[1]). Wage growth remained modest, despite tighter labour market conditions, and the cyclical improvement in consumption and investment remained short of that in past upswings (OECD, 2018[2]). The lingering effects of prolonged sub-par growth after the financial crisis also continued to be reflected in subdued productivity and modest capital stock growth (Ollivaud, Guillemette and Turner, 2018[3]). Per capita GDP growth slowed in the majority of OECD economies in 2018, and shortfalls in the years after the crisis have not been overcome (Figure 1.2 and OECD, 2018[4]).

Growth diverged amongst advanced economies (Figure 1.3). Strong growth in the United States, supported by solid labour market conditions and the short-term effects of fiscal stimulus, contrasted with moderating growth in the euro area and Japan. The slowdown in these economies was partly due to temporary factors, such as the disruption in production in Germany from new vehicle emission standards and natural disasters affecting Japan during the third quarter. However, other drivers, such as trade tensions, weakening business and consumer confidence and heightened policy uncertainty in Europe, also played a role and may have longer lasting effects. Overall, in the OECD as a whole, GDP growth slowed to 2.3% in 2018 from 2.6% in 2017.

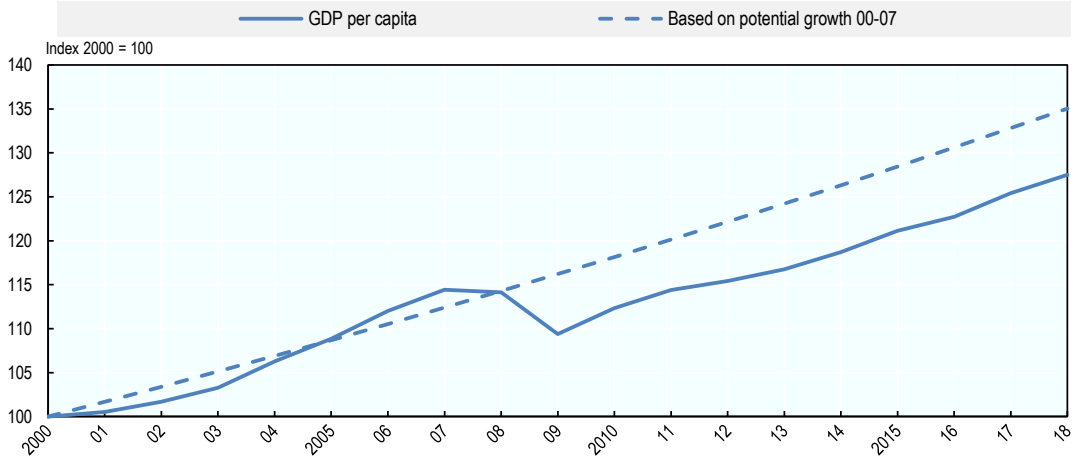
Growth also weakened in many major emerging market economies. Continued growth moderation in China reflected ongoing deleveraging efforts, moderating industrial production growth and deteriorating trade developments due to the higher tariffs imposed on bilateral trade by the United States and China. Tightening financial conditions and a decline in global risk appetite, against the backdrop of monetary policy normalisation in the United States, triggered sharp declines in output in some emerging market economies, which had large and rising external imbalances, notably Turkey and Argentina. South Africa and Indonesia were relatively little affected by financial tensions, but while growth remained robust in Indonesia, it weakened in South Africa, with policy uncertainty, uneven electricity supply, and high unemployment weighing on domestic demand. The recovery continued in Brazil, albeit at a subdued pace due to weak industrial production. Growth in India growth, on the other hand, was robust, supported by buoyant investment and exports.

Figure 1.1. Real GDP growth



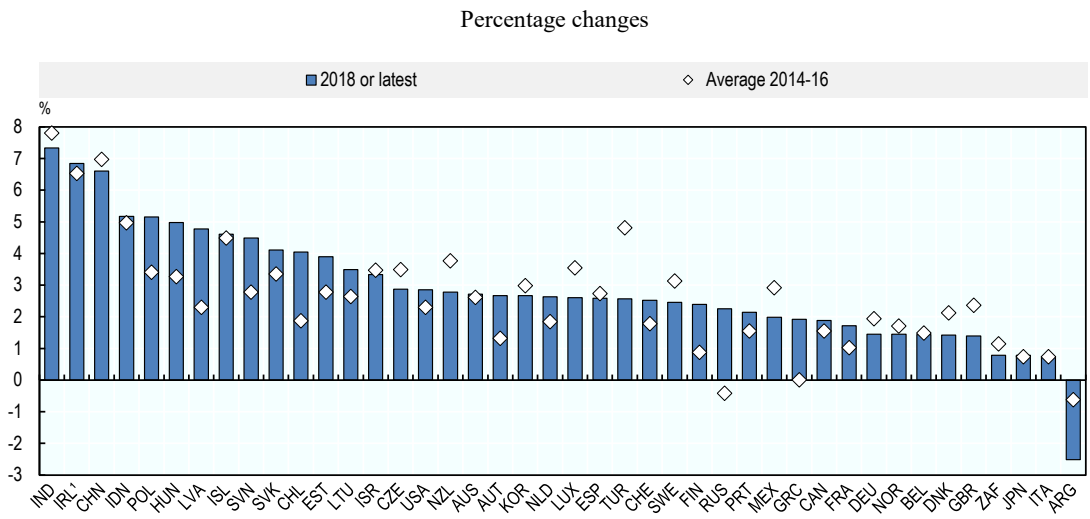
Note: GDP measured using purchasing power parities.
Source: OECD Economic Outlook database; and OECD calculations.

Figure 1.2. Evolution of OECD real GDP per capita growth



Note: The dotted line shows a linear projection based on the average annual growth rate of potential GDP per capita in the 2000-07 period.
Source: OECD Economic Outlook database; and OECD calculations.

Figure 1.3. Real GDP growth in OECD and selected countries



1. Growth in Ireland was computed using gross value added at constant prices excluding foreign-owned multinational enterprise dominated sectors.
Source: OECD Economic Outlook database; and OECD calculations.

1.1.2. Labour market conditions continued to improve but the recovery in employment remained uneven

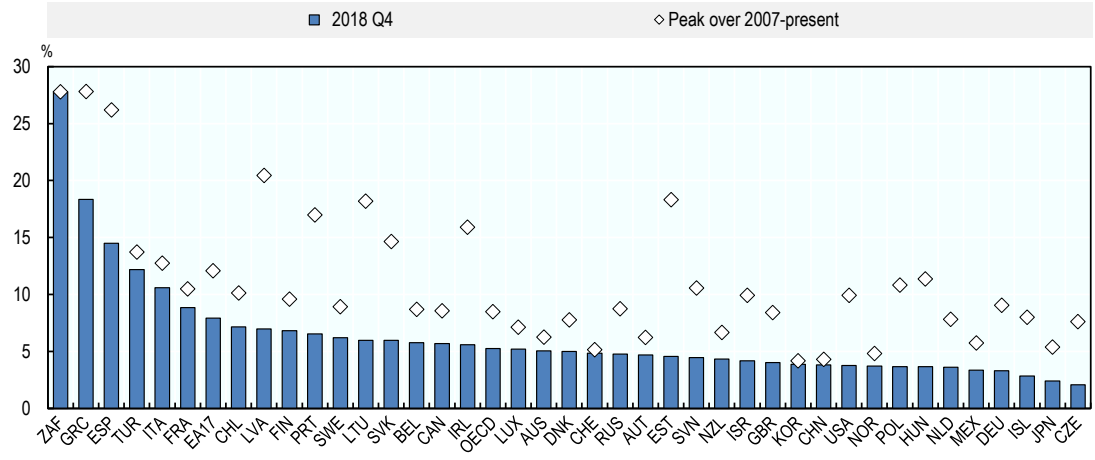
Labour market conditions continued to improve in 2018, with further declines in unemployment rates (Figure 1.4) **and solid employment growth** (Figure 1.5, Panel A). In the OECD as a whole, the harmonised unemployment rate fell to 5.2% by the fourth quarter of 2018, 0.4 percentage point below the immediate pre-crisis level, and the lowest rate since 1980. Nonetheless, the level of unemployment remained elevated in some countries, particularly in some euro area member countries (Figure 1.4) even after the significant declines in recent years. In many advanced economies, employment and labour participation rates rose above the levels prior to the crisis, although the United States was a notable exception, with the participation of prime-age workers (in the 25-54 age group) remaining significantly below its pre-crisis level. This partly reflects an increase in the incidence of poor health and disability, including high opioid prescriptions (OECD, 2018[5]; OECD, 2018[6]).

Notwithstanding improved labour market conditions, long-term unemployment and the incidence of involuntary part-time employment remained elevated. As of 2017, long-term unemployment (over one year) represented almost a third of total unemployment on average in the OECD economies (compared to under a quarter in 2008), peaking at 71% in Greece and 60% in Italy. The large share of long-term unemployed people carries the risk of a rising number of discouraged workers - people who drop out of the labour force and experience skills attrition. The share of involuntary part-time workers in total employment has declined, but remains above its pre-crisis level in most OECD countries. In Greece, Italy, and Spain, it remains 3 to 6 percentage points above its pre-crisis level (OECD, 2018[4]).

Wage growth generally remained modest in the major economies, despite tighter labour markets (Figure 1.5, Panel B), mainly reflecting weak productivity growth and low price inflation. Nominal wage growth picked up in 2018, but after accounting for inflation, real wage growth was modest. The spread of low-pay, non-standard jobs have also played a role in the overall decline in wage growth. In particular, there has been a significant reduction in the average earnings of part-time jobs relative to that of full-time jobs, a development associated with the rise of involuntary part-time employment in a number of countries (OECD, 2018[5]; OECD, 2019[8]).

Figure 1.4. Unemployment rates in OECD and selected countries

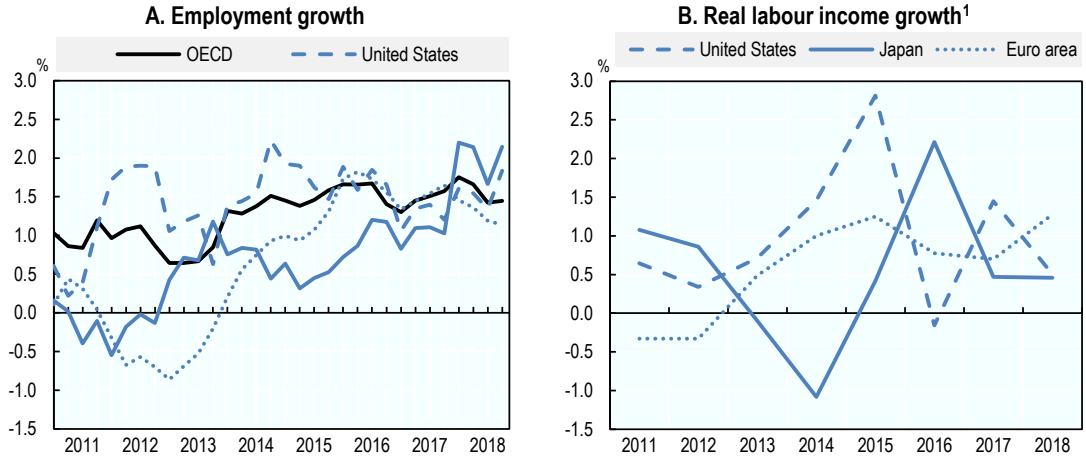
As a percentage of the labour force



Source: OECD Economic Outlook database; and OECD calculations.

Figure 1.5. Employment and real income growth

Year-on-year percentage changes



1. Labour income per employee deflated by the private consumption deflator.
Source: OECD Economic Outlook database; and OECD calculations.

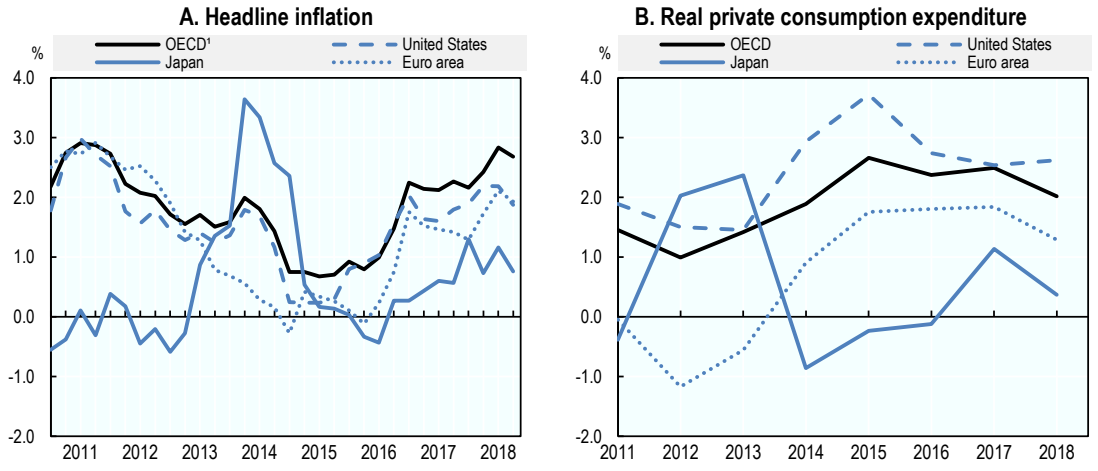
1.1.3. Subdued wage growth checked consumption growth and inflation in 2018

Private consumption growth slowed in the OECD area as a whole in 2018 (Figure 1.6, Panel B). Although rising employment and supportive financial conditions supported household incomes, weak real wage growth resulted in modest household income growth in 2018 in most advanced economies. In turn, this weighed on household spending.

Headline inflation was pushed up during the first part of 2018 by a significant rise in commodity prices, but started to slip back by the end of 2018 as oil prices weakened once again. The surge in commodity prices reduced household purchasing power, at least temporarily. Oil prices in the first half of the year were boosted by strong demand, the extension of production restrictions by the Organisation of the Petroleum Exporting Countries (OPEC) and Russia, and supply disruptions in some OPEC economies, particularly Venezuela and Iran. However, slowing global demand and record production levels in the United States weighed on oil prices during the last quarter of the year: by end-2018, Brent oil prices were around 40% below their peak in October and more than USD 20 per barrel lower than the average in 2018. In the context of moderate wage growth, underlying inflation (i.e. excluding food and energy) generally remained subdued in the major OECD economies and below official medium-term objectives for headline inflation.

Figure 1.6. Real private consumption expenditure growth and inflation

Year-on-year percentage changes



Note: The OECD aggregate is computed based on different indicators: United States: price index for personal consumption expenditure; euro area members and United Kingdom: harmonised index of consumer prices; and other countries: national consumer price index.
Source: OECD Economic Outlook database; and OCDE calculations.

1.1.4. Policy uncertainty and trade tensions weighed on investment and productivity growth remained low

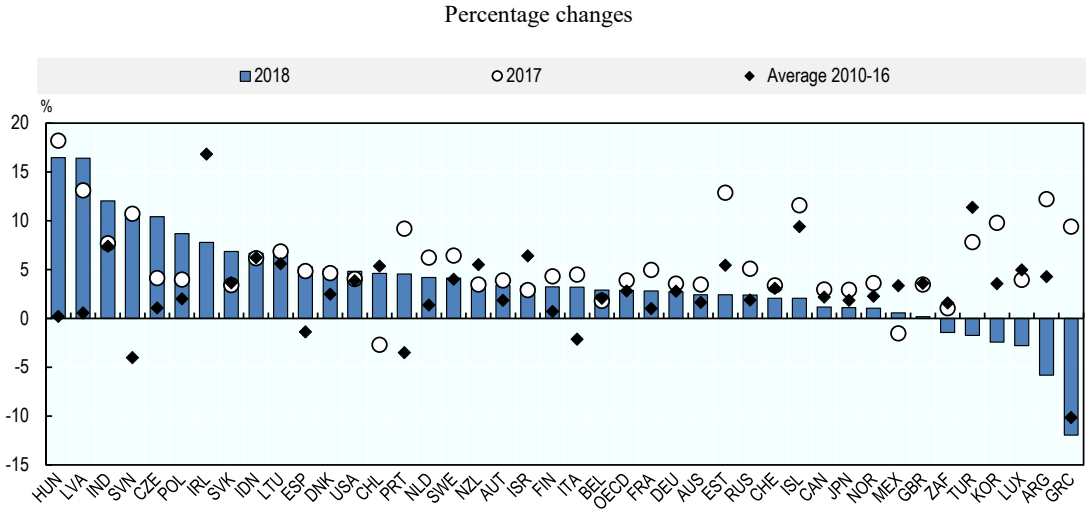
Fixed capital investment slowed in most OECD economies in 2018 amid rising trade tensions, heightened policy uncertainty and a decline in business and consumer confidence (Figure 1.7). Total investment in the OECD area rose by 2.9% last year compared with 3.9% in 2017. After a decade of subdued investment, this rate remained weaker than necessary to help bring the growth of the productive capital stock back to pre-crisis levels, limiting prospects for productivity growth (OECD, 2017[5]). Long-term factors holding back investment include diminished long-term growth expectations and a lack of business dynamism in some economies (OECD, 2018[6]). Resources trapped in unproductive firms (Andrews, Criscuolo and Gal, 2016[7]), and a slowdown in the implementation of new reforms to raise product market competition (OECD, 2018[8]) have also damped incentives to invest. In contrast to many other countries, US business investment growth strengthened to 6.9% in 2018, from 5¼ per cent in 2017, helped by the impact of the corporate tax reforms adopted in 2017 and strong spending in the oil-producing sector.

Global foreign direct investment (FDI) flows declined by 27%[1] in 2018 (OECD, 2019[9]). The US corporate tax reform contributed to the weakness of FDI flows in 2018, with the repatriation of earnings from foreign affiliates to their US parents resulting in large negative reinvested earnings (one component

of total FDI flows) (OECD, 2019[9]). FDI inflows fell by over 23% in OECD countries, largely reflecting lower inflows in the United Kingdom, the United States and Germany and large disinvestments in Ireland and Switzerland probably linked to the US tax reform. They rose, on the other hand, by about 8% in the non-OECD G20 economies and, in particular, in China. This was the third consecutive year of declining FDI inflows in the OECD economies. The aggregate stock of inward FDI in the OECD declined by 2% in 2018 after having risen by 17% in 2017.

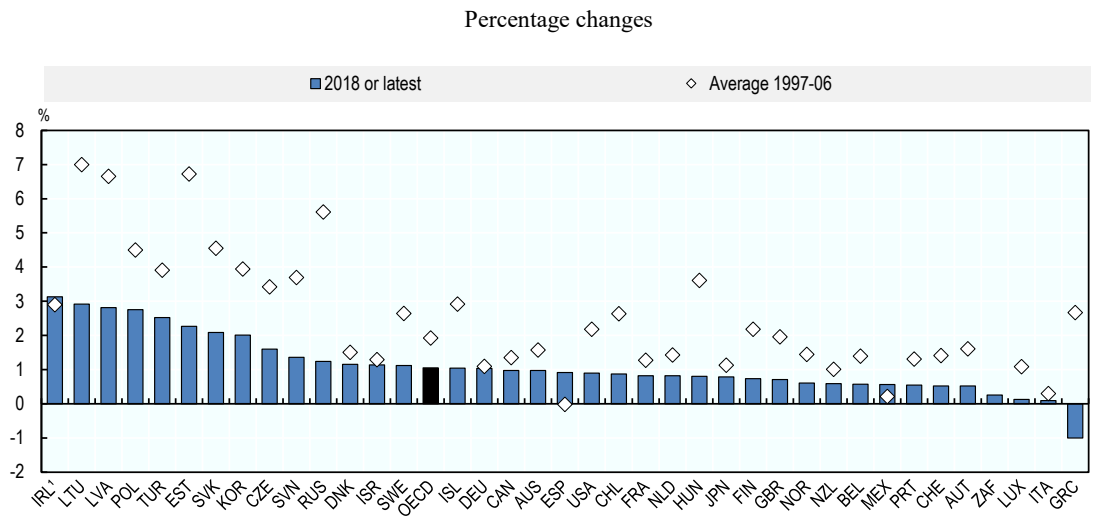
Labour productivity growth remained sluggish, at 0.6% in 2018 in the OECD economies, reflecting the weak growth of productive capital per worker and the low diffusion of new ideas and technology embodied in new equipment. Labour productivity growth in OECD countries since the crisis has generally fallen significantly below that seen in the decade prior to the crisis, checking future potential growth (Ollivaud, Guillemette and Turner, 2018[3]) (Figure 1.8). Moreover, in the post-crisis period, there has been relatively weak growth in multi-factor productivity, which reflects the efficiency with which inputs are used (OECD, 2015[10]). Productivity gaps between firms have widened as frontier firms have continued to make gains but laggard firms have under-performed, contributing to rising inequality (Andrews, Criscuolo and Gal, 2016[7]). These trends, and the associated impact on wages, have led to low income growth for many households, particularly at the bottom of the income distribution, which has in turn held back aggregate consumption growth.

Figure 1.7. Gross fixed capital formation growth in OECD countries and selected countries



Source: OECD Economic Outlook database; and OECD calculations.

Figure 1.8. Labour productivity in OECD countries since the crisis



1. Growth in Ireland was computed using gross value added at constant prices excluding foreign-owned multinational enterprise dominated sectors.
Source: OECD Economic Outlook database; and OECD calculations.

1.2. Public debts and budget balances

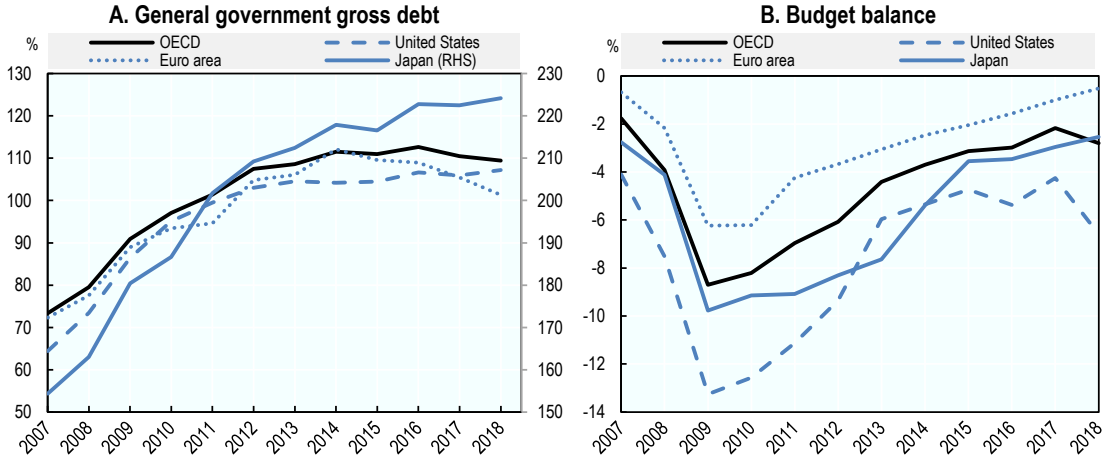
1.2.1. Budget balances have improved and public debt ratios have stabilised or declined in many countries

After rising rapidly in the aftermath of the financial crisis, general government gross debt as a share of GDP has stabilised in the OECD area at a high level. The aggregate OECD gross debt-to-GDP ratio was 109% in 2018, up from 73% in 2007 (Figure 1.9, Panel A). The debt-to-GDP ratio has declined in the euro area over the past four years, but much of this is accounted for by a sharp decline in the ratio in Germany. Across the OECD, there were wide differences in the gross debt ratio between countries in 2018, with gross general government financial liabilities ranging from 13% of GDP in Estonia to an estimated 224% of GDP in Japan (Figure 1.10).

In 2018, the overall budget deficit as a share of GDP rose for OECD economies as a whole (Figure 1.9, Panel B) to 2.8% of GDP from 2.2% in 2017. However, this evolution masks diverging trends, with deficit reductions in the euro area and Japan and a significant deficit increase in the United States in the aftermath of the Tax Cuts and Jobs Act. As a result, the budget deficit reached 6.6% of GDP in the United States (from 4¼ per cent of GDP in 2017) while it fell to 0.5% of GDP in the euro area as a whole and to 2.5% of GDP in Japan. The overall fiscal stance, as measured by the year-on-year change in the underlying primary balance,[2] became more expansionary in 2018, by about ¼ per cent of GDP, in the median OECD economy. Deficit reductions were also observed in many non-OECD G20 countries in 2018, with especially strong declines in Russia and Brazil. In China, the general government budget deficit remained unchanged.

Figure 1.9. General government gross debt and budget balance

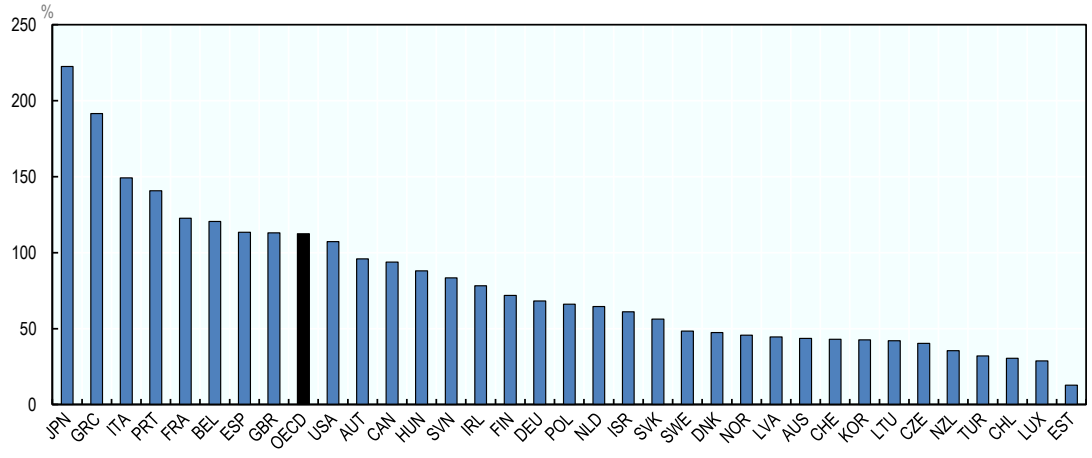
As a percentage of GDP



Source: OECD Economic Outlook database; and OECD calculations.

Figure 1.10. General government gross debt, 2018 or latest

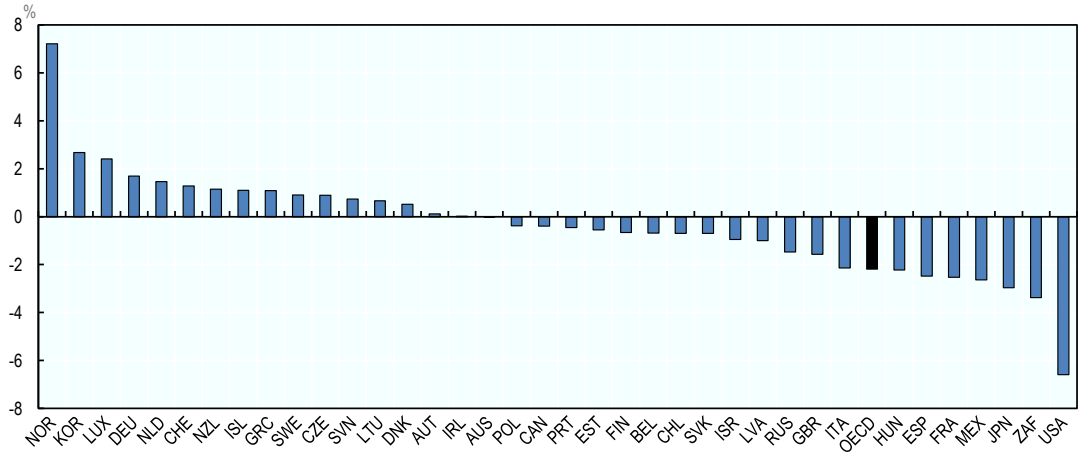
As a percentage of GDP



Note: These figures are from the OECD Economic Outlook Database and differ from the Maastricht definition of general government gross public debt.
Source: OECD Economic Outlook database; and OECD calculations.

Figure 1.11. General government budget balance, 2018 or latest

As a percentage of GDP

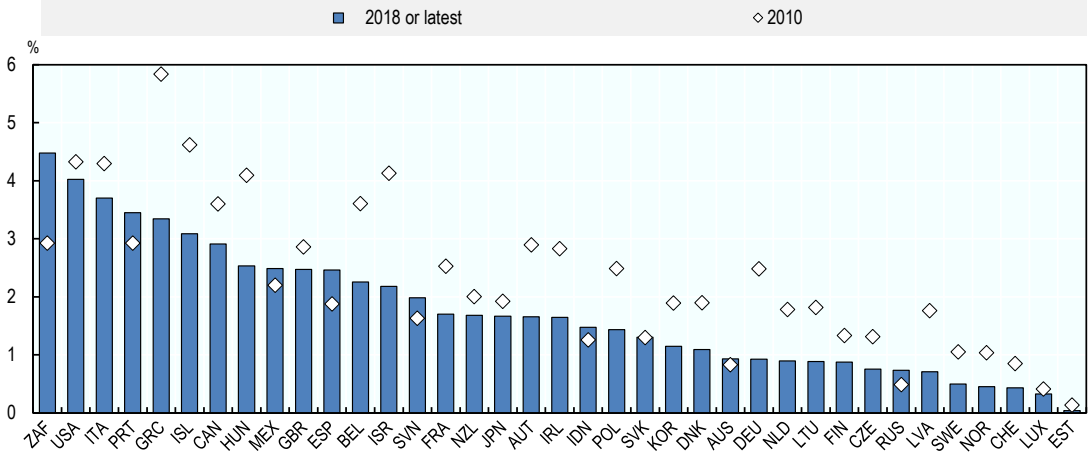


Source: OECD Economic Outlook database; and OECD calculations.

Government bond yields rose through 2018 in the United States as monetary policy normalisation advanced, but remained very low in Japan and the euro area, with the notable exception of Italy, where uncertainty about the evolution of public finances contributed to pushing up yields. In most advanced economies, a significant share of outstanding government debt was still trading at negative yields in 2018. As shown in Figure 1.12, gross government interest payments as a share of GDP generally remained below levels seen following the crisis in OECD countries, despite higher debt levels, increasing fiscal space in many countries. A change in market sentiment, against the backdrop of continued US monetary policy normalisation, caused severe financial turbulence and sharp rises in interest rates in some emerging market economies with external and fiscal vulnerabilities, in particular in Turkey and Argentina.

Figure 1.12. Gross government interest payments in OECD and selected countries

As a percentage of GDP



Source: OECD Economic Outlook database; and OECD calculations.

1.3. Trends in income inequality

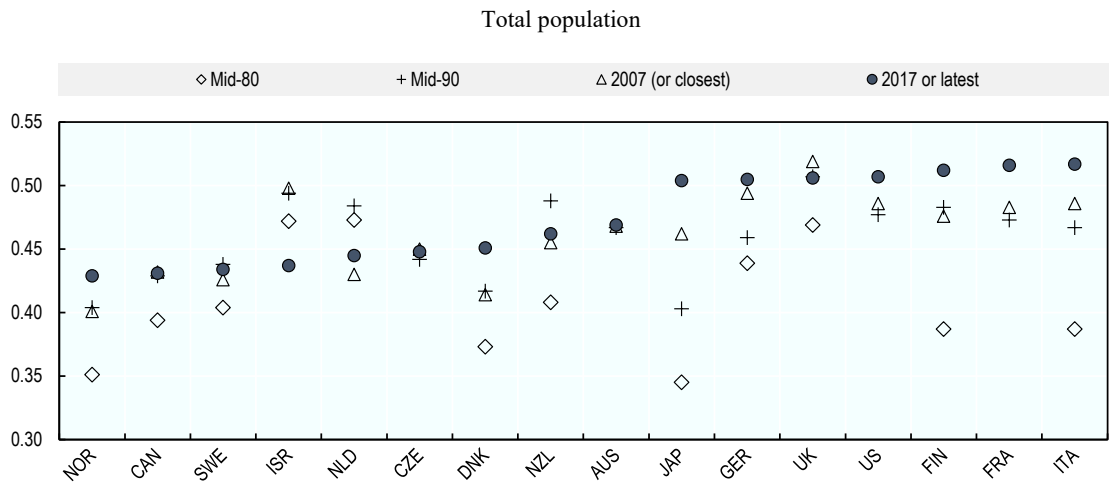
1.3.1. Income inequality remains high in many countries

Inequality in many OECD countries remains high by historical standards. High income inequality compounds the drag on economy-wide household spending from weak income growth, as the higher-income households in which income growth has been concentrated typically have a lower marginal propensity to consume. While cross-country patterns of income inequality depend to some extent on how inequality is measured, the most widely used measure is the Gini coefficient (OECD, 2017[11]). On this basis, inequality of market incomes (before taxes and transfers), after having increased in the aftermath of the crisis, has now returned to a level close to its immediate pre-crisis level in many OECD economies, supported by strong labour market outcomes.[3] However, inequality remains high, reflecting significant increases in most OECD economies during the three decades preceding the crisis (Figure 1.13).

Taxes reduce income inequality, but less so than transfers: on average, over two-thirds of the reduction in inequality is due to transfers and the remaining portion is due to taxes (Causa and Hermansen, 2017[12]) (Figure 1.14). There are considerable differences across countries, however, with the highest redistribution in Finland and the weakest in Mexico. The impact of redistribution is even higher if non-cash transfers from governments, such as education and healthcare, are taken into account (OECD, 2016[13]). After adjusting for the impact of redistributive policies, around half of the 33 countries for which data is available have returned to levels of disposable income inequality that are similar or lower than immediate pre-crisis levels but inequality remains, in most cases, higher than three decades ago (Figure 1.15). The extent of redistribution via taxes and transfers has declined in many OECD countries since 2010, in part reflecting some reduction in transfers as part of post-crisis fiscal consolidation and the reduced progressivity of tax systems. In around half of the major emerging market economies, including Brazil, Turkey, South Africa and China, disposable income inequality has decreased since the mid-2000s (OECD, 2017[14]; OECD, 2017[17]). On the other hand, it has increased in India and Russia.

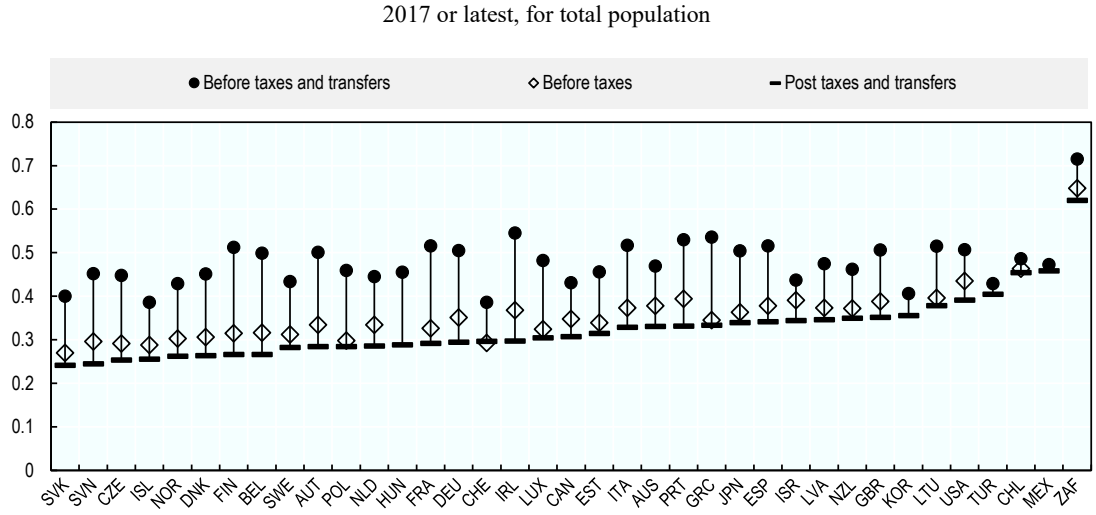
At the aggregate OECD level, the pace of disposable household income growth has also differed across different parts of the income distribution in recent years. While initially more affected by the 2008/09 recession, the incomes of those in the top 10% of the distribution have subsequently risen faster than those of the bottom of the distribution (Figure 1.16) (OECD, 2016[13]). Many households have seen little growth, if any, in real disposable incomes over the past decade. Across the income distribution some specific segments of the population may have been affected by the growing share of non-standard jobs, such as part-time work, temporary work or self-employment. Such jobs are more likely to be occupied by women and youth and pay on average less, on an hourly basis, than permanent jobs. They are also associated with poorer job quality (OECD, 2015[14]).

Figure 1.13. Market income (before taxes and transfers) Gini coefficients



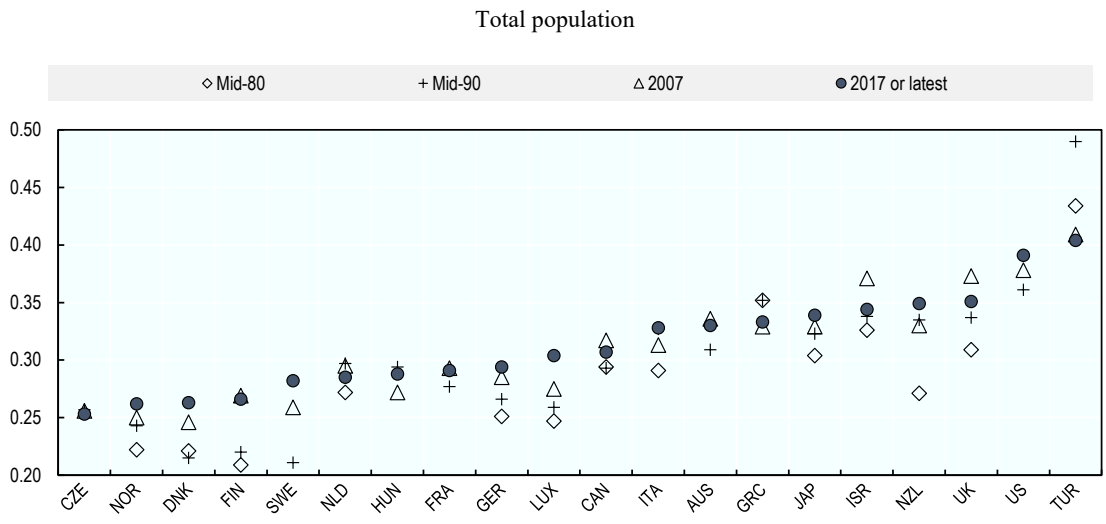
Note: Mid-80 data not available/missing. There is a break in income definition starting in 2012 with all new data following the new OECD terms of reference after 2011. Compared to previous terms of reference, these include a more detail breakdown of current transfers received and paid by households as well as a revised definition of household income, including the value of goods produced for own consumption as an element of self-employed income.
Source: OECD Income Distribution Database (IDD).

Figure 1.14. Market income, post-transfer and disposable income Gini coefficients



Source: OECD Income Distribution Database (IDD); and OECD calculations.

Figure 1.15. Disposable income (post taxes and transfers) Gini coefficients



Source: OECD Income Distribution Database (IDD).

Figure 1.16. Household real disposable income growth

Note: The income series are unweighted averages of 19 OECD countries for which data are available for the whole period.
Source: OECD Income Distribution Database (IDD); and OECD calculations.

References

Andrews, D., C. Criscuolo and P. Gal (2016), "The Global Productivity Slowdown, Technology Divergence and Public Policy: A Firm Level Perspective", *The Future of Productivity: Main Background Papers*. [7]

Causa, O. and M. Hermansen (2017), "Income redistribution through taxes and transfers across OECD countries", *OECD Economics Department Working Papers*, No. 1453, OECD Publishing, Paris, https://dx.doi.org/10.1787/bc7569c6-en. [12]

OECD (2019), *FDI in Figures April 2019*, http://www.oecd.org/investment/FDI-in-Figures-April-2019.pdf (accessed on 17 July 2019). [9]

OECD (2019), *OECD Economic Outlook, Volume 2019 Issue 1*, OECD Publishing, Paris, https://dx.doi.org/10.1787/b2e897b0-en. [1]

OECD (2018), *Economic Policy Reforms 2018: Going for Growth Interim Report*, OECD Publishing, Paris, https://dx.doi.org/10.1787/growth-2018-en. [8]

OECD (2018), *OECD Economic Outlook, Volume 2018 Issue 2*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_outlook-v2018-2-en. [6]

OECD (2018), *OECD Employment Outlook 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/empl_outlook-2018-en. [4]

OECD (2018), *Tax Policy Reforms 2018: OECD and Selected Partner Economies*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264304468-en. [2]

OECD (2017), *Economic Policy Reforms 2017: Going for Growth*, OECD Publishing, Paris, https://dx.doi.org/10.1787/growth-2017-en. [11]

OECD (2017), *OECD Economic Outlook, Volume 2017 Issue 2*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_outlook-v2017-2-en. [5]

OECD (2016), *Income Inequality Update*, https://www.oecd.org/social/OECD2016-Income-Inequality-Update.pdf (accessed on 17 July 2019). [13]

OECD (2015), *In It Together: Why Less Inequality Benefits All*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264235120-en. [14]

OECD (2015), *The Future of Productivity*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264248533-en. [10]

Ollivaud, P., Y. Guillemette and D. Turner (2018), "Investment as a transmission mechanism from weak demand to weak supply and the post-crisis productivity slowdown", *OECD Economics Department Working Papers*, No. 1466, OECD Publishing, Paris, https://dx.doi.org/10.1787/0c62cc26-en. [3]

Notes

[1] Global FDI flows refer to the average of inward and outward FDI worldwide. In theory, global inward and outward FDI flows and stocks should be equal but in practice, there are statistical discrepancies between them.

[2] The underlying primary balance is the fiscal balance excluding net interest payments and adjusted for the economic cycle and for budgetary one-offs.

[3] In the median OECD economy, inequality of market incomes declined by 3.1% from 2011 to 2016 but remained 1.5% higher in 2016 than in 2007.

2 Tax revenue trends

This chapter describes tax revenue trends – looking at both total tax-to-GDP ratios and tax mixes – in OECD countries, Argentina, Indonesia and South Africa. The analysis covers tax revenue trends until 2017, the latest year for which comparable tax revenue data is available. This overview of tax revenue trends is useful to understand the effects of past tax policy reforms and sets the stage for the subsequent discussion on the tax reforms that were recently introduced.

This chapter describes the latest tax revenue trends – looking at both total tax-to-GDP ratios and tax mixes – in all OECD countries as well as in Argentina, Indonesia and South Africa. Based on the OECD Global Revenue Statistics Database (Box 2.1), the analysis covers tax revenue trends until 2017, the latest year for which comparable tax revenue data is available[1] (OECD, 2018[1]). This overview of tax revenue trends is useful to understand the effects of past tax policy reforms and provides background to the subsequent discussion on countries' latest tax reforms (Chapter 3).

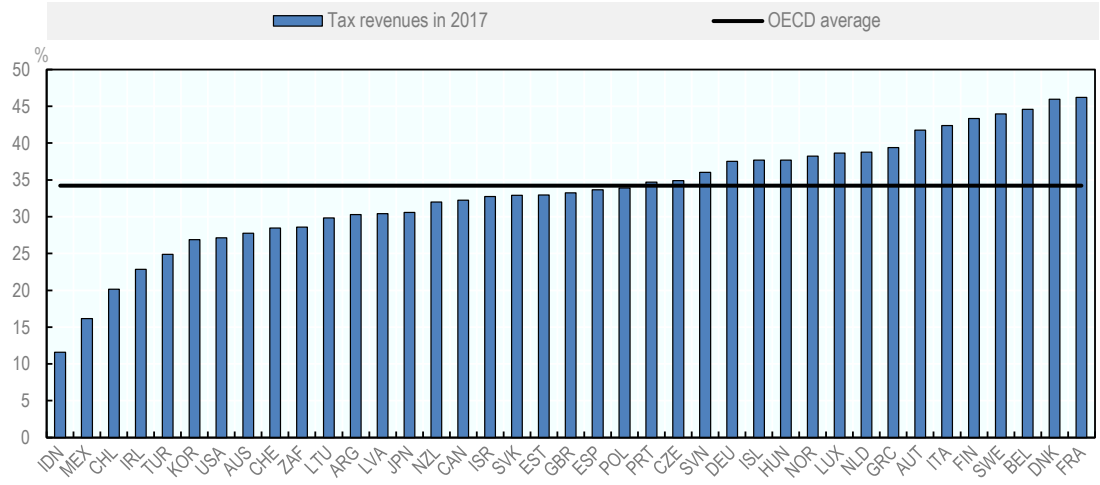
Overall, this chapter shows that tax revenues as a share of GDP have continued to increase on average across countries, with the OECD average tax-to-GDP ratio reaching a new record level in 2017. Trends have nevertheless differed across countries, with some countries exhibiting lower tax revenues as a share of GDP in 2017 than before the crisis. Over time, countries' tax-to-GDP ratios and tax structures have converged closer to the OECD average, showing greater similarity in the level and composition of tax revenues across countries but also a convergence towards an overall higher level of taxation.

2.1. Trends in tax revenue levels

2.1.1. Tax revenues vary across countries

Across the countries covered in the report, tax revenues ranged from just above 10% of GDP to more than 45% of GDP. In 2017, France recorded the highest tax revenues as a percentage of GDP (i.e. tax-to-GDP ratio), with tax revenues amounting to 46.2% of its GDP. Denmark, which had the highest tax-to-GDP ratio across OECD countries from 2002 to 2016, recorded the second highest tax-to-GDP ratio in 2017 (46.0%). On the other hand, the countries with the lowest tax-to-GDP ratios were Indonesia, with total tax revenues amounting to 11.6% of its GDP (2016 data), followed by Mexico (16.2%) and Chile (20.2%)[2] (Figure 2.1).

Figure 2.1. Tax revenues as a share of GDP by country in 2017



Note: For Australia, Indonesia, Japan and South Africa, 2016 data is used.
Source: OECD Global Revenue Statistics Database.

Box 2.1. The OECD Global Revenue Statistics Database

The Global Revenue Statistics Database provides the world's largest public source of harmonised tax revenue data, verified by countries and regional partners. Spanning more than 90 countries in all corners of the world, the database provides a rich and accessible resource for policymakers and researchers, based on the internationally-recognised OECD standard. It allows comparisons of the tax burden in these countries, measured by the tax-to-GDP ratio, as well as of the tax mix, i.e. the distribution of total tax revenues by the main types of taxes. The database presents tax revenue data in national currency and USD, and also provides information on the share of tax revenues attributed to different levels of government.

Domestic revenues are critical to efforts to fund sustainable development and to implement the Sustainable Development Goals. The database supports these efforts by measuring progress on domestic resource mobilisation, building statistical capability, and providing country-specific indicators as called for in SDG 17, in the Addis Ababa Action Agenda and by more than 55 countries and international organisations in the Addis Tax Initiative.

The database shows that countries have made strong progress toward mobilising domestic financing for development in the 21st century. Tax revenues are now higher as a percentage of GDP and their levels are more evenly distributed across countries than they were at the turn of the century. With few exceptions, the countries that recorded the lowest level of tax revenues in 2000 have increased their revenues the most.

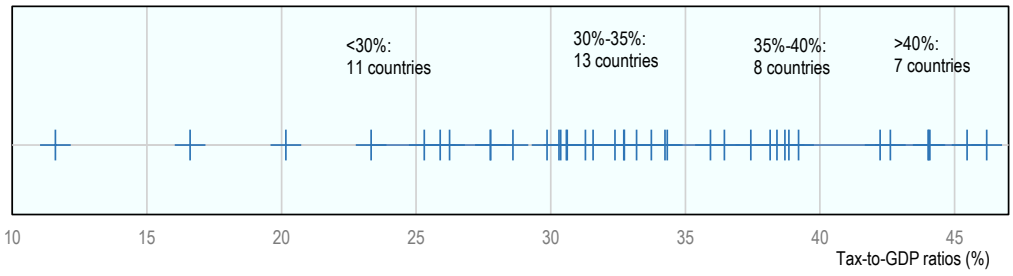
Between 2015 and 2016, the tax-to-GDP ratio increased in 52 countries and decreased in 40. For three-quarters of countries in each direction, the change was less than 1 percentage point. The OECD average tax-to-GDP ratio increased by 0.3 percentage points to 34.0% between 2015 and 2016, while the Africa (21) average, i.e. the average of the 21 African countries included in the publication, remained unchanged at 18.2% and the Latin American and Caribbean average decreased slightly by 0.1 percentage to 22.6% in the same time period.

The Global Revenue Statistics Database is updated several times a year with the latest available data from the regional Revenue Statistics publications, which cover African, Asian and Pacific, Latin American and Caribbean and OECD countries.

Access the database here: https://www.oecd.org/tax/tax-policy/global-revenue-statistics-database.htm.

Despite the wide range of tax-to-GDP ratios, there is a relatively high concentration of countries with tax-to-GDP ratios around the OECD average. On average across OECD countries, tax revenues amounted to 34.2% of GDP in 2017 (Figure 2.1). Figure 2.2 shows a high concentration of countries with tax revenues close to that level, with 13 countries recording tax revenues between 30% and 35% of GDP and eight countries with tax revenues ranging from 35% to 40% of GDP. A number of countries recorded tax-to-GDP ratios further away from the OECD average: 11 had tax-to-GDP ratios below 30% and seven recorded tax revenues above 40% of GDP.

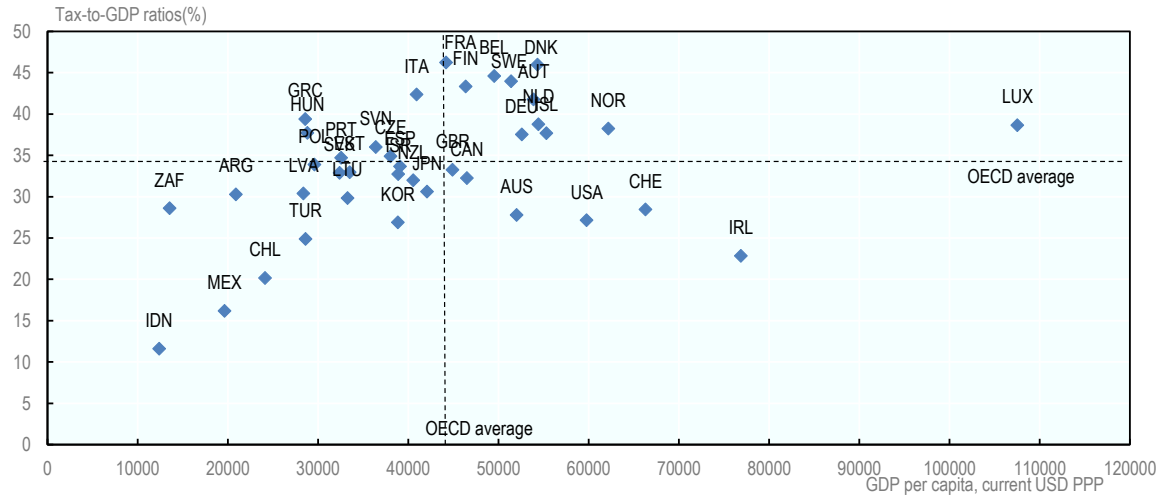
Figure 2.2. Distribution of tax-to-GDP ratios in 2016



Note: Each + represents the tax-to-GDP ratio of a country in 2016.
Source: OECD Global Revenue Statistics Database, based on "Special feature: Convergence of tax levels and tax structures in OECD countries", in (OECD, 2018[2]).

As discussed in previous editions of this report, there is a positive correlation between countries' tax-to-GDP ratios and GDP per capita levels. Countries with lower levels of GDP per capita tend to have lower tax revenues as a share of their GDP (e.g. Argentina, Chile, Indonesia, Mexico, South Africa and Turkey), while high-GDP per capita countries tend to have higher tax-to-GDP ratios (e.g. Scandinavian countries, Austria, Belgium, France) (Figure 2.3). There are important exceptions, however, with some countries characterised by high levels of GDP per capita but comparatively low tax-to-GDP ratios (e.g. Anglo-Saxon countries, Korea, Japan). There are also countries with below-average levels of GDP per capita but relatively high tax revenues as a share of GDP (e.g. some Central and Southern European countries). In general, the positive relationship between tax-to-GDP ratios and GDP per capita levels tends to be less pronounced for high income countries. Levels of tax-to-GDP ratios also follow regional patterns.

Figure 2.3. Tax revenues as a share of GDP and GDP per capita in 2017

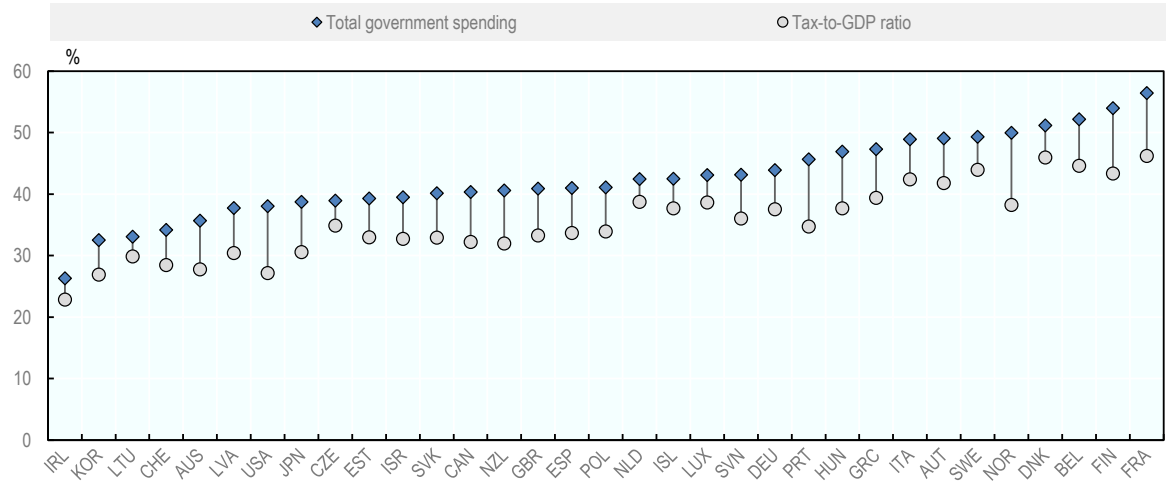


Note: 2016 tax revenue data for Australia, Indonesia, Japan and South Africa.
Source: OECD Global Revenue Statistics Database and OECD National Accounts Statistics.

Tax revenues are closely linked to countries' public expenditure levels. Unsurprisingly, Figure 2.4 shows that there is a close link between countries' levels of public spending and their tax revenues as a share of GDP. Tax-to-GDP ratios are heavily influenced by the extent to which countries rely on the public sector to finance their social security systems. The gap between the level of government spending and tax

revenues shows the extent to which public expenditure is financed either through non-tax revenues or public debt. .

Figure 2.4. Tax revenues and total government spending as a share of GDP in 2017



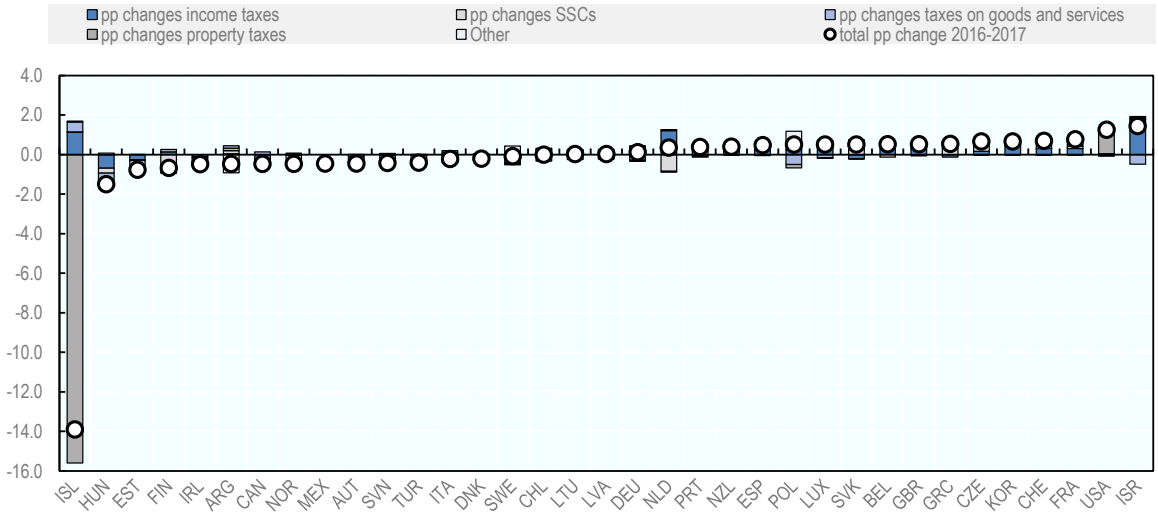
Note: No data on government spending for Argentina, Chile, Indonesia, Mexico, South Africa and Turkey; 2016 data for Argentina, Indonesia, Japan and South Africa.
Source: OECD Global Revenue Statistics Database and OECD Economic Outlook 104 Database.

2.1.2. Recent tax revenue trends have differed across countries

Between 2016 and 2017, a majority of countries experienced an increase in their tax-to-GDP ratios. Indeed, 19 of the 35 countries for which 2017 data is available recorded an increase in their tax revenues as a share of GDP (Figure 2.5 and Figure 2.6). Between 2016 and 2017, Israel and the United States saw the largest tax ratio increases. In Israel, the 1.4 percentage point increase in the tax-to-GDP ratio was mainly due to the temporary decrease in the tax rate on dividends, which encouraged the distribution of past retained earnings (around ILS 50 billion were distributed). The tax-to-GDP ratio in the United States increased by 1.3 percentage points, partly due to the one-off deemed repatriation tax on foreign earnings under the Tax Cuts and Jobs Act (OECD, 2018[1]). No other country experienced an increase of more than one percentage point in their tax-to-GDP ratio between 2016 and 2017.

Figure 2.5. Percentage point changes in tax-to-GDP ratios by country between 2016 and 2017

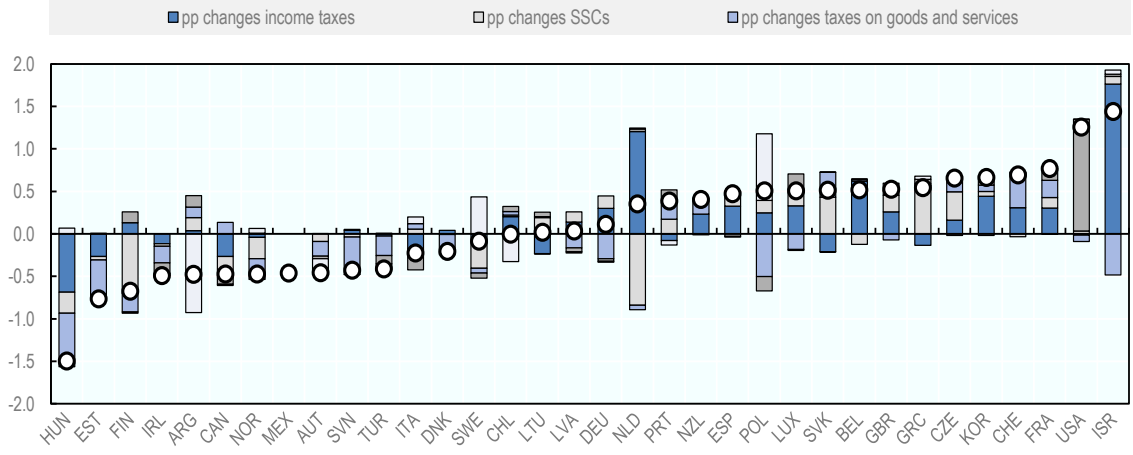
Changes in tax-to-GDP ratios decomposed by type of tax



Note: No 2017 data for Australia, Indonesia, Japan and South Africa.
Iceland's tax-to-GDP ratio was exceptionally high in 2016 due to one-off stability contributions from entities that previously operated as commercial or savings banks and were concluding operations.
Source: OECD Global Revenue Statistics Database.

Figure 2.6. Percentage point changes in tax-to-GDP ratios by country between 2016 and 2017 (without Iceland)

Changes in tax-to-GDP ratios decomposed by type of tax



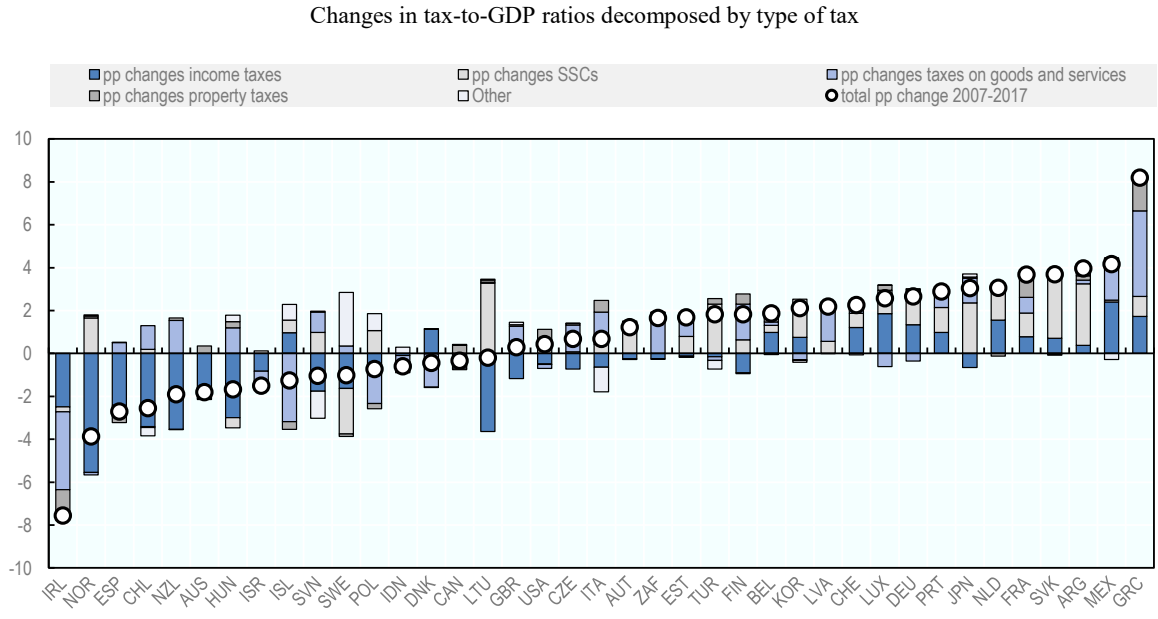
Note: No 2017 data for Australia, Indonesia, Japan and South Africa.
Source: OECD Global Revenue Statistics Database.

On the other hand, 16 countries experienced a decrease in their tax-to-GDP ratios in 2017 relative to 2016. The largest tax revenue fall was recorded in Iceland (Figure 2.5). Iceland's tax-to-GDP ratio was exceptionally high in 2016 due to one-off stability contributions from entities that previously operated as commercial or savings banks and were concluding operations (OECD, 2018[1]). The one-off stability contributions raised nearly ISK 385 000 million in 2016, equivalent to 15.7% of Iceland's GDP which

caused Iceland's tax-to-GDP ratio to rise from 36.3% in 2015 to 51.6% in 2016, before dropping by 13.9 percentage points to 37.7% in 2017. The second largest tax revenue fall was recorded in Hungary (1.5 percentage points) due to lower revenues from taxes on income and profits and from taxes in goods and services following a comprehensive tax reform in 2016. There were no other decreases of over one percentage point between 2016 and 2017.

Looking at longer-term trends, tax-to-GDP levels are now higher than their pre-crisis levels in 23 of the 39 countries covered in the report (Figure 2.10). The largest increase over this period was recorded in Greece (8.2 percentage points). Six other countries (Mexico, Argentina, the Slovak Republic, France, the Netherlands and Japan) experienced tax ratio increases of at least 3 percentage points over the same period. On the other hand, there were 16 countries that had lower tax-to-GDP ratios in 2017 than in 2007. The biggest fall was seen in Ireland, from 30.4% in 2007 to 22.8% of GDP in 2017, largely due to the exceptional increase in GDP in 2015. The second largest fall occurred in Norway, from 42.1% of GDP in 2007 to 38.2% in 2017, due largely to declining CIT revenues.

Figure 2.7. Percentage point changes in tax-to-GDP ratios by country between 2007 and 2017



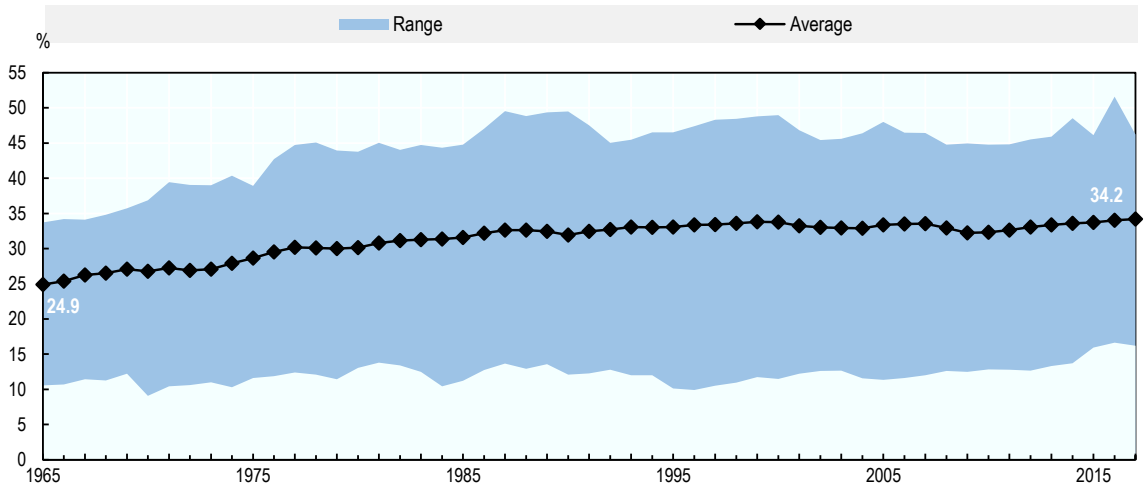
Note: P.p. changes between 2007 and 2016 for Australia, Indonesia, Japan and South Africa.
Source: OECD Global Revenue Statistics Database.

2.1.3. Tax-to-GDP ratios have converged towards higher levels over time

Looking at OECD countries, the average tax-to-GDP ratio reached a new record level in 2017. Between 2016 and 2017, the OECD average tax-to-GDP ratio increased from 34.0% to 34.2%.[34]This is the eighth consecutive annual increase since the low-point in the OECD average experienced in 2009 as a consequence of the financial and economic crisis. Looking at longer-term trends, the 2017 OECD average tax-to-GDP ratio was the highest ever recorded since the OECD started collecting tax revenue data in 1965, with a total increase of more than 9 percentage points over the last 50 years (Figure 2.8).

Figure 2.8. Long-term evolution of the OECD average tax-to-GDP ratio

Average and range of tax-to-GDP ratios in the OECD, 1965-2017

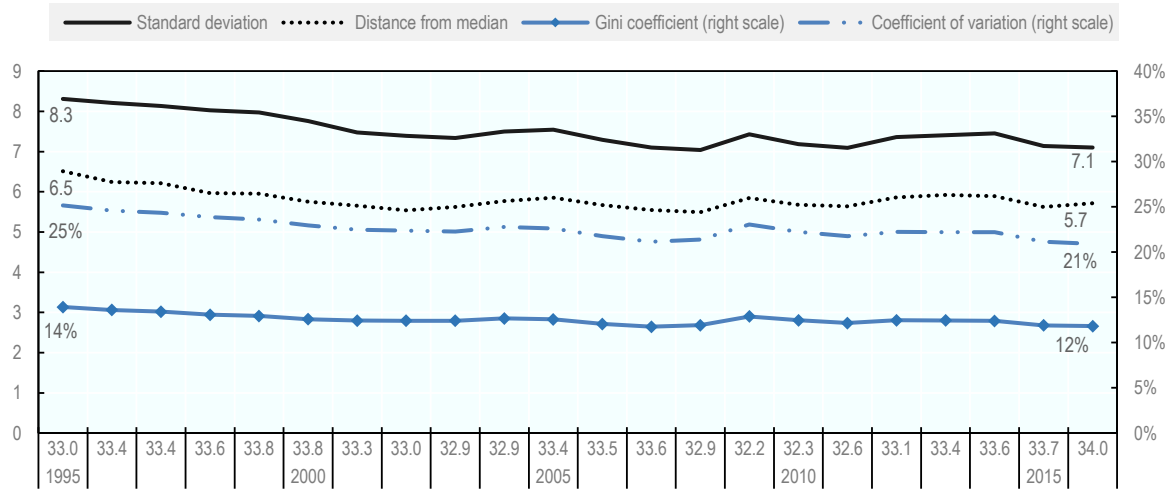


Source: OECD Revenue Statistics Database.

The recent increases in tax-to-GDP ratios have resulted in large part from fiscal consolidation efforts and slow but positive growth. The rise in tax revenues across OECD countries in the years following the crisis was partly the result of active fiscal consolidation measures, as reported in previous editions of this report. Slow growth also contributed to rising tax-to-GDP ratios, as tax revenues recovered and had higher nominal levels of growth than GDP in most countries.

Trends since the mid-1990s show that countries' tax-to-GDP ratios have become more similar. The latest *Revenue Statistics* publication, which focuses on OECD countries, measures the convergence of tax levels across countries (OECD, 2018[1]). It shows that across the OECD, the dispersion of tax-to-GDP ratios decreased between 1995 and 2016, with a brief interruption in 2009, a period that coincided with the lowest average OECD tax-to-GDP ratio in the period. Figure 2.9 shows that the dispersion of tax-to-GDP ratios decreased around the OECD average tax-to-GDP ratio (standard deviation and coefficient of variation) as well as around the median (absolute deviation) and when country pairs are considered (Gini coefficient); with these measures of dispersion showing similar trends across the period. This means that the OECD average tax-to-GDP ratio in 2016 is more representative than it has been at any point in the last twenty years and that countries' tax levels are converging towards the higher OECD average tax-to-GDP ratio (OECD, 2018[1]).

Figure 2.9. Dispersion of tax-to-GDP ratios in OECD countries, 1995-2016

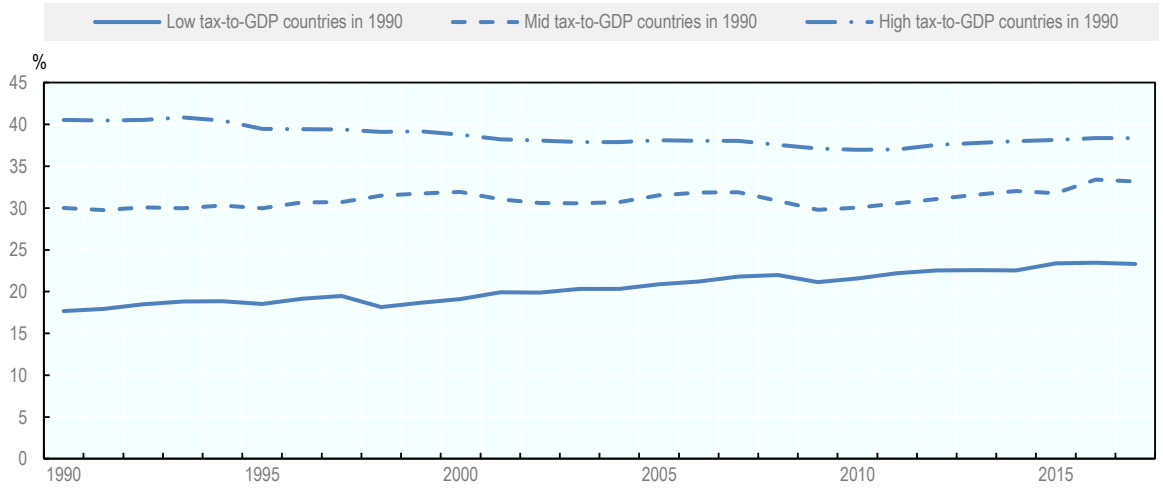


Note: The figures on the horizontal axis (above the years) show the OECD average tax-to-GDP ratio in each year.
Source: "Special feature: Convergence of tax levels and tax structures in OECD countries", in (OECD, 2018[2]).

Greater similarity in tax-to-GDP ratios is also apparent from the converging patterns between high- mid-, and low-tax countries. Figure 2.10 breaks down OECD countries, Argentina, Indonesia and South Africa into three sub-groups: countries with high tax-to GDP ratios in 1990s, countries with mid-levels of tax-to-GDP ratios in 1990, and countries with low revenues as a share of GDP in 1990 (see note in Figure 2.10). It shows that there has been a strong increase in tax revenues on average in the countries with low tax-to-GDP ratios in 1990, a smaller increase in countries with medium tax-to-GDP ratios, and a small decrease in the average tax-to-GDP ratio of countries exhibiting high levels of tax revenues in 1990. Overall, these trends have led to a greater convergence in tax-to-GDP ratios across countries.

Figure 2.10. Evolution of tax-to-GDP ratios in low-, mid- and high-tax countries since 1990

Average tax-to-GDP ratios for each group of countries



Note: Low tax-to-GDP ratio countries include all the countries covered in the report that had tax-to-GDP ratios below 25% in 1990 (8 countries); mid tax-to-GDP ratio countries include all the countries that had tax-to-GDP ratios between 25% and 35% in 1990 (13 countries); and high tax-to-GDP ratio countries include all the countries that had tax-to-GDP ratios above 35% in 1990 (18 countries).
Source: OECD Global Revenue Statistics Database.

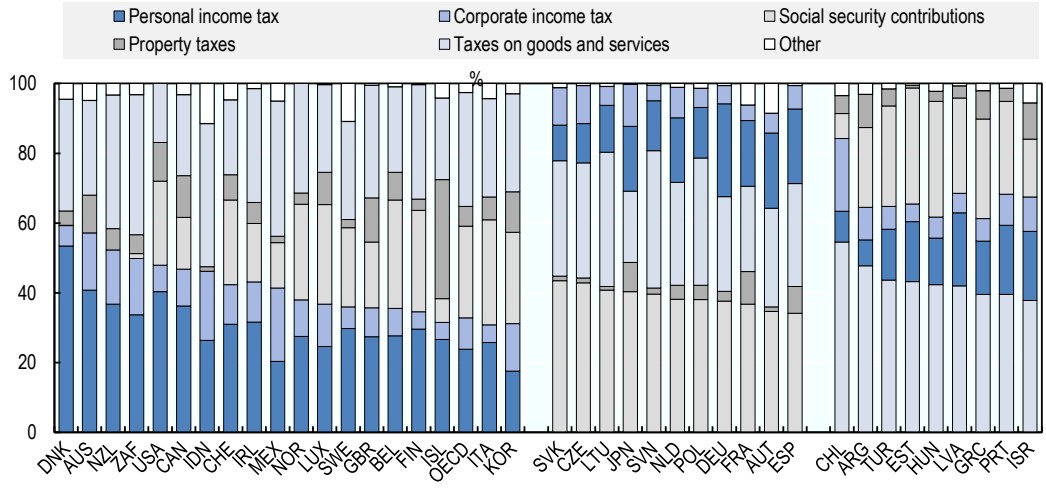
2.2. Trends in the composition of tax revenues

2.2.1. The composition of tax revenues varies across countries

The tax structure – or composition of total tax revenues – varies quite significantly across countries. As shown in Figure 2.11, income taxes – including both PIT and CIT – are the largest source of tax revenues in 20 countries. In Denmark, Australia, New Zealand, South Africa and the United States, income taxes account for close to half or more of total tax revenues. This is partly explained by the fact that Australia, Denmark, New Zealand and South Africa do not collect (or collect very little) SSCs and by the comparatively small share of consumption taxes in the United States due to the absence of a VAT. In a number of countries, including Central European countries and large Western European countries, SSCs are the primary source of tax revenues. Finally, a third group of countries collect most of their tax revenues from consumption taxes.

Figure 2.11. Tax structures by country in 2016

Tax revenues expressed as a share of total taxation



Note: Countries are grouped and ranked by those where income tax revenues (personal and corporate) form the higher share of total tax revenues, followed by those where SSCs, and taxes on goods and services, form the highest share.
Source: OECD Global Revenue Statistics Database.

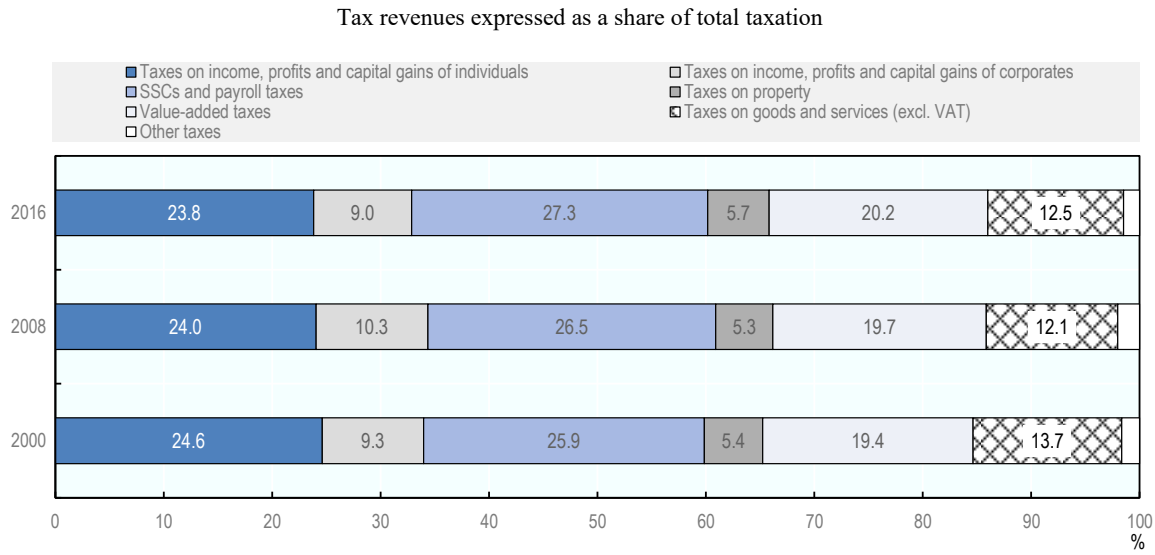
As with tax-to-GDP ratios, there tends to be a link between countries' tax mixes and their GDP per capita levels. Last year's report showed that the share of PIT in total tax revenues is positively correlated with countries' levels of GDP per capita, with more developed countries exhibiting higher shares of tax revenues from PIT. In contrast, the shares of consumption taxes and CIT in total tax revenues tend to be lower in countries with high levels of GDP per capita (OECD, 2018[3]). A recent paper also discusses the link between tax structures and tax-to-GDP ratios, showing that the correlation between PIT and SSCs as a share of total taxation and tax-to-GDP ratios is positive, while higher tax-to-GDP ratios tend to be associated with lower shares of CIT and VAT in total tax revenues (Modica, Laudage and Harding, 2018[4]).

2.2.2. Tax structures have converged towards the OECD average

The average tax structure across OECD countries is dominated by SSCs, PIT and VAT. Overall, in the OECD, SSCs and payroll taxes accounted for 27.3% of total tax revenues in 2016. PIT was the second largest source of tax revenues, accounting on average for 23.8% of total tax revenues. VAT also plays a

major role, making up about one fifth of the OECD's average tax mix in 2016, while other consumption taxes accounted for 12.5% of the tax mix. On the other hand, taxes on corporate income and property are much less significant sources of tax revenues on average, respectively accounting for 9.0% and 5.7% of the OECD average tax mix in 2016 (Figure 2.12).

Figure 2.12. OECD average tax mix in 2000, 2008 and 2016



Source: OECD Revenue Statistics Database.

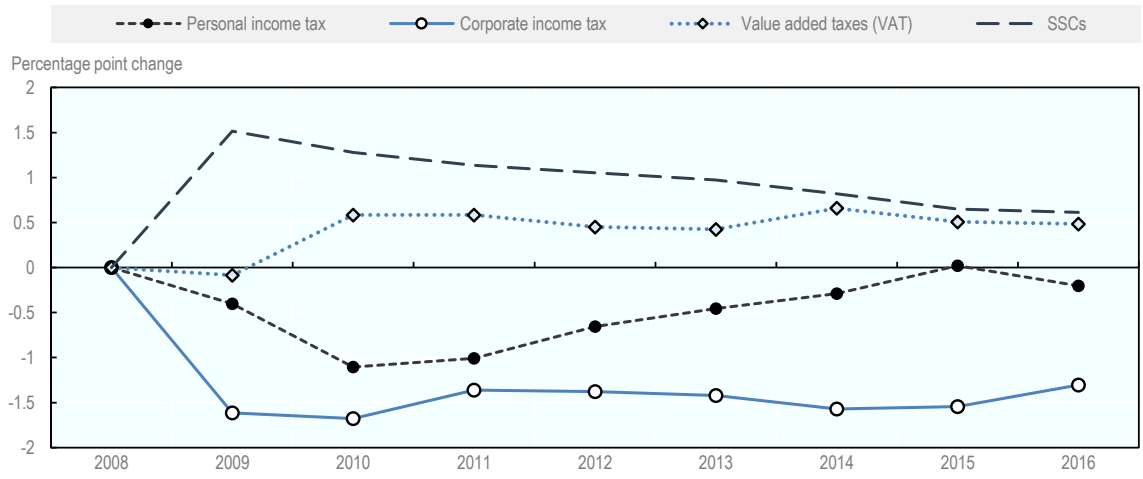
On average across OECD countries, the shares of SSCs and VAT have increased, especially after 2007. On average, the shares of SSCs and taxes on goods and services in total tax revenues rose to highs of 26.6% in 2009 and 33.0% in 2010 respectively. This reflected in part the effects of the tax reforms that were introduced in the wake of the crisis, including increases in SSCs and in standard VAT rates (OECD, 2016[5]). These trends also highlight the rapid revenue-raising effects of increases in SSCs and consumption taxes compared to other taxes. Since then, the shares of total tax revenues from SSCs have steadily declined and the shares of VAT have been relatively stable (Figure 2.13), but these taxes remain larger sources of revenues on average than in 2007 (Figure 2.12).

The share of PIT in the OECD average tax mix is close to its pre-crisis level, but has fluctuated over the last ten years. In contrast with trends in SSC and VAT revenues, the share of PIT revenues in the OECD average tax mix initially fell after the crisis, from 23.7% in 2007 to a low of 23.2% in 2010. From 2010 to 2015, the trend reversed with a steady increase in PIT revenues, partly reflecting the effects of PIT rate increases and PIT base broadening measures (OECD, 2016[5]). The share of PIT then fell again, by 0.3 percentage points between 2015 and 2016 (from 24.1% to 23.8% of total revenues), driven by falls in revenues from PIT in 20 countries.

The share of CIT in the OECD average tax mix is still lower than before the crisis but has recently increased. After an unusual increase in CIT revenues between 2005 and 2007, the share of CIT fell back to earlier levels and remained stable for years (Figure 2.13). Between 2015 and 2016, however, the share of CIT increased by 0.2 percentage points (from 8.8 to 9.0% of total revenues), its highest level since the crisis. The increase in the share of CIT in the OECD average tax mix was driven by increases in revenues from CIT in 23 countries in 2016.

Figure 2.13. Cumulative percentage point changes in tax revenues since 2008

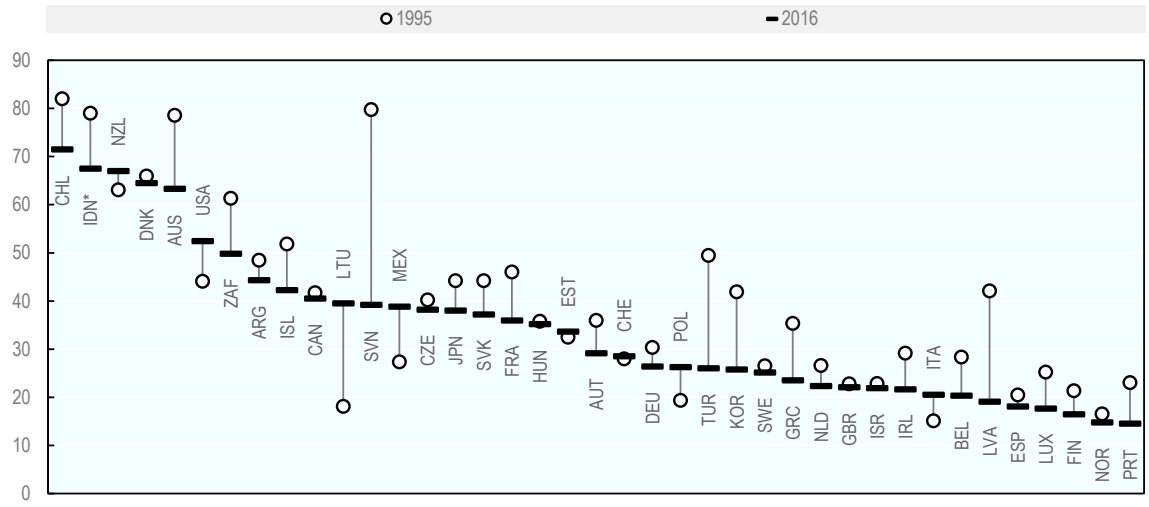
OECD average, p.p. changes in tax revenues as a % of total tax revenues



Source: OECD Revenue Statistics Database.

As with tax-to-GDP ratios, tax structures in most countries have converged towards the OECD average tax structure between 1995 and 2016. The *Revenue Statistics 2018* "Special Feature" analyses the convergence of tax structures in OECD countries between 1995 and 2016. One of the indicators measured as part of this analysis is the D-index, which calculates the absolute difference for the share of each tax category in a country from its share in the OECD and sums it, providing an indicator of the difference of that country's tax structure from the OECD average tax structure. Using D-indices, Figure 2.14 shows that all but eight OECD countries had tax structures that were more similar to the OECD average tax structure in 2016 than in 1995. Countries that increased their similarity to the OECD average the most were those that introduced VAT (Slovenia and Australia) or that made large changes in SSCs (e.g. in Latvia where they fell as a percentage of GDP and total taxes, or in Korea, where they increased strongly in both) (OECD, 2018[1]). In 2016, the OECD countries with the greatest difference in tax structures from the OECD average were Chile, New Zealand, Denmark, Australia and the United States; whereas the smallest differences were observed in Portugal, Norway, Finland, Luxembourg and Spain (OECD, 2018[1]). In the non-OECD countries – Argentina, Indonesia and South Africa – tax structures have also converged towards the OECD average, although they remain among the countries with the greatest differences in tax structures from the OECD average.

Figure 2.14. Distance from the OECD average tax structure (D-index), 1995 and 2016



Note: The D-index calculates the absolute difference for the share of each tax category in a country from its share in the OECD and sums it, providing an indicator of the difference of that country's tax structure from the OECD average tax structure. Consequently, a value of 0 indicates that the country's tax structure is the same as the OECD average structure. * For Indonesia, 2002 data is used instead of 1995 data due to the unavailability of earlier data.
Source: Based on "Special feature: Convergence of tax levels and tax structures in OECD countries", in (OECD, 2018[2]).

References

Modica, E., S. Laudage and M. Harding (2018), "Domestic Revenue Mobilisation: A new database on tax levels and structures in 80 countries", *OECD Taxation Working Papers*, No. 36, OECD Publishing, Paris, https://dx.doi.org/10.1787/a87feae8-en. [4]

OECD (2018), *Revenue Statistics 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/rev_stats-2018-en. [1]

OECD (2018), *Revenue Statistics 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/rev_stats-2018-en. [2]

OECD (2018), *Tax Policy Reforms 2018: OECD and Selected Partner Economies*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264304468-en. [3]

OECD (2016), *Tax Policy Reforms in the OECD 2016*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264260399-en. [5]

Notes

[1] It should be noted that the 2017 tax revenue data presented in this chapter is provisional.

[2] The majority of Chile's social contributions are paid into privately managed funds under the obligatory social security system of Chile and are therefore excluded from the calculation of Chile's tax revenues as such payments are, under the definition applied, not regarded as taxes.

[3] This data is provisional.

[4] Due to the exceptional nature of Iceland's stability contributions, they are not representative of trends in tax levels across OECD countries and have been excluded from the calculation of the OECD average in 2016.

3 The latest tax policy reforms

This chapter provides an overview of the latest tax reforms in OECD countries, Argentina, Indonesia and South Africa. It identifies the most significant tax reforms that were introduced as well as common tax policy trends across groups of countries. It looks at trends in each category of tax separately, including personal income taxes and social security contributions, corporate income taxes, consumption taxes, environmentally related taxes and property taxes.

This chapter provides an overview of the latest tax reforms in all OECD countries as well as in Argentina, Indonesia and South Africa. It identifies the most significant tax reforms that have recently been introduced as well as common tax policy trends across groups of countries. It examines trends in each category of tax including personal income taxes and social security contributions (Section 3.1), corporate income taxes and other corporate taxes (Section 3.2), VAT/GST and other taxes on goods and services (Section 3.3), environmentally-related taxes (Section 3.4) and property taxes (Section 3.5).

The discussion in this chapter is primarily based on countries' responses to the 2019 Annual Tax Policy Reform Questionnaire, which requested information on countries' latest tax reforms. The questionnaire asked responding countries to describe the reforms as well as to provide details on their expected revenue effects and other relevant information, including the rationale for the tax measures (see Box 3.1).

Box 3.1. The OECD Annual Tax Policy Reform Questionnaire

At the Working Party No.2 on Tax Policy Analysis and Tax Statistics (WP2) meeting in November 2009, delegates from OECD countries agreed to start collecting more systematic information on the main tax measures adopted in each country. The motivation for this proposal was to provide consistent and comparative information on tax reforms to inform policy discussions in OECD and non-OECD countries.

At the November 2010 WP2 meeting, the following criteria were agreed for deciding whether a tax policy measure was sufficiently substantial to be reported in the questionnaire:

- A significant change in a tax rate;
- A change in the tax base that is expected to change revenue from that base by more than 5% or 0.1% of GDP; and
- A politically important systemic reform.

Any central or sub-central tax policy measure that was *implemented, legislated or announced* in the previous *calendar* year which meets at least one of the criteria listed above must be reported in the questionnaire.

For each reform, the questionnaire requests information on the type of tax; the dates of entry into force, legislation or announcement; the direction of the rate and/or base change; and a detailed description of the reform. The questionnaire also asks for the rationale behind the reform and estimates of the revenue effects of the tax measures.

This questionnaire forms the basis of this report, which is the fourth edition of the annual *Tax Policy Reforms: OECD and Selected Partner Economies* publication.

3.1. Personal income taxes and social security contributions

In the area of personal income tax (PIT), the report confirms that countries are continuing to cut labour taxes, after several years of PIT increases following the crisis. In 2019, most of the countries that have introduced PIT reforms are cutting PIT rates and narrowing PIT bases. These reforms are expected to reduce tax revenues, at least in the short term. A stated rationale for these reforms among many countries is to support employment and those on low and middle-incomes. While this trend represents a broad continuation of PIT reforms in recent years, the previous focus on tax rate cuts has slowed while base narrowing has intensified. Regarding the taxation of personal capital income, reforms have tended

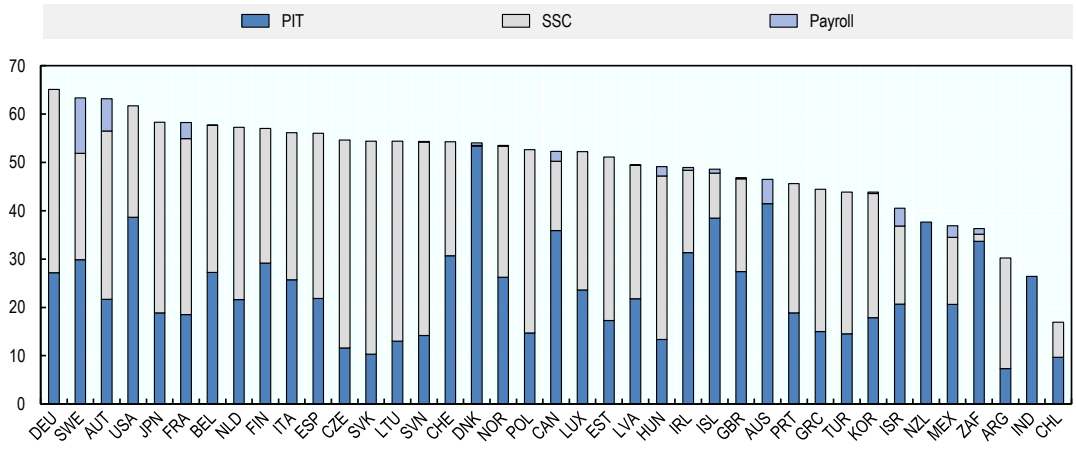
towards modest increases in tax rates on capital gains and dividends, but some countries have expanded tax incentives to encourage pension savings and savings by small savers.

With respect to social security contributions (SSCs), reforms have been modest in 2019 and SSCs remain high in many countries. Broadly, SSC reforms in 2019 tended to focus on SSC rate cuts rather than increases and were approximately equally split between base narrowing and broadening measures.

3.1.1. Labour taxes are the most important source of tax revenues in OECD countries on average

PIT and SSCs are the most important source of tax revenues in most countries. Together, they account for half of tax revenues in OECD countries on average. As shown in Figure 3.1, in 2017, they accounted for over 60% of tax revenue in Germany, the United States, Austria and Sweden and about 40% in Israel, New Zealand and Mexico. In the Slovak Republic, the Czech Republic and Slovenia, SSCs alone accounted for over 40% of total taxation. In Denmark, Australia and the United States, PIT alone accounted for about 40% or more of total tax revenues.

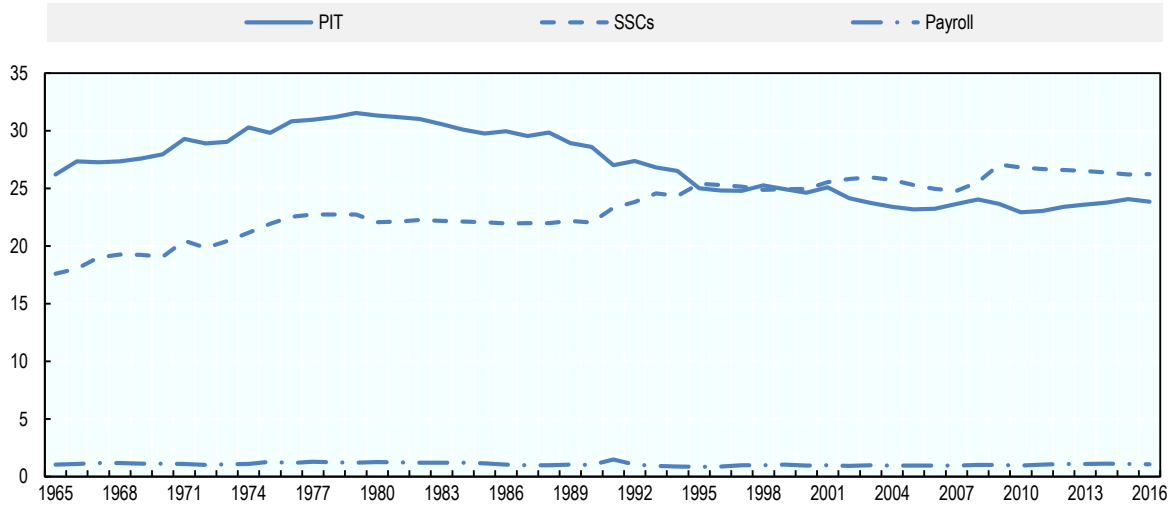
Figure 3.1. SSCs and payroll taxes as a share of total tax revenues by country in 2017



Note: 2016 data for Australia, Greece, Indonesia, Japan, Mexico and South Africa. In Indonesia, data on SSCs are currently unavailable.
Source: OECD Global Revenue Statistics Database.

Over time, the composition of labour tax revenue has evolved among OECD countries, with SSCs gradually overtaking PIT as the most important source of tax revenue. The sum of PIT and SSCs has remained relatively constant over time, at around half of tax revenue, but the mix has changed. Over the past 50 years, PIT has gradually declined as a share of total revenue while SSCs have gradually increased (Figure 3.2). In 1965, SSCs comprised 17.6% of tax revenues on average while PIT accounted for 26.2% of total taxation. By 1995, they were about equal at approximately 25%. In 2016, SSCs represented 26.2% of total tax revenues on average, surpassing the PIT share of 24.1%. Compared to 2015, this represents a modest decline in PIT as a share of total taxation and a stabilisation of the SSC share.

Figure 3.2. PIT, SSCs and payroll tax revenue as a share of total tax revenues, OECD average, 1965 - 2016



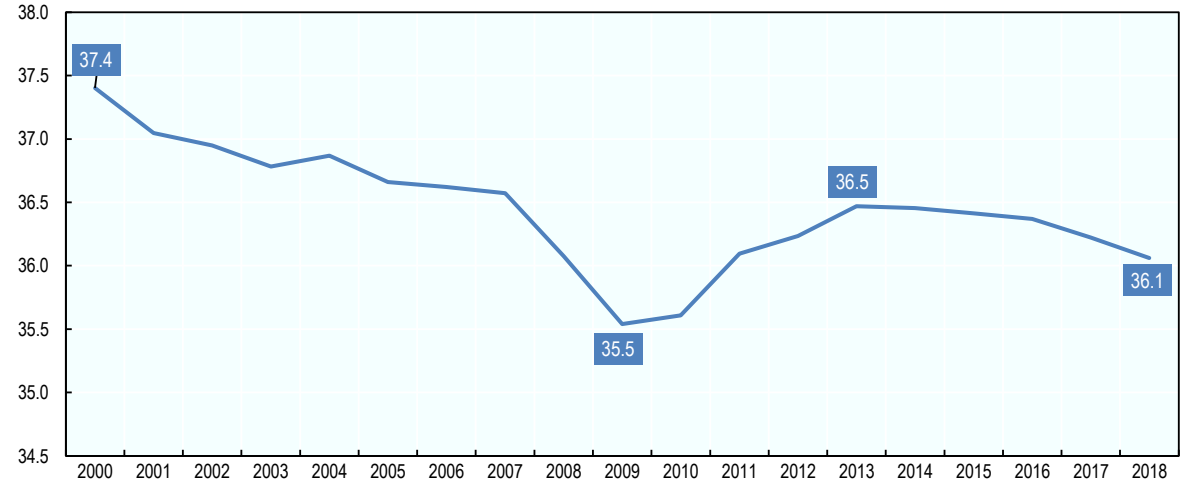
Source: OECD Revenue Statistics Database.

3.1.2. Taxes on labour income declined on average between 2013 and 2018, after a series of post-crisis increases

The average tax burden on labour income increased sharply after the economic crisis but has been declining gradually in recent years (Figure 3.3). Between 2009 and 2013, the OECD average tax wedge – the total tax payments on labour income as a percentage of labour costs – for single workers earning the average wage increased by one percentage point, from 35.5% to 36.5%, largely reflecting countries' fiscal consolidation efforts. In recent years, the OECD average tax wedge has declined, albeit modestly, and reached 36.1% in 2018.

Figure 3.3. Evolution of the average tax wedge on labour income in the OECD between 2000 and 2018

Average tax wedge for a single person without children earning 100% of the average wage

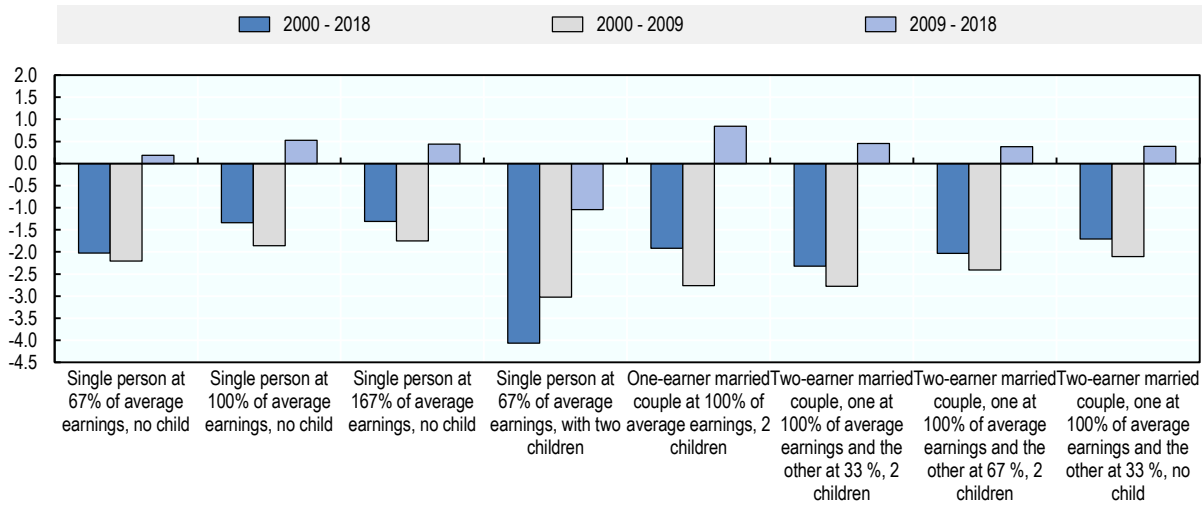


Source: OECD Taxing Wages Database.

Figure 3.4 shows that similar trends hold across family types. In the early 2000s, the tax burden declined, particularly for families with children. After the crisis period, tax wedges rose modestly across all family types, particularly for one-earner married couples with children, but not for single persons at 67% of the average wage with children. Tax wedges remain lower than in the early 2000s across family types.

Figure 3.4. Changes in labour income tax wedges in OECD countries before and after the financial crisis by family type

Percentage point changes

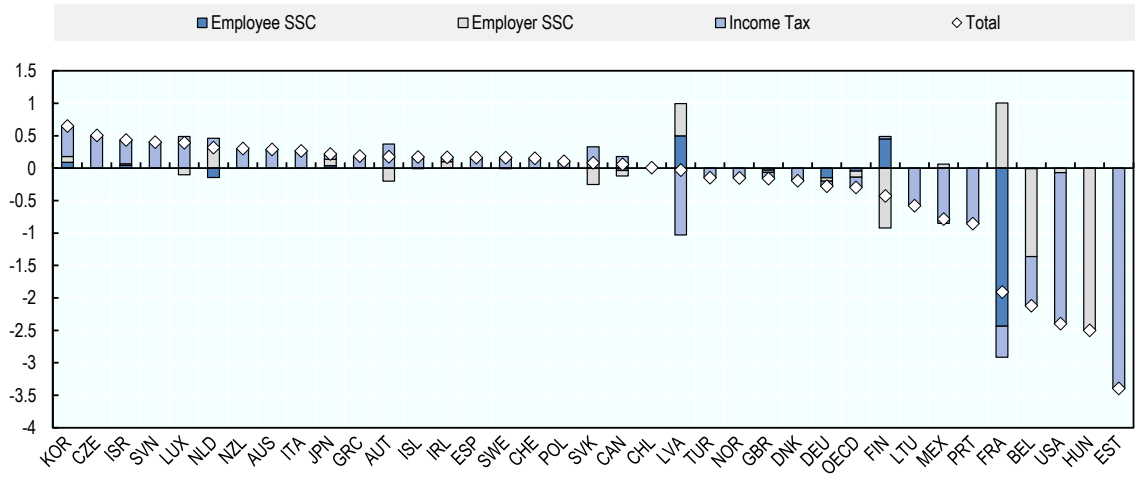


Source: OECD Taxing Wages Database.

Between 2017 and 2018, the tax wedge declined on average in OECD countries, driven by significant reductions in a few countries including Belgium, the United States, Hungary and Estonia (Figure 3.5). These changes were due to income tax reforms in Estonia and the United States and to reductions in employer SSCs in Hungary and Belgium (OECD, 2019[1]). France also saw a significant reduction in its tax wedge due to a large decrease in employee SSCs. On the other hand, tax wedges for workers earning the average wage increased modestly in some OECD countries. For example, the tax wedge increased in Korea, the Czech Republic, Israel, Slovenia, Luxembourg and the Netherlands.

Figure 3.5. Change in tax wedges and its components across OECD countries between 2017 and 2018

Percentage point changes



Note: Tax wedges for single individuals without children at the average wage level. Employer SSC includes payroll taxes where applicable.
Source: OECD Taxing Wages Database.

3.1.3. The previous focus on cutting PIT rates has slowed markedly

PIT reforms are important tools for governments to achieve different policy objectives, including raising tax revenues, stimulating economic growth or enhancing the redistributive impact of the tax system. These reforms involve the upward or downward adjustment of PIT rates and the broadening or narrowing of PIT bases. These policy choices often involve a trade-off between equity and efficiency. For instance, while PIT rate increases on the upper income brackets strengthen progressivity and fairness, they might also reduce economic incentives to work, save and invest. This section looks at the PIT reforms that were recently introduced in OECD countries, beginning with PIT rate reforms followed by PIT base changes.

There have been fewer top PIT rate reforms than in previous years

Only four countries have introduced changes to their top PIT rates in 2019. These reforms were split between rate increases and decreases (Table 3.1). Compared to recent years, there have been fewer reforms affecting top PIT rates (in 2018 for example, four countries reported cuts and four reported increases).

Among the countries increasing their top PIT rates, Lithuania implemented a major reform by introducing a progressive PIT rate schedule. A new two-bracket progressive PIT rate schedule will replace the previous 15% flat PIT rate. From 2019, the PIT rate will start at 20% and increase to 27% for higher incomes. The increase in the PIT rate was introduced to a large extent as part of a labour taxation shift from SSCs to PIT, with part of the SSCs previously used to cover basic pensions shifting to PIT. The objective of the reform is to enhance fairness. As reported in last year's report, in 2018, Latvia introduced a broadly similar reform by replacing its flat rate income tax with a new progressive income tax rate schedule.

Table 3.1. Changes to PIT rates

	Rate ⇧		Rate ⇩	
Into effect in	2018	2019 or later	2018	2019 or later
Top PIT rate	CAN[1] KOR LVA ZAF	(ESP) LTU NOR POL[6]	FIN NOR[4] PRT[5] USA[7]	NLD NOR[4]
Non-top PIT rate	DNK KOR SWE[3]	DEN (ESP) LTU	CAN[1] FIN GRC IRL[2] LVA NOR[4] PRT[5] USA	AUS IRL[2] NLD NOR[4]

1. In Canada, a new top PIT rate was introduced in British Columbia while in Saskatchewan and Quebec there were PIT rate reductions.
2. Ireland reduced the universal social charge.
3. In Sweden, there was a PIT increase for non-residents.
4. In Norway, the tax rates on ordinary income for individuals were reduced while the rates for personal income were increased.
5. In Portugal, the PIT surtax was eliminated.
6. In Poland, a solidarity levy is introduced.
7. In the United States, the top PIT rate is scheduled to go back up to 39.6% in 2026.

Note: Countries in brackets have only announced reforms.
Source: OECD Annual Tax Policy Reform Questionnaire.

In Poland, a solidarity levy of 4% is introduced in 2019, which is applied to the surplus of income over PLN 1 million (after deducting SSCs). In addition, the PIT reform in Poland involved a new withholding tax collection mechanism starting in 2019. The rationale for the reform is to increase compliance and protect public finances. In Spain, there are a number of proposed top PIT rate changes (which may or may not be adopted) including increasing the PIT rate by 2 percentage points for salary incomes above EUR 130 000 and by 4 percentage points above EUR 300 000.

Of the countries cutting top PIT rates, the Netherlands introduced a major reform as part of its Tax Plan 2019. An important objective of the reform is to reduce the PIT individuals have to pay. As part of the reform, the number of tax brackets will be halved from four to two from 2021. The top PIT rate will be cut from 52% to 49.5% for incomes in excess of EUR 68 507. In Norway, the top PIT rate cuts were significantly smaller and part of more general PIT rate decreases affecting all tax brackets (see below).

The previous focus on tax rate cuts targeted at low and middle-income earners has slowed

Similar to the top PIT rate reforms, there have been fewer non-top PIT rate reforms overall and the reforms undertaken were split between rate cuts and increases. Three countries reported non-top PIT rate cuts and two reported increases in 2019 (Table 3.1). This represents a significant departure from 2017 and 2018 where a majority of countries that undertook non-top PIT rate reforms had introduced tax cuts targeted at low and middle-income earners, although these were small. For example, in 2018, eight countries reported cuts and two reported increases (similarly, in 2017, 11 countries reported cuts and two reported increases).

Of the countries cutting non-top PIT rates, the Netherlands is replacing its previous PIT rate schedule that had four brackets with one which has in effect three brackets in 2019: 36.65% for the lowest rate, 38.10% for the two middle brackets and 51.75% for the top bracket. This represents a rate reduction in the second and third brackets. From 2021, this will be further reduced to two brackets with a basic rate of 37.05% (and as mentioned, a top rate of 49.5%). Overall, the reform is expected to reduce PIT and increase net incomes, particularly for middle and high-income earners. In Australia, as part of a significant reform to reduce PIT on individuals (see next section for more details), the 32.5% PIT rate is reduced to 30%.

Furthermore, in Norway, various PIT rate changes have been introduced, leading to an overall slight decrease in marginal tax rates. The Norwegian tax system has two income bases; ordinary income which has a net base and personal income which has a gross base. The tax rate on ordinary income will be reduced from 23% to 22% for individuals and companies starting in 2019. At the same time, tax rates for

employees on personal income have increased marginally in each bracket (from between 0.5 and 0.9 percentage points). This will partly fund the decrease in the rate on ordinary income. Overall, marginal PIT rates are expected to decrease slightly. In addition in Norway, a new Pay As You Earn (PAYE) regime that levies a flat 25% tax rate on foreign workers was introduced. In Ireland, the 4.75% rate of the Universal Social Charge (USC), which is a tax on total income (if income is above EUR 13 000), has been reduced to 4.5%.

Only two countries raised non-top PIT rates. In Denmark, the tax rate on the bottom tax bracket will be increased marginally. This reform comes as part of a wider set of base narrowing reforms aimed at cutting PIT for individuals. In Lithuania, the PIT rate on the first of the two new brackets will be levied at 20% (as part of the new progressive rate schedule to replace to previous 15% flat-rate system).

3.1.4. PIT base narrowing reforms have intensified

The trend towards narrowing PIT bases observed in recent years has intensified in 2019. In the countries undertaking PIT base reforms, 37 reforms were narrowing and four reforms were broadening. Compared to 2018, when 30 reforms were narrowing and nine were broadening, this represents increased base narrowing and decreased base broadening.[1] Many countries increased personal tax allowances, tax credits and tax brackets to support low-income earners and employment. PIT base reforms targeted at supporting the elderly have been expanded markedly in 2019. There were also several reforms aimed at supporting children (and other dependents). Several countries have expanded the scope of EITCs, which broadly represents a continuation of recent trends, to improve labour market participation, reduce poverty and enhance progressivity (Table 3.2). Overall, these measures are expected to reduce tax revenues.

Tax complexity generally arises from the tax base rather than the tax schedule. Therefore, the PIT reform focus on tax bases rather than rates will likely increase complexity. This presents challenges for the evaluation of these reforms since a tax base change can produce a multitude of additional tax burdens and benefits across an income distribution, with differing effects on different taxpayers. Tax record microdata, which is increasingly used in economic research for public policy, can help to clarify such complexity as it can be used to define and focus on a vast array of potential taxpayer cohorts while retaining sufficient sample size (Box 3.2).

Box 3.2. The Potential of Tax Microdata for Tax Policy

A forthcoming OECD report, *the Potential of Tax Microdata for Tax Policy*, explores one distinctive form of the 'big data' of economics – tax record microdata – and its potential for tax policy analysis. The paper draws on OECD collaborations with Slovenia and Ireland in 2018 where tax microdata was used.

Much of empirical economics is based on survey data. However, the current trend of low and falling response rates has placed a question mark over the future value of survey practice generally. By contrast, administrative microdata are increasingly used in some of the world's most credible and influential economic research on public policy. Although tax microdata have limitations, they are vastly greater in scale and coverage, particularly among the highest earners, and have an inherent longitudinal structure with near perfect tracking rates.

The paper argues that these data provide analytical advantages - in measurement and in an expanded range of possible analysis. The paper also argues that the future of best-practice tax policy analysis will likely combine the unique advantages of tax microdata with survey and national account data. The complementary advantages of these combined data will be important for tax policymakers to address future policy challenges including ensuring sustainable tax revenues in an era of population aging, protecting citizens from rising income inequality and preserving fairness in a changing labour market.

For example, using tax microdata, even simple statistical descriptions, such as inequality concentration measures over time or plotting incomes along the tax schedule, can deliver unique policy insights.

Tax record microdata enhances and expands the range of analysis available to policymakers

Thematic area	Policy challenges	Analysis using tax microdata
Population aging	What are the consequences of population aging for the future of tax revenues?	**1. Microsimulation methods** can evaluate the tax and fairness impacts of tax rate and tax base changes
	How do incomes (and tax contributions) change over the life-cycle?	**2. Life-cycle analysis** can identify income and exchequer risks and measure effective and statutory retirement
Income inequality	Is the gap between rich and poor widening and how can tax policies respond?	**3. Concentration measures** can examine relative and absolute income inequality over time across groups
	Who moves up and down the income (and tax contribution) ladders over time?	**4. Transition matrices** can follow the relative fortunes of the same individuals over time
Changing labour market	Who responds to tax policies, when and by how much?	**5. Bunching analysis** can detect earnings clustering by plotting raw tax record data
	Who bears the tax burden (and receives the benefits) of different tax policies?	**6. Backward-looking average-tax rates** can measure actual tax burdens on specific taxpayer groups

Despite its potential for tax policy analysis, access to tax microdata remains challenging and its use limited and sporadic. The primary reason for restricted access is to protect taxpayer confidentiality. In addition, new skills and technology will be needed to manage the unstructured and multidimensional nature of these data, which are not designed for research. However, tax administrations are increasingly adopting new technologies, statistical software and trained analysts to capture and process large volumes of data securely. This development could support new data access solutions where data are used more readily for tax policy research while limiting privacy risks.

Table 3.2. Changes to PIT bases

	Base ⇧		Base ⇩	
Into effect in	**2018**	**2019 or later**	**2018**	**2019 or later**
Personal allowances, credits, tax brackets	GRC JPN USA		CAN IRL JPN LVA NLD NOR PRT SVN TUR USA	AUS DEU DNK FIN GBR ISL LTU NLD SWE ZAF
Targeted low-income/EITCs	NLD		CAN FIN IRL ITA[1] NLD	BEL DKN ESP FIN IRL NLD SWE
Children & other dependents			IRL ISL LVA USA	AUT DEU ESP IRL
Elderly & disabled	NLD		LVA NLD SWE	AUS FIN FRA HUN LAT NLD SWE
Self-employed & unincorporated business		GBR NLD	ITA USA DEU	GBR DNK IND ITA[1] POL
Miscellaneous expenses, deductions & credits	LVA NLD NOR USA	NOR SWE	NOR SVN SWE TUR	POL NOR SWE USA

1. In Italy, the entrepreneurial income tax (IRI) was abolished and replaced by a new flat-rate regime.
Note: Countries in brackets have only announced reforms.
Source: OECD Annual Tax Policy Reform Questionnaire.

General tax allowances, tax credits and tax brackets

The first and largest category of reforms to PIT bases relate to personal allowances, credits and tax brackets. All the changes reported in this category involved base narrowing. Multiple PIT base narrowing reforms were sometimes introduced simultaneously with, for example, countries increasing

personal tax allowances and shifting tax brackets upwards. These reforms, which were targeted at supporting low-income earners, are expected to increase after-tax incomes but also to reduce tax revenues, at least in the short term.

In Australia, the Government introduced a significant reform aimed at reducing PIT on individuals, particularly those on low incomes. The top threshold of the 32.5% rate bracket increased from AUS 87 000 to AUS 90 000 in 2018 (the threshold will increase further to AUS 120 000 from 2022 and then AUS 200 000 from 2024, effectively abolishing the 37% bracket). The top threshold of the 19% tax bracket will also increase from AUS 37 000 to AUS 45 000 in 2024. Furthermore, to increase tax relief for low incomes, a new 'low and middle-income tax offset' was introduced to provide tax relief of up to AUS 1 080 between 2018 and 2022. Entitlement to this new offset is in addition to the existing "low income tax offset". From 2022, a new "low income tax offset" will replace both the current "low income tax offset" and the "low and middle income tax offset". This new "low income tax offset" will increase from AUS 445 to AUS 700.

In some countries, personal allowances are increased and tax brackets are shifted upwards simultaneously. In Germany, as part of the Annual Tax Act 2018, the basic personal allowance increased from EUR 9 000 to EUR 9 168 in January 2019 (and will increase further to EUR 9 408 in January 2020) to reduce the tax burden on low and middle- income taxpayers. In addition, to offset the effects of fiscal drag, the tax brackets will be adjusted upwards (by 1.84% in 2019 and by a further 1.95% in 2020). In Denmark, the personal allowance is increased from DKK 46 000 in 2018 to DKK 46 200 in 2019. Furthermore, the threshold at which the top tax rate applies is increased to DKK 513 400 in 2019 (from DKK 498 900 in 2018). In Belgium, the most significant PIT base reform is an increase of the basic allowance to EUR 8 860 for the tax year 2019. In addition, the 40% tax bracket will be extended so that less income is taxed at the higher 45% rate. In the United Kingdom, the personal allowance is increased to GBP 12 500 (from GBP 11 850) and the first tax bracket upper threshold is increased to GBP 37 500 (from GBP 34 500) in 2019-20 and 2020-21. For future years, in the absence of other policy decisions, both of these will be indexed with the CPI. In Lithuania, the monthly tax-exempt income is increased gradually to EUR 400 in 2020 and EUR 500 in 2021 (initially, however, it is reduced from EUR 380 to EUR 300 in 2019[2]).

A number of other countries have shifted PIT brackets upwards. In Sweden, to reduce PIT on individuals, the tax brackets for state income have been shifted upwards in 2019 (a 0% rate applies up to SEK 490 700; 20% up to SEK 689 300 and 25% thereafter). In Ireland, the entry threshold for the higher 40% PIT rate bracket is increased from EUR 34 550 to EUR 35 300 for single workers from January 2019 (for married one-earner couples, it is increased from EUR 43 550 to EUR 44 300). In addition in Ireland, the Universal Social Charge (USC) entry threshold is increased modestly from EUR 19 372 to EUR 19 874. In Finland, with the aim of supporting purchasing power, the PIT brackets are being shifted upwards and indexed against the general increase in earnings.

In some countries, leaving PIT brackets unchanged will also raise revenues. For example, in South Africa, where inflation has been rising quickly in 2018, the PIT brackets will remain unchanged and will not be adjusted for inflation. This is expected to raise ZAR 12 800 billion as some taxpayers will face higher tax burdens.

Several countries have narrowed the PIT base through increased tax credits. In the Netherlands, the general tax credit will be increased gradually in 2019, 2020 and 2021 by a total of EUR 358. In Iceland, to support low and middle-income families, the personal tax credit is increased by 1% (in addition to an increase due to inflation indexation of 3.7%). In South Africa, to partly offset inflation, rebates will be increased by 1.1%, which will in turn increase the tax-free threshold from ZAR 78 150 to ZAR 79 000.

EITCs and other in-work tax benefits

The second largest category of PIT base reforms is related to earned income tax credits (EITCs). When designed correctly, such credits have the potential to improve labour market participation and reduce poverty. In 2019, countries reforming EITCs have typically expanded their scope. This represents a continuation of trends from 2018.

A number of changes to EITCs and other in-work benefits were introduced in Belgium, Denmark, Finland, Ireland, the Netherlands, Finland, Spain and Sweden. In the Netherlands, the maximum of the EITC will be increased from EUR 3 249 in 2018 to EUR 3 399 in 2019. However, the credit will decrease by 6% for every euro earned above EUR 34 060, which is expected to partly offset the decrease in tax revenues. In Finland, there has been an increase in the maximum amount of the EITC from EUR 1 540 in 2018 to EUR 1 630 in 2019. In Ireland, for self-employed workers, the EITC is increased from EUR 1 150 in 2018 to EUR 1 350 in 2019 (it was EUR 950 in 2017). In Denmark, a new employment deduction is introduced with effect from the tax year 2018. For 2019, that deduction is set at 3.75% of employment income. In addition in Denmark, a special employment deduction on income of 10.1% applies for employees and self-employed individuals in 2019 (up from 9.5% in 2018). The deduction is limited to DKK 37 200. In Sweden, the employment income credit is being increased, which is estimated to cost a total of SEK 10 billion in tax revenues per year. In Belgium, there was also a PIT work bonus increase in 2019. In Spain, PIT allowances were increased for taxpayers with net employment income lower than EUR 16 825.

Children and other dependents

Four countries have expanded tax provisions targeted at households with children (and other dependents) in 2019, the same number as in 2018. In Austria, several changes to family-related tax provisions were introduced. A non-payable tax credit of EUR 1 500 was introduced for parents of children receiving family assistance from January 2019 (for children over 18, the amount is EUR 500). This replaces the previous childcare deduction and child tax-free amount. In Germany, the child benefit will increase by EUR 10 per child per month. At the same time, the basic allowance for children increased to EUR 7 620 in January 2019 (up from EUR 7 428) and will be further increased in January 2020 (to EUR 7 812). In Ireland, the home carer tax credit, where one spouse (or civil partner) works in the home caring for a dependent person, is increased from EUR 1 200 to EUR 1 500. In Spain, tax credits were increased for regular and large families. In addition, Spain has made maternity benefits tax exempt from December 2018.

Elderly and disabled

The fourth category of PIT base reforms includes measures targeted at the elderly and the disabled. Supporting low-income older people continues to be an important policy rationale for age-related tax concessions (OECD, 2011[2]). In recent years, a number of countries have undertaken PIT reforms to support low-income retirees. Other more limited reforms have also aimed at providing more support to the disabled.

In 2019, there was an increase in PIT reforms to support the elderly, with tax changes introduced in the Netherlands, France, Finland, Sweden, Australia, Latvia and Hungary. In the Netherlands, the general old age tax credit will be increased in 2019 as will the additional old age tax credit for single persons. In France, the *Contribution Sociale Généralisée* (CSG), a social levy due on all types of income (including capital and pension income), which was increased in 2018 has been cancelled for low-income retirees. In Finland, to reduce the burden on low pension income earners, the pension income deduction was increased (in both central and local government). In Sweden, the basic allowance is increased for individuals over the age of 65 in 2019. In Latvia, there was also an increase of the PIT non-taxable minimum

for pensioners. In Australia, to assist older Australians who receive a redundancy payment but are not yet entitled to receive the Age Pension, the Government is aligning tax concessions afforded to genuine redundancy and early retirement scheme payments with the Age Pension qualifying age. Regarding disability, in Hungary, a monthly tax credit is available to disabled persons equal to 5% of the statutory minimum wage. The definition of disability has also been widened to include additional illnesses.

Other employment and skills-related tax provisions

A small number of changes were made to other employment and skills-related tax provisions. In the Slovak Republic, to support employment and skills, a non-cash incentive in the form of accommodation is available to employees, which is exempt from PIT and SSCs. In France, in January 2019, a PIT exemption was introduced on income from overtime work. In the Netherlands, under the so-called 30%-ruling, expatriates with specific expertise that is scarce or absent on the Dutch job market can benefit from a tax-free allowance equal to 30% of their salary to cover expatriate costs. From 2019, the maximum term of the 30% facility for incoming employees is decreased from eight to five years.

Tax reforms for the self-employed

Five countries reported base narrowing reforms to support self-employed and unincorporated businesses. A range of reforms were introduced in Poland. From 2019, losses up to PLN 5 million can be set-off fully in one of the subsequent five years. In addition, there is an increase in the car value limit to PLN 150 000 for tax depreciation (for electric vehicles, this limit has been increased from to PLN 225 000). Furthermore, to encourage new entrepreneurs to undertake R&D in Poland, income from certain intellectual property is to be taxed with a preferential 5% PIT (or CIT) rate. Moreover, to support skills and education, entrepreneurs may deduct from revenues certain donations for vocational education to public schools. In Italy, the previous entrepreneurial income tax (IRI) for self-employed individuals (and also entrepreneurs, general partnerships and limited partnerships) was abolished from January 2019 (it was scheduled to enter into force in 2019). The rationale for the abolition was in part due to a new a flat tax regime to be introduced for entrepreneurs and self-employed. From 2019, a flat tax rate of 15% is introduced for self-employed taxpayers with income up to EUR 65 000 and, from 2020, a tax of 20% is introduced for those earning between EUR 65 000 and EUR 100 000. In Denmark, an investment deduction applies to investments in qualifying SMEs and shares of start-ups from 2019. In Indonesia, for certain businesses with a gross turnover below IDR 4.8 billion, the final income tax was reduced from 1% to 0.5% of turnover. In the United Kingdom, relief will be available for individuals if their shareholding is 'diluted' as a result of a new share issue in 2019 (below the 5% qualifying threshold for entrepreneurs relief).

PIT base broadening reforms affecting self-employed businesses were reported in two countries. In the Netherlands, the plan is to limit gradually the rate of deductibility for most deductible items on business income. From 2020, the maximum rate of deductibility will be reduced by 3% annually until the rate of the first PIT bracket (37.05%) is reached in 2023. In the United Kingdom, a base broadening reform extended the minimum requirement period for entrepreneurs' relief, which applies to gains from the disposal of a business.

Other PIT deductions and credits

A few other reforms involving PIT deductions and credits were introduced. In Poland, for single-family residential buildings, a tax deduction is introduced from January 2019 for thermo-modernisation expenses. In the United States, as part of the Bipartisan Budget Act 2018, a number of PIT base narrowing initiatives were extended for 2017 income tax returns. For example, a residential energy tax credit is available to taxpayers who made energy savings to their residence. In addition, there was an extension of the exclusion from gross income for the discharge of indebtedness on principle residence indebtedness.

In Sweden, a tax reduction equal to 50% of the labour costs related to housekeeping is available, but is limited to SEK 25 000. Tax deductions will also be abolished for trade union membership fees. In Norway, the tax base was broadened through a tightening of commuter expenses. The lower limit for the deductibility of expenses increased from NOK 22 350 in 2018 to NOK 22 700 in 2019. In Spain, lotteries and prize exemptions are increased to EUR 10 000, EUR 20 000 and EUR 40 000 in 2018, 2019 and 2020 respectively.

3.1.5. Some countries have increased tax rates on personal capital income, while others have expanded reliefs to support pension savings and small savers

Overall, reforms of the taxation of household capital income in 2019 have increased capital income tax rates and narrowed capital income tax bases. As a result, the overall revenue effects of the reforms are somewhat ambiguous. The stated rationale for increased tax rate reforms is to support fairness and raise revenues while the rationale for expanded tax reliefs is to encourage savings and investment.

Several countries increased tax rates on personal capital income

A number of countries have increased tax rates on personal capital income in 2019 (Table 3.3). In Lithuania, the new progressive PIT rates also apply to non-wage income, such as income from interest and income from the transfer of property. These will be subject to a 15% PIT rate from 2019 and a rate of 20% for income above 120 average monthly wages. In Poland, the aforementioned solidarity levy of 4% introduced in 2019, which is applied to the surplus of income over PLN 1 million (after deducting SSCs), is also levied on certain capital gains. In Norway, the effective marginal tax rate on dividends and capital gains for individual shareholders was increased from 30.59% to 31.68%. The increase was introduced partly to reduce the incentive to engage in tax arbitrage since the maximum overall effective marginal tax rate on dividends (including corporate tax) remains approximately unchanged. In Spain, a new 27% rate has been proposed on savings income above EUR 140 000.

Table 3.3. Changes to tax rates on personal capital income

	Rate ⇧		Rate ⇩	
Into effect in	2018	2019 or later	2018	2019 or later
Dividend or interest income/equity or bond investment	ARG ISL LVA (NLD)[2]	LTU	FRA	
Capital gains	ARG ISL LVA (NLD)[2] KOR	NOR POL[1]	FRA LUX[3]	
Rental income				
Tax treatment of pensions and savings account		(ESP)		
Employee share acquisition deductions			SWE	

1. In Poland, the solidarity levy of 4% is introduced in 2019, which includes certain categories of capital gains.
2. In the Netherlands, the tax changes would only apply to Box 2 income.
3. In Luxembourg, the reform applies to capital gains on immovable property.
Note: Countries in brackets have only announced reforms.
Source: OECD Annual Tax Policy Reform Questionnaire.

Some countries have narrowed capital income tax bases to support pension savings and small savers

A number of countries have narrowed their capital income tax bases, often to support pension savings and small savers (Table 3.4). In Denmark, to increase the incentives for private pension saving, a tax credit for deposits into retirement savings accounts is available from the tax year 2018. The credit is

8% of the annual deposits in 2019 and 12% from 2020 onwards (up to a maximum of DKK 70 000). In addition, from January 2019, it is possible to open a special savings account for investing in publicly traded shares, with a maximum deposit of DKK 50 000 in 2019. The tax rate on the income is 17%. In Norway, to encourage pension savings by the self-employed, there was an increase in the deductibility of their pension savings. In the Netherlands, there is an increase in the tax-free threshold for savings (referred to as Box 3 income) from EUR 30 000 in 2018 to EUR 30 360 to alleviate the tax burden on small savers. In Greece, the taxation of capital gains arising from the transfer of immovable property has been suspended until 2020. In Ireland, the mortgage interest deduction for rental properties increased to 100%. In Belgium, dividends are tax free up to EUR 800 from January 2019.

Two countries have reported measures broadening personal capital income tax bases. In the Netherlands, where a combination of both capital base broadening and narrowing reforms were undertaken, there will be a phasing-out of the income tax exemption for imputed rental value for owner-occupied housing with little or no mortgage interest from 2019. In Italy, rental income subject to a 21% substitute rate is extended to commercial real estate from January 2019.

Table 3.4. Changes to personal capital income tax bases

	Base ⇧		Base ⇩	
Into effect in	2018	2019 or later	2018	2019 or later
Dividend or interest income/equity or bond investment	CAN[1] GBR		BEL LVA NLD	BEL
Capital gains	BEL		GRC NLD SVK	GRC NLD
Rental income		ITA NLD	NLD	IRL
Tax treatment of pensions and savings accounts	BEL SWE		NOR	DKN NOR
Employee share acquisition deductions				

1. In Canada, as a result of reductions in the federal-level small business income tax rate, the "other than eligible" dividend gross up will decrease from 1.17 to 1.16 in 2018 and to 1.15 in 2019. The corresponding dividend tax credit will decrease from 10.5217 per cent to 10.0313 per cent in 2018 and to 9.0301 per cent in 2019.
Note: Countries in brackets have only announced reforms.
Source: OECD Annual Tax Policy Reform Questionnaire.

In a recent report, the OECD has argued that there may be opportunities for efficiency and equity-enhancing improvements in the design of taxes on household savings. The calculation of marginal effective tax rates (METRs) for different types of household savings in 40 OECD and partner countries shows the lack of neutrality in the taxation of savings (OECD, 2018[3]). The report finds that METRs vary widely across assets and that the taxation of household savings is in some cases regressive. For instance, poorer households tend to hold a significantly greater proportion of their wealth than richer households in bank accounts, which are typically highly taxed. On the other hand, richer households tend to hold a greater proportion of their wealth in investment funds, pension funds and shares, which are all often taxed relatively lightly. Ways to improve current systems could involve increasing homogeneity in the taxation of savings across different types of assets, but also turning tax deductions provided for private pension contributions and mortgage interest payments into tax credits so that wealthier taxpayers do not benefit disproportionately from these concessions as compared to poorer taxpayers.

From an international perspective, the progress made on tax transparency presents opportunities for countries to tax personal capital income more comprehensively. The implementation of the standards on the Exchange of Information on Request (EOIR) and the Automatic Exchange of Information (AEOI) represents a marked change in global tax transparency. Both standards are likely to reduce the extent to which taxpayers can evade tax in the future, for example through hiding income offshore. The OECD (2018[6]) has argued that this may present a particular opportunity for countries that previously moved away from progressive taxation of capital income (due to concerns regarding such tax evasion) to strengthen progressivity.

3.1.6. Modest SSC rate cuts coupled with modest SSC base narrowing

SSC reforms have been modest in 2019 and SSCs remain high in many countries. Broadly, SSC reforms in 2019 tended to focus on SSC rate cuts more so than increases and were approximately equally split between base narrowing and broadening. Compared to recent years, there have been fewer SSC rate increases. The balance between SSC base narrowing and broadening has been broadly similar to previous years. Overall, countries expect these reforms to reduce contributions, at least in the short term. The stated objectives for undertaking these reforms are wide-ranging and include reducing the tax burden on labour, supporting employment, promoting skills development and simplifying the tax system.

There was a mix of modest SSC rate cuts and increases

There were several small SSC rate increases and cuts undertaken in 2019 (Table 3.5). Germany has undertaken SSC reform with a mix of SSC rate increases and cuts. Overall, the reform is expected to be revenue neutral. These reforms are introduced across the four types of social insurance in Germany: pension, unemployment, health and long-term care. The rationale for the reform is to reduce the tax burden on labour but also to support demographics such as financing long-term care. First, there is a decrease of the supplemental contribution rate to statutory health insurance on average by 0.1% to 0.9%, the financing of which will now be equally paid by employee and employer. This represents, in effect, an increase in employer SSC on the previous year and a decrease in employee SSCs. Second, the contribution rate to unemployment insurance will be reduced by 0.2% to 1.3% for employees and employers (this rate will temporarily be reduced to 1.25% from January 2019 until December 2022). Third, the contribution to long-term care will similarly be increased by 0.25% to 1.5% for employees and employers. Finally, to lower the financial burden on low-income self-employed, the contribution rate to statutory health insurance will be reduced. In Lithuania, almost all employer SSCs will be shifted to the employee. From 1 January 2019, employers are required to recalculate the gross wages of employees by increasing them by 28.9% (thus, this will not lead to a reduction in employees' net wages). At the same time, there was a significant decrease in the SSC rate, as part of a labour taxation shift from SSCs to PIT, with part of the SSCs previously used to cover basic pensions shifting to PIT. In Iceland, the employer SSC rate is reduced from 6.85% to 6.6% from January 2019 and to 6.35% from January 2020. In Greece, for certain self-employed who were insured for the first time in 2017, the SSC pension rate is reduced to 13.33% (from 20%).

Table 3.5. Changes to SSC rates

	Rate ⇧		Rate ⇩	
Into effect in	2018	2019 or later	2018	2019 or later
Employers SSCs	CAN LAT IRL	DEU[2]	FRA GER FIN HUN NOR[1]	DEU ISL LTU[3]
Employees SSCs	ARG CAN LAT FIN JYP	DEU LTU[3]	FRA GER JYP	DEU LTU
Self-employed			HUN	DEU GRC[4]
Payroll taxes				

1. In Norway, the reform applies to the energy and transport sectors.
2. In Germany, the decrease of the supplemental contribution rate to health insurance represents an effective increase in employer SSC on the previous year.
3. In Lithuania, employer SSCs are shifted to employee SSCs in a neutral way.
4. In Greece, this SSC pension rate reduction only applies to certain self-employed persons.
Note: Countries in brackets have only announced reforms.
Source: OECD Annual Tax Policy Reform Questionnaire.

Countries have modestly adjusted employee and employer SSC bases

A few SSC base narrowing measures have been undertaken (Table 3.6). In Lithuania, a ceiling for SSC (except health insurance) is introduced at 120 times the average monthly salary in 2019 (it will be reduced

to 84 and 60 in 2020 and 2021 respectively). In Hungary, several employer and employee SSC base narrowing reforms were introduced in 2019. The rationale for the reforms is largely to support employment and skills and boost economic growth. First, the Social Contribution Tax was introduced, which consolidates the current social tax and health tax (the tax rate remains at 19.5%). The consolidation is expected to narrow the SSC base and reduce social security funding. In addition, retired employees who continue working will be exempt from both the employer and employee SSCs. Moreover, an employer SSC allowance was introduced for employers of former public sector employees. In addition, to reduce the tax burden on SMEs, the threshold for paying employer SSC contributions was increased from HUF 500 million to HUF 1 billion in December 2018. A new social contribution tax allowance is also introduced which entitles research organisations to a 50% allowance of the employer social contribution for employees who conduct research activities. In France, an employee SSC exemption was introduced on income associated with overtime work from 2019. In Ireland, the weekly income threshold for the higher rate of employer's Pay Related Social Insurance (PRSI) will increase modestly from EUR 376 to EUR 386 from January 2019.

Table 3.6. Changes to SSC bases

	Base ⇧		Base ⇩	
Into effect in	2018	2019 or later	2018	2019 or later
Employers SSCs	LAT SVK[1]	ESP	ARG HUN ITA SVK SWE	HUN IRL LTU SVK
Employees SSCs	LAT SWE	ESP GBR	AUS SVK	HUN FRA SVK
Self-employed	GRC	GBR GRC		ESP
Payroll taxes		GBR		

1. In the Slovak Republic, the health insurance contribution allowance for employers was abolished.
Note: Countries in brackets have only announced reforms.
Source: OECD Annual Tax Policy Reform Questionnaire.

There have also been a few SSC base broadening measures. In Spain, to match the increase in the minimum wage, there was an increase in the SSC floor by 22.3% and upper ceiling by 7% from January 2019 for both employees and employers. For the self-employed, there was an increase in the SSC floor by 1.25% and upper ceiling by 7%. In Greece, the SSC base for self-employed workers and freelancers was expanded in 2019 from 85% to 100% of taxable income. The United Kingdom is undertaking a number of SSC base broadening reforms for employers and the self-employed. The employment allowance, which reduces the amount of National Insurance Contributions (NICs) that employers have to pay will be restricted to businesses with employer NICs below GBP 100 000 from 2020. The government will also legislate in Finance Bill 2019-2020 changes to the off-payroll rules, which will make private sector organisations liable for determining the employment status of certain contractors. Responsibility for deducting any tax and NICs due will move from individuals to the fee-paying organisation (agency or engager).

Overall, however, SSC reforms have been modest and SSCs remain high in many countries. In some countries, high SSCs have distortive effects and more comprehensive tax reforms are needed to rebalance the tax mix towards less distortive and potentially more progressive taxes (Box 3.3). The case for shifting the financing of social benefits away SSCs towards other taxes is strongest when the benefits received by taxpayers are only weakly linked to the amount of SSCs paid, as is the case with health insurance and family allowances for instance. On the other hand, there are stronger arguments to continue financing benefits for retirement, disability and unemployment, which tend to be more strongly related to earnings, in large part through SSCs.

Box 3.3. Reshaping the personal income tax in Slovenia

In 2018, an *OECD Tax Policy Review of Slovenia* was conducted focusing on redesigning the PIT system. Overall, the report finds that Slovenia could benefit from a tax reform that rebalances the tax mix away from employee social security contributions (SSCs) towards personal income tax (PIT) and less distortive taxes such as value-added tax (VAT) and recurrent taxes on immovable property.

In Slovenia, there is a combination of high employee and employer SSCs and progressive PIT rates resulting in high and distortive tax burdens on labour income. These tax rates reduce incentives for employers to hire workers and for individuals to participate in the labour market and increase work efforts. The narrow PIT base presents a challenge for reshaping the role of the PIT in Slovenia. The report finds that low PIT revenues are not the result of low PIT rates or a lack of tax progressivity – in fact, the top PIT rate in Slovenia is comparatively high – but the consequence of a narrow PIT base due to many generous tax provisions and tax exemptions.

The report provides a number of options for redesigning the PIT system. For example, the report argues that the current top PIT rate of 50% is too high. The top marginal "all-in" rate, which takes into account employee SSCs and the top PIT rate in Slovenia is 61.1%, is the highest all-in rate that is levied in the OECD. According to the microsimulation analysis using information on income data from individual taxpayers for 2016, abolishing the top PIT rate bracket comes at a small revenue cost of EUR 13 million; and lowering the top PIT rate from 50% to 45% would cost EUR 6 million. The report also shows the impacts of simultaneously cutting employee SSCs and increasing PIT rates in the lower PIT brackets. According to the microsimulation analysis, a 5.2 percentage points reduction in employee SSCs (from 22.1% to 16.86%) is associated with a reduction in tax revenues of EUR 519 million. The tax rates in the second, third and fourth tax brackets (which are 27%, 34% and 39% respectively) could be increased to help finance the cut in employee SSCs.

The report also recommends increasing the retirement age from 65 to 67 in Slovenia. The population is ageing rapidly with over 30% of the population projected to be older than 65 by 2050, making it one of the oldest populations in the OECD. In addition, older workers leave the labour market early. While Slovenia is the top performer in the OECD with respect to the employment rate of workers in the prime age category of 25-54, for both men and women, it is one of the weakest performers with respect to the labour market participation of its workers who are older than 54. The tax return data for the year 2016 reveals that a significant gap remains between the official and the effective ages of retirement. Such a low rate of participation of older workers in the labour market is unsustainable in the context of Slovenia's ageing population.

In addition to broadening the PIT base, there is scope to finance a cut in SSCs by broadening the VAT base and by strengthening the role of the recurrent tax on immovable property in the financing mix of municipalities away from revenues from PIT.

Source: *OECD Tax Policy Review Slovenia 2018*.

3.2. Corporate income taxes and other corporate taxes

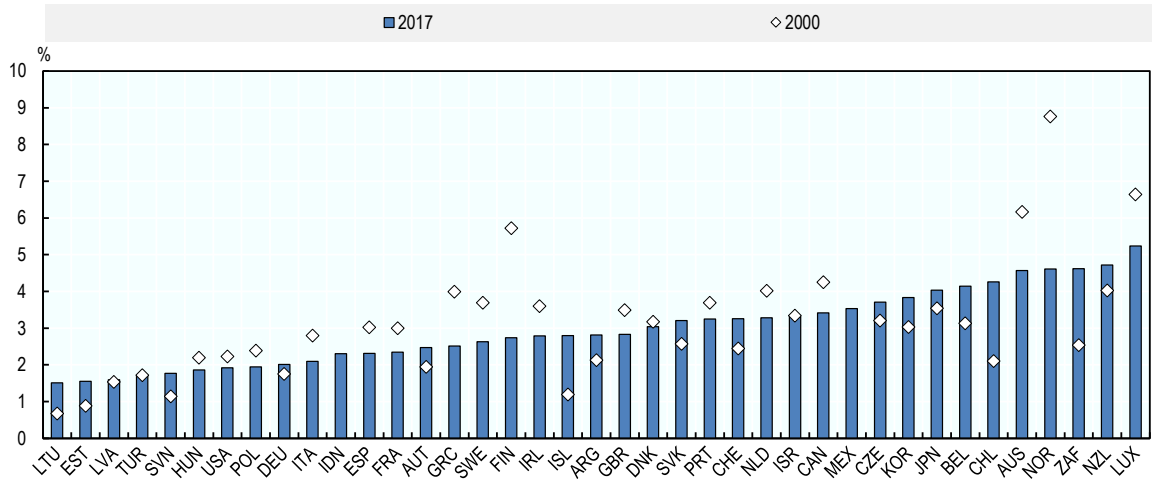
Overall, this section shows that corporate income tax (CIT) rate cuts have continued in 2019, although these rate reductions have been less significant than those introduced in 2018. The section also highlights that the countries that are introducing the most significant CIT rate reductions tend to be those that exhibit higher initial CIT rates, leading to further convergence in CIT rates across countries.

Many countries have also reinforced the generosity of their corporate tax incentives to stimulate investment and innovation. With regard to international taxation, efforts to protect CIT bases against corporate tax avoidance have continued with the adoption of significant reforms in line with the OECD/G20 Base Erosion and Profit Shifting (BEPS) project. The tax challenges arising from the increasing digitalisation of the economy are another major concern for many countries. Efforts to achieve a consensus-based multilateral solution to address those challenges are ongoing, but some countries are considering interim measures to tax certain revenues from digital services in the meantime. After a brief review of CIT revenue trends, this section examines trends in CIT rates and changes to CIT bases.

3.2.1. Trends in CIT revenues have varied across countries

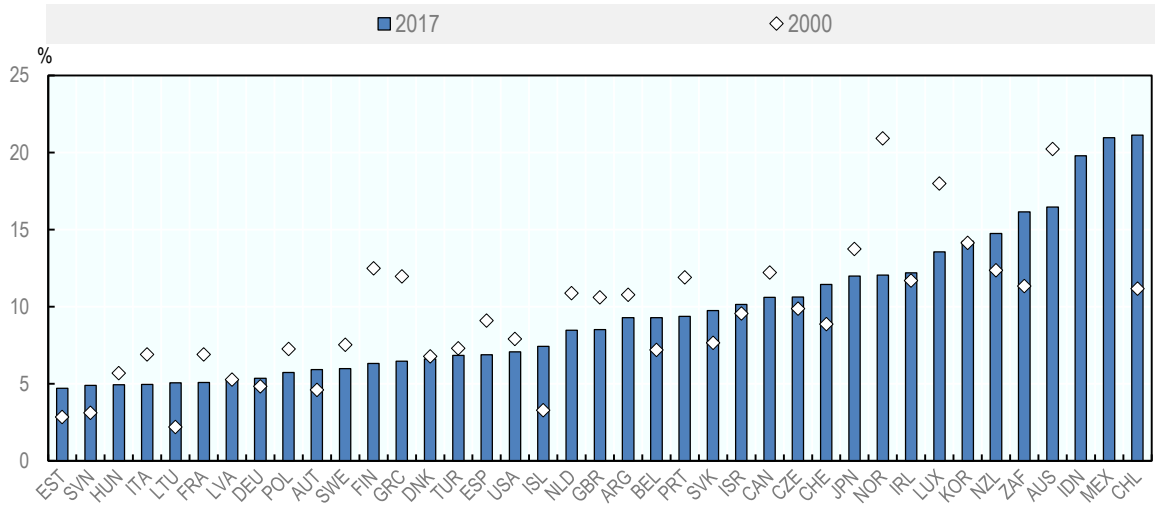
The amount of revenues collected from corporate income tax (CIT) varies across countries. CIT revenues ranged from 1.5% of GDP in Lithuania to 5.2% of GDP in Luxembourg in 2017 (Figure 3.6). As a share of total tax revenues, CIT ranged from 4.7% of total taxation in Estonia to 21.1% of total tax revenues in Chile (Figure 3.7). There are multiple factors that can explain differences in revenues from CIT including statutory CIT rates, the breadth of the CIT base, the degree to which firms are incorporated, the phase in the economic cycle and the degree of cyclicality of the corporate tax system, as well as countries' reliance on other taxes. Generally, Figure 3.7 shows that CIT tends to be a greater source of revenue in emerging economies and countries with significant endowments of natural resources.

Figure 3.6. Corporate income tax revenues as a share of GDP in 2000 and 2017



Note: 2016 data was used for Australia, Greece, Indonesia and South Africa. No 2000 data for Indonesia and Mexico.
Source: OECD Global Revenue Statistics Database.

Figure 3.7. Corporate income tax revenues as a share of total tax revenues in 2000 and 2017

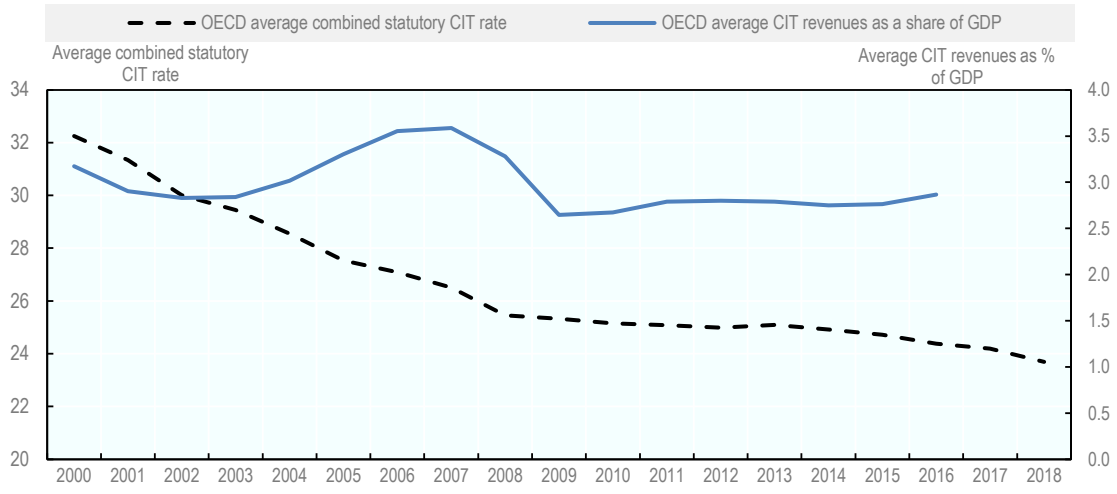


Note: 2017 data was used for Australia, Greece, Indonesia, Japan, Mexico and South Africa. No 2000 data for Indonesia and Mexico.
Source: OECD Global Revenue Statistics Database.

Trends in CIT revenues over time have differed across countries. While CIT revenues as a share of GDP increased in 17 countries between 2000 and 2017, CIT revenue falls were recorded in 20 countries.[3] The largest falls in CIT revenues as a share of GDP between 2000 and 2017 were recorded in Norway and Finland. CIT revenue decreases of over 1 percentage point were also recorded in Australia, Greece, Luxembourg and Sweden. On the other hand, Indonesia, Chile and South Africa experienced the most significant increases in CIT revenues as a share of GDP between 2000 and 2017 (Figure 3.6).

On average, however, CIT revenues have held up. Across OECD countries, CIT revenues have remained relatively stable since 2000 on average, with the exception of a peak in 2007 (Figure 3.8). Interestingly, average CIT revenues seem to have been little affected by the progressive decline in CIT rates, which is shown in Figure 3.8 and discussed in the following section. Various factors may have contributed to this apparent paradox between declining CIT rates and relatively stable CIT revenues, including the rise in corporate profits, the broadening of CIT bases, the incorporation of businesses, and the drop in borrowing costs as a result of low interest rates.

Figure 3.8. Evolution of the average combined statutory CIT rate and average CIT revenues in OECD countries since 2000



Source: OECD Revenue Statistics Database and OECD Tax Database.

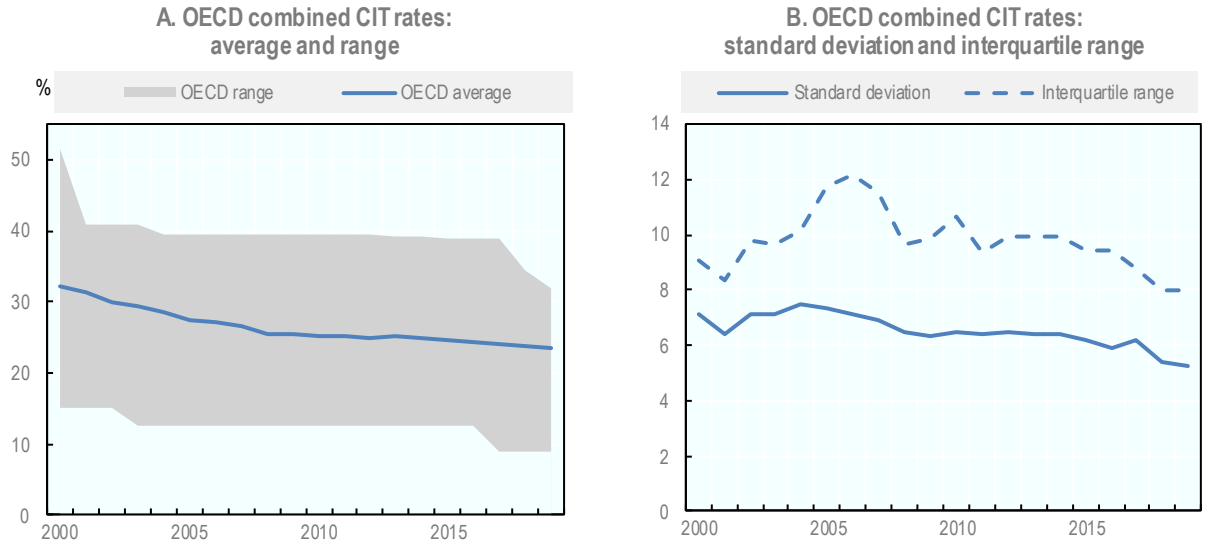
3.2.2. There has been a steady and widespread decline in corporate income tax rates

Standard CIT rates

There has been a clear decline in statutory CIT rates. The OECD average statutory CIT rate declined rapidly in the 2000s. This decrease slowed temporarily with the crisis, but accelerated again in recent years (Figure 3.8). Overall, the OECD average combined (central and sub-central) CIT rate declined from 32.2% in 2000 to 23.5% in 2019. The evolution of CIT rates since 2000 also shows that OECD countries' CIT rates are less dispersed than they used to be, reflecting the tendency of countries with high tax rates to converge closer to the average (Figure 3.9).

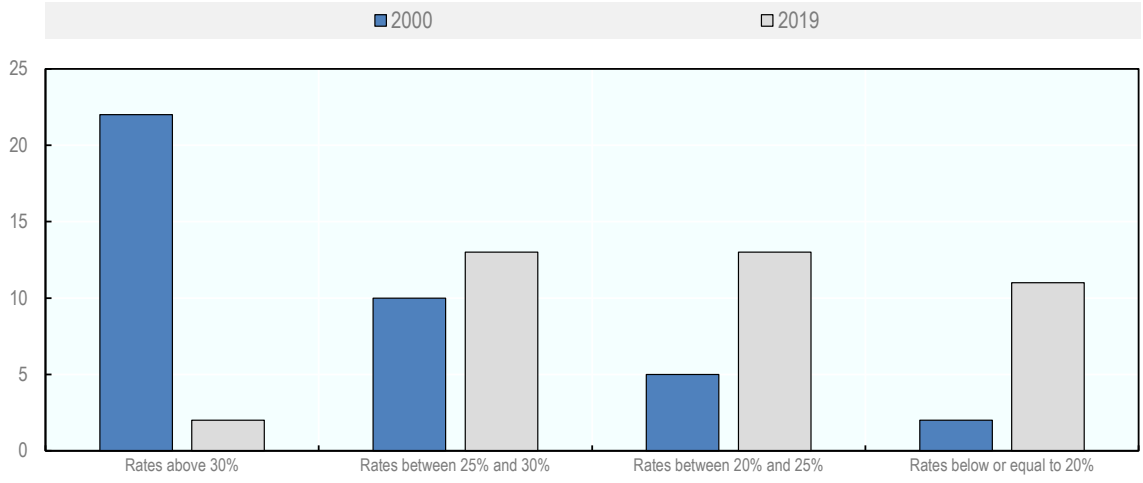
As opposed to CIT revenue trends, which have been mixed across countries, the decline in CIT rates has been widespread. Among all the countries covered in the report, Chile is the only country that had a higher CIT rate in 2019 than in 2000. Figure 3.10 shows the changes in the distribution of CIT rates between 2000 and 2019 and highlights major shifts in the CIT landscape. In 2019, there were only two countries with CIT rates above 30%, against 22 in 2000. Meanwhile, the number of countries with CIT rates below 20% increased from two in 2000 to 11 in 2019 (Figure 3.10).

Figure 3.9. Evolution of the OECD average combined statutory CIT rate and dispersion of OECD CIT rates between 2000 and 2019



Source: OECD Tax Database and OECD Annual Tax Policy Reform Questionnaire.

Figure 3.10. The distribution of combined statutory CIT rates in 2000 and 2019

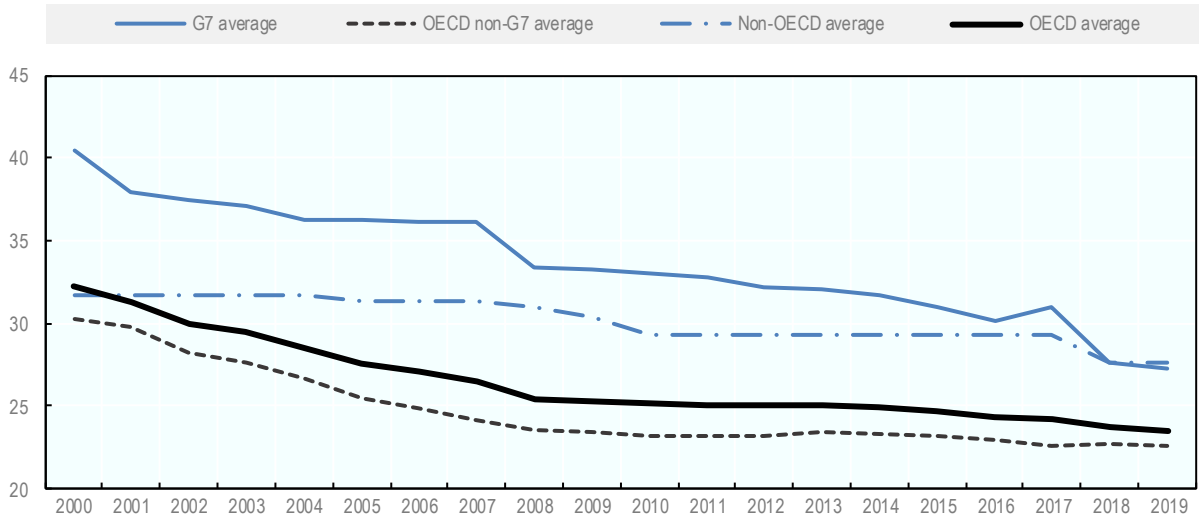


Source: OECD Tax Database and OECD Annual Tax Policy Reform Questionnaire.

CIT rate reductions have been particularly pronounced in G7 countries. G7 countries had significantly higher CIT rates than other countries in the early 2000s and experienced the strongest average CIT rate reductions between 2000 and 2019, of about 13.2 percentage points. In comparison, the average decline for OECD countries that are not G7 members was of about 7.7 percentage points. Nevertheless, CIT rates in G7 countries remain higher than in the rest of the OECD on average. The non-OECD countries (Argentina, Indonesia and South Africa) have also seen a decline in their CIT rates, but not to the same extent as OECD countries, and their CIT rates remain higher than the OECD average (Figure 3.11).

Figure 3.11. Evolution of combined statutory CIT rates in different groups of countries

Average combined CIT rates for different groups of countries



Note: The non-OECD average refers to the average of the three non-OECD countries covered in this publication: Argentina, Indonesia and South Africa.
Source: OECD Tax Database and OECD Annual Tax Policy Reform Questionnaire.

CIT rate reductions have continued in 2019. In France, the standard CIT rate was lowered to 31% (except for companies with an annual turnover exceeding EUR 250 million), as part of a previously legislated CIT rate reduction, which is expected to progressively bring the CIT rate down to 25% by 2022. Luxembourg and Norway both reduced their central government CIT rates by 1 percentage point, respectively from 18% to 17% and from 23% to 22%. In both countries, CIT rates had already been reduced in recent years. In Sweden, the statutory CIT rate was reduced to 21.4% in 2019 and will be cut to 20.6% by 2021. Greece is gradually lowering its CIT rate over the next four years, from 29% to 28% in 2019, and by 1 percentage point annually to reach 25% by 2022. In the Netherlands, the CIT rate was cut from 20% to 19% for taxable income up to EUR 200 000 in 2019 and will be reduced further to 16.5% in 2020 and 15% in 2021. On income exceeding EUR 200 000, the CIT rate remained at 25% in 2019, but will be reduced to 22.55% in 2020 and 20.50% in 2021 (Box 3.4).

Figure 3.12 shows that the countries that are introducing the most significant CIT rate reductions tend to be those that exhibit higher initial CIT rates. Figure 3.12 also confirms countries' tendency to introduce CIT rate reductions over several years, a trend that has already been observed in recent years.

Nevertheless, the CIT rate cuts in 2019 have been less significant than in 2018. Across the five countries that lowered their statutory CIT rates in 2019, the average CIT rate reduction amounted to 1.2 percentage points. In comparison, in 2018, there were eight countries that reduced their statutory CIT rates, with an average decrease of around 3.7 percentage points. In 2020, standard CIT rate cuts are already expected in Argentina, Belgium and the United Kingdom, as part of previously adopted tax reforms.

Table 3.7. Changes in corporate income tax rates

	Rate ⇧		Rate ⇩	
Into effect in	2018	2019 or later	2018	2019 or later
Standard CIT rate	CAN[1] KOR[2] PRT[3] TUR		ARG BEL FRA ISR JPN LUX NOR USA	ARG BEL FRA GBR GRC LUX NLD NOR SWE
SME CIT rate			BEL CAN	AUS CAN NLD
Patent box/IP regime rate	NLD			FRA POL

1. Several Canadian States changed their general CIT rate in 2018; as a result, the weighted average sub-central general CIT tax rate is estimated to have increased to 11.8% in 2018.
2. Korea increased the CIT rate applicable to companies in the highest bracket, i.e., with taxable bases exceeding KRW 300,000.
3. Portugal legislated an increase in the State Surtax applicable to companies with more than EUR 35 million of taxable income.
4. Latvia adopted a new corporate tax regime replacing its business income tax, levied on corporate profits at 15%, with a 20% tax on profit distributions.

Note: Countries in brackets have only announced reforms.
Source: OECD Annual Tax Policy Reform Questionnaire.

Box 3.4. The 2019 Dutch Tax Reform

Corporate income tax

- Gradual CIT rate reductions:

	2018	2019	2020	2021
Taxable income up to EUR 200 000	20%	19%	16.5%	15%
Taxable income above EUR 200 000	25%	25%	22.55%	20.50%

- Reduction in the maximum loss carry-forward period from nine to six years from 2019. Losses incurred prior to 2019 can still be carried forward for a maximum of nine years.
- Implementation of the EU Anti-Tax Avoidance Directive (ATAD 1), notably through an earnings stripping measure and controlled foreign company (CFC) legislation.
- Abolition of a number of non-deductible interest expenses linked to the introduction of the earnings stripping measure.
- Non-deductibility of interest on additional Tier 1 capital instruments from 1 January 2019.[4]

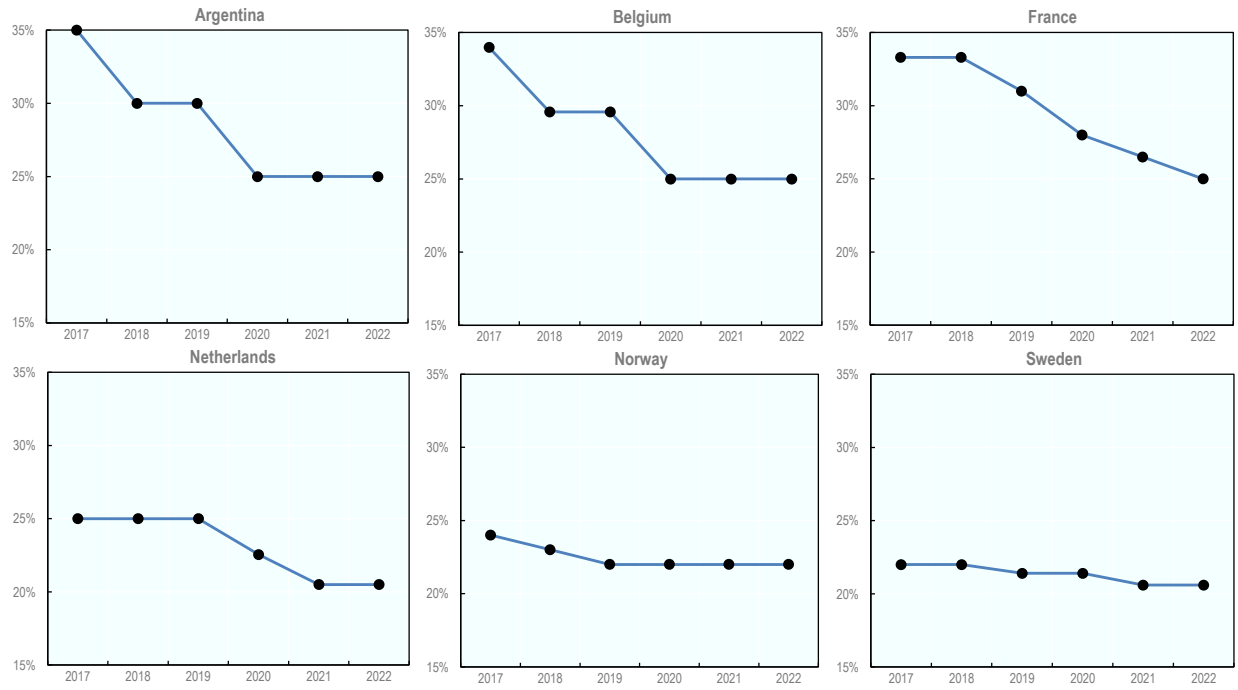
Personal income tax

- From 2021, reduction in the number of tax brackets from 4 to 2 (37.05% and 49.50%).
- From 2020, the marginal rate against which the mortgage interest deduction (and certain other deductions) may be taken will be reduced gradually until it reaches 37.05% in 2023.
- For 2019, the maximum general levy rebate will be EUR 2 477, and the maximum employment credit will be EUR 3 399.

Source: OECD Annual Tax Policy Reform Questionnaire.

Figure 3.12. Selected corporate income tax rate reductions

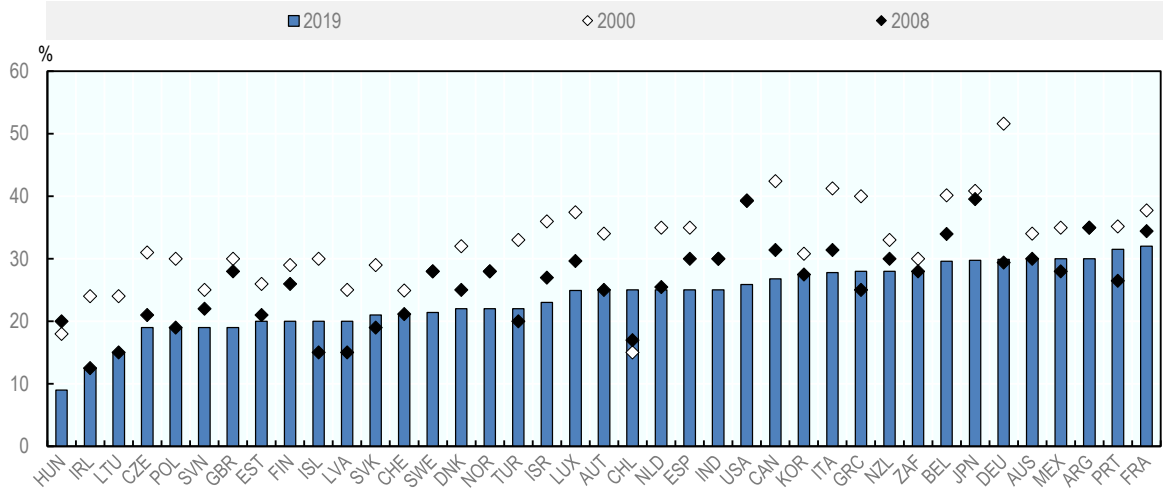
Central government corporate income tax rates, %



Source: OECD Annual Tax Policy Reform Questionnaire.

In 2019, combined statutory CIT rates ranged from 9% in Hungary to 32.02% in France (Figure 3.13). To some extent, CIT rate levels seem to follow regional patterns, with Central European and Baltic countries exhibiting low CIT rates, Scandinavian countries grouped around mid-levels of CIT rates, and a number of Western European and Latin American countries exhibiting comparatively high CIT rates. This highlights the partly regional nature of corporate tax competition.

Figure 3.13. Combined statutory CIT rates by country in 2000, 2008 and 2019



Source: OECD Tax Database and OECD Annual Tax Policy Reform Questionnaire.

SME CIT rates

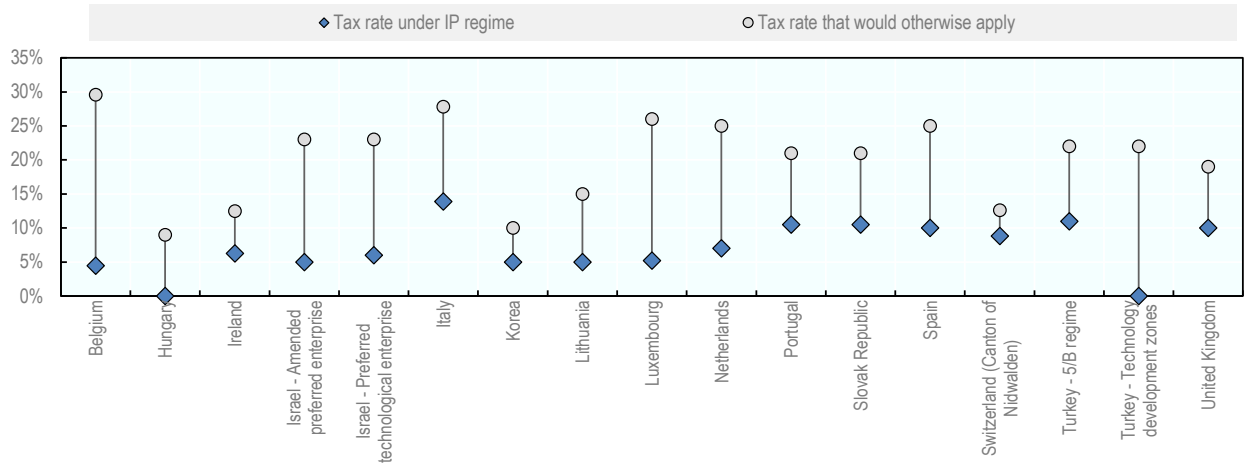
Reduced tax rates for SMEs are common across OECD countries. A number of countries provide reduced CIT rates for SMEs, although the design of these reduced tax rates varies significantly (OECD, 2015[4]) .Some countries apply lower tax rates on the first tranche(s) of profits, regardless of total income levels; some have reduced CIT rates for corporations with income below a certain level; others determine eligibility for small-business tax rates based on non-income criteria (e.g. turnover or assets) instead of or in addition to income criteria.

A few countries have reduced their SME CIT rates. Poland introduced a new reduced CIT rate of 9% in 2019 for small incorporated businesses with annual revenues of up to EUR 1.2 million. In Australia, the scheduled CIT rate cuts for SMEs have been brought forward by five years. The CIT rate for companies with an annual turnover below AUD 50 million will be 26% in 2020-21 and 25% in 2021-22. Canada also cut its federal small business CIT rate from 10% to 9% (on the first CAD 500 000), as part of a gradual SME CIT rate reduction that started in 2016. This measure was accompanied by tighter rules on passive income. For businesses with passive income in excess of CAD 50 000, the first CAD 500 000 of income might be taxed at a significantly higher rate. As part of its general CIT rate reduction, the Netherlands cut the CIT rate levied on the first bracket of corporate income (see above).

Intellectual property regimes

Intellectual property (IP) regimes refer to tax regimes that allow income from the exploitation of IP to be taxed at a lower rate. IP regimes have been introduced in an increasing number of countries, and these usually significantly reduce the tax rate applicable to IP-related income, compared to the tax rate that would otherwise apply (Figure 3.14).

Figure 3.14. Reduced CIT rates under selected non-harmful intellectual property regimes in 2018



Source: OECD (2019), Corporate Tax Statistics Database.

Changes to IP regimes were introduced in 2019. These changes were largely driven by the need to align IP regimes with Action 5 of the OECD/G20 BEPS project, which aims at addressing harmful tax regimes, including IP regimes where certain substance requirements are not met. In the past, IP regimes could be designed in a way that incentivised firms to locate their IP assets in a jurisdiction regardless of where the underlying R&D was undertaken. The modified nexus approach under Action 5 now requires that substantial economic activity is undertaken in the country offering the favourable tax regime and that

the amount of income eligible for benefits in an IP regime is proportional to the amount of expenditures undertaken by the taxpayer to develop the IP. Action 5, which is a peer-reviewed minimum standard of the OECD/G20 BEPS package, has led to many countries aligning their IP regimes with these new requirements (see section 3.2.4). For instance, Luxembourg replaced its previous IP regime, abolished in 2016, with a new one in line with the modified nexus approach. France also introduced a revised IP regime in line with the modified nexus approach as of 1 January 2019. The income benefitting from this regime is taxed at a 10% rate, instead of 15% under the previous regime. Poland introduced an IP regime for the first time, which is designed to be in line with the modified nexus approach and will tax profits from qualifying IP at the preferential rate of 5%. In Switzerland, a significant tax reform, approved by Parliament but still subject to a popular referendum in May 2019, includes mandatory patent boxes at the cantonal level (Box 3.5).

Box 3.5. The Swiss tax reform proposal

In Switzerland, the Parliament approved a corporate tax reform package on 28 September 2018, which will be subject to a popular referendum on 19 May 2019. The objective of the tax reform package is to maintain the competitiveness of Switzerland as a business location, to replace certain preferential regimes with international tax rules, and to secure tax revenues.

The package contains the elimination of cantonal tax privileges for status companies. To compensate for this change, the reform package includes the creation of patent boxes and the introduction of an R&D super-deduction, both at the cantonal level. The tax package would entail an increase in the cantonal share of federal direct tax revenues, a rebalancing of the national financial equalisation scheme, and an increase in the old age and survivors' insurance financing. Cantons may separately implement their own tax reforms.

Source: OECD Annual Tax Policy Reform Questionnaire.

Reduced CIT rate for reinvested earnings in Italy

Italy introduced a reduced CIT rate for reinvested earnings. This lower CIT rate will be 22.5% in 2019, 21.5% in 2020, 21% in 2021 and 20.5% as from 2022. The lower CIT rate applies to earnings allocated to disposable profit reserves within the limit of the increase in equity in the year (excluding financial entities).

This CIT rate reduction was part of a comprehensive CIT reform, which included the elimination of the allowance for corporate equity (see Box 3.6).

Stimulating the reinvestment of corporate earnings has been a tax reform objective in a number of countries in recent years. Last year, Latvia adopted a new corporate tax regime where CIT is payable on profit distributions by resident companies and Latvian permanent establishments, but not on retained earnings. In Argentina, the reduction in the statutory CIT rate that was introduced last year was coupled with the introduction of an additional withholding tax on dividends distributed to resident individuals and non-residents. Both reforms aimed at encouraging the reinvestment of corporate profits.

Increases in resource rent taxes

Australia made changes to its petroleum resource rent tax (PRRT). The scope for the excessive compounding of deductions will be limited by lowering “uplift rates”, which oil and gas project apply to deductions that are carried forward and that compound over the life of a project. In addition, onshore projects will be removed from the PRRT regime. The objective is to prevent oil and gas companies from

transferring their exploration deductions to profitable offshore projects to reduce the PRRT they owe. Overall, these changes are expected to raise AUD 6 billion over the next ten years.

Norway also raised its resource rent taxes. In Norway, the reduction in the standard CIT rate (see above) is offset for companies under the petroleum and hydropower tax regimes by corresponding tax increases. The resource rent tax for hydropower companies is increased by 1.3% to 37%, while the special tax rate on petroleum is increased by 1% to 56%.

3.2.3. Many countries have increased the generosity of their corporate tax incentives

This section looks at tax reforms affecting CIT bases and shows that changes have been mixed. A number of countries have increased the generosity of their CIT incentives to stimulate investment and innovation. On the other hand, some countries have made efforts to broaden their corporate tax bases (Table 3.8). Some of these base broadening reforms have been introduced as compensatory measures in countries that have lowered their CIT rates (e.g. Norway, Sweden). As discussed in section 3.2.4, there has also been significant and widespread progress on international tax rules to prevent BEPS.

Table 3.8. Changes to corporate tax bases

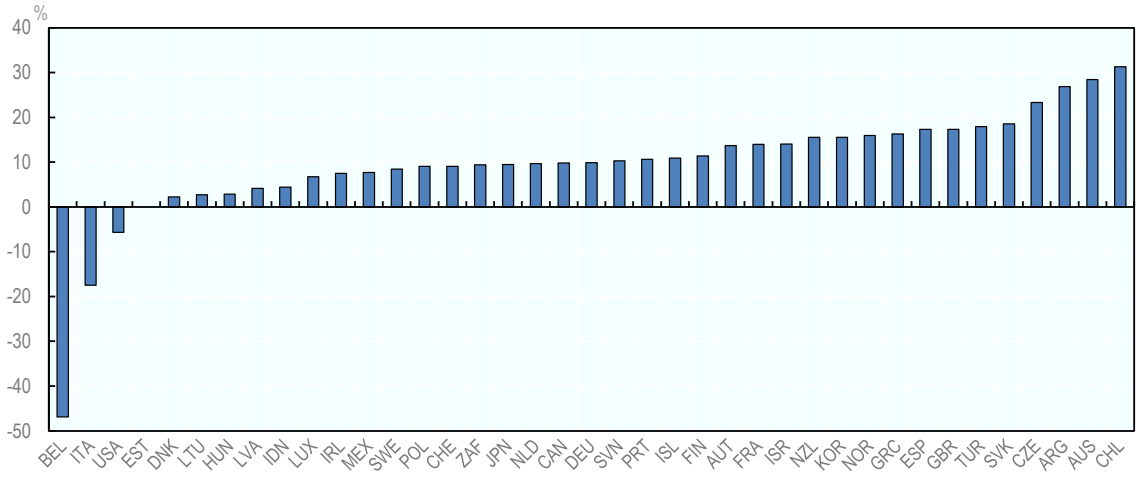
	Base ⇧		Base ⇩	
Into effect in	**2018**	**2019 or later**	**2018**	**2019 or later**
Capital allowances and general incentives	GBR IRL		AUS ARG DEU DNK HUN LUX USA[1]	AUS CAN GBR HUN
Loss carryover provisions	SWE USA	BEL GBR KOR NLD		
SME-related tax base changes	CAN		CAN PRT USA	HUN
R&D tax incentives and patent box regimes	USA	ITA	SVK TUR USA[2]	(CHE) DNK KOR ISL (NZL) TUR
Notional interest deductions	BEL	ITA		POL
Environmentally-related tax incentives			LUX	IRL
Other tax incentives				ITA KOR LTU MEX POL

1. In the United States, capital expensing is temporary. It is expected to be phased out starting in 2023 and to be fully phased out by 2027.
2. In the United States, R&D will be amortised over five years starting in 2022.
Note: Countries in brackets have only announced reforms.
Source: OECD Annual Tax Policy Reform Questionnaire.

Most countries have CIT base provisions that lower companies' effective tax burdens. Corporate tax systems differ across jurisdictions with regard to provisions that affect the tax base. The marginal effective tax rates (METRs) reported in Figure 3.15 focus on the effects of fiscal depreciation and other allowances and deductions (e.g., allowances for corporate equity, half-year conventions, inventory valuation methods). They show that certain CIT base provisions, in particular allowances for corporate equity (in Belgium and Italy in 2017) and generous accelerated depreciation rules (United States) considerably reduce METRs (to negative values in those cases). CIT base provisions lower corporate METRs in other countries as well, reflecting their positive effects on businesses' incentives to expand investments. A number of the measures reported below will contribute to further reducing these corporate METRs.

Figure 3.15. Composite marginal effective tax rates in 2017

Low inflation, low interest rates scenario



Note: The composite Effective Marginal Tax Rate (EMTR) is constructed as a weighted average across finance- and asset-specific EMTRs. It is a synthetic tax policy indicator measuring the extent to which taxation increases the pre-tax rate of return required by investors to break even on their investment. This indicator is used to analyse how taxes affect the incentive to expand existing investments given a fixed location (along the intensive margin).
Source: OECD Corporate Tax Statistics Database.

Increases in capital allowances

Canada has significantly expanded its capital allowances. Immediate expensing was introduced for investment in machinery and equipment used in manufacturing and goods processing. The objective is to enhance the competitiveness of sectors that might be significantly affected by the U.S. tax reform. Immediate expensing was also introduced for specified clean energy equipment. A third incentive was put in place for businesses of all sizes across all sectors that provides a first-year capital cost allowance equal to up to three times the amount that would otherwise apply in the year an asset is put in use. By allowing businesses to write off a larger share of their costs in the year investments are made, these new incentives are expected to lower the cost of capital, free up business capital and more generally boost business confidence. These three measures will apply to qualifying assets acquired after 20 November 2018, and will be gradually phased out between 2024 and 2027.

Other countries have increased the generosity of their capital allowances. In the United Kingdom, the government announced in the 2018 Budget statement that the annual investment allowance (AIA), which allows for a 100% deduction on qualifying expenditure up to a threshold, will be temporarily increased to GBP 1 million from 1 January 2019 until 31 December 2020. From 1 January 2021, the AIA will revert to GBP 200 000. This measure aims at encouraging business investment in plant and machinery. The government also announced the introduction of a new allowance for investments in non-residential structures and buildings, at a rate of 2% per annum over 50 years. In Australia, the AUD 20 000 instant asset write-off threshold was extended for another 12 months until 30 June 2019. In Hungary, the amount of the “development reserve”, which can be deducted from the tax base and is comparable to depreciation allowances, was increased from HUF 500 million to HUF 10 billion to support investment.

Box 3.6. Italy's main corporate tax measures

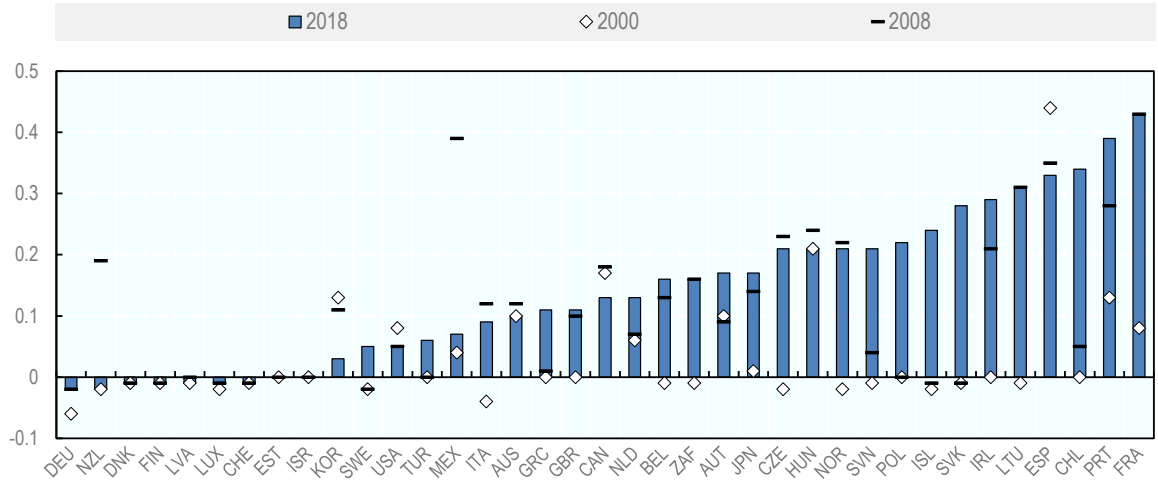
- Introduction of a reduced CIT rate on retained profits: This lower CIT rate will be 22.5% in 2019, 21.5% in 2020, 21% in 2021 and 20.5% as from 2022. The lower CIT rate applies to earnings allocated to disposable profit reserves within the limit of the increase in equity in the year (excluding financial entities).
- The elimination of the allowance for corporate equity (ACE): starting from fiscal year 2019, the ACE deduction will no longer be available. However, any excess ACE accrued in previous fiscal years can be carried forward.
- An increase in the "hyper depreciation" for new investments in tangible and intangible assets: the acquisition cost of certain high-tech tangible assets purchased before 31 December 2020 is increased for depreciation purposes by 170% for investments up to EUR 2.5 million; by 100% for investments between EUR 2.5 million and EUR 10 million; and by 50% for investments between EUR 10 million and EUR 20 million. Investments in intangible assets are increased by 40%. In addition, the temporary super tax deduction for new tangible assets was extended until 31 December 2020 for investments already planned in 2019. This enhanced depreciation provides that the acquisition cost of new capital assets is increased by 30% for tax depreciation purposes, for eligible investments up to EUR 2.5 million.
- Changes to the R&D tax credit: the maximum annual credit for each beneficiary is reduced from EUR 20 million to EUR 10 million, and the credit rate is reduced from 50% to 25% for certain types of expenditures.
- Extension of the tax credit for personnel training under the "Industry 4.0" plan: the tax credit for personnel training has been extended to the 2019 fiscal year, with some changes based on company size.
- Increase in the tax credit for companies investing in innovative start-ups: firms may deduct from their taxable income 40% of the amount invested, up to EUR 1.8 million every year. The deduction is increased to 50% if the firm has 100% ownership (detained for at least three years).
- Increase in the deductibility from business income for CIT and PIT purposes of the IMU (municipal tax) up to 50% for 2019, 60% for 2020 and 2021, and 70% as from 2022 for real estate used as capital goods.

Increase in the generosity of R&D tax incentives

Incentivising business investment in R&D through tax incentives has been a policy adopted by many countries. R&D tax incentives have become a widely used policy tool to promote business R&D. The number of OECD countries offering tax relief for R&D expenditures increased from 19 in 2000 to 30 in 2018. Nevertheless, the design and scale of R&D tax relief differs across countries. Figure 3.16 shows implied tax subsidy rates on R&D expenditures, which provide a measure of the generosity of business R&D tax incentives. R&D tax incentives are particularly generous in France, Portugal, Chile and Spain. Over time, the support provided through R&D tax incentives has increased across countries, although the trend has stabilised in recent years (Figure 3.16).

Figure 3.16. Implied tax subsidy rates on R&D expenditures

Scenario: large profitable firms



Note: Information on methodology can be found here: http://www.oecd.org/sti/rd-tax-definition-and-measurement.htm.
Source: OECD R&D Tax Incentive Database.

A number of countries have increased or are considering further increases in the generosity of their R&D tax provisions. In Iceland, the tax relief ceiling for R&D expenditures was doubled. The maximum amount of R&D costs eligible for the refundable R&D tax credit was raised to ISK 600 000 000 per company for in-house R&D, and to ISK 900 000 000 for outsourced R&D services from unrelated firms, universities or research institutions. In Denmark, the R&D tax allowance was increased from 100% to 110%. Korea and Turkey have introduced more generous depreciation rules for investments in certain types of R&D and innovation-related assets. New Zealand has proposed a new R&D tax credit that would apply at a rate of 15%, with a minimum R&D spending threshold of NZD 50 000 per year, and a maximum cap on R&D expenditure of NZD 120 million. This measure aims at achieving the government's objective of increasing New Zealand's R&D expenditure to 2% of GDP by 2027. In Switzerland, the proposed CIT reform (approved by Parliament, but subject to popular referendum in May 2019, see Box 3.5) includes an increase in the generosity of R&D tax provisions, with the introduction of an R&D super deduction. In Italy, on the other hand, the R&D tax credit was reduced: the maximum annual amount was cut from EUR 20 million to EUR 10 million, and the credit rate was reduced from 50% to 25% for certain types of expenditures. However, provisions for new investments in certain high-tech tangible and intangible assets have been made more generous (see Box 3.6).

Other tax incentives

Poland has extended its Special Economic Zone (SEZ) income tax exemptions to its entire territory. Obtaining income tax exemptions is no longer conditional upon being located in a SEZ, but is now available throughout Poland. The amount of the incentive depends on the value of investment expenditure, the level of state aid allowed in a given region and company size.

Mexico reduced CIT in the border region with the United States. Qualifying companies are entitled to a tax credit equal to one third of the CIT due, effectively reducing the CIT rate from 30% to 20% in 43 border municipalities. To be able to claim the CIT credit, companies must meet certain residency requirements and receive at least 90% of their income from sources within the border region. The tax incentives are applied in proportion to the income generated in the border region. Certain taxpayers are excluded from the incentive, including financial institutions, taxpayers in the agricultural sector, taxpayers

reporting income under the benefits of the maquiladora regime and taxpayers deriving income from intangible assets.

Italy increased its tax incentives to support personnel training and investments in start-ups. The tax credit for personnel training under the "Industry 4.0" national plan has been extended to 2019, with some changes. The credit, which amounted to 40% of the cost of training employees on "Industry 4.0" related topics (with a maximum credit of EUR 300 000 per year), has been modified so that it is based on company size: it is now equal to 50% for small firms up to a maximum of EUR 300 000 per year, 40% for medium-sized firms up to EUR 300 000, and 30% for large firms up to EUR 200 000. Italy has also increased the tax credit for companies investing in innovative start-ups. Firms may deduct from taxable income 40% of the amount invested, up to EUR 1.8 million every year. The deduction is increased to 50% if the firm has 100% ownership.

More targeted tax incentives have been introduced or expanded in a few other countries. In Korea, for instance, the scope of tax incentives to companies returning to Korea was broadened. Under certain conditions, SMEs and mid-sized companies returning to Korea were eligible for a CIT exemption for the first three years and a 50% tax reduction for the next two years. This incentive has been extended to large companies relocating their overseas businesses, until the end of December 2021. The measure also includes a change to differentiate tax exemptions by business location, providing more generous incentives for qualifying companies located in non-metropolitan areas. The United States extended its energy investment tax credits, which will be phased out progressively before they expire by the end of 2021. Ireland introduced accelerated capital allowances for employer-provided fitness and childcare facilities and for gas-propelled vehicles and refuelling equipment. Ireland and Lithuania also extended CIT relief for film production.

Notional interest deductions

The Italian allowance for corporate equity (ACE) was repealed. The Italian ACE allowed for a notional interest deduction from the CIT base, which amounted to the net increase in new equity employed in the entity (i.e. the equity generated after 2010), multiplied by a rate determined every year. In its 2019 budget, the Italian government abolished the ACE, but introduced a number of measures aimed at supporting investment, including a reduced CIT rate for profits that are reinvested in tangible assets and in new labour contracts (Box 3.6). The elimination of the ACE was justified by the fact that, despite its positive effect on reducing firms' leverage, the ACE did not have the expected impact on investment.

Poland, on the other hand, introduced a notional interest deduction to support investment. The notional interest deduction, effective from 1 January 2019, allows companies to deduct from their tax base the hypothetical costs of obtaining external capital, if companies' financing sources are additional payments paid by partners or retained earnings. The maximum limit of the notional interest deduction is PLN 250 000 per tax year.

Loss carryover provisions

Previous editions of this report have shown that restricting loss carryover provisions has been a common base broadening measure in recent years. Loss carryover provisions can be restricted by limiting the number of years during which losses can be carried forward (or back) or by limiting the amount of losses that can be carried forward (or back). While these restrictions aim to secure CIT revenues, research suggests that they may have considerable efficiency costs arising from the fact that firms are incentivised to invest in less risky and less profitable investments (Hanappi, 2018[5]). Hanappi (2018) highlights that in 2015 only 18 out of 34 OECD and selected partner economies provided unlimited carry forwards and most countries did not index tax losses to inflation; in addition, several countries restrict the amount of loss offset that can be obtained in a given fiscal year.

Further limitations to loss carryover provisions have been introduced, but the trend is less pronounced than in previous years. The most important change was introduced in the Netherlands, where the loss carry-forward period was reduced from nine to six years from 2019. As reported last year, in Belgium, while in principle tax losses can be carried forward indefinitely, a minimum tax base was introduced. Certain deductions, including deductions for accumulated tax losses, can only offset up to 70% of taxable income above EUR 1 million. Korea reduced loss carry forward for foreign companies from 80% to 60% of income in a tax year to ensure a more equal treatment between domestic and foreign companies. In the United Kingdom, the government announced in its 2018 Budget that it will restrict companies' use of carried-forward capital losses to 50% of capital gains from 1 April 2020. The measure will include an allowance allowing companies' unrestricted use of up to GBP 5 million of capital or income losses each year, which means that 99% of companies will be financially unaffected.

Broadening the CIT base to other types of income

In Poland, new rules have been put in place to tax revenues derived from trading cryptocurrencies. Under CIT, revenues from cryptocurrency trading will be treated as capital gains. A tax rate of 19% will apply to the income generated from the disposal of cryptocurrencies. This reform is intended to protect the CIT base and increase fairness.

In the United Kingdom, *CIT will apply* to non-resident *corporate* property owners from April 2020. Non-UK resident companies that carry on a UK property business, or have UK property income, will be subject to CIT, rather than PIT as is currently the case. This measure is intended to treat UK and non-UK resident companies that receive similar income more equally, and to prevent strategies aimed at minimising taxes on UK property through offshore ownership.

Adoption of group taxation

Many countries allow (a form of) group taxation. Group taxation, which is based on the assumption that corporate groups form a single economic entity, implies that the tax results of companies can be consolidated. Consolidation regimes allow for the offset of losses in one subsidiary against profits elsewhere in the group, which can be a particularly attractive feature for large companies (IMF, 2017[6]).

Belgium and Hungary have introduced (a form of) group taxation. Belgium has introduced a limited tax consolidation regime, which became effective on 1 January 2019. The new regime allows Belgian companies to transfer taxable profits to other Belgian affiliated companies to offset them against current-year tax losses. Access to this regime requires a 90% direct shareholding between the companies and uninterrupted affiliation between group companies for at least five years. In Hungary, group taxation for CIT purposes has also become effective from 1 January 2019.

3.2.4. Fight against corporate tax avoidance

The past year has seen further significant progress on the implementation of the OECD/G20 BEPS package. The OECD/G20 BEPS package, which includes 15 Actions aimed at addressing tax planning strategies that artificially shift profits to low or no-tax jurisdictions, was delivered in October 2015. The BEPS package sets out a variety of measures, including four minimum standards (Actions 5, 6, 13 and 14), common approaches that will facilitate the convergence of national practices, and guidance drawing on best practices. Countries are carrying out its implementation through the Inclusive Framework on BEPS, which brings together more than 125 countries.

The *Multilateral Instrument to Implement Tax Treaty Related Measures to Prevent BEPS* (MLI) entered into force on 1 July 2018 and its provisions started to take effect for about 50 tax agreements as from 1 January 2019. The MLI, concluded by over 100 jurisdictions in November 2016, allows jurisdictions to swiftly implement measures to strengthen existing tax treaties and protect

governments against tax avoidance strategies that inappropriately use tax treaties to artificially shift profits to low or no-tax jurisdictions. The MLI includes measures against hybrid mismatch arrangements (Action 2) and treaty abuse (Action 6), a strengthened definition of permanent establishment (Action 7) and measures to make mutual agreement procedures (MAP) more effective (Action 14). As of 15 March 2019, the MLI covered 87 jurisdictions[5] and 21 jurisdictions had deposited their instrument of ratification, acceptance or approval. Overall, it covers over 1500 tax agreements, which will be modified by the MLI once its provisions take effect for each of these agreements. More jurisdictions are expected to deposit their instrument of ratification, acceptance or approval of the MLI in 2019.

BEPS minimum standards

The MLI has allowed significant progress on the implementation of the Action 6 minimum standard on treaty shopping. Action 6 calls for the adoption of treaty provisions to prevent the granting of treaty benefits in inappropriate circumstances and to put an end to treaty shopping. The first peer review report, which was approved by the BEPS Inclusive Framework at its January 2019 meeting and which covers all comprehensive tax agreements concluded by each of the 116 jurisdictions that were members of the Inclusive Framework as at June 2018, shows substantial progress in the implementation of the Action 6 minimum standard. The peer review also confirms the success of the MLI, which has been the preferred tool of jurisdictions for implementing the minimum standard.

Significant progress has also been made on Action 5 in addressing harmful tax practices. Since the start of the BEPS Project, the Forum on Harmful Tax Practices (FHTP) has reviewed a total of 255 preferential tax regimes against the standard for harmful tax regimes. The results to date show that all IP regimes have been, with one exception, either abolished or amended to comply with the modified nexus approach, which requires that substantial economic activity is undertaken in the country offering the favourable tax regime and that the amount of income eligible for benefits in an IP regime is proportional to the amount of expenditures undertaken by the taxpayer to develop the IP. Where necessary, other changes have been made to comply with the standard (e.g. removal of ring-fencing features designed to attract investment while protecting the domestic tax base). On transparency in tax rulings, the second pillar of Action 5, progress has been achieved towards the compulsory spontaneous exchange of information on tax rulings. So far, more than 16 000 tax rulings have been identified and close to 21 000 exchanges of information have taken place. The peer review has also proven to be very effective, with 60% of the recommendations issued in the first annual report having been successfully addressed.

The first automatic exchanges of country-by-country (CbC) reports started in 2018. Action 13 requires the ultimate parent entity of an MNE group to file a CbC report in its jurisdiction providing information (on turnover, profits, employees, taxes paid, etc.) for each of the jurisdictions in which it operates. The tax administration of the country where the ultimate parent entity is a tax resident will then exchange this data with the tax authorities of other countries. As of January 2019, there were over 2 000 bilateral exchange relationships activated with respect to jurisdictions committed to exchanging CbC reports. Jurisdictions are continuing to negotiate arrangements for the exchange of CbC reports.

Action 14, which deals with the improvement of mutual agreement procedures (MAP), has also seen significant progress. Action 14 aims at making mechanisms to resolve tax treaty-related disputes more effective. The MAP peer review process is conducted in two stages. Under Stage 1, the implementation of the Action 14 minimum standard is evaluated for Inclusive Framework members. Stage 2 focuses on monitoring the follow-up of any recommendations resulting from the Stage 1 peer reviews. So far, five rounds of Stage 1 peer review reports covering 37 jurisdictions have been released. In addition, MAP country profiles for more than 80 countries have been published to increase transparency on the MAP processes in those countries.

BEPS beyond minimum standards

Although they are not minimum standards, BEPS Actions 2, 3 and 4 have been rapidly adopted by a large number of countries. Actions 2, 3 and 4 include common approaches to neutralising hybrid mismatches (Action 2) and limiting excessive interest deductions (Action 4) as well as best practices in the design of effective controlled foreign company (CFC) rules (Action 3). The EU Council has adopted two Anti-Tax Avoidance Directives (ATAD 1 and 2) requiring Member States to implement, by the beginning of 2019, interest limitation and CFC rules that are consistent with BEPS Actions 3 and 4 and anti-hybrid rules that are consistent with Action 2 by the beginning of 2020. The U.S. Tax Cuts and Jobs Act also includes provisions consistent with the recommendations under Actions 2, 3 and 4. Many other countries have introduced measures in line with Actions 2, 3 and 4. On hybrid mismatches, for instance, Australia and New Zealand have enacted legislation that is consistent with Action 2. On Action 4, various countries have taken steps to limit interest deductibility (e.g. Argentina, Japan, Norway, Korea and South Africa).

Actions 8 to 10 contain transfer pricing guidance to ensure that transfer pricing outcomes are in line with value creation in relation to intangibles and other high-risk transactions. Through this work, the OECD Transfer Pricing Guidelines have been modernised, and a new edition was published in July 2017. In June 2018, guidance on the application of the transactional profit split method and additional guidance addressed to tax administrations on the application of the approach on hard-to-value intangibles were approved, and have been incorporated into the OECD Transfer Pricing Guidelines. The implementation of Actions 8 to 10 has varied across countries. For a number of countries, changes to the OECD Transfer Pricing Guidelines resulted in domestic laws containing a direct reference to the Guidelines. In other countries, changes have consisted in clarifications, rather than substantive modifications in transfer pricing practices. Many other OECD and Inclusive Framework countries have introduced new legislation or regulations to implement domestically all or part of the guidance developed under BEPS Actions 8 to 10 (e.g. Argentina, Japan, Italy, Poland).

As recommended by BEPS Action 11, significant work has been undertaken to improve the quality of available corporate tax statistics, which is a critical step towards strengthening the Inclusive Framework's ongoing efforts to measure and monitor BEPS and the impact of the BEPS package. New data collection processes and analytical tools have been developed. A new dataset – the *OECD Corporate Tax Statistics Database* – was released for the first time in January 2019. The first release included four main categories of data: statutory CIT rates; corporate effective tax rates; corporate tax revenues; and data on tax incentives related to innovation. Future editions, from 2020 onwards, will also include some statistics from CbC reports based upon countries' aggregated and anonymised data, with the aim of providing a more complete view of the largest MNEs' global activities and to improve the economic and statistical analysis of BEPS.

Finally, many countries have indicated that they plan to introduce or to expand mandatory disclosure rules, in line with BEPS Action 12. BEPS Action 12 contains recommendations regarding the design of mandatory disclosure rules for aggressive tax planning schemes, taking into consideration the need to avoid disproportionate administrative and compliance costs and drawing on the experiences of the increasing number of countries that have such rules. Countries that have adopted mandatory disclosure rules requiring the disclosure of aggressive tax planning arrangements include Canada, Ireland, Mexico, Portugal, South Africa, the United Kingdom and the United States. In addition, more than 25 countries have indicated that they plan to introduce mandatory disclosure rules or to expand the scope of existing rules. Many of these are EU countries that will implement the rules as part of the EU Council Directive 2018/822. Some non-EU countries, including Australia and Japan, are also considering the introduction of mandatory disclosure rules.

Withholding taxes on outgoing payments

Beyond BEPS measures, Poland introduced changes to its withholding tax regime on outgoing payments. Under the new rules, different approaches apply depending on the amount of cross-border payments (the new legislation affects certain domestic settlements too). If the total amount of qualifying payments does not exceed PLN 2 000 000 in a tax year, the Polish payer can continue to apply a reduced withholding tax rate or an exemption according to current rules (although with some additional requirements). However, if the total amount of qualifying payments exceeds PLN 2 000 000 in a tax year, the Polish remitter will be obliged to collect the withholding tax in full (above the limit of PLN 2 000 000), even when a lower rate or an exemption is available, under a bilateral tax treaty for instance. The Polish tax authorities may provide a refund after having verified the right of taxpayers to a reduced rate or an exemption. There are still some measures allowing the remitters to apply tax exemptions or preferential tax rates when making payments to their contractors.[6]

In the Netherlands, it was decided to maintain the existing dividend withholding tax regime. As reported in last year's report, the original 2019 Budget plan included a proposal to abolish the dividend withholding tax and to introduce a new conditional one in cases of abuse or distributions to low-tax jurisdictions. However, political pressure led the government to abandon these measures. Proposals to introduce a conditional withholding tax on royalty and interest payments to low-tax jurisdictions are still expected to be implemented as of 2021.

*3.2.5. **Progress is being made towards a long-term multilateral solution to address the tax challenges arising from digitalisation***

There has been an increasing focus on the tax challenges arising from digitalisation (Box 3.7). Digitalisation has led to the emergence of new business models and these changes have put pressure on some of the key principles underlying the international tax system. Following a mandate by G20 Finance Ministers in March 2017, the Inclusive Framework, working through its Task Force on the Digital Economy (TFDE), delivered an Interim Report in March 2018 on the *Tax Challenges Arising from Digitalisation* (OECD, 2018[7]). The Interim Report provided an in-depth examination of value creation across new business models in the context of digitalisation and an analysis of the tax challenges that these new business models raise.

The Inclusive Framework, through the TFDE, is now working towards reaching a long-term multilateral solution to address the tax challenges arising from digitalisation by 2020. A Policy Note was released on 29 January 2019, following the agreement of the members of the Inclusive Framework to examine on a "without prejudice" basis proposals involving two pillars. Under the first pillar, focused on the allocation of taxing rights, several proposals have been made that would allocate more taxing rights to market or user jurisdictions. These proposals would require reconsidering existing transfer pricing rules and going beyond the arm's length principle. They would also involve going beyond the limitations on taxing rights determined by reference to physical presence. The goal of the second pillar is to strengthen the ability of jurisdictions to tax profits where the other jurisdiction with taxing rights applies a low effective tax on those profits. A global anti-base erosion proposal is being examined under this pillar.

Box 3.7. Addressing the tax challenges arising from digitalisation

The 2015 BEPS Action 1 Report, *Addressing the Tax Challenges of the Digital Economy* (OECD, 2015[8]), examined the tax challenges of the digital economy, identifying the main difficulties that digitalisation poses for the application of existing international tax rules. The Action 1 Report outlined options to address these difficulties, taking a holistic approach and considering both direct and indirect taxation. With regard to direct taxation, several options were considered, but none were ultimately recommended. Instead, the Action 1 Report called for continued work in this area.

In March 2017, the G20 Finance Ministers requested that the Inclusive Framework deliver an interim report on taxation and digitalisation by early 2018. In March 2018, the Inclusive Framework on BEPS, working through its Task Force on the Digital Economy (TFDE), issued *Tax Challenges Arising from Digitalisation – Interim Report 2018* (the Interim Report). The Interim Report provided an in-depth analysis of new and changing business models that enabled the identification of three characteristics frequently observed in certain highly digitalised business models, namely scale without mass, heavy reliance on intangible assets, and the importance of data, user participation and their synergies with intangible assets.

While members of the Inclusive Framework did not reach consensus on the conclusions to be drawn from this analysis, they committed to continue working together to deliver a final report in 2020 aimed at providing a consensus-based long-term solution, with an update in 2019. This agreement involved working on a coherent and concurrent review of the nexus and profit allocation rules, with a view towards reaching consensus on long term options by 2020.

In the Policy Note *Addressing the Tax Challenges of the Digitalisation of the Economy*, approved on 23 January 2019, the Inclusive Framework agreed to examine and develop a series of proposals on a "without prejudice" basis. These proposals were grouped into two pillars, which could form the basis for consensus. Pillar one focuses on the allocation of taxing rights, and focuses on the profit allocation and nexus rules. Pillar two addresses remaining BEPS issues and explores taxing rights that would strengthen the ability of jurisdictions to tax profits where the other jurisdiction with taxing rights applies a low effective rate of tax to those profits.

Given the fundamental nature of the changes outlined under the two pillars, the Inclusive Framework decided to mandate its Steering Group to elaborate a detailed programme of work for the approval of the Inclusive Framework at its meeting in May 2019, with a view to reporting progress to the G20 Finance Ministers in June 2019 and delivering a consensus-based solution in 2020.

In the meantime, some countries have taken unilateral action on digital taxation. A number of countries have explored, announced and/or implemented digital services taxes. In March 2018, the EC proposed a digital service tax in the form of a 3% interim tax that would apply to revenues generated from activities where users play a major role in value creation, such as revenues from the online placement of advertising, the sale of collected user data or from digital platforms that facilitate interactions between users. The revenues would be directed towards the EU Member States where the users are located, and would only apply to companies with total annual worldwide revenues of at least EUR 750 million and EU revenues exceeding EUR 50 million. As described in Table 3.9, Austria, France, Italy and Spain have proposed national digital services taxes that would closely follow the EC's proposal. The United Kingdom, as announced in the 2018 Budget, is also planning to introduce a digital services tax from April 2020. The United Kingdom's digital services tax will be applied to the provision of specific business activities (a social media platform, search engine or online marketplace) and charged at 2%. Other non-EU countries have also announced or legislated unilateral measures on digital taxation (Table 3.9). The countries that are

considering interim measures will continue efforts to reach a multilateral agreement and have agreed to remove interim measures when an international solution is found.

Table 3.9. Unilateral measures on digital taxation

Country	Measures	Date	Legislated/ Proposed	Revenues	Collected/ Estimate
Austria	5% tax on internet advertising revenue	2019 (Jan)	Proposed	EUR 30 million	Estimate
France	3% on turnover of digital companies	2019 (Jan)	Proposed	EUR 500 million	Estimate
Greece	2% tax on fees from advertising and promotion services + 2% tax applied to the value of electronic devices	2019	Legislated		
Hungary	7.5% tax on sales revenue from advertising	2014	Legislated		
Italy	3% tax on electronic services	2019	Partially legislated		
Netherlands	Withholding tax on dividends and royalty payments to low-tax affiliates	2020 /2021	Proposed		
New Zealand	3% tax on turnover of certain digital companies	2020	Proposed	EUR 18-47 million	Estimate
Spain	3% on turnover of digital companies	2019	Proposed	EUR 1200 million	Estimate
Turkey	15% withholding tax on payments made for cross-border online advertising services	2019	Legislated		
United Kingdom	2% digital services tax on domestic revenue of certain digital services providers	2020 (Apr)	Legislation pending	EUR 443 million	Estimate
European Commission	3% tax rate on turnover of digital company	2018	Proposed	EUR 5 000 million	Estimate

Source: OECD Secretariat. Information as of 01 May 2019.

3.3. VAT/GST and other taxes on goods and services

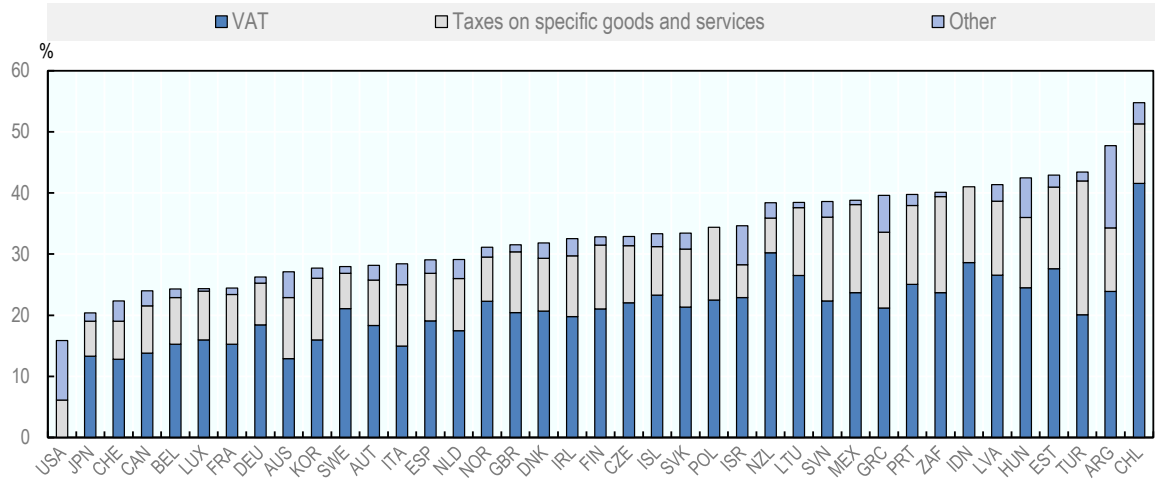
Overall, this report confirms the stabilisation of standard VAT rates observed across countries in the last couple of years. High standard VAT rates in many countries have limited the room for additional rate increases without generating potentially high efficiency and equity costs. Instead, many countries have concentrated their efforts on the fight against VAT fraud to raise additional revenues and strengthen the functioning and fairness of VAT systems. Importantly, some of the recent anti-fraud measures, especially the expansion of the domestic reverse charge mechanism and split payments, involve major changes to the way VAT has traditionally been collected. In addition, efforts are being made to ensure the effective taxation of cross-border trade. The report also shows that, partly to compensate for high standard VAT rates, a number of countries have expanded the scope of their reduced VAT rates. While these measures are typically justified as a way to enhance fairness or to support specific industries, evidence has shown that they tend to be poorly targeted policy instruments. Finally, trends in excise duties show continuing tax increases to deter harmful consumption, in particular for tobacco products and sugar-sweetened beverages.

3.3.1. Consumption taxes, in particular VAT, are a major source of revenue in most countries

Consumption taxes are a major source of revenue across the countries covered in the report. They ranged from 15.9% of total tax revenues in the United States (the only country in the report that does not have a VAT) to 54.8% of total tax revenues in Chile (Figure 3.17). On average across OECD countries, consumption taxes accounted for about 32.7% of total tax revenues and 11.0% of GDP in 2016. As discussed in previous editions of this report, consumption tax revenues tend to account for higher shares of total tax revenues in emerging and middle-income countries (OECD, 2018[9]).

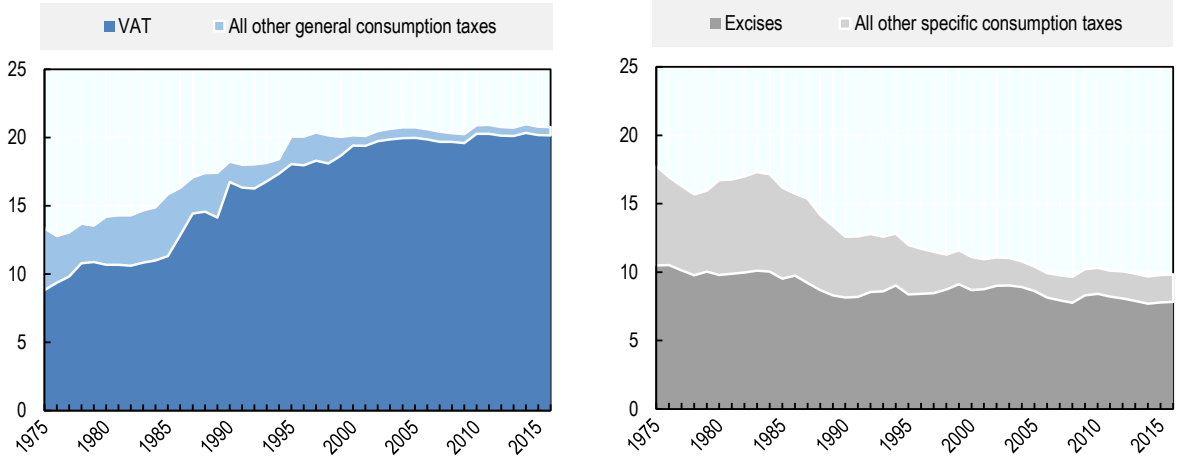
Figure 3.17. Consumption tax revenues as a share of total taxation in 2017

Revenues as a share of total tax revenues



Note: 2016 data for Australia, Greece, Indonesia, Japan, Mexico and South Africa.
Source: OECD Revenue Statistics Database.

Figure 3.18. General consumption tax revenues (left panel) and specific consumption tax revenues (right panel) as a share of total tax revenues, OECD average from 1975 to 2016

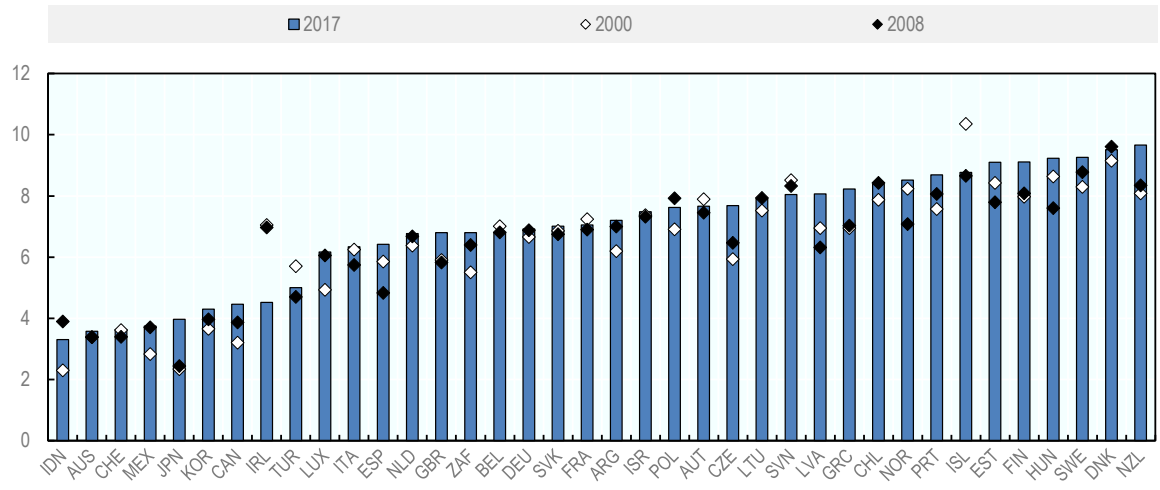


Source: OECD Revenue Statistics Database.

Over the last 30 years, consumption tax revenues as a share of total taxation have remained stable but the composition of those revenues has changed. Excise taxes and other specific consumption taxes, which made up around 18% of total tax revenues in 1975, now account for less than 10% of total taxation on average across the OECD (Figure 3.18). On the other hand, the share of VAT in total tax revenues has grown substantially, from less than 9% in 1975 to slightly over 20% in 2016 on average across the OECD. Recent years have seen a stabilisation of VAT revenues in the OECD tax mix.

The amount of revenues collected from VAT varies across countries. Across the countries covered in the report, VAT revenues ranged from 3.3% of GDP in Indonesia to 9.7% of GDP in New Zealand (Figure 3.19). Most countries have seen increases in their revenues from VAT as a share of GDP between 2000 and 2017, which explains the increase in average VAT revenues across the OECD mentioned above. The most significant increases in VAT revenues were recorded in the Czech Republic, Japan and New Zealand. There were some exceptions, however, most notably Ireland which experienced the largest decrease in VAT revenues as a share of GDP between 2000 and 2017 due to exceptional GDP growth.

Figure 3.19. VAT revenues as a share of GDP by country in 2000, 2008 and 2017

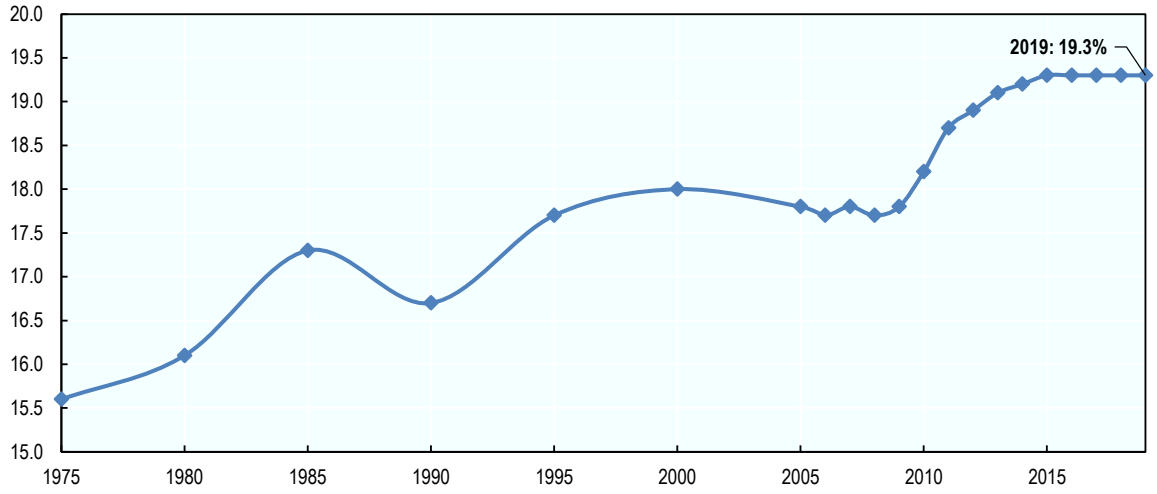


Note: 2016 data for Australia, Greece, Indonesia and South Africa.
Source: OECD Global Revenue Statistics Database.

3.3.2. Standard VAT rates have remained stable

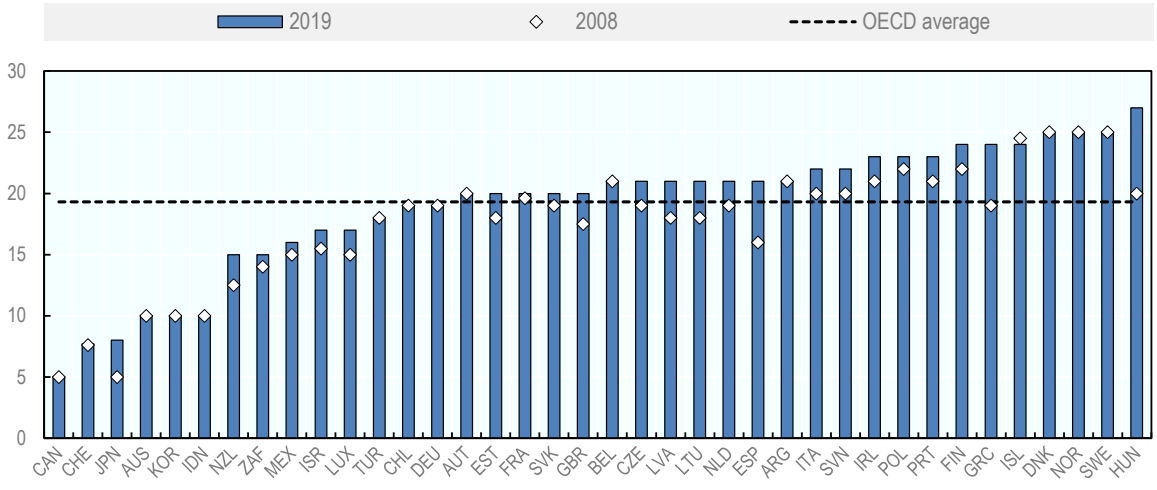
Standard VAT rates have stabilised in recent years. Standard VAT rates in the OECD reached a record average level of 19.3% in 2015, after years of continuous increases (Figure 3.20). Raising standard VAT rates was a common strategy for countries seeking to achieve fiscal consolidation in the wake of the crisis as increasing VAT rates provides immediate revenues without directly affecting competitiveness and has generally been found to be less detrimental to economic growth than raising direct taxes (Johansson et al., 2008[10]). Among the countries covered in the report, 12 now have a standard VAT rate above 22%, against only six in 2008 (Figure 3.21). However, the trend towards continuously increasing standard VAT rates has come to a halt in recent years. This is explained by improvements in countries' fiscal positions, but also by the fact that standard VAT rates have reached high levels in many countries, limiting the room for additional rate increases.

Figure 3.20. Evolution of the OECD average standard VAT rate from 1975 to 2019



Note: The average VAT rate in 2019 is based on countries' standard VAT rates as of 1 January 2019.
Source: OECD Tax Database and OECD Annual Tax Policy Reform Questionnaire.

Figure 3.21. Standard VAT rates by country in 2008 and 2019



Note: For Canada, the graph shows the federal GST rate.
Source: OECD Tax Database and OECD Annual Tax Policy Reform Questionnaire.

Changes to standard VAT rates in 2019 will remain very limited. The only significant change is expected in Japan, where the consumption tax rate should increase from 8% to 10% as of 1 October 2019. This consumption tax increase will be accompanied by the introduction of a reduced rate of 8% that will apply to basic foodstuffs. In Italy, the VAT rate increase contained in the safeguard clause, which requires Italy to raise its standard VAT rate if its budget targets are not met, was postponed. Generally, stabilising VAT rates may reflect concerns about the potential efficiency and equity costs of raising rates beyond a certain level. These concerns were also reflected in a recent proposal by the European parliament to include a maximum cap on EU standard VAT rates at 25%,[7] which will be examined by the EU Council.

3.3.3. The scope of reduced VAT rates has been expanded in many countries

Many OECD countries continue to apply reduced VAT rates to a wide range of products. Many of these reduced rates – on basic essentials, pharmaceuticals, education, etc. – are intended to enhance equity. Other reduced VAT rates are in place to support non-distributional goals, such as promoting access to cultural activities, supporting labour-intensive industries, or addressing environmental externalities. These reduced VAT rates go against evidence that reduced rates are not an effective tool to achieve redistribution or to reach certain non-distributional goals (Box 3.8).

Box 3.8. The distributional effects of reduced VAT rates in OECD countries

With the exceptions of Chile and Japan,[8] all OECD countries have one or more reduced VAT rates to support various policy objectives. A major reason for the introduction of a differentiated rate structure is the promotion of equity. Countries have generally considered it desirable to alleviate the tax burden on goods and services that form a larger share of expenditure of the poorest households (e.g. basic food, water). Countries also often decide to not tax medicine, health services and housing at high rates. Reduced VAT rates have also been used to stimulate the consumption of "merit" goods (e.g. cultural products and education) and other non-distributional objectives such as promoting locally supplied labour-intensive activities (e.g. tourism) and correcting externalities (e.g. energy-saving appliances).

In general, VAT exemptions, zero-rates and reduced rates are not a well-targeted tool to support low-income households. Reduced rates that are implemented in countries for the distinct purpose of supporting the poor (i.e. to address distributional goals) typically do have the desired progressive effect. For example, reduced rates for basic food provide in general greater support to the poor than the rich as a proportion of household income or expenditure. However, despite this progressive effect, these reduced VAT rates are a very poor tool for targeting support to poor households. At best, rich households receive roughly as much benefit – in absolute value – from a reduced rate as do poor households. At worst, rich households benefit vastly more than poor households. This result is unsurprising as better off households can be expected to consume more, and often more expensive, products than poorer households. Thus, while poorer households may benefit from reduced VAT rates on "necessities" the wealthier gain even more.

Targeted cash transfer programmes, if well-functioning, are a more effective tool to compensate poor households for the VAT they have paid. If poor households can be compensated directly through a cash transfer programme, it is more efficient and fair to tax all goods and services at the standard VAT rate and compensate the poor directly through cash transfers (and/ or reductions in personal income taxes, etc.), especially if the standard VAT rate is not particularly high. It should immediately be noted, however, that compensating all (and only the) losers of a reform through a transfer programme might in practice be very difficult to achieve.

With regard to preferential VAT provisions for social, cultural and other non-distributional goals, richer households benefit considerably more from VAT exemptions and reduced rates. Those tax provisions often provide so large a benefit to rich households that the reduced VAT rate actually has a regressive effect – benefiting the rich more both in aggregate terms and as a proportion of expenditure. For example, reduced rates on hotel accommodation and restaurant food benefit the rich vastly more than the poor, both in aggregate and proportional terms, in all OECD countries in which they are applied. Similar results, but of less absolute magnitude, are found for reduced rates on books, cinema, theatre and concerts.

Finally, VAT rate differentiation might not be the best policy instrument to correct negative externalities. VAT rate differentiation may improve efficiency if it means that the private marginal costs of an activity are brought closer to the marginal costs for society. However, VAT is a blunt instrument for addressing environmental externalities, as it may be hard to target the actual source of pollution. For example, reduced rates on energy-saving appliances may boost demand for them and therefore stimulate the consumption of these goods. The reduced VAT rate may give incentives to shift from more to less energy-consuming items (consumers might replace their old refrigerator with a new one, for instance). However, this may also lead to an increase in the purchase of energy-intensive products (e.g. consumers may replace their old refrigerator with a new refrigerator and a freezer).

Source: (OECD/KIPF, 2014[11]).

In 2019, a number of countries have extended the scope of their reduced VAT rates, with the objective of supporting low-income households. Examples include the additional zero-rated items (e.g. white bread flour, cake flour, sanitary pads) in South Africa following the one percentage point increase in the standard VAT rate in 2018. Australia removed GST on feminine hygiene products. Lithuania reduced the VAT rate on firewood for residential purposes (to 9%) and on newspapers and magazines (to 5%), while Hungary reduced the VAT rate on certain types of milk from 18% to 5% (Table 3.10).

Some countries have expanded the scope of reduced VAT rates to support specific industries. For instance, Austria and the Slovak Republic reduced their VAT rates on accommodation services. Spain cut the VAT rate on cinema tickets. Greece reduced the VAT rate on concert tickets. Portugal reduced VAT rates on tickets to cultural events and some cleaning services. Many countries (e.g. Finland, Ireland, Norway, Poland, Sweden and Portugal) reduced their VAT rates on e-publications, following an EU agreement last year allowing member states to cut their VAT rates on e-publications to the reduced or zero rates applied to physical publications. The Czech Republic has also proposed lowering the VAT rate from 15% to 10% for some labour-intensive services and selected goods.

Reduced VAT rates are also being used to support specific regions. In Greece, the reduced VAT rates for the islands of Leros, Lesbos, Kos, Samos and Chios were extended for six months until 30 June 2019. In Spain, the special VAT rate for the Canary Islands was reduced from 7% to 6.5%. In Mexico, VAT was reduced for taxpayers that sell goods, lease property, or render services (with certain exceptions) in the regions bordering the United States. The tax credit is equal to 50% of the VAT due, which effectively reduced the VAT rate from 16% to 8%.

On the other hand, very few countries have sought to broaden their VAT base by increasing the level of their reduced VAT rates or by narrowing their scope. One of the few countries that introduced measures in this direction was the Netherlands, with an increase in its reduced VAT rate from 6% to 9%, as part of a broader effort to rebalance the tax mix from direct to indirect taxes. The reduced VAT rate applies to a wide range of products and services, including food and drinks, pharmaceutical products, books, passenger transport, hotel and restaurant services, museums, amusement parks, cinemas and zoos. Other efforts to broaden the VAT base have been limited: Ireland removed tourism activities from its lower reduced VAT rate and Turkey increased the reduced VAT rate on e-books.

Table 3.10. Changes to reduced VAT/GST rates

	General	Food/Basic items	Hotels/ Restaurants	Newspapers/e-books	Culture	Other
Rate ⇧ or scope ⇩	NLD			TUR		IRL
Rate ⇩ or scope ⇧	(JPN)	AUS HUN LTU ZAF	AUT SVK	FIN IRL LTU NOR POL PRT	ESP GRC PRT	(CZE) GRC ESP MEX

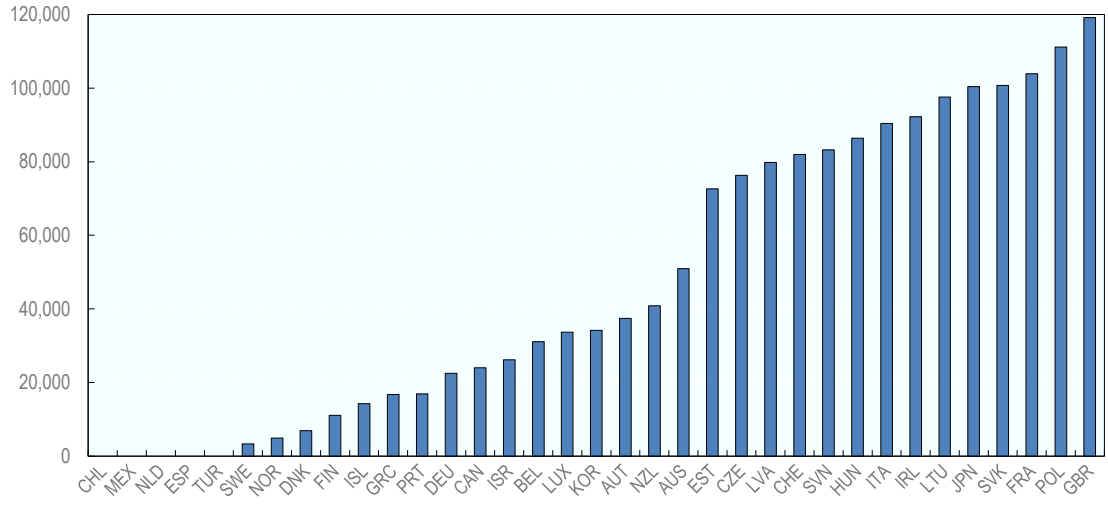
Note: Countries in brackets have only announced reforms.
Source: OECD Annual Tax Policy Reform Questionnaire.

3.3.4. Some countries have introduced VAT simplification measures for businesses

The Netherlands, Hungary and Korea made changes to their VAT registration or collection thresholds. OECD countries have very different rules regarding VAT thresholds (Figure 3.22). The main reason for excluding small businesses (and this notion varies considerably across countries) is that the costs for the tax administration of having all businesses pay VAT may be disproportionate compared to potential VAT revenues and that compliance costs for small businesses may also be disproportionate compared to their turnover. On the other hand, a VAT registration threshold introduces competitive distortions between small businesses under and above the threshold. Generally, if a country decides to have a VAT registration threshold, it should minimise competitive distortions and be set so that the revenues collected are higher than the administrative costs of ensuring that small businesses properly collect and remit VAT. The most significant change reported this year is the introduction of an optional VAT registration threshold in the Netherlands at EUR 20 000 of turnover from 1 January 2020. As shown in Figure 3.22, the Netherlands was one of the few OECD countries that until now did not have a VAT registration threshold based on turnover. In Hungary, the VAT collection threshold was raised from HUF 8 million to HUF 12 million of turnover per year. There was a small increase in Korea's VAT collection threshold, which is now around USD 35 000. The United Kingdom, which currently has the highest VAT registration threshold in the OECD, decided to maintain its VAT registration threshold at GBP 85 000 for another two years, until 2022.

Figure 3.22. VAT/GST registration and collection thresholds in OECD countries in 2019

Annual turnover thresholds expressed in USD ppp



Note: In the Netherlands, the threshold is not determined with reference to turnover but based on the net annual VAT due: where the total amount of VAT due for a calendar year on supplies of goods and services does not exceed EUR 1 345, the taxpayer is exempt from VAT (but still has to register as VAT taxpayer).
Source: (OECD, 2018[12]); OECD Annual Tax Policy Reform Questionnaire.

Turkey introduced a number of measures aimed at simplifying the VAT system for businesses and facilitating the recovery of input VAT. The most significant change was the extension of the time limit for deducting the input VAT that businesses incur on their purchases. As of 1 January 2019, input VAT can be deducted not only in the calendar year in which the deductible VAT arises but also in the following calendar year. This measure is expected to ease the current difficulties businesses face in recovering their input VAT. The new VAT law also grants input VAT deduction rights for a number of partially exempt supplies. Regarding small businesses, a new VAT declaration method has been introduced for the self-employed or small businesses using simplified accounting. Under this new optional method, the VAT

liability is calculated by multiplying the taxpayer's turnover with coefficients determined by the Council of Ministers, without deducting any input VAT.

Luxembourg introduced VAT grouping, which means that legally independent entities established in Luxembourg that are closely bound to one another by financial, economic and organisational links may request to be treated as a single taxable entity for VAT purposes. This implies that a VAT group files a single VAT return and that supplies between group members will be disregarded for VAT purposes (but a description of these transactions will have to be provided with the annual VAT return). Compliance duties primarily rest with the VAT group's representative (in principle the controlling entity) but all the members of a VAT group are jointly and severally liable for any VAT debt.

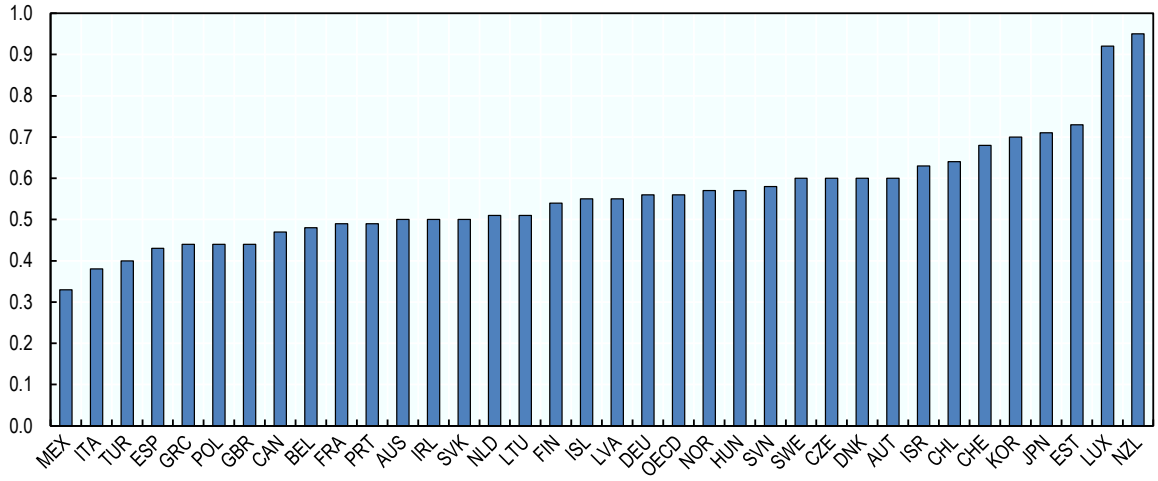
3.3.5. The fight against fraud has been a priority of recent VAT reforms

Countries are increasingly implementing measures to enhance compliance and reduce the vulnerability of VAT regimes to fraud. These measures include alternative collection mechanisms such as the domestic reverse charge mechanism and VAT split payments, as well as real-time VAT invoice reporting and electronic data transmission requirements.

The VAT Revenue Ratios (VRR) for OECD countries suggest that there is still potential to collect additional revenue by improving the performance of VAT systems. The VRR provides a comparative measure of how the tax administration's efficiency as well as exemptions and reduced rates affect VAT revenues (OECD, 2018[12]). The VRR is the ratio between the revenues actually collected from VAT and the revenues that would be raised if the standard VAT rate were applied uniformly to the entire potential tax base (i.e. all final consumption) and perfectly administered and enforced. Across the OECD, the unweighted average VRR has remained relatively stable at 0.56 in 2016, compared to 0.55 in 2015, but the VRR varies significantly across countries (Figure 3.23). Even if the VRR should be interpreted with care and revenue loss may be caused by a variety of factors, these estimates suggest that there is significant potential for raising additional revenues through base broadening and better tax enforcement in many countries.

Estimations of VAT fraud suggest that addressing non-compliance remains a key challenge. In the EU, the VAT gap was estimated at EUR 147.1 billion in 2016 (CASE, 2018[13]). In relative terms, the VAT Gap share of the VAT total tax liability (VTTL) dropped from 13.2% in 2015 to 12.3% in 2016. In non-EU countries, assessments of revenue losses from VAT fraud have also been conducted. In Australia, for instance, the GST gap was estimated at AUD 5.3 billion or 7.9% of the VTTL (Australian Taxation Office, 2018, cited in OECD, 2018[12]). In Chile, the VAT gap was found to be around 16.6% of the VTTL (*Servicio de Impuestos Internos*, 2017, cited in OECD, 2018[12]).

Figure 3.23. VAT Revenue Ratios in 2016



Note: In New Zealand, the very high VRR reflects partly the broad GST base as well as the fact that public services are taxed under GST. In the case of Luxembourg, its position as a financial centre and a hub for European e-commerce has strongly contributed to its high VRR (for a more detailed explanation, see OECD Consumption Tax Trends 2018).
Source: (OECD, 2018[12]).

In EU countries, a key priority has been to address missing trader fraud through the domestic reverse charge mechanism. Missing trader fraud in the EU refers to schemes through which fraudsters apply the reverse charge mechanism for the acquisition of goods or certain commodities from other EU member states, then charge the VAT on a subsequent domestic sale and disappear before remitting VAT to the government.[9] The domestic reverse charge mechanism – which applies to domestic supplies of specific goods and services – aims at addressing this type of fraud by making the customer liable to collect the tax on supplies (instead of the supplier), which prevents the supplier from collecting VAT and disappearing with it. Previous editions of this report have shown that the expansion of the domestic reverse charge mechanism has been a significant trend in recent years. Domestic reverse charge is now widely used in the 23 OECD countries that are members of the EU (and to a lesser extent in other OECD countries) in sectors that are highly subject to fraud, including the supply of CO2 emission certificates, scrap materials and waste, construction work, the supply of gold, electronic devices, and the supply of gas and electricity (OECD, 2018[12]). In 2019, the United Kingdom will introduce a domestic reverse charge in the construction sector.

Importantly, from 1 January 2019, the EU VAT Directive has been updated to allow for voluntary generalised domestic reverse charge on a temporary basis. EU member states must get approval from the European Commission before introducing the measure, which can only apply to transactions above EUR 17 500. The measure is currently scheduled to be available only until June 2022, after which EU member states will have to evaluate its effects. The Czech Republic, one of the main supporters of the measure, is the first EU country to have requested the application of the generalised reverse charge mechanism on domestic supplies. One concern with generalised reverse charge, however, is that it disrupts the fractional payment of VAT along the production chain and that it would effectively transform the VAT into a sales tax if applied too extensively, with the concentration of the revenue risks at the point of the final sale (OECD, 2018[12]).

Another recent way of addressing VAT fraud has been through split payment mechanisms. VAT split payments differ from the standard VAT collection method as the VAT charged by businesses on their supplies is not actually collected by the supplier but remitted separately to ensure its payment to the tax authorities. This is typically organised through the intervention of financial and/or payment intermediaries

(e.g. banks, credit card companies, online payment service providers), which split the gross amount paid by the customer into a net amount and a VAT amount, remitting the latter to the tax authorities (OECD, 2018[12]). As with the domestic reverse charge mechanism, such a system removes the possibility for a supplier to collect the VAT without remitting it to the tax authorities. As reported last year, Poland introduced voluntary split payments in July 2018. It has now received approval from the EU to impose mandatory split payments on a temporary basis in selected sectors from 1 July 2019. Different forms of split payments are also in place in Italy, Turkey and the Czech Republic (OECD, 2018[12]).

To enhance VAT collection and combat fraud, OECD countries have also reinforced taxpayers' reporting obligations. Regarding the reporting of transaction data, the use of Standard Audit Files for Tax (SAF-T) has been progressing slowly. SAF-T was developed by the OECD Forum on Tax Administration in 2005 to enable the transfer of tax transaction data from companies to tax authorities in a standardised electronic format. The main purpose was to allow tax authorities to conduct more efficient tax inspections. Since then, (a form of) SAF-T has been adopted in nine OECD countries (OECD, 2018[12]). In Poland, where SAF-T was introduced last year for all VAT registered businesses, VAT returns will no longer be required and will be replaced by an extended version of SAF-T as of July 2019.

Recent reforms have also shown the increasing popularity of real-time data transfers to tax administrations, in particular for VAT invoice reporting. Previous editions of this report have reported on reforms introducing (near) live VAT invoice reporting in Italy, Hungary and Spain. In 2019, Italy extended its real-time e-invoices to business-to-business (B2B) and business-to-consumer (B2C) transactions. Portugal is introducing live VAT reporting for business-to-government (B2G) transactions, which may be a first step towards the generalisation of live VAT invoice reporting (as was the case in Italy). A number of countries have also put in place systems allowing the live reporting of B2C transactions through electronic cash registers. Typically, B2C transactions are reported in real-time through electronic cash registers to the tax administration, which approves transactions and provides a unique code to be included on the receipts. The Czech Republic is planning to extend its existing system of electronic cash registers to new sectors in 2020.

3.3.6. Countries have made progress to ensure the effective taxation of cross-border trade

A number of VAT challenges have arisen from the increasing digitalisation of the world economy. In particular, the rapid development of new technologies has dramatically increased the ability of private consumers to engage in online shopping and the capability of businesses to reach customers globally without any physical presence in market jurisdictions. To the extent that the market jurisdiction has no right to tax or is unable to require the foreign seller to apply and remit the VAT on supplies to consumers in its jurisdiction, this results in no or an inappropriately low amount of VAT being collected and in an uneven playing field between domestic suppliers, that would have to charge VAT on sales to local customers, and foreign suppliers.

To ensure the effective taxation of cross-border supplies of services and intangibles, many countries have already implemented the rules and mechanisms recommended by the OECD International VAT/GST Guidelines. The OECD International VAT/GST Guidelines have been endorsed as the international standard to ensure a coherent and efficient application of VAT/GST to international trade in services. As discussed in the previous edition of this report, the elements of the Guidelines that have received most attention since 2016 are the recommended rules and mechanisms for the application and effective collection of VAT on cross-border B2C supplies of services and intangibles (including digital supplies). The Guidelines recommend that the right to tax these supplies for VAT purposes be allocated to the country where the customer has its usual residence and that the foreign suppliers of these services and intangibles register and remit VAT in the country of the customer's usual residence. The Guidelines also recommend the implementation of a simplified registration and compliance regime to facilitate tax

compliance for foreign suppliers. To date, over 50 jurisdictions, including the overwhelming majority of OECD and G20 countries, have adopted rules for the application of VAT to B2C supplies of services and intangibles in line with the Guidelines. Among these jurisdictions, 40 jurisdictions have implemented simplified registration and collection regimes for the collection of VAT on cross-border B2C supplies of services and intangibles.

Recent evidence suggests that the implementation of these measures has had a significant impact. The rules and mechanisms recommended in the Guidelines have greatly enhanced compliance levels, yielded substantial additional tax revenues for market jurisdictions, and evened the playing field between domestic suppliers and foreign online vendors. The EU, the earliest adopter of these principles, estimated that the total VAT revenue declared via its simplified compliance regime exceeded EUR 3 billion in 2015 (the first year of operation). Revenues have steadily increased since 2015, reaching EUR 3.45 billion in 2016 and EUR 3.75 billion in 2017. In South Africa, the revenue collected through the application of the recommended principles and collection mechanisms amounted to over ZAR 3 billion between June 2014 and February 2019. In New Zealand, the revenue collected significantly exceeded what was expected in the first year of implementation, reaching NZD 131 million between April 2017 and March 2018. Australia, whose regime became effective in July 2017, has recently announced that AUD 343 million of revenue had been collected in the first year of implementation, largely exceeding what was anticipated.

Digitalisation is also pushing governments to revise their VAT rules on cross-border trade in low-value goods. In the past, most countries introduced VAT relief regimes for imports of low-value goods, as the costs of collecting VAT on those items were often likely to outweigh the VAT actually collected. At the time when most of these relief regimes were introduced, online shopping did not exist and the level of imports benefitting from the relief was relatively small. However, there has been a significant and rapid growth in the volume of imports of low-value goods subject to these VAT relief regimes. This has resulted in large potential VAT revenues not being collected and growing risks of unfair competition for domestic retailers that are required to charge VAT on their sales to domestic consumers. It also creates an incentive for domestic suppliers to relocate to an offshore jurisdiction to sell their low-value goods free of VAT. The 2015 BEPS Action 1 Report outlined options to facilitate the collection of VAT on imports of low-value goods from online sales that governments could consider if they decided to remove or lower their exemption thresholds (OECD, 2015[8]).

A number of countries are now removing or considering the elimination of VAT relief regimes for imports of low-value goods. Australia was the first OECD country to implement a reform to collect GST on imports of low-value goods, effective as of July 2018, and has already reported revenues amounting to AUD 81 million in the first quarter of operation of the regime. New Zealand has announced the implementation of a similar reform. Currently, GST is not collected on imported goods valued below NZD 400. The reform would require, as of October 2019, New Zealand GST to be collected and remitted by offshore suppliers for imported goods valued below NZD 1 000 (i.e. new increased threshold). Foreign e-commerce suppliers would be required to register for and remit GST if their annual sales to New Zealand consumers are above NZD 60 000. Similar reforms are under consideration in other countries. The EU is planning to remove its low-value consignment relief of EUR 22 in 2021. Switzerland had initially announced the removal of its low-value import VAT exemption for 2018 but the measure came into effect in 2019. Norway is also planning to remove its VAT exemption for imported goods below NOK 350 by January 2020.

The OECD continues the work to support tax authorities worldwide with the design of rules and mechanisms for the effective collection of VAT/GST on continuously growing online trade. The latest key deliverable of this work is the report on *The Role of Digital Platforms in the Collection of VAT/GST on Online Sales* (see Box 3.9) that complements the *Report on the Mechanisms for the Effective Collection of VAT/GST*, which was released in September 2017.

A number of jurisdictions have already implemented various measures targeting digital platforms. For instance, the EU, New Zealand, Norway (with respect to remote digital services) and Australia (with respect to both remote digital services and imports of low-value goods) have already implemented measures to impose a full VAT/GST liability on digital platforms, making digital platforms fully and solely liable for assessing, collecting and remitting the VAT/GST due on the online sales they facilitate. Those jurisdictions have already reported positive outcomes in securing tax revenues. Moreover, the EU (as of 2021) and New Zealand (as of October 2019) have announced that they will expand the scope of existing measures to cover imports of low-value goods facilitated by the digital platforms. The United Kingdom and Germany have also introduced provisions that make digital platforms facilitating the supply of goods potentially jointly liable for unpaid VAT by third-party merchants on their platforms.

Box 3.9. OECD report on "The role of digital platforms in the collection of VAT/GST on online sales"

Against the backdrop of the continuous strong growth of online trade to final consumers, the OECD launched work to explore the possible involvement of digital platforms in the VAT/GST collection process. In particular, it was recognised that platforms may significantly enhance the effectiveness of VAT/GST collection given their important role in generating, facilitating and/or executing online sales. In fact, a number of jurisdictions have already implemented measures to involve digital platforms in collecting VAT/GST on online sales and have reported positive outcomes in securing tax revenue. Other jurisdictions are considering the introduction of such measures.

The deliverable of this work is the report on "The role of digital platforms in the collection of VAT/GST on online sales" (hereafter the report) that provides practical guidance to tax authorities on the design and implementation of a variety of measures for enlisting the platforms, including e-commerce marketplaces and other digital platforms, in the collection of VAT/GST on digital sales. It complements earlier work carried out on the "Mechanisms for the Effective Collection of VAT/GST".

The report includes new measures to make digital platforms liable for the VAT/GST on sales made by online traders through them, along with other measures that include data sharing and enhanced co-operation between tax authorities and digital platforms. It builds on the solutions for the effective collection of VAT/GST on digital sales included in the *2015 BEPS Action 1 Report on the Tax Challenges of the Digital Economy*.

It does not aim to provide detailed prescriptions for national legislation, but rather seeks to present a range of possible approaches and associated policy considerations, to serve as a reference point and assist policy makers in their efforts to evaluate and develop appropriate legal and administrative measures taking into account their own country-specific circumstances.

The report has been developed through an inclusive process, involving representatives of OECD member countries and from a large number of partner countries, as well as through the active engagement of the business community. The report was endorsed by over 100 jurisdictions, international and regional organisations, as well the business community, that attended the fifth meeting of the Global Forum on VAT in Melbourne on 20-22 March 2019. The report will be published in the course of 2019.

3.3.7. Excise duties continue to be raised to influence consumer behaviour

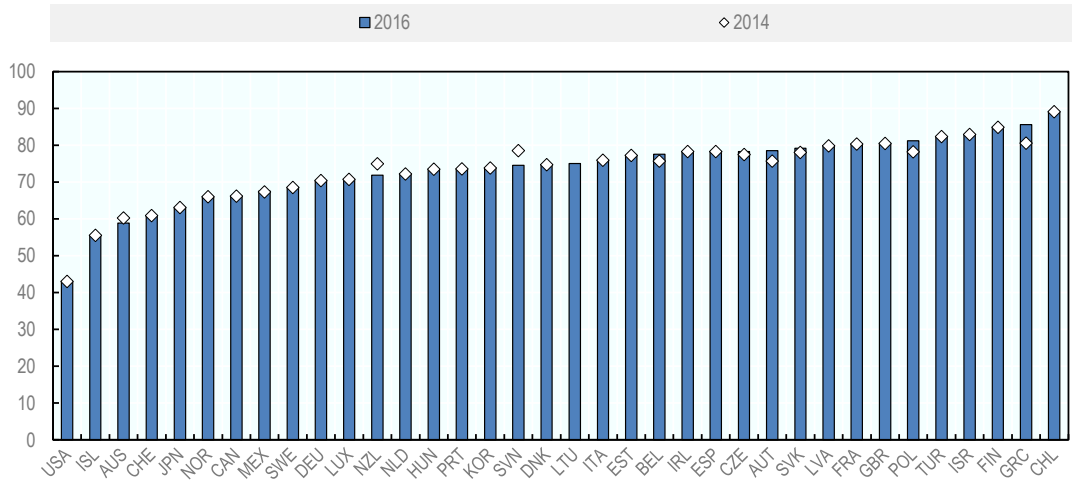
Excise taxes have been a powerful tool to raise revenues and encourage behavioural change. Excise taxes can cover a wide range of products, but the ones that are common to all countries and raise significant revenues for governments are excise duties on alcohol, tobacco and hydrocarbon oils. In recent

decades, governments have increasingly used these taxes not only as revenue raisers but also to influence consumer behaviour where the consumption of certain products is considered harmful to health or to the environment. This sub-section covers non-energy excise duties (for energy excise duties, see Section 3.4).

Taxes on tobacco products are particularly high. The relatively low price elasticity of demand, the small number of producers and high consumption levels initially made tobacco products particularly attractive targets for excise taxation to raise revenue. In light of the negative health consequences of tobacco use and the effectiveness of tobacco taxation in reducing tobacco use (World Health Organization, 2015[13]), tobacco taxation has also increasingly been used as a tool to reduce tobacco use. As a result, in 2017, the total tax burden on cigarettes was above 50% of the consumer price in almost all OECD countries and reached 80% or more in eight countries (Figure 3.24).

Figure 3.24. Total tax burden on cigarettes as a share of retail selling prices

Total tax expressed as a share of retail selling prices



Note: For Canada and the United States, national average estimates calculated for prices and taxes reflect the fact that different rates are applied by state/province over and above the applicable federal tax. No 2014 data for Lithuania.
Source: (OECD, 2018[12]), based on World Health Organisation (2017).

Increases in excise duties, in particular on tobacco products, have continued. In Ireland, the excise on cigarettes was increased by 50 cents, with a pro-rata increase on other tobacco products. This has brought the price of 20 cigarettes to EUR 12.70. In addition, there was an increase in the minimum excise duty on tobacco products so that all cigarettes sold below EUR 11 have the same excise applied as cigarettes sold at EUR 11. Luxembourg, Portugal, the Netherlands and the United Kingdom have also reported increases in excise duty rates on tobacco products. Hungary, Lithuania and South Africa increased excise duties on both tobacco products and alcoholic beverages and Finland raised excise rates on alcohol. Australia did not report excise tax increases but is expecting greater revenues from tobacco taxes thanks to anti-avoidance measures. From 1 July 2019, importers of tobacco will be required to pay all duty and tax liabilities upon importation (marking a change from the current system, where tobacco can be imported and stored in licensed warehouses before the tax is paid).

Greece and Latvia have lowered their excise taxes on certain types of alcoholic products, with a view to supporting local industries. Latvia reduced the tax rate on alcoholic beverages produced in small distilleries. In Greece, the excise tax on still and sparkling wine was abolished. The excise tax was introduced in January 2016 and added EUR 15 cents to the cost of a 750 ml bottle of wine and EUR 20 cents to a one-litre bottle.

Finally, the trend towards health tax increases on soft drinks and unhealthy foods continued. As reported in last year's report, in South Africa, the health promotion levy was implemented on 1 April 2018 and applies to beverages with more than 4 grams of sugar per 100 ml. A tax of ZAR 2.1 cents per gram has been applied for every gram of sugar exceeding the first 4 grams. To avoid an erosion in the value of the tax due to inflation, the levy rate will be increased to ZAR 2.21 cents. In Ireland, there was an increase in the base of the sugar-sweetened drinks tax, with a change in the definition of a "sugar-sweetened drink" to subject certain categories of beverages to the tax when they do not meet a minimum calcium content of 119 mg per 100 ml. Finland reported an increase in the tax rate on soft drinks. In Portugal, the lower bracket of the tax on sugary beverages (up to 80 g of sugar per litre) was disaggregated in three, with tax rates depending on sugar content. Above 80 g of sugar per litre, the rate was increased from EUR 16.69 to EUR 20 per hl. Hungary increased its public health tax (or "snack tax") by 20%. In Norway, on the other hand, the tax on chocolate and sugary products was reduced.

3.3.8. New trade taxes have been introduced

In the United States, approximately USD 200 billion worth of Chinese imports became subject to additional tariffs. The additional tariffs, levied at a rate of 10%, became effective on 24 September 2018. The tariffs were supposed to be increased to 25% as of 1 January 2019, but the increase has been postponed. The United States has also started imposing tariffs on imports of steel and aluminium, including from EU countries. In response, the EU began levying tariffs on specific US products.

Argentina reported the introduction of temporary export duties, effective between 1 January 2019 and 31 December 2020. Export duties on the exports of goods were adopted in September 2018. In December 2018, a Decree extended the scope of export duties to exports of services. The export duties are imposed at a rate of 12% on the export price, with maximum caps. These export duties were put in place as "emergency measures" to reduce the budget deficit.

3.4. Environmentally related taxes

Governments implement environmentally related taxes for various reasons, ranging from raising government revenue to containing environmentally harmful behaviour or covering specific infrastructure costs. Generating government revenue has long been the most significant rationale for implementing environmentally related taxes, in particular for taxes on energy use. In some countries, raising more revenues through environmentally related taxes is part of a wider effort to reform the overall tax system, for example to make it less distortive and more growth- and employment-friendly by shifting the composition of tax revenues away from labour or corporate income taxes.

From an environment point of view, the main appeal of environmentally related taxes is that they provide a cost-effective means of mitigating negative environmental effects from consumption and production. By raising the price of environmentally harmful behaviours, price-based instruments provide polluters with incentives to reduce their polluting activity. Environmentally related taxes give economic actors flexibility to decide how to reduce their harmful behaviours, which increases their efficiency compared to centralised measures, such as a standards. Standards can also trigger significant rebound effects, whereby improved energy efficiency results in increased demand and therefore lower energy savings. Price-based instruments avoid these inefficient rebound effects.

Overall, this section shows that the pace of environmentally related tax reform has slowed in 2019. Reforms have been more limited both in number and in scope compared to previous years. In particular, the momentum to strengthen taxes on energy use (e.g., fuel excise and carbon taxes) has weakened. Compared to previous years, far fewer countries have introduced reforms to extend the use of energy taxes and increase tax rates. On the contrary, several countries have decreased taxes on energy use or

reversed reforms that had previously been introduced. These findings seem to go against countries' policy objectives on climate and environmental preservation and their desire to improve the efficiency of their tax system.

Taxation in the transport sector, aside from energy use, has also seen very little progress. Interesting, however, the limited reforms that were implemented in that area often involved the taxation of less traditional tax bases, such as air travel and road use. Taxing air travel or road use can indeed incentivise polluters to reduce their environmentally harmful behaviours while contributing to better tax policy, as discussed in Box 3.10.

Box 3.10. The potential of environmentally related taxes to improve the tax policy toolkit, while reducing harmful behaviour: the case of road transport

A recent report by the OECD and the International Transport Forum (ITF) investigates the interplay of the seemingly contradictory objectives of environmentally related taxes to raise government revenues and steer behaviour towards reducing harmful activities. The report focuses on road transport, showing how tax revenue may evolve as the use of fossil fuels in vehicles declines in the future.

Based on scenario analysis and simulations for the Republic of Slovenia through to 2050, the report provides a comprehensive assessment of the taxation of road transport. It also provides recommendations on how tax policy could adapt to declining fossil fuel use in the long term if the objective is to maintain revenues at current levels, while taking fairness and efficiency considerations into account. The analysis considers additional tax bases in road transport beyond fuel use, in particular vehicle stocks and distances driven.

The analysis finds that tax revenue from diesel and gasoline use in private cars is likely to decline substantially in the coming decades in Slovenia. Because technological changes take time to percolate through the entire car fleet, fuel tax revenues erode only gradually over time, which leaves some leeway to adapt tax policy. However, implementing tax reform takes time and requires preparation and discussion with stakeholders. Early preparation and a gradual approach to tax reform will allow a smooth adaptation to technological changes in the vehicle fleet, reduce the risk of disruption and create room for developing and implementing the necessary accompanying measures.

The report finds that a smooth evolution of revenues in the long run is achieved through gradual and comprehensive tax reform shifting from taxes on fuel to taxes on distances driven can contribute to more sustainable tax policy over the long term. By gradually increasing fuel or carbon taxes to levels that reflect the external costs of fossil fuel use and by phasing-in distance-based charges for vehicles to reflect the external costs of driving, would shift taxation to an alternative and likely more stable tax base – driving – while further reducing distortions. A broader discussion of opportunities to improve road transport tax policy practice is found in (Van Dender, 2018[14]).

Source: (OECD/ITF, 2019[15])

3.4.1. Environmentally related tax revenues vary widely across countries and continue to be driven by taxes on energy use

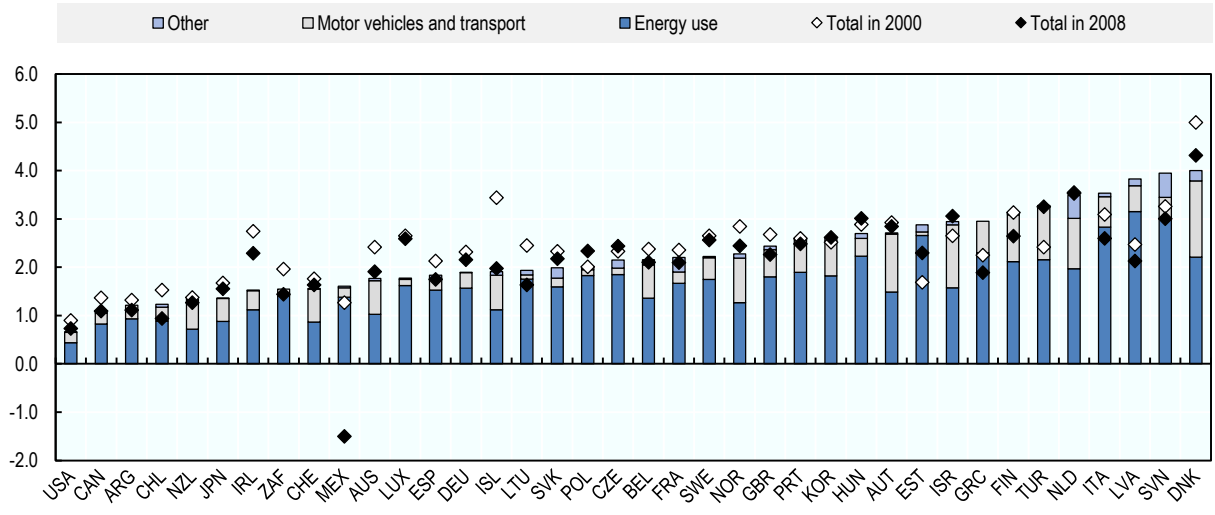
Revenues from environmentally related taxes in 2016 varied strongly across countries, ranging from 0.7% of GDP in the United States to 4.0% of GDP in Denmark and Slovenia (Figure 3.25). Environmentally related taxes include any compulsory, unrequited payment to general government levied on tax bases deemed to be of particular environmental relevance. Preserving the environment is not necessarily a major rationale for their introduction, but the taxes nevertheless affect pollution significantly. Environmentally

related taxes cover a broad range of areas, including agrochemicals, energy, road use, vehicles, waste, water abstraction and water pollution.

Between 2000 and 2016, environmentally related tax revenue measured as a share of GDP fell in the vast majority of countries. Revenue as a share of GDP rose in nine out of 38 countries. Most of these countries, namely Estonia, Greece, Israel, Italy, Latvia, Slovenia and Turkey, now score among the top 10 countries in terms of revenues raised compared to GDP in 2016. On average across the countries considered in the analysis, revenue from environmentally related taxes amounted to 2.3% of GDP in 2016, which is slightly more than in 2008 (2.1%), but slightly less than in 2000 (2.4%).

Understanding trends in revenues from environmentally related taxes requires looking at the design of tax policies as well as their effects. Revenues from environmentally related taxes depend on both tax rates and the tax bases to which these rates apply. Analysing revenues therefore requires distinguishing the policy instrument with the effects of the instrument. For example, tax revenues from motor vehicles may be relatively low in a country because tax rates are low or because the tax base is narrow, if only a limited number of vehicles are captured by the tax. Alternatively, low revenues from vehicle taxation may be the result of a high tax on motor vehicles, precisely because the tax has encouraged drivers to purchase more efficient or smaller vehicles.

Figure 3.25. Revenues from environmentally related taxes as a share of GDP in 2016, by country



Note: Data for France and South Africa are from 2015 (not 2016). Data for Canada, Greece, Israel and Korea are from 2014 (not 2016). Indonesia missing.
Source: OECD Database on instruments used for environmental policy, http://stats.oecd.org/.

Revenue collected through taxes on energy use accounted for more than half of total environmentally related tax revenues in all countries. Nineteen countries collected more than 75% of their total environmentally related tax revenues from taxes on energy use. The importance of taxes on energy use compared to other environmentally related taxes has been a longstanding trend. Taxes on energy use consist mainly of fuel excise duties and, to a limited extent, carbon taxes. The distribution and composition of taxes on energy use across different countries is covered in the OECD *Taxing Energy Use* database and discussed in depth in related publications (OECD, 2013[16]; OECD, 2015[17]; OECD, 2018[18]). Motor vehicle and other transport taxes are the second most important category of environmentally related taxes in terms of revenues. They mainly comprise one-time registration taxes on motor vehicles and annual taxes on users or owners of vehicles. Their use across different countries is discussed in the OECD *Consumption Tax Trends* publications (OECD, 2016[19]; OECD, 2018[12]). Other environmentally related taxes are generally not a major contributor to public revenue.

3.4.2. The potential of environmentally related taxes as a tool for sustainable tax policy remains large

The potential of environmentally related taxes as a tool for sustainable tax policy remains large across the countries considered in the report, because environmentally related taxes are often set below the external costs associated with environmentally harmful behaviours. Gradually increasing environmental taxes to levels that reflect those external costs and extending their application could generate public revenue while mitigating negative environmental effects. However, designing effective and efficient tax policy requires considerations beyond revenue raising concerns and external cost management. In particular, considering fairness and equity implications can be essential for the success of environmental tax reform (see Box 3.11).

Box 3.11. Careful design and tailored communication is essential for the success of environmental tax reform

Environmentally related tax reform, for example implementing higher and broadly applicable energy or carbon taxes, involves a wide range of diverse stakeholders. Careful design and tailored communication can help foster the political acceptability of the reform. For example, governments could better communicate the benefits of tax reform to households, e.g., in terms of the provision of public services through government revenue as well as improved environmental and health outcomes, and need to assess the potential negative consequences in terms of equity and distributional impacts to develop appropriate responses.

Higher energy and carbon taxes do not necessarily translate into higher tax liabilities for households in the long run. First, households adjust to higher energy costs over time by reducing energy use (Labandeira, Labeaga and López-Otero, 2017[20]), e.g., through switching to more energy efficient activities or containing the energy consuming behaviour. Higher energy prices provide an incentive to develop substitutes. Second, higher energy prices may trigger wage increases which can contain parts of the tax raise depending, for example, on the type and length of wage agreements and the degree of wage indexation (Kandil, 2000[21]). Third, social benefit systems can act as an automatic stabiliser. Social benefits that adjust to price levels will automatically trigger higher payments when energy prices increase. Fourth, countries expecting that higher energy prices would particularly challenge the poor can implement accompanying policy responses to alleviate their effects.

Policy measures that accompany increases in energy or carbon taxes could focus, for example, on promoting the use of substitutes (e.g., the use of public transport or carpooling as opposed to individual cars for commuting). They may also focus on supporting those households that are affected disproportionally by tax reform in the short run, but that cannot easily adapt to the reform due to budget constraints. Targeted support measures for the poor can be channelled through the social benefits system or as an income-tested payable tax credit. An alternative to targeted support is a lump-sum payment to all households. Lump-sum payments are highly visible and ensure that households benefit across the political spectrum, which can increase acceptance. As lump-sum payments benefit a larger number of households, they distribute less money to the poor than targeted transfers do, when the amount spent by the government is fixed.

An essential point in designing measures that accompany environmental tax reform is to maintain incentives to reduce environmentally harmful behaviours. Such incentives are unaltered when support comes through the general social benefit system, or via income-tested or lump sum benefits, because the price increase for environmental harmful behaviour remains unaffected. In contrast, supporting specific households by providing them with preferential tax rates weakens their incentive to change environmentally harmful behaviours. Likewise, providing direct support to households for pre-defined purposes (e.g., via vouchers for energy use or based on commuting distance) counteracts the goal of preserving the environment by not discouraging the potentially harmful activity.

Source: (Flues and van Dender, 2017[22]) and (Marten and van Dender, 2019[23]).

3.4.3. Progress in strengthening carbon pricing to preserve the climate is weak

Between 2012 and 2018, a number of countries maintained momentum on climate preservation by increasing energy and carbon taxes and by extending emissions trading, but progress was slow. Pricing carbon emissions allows countries to steer their economies smoothly towards and along a carbon-neutral growth path. The carbon pricing gap measures the gap between countries' actual carbon prices and the real climate costs of carbon emissions. The gap is based on the OECD *Effective Carbon Rates* indicator (OECD, 2016[24]; OECD, 2018[25]). In 2018, the estimated carbon pricing gap using a EUR 30 per tonne of CO_2 benchmark, which represents a low-end estimate of carbon costs today, was 66% across 38 countries considered in the present analysis.[10] It was 2 percentage points lower than the gap in 2015 and 8 percentage points lower than in 2012. This means that carbon prices have increased in recent years, but that a much faster increase is needed in order to reach levels that send the right signals for a cost-effective low-carbon transition.

The carbon pricing gap varies substantially across sectors. The gap equals or exceeds 80% in electricity generation, industry and the residential and commercial sectors across the 38 countries in 2018. It is lowest in road transport, at 17%. This is a consequence of the longstanding trend of taxing energy use in the road sector for revenue raising purposes, but does not imply that the road sector is necessarily best positioned to transition smoothly to a low-carbon economy without supplementary policies. The large carbon pricing gap in non-transport sectors reflects the significant potential across countries to strengthen carbon pricing either by increasing taxes where they are currently low or by covering emissions where they are still unpriced. This is particularly important as the electricity, industry, and the residential and commercial sectors account for 74% of CO_2 emissions from energy use in the 38 countries considered.[11]

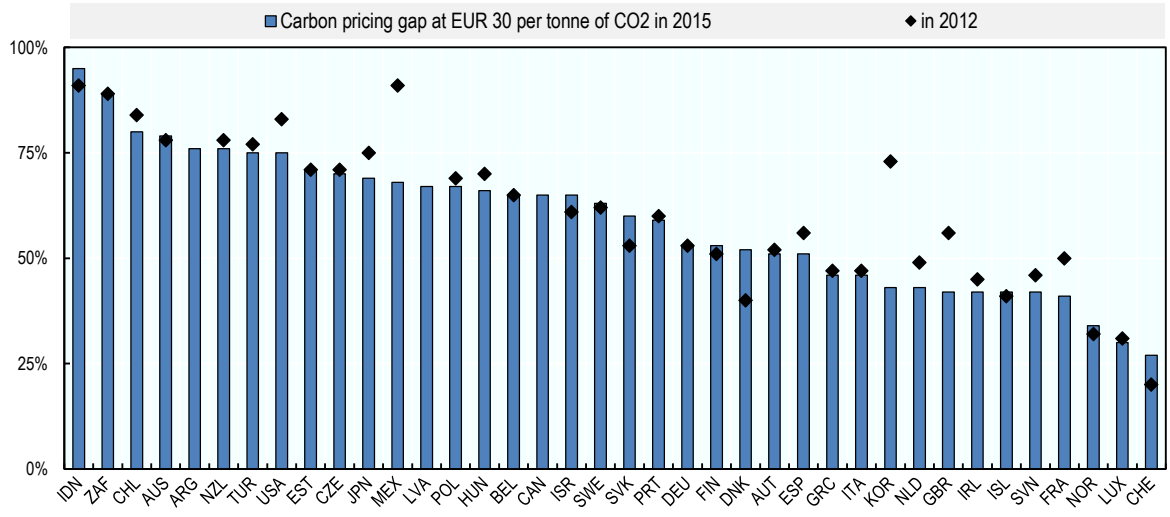
The carbon pricing gap also varies widely across countries, ranging from 27% in Switzerland in 2015 to 95% in Indonesia (Figure 3.26). At the country level, a low or zero gap signals to investors that a country seeks to decarbonise at low costs and that it provides incentives to companies for competing and thriving in a low-carbon economy. Conversely, a high gap indicates one of two undesirable states of the economy: excessively costly efforts or low efforts to reduce CO_2 emissions and engage in a low-carbon economy. Compared to 2012, the carbon pricing gap contracted in a number of countries and significantly so in Korea, Mexico and the United Kingdom where the drop exceeded 10 percentage points. Korea implemented a national emissions trading system in 2015. France and Mexico reformed their taxes on energy use. The United Kingdom implemented the Carbon Price Support rate for electricity sector emissions that are also covered by the European Union Emissions Trading System (OECD, 2018[25]).

3.4.4. Countries' engagement to strengthen energy taxes has slowed in 2019

Tax reforms on energy use in 2019 point to a slowing down of countries' previous engagement to strengthen fuel and carbon taxation (Table 3.11). Unlike in previous years, energy tax reforms were not

more frequent than other types of environmentally related tax reforms. Few countries have continued to raise or extend taxes on energy use to promote environmental sustainability and raise revenues. In the transport sector, Israel started to eliminate gradually the partial exemption from the diesel excise for trucks, buses and taxis, and South Africa increased the general fuel tax. As in previous years, Finland slightly increased the tax rate on heating fuels. Korea reformed the taxation of fuels used in electricity production, raising the tax rate on coal while lowering the rate for liquefied petroleum gas, but expecting an overall positive impact on revenues. Looking at the taxation of fossil fuels across all sectors, Iceland increased the carbon tax rate in 2019 and plans a further increase for 2020, but coal use is kept untaxed. The United Kingdom plans to move towards equalising the gas and electricity rates of the climate change levy in 2020, which would involve an increase in the gas and a reduction in the electricity rate in response to the rapid decarbonisation of electricity in the United Kingdom, which is in part due to the success of the Carbon Price Support rate.[12] South Africa scheduled the introduction of a carbon tax for June 2019. In addition, as announced in previous editions of this report, tax reforms came into force in Estonia (increase in natural gas excise) and in the Netherlands (increase in natural gas excise and decrease in electricity tax).

Figure 3.26. The carbon pricing gap at EUR 30 per tonne of CO_2 by country in 2015



Note: Lithuania is not yet included in the *OECD Effective Carbon Rates* database.
The carbon pricing gap measures, for every percentile of emissions in each country, the difference between the actual effective carbon rate and a benchmark value of EUR 30 per tonne of CO_2, summing all positive differences and expresses it as a percentage. If the carbon price were at least EUR 30 for each tonne of CO_2, the gap would be zero. If the carbon price were zero throughout all emissions, the gap would be 100%. The effective carbon rate is the sum of specific taxes on fossil fuels, carbon taxes and prices of tradable emission permits and is expressed in EUR per tonne of CO_2 for all carbon emissions from energy use in each country.
Source: Adapted based on data from OECD (2018[25]).

In 2019, there have been more frequent reductions in energy and carbon taxes than in previous years. Two countries expanded tax preferences for fuels used in agriculture: Finland by raising the tax refund on light fuel oil used in agriculture and Sweden by decreasing the carbon tax on diesel used in agriculture and forestry. Preferential rates for specific sectors are available across a large set of countries (OECD, 2018[18]). They weaken the incentive for polluters to take part in a country's overall emissions reduction effort and thereby potentially increase the costs of a country's emission abatement. One country, Denmark, reduced tax rates on electric heating. Three countries reduced fuel taxes in road transport: The United Kingdom froze fuel duty rates in the transport sector. Not indexing tax rates to inflation is still a widespread phenomenon across countries, which erodes both price signals and revenues over time (OECD, 2018[18]). France cancelled its plans to harmonise diesel and gasoline tax rates on a carbon content basis. Mexico extended a tax incentive granted to gasoline and diesel since 2016.

Some countries backpedalled on some of their prior efforts to improve energy taxation across fuels. France cancelled a tax reform that had already been enacted, and which would have raised the carbon component of fuel taxes across all sectors and all fuels in 2019 along a pre-defined trajectory. In 2019, Sweden has put a halt to the automatic increase by 2% of diesel and petrol taxes that came into force in 2018 in addition to the automatic inflation adjustment of tax rates.

Table 3.11. Changes to taxes on energy use

	Rate/Base ⇧		Rate/Base ⇩	
Into effect in	**2018**	**2019 or later**	**2018**	**2019 or later**
Fuels, with sector specification:				
Agriculture	ESP		FIN	SWEca
Electricity production		KOR (NLD)		KOR
Heating	FIN	FIN		DNK
Transport	BEL FRA ISR SWEb ZAF	ZAF	SWE MEX	FRA GBRi MEX
Fuels, all sectors	BELi FRA KOR LVA NLD SWEi		EST GBRi NLD	SWE (GBR)
Carbon tax	ISL FRA NOR	ISL (ZAF)		FRA
Electricity consumption			DNK	NLD (GBR)

Note: Countries in brackets have only announced reforms. **ca**: carbon tax; **b**: tax related to biofuels; **i**: taxes indexed to inflation.
Source: OECD Annual Tax Policy Reform Questionnaire.

These observations seem to signal an interruption in countries' tendency to raise energy taxes (OECD, 2017[26]; OECD, 2018[9]). The slowdown of countries' efforts to price energy use, and thereby carbon emissions, may be a sign of reduced enthusiasm for climate and environmental policy or for the use of price-based instruments. It could also be the consequence of political or social considerations (see Box 3.11), competitiveness concerns or reflect a change in focus away from taxing fuel towards taxing other bases, such as motor vehicles or activities and services that derive from energy use, e.g., driving, electricity, heating (see Box 3.10).

Regardless of its rationale, the attenuated focus on strengthening the taxation of energy use in 2019 contrasts with the need to close the carbon pricing gap to prepare economies for a low-carbon transition (OECD, 2018[25]). Energy and carbon taxes are a cost effective policy tool to reduce emissions, which makes them particularly attractive for a country's climate policy toolkit compared to other policy options (cf. Box 1.1 in OECD (2018[25])). Carefully designing tax reforms may create public support and help reinforce the previous momentum to strengthen the taxation of energy use. For example, tax reform may concentrate, first, on reviewing and phasing-out existing tax exemptions and preferential tax treatments provided to specific emitters (as was done in Israel, where the exemption for diesel use for trucks, buses and taxis was reduced). Likewise, reform may focus on energy uses where taxes are currently comparatively low, such as heating fuels (as was done in Finland) and users in the industry and residential and commercial sectors that are typically taxed below the levels prevailing in road transport.

3.4.5. Vehicle taxation has seen limited momentum, but there have been changes to less conventional tax bases

Changes to traditional motor vehicle taxes, such as taxes on vehicle registration and vehicle use, have been introduced in five countries in 2019, with a number of tax decreases observed (Table 3.12). Exceptions have been Norway, which removed a special deduction of the registration tax for taxis, and Ireland where the registration tax on diesel-driven passenger cars was increased with the objective of improving environmental and health outcomes. At the same time, Ireland introduced a refund

of the registration tax for vehicles that are brought into the country only temporarily. The United Kingdom increased the vehicle excise duty rates for cars, vans and motorcycles in line with the retail price index, but tax rates for heavy goods vehicles remained frozen. Vehicle taxes were also decreased in Finland and Japan.

A relative advantage of vehicle taxes is their relatively low administrative burden, but from an external cost perspective, they are not the optimal tool to steer consumer behaviour towards cleaner driving habits. In particular, vehicle taxes can only account for the average pollution profile of a vehicle, but not the external costs related to driving behaviour, the amount and the place of driving, as distance-based charges would. Vehicle taxes have also been shown to be a relatively expensive way to reduce emissions and can result in high foregone tax revenues (Van Dender, 2019[27]).

Two countries have implemented changes in the taxation of alternative fuel vehicles. Ireland extended the preferential tax treatment for hybrids and plug-in hybrids (i.e., the reduction in the registration tax was extended for one year) and for the private use of electric company cars (the exemption from the benefit-in-kind tax on electric company cars with a market value below EUR 50 000 was extended for three years). On the contrary, Turkey expects revenue increases from a newly introduced tax on electric vehicles, although the tax rate is lower than the one for cars running on fossil fuels.

Tax incentives for electric vehicles are widespread (German et al., 2018[28]). They provide a strong incentive to shift the car fleet towards less polluting vehicles, but can be expensive in terms of revenue forgone depending on their design. For example, in Norway, preferential vehicle tax treatment and other benefits have spurred the demand for electric vehicles in recent years, but have led to a significant drop in government revenues from vehicle taxation (Norwegian Ministry of Finance, 2018[29]). A gradual phase-out of tax exemptions for electric vehicles will be necessary to sustain revenues once the low-carbon transition is on its way. In addition, preferential tax treatment for alternative vehicles is likely to be regressive, because low-income households are unlikely to invest in expensive electric vehicles (Borenstein and Davis, 2016[30]). A recent study showed that means-tested subsidies directed towards low- and middle-income buyers may achieve electric vehicle take-up in this segment of the market, but that the revenue cost is large (Muehlegger and Rapson, 2018[31]).

There have also been some changes to the taxation of less conventional tax bases, such as road use and air travel. The countries within the "Eurovignette" cooperation (Denmark, Luxembourg, the Netherlands and Sweden), which apply a road toll to heavy-duty vehicles circulating on motorways, will increase the rates as of 1 July 2019. The Netherlands differentiates rates by the air pollution profile of a vehicle, which incentivises drivers to consider the air pollution costs linked to driving. Taxing the use of road can complement fuel taxes in the transport sector, in particular when the vehicle stock shifts to more fuel-efficient and alternative fuel vehicles, which may lead to an erosion of traditional fuel tax bases (see Box 3.10 and OECD/ITF (2019[32])). South Africa increased the levy on road accidents, linking the levy to the litre of fuel used.

On air travel, Norway plans to change its existing single-rate air passenger duty applicable to domestic and international flights departing from Norway to a two-part rate. The rate would decrease from currently NOK 80 to NOK 75 per ticket for European destinations, while it would increase to NOK 200 per ticket for non-European destinations. Differentiating rates by distance is a welcome development, as external costs relate closely to distances travelled. However, the fuel type and ticket class also matter for flight-related external costs and could be incorporated. Some existing ticket taxes already differentiate between business and economy class. For example, a passenger in economy class typically uses less space compared to a passenger in business or first class. Consequently, the latter would be responsible for a larger share of the external costs associated with a full flight. A tax depending on ticket class would likely be more progressive too.

International aviation is generally not subject to energy taxes or carbon pricing, except for flights within the European Economic Area, which are included in the European Emissions Trading System.

Therefore, air passenger taxes may be interpreted as an alternative instrument to the taxation of energy in international aviation. Taxing the service derived from energy use (i.e., distances travelled) can represent a stable revenue source for governments, but requires careful design to reflect external costs from energy use appropriately. A more efficient way to account for external costs would be an energy or carbon price that directly reflects fuel use and carbon emissions.

Finally, several countries (Finland, Ireland and Portugal) adjusted motor vehicle taxes to account for the new Worldwide Harmonised Light Vehicle Test Procedure (WLTP). The WLTP measures fuel consumption and CO_2 emissions from passenger cars, as well as their pollutant emissions and is based on updated laboratory tests using real-driving data. The new test protocol is supposed to match road performance better than previously with the New European Driving Cycle (NEDC).

Table 3.12. Changes to taxes on motor vehicles and other transport taxes

	Rate/Base ⇧		Rate/Base ⇩	
Into effect in	2018	2019 or later	2018	2019 or later
Vehicle tax	GBR ZAF		ARG	FIN JPN
Registration tax		GBR[1] IRL NOR (NLD)		GBR[1] IRL JPN
Vehicles running on alternative fuels	NOR	TUR	IRL LUX SWE	IRL
Road use		DNK LUX NLD SWE		
Air travel	SWE	(NLD) (NOR)	GBR	
Other (e.g. company cars, road accidents)		ZAF		IRL

1. Taxes indexed to inflation.
Note: Countries in brackets have only announced reforms.
Source: OECD Annual Tax Policy Reform Questionnaire.

3.4.6. Despite their potential to improve environmental outcomes and raise revenues, the scope of other environmentally related taxes remains limited

Other environmentally related taxes are rarely the focus of countries' tax reform efforts, but 2019 has been a year of exceptionally low ambition (Table 3.13). The Netherlands and the Slovak Republic are the only two countries that have reported environmental tax reforms affecting tax bases other than energy use, vehicles or means of transport (as discussed above). Countries forgo ample opportunity to raise revenue and to improve environmental outcomes by making polluters pay for the negative externalities they impose by consuming or producing other environmentally related tax bases such as plastic, waste or chemicals. The Netherlands increased waste landfill and incineration taxes as announced in 2018 and the Slovak Republic increased its waste disposal fee with the objective of reducing waste and discouraging waste dumping.

From an environmental policy perspective, taxes linked to environmentally related tax bases beyond energy use and vehicles, such as waste production, plastic or the use of chemicals can lead to strong effects on producer and consumer behaviour towards reducing harmful activities (OECD, 2017[33]). For example, some European countries have implemented taxes on the landfilling of waste materials, typically levied on the weight or the volume of landfilled waste. Higher landfill taxes are associated with lower percentages of municipal waste being sent to landfill (Watkins et al., 2012[34]), indicating that these taxes have been successful in diverting waste streams from harmful landfilling towards more environmentally friendly modes of waste treatment (e.g., recycling and composting). Incineration taxes for waste are less common, but can also contribute to shifting waste towards these more environmentally friendly waste treatment modes (Watkins et al., 2012[34]).

Table 3.13. Changes to other environmentally related taxes

	Rate/Base ⇧		Rate/Base ⇩	
Into effect in	2018	2019 or later	2018	2019 or later
Waste		NLD SVK		
Plastic	ZAF			

Source: OECD Annual Tax Policy Reform Questionnaire.

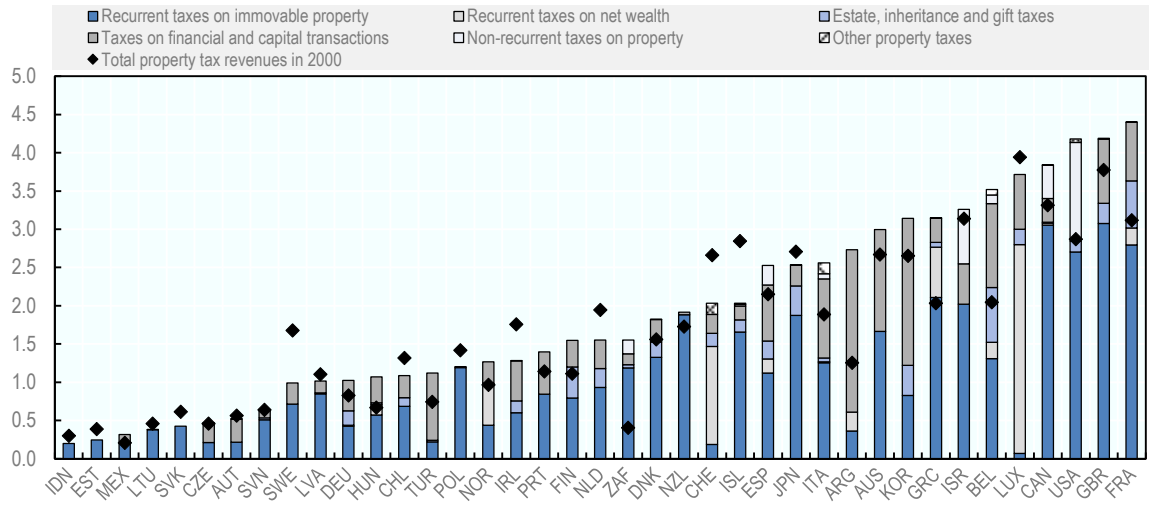
3.5. Property taxes

3.5.1. Property taxes continue to be a small source of revenue

Countries impose a variety of taxes on property. The most prominent property taxes across the countries covered in the report are recurrent taxes on immovable property, which are typically a key source of revenue for local governments. Property transaction taxes and inheritance and gift taxes are also common (Figure 3.27). Very few countries impose a tax on some measure of total net wealth (OECD, 2018[35]).

Property tax revenues remain low in most countries. In 2017, the amount of revenues collected from property taxes varied quite widely across countries, ranging from 0.2% of GDP in Indonesia to 4.4% of GDP in France. However, in a majority of countries, property taxes remain a small source of revenue. Trends in revenues in the last fifteen years have differed across countries but a majority have seen increases in their property tax revenues. Between 2000 and 2017, 24 countries reported increases in property tax revenues as a share of GDP, while 15 recorded revenue falls. The largest revenue increases in percentage points were recorded in Argentina, Belgium, the United States[13] and France. On the other hand, Iceland, Sweden and Switzerland experienced the most significant property tax revenue falls in percentage points.

Figure 3.27. Property tax revenues as a share of GDP in 2000 and 2017

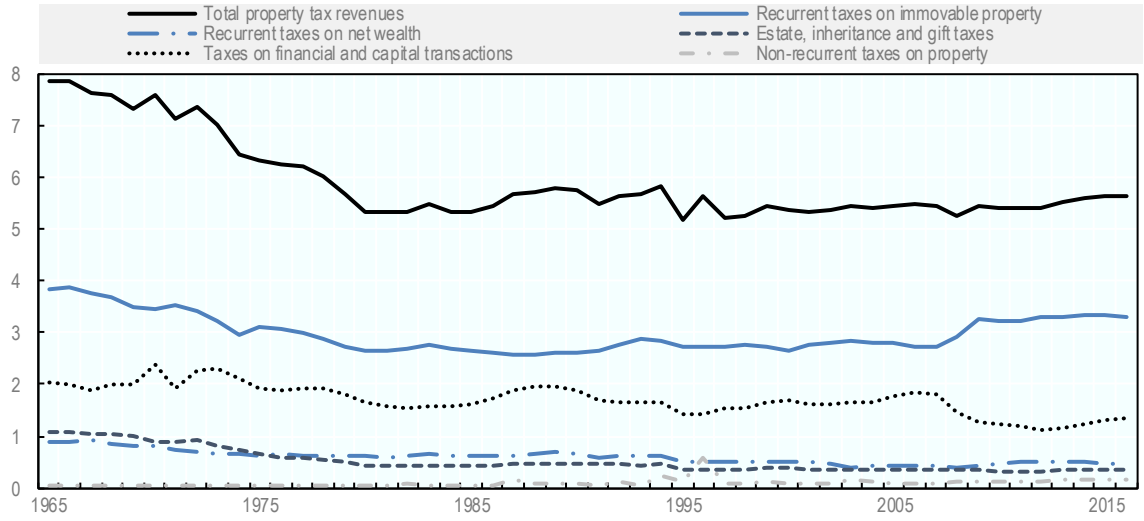


Note: 2016 data for Argentina, Australia, Greece, Indonesia and South Africa.
Source: OECD Revenue Statistics Database.

Longer-term trends show that property taxes are a smaller source of revenues than they used to be in the mid-1960s. Property tax revenues accounted on average for around 8% of total tax revenues in 1965 across OECD countries, compared to only about 5.7% today (Figure 3.28). The decline was particularly steep between 1965 and 1980, due to both diminishing property tax revenues as a share of GDP and an increase in overall tax revenues. Since the 1980s, property tax revenues have on average remained fairly stable.

Figure 3.28. Evolution of property tax revenues as a share of total taxation in the OECD since 1965

Tax revenues as a share of total taxation – OECD average



Source: OECD Revenue Statistics Database.

In general, property tax reforms in recent years have been limited and the revenue-raising and equity-enhancing potential of property taxes remains under-utilised. As reported last year, 2018 saw the introduction of a few significant property tax reforms, including the doubling of the exemption threshold for the estate and gift tax in the United States, the introduction of a tax on securities accounts in Belgium, as well as France's repeal of the housing tax and the elimination of its net wealth tax, which was replaced by a tax on high-value immovable property. The property tax reforms introduced in 2019 were generally more limited in scope (Table 3.14).

3.5.2. Reforms in 2019 have been limited in number and in scope

In Greece, there was a decrease in the recurrent tax on immovable property. For 2019, if the total value of taxpayers' real estate is below EUR 60 000, the property tax (ENFIA) is reduced by 30%. When the total value of real estate exceeds EUR 60 000, the 30% discount on the excess amount is reduced by 0.7 for every EUR 1 000 and may not exceed EUR 100. In addition, there was a re-adjustment in real estate taxable values for tax year 2018 and an increase in the threshold of the supplementary tax from EUR 200 000 to EUR 250 000.

Table 3.14. Property tax changes

	Rate/Base⇧		Rate/Base⇩	
Into effect in	**2018**	**2019 or later**	**2018**	**2019 or later**
Estate duties, inheritance and gift taxes	TUR ZAF		BEL[3] USA	IRL
Transaction taxes on movable and immovable property	BEL IRL	PRT	ARG GBR	IRL[1]
Recurrent taxes on immovable property	FRA	KOR	FRA	FRA[2] GRC
Recurrent taxes on (net) wealth	BEL	ARG ESP	FRA NOR	ARG NOR

1. Ireland, the stamp duty exemption on transfers of land to young trained farmers is to be extended for a further three years.
2. Progressive decline in the *taxe d'habitation* as planned in France's 2018 tax reform package.
3. The inheritance tax reform was introduced in the region of Flanders.
Source: OECD Annual Tax Policy Reform Questionnaire.

Taxes on high-value immovable property have been raised in Korea and Portugal. In Korea, the comprehensive real estate tax, which is a national tax levied on the owners of multiple properties and expensive real estate, was raised as part of an attempt to curb rapidly increasing housing prices. In Portugal, a surcharge was introduced as part of the *Adicional Imposto Municipal Sobre Imóveis*, a tax levied on high-value immovable property. The surcharge is an additional tax rate of 1.5% for properties worth more than EUR 2 million.

There have also been some changes to net wealth taxes. In Argentina, several changes were made to the existing net wealth tax. The tax exemption threshold was raised from ARS 1 050 000 to ARS 2 000 000; a tax exemption was introduced for dwelling houses, which will now only be subject to the wealth tax if their appraised value exceeds ARS 18 million; and the flat tax rate will be replaced by progressive rates that increase with the value of taxpayers' assets. Overall, Argentina's reforms are expected to generate an increase in tax revenues. Spain extended the application of its net wealth tax until the end of 2019. In Norway, the net wealth tax base was narrowed through an increase in the valuation discount for shares and operating assets and associated debt from 20 % to 25 %.

Finally, Ireland and Belgium (Flanders) have introduced inheritance tax reductions. Ireland raised the tax-free threshold for inheritances between parents and their children by EUR 10 000 from EUR 310 000 to EUR 320 000. In Belgium, the region of Flanders was the first region to align its inheritance tax legislation with the new federal inheritance tax law. Flanders has also lowered its inheritance tax rates and introduced partial "generation skipping", which allows under certain conditions the transfer of family assets free of gift or inheritance tax to the third generation.

References

Borenstein, S. and L. Davis (2016), "The Distributional Effects of US Clean Energy Tax Credits", *ax Policy and the Economy*, Vol. 30, pp. 191-234, https://doi.org/10.1086/685597. [30]

Flues, F. and K. van Dender (2017), "The impact of energy taxes on the affordability of domestic energy", *OECD Taxation Working Papers*, No. 30, OECD Publishing, Paris, https://dx.doi.org/10.1787/08705547-en. [22]

German, R. et al. (2018), *Vehicle Emissions and Impacts of Taxes and Incentives in the Evolution of Past Emissions. Report to EEA*, European Topic Centre on Air Pollution and Climate Change Mitigation, https://acm.eionet.europa.eu/reports/EIONET_Rep_ETCACM_2018_1_vehicle_taxes. [28]

Hanappi, T. (2018), "Loss carryover provisions: Measuring effects on tax symmetry and automatic stabilisation", *OECD Taxation Working Papers*, No. 35, OECD Publishing, Paris, https://dx.doi.org/10.1787/bfbcd0db-en. [5]

IMF (2017), "Belgium Selected Issues Paper", Vol. IMF Country Report No. 17/70, https://www.imf.org/en/Publications/CR/Issues/2017/03/17/Belgium-Selected-Issues-44749. [6]

Johansson, Å. et al. (2008), "Taxation and Economic Growth", *OECD Economics Department Working Papers*, No. 620, OECD Publishing, Paris, https://dx.doi.org/10.1787/241216205486. [10]

Kandil, M. (2000), "Wage Flexibility and Economic Performance: Evidence Across Industrial Countries", *IMF Working Paper*, No. WP/00/137, International Monetary Fund, https://www.imf.org/en/Publications/WP/Issues/2016/12/30/Wage-Flexibility-and-Economic-Performance-Evidence-Across-Industrial-Countries-3704. [21]

Labandeira, X., J. Labeaga and X. López-Otero (2017), "A meta-analysis on the price elasticity of energy demand", *Energy Policy*, Vol. 102, pp. 549-568, http://dx.doi.org/10.1016/j.enpol.2017.01.002. [20]

Marten, M. and K. van Dender (2019), "The use of revenues from carbon pricing", *OECD Taxation Working Papers*, No. 43, OECD Publishing, Paris, https://dx.doi.org/10.1787/3cb265e4-en. [23]

Muehlegger, E. and D. Rapson (2018), "Subsidizing Mass Adoption of Electric Vehicles: Quasi-Experimental Evidence from California", *NBER Working Papers*, No. 25359, National Bureau of Economic Research, https://www.nber.org/papers/w25359. [31]

Norwegian Ministry of Finance (2018), *Correspondance with Norwegian Ministry of Finance, 20 November 2018*. [29]

OECD (2019), *Taxing Wages 2019*, OECD Publishing, Paris, https://dx.doi.org/10.1787/tax_wages-2019-en. [1]

OECD (2018), *Consumption Tax Trends 2018: VAT/GST and Excise Rates, Trends and Policy Issues*, OECD Publishing, Paris, https://dx.doi.org/10.1787/ctt-2018-en. [12]

OECD (2018), *Effective Carbon Rates 2018. Pricing Carbon Emissions Through Taxes and Emissions Trading*, OECD Publishing, Paris, https://doi.org/10.1787/9789264305304-en. [25]

OECD (2018), *Tax Challenges Arising from Digitalisation – Interim Report 2018: Inclusive Framework on BEPS*, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264293083-en. [7]

OECD (2018), *Tax Policy Reforms 2018: OECD and Selected Partner Economies*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264304468-en. [9]

OECD (2018), *Taxation of Household Savings*, OECD Tax Policy Studies, No. 25, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264289536-en. [3]

OECD (2018), *Taxing Energy Use 2018: Companion to the Taxing Energy Use Database*, OECD Publishing, Paris, https://doi.org/10.1787/9789264289635-en. [18]

OECD (2018), *The Role and Design of Net Wealth Taxes in the OECD*, OECD Tax Policy Studies, No. 26, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264290303-en. [35]

OECD (2017), *Environmental Fiscal Reform Progress, Prospects and Pitfalls,*, http://www.oecd.org/tax/tax-policy/tax-and-environment.htm (accessed on 12 March 2019). [33]

OECD (2017), *Tax Policy Reforms 2017: OECD and Selected Partner Economies*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264279919-en. [26]

OECD (2016), *Consumption Tax Trends 2016: VAT/GST and excise rates, trends and policy issues*, OECD Publishing, Paris, https://dx.doi.org/10.1787/ctt-2016-en. [19]

OECD (2016), *Effective Carbon Rates: Pricing CO2 through Taxes and Emissions Trading Systems*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264260115-en. [24]

OECD (2015), *Addressing the Tax Challenges of the Digital Economy, Action 1 - 2015 Final Report*, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264241046-en. [8]

OECD (2015), *Taxation of SMEs in OECD and G20 Countries*, OECD Tax Policy Studies, No. 23, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264243507-en. [4]

OECD (2015), *Taxing Energy Use 2015: OECD and Selected Partner Economies*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264232334-en. [17]

OECD (2013), *Taxing Energy Use: A Graphical Analysis*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264183933-en. [16]

OECD (2011), *OECD Tax Policy Studies – Taxation and Employment – No. 21*, http://dx.doi.org/10.1787/19900538 (accessed on 29 March 2018). [2]

OECD/ITF (2019), *Tax Revenue Implications of Decarbonising Road Transport: Scenarios for Slovenia*, OECD Publishing, Paris, https://dx.doi.org/10.1787/87b39a2f-en. [15]

OECD/ITF (2019), *Tax revenue implications of the decarbonisation of road transport: Scenarios for Slovenia*, forthcoming, OECD Publishing, Paris. [32]

OECD/KIPF (2014), *The Distributional Effects of Consumption Taxes in OECD Countries*, OECD Tax Policy Studies, No. 22, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264224520-en. [11]

Van Dender, K. (2019), "Taxing vehicles, fuel, and road use: Opportunities for improving transport tax practice", *OECD Taxation Working Papers*, forthcoming, OECD Publishing, Paris. [27]

Van Dender, K. (2018), "Taxing vehicles, fuel and road use: what mix for road transport? (forthcoming)", *OECD Taxation Working Papers*. [14]

Watkins, E. et al. (2012), *Use of Economic Instruments and Waste Management Performances: Final Report*, Bio Intelligence Service - European Commission (DG ENV), http://ec.europa.eu/environment/waste/pdf/final_report_10042012.pdf. [34]

World Health Organization (2015), *WHO report on the global tobacco epidemic: Raising taxes on tobacco*, http://dx.doi.org/ISBN 978 92 4 069460 6. [13]

Notes

[1] In 2017, the number and direction of these adjustments was very similar to 2018 when there were 32 reforms that narrowed PIT bases and 11 that broadened them.

[2] However, this does not imply a decrease in employees' tax saving from the non-taxable amount, as the tax saving previously amounted to EUR 57 (EUR 380*15%), but in 2019, taking into account the increase in the PIT rate, the tax saving increased to EUR 60 (EUR 300*20%).

[3] 2000 data is not available for Indonesia and Mexico.

[4] During the banking crisis, the interest on additional Tier 1 capital instruments (contingent convertibles) was made deductible for tax purposes to support the banking sector. The measure is now abolished.

[5] On 15 March, the MLI covered 87 jurisdictions: 85 Signatories and 2 jurisdictions covered by their Parent State's signature (Curacao and Hong Kong).

[6] In particular, the remitters can make a statement confirming that *i)* they possess all the necessary documentation for the application of the exemption or the tax rate, and *ii)* have no knowledge on any circumstances that could exclude the application of the said tax preference. Furthermore, for the exemptions under the EU directives (the *Parent-Subsidiary Directive* and the *Interest Royalties Directive*), an opinion by the tax office can be received by the parties (i.e. the taxpayer and – in some cases – by the tax remitter).

[7] http://www.europarl.europa.eu/news/en/press-room/20180926IPR14409/green-light-for-vat-overhaul-to-simplify-system-and-cut-fraud

[8] Japan is expected to introduce a reduced consumption tax rate as of October 2019.

[9] In the European Union, where there are no customs controls at the internal borders, the B2B intra-community supply of goods is VAT-free in the member state of origin and VAT is collected in the member state of destination according to a cross-border "reverse charge mechanism" where the customer in the member state of destination accounts for the VAT on the supply in its VAT return rather than paying the VAT to customs at importation. When the goods are used to make an onwards taxable transaction (e.g. a domestic supply of goods), the input VAT on this "acquisition" is entirely deductible and triggers no payment obligation. This deviates from the traditional design of a VAT, where the tax is collected through a staged collection process. Fraudsters have used this system to run "missing trader" schemes where the purchaser that has acquired the goods VAT-free resells the goods on the domestic market, collecting the VAT from its customer and vanish without remitting the VAT so collected. The same goods may be resold again several times through a network of companies across member states with a chain of VAT-free cross-border supplies, reverse charged acquisitions and resales with collection (and no remittance) of VAT creating a "carousel" fraud.

[10] Note that Lithuania is not yet included in the *OECD Effective Carbon Rates* database.

[11] Data on CO_2 emissions for the 38 countries in 2016 come from the IEA *CO_2 Emissions from Fuel Combustion* database:
https://www.iea.org/classicstats/relateddatabases/co2emissionsfromfuelcombustion/

[12] The United Kingdom decided to continue to cap the Carbon Price Support, which applies in addition to

the EU ETS price for electricity generators, at GBP 18 until April 2021. The Carbon Price Floor (the combined carbon price for electricity generators made up of the Carbon Price Support rate and the EU Emissions Trading System) has exceeded the target date of GBP 30 per tonne of CO_2 throughout 2018.

[13] In the case of the United States, there was an exceptional increase in 2017, partly due to the one-off deemed repatriation tax on foreign earnings under the Tax Cuts and Jobs Act (see Chapter 2), which was classified as a non-recurrent taxes on net wealth.

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The European Union takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
ISBN 978-92-64-45646-4 – 2019

Tax Policy Reforms 2019

OECD AND SELECTED PARTNER ECONOMIES

This is the fourth edition of Tax Policy Reforms: OECD and Selected Partner Economies, an annual publication that provides comparative information on tax reforms across countries and tracks tax policy developments over time. The report covers the latest tax policy reforms in all OECD countries, as well as in Argentina, Indonesia and South Africa. Monitoring tax policy reforms and understanding the context in which they were undertaken are crucial to informing tax policy discussions and to supporting governments in the assessment and design of tax reforms.

Consult this publication on line at ***https://doi.org/10.1787/da56c295-en***.

This work is published on the OECD iLibrary, which gathers all OECD books, periodicals and statistical databases. Visit ***www.oecd-ilibrary.org*** for more information.

OECD*publishing*
www.oecd.org/publishing

ISBN 978-92-64-45646-4