# 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.

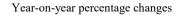
#### 1.1.1. Global growth slowed in 2018 with diverging developments in major economies

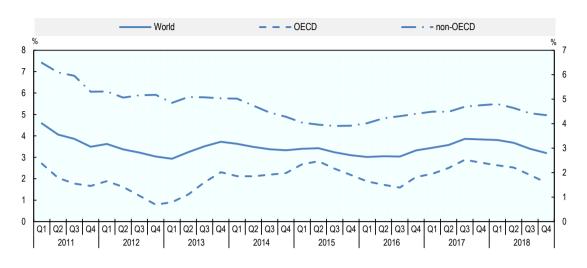
**Global GDP growth is estimated to have been 3.5% in 2018**, losing momentum from its 2017 pace and continuing to fall short of the longer-term average of around 4% seen in the two decades prior to the financial crisis (Figure 1.1). Output and trade growth both moderated amidst heightened policy uncertainty, persistent trade tensions and tighter financial conditions, with the extent of the slowdown increasing in the latter half of 2018 (OECD, 2019<sub>[1]</sub>). 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<sub>[2]</sub>). 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<sub>[3]</sub>). 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<sub>[4]</sub>).

**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.

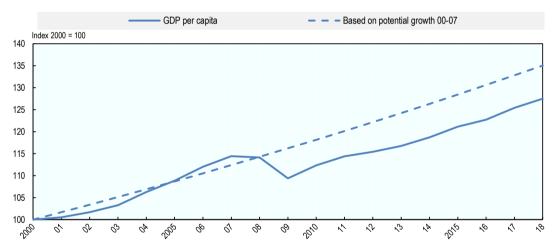
#### Figure 1.1. Real GDP growth



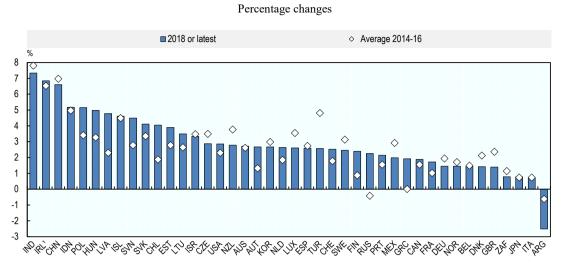


Note: GDP measured using purchasing power parities. Source: OECD Economic Outlook database; and OECD calculations.





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.

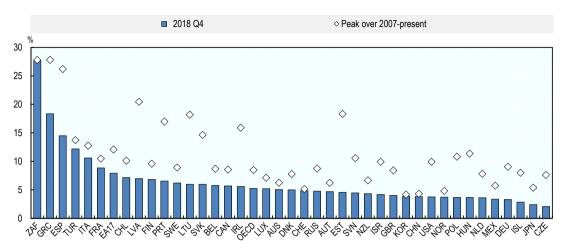
## **1.1.2.** Labour market conditions continued to improve but the recovery in employment remained uneven

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<sub>[5]</sub>; OECD, 2018<sub>[6]</sub>).

**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<sub>[4]</sub>).

**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<sub>[5]</sub>; OECD, 2019<sub>[8]</sub>).

#### Figure 1.4. Unemployment rates in OECD and selected countries

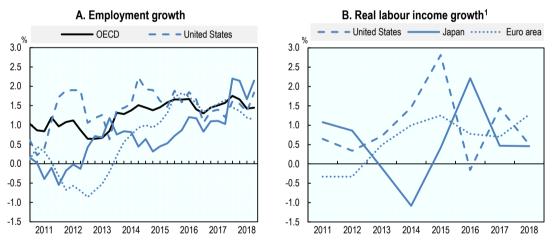


As a percentage of the labour force

Source: OECD Economic Outlook database; and OECD calculations.

#### Figure 1.5. Employment and real income growth

Year-on-year percentage changes



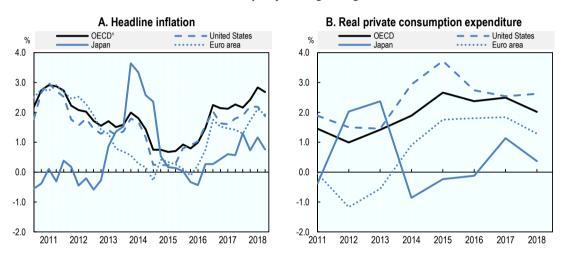
1. Labour income per employee deflated by the private consumption deflator. Source: OECD Economic Outlook database; and OECD calculations.

#### 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 price; 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

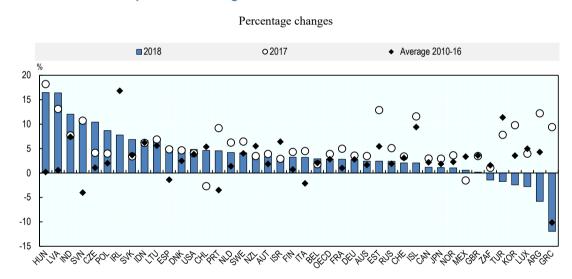
**Fixed capital investment slowed in most OECD economies in 2018 amid rising trade tensions, heightened policy uncertainty and a decline in business and consumer confidence (Figure 1.7)**. Total investment in the OECD area rose by 2.9% last year compared with 3.9% in 2017. After a decade of subdued investment, 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<sub>[5]</sub>). Long-term factors holding back investment include diminished long-term growth expectations and a lack of business dynamism in some economies (OECD, 2018<sub>[6]</sub>). Resources trapped in unproductive firms (Andrews, Criscuolo and Gal, 2016<sub>[7]</sub>), and a slowdown in the implementation of new reforms to raise product market competition (OECD, 2018<sub>[8]</sub>) 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%<sup>1</sup> 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

#### 14 |

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.

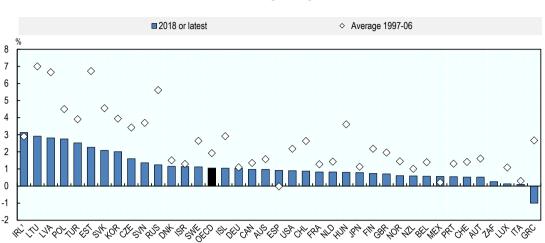
**Labour productivity growth remained sluggish**, at 0.6% in 2018 in the OECD economies, reflecting the weak growth of productive capital per worker and the low diffusion of new ideas and technology embodied in new equipment. Labour productivity growth in OECD countries since the crisis has generally fallen significantly below that seen in the decade prior to the crisis, checking future potential growth (Ollivaud, Guillemette and Turner, 2018<sub>[3]</sub>) (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<sub>[10]</sub>). 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<sub>[7]</sub>). 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.





Percentage changes

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.

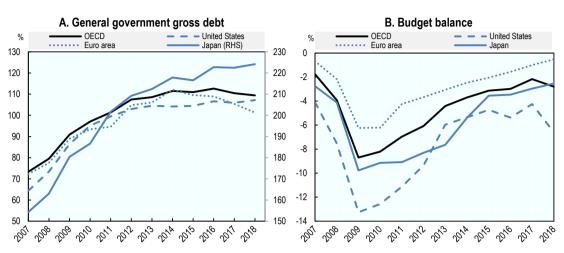
#### 1.2. Public debts and budget balances

## 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,<sup>2</sup> 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.

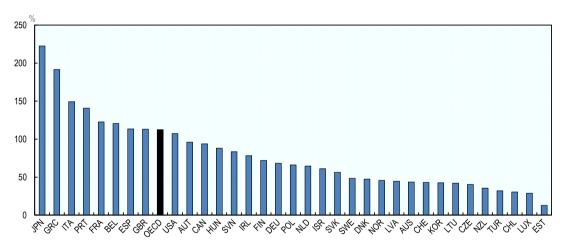
#### Figure 1.9. General government gross debt and budget balance



#### As a percentage of GDP

Source: OECD Economic Outlook database; and OECD calculations.

#### Figure 1.10. General government gross debt, 2018 or latest

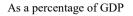


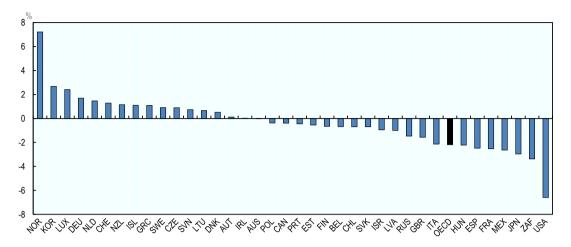
As a percentage of GDP

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.

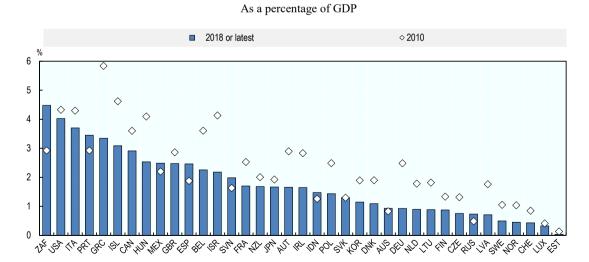






Source: OECD Economic Outlook database; and OECD calculations.

**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

Source: OECD Economic Outlook database; and OECD calculations.

#### 1.3. Trends in income inequality

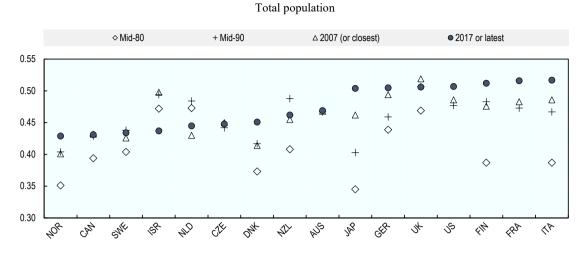
#### 1.3.1. Income inequality remains high in many countries

**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<sub>[11]</sub>). 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.<sup>3</sup> 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<sub>[12]</sub>) (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<sub>[13]</sub>). 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<sub>[14]</sub>; OECD, 2017<sub>[17]</sub>). 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,  $2015_{[14]}$ ).

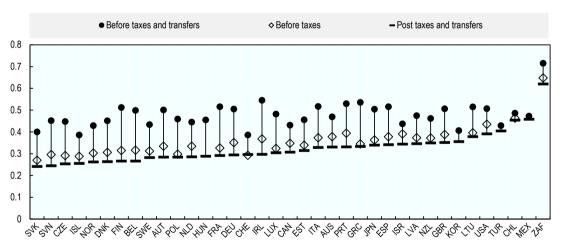




Note: Mid-80 data not available/missing. There is a break in income definition starting in 2012 with all new data following the new OECD terms of reference after 2011. Compared to previous terms of reference, these include a more detail breakdown of current transfers received and paid by households as 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

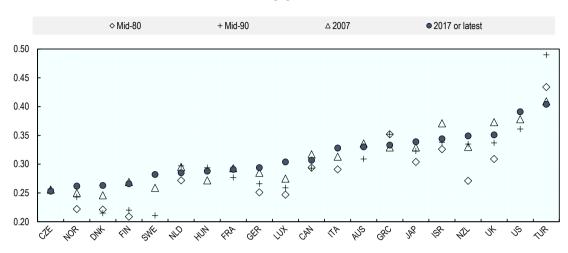


#### 2017 or latest, for total population

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

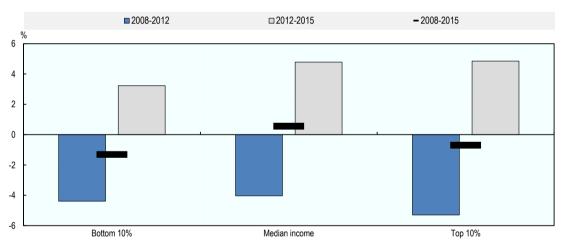
#### Figure 1.15. Disposable income (post taxes and transfers) Gini coefficients

Total population



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.

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#### Notes

<sup>1</sup> 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.

<sup>2</sup> The underlying primary balance is the fiscal balance excluding net interest payments and adjusted for the economic cycle and for budgetary one-offs.

<sup>3</sup> 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.



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