

Chapter 1

GENERAL ASSESSMENT OF THE MACROECONOMIC SITUATION

Introduction

The expansion is set to persist over the next two years, with global GDP projected to rise by close to 4% in 2018 and 2019. Growth in the OECD area is set to remain around 2½ per cent per annum, helped by fiscal easing in many economies, and will strengthen to close to 5% elsewhere (Table 1.1). Although job growth is likely to ease in advanced economies, the OECD-wide unemployment rate is projected to fall to its lowest level since 1980, with labour shortages intensifying in some countries. Wage and price inflation are accordingly projected to rise, but only moderately, given the apparent muted impact of resource pressures on inflation in recent years and the scope left in some economies to strengthen labour force participation and hours worked. Global investment and trade rebounded last year, and are projected to continue to expand steadily in the next two years, provided trade tensions do not escalate

Table 1.1. **Global growth is set to remain close to 4% in the next two years**

OECD area, unless noted otherwise

	Average 2010-2017	2016	2017	2018	2019	2017 Q4	2018 Q4	2019 Q4	
		Per cent							
Real GDP growth¹									
World ²	3.5	3.1	3.7	3.8	3.9	3.8	3.9	3.9	
G20 ²	3.7	3.2	3.8	4.0	4.1	4.1	4.1	4.0	
OECD ^{2,8}	2.0	1.8	2.5	2.6	2.5	2.7	2.5	2.4	
United States	2.1	1.5	2.3	2.9	2.8	2.6	2.8	2.7	
Euro area ⁸	1.1	1.7	2.5	2.2	2.1	2.8	2.0	2.0	
Japan	1.1	1.0	1.7	1.2	1.2	1.8	1.3	0.6	
Non-OECD ²	4.8	4.2	4.6	4.8	5.1	4.7	5.0	5.1	
China	7.6	6.7	6.9	6.7	6.4	6.9	6.6	6.3	
India ³	6.8	7.1	6.5	7.4	7.5				
Brazil	0.4	-3.5	1.0	2.0	2.8				
Output gap⁴	-2.0	-1.5	-0.7	0.1	0.6				
Unemployment rate⁵	7.3	6.3	5.8	5.4	5.1	5.5	5.3	5.1	
Inflation^{1,6}	1.6	1.1	2.0	2.2	2.3	1.9	2.3	2.4	
Fiscal balance⁷	-4.6	-2.9	-2.0	-2.6	-2.7				
World real trade growth¹	4.0	2.6	5.0	4.7	4.5	4.7	4.6	4.4	

1. Percentage changes; last three columns show the increase over a year earlier.

2. Moving nominal GDP weights, using purchasing power parities.

3. Fiscal year.

4. Per cent of potential GDP.


5. Per cent of labour force.

6. Private consumption deflator.

7. Per cent of GDP.

8. With growth in Ireland computed using gross value added at constant prices excluding foreign-owned multinational enterprise dominated sectors.

Source: OECD Economic Outlook 103 database.

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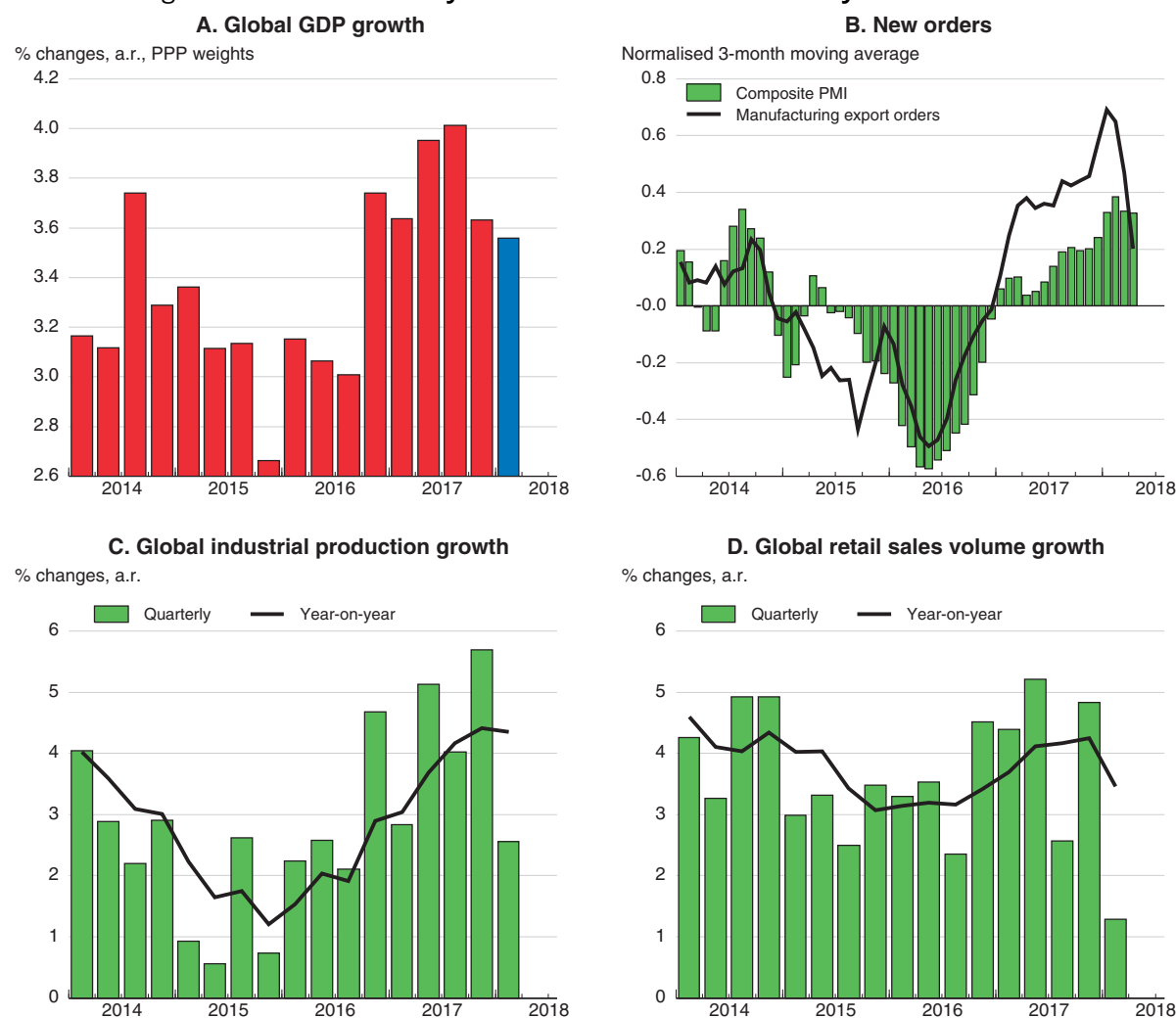
further. Even so, the prospects for strong and sustained improvements in living standards in the medium term remain weaker than prior to the crisis in both advanced and emerging market economies, reflecting less favourable demographic trends and the consequences for potential output growth of the past decade of sub-par investment and productivity outcomes.

While the short-term outlook remains favourable, downside risks prevail. The projected global growth rate of close to 4% is in line with the long-term average rate prior to the crisis, but the current expansion is still being supported by very accommodative monetary policy in the advanced economies and, increasingly, fiscal policy easing. This suggests that strong self-sustaining growth has yet to be attained. Trade protectionism has already begun to adversely affect confidence, and a further escalation would harm investment, jobs and living standards. Geopolitical concerns have contributed to the substantial further rise in oil prices in recent weeks; if sustained, higher oil prices would add to inflation and soften household real income growth. Geopolitical risks also remain in Europe, with bond spreads widening recently in the euro area. Risks also remain that the normalisation of interest rates in some economies, especially if it were to proceed rapidly and be accompanied by strong US dollar appreciation, could further expose financial vulnerabilities and tensions created by elevated risk-taking and high debt. Financial market pressures have already appeared in some emerging market economies (EMEs), on the back of higher US bond yields and an appreciation of the US dollar, particularly in ones with large and rising domestic and external imbalances or sizeable US dollar-denominated external debt.

Against the backdrop of the stronger global economy, policy needs to focus on securing a more robust and resilient recovery of productivity, investment and living standards. A gradual normalisation of monetary policy is needed, but to a varying degree across the major advanced economies. Continued clear communication about the path to normalisation is essential to minimise the risk of financial market disruptions. An active and timely deployment of prudential and supervisory policies is also necessary to avoid an intensification of the risks from financial vulnerabilities in both advanced and emerging market economies. Fiscal policy choices should avoid being excessively pro-cyclical and be clearly focused on measures that help to strengthen medium-term growth and ensure that the recovery yields widespread benefits. Any margins from stronger growth should be used to rebuild fiscal buffers, given high government debt and deficit levels in many countries and the limited room for policy manoeuvre if significant downside risks materialise. Structural reform efforts should be revived in both advanced and emerging market economies to help sustain growth and allow the benefits of growth to be distributed more widely. The current upswing, with strong job growth, provides an opportune moment to rekindle structural reform efforts. Favourable cyclical conditions help to maximise the benefits of reforms, whereas acting in crisis periods, which is often when reforms are implemented, can accentuate short-term costs. Safeguarding the rules-based international trading system, avoiding an escalation of trade tensions, and enhancing multilateral co-operation are essential to prevent the harm to longer-term growth prospects that would result from a retreat from open markets (see Chapter 2).


Policy support will help to sustain global growth

The global expansion remains solid and broad-based, even though global GDP growth eased in the first quarter of 2018 (Figure 1.1, Panel A). Investment and trade growth have picked up, contributing to widespread job creation. Amongst the advanced economies, fiscal and monetary policy support continues to help underpin activity, with the effects of still-accommodative monetary policy being reinforced by an easing of the fiscal stance in

Figure 1.1. **Global activity indicators have eased recently from robust levels**

Note: Data in Panel D are for retail sales in the majority of countries. Monthly household consumption is used for the United States and the monthly synthetic consumption indicator is used for Japan. Data for India are included in Panel C, but are unavailable for Panel D. The aggregations are based on purchasing power parity (PPP) weights.

Source: OECD Economic Outlook 103 database; OECD Main Economic Indicators database; Thomson Reuters; Markit; and OECD calculations.

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the majority of countries. Activity in the EMEs has also rebounded, boosted by improved global trade, higher commodity prices, and strong infrastructure investment in China and other Asian economies. Financial conditions largely remain supportive, but have begun to tighten in recent months (see below) with declines in equity prices from elevated peaks, rising long-term interest rates and volatility picking up from the unusually low levels seen in recent years. Some EMEs have begun to experience increasing financial market pressures, particularly those with large and rising domestic and external imbalances or substantial US-dollar-denominated debt (see below).

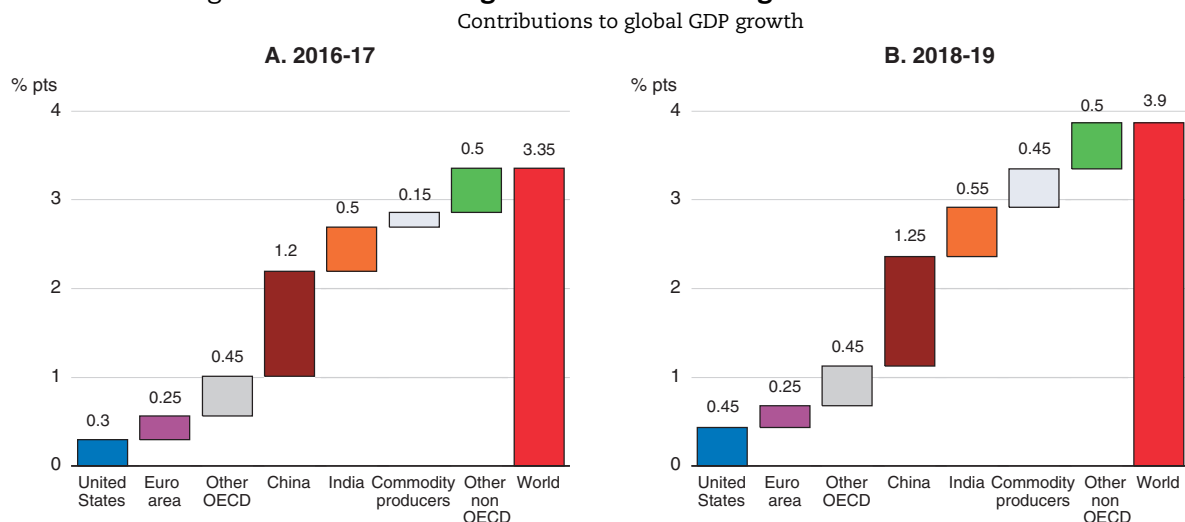
Oil prices have recently risen to around USD 80 per barrel, around 15% higher than at the start of the year, and USD 25 per barrel above their average level in 2017. Despite strong US production of oil, prices have been pushed up by continued robust global demand, supply restraints from agreed production restrictions by OPEC and selected non-OPEC countries, severe production cutbacks in Venezuela, and expectations that geopolitical

tensions will limit supply from Iran.¹ In the projections set out below, oil prices are assumed to be USD 70 per barrel over the remainder of 2018 and 2019 (Annex A.1), broadly consistent with average futures prices for 2019 over the month to mid-May this year. If the subsequent increase is sustained, it will be a significant downside risk, further adding to headline inflation and reducing real income growth in oil importing economies.²

Recent high-frequency indicators of global growth have been mixed, but have generally eased, in line with the slowdown in GDP growth in the first quarter of 2018 (Figure 1.1, Panels B to D). Overall business confidence appears to have stabilised in recent months, but some trade indicators, such as export orders and container port traffic, have continued to moderate. The slowdown in GDP growth in the first quarter of the year was concentrated largely in the advanced economies, especially in Europe and Japan. In part this reflects temporary factors, including unusually adverse weather conditions. However, concerns about global trade disruptions may have created uncertainty, leading firms to postpone investment temporarily. Higher oil prices may also have contributed to the recent softness of consumer spending (Figure 1.1, Panel D) by pushing up headline inflation and providing a temporary drag on household real income growth. Such effects fade quickly in the projections set out below, not least because of the support that macroeconomic policies continue to provide, but remain significant downside risks, particularly if geopolitical tensions push up oil prices further.


Despite the slow start to 2018 in some countries, global GDP growth is projected to reach almost 4% in both 2018 and 2019, helped by stronger growth in the United States, India and commodity-producing economies (Figure 1.2). While this would bring global

Figure 1.2. **Global GDP growth is set to strengthen further in 2018-19**



Note: Non-OECD commodity producers include Argentina, Brazil, Colombia, Indonesia, Russia, Saudi Arabia, South Africa and other non-OECD oil-producing economies. Contributions have been rounded to the nearest 0.05.

Source: OECD Economic Outlook 103 database; and OECD calculations.

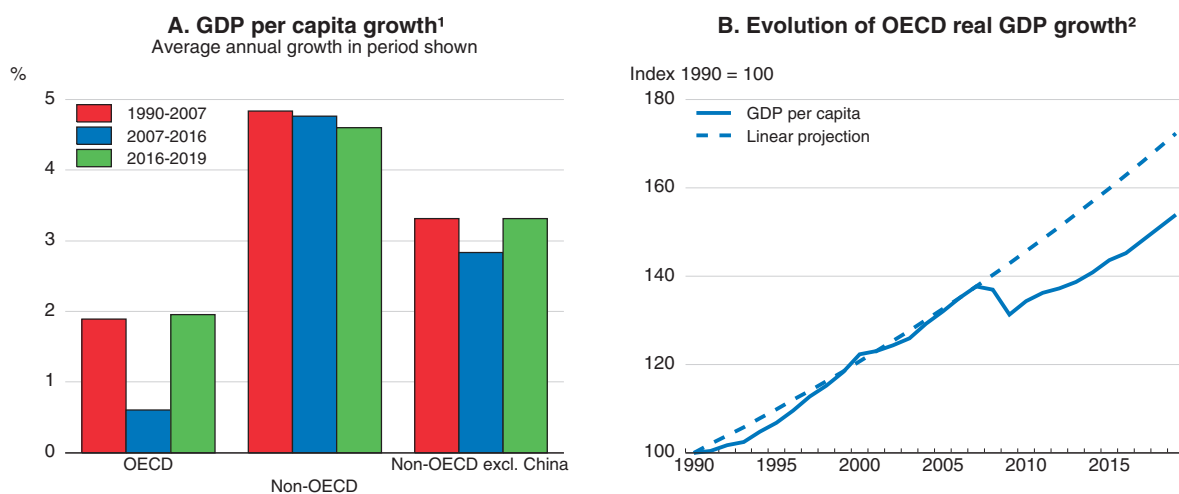
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1. Estimates from the Federal Reserve Bank of New York suggest that recent price rises have been driven largely by supply restrictions and risk factors. These two factors are each estimated to account for around two-fifths of the cumulative increase in Brent prices since the start of January, with stronger demand accounting for around one-fifth of the price rise (Federal Reserve Bank of New York, 2018).
2. The rise in oil prices from the average level of 2017 to USD 80 per barrel would represent an ex-ante transfer from oil consumers to oil producers of around USD 0.9 trillion (1% of world GDP in current US dollars), based on global production in 2017.

growth back to the average rates observed in the two decades prior to the crisis, a significant difference from past expansions is that the current one is still being supported by highly accommodative macroeconomic policies. On a per capita basis, growth is now improving in the majority of OECD and non-OECD economies, and has finally returned to pre-crisis rates in most, but the shortfalls in the years after the crisis have yet to be overcome (Figure 1.3). By 2019, real per capita incomes in the OECD economies as a whole are projected to still be over 10% lower than they might otherwise have been if they had risen since 2007 at the same average annual pace as in the two decades prior to the crisis (Figure 1.3, Panel B).


In the advanced economies, supportive macroeconomic policies, strong job growth and a recovery in investment underpin growth prospects, with GDP growth averaging close to 2½ per cent per annum over the projection period. Fiscal easing in the United States is helping to support investment and output growth in 2018-19, but fiscal tightening is set to begin from 2020 under current legislation and higher government debt levels will add to medium-term challenges (Box 1.1). Tax reductions and higher spending could still add between ½ and ¾ percentage point to US GDP growth both this year and next, taking it close to 3% in both years. This provides positive demand spillovers for other economies (Box 1.1), but higher US interest rates, and associated US dollar appreciation as interest-rate differentials widen, could raise financial pressures in some countries, especially EMEs. Growth in the euro area is set to remain robust and broad-based at between 2 and 2¼ per cent over 2018-19, with the additional fiscal easing projected in many European countries, including Germany, adding to the boost provided by accommodative monetary policy and improving labour markets. Additional spending announced in the recent supplementary budget will help to support demand in Japan in the remainder of 2018 but fiscal headwinds are set to strengthen somewhat in 2019.

Figure 1.3. **Per capita income growth has picked up in the OECD economies**



1. The OECD and non-OECD aggregates are calculated with moving nominal GDP per capita weights using purchasing power parities. The non-OECD aggregate is based on data for Argentina, Brazil, China, Colombia, Costa Rica, India, Indonesia, Lithuania, Russia, Saudi Arabia, South Africa and the Dynamic Asian Economies (Chinese Taipei, Hong Kong - China, Malaysia, the Philippines, Singapore, Thailand and Vietnam). The 1990-2007 data for the non-OECD excluding China refer to 1993-2007.
2. The dotted line shows a linear projection from 1990 based on the average annual growth rate of OECD GDP per capita in the 1990-2007 period.

Source: OECD Economic Outlook 103 database; UN database; and OECD calculations.

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Box 1.1. An assessment of the impact of US fiscal policy changes

The US Tax Cuts and Jobs Act, and the decision of Congress to raise spending limits over the next two years, imply a significant easing of US fiscal policy of around 1% of GDP in both 2018 and 2019. (In comparison, the November 2017 *Economic Outlook* projections had assumed an easing of 0.5% of GDP in 2018 and unchanged policy in 2019.) This box provides an assessment of the effects on growth prospects of these fiscal measures.¹

- The main tax measures include a permanent reduction in the marginal corporate income tax rate to 21%, a decrease in personal income tax rates that expires in 2025, and an increase in the rate of bonus depreciation to 100% in 2018-22 after which it is phased out by 2026. The measures also push the United States towards a more territorial tax system, consistent with most major economies. Overall, the direct costs of the Tax Cuts and Jobs Act raise the federal government deficit by around 0.7% of GDP in 2018 and an additional 0.7% of GDP in 2019 according to estimates from the Congressional Budget Office. Thereafter, the impact on the annual budget deficit is set to fade to around zero by 2026-27, on the basis of current legislation, implying some fiscal tightening in the first half of the 2020s.
- The new two-year budget bill voted in early February provides a higher spending ceiling in both 2018 and 2019 than previously expected. The assumed withdrawal of this additional spending in 2020 adds to the implied fiscal tightening from the tax increases set to occur in the next decade (in line with the ex-ante costing of the tax act).

In the model-based scenario these fiscal measures were incorporated as follows:

- A reduction in the effective corporate tax rate of 8 percentage points in 2018 and 7 percentage points in 2019, before slowly easing thereafter. This reduces corporate tax receipts by around 0.5% of GDP in 2018 and 0.8% of GDP in 2019, approximating the impact of the collective changes to the corporate tax system being undertaken. Other tax changes are assumed to occur via reductions in the effective rate of personal income taxes, reducing revenue by around 0.6% of GDP by 2019, before slowly fading thereafter.
- The increase in spending limits was assumed to result in an increase in government consumption of 0.3% of (baseline) GDP in 2018 and 0.6% of GDP in 2019.

The short-term impact of the combined fiscal measures is estimated to raise US GDP growth by between $\frac{1}{2}$ and $\frac{3}{4}$ percentage point in both 2018 and 2019 (see figure below). Around two-thirds of this boost is accounted for by the collective impact of the tax changes. Business investment rises relatively rapidly, helped by a sustained decline in the cost of capital of around 10% and expectations of higher future output. The boost to US final demand also strengthens import growth and adds to labour market pressures, with the unemployment rate declining by $\frac{1}{2}$ percentage point over 2018-19 and real wages rising above baseline by around 1% by 2019. Strong demand growth in the United States contributes to the widening of the US current account deficit, by around $\frac{3}{4}$ per cent of GDP in 2019. As stronger short-term activity feeds back into the budget balance, the overall increase in the deficit is closer to $1\frac{1}{2}$ per cent of GDP in 2019. Monetary policy is tightened in the near term, with policy interest rates around $\frac{3}{4}$ percentage point above baseline in 2019, resulting in an appreciation of the US dollar effective exchange rate.

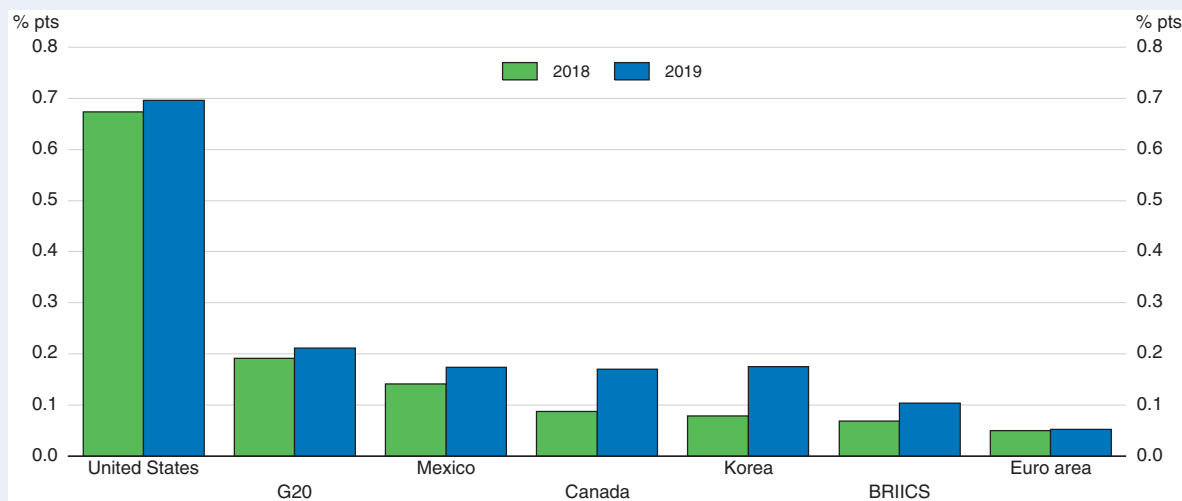
Other countries benefit from stronger external demand in the United States (on an assumption of unchanged trade policies), especially close trading partners such as Canada and Mexico. However, this is offset in part by somewhat tighter domestic monetary policy than otherwise in many countries, due to higher import price inflation stemming from currency depreciation against the US dollar.

The assumption of forward-looking behaviour in the analysis limits the near-term boost to output somewhat, as consumers anticipate higher taxes in the future and start to accumulate savings now to pay for these. It also serves to check the extent to which monetary policy is tightened in 2018-19. In an alternative scenario in which consumers do not anticipate higher future taxes, the boost to GDP growth in 2018-19 would be somewhat higher, at over $\frac{3}{4}$ percentage point per annum on average, but inflationary pressures would be stronger and the external deficit would widen further.


Box 1.1. An assessment of the impact of US fiscal policy changes (cont.)

The US fiscal stimulus is set to strengthen short-term GDP growth

Difference from baseline, percentage points



Source: OECD calculations.

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In the medium term, the full impact of the US tax act, and the extent to which any gains are widely shared, is difficult to estimate and model (Barro and Furman, 2018). There is a lot of uncertainty about the changes in underlying incentives and behaviour that may result, including about investment location decisions and the extent to which the personal direct tax reductions that benefit high-income households are saved rather than spent. The permanent reduction in the marginal corporate tax rate implies that the real user cost of capital will be lower than otherwise, bringing about a long-lasting increase in the business capital stock that boosts supply.² All told, economy-wide potential output is up by around $\frac{3}{4}$ per cent by the mid-2020s in the scenario considered, and around 1% by 2030. However, higher interest rates have begun to check the medium-term effects by this time, with the government debt-to-GDP ratio estimated to rise by around 6-7 percentage points by the mid-2020s, pushing up risk premia on government debt and long-term interest rates.

1. The assessment uses the NiGEM global macroeconomic model, maintained by the UK National Institute of Economic and Social Research. The model was run with forward-looking expectations, so that businesses and households have full knowledge of future fiscal changes. Monetary policy was allowed to be endogenous in all economies, with the exception of the euro area and Japan, where policy interest rates were kept unchanged before 2020. The budget solvency rule was used from 2020 to bring the US deficit-to-GDP ratio back to baseline by the mid-2020s, implying gradual increases in the effective tax rate on household incomes.
2. Changes in the household income taxes might also impact on labour supply decisions, but these are not modelled here.

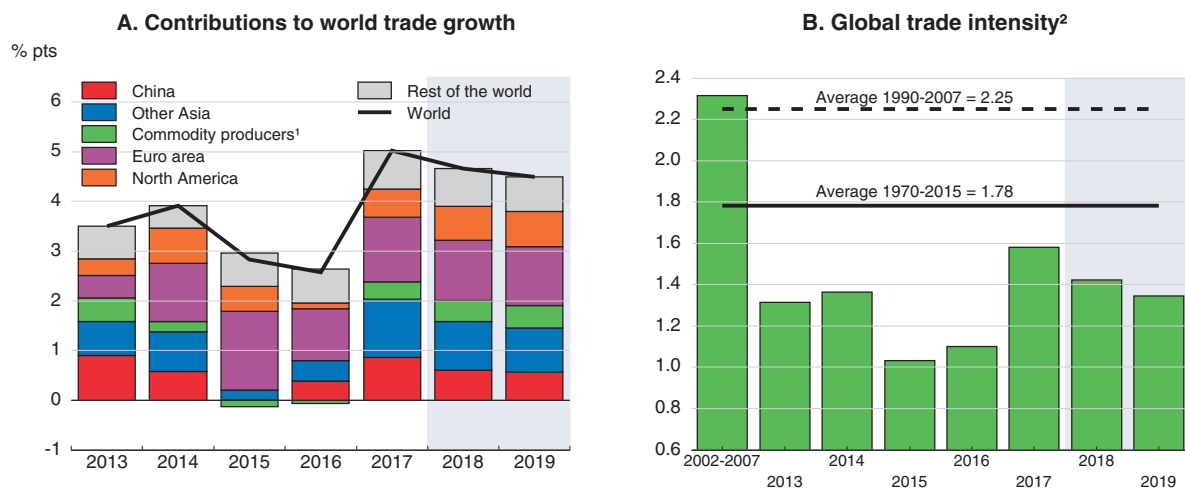
Growth prospects in the emerging and developing economies collectively appear solid for 2018 and 2019, but this masks diverging developments across the major economies. After a strong start to 2018, growth in China is set to ease slowly, to below $6\frac{1}{2}$ per cent by 2019. Macroeconomic and regulatory policies are gradually becoming more restrictive as fiscal policy is now broadly neutral and credit conditions are less expansionary, and the working-age population is now declining. In contrast, robust domestic demand growth is projected to help GDP growth strengthen in India, to around $7\frac{1}{4}$ per cent and $7\frac{1}{2}$ per cent in FY 2018 and FY 2019 respectively, with past reforms helping to drive a strong rebound in private investment growth. Strong infrastructure investment spending should also continue to support growth in Indonesia and a number of the Dynamic Asian Economies over 2018-19. Growth outcomes are also projected to strengthen in a number of other

commodity-producing economies, particularly Brazil and South Africa, with activity supported by monetary policy easing and improved sentiment. Higher oil prices and lower interest rates should also help to sustain growth in Russia, despite tight fiscal policy.

Global trade growth strengthened to 5¼ per cent in 2017, helped by the recovery in Europe, the pick-up in electronics trade in Asia, and the shift in the composition of demand towards investment. Import growth has also increased in many commodity-exporting economies. Over 2018-19, trade growth is projected to ease, but remain broad based, rising by between 4½-4¾ per cent per annum on average, on the assumption that trade tensions do not worsen significantly further (Figure 1.4). At this pace, trade intensity would remain mild by pre-crisis standards, but would be marginally higher than the average pace achieved over 2012-17. Global current account imbalances are projected to rise modestly during 2018-19, with the US external deficit increasing by around ¾ per cent of GDP (driven in part by the fiscal easing taking place) and rising deficits in a number of EMEs, especially those with relatively strong domestic demand growth. The current account surpluses in Japan, the euro area and China are projected to be broadly stable over 2018-19, at around 4% of GDP (Japan and the euro area) and 1¼ per cent of GDP respectively. Higher oil prices also result in improving external positions in the major oil-producing economies (including Russia).

Steady employment growth is projected to continue in most of the advanced economies over 2018-19, with OECD-wide employment rising by 1¼ per cent per annum on average. The OECD-wide unemployment rate has finally fallen below the pre-crisis level and is projected to decline further to 5% by the end of 2019. This would be the lowest area-wide rate since 1980, and over ½ percentage point below the estimated long-term sustainable unemployment rate. Corporate surveys also point to signs that labour shortages have begun to intensify in some major economies (Figure 1.5), especially in Germany and several Central and Eastern European economies, possibly reflecting emerging skill shortages (EIB, 2017).

Figure 1.4. **A broad-based upturn in trade growth, but trade intensity remains lower than before the crisis**



1. Commodity producers include Argentina, Australia, Brazil, Chile, Colombia, Indonesia, Norway, New Zealand, Russia, Saudi Arabia, South Africa and other oil-producing countries.
2. World trade volumes for goods plus services; global GDP at constant prices and market exchange rates. Ratio of average annual world trade growth to average annual GDP growth in the period shown.

Source: OECD Economic Outlook 103 database; and OECD calculations.


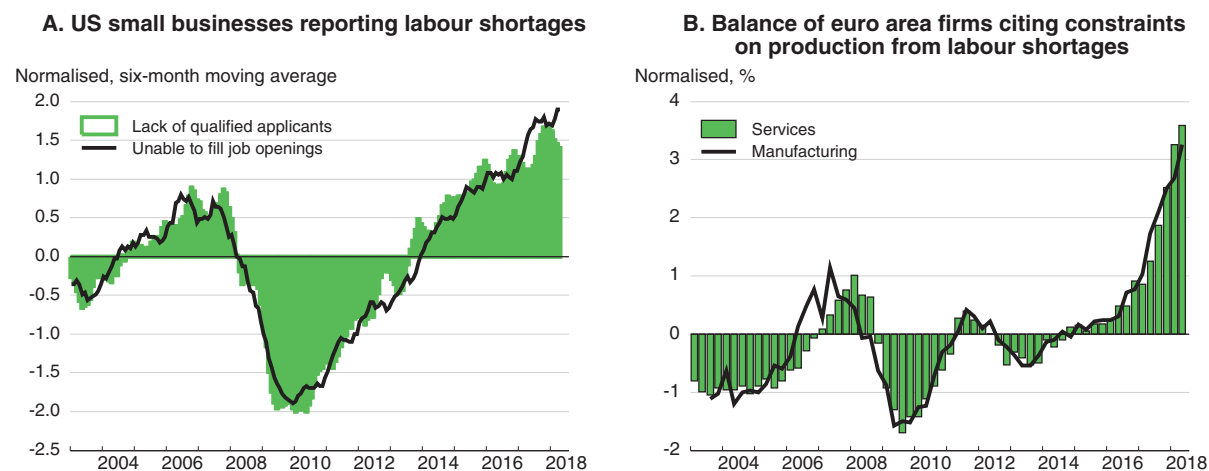
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Figure 1.5. Survey evidence is now pointing to labour shortages in some economies



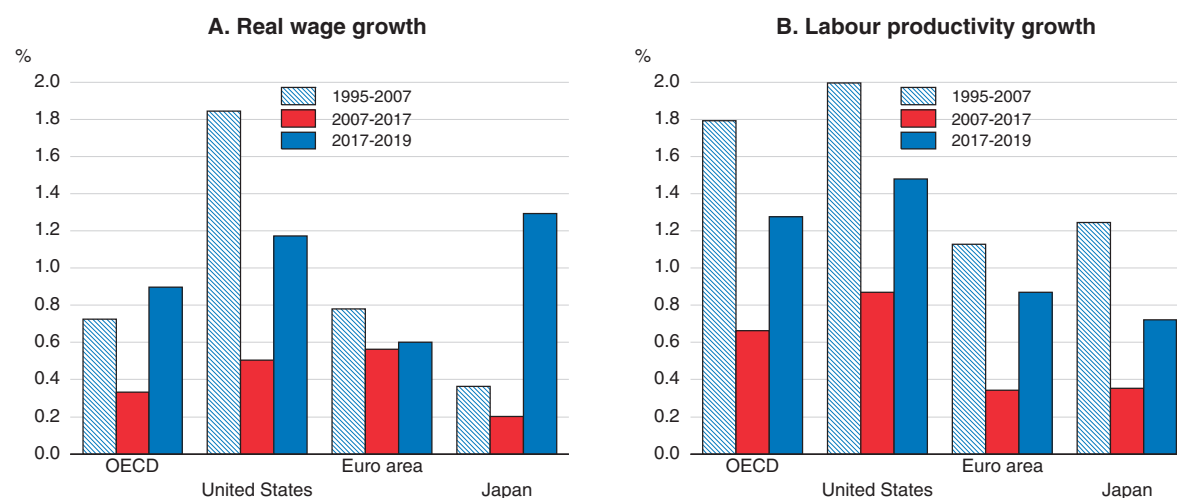
Note: Normalised values over the period 2003-2018, expressed in standard deviations.

Source: National Federation of Independent Business; European Commission; and OECD calculations.

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There are now signs that wage pressures have begun to strengthen, especially in the United States, Canada, Germany and several smaller European economies, including the Czech Republic, Hungary and Poland, where labour markets are becoming increasingly tight. In Japan, where labour shortages are also particularly acute, wage growth is still modest, but new corporate tax credits for companies that raise wages by 3% or more could help to foster stronger compensation growth. Overall, in the OECD economies, real wages are projected to rise by around 0.9% per annum on average over 2018-19, up from around 0.3% per annum on average in 2014-17 (Figure 1.6). Around three-quarters of this pick-up can be accounted for by somewhat stronger labour productivity growth, so that unit labour cost inflation rises only modestly in many economies.

Figure 1.6. Real wage growth is projected to pick up, helped by improving productivity growth



Note: Labour productivity growth is the average annual growth rate of output per person employed. Real wage growth is calculated from nominal wage growth and the GDP deflator. 2018-2019 are projections.

Source: OECD Economic Outlook 103 database.

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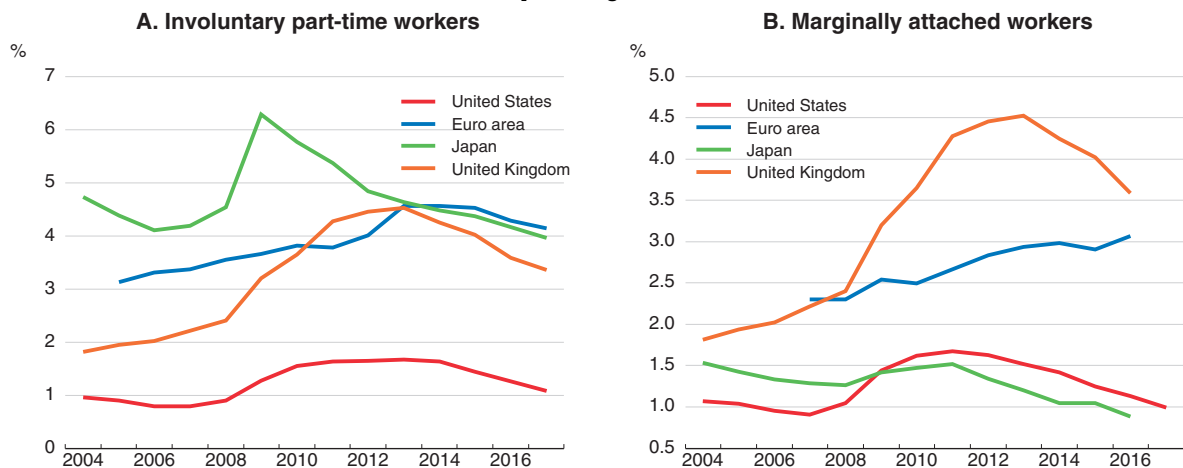
Wage growth nevertheless remains softer than might be anticipated given the decline in unemployment and growing signs of skill shortages. This suggests that conventional headline measures of unemployment may understate the extent of current cyclical slack in OECD labour markets, with scope remaining in some economies to further strengthen labour demand without giving rise to substantial wage pressures.

Margins of slack differ across the major economies, but include comparatively-high involuntary part-time work rates in some countries and a sizeable number of people only marginally attached to the labour market but who are available for work. Such factors appear relatively important in Europe, but less so in the United States and Japan (Figure 1.7). There are also marked differences across countries in the activity rates of different age groups (Figure 1.8). Participation rates are generally rising in most countries, particularly for older workers, adding to available supply, with the United States a notable exception. In part, improvements in participation rates reflect the cumulative impact of past labour market reforms to boost job creation, reduce pathways to early retirement, and lower barriers to female labour force participation. Inflows of asylum seekers are also providing a modest boost to labour force growth in some European countries. Diminished labour force participation of prime-age workers (in the 25-54 age group) in the United States is associated in part with an increased incidence of poor health and disability, including high opioid prescriptions (CEA, 2018). Renewed efforts to implement structural reforms to boost skills, job availability and foster additional labour force participation are required in all countries to improve labour market opportunities and help sustain the present expansion.

The improvement in job growth and incomes remains uneven. The employment rates of older workers (aged 55 and above) have risen sharply in recent years, but prime-age and youth employment rates are only at, or still below, pre-crisis levels in many countries. Many households have seen little growth in real disposable incomes over the past decade, particularly those with low incomes (Figure 1.9). Soft wage growth is also contributing to popular dissatisfaction with economic performance.

Figure 1.7. **There are high numbers of involuntary part-time and marginally attached workers in some countries**

As a percentage of labour force



Note: Involuntary part-time workers are people working less than 30-usual hours per week because they could not find a full-time job. Marginally attached workers are persons aged 15 and over, neither employed or in the labour force, nor actively looking for work, but who are willing to work and available to take a job. Additionally, when this applies, they have looked for work during the past 12 months.

Source: OECD Labour Market Statistics; Eurostat; Bureau of Labour Statistics; Statistics Bureau of Japan; and OECD calculations.


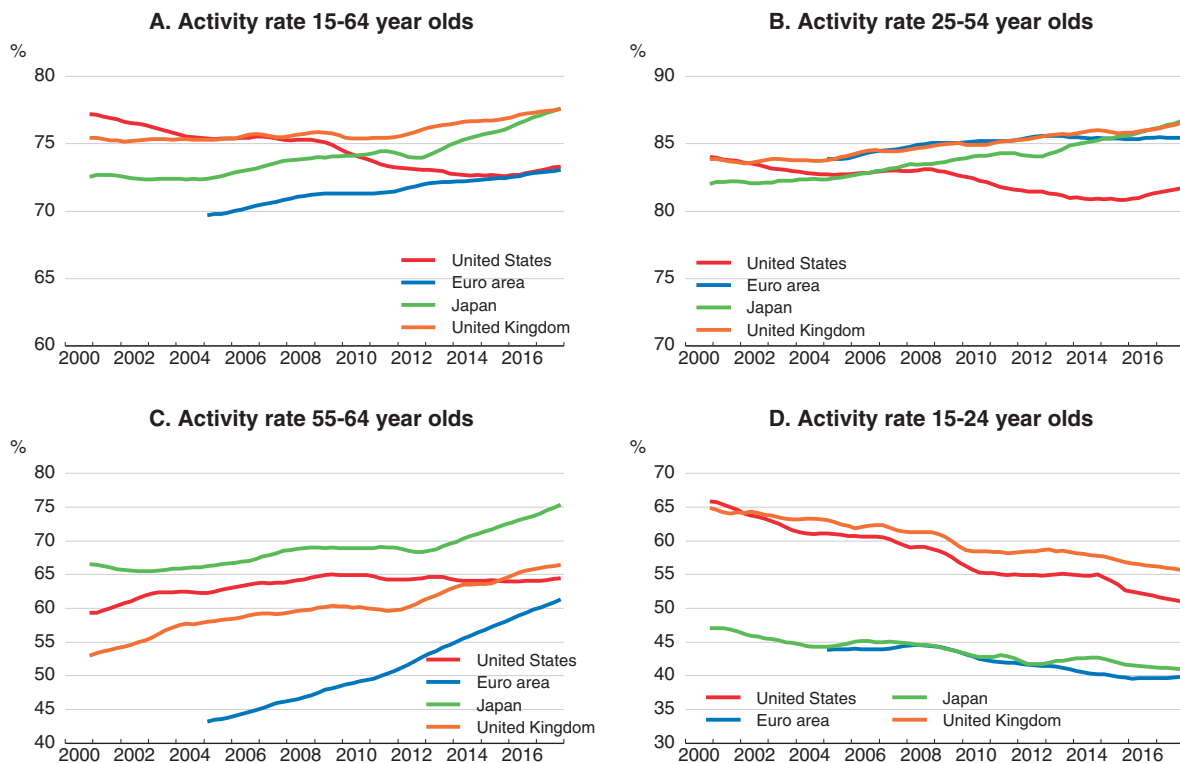
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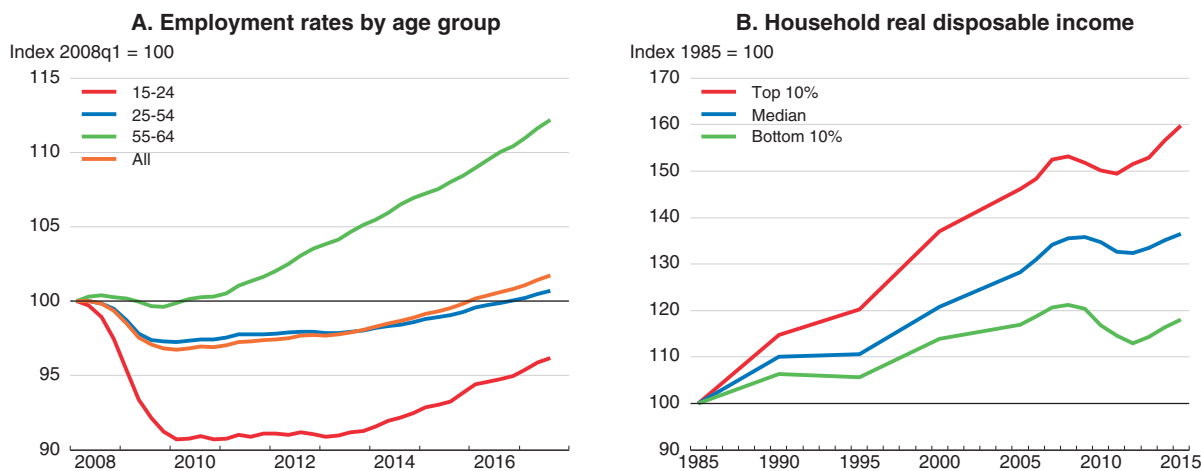
Figure 1.8. **Substantial differences remain in activity rates across countries**
In per cent of the working age population in each age group; four-quarter moving average



Source: OECD Short-Term Labour Market Statistics; and OECD calculations.

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Figure 1.9. **Income and employment gains remain uneven in the OECD**



Note: The OECD employment rate of each age group is the ratio of the number of employed people to the working age population in the age group. The income series are averages of the 17 OECD member countries for which data are available over the full period.

Source: OECD Short-Term Labour Market Statistics; OECD Income Distribution database; and OECD calculations.

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Key issues and risks

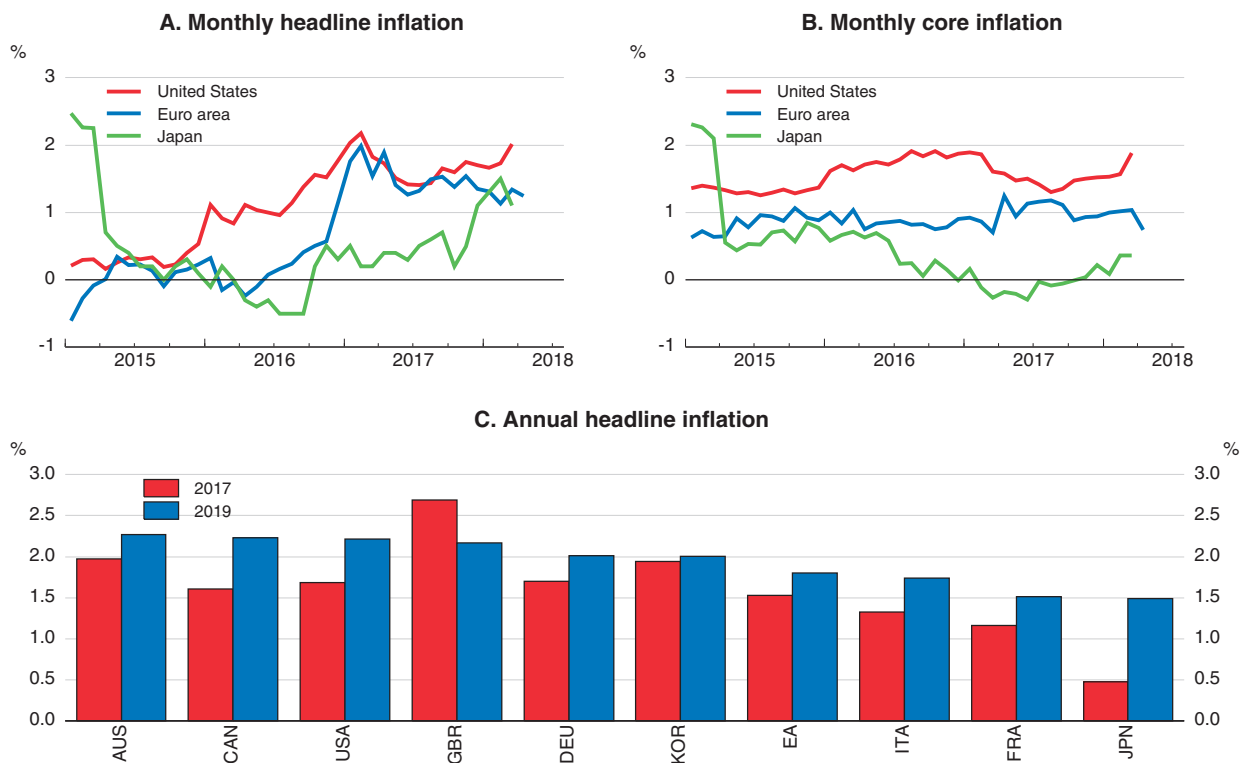
Will inflation pick up?

Higher commodity prices have already pushed up headline inflation in many advanced economies, including in the euro area, Japan and the United States. At the same time, underlying inflation remains mild, in part due to the slow pace of the recovery from the crisis (Figure 1.10). Inflation also generally remains modest in EMEs. However, past currency declines and stronger commodity prices are currently adding to inflation pressures in some countries, including Argentina, Mexico and Turkey (Figure 1.11).

Inflation expectations, including by companies, have ticked up in the euro area and the United States (Figure 1.12). This, together with higher oil prices and slightly higher labour costs (see above), will boost consumer price inflation to just above the inflation target in the United States but still leave it below objectives in the euro area and Japan (Figure 1.10). In view of the experience of the past few years, diminishing economic slack

Figure 1.10. **Inflation is projected to approach, or slightly exceed, inflation objectives in the main OECD areas**

Year-on-year percentage changes



Note: Headline and core inflation are measured by the harmonised consumer price index for the euro area, the euro area countries and the United Kingdom; the national headline consumer price series for Canada and Japan; and the personal consumption deflator for the United States. Core inflation excludes prices of food and energy, including in Japan. In Japan, headline and core inflation in 2019 are affected by the expected increase in the consumption tax rate.

Source: OECD Economic Outlook 103 database; OECD Main Economic Indicators database; and OECD calculations.


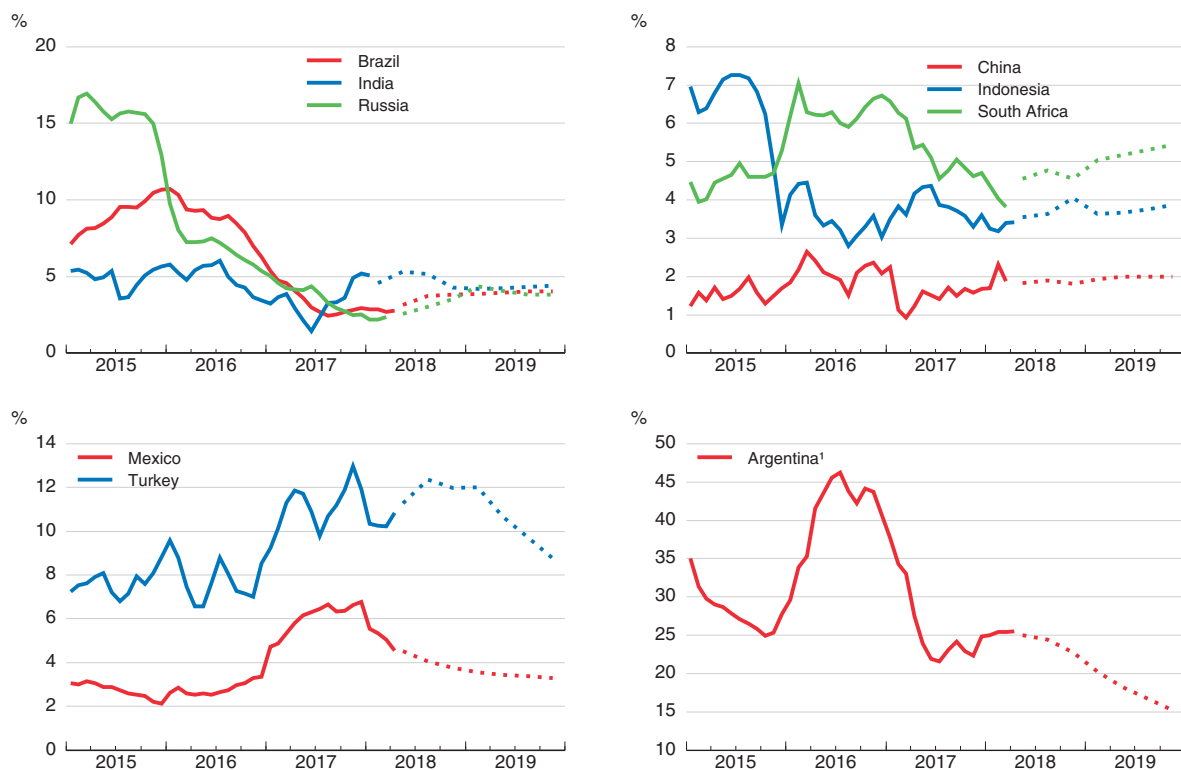
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Figure 1.11. **Inflation remains modest in some large emerging market economies**

Year-on-year percentage changes



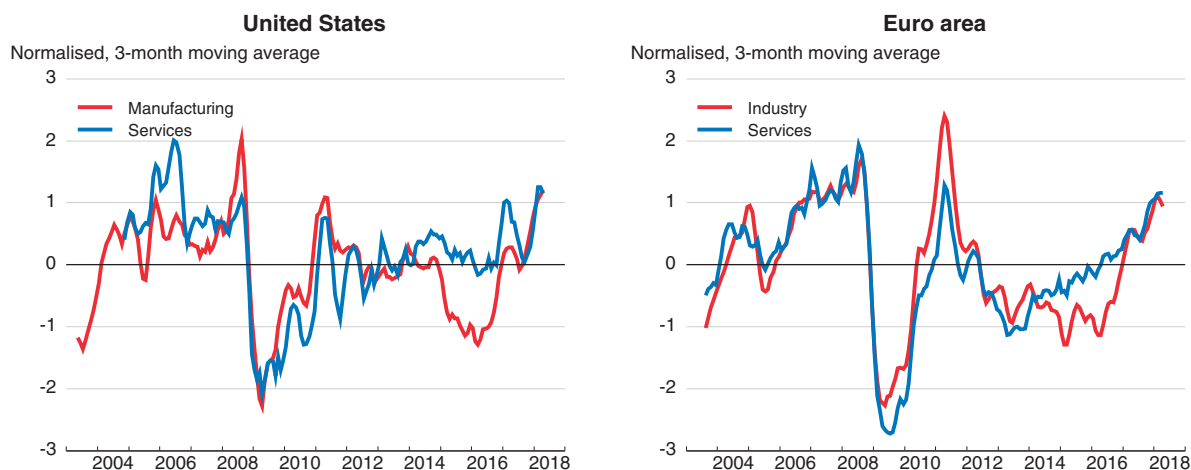
Note: Historic data are at monthly frequency, projections are at quarterly frequency.

1. Based on unofficial data until March 2017 (Congressional Inflation Index). Coverage is for the Greater Buenos Aires area until November 2017, nationwide thereafter.

Source: OECD Economic Outlook 103 database; OECD Main Economic Indicators database; and OECD calculations.

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Figure 1.12. **Corporate expectations of selling prices have strengthened**



Note: The percent balance of the number of firms reporting expectations of higher prices compared with the number of firms reporting expectations of lower prices. Normalised values over the period 2003-2018, expressed in standard deviations.

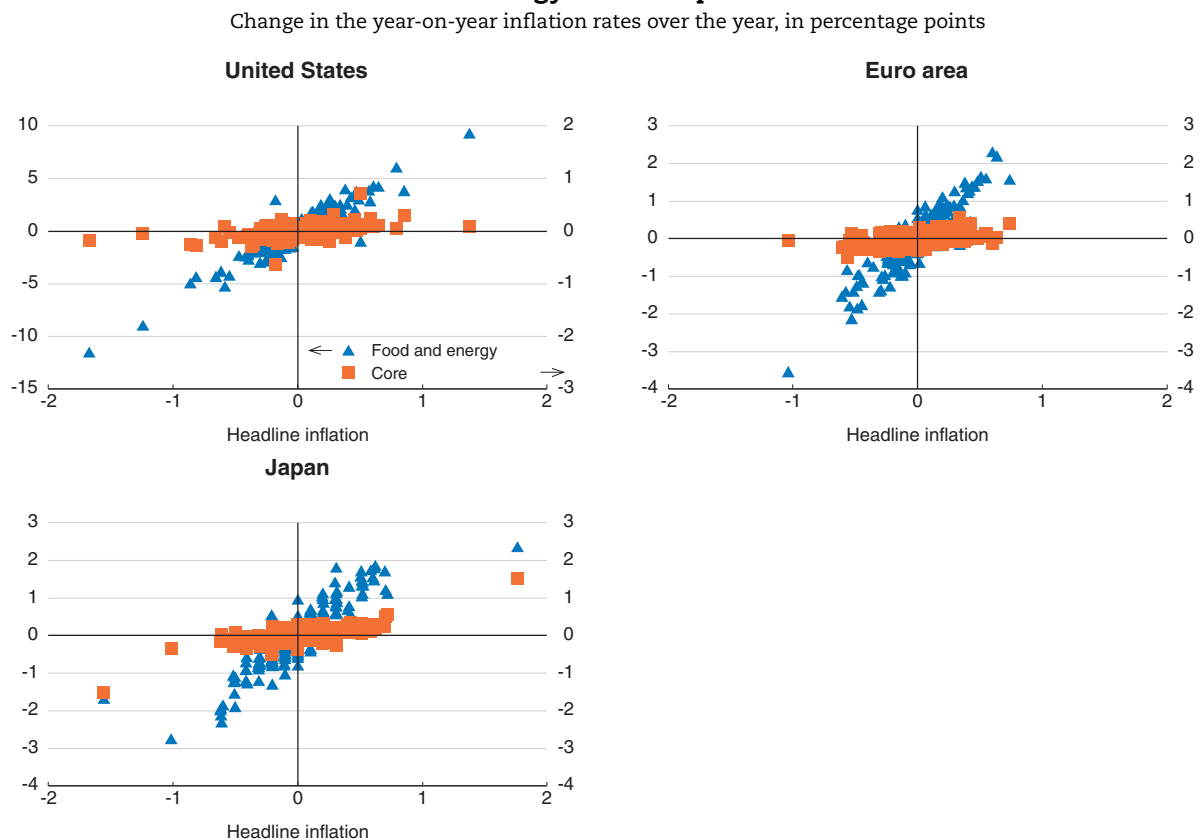
Source: US Federal Reserve; European Commission; and OECD calculations.

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may not lead to significantly higher inflation immediately. Indeed, the link between inflation and economic slack seems weak in most advanced economies.³


Upside risks to inflation, at least in the short run, stem from a possible larger increase in commodity prices, particularly oil. Risks will be especially high if geopolitical concerns persist or escalate. In recent weeks these concerns have already helped to push oil prices up by more than 10% relative to the level of USD 70 per barrel assumed in the baseline projection (see above). Historically, big changes in energy and food prices have driven the largest swings in inflation in recent decades (Figure 1.13; Choi et al., 2017). Moreover, with

Figure 1.13. **Large changes in inflation rates have frequently been driven by big changes in energy and food prices**



Note: Horizontal axes show the change in the annual headline inflation rate over the 12-month period using monthly series between 2002 and early 2018. Vertical axes show the equivalent changes for core inflation and food and energy price inflation, respectively. Core inflation excludes prices of energy and food, and in Japan it differs from the domestic definition.

Source: Ministry of Internal Affairs and Communications, Japan; Bureau of Economic Analysis; Eurostat; and OECD calculations.

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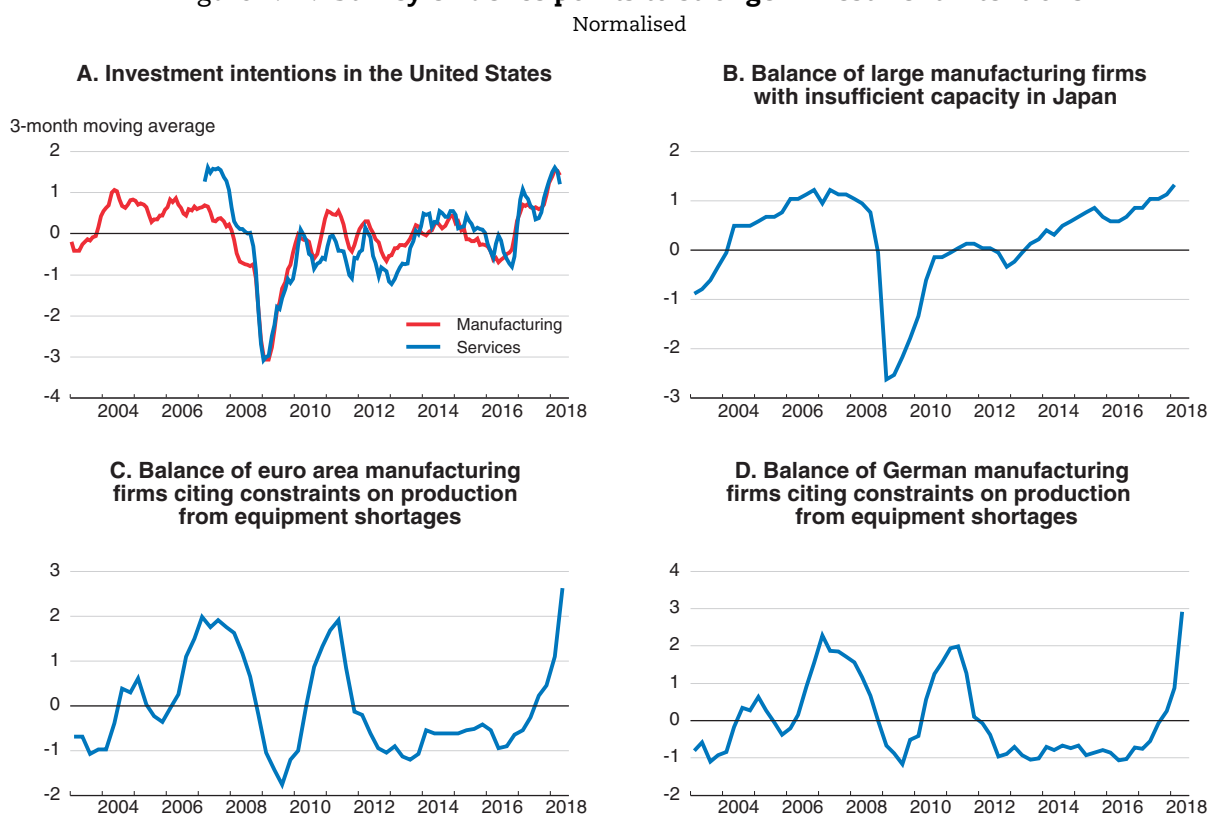
- Standard empirical frameworks (the so-called Phillips curve models), that are used to assess inflation, do not always have a very good explanatory power and are not very robust (Stock and Watson, 2010). Across advanced economies the Phillips curve flattened from the mid-1970s to the early 1990s and has stabilised since then (IMF, 2013a; Rusticelli, 2014; Rusticelli et al., 2015; Blanchard et al., 2015). However, there is some recent evidence suggesting a modest steepening of the Phillips curve in the euro area (Giannone et al., 2014; Riggi and Venditti, 2015; Ciccarelli and Osbat, 2017). Also, the relationship between nominal wage growth and unemployment appears to be strengthening in some European countries (Bulligan and Viviano, 2017). In the United States, this relationship is expected to strengthen with the recovery, as its recent weakness is judged to be driven primarily by cyclical factors (Leduc and Wilson, 2017).

signs of narrowing spare capacity, the pass-through of rising energy and food prices to overall inflation may be relatively strong, also affecting non-energy and non-food prices. In EMEs, especially the vulnerable ones (see below), inflation is likely to be higher if the recent depreciation of domestic currencies persists.⁴

Investment growth has recovered but remains softer than in past expansions


Investment growth picked up in most economies during 2017, helped by stronger domestic and global demand and fading financial constraints. Capital goods production has strengthened over the past year and corporate surveys point to improved investment intentions in many large economies (Figure 1.14), although concerns about trade protectionism have begun to adversely affect confidence in some.⁵ However, the upturn remains weaker than seen in past cyclical expansions, and the growth of the productive net capital stock remains below the pre-crisis pace (OECD, 2017a). This is a key factor limiting prospects for productivity and potential output growth in the medium term.

Figure 1.14. **Survey evidence points to stronger investment intentions**



Note: Normalised values over the period 2000-2018, expressed in standard deviations.

Source: Bank of Japan; European Commission; US Federal Reserve; and OECD calculations.

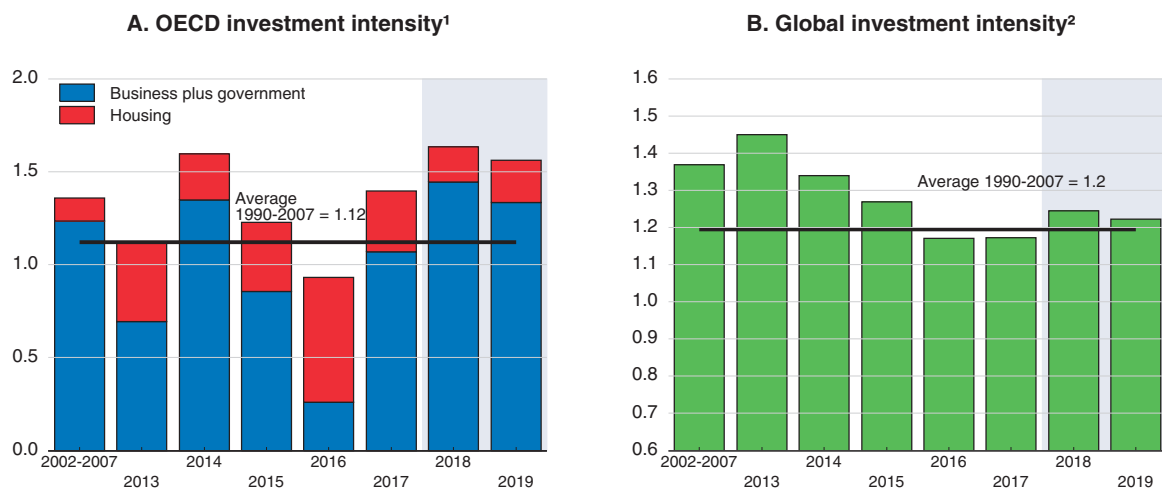
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4. Inflation projections are based on fixed exchange rates as of 26 April (Annex A.1), and thus do not necessarily take full account of the recent depreciation of currencies in many EMEs.
5. Uncertainty created by ongoing restrictive trade policy announcements could hold back business investment if firms have the option of postponing investment spending, both in the countries imposing barriers and elsewhere (Handley and Limão, 2015).

The pace of business investment growth in the advanced economies is projected to average between $3\frac{1}{2}$ and $3\frac{3}{4}$ per cent per annum over 2018-19. Business investment is projected to be particularly robust in the United States, rising by $5\frac{1}{2}$ per cent per annum on average in 2018-19, helped by the impact of the tax reforms and favourable financial conditions. Continued strong investment growth is also projected in many Central and Eastern European economies. Nonetheless, in the median OECD economy, gross fixed investment spending in 2018-19 is projected to be around 12% below the level required to ensure the productive net capital stock rises at the same average annual pace as in the decade prior to the crisis. This reflects the rise in the depreciation rate of capital over time (OECD, 2017a). Strong investment is expected in a number of EMEs, especially India, Indonesia and Turkey, but overall global investment intensity (including China) is projected to be only marginally above longer-term averages (Figure 1.15).

Potential obstacles to a sustained recovery include diminished long-term growth expectations, a lack of business dynamism in some economies, and uncertainty, including about global trade policy. Resources trapped in unproductive firms (Andrews et al., 2017), and the slowdown in reform efforts to tackle regulations that impede product market competition (OECD, 2018b) have also held back incentives to invest. Corporate hurdle rates for investment also remain well above the cost of capital, and have been high and relatively sticky over time despite underlying fluctuations in the cost of finance (OECD, 2017a). Consequently, the average pre-tax rate of return on capital assets has stabilised or even recovered in some countries since the crisis (Figure 1.16; Weale, 2015). This suggests that firms are not undertaking all the marginal, but profitable investments that low interest rates should encourage. At the same time, the numbers and value of corporate mergers and acquisitions are high, particularly in the United States, with resources being used to purchase existing capital assets from other companies, rather than to add to the aggregate capital stock.

Figure 1.15. **Global investment intensity has picked up**



Note: Ratio of average annual investment growth to average annual GDP growth in the period shown.

1. Ratio of OECD investment growth to OECD GDP growth in period shown.

2. Fixed capital investment and GDP growth in the OECD, Brazil, China, Chinese Taipei, Hong Kong - China, India, Indonesia, Malaysia, the Philippines, Russia, Singapore, South Africa, Thailand and Vietnam, at constant prices.

Source: OECD Economic Outlook 103 database; IMF World Economic Outlook database; Consensus Economics; and OECD calculations.


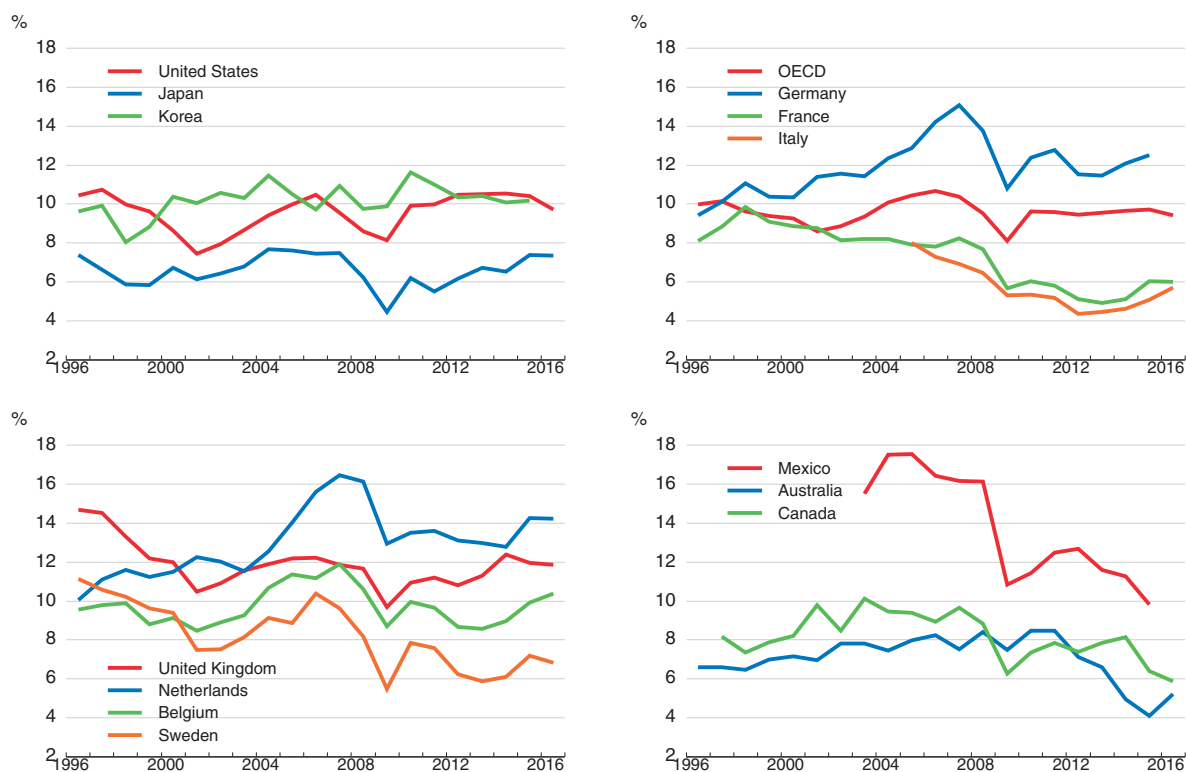

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Figure 1.16. **The rate of return on fixed assets remains high in some countries**

Note: The return on capital is calculated as the net operating surplus relative to net fixed assets in all countries apart from Canada, Australia and Mexico where it is the net operating surplus relative to net non-financial assets. Non-financial assets include the value of natural resources. The OECD series is a PPP-weighted average of the rate of return on net fixed assets in 18 OECD countries.
 Source: OECD Annual National Accounts; and OECD calculations.

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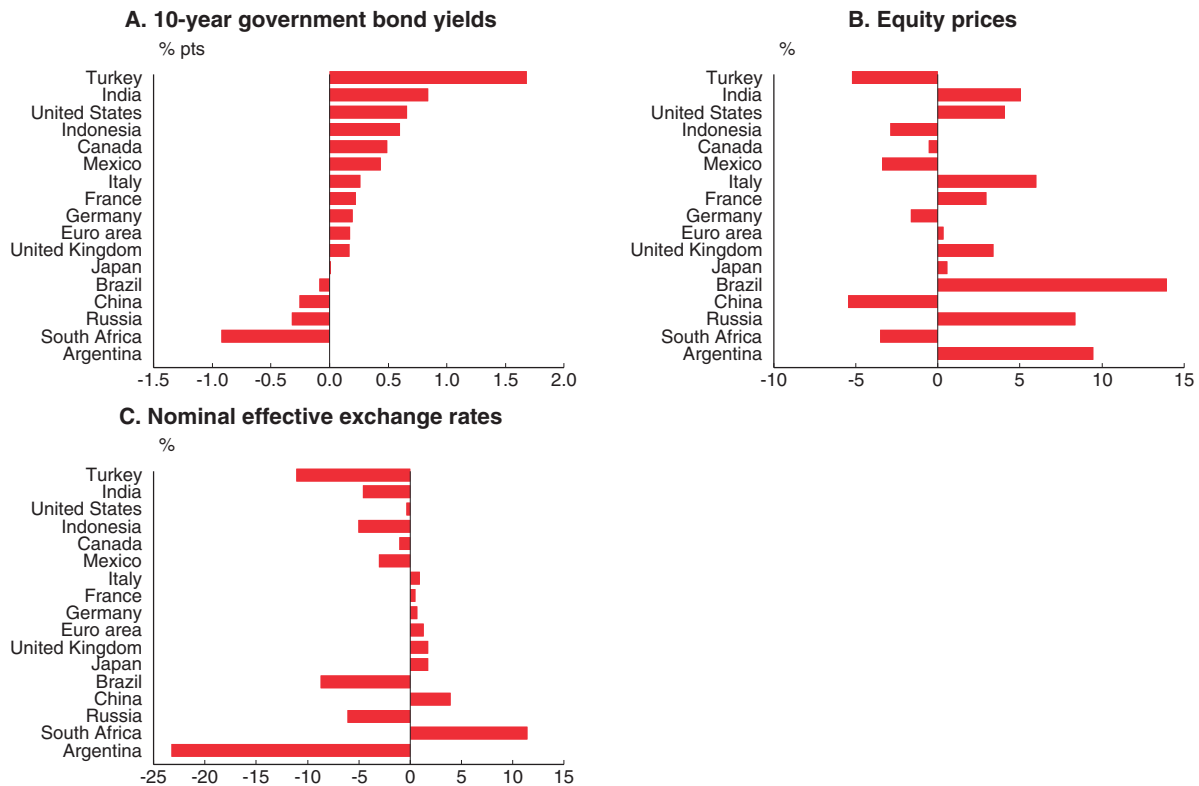
Higher interest rates could lead to tensions and expose financial vulnerabilities

Financial conditions remain supportive for growth but have tightened in many major countries since November 2017, when the last OECD *Economic Outlook* was published. Higher long-term interest rates largely reflect a stronger economic outlook than markets had previously expected, and the associated expectations of somewhat higher inflation and less accommodative monetary policy (Figure 1.17). Equity prices in the major economies have declined from their recent elevated peaks and stock market volatility has picked up from the unusually low levels seen last year, which should help to reduce excessive risk-taking (Figure 1.18). Credit markets have, however, largely been calm and corporate and EMEs' bond spreads generally remain low, even if they have started to rise recently (Figure 1.18).

To the extent that recent developments reflect a necessary adjustment in bond yields due to expectations of less accommodative monetary policy, the direct impact on growth may be modest. However, significant vulnerabilities remain, with implications for growth prospects. The prolonged period of low interest rates and volatility has encouraged borrowing by corporations and households in some countries, with highly leveraged positions making them vulnerable to higher borrowing costs, especially where borrowing has taken place at variable interest rates. It has also prompted greater risk-taking, making


Figure 1.17. **Financial conditions have tightened in many large economies**

Changes between the November 2017 average and the May 2018 average



Note: A 10-year government bond yield is not available for Argentina. An increase in the nominal effective exchange rate implies its appreciation.

Source: OECD Exchange rate database; Thomson Reuters; and OECD calculations.

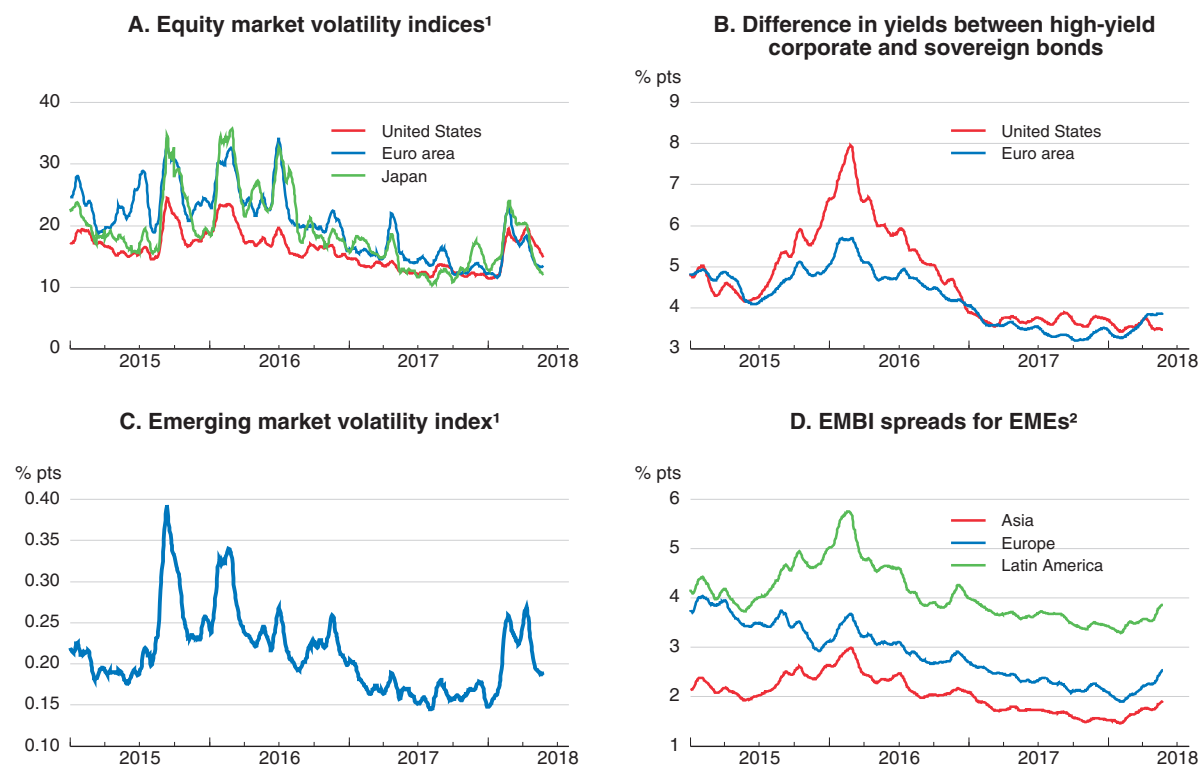
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the global financial system more exposed to shifts in market sentiment as monetary policy normalises, as evident in the widespread stock market correction in early 2018 (OECD, 2017b).⁶ New tensions are particularly likely in the event of an upside inflation surprise, which could prompt markets to expect abrupt increases in policy rates. More generally, further corrections in asset prices remain possible as monetary policy normalises, given still-high valuations in some markets (including equity markets in the United States; housing markets in Australia, Canada, New Zealand, Norway and Sweden; and corporate bonds), and market-based expectations of US policy rates that are still below the likely path communicated by the US Federal Reserve.

Financial stability concerns also arise from still-low credit risk spreads, and high private and public debt. Debt in many countries and sectors remains above pre-crisis levels (Figures 1.19 and 1.28). Moreover, in recent years, bond issuance by the private sector has been high and the quality of covenants that protect the interest of holders of non-investment-grade bonds, including in the United States, has declined. High

6. The equity price correction and the spike in volatility were amplified by risk management practices based on value-at-risk or volatility control strategies and to the termination clauses on volatility-driven investment products that permitted underwriters to liquidate the product in event of extreme volatility.

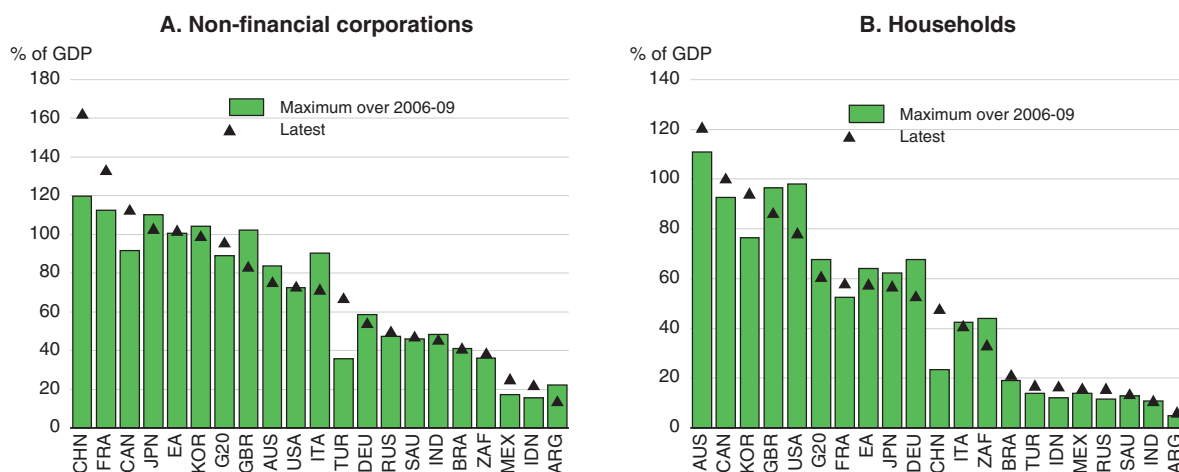
Figure 1.18. **Risk-taking in financial markets has abated somewhat**
15-day moving average



1. The equity market volatility indices measure an expected symmetric range of movements derived from options in the main equity indices over next 30 days for advanced economies and the iShares MSCI Emerging Markets Index for emerging market economies (EMEs).
2. EMBI stands for J.P. Morgan Emerging Market Bond Index, which measures the yield spread between EMEs' government bonds denominated in US dollars and US Treasuries.
Source: Thomson Reuters; and OECD calculations.

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Figure 1.19. **Private sector credit liabilities remain high in many large economies**



Note: Credit liabilities are on a non-consolidated basis.
Source: Bank for International Settlements.

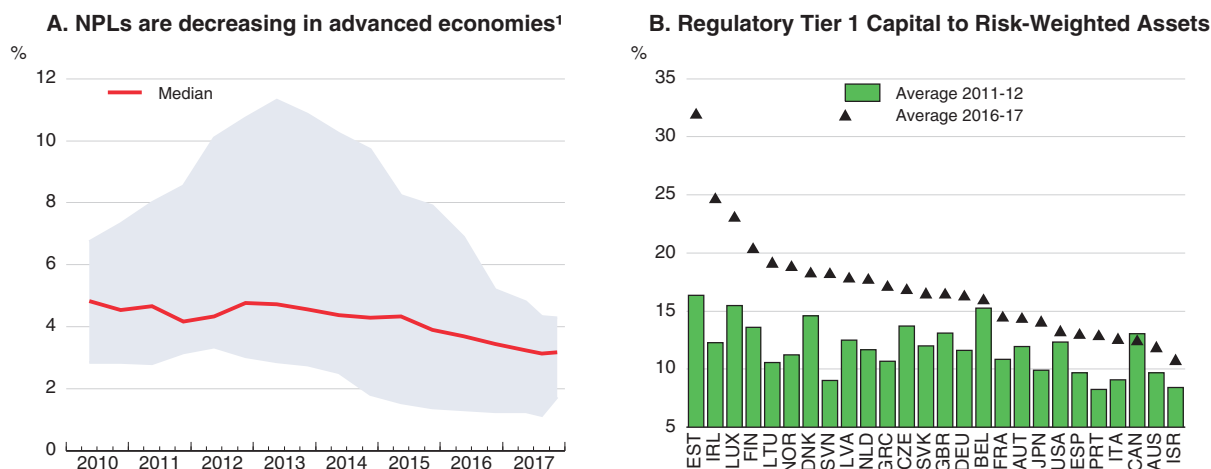
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indebtedness could amplify the impact of any further correction in asset prices and bond yields, with a risk of rising defaults, higher debt-service burdens and a retrenchment in private sector spending.

Since the global financial crisis, stricter prudential regulation, such as higher capital requirements, and a general improvement in credit quality have strengthened the ability of banks to withstand adverse shocks. In advanced economies, non-performing loans are on a downward trend, especially in those countries (such as Italy and Ireland) that were severely hit by asset losses in the aftermath of the global financial crisis, but remain relatively high (Figure 1.20). However, during the past decade, credit provision has expanded in the shadow bank system and in bond markets, shifting risks from the banking system to other financial institutions and credit intermediaries (OECD, 2017b). This raises risks, as the ability of non-bank financial intermediaries, notably investment funds and rapidly-expanding exchange-traded funds, to absorb shocks is untested.


In EMEs, vulnerabilities also arise from a possible abrupt deterioration of investor confidence, resulting in the weakening of domestic currencies and asset prices. Some EMEs, in particular Argentina and Turkey, have already experienced sizeable currency depreciations and rising interest rates in recent weeks, but a widespread market correction in EMEs similar to the taper tantrum in 2013 or at the beginning of 2016 has been avoided so far. Many EMEs are now less vulnerable than in the late 1990s. This reflects lower foreign debt, better domestic macroeconomic fundamentals (including lower inflation and public debt and budget balances), better institutions, more flexible exchange rate arrangements and higher foreign exchange reserves. Nevertheless, a few EMEs with large government budget and current account deficits, small foreign currency reserves and a large share of foreign currency-denominated debt remain exposed to

Figure 1.20. **Banks in advanced economies are stronger**



1. Gross non-performing loans (NPLs) to total gross loans. The red line shows the median, the shadow the bottom and top 25th percentile for a set of advanced economies. A few countries are excluded at the beginning and the end of the sample due to missing data. Advanced economies include Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Estonia, France, Greece, Ireland, Italy, Lithuania, the Netherlands, Norway, Portugal, Slovenia, Spain, the United Kingdom and the United States.

Source: IMF Financial Soundness Indicators database; and OECD calculations.

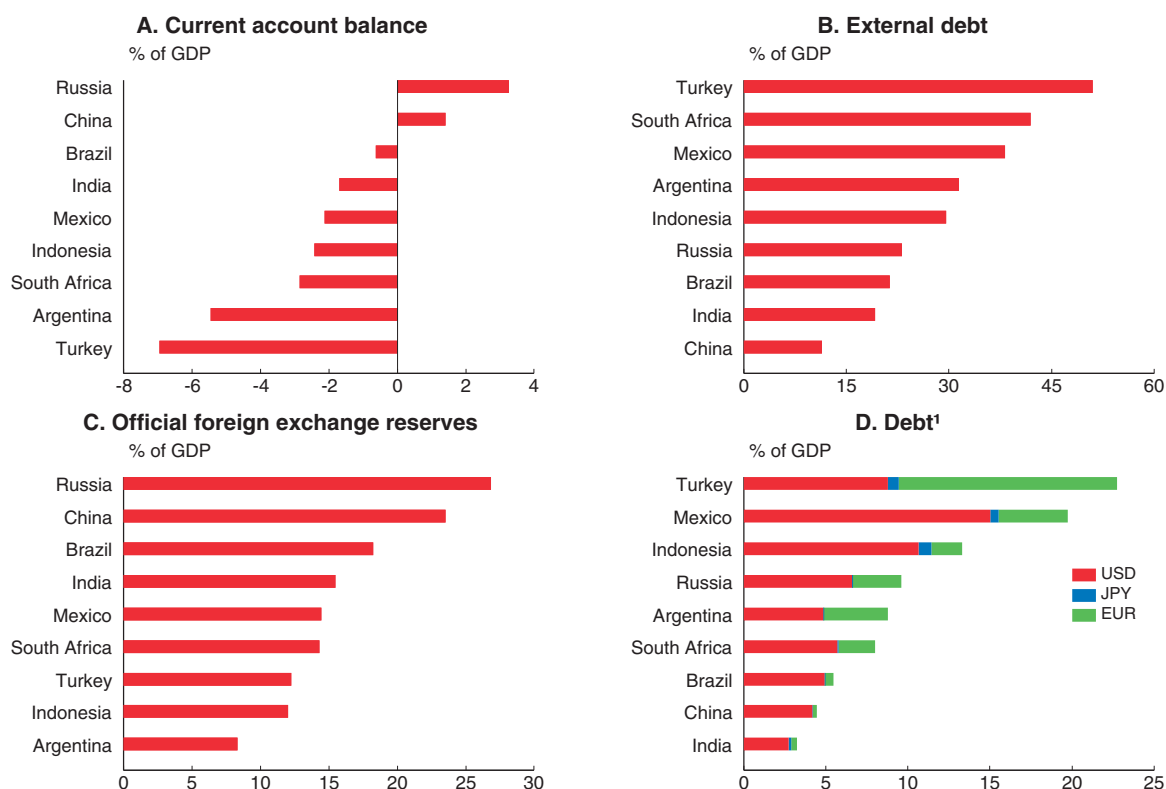
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sudden changes in market sentiment (Figures 1.19 and 1.21). Moreover, the rapid increase in private debt in several EMEs over the past decade, particularly in China for non-financial corporations, poses risks to financial stability and adds to the overall vulnerabilities of EMEs (Figure 1.19).

Financial stability concerns also persist in China and some other East Asian economies, as rapid property price growth has coincided with a pick-up in property developers' borrowing. Recently, larger property developers have started to shift away from traditional bank loans to debt securities, often in foreign currency.⁷ In China, developers will face mounting refinancing needs until 2020 (Figure 1.22). This, alongside new stricter lending rules, might hamper a quick switch-back to bank credit, and exposes the Chinese real estate sector to significant rollover and liquidity risks. Chinese real estate developers also face exchange rate risk, as a significant share of maturing debt securities are in foreign currency, and currency hedging appears to be relatively uncommon in the industry.⁸

Figure 1.21. **Some emerging market economies are vulnerable to external shocks**

Latest available



1. Debt of non-bank borrowers in the form of bank loans and debt securities denominated in foreign currencies.

Source: Bank for International Settlements Global Liquidity Indicators database; OECD Economic Outlook 103 database; OECD Resilience database; and OECD calculations.

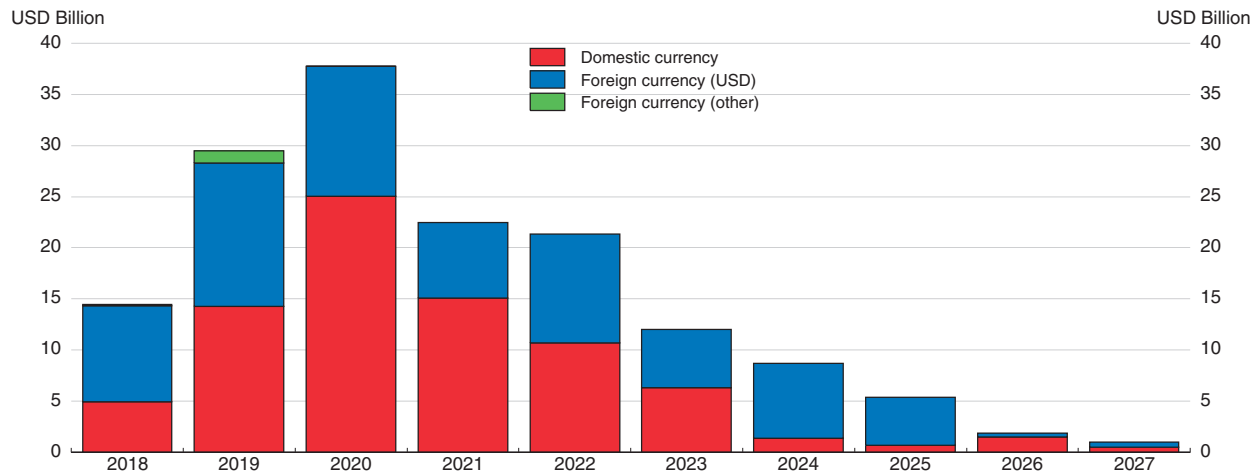
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7. The share of debt securities in property developers' debt in 2016 was 20% in Singapore, 30% in Hong Kong and Indonesia, 40% in mainland China and close to 50% in Thailand (Chui et al., 2018).


8. Only 12 of the 34 Hong-Kong-listed Chinese real estate companies that had issued foreign currency-denominated bonds over the past few decades reported hedging their exposures (Chui et al., 2018).

Figure 1.22. **Risks for Chinese property developers are mounting**

Debt maturity schedule



Source: Chui et al. (2018), "Mortgages, developers and property prices", *BIS Quarterly Review*, March.

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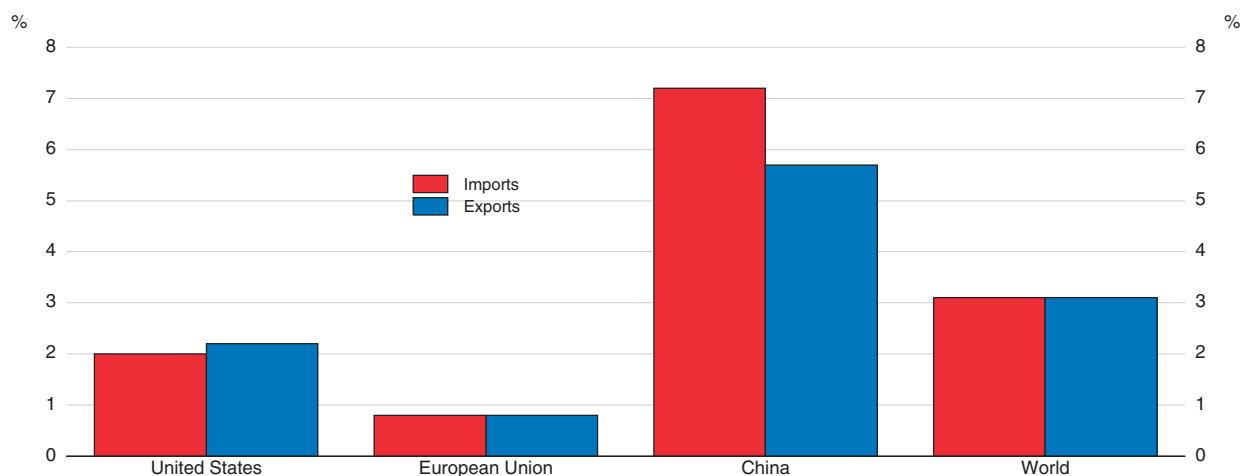
Trade policy is becoming more uncertain

The announcement of new restrictive trade policy measures has already begun to adversely affect business sentiment in some countries (Bank of Canada, 2018). Following a framework agreement between China and the United States in mid-May, whereby China agreed to import more energy and farm products from the United States, restrictive trade policy measures announced earlier by both countries have been put "on hold" while a more comprehensive agreement is negotiated. Nevertheless, the explicit threat of implementing restrictive measures remains, should either of the parties become dissatisfied with this arrangement. Implementation of the previously announced measures could increase the total trade costs of China and the United States by around 0.7% and 0.5% respectively. This could have significant sectoral and local consequences, and add to the effects of additional restrictions on steel and aluminium imports in the United States, but the macroeconomic consequences would be muted. Nonetheless, the likely increase in trade costs would adversely impact living standards for consumers and add to production costs for businesses. Any steps to further raise tariff barriers or add to non-tariff barriers would also raise the prices of traded products, lower the quantity traded, or both (OECD, 2018a).⁹

Enhanced trade integration, including the large expansion of global value chains (GVCs), implies that steps to further liberalise international trade could offer benefits to many countries, even ones in which tariff barriers to trade are relatively low (see Chapter 2). In a hypothetical scenario in which tariffs in each sector are reduced to the lowest level applied across G20 economies (equivalent to a weighted average reduction in costs of 2% for all economies), global trade would expand by more than 3% in the medium term, based on estimates from the OECD METRO model (Figure 1.23). China would see the largest rise in trade, reflecting relatively higher initial tariffs, with imports rising more


9. In a stronger hypothetical scenario, with China, Europe and the United States each raising trade barriers against all partners on all goods (but not services) by 10 percentage points, global trade and output could decline by around 6% and 1½ per cent respectively in the medium term relative to baseline (OECD, 2016). The regions imposing trade restrictions would suffer the biggest loss in this scenario, but there would be negative spillovers for the rest of the world as well.

Figure 1.23. **The benefits to trade from multilateral tariff reductions**
Percentage difference



Note: Effects of a reduction in tariff levels in the G20 economies to the lowest level applied across them for each sector. Simulation results are from the OECD METRO model, a global computable general equilibrium model of trade with a high degree of sectoral disaggregation OECD (2015), METRO v1 Model Documentation, TAD/TC/WP(2014)24/FINAL.

Source: OECD calculations.

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strongly than exports. Beyond tariffs, policy levers with even more potential to boost trade and incomes are actions to reduce the trade costs of non-tariff measures and barriers to services trade. Such reforms would help to strengthen competition and lead to productivity and income gains in the economies concerned, both in the sectors being liberalised and in downstream sectors in local and global value chains.

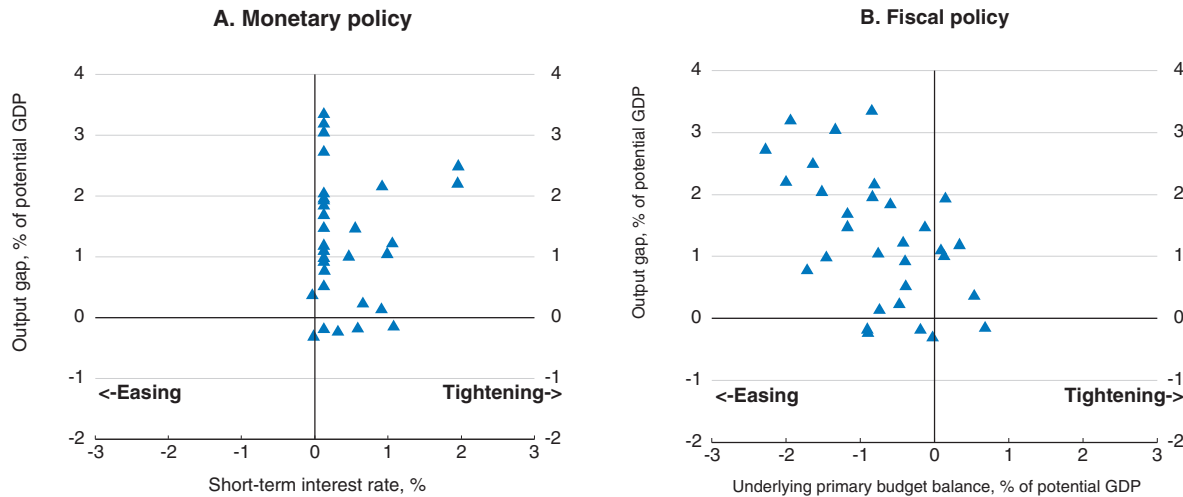
More generally, countries should seek to strengthen efforts to increase international trade and their participation in GVCs, as this remains an important avenue to raise productivity and living standards, particularly for small countries (IMF, 2013b; OECD, 2013). This reinforces the case for undertaking further reforms to improve the skill mix of workers (see below). Cognitive skills, ICT skills, management and communication skills and readiness to learn are all correlated with both higher productivity and greater international integration across industries (Grundke et al., 2017a, 2017b).

Policy needs to focus on achieving a durable and inclusive improvement in living standards

Against the backdrop of the stronger global economy, the priorities for policy are to foster productivity, make growth more inclusive, and enhance resilience against possible risks, especially financial vulnerabilities. Monetary policy support can be eased gradually as economic slack is being used up and fiscal support strengthens (Figure 1.24). Fiscal policy choices should avoid excessive pro-cyclicality and be clearly focused on addressing structural challenges and ensuring that the benefits from growth are distributed more widely, with any margins from stronger growth used to build up fiscal buffers. Structural reform efforts should be revived, seizing the opportunity of the stronger economy to help secure a more robust recovery of productivity, investment and living standards. An active and timely deployment of prudential and supervisory policies would help avoid an intensification of the risks from financial vulnerabilities in both advanced and emerging market economies, including high debt in some countries and sectors.

Figure 1.24. **Monetary policy will tighten while fiscal policy will ease**

Change between 2017 and 2019, in percentage points



Note: OECD countries for which data are available. A positive change implies that the 2019 value is higher than the 2017 value. Changes in short-term interest rates are calculated based on fourth quarter averages.

Source: OECD Economic Outlook 103 database; and OECD calculations.

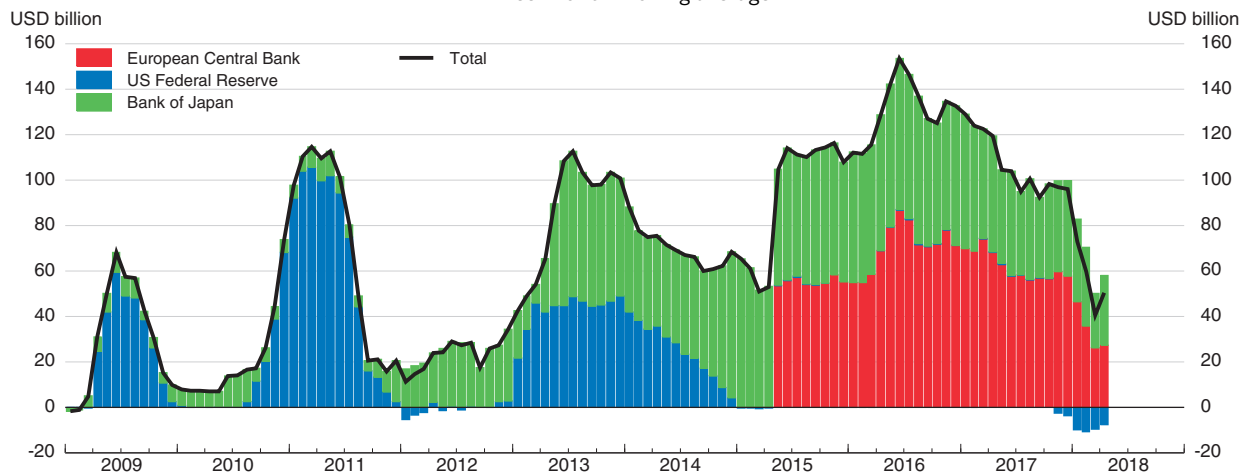
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Monetary policy stances are set to diverge

The normalisation of monetary policy in some advanced economies has so far been smooth. The rise in US policy interest rates has been well communicated in advance and, until recently, has not caused turbulence in financial markets. With the US dollar having recently begun to appreciate, consistent with widening interest rate differentials, financial market pressures for EMEs in particular have started to appear. However, the start of asset reduction by the US Federal Reserve has generally progressed smoothly and asset purchases by the ECB have slowed considerably (Figure 1.25).¹⁰

Figure 1.25. **Net purchases of government bonds by the main central banks have declined**

Three-month moving average



Note: For the US Federal Reserve and the Bank of Japan, net purchases are approximated by monthly changes in the stock of government bond holdings. Net asset purchases in the euro area and Japan are converted into US dollars using monthly exchange rates.

Source: Bank of Japan; European Central Bank; Federal Reserve Bank of New York; and OECD calculations.

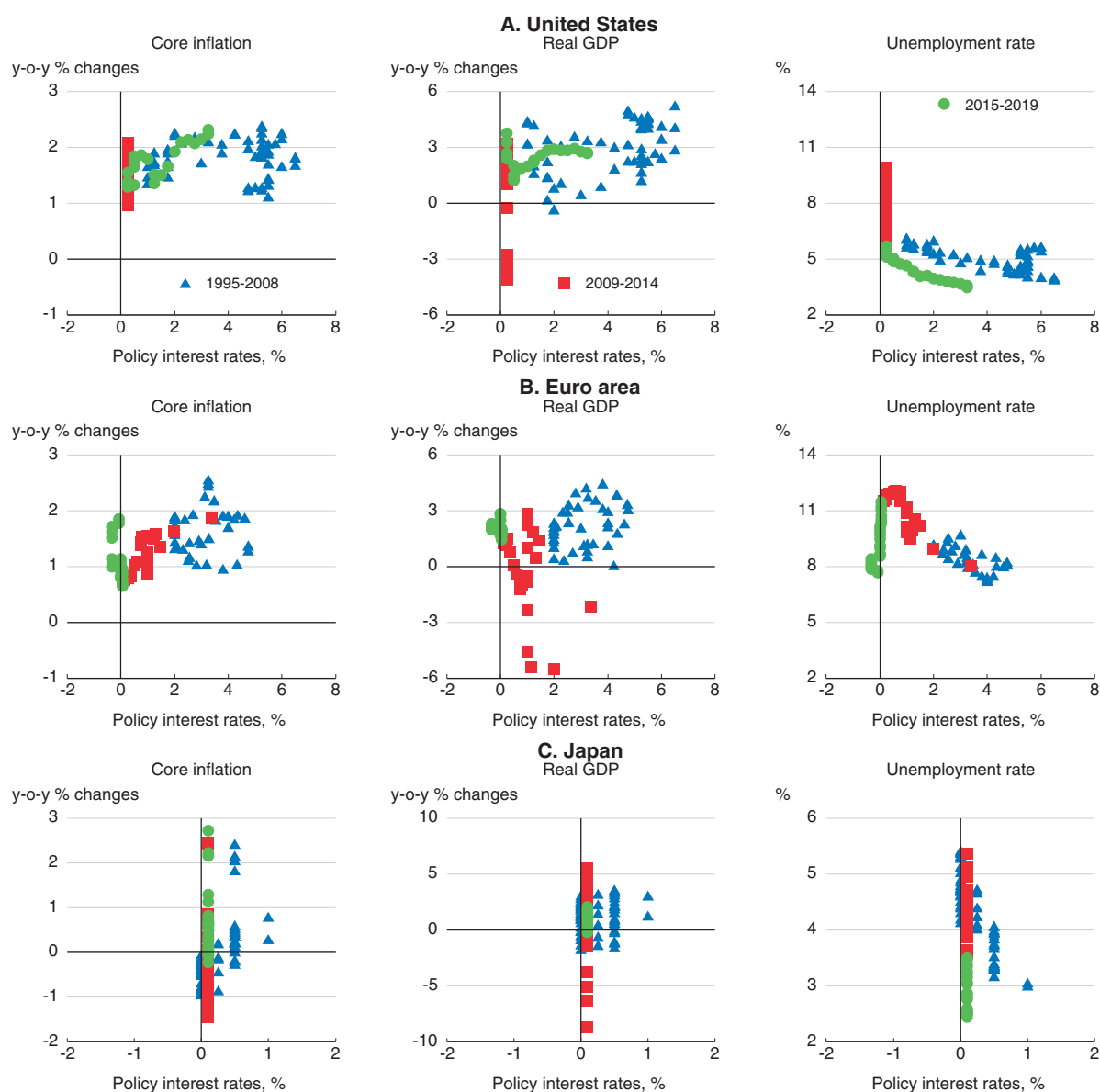
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10. Asset purchases have also declined in Japan, as fewer purchases were required in the context of the policy of controlling 10-year government bond yields.

A further gradual normalisation of monetary policy is needed in most of the major advanced economies, but to a varying degree, reflecting the different outlooks for growth and inflation. The monetary policy stance would remain very accommodative in the euro area and Japan (Figure 1.26).


- In the United States, the Federal Reserve should continue to increase policy rates gradually and progress with balance sheet reduction, especially given stronger growth and inflation due to the fiscal stimulus in both 2018 and 2019, bringing the upper bound of the target range of the federal funds rate to 3¼ per cent by the end of 2019.

Figure 1.26. **Monetary policy is expected to remain very accommodative in the euro area and Japan**



Note: Core inflation excludes food and energy prices, including in Japan. In Japan, headline and core inflation in 2014 and 2019 are affected by the realised and expected increase in the consumption tax rate.

Source: OECD Economic Outlook 103 database; Thomson Reuters; and OECD calculations.

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- In the euro area, an upturn in actual and expected inflation would allow the ECB to cease asset purchases, possibly by the end of 2018, and subsequently start phasing out the negative interest rate policy in the second half of 2019.
- In Japan, where underlying inflation and inflation expectations remain low, current stimulus measures need to be continued to help achieve the inflation target. However, a rethinking of the monetary policy strategy would be needed if the inflation target is not met for a prolonged period and if the control of long-term yields comes under pressure.

In most economies, moderately higher-than-expected inflation should not merit an abrupt increase in policy rates, even if there is a mild overshooting of medium-term objectives. In this context, continued clear communication about the path towards monetary policy normalisation is essential to minimise financial market disruptions.

The prolonged undershooting of inflation targets, despite massive monetary policy stimulus and stronger economic growth and lower unemployment, raises issues about the appropriateness of current inflation targeting frameworks. Several alternative approaches are possible (Box 1.2). While none of them is without drawbacks, and it is not clear if they would provide substantial improvements from those used at present, periodic reviews of the frameworks would be useful.

Box 1.2. **Modifications of, and alternatives to, current inflation targeting frameworks**

Monetary policy frameworks of central banks in advanced economies, although differing in detail and implementation, are principally based on medium-term inflation targets of 2%. In the context of the prolonged undershooting of inflation and low economic growth in recent years, despite the extraordinarily easy monetary policy stance, various modifications of, and alternatives to, inflation targeting frameworks have been advocated to make monetary policy more effective and credible. This box briefly discusses pros and cons of some of these propositions, highlighting their robustness to different assumptions about expectations formation and the transmission mechanisms of monetary policy.

Raising the inflation target

Raising the inflation target has been suggested as a way to increase inflation by boosting inflation expectations and in turn inflation outcomes (Blanchard et al., 2010; Ball, 2014; Baker et al., 2017). This recommendation is based on theoretical models with credible monetary policy, where forward-looking inflation expectations are the key determinant of inflation.

Higher inflation targets, if effective in raising actual inflation, are estimated to lower the probability of hitting an effective zero lower bound (ZLB) and thus reduce the potentially large economic costs of stagnations.¹ They offer a way to raise nominal interest rates, especially when neutral interest rates are estimated to have declined. Although the economic costs caused by the ZLB could be mitigated, in principle, by adopting unconventional measures (such as quantitative easing, forward guidance, negative interest rates and yield curve control), the overall effectiveness of these measures remains debatable, partly reflecting their possible side-effects.

However, higher target and actual inflation could also entail economic costs, though estimating the level of inflation where costs start to dominate is difficult. Higher inflation tends to be associated with greater inflation volatility and hence a higher risk premium, raising real financing costs for firms and households and thus putting downward pressure on economic activity. Moreover, higher inflation may be unpopular, especially as it may have negative distributional effects (Romer and Romer, 1998; Easterly et al., 2000). Also, if a central bank changes its inflation target once, further revisions may be expected, leading to de-anchoring of inflation expectations and undermining the effectiveness of the inflation targeting framework.

Box 1.2. Modifications of, and alternatives to, current inflation targeting frameworks (cont.)

While low inflation targets helped to reduce inflation in the 1990s (and its subsequent stabilisation), it is uncertain if the opposite would work. Indeed, Japan's experience with increasing the inflation target from 1% to 2% in 2013 followed by massive quantitative and qualitative monetary policy easing, after the prolonged period of subdued inflation, demonstrates the practical challenges. Even if realised and expected inflation have increased, they remain below the target and inflation expectations appear to be backward-looking.

Price level targeting

Under price level targeting, a period of lower inflation should be followed by a period of higher inflation so as to neutralise the impact on the price level. In the current context, it is equivalent to committing to adopt a higher inflation target temporarily, but with the benefit of avoiding the cost of higher inflation, since the average inflation rate will not change. The Bank of Japan's "inflation-overshooting commitment" since September 2016 can be regarded as a similar policy initiative, although it does not commit to a specific price level. As with raising inflation targets, the benefits of this framework depend on the ability of central banks to affect inflation expectations and outcomes. If this is the case, the framework will help to raise inflation expectations and avoid the ZLB in the future. If this is not the case, or if the economy experiences persistent positive supply-side shocks, it could result in prolonged periods of very easy monetary policy with risks to future financial stability.²

Symmetric operation of inflation targeting

A milder variant of price level targeting is central banks' commitment to symmetric operation of monetary policy around their inflation targets. While the major central banks have symmetric price stability objectives in the medium term, some of them are believed to have a bias in operating their monetary policy to maintain inflation close to but below their targets (Evans, 2017). This bias might have weakened their ability to raise inflation expectations and to achieve the target. This concern arguably prompted the US Federal Reserve and the ECB to emphasise the symmetric inflation goal in their communication.³ In the current context, central banks with symmetric targeting would be expected to tolerate above-target inflation after a period of below-target inflation. By doing so, central banks may be able to enhance moderately their ability to raise inflation expectations without causing the drawbacks related to price level targeting.

Nominal GDP level targeting

Nominal GDP level targeting, if effective, shares the advantages of price level targeting while it can avoid central banks' overreacting to supply shocks (Bean, 2013). In spirit, it is similar to the dual mandate of the US Federal Reserve.⁴ It is expected to work well in the situation where maintaining short-term price stability is not enough to achieve stable growth of the economy in the medium to long run. Nominal GDP level targeting, however, shares drawbacks with the above propositions, and adds complications as nominal GDP is even more difficult to control than inflation. Moreover, GDP data tend to be revised substantially and are not available at a high frequency.

Inflation target range

An inflation target range, as employed by the Reserve Bank of Australia since the early 1990s, with the upper band above 2%, would have some similarity to the arrangements discussed above in the current context. This is especially the case with respect to the symmetric operation of inflation targeting, by signalling that higher inflation could be tolerated. However, it is fundamentally different in a sense that this framework allows the authorities to operate monetary policy more flexibly but it may weaken their commitment to their future conduct of monetary policy. Its motivation stems from the fact that monetary authorities have only a limited ability to predict inflation and control inflation expectations and outcomes (Andersson and Jonung, 2017).⁵

Box 1.2. Modifications of, and alternatives to, current inflation targeting frameworks (cont.)

An inflation target range gives central banks more flexibility in operating their monetary policy, especially when the persistence and size of idiosyncratic shocks are uncertain or when changes in the monetary policy stance could aggravate financial stability risks. As long as inflation is expected to stay within the range, monetary authorities would not need to change their stance, while – as with point inflation targeting – they would be expected to act when inflation risks deviating from the range. And with a relatively narrow and low range, it could still be consistent with the price stability objective and would not involve negative welfare effects, justifying a less active monetary policy stance. Consequently, it might help to lower the risk of hitting the ZLB, as central banks over time could keep their powder dry. This framework could also improve central banks' credibility, as there will be a higher probability of inflation staying within a range rather than at a point target. Inflation target ranges could be motivated also by the weak impact of unemployment gaps on inflation, as trying to stabilise inflation at a particular target might require large shifts in the unemployment gap (Blanchard et al., 2015).

On the other hand, the inflation targeting framework based on a range could potentially lower central banks' influence on inflation expectations. The target range could make it difficult to understand the reaction function of central banks. Indeed, a point inflation target may be easier to communicate and may be more effective in influencing inflation expectations of households and businesses, although, in practice, even small deviations of inflation from the target point tend to be interpreted as a failure of monetary policy and raise expectations of monetary authorities' reacting.

1. Kiley and Roberts (2017) estimate that in the United States a decline in neutral nominal interest rate from 5% to 3% would increase the frequency of hitting the ZLB from 3.2% to 17.4% or from 5.1% to 31.7%, depending on the model. Similarly Dorich et al. (2018) estimate that a decline in the neutral nominal interest rate would increase the frequency of hitting the ZLB from around 2% to around 12% in the Canadian economy. Ball (2014) estimates that, if the Federal Reserve had avoided the ZLB by targeting 4% inflation during the 2000s, real US output would have been higher by 16.4% cumulatively during 2010-13, although this does not account for potential negative effects of higher inflation in normal times. Kiley and Roberts (2017) found that the US output would be, on average, 1.3 percentage points below potential with the neutral nominal interest rate at 3%, while it would be 0.1 percentage point below potential with the neutral nominal interest rate at 5%.
2. On the flip side, the framework could lead central banks to over-react to negative supply shocks, when higher inflation coincides with slower economic activity, by tightening monetary policy aggressively to offset higher inflation.
3. The US Federal Reserve has stated that its inflation goal is symmetric in FOMC statements since March 2017. The ECB aims at inflation rates of below, but close to, 2% over the medium term and has communicated that it would operate its monetary policy symmetrically (Draghi, 2016).
4. The Bank of Japan Act also stipulates its monetary policy “shall be aimed at achieving price stability, thereby contributing to the sound development of the national economy.”
5. The Sveriges Riksbank adopted 1-3% for its “inflation variation band” in September 2017, but expressed that it would seek a 2% target, regardless of whether inflation was inside or outside the variation band. The purpose of introducing the band was to better communicate to the public that inflation normally varied from one month to another and would not stay at 2% all the time.

Amongst the major EMEs with projected lower inflation, there is scope for future policy easing in Mexico and South Africa; this is also the case in Russia if the rouble exchange rate stabilises. Monetary policy tightening may be needed in Brazil, India, Indonesia and Turkey over the projection horizon, to tackle high or rising inflation. In China, with projected stable inflation, monetary policy should help address financial stability risks, in particular high corporate debt.

Risks of spillovers via exchange and interest rates arise from the likely further divergence in policy rates across the major economies over the next two years. Given the importance of financial developments in the United States and other major economies for global financial markets, there is a risk of repricing in other asset markets and more volatile capital flows if monetary policy is tightened more abruptly than expected. As discussed in Chapter 2, US financial conditions have strong spillover effects given the dominance of the US dollar in international trade and finance. An appreciation of the US

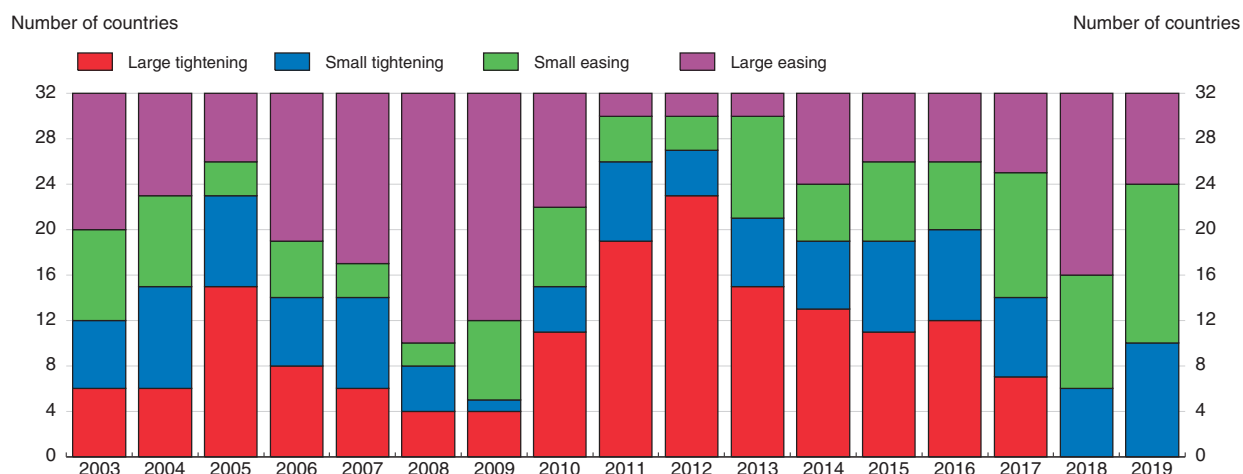
dollar also raises servicing costs on dollar-denominated foreign debt in many EMEs. At the same time, it would also improve net foreign assets in relation to GDP of many countries, with the exception of Turkey and few other large EMEs, while reducing them in the United States. Domestic currency weakness could also necessitate an earlier monetary policy tightening in some countries than would otherwise be warranted.

Fiscal policies need to be focused on medium-term challenges

Supportive fiscal measures put in place by several countries over the past two years, as recommended by the OECD, have helped to boost economic activity after years of sub-par global growth. The fiscal stance will be eased in around three-quarters of OECD economies in 2018 and 2019 (Figure 1.27), with the median economy reducing its underlying primary balance by around $\frac{3}{4}$ per cent of GDP. The largest cumulative fiscal expansion is projected in the United States and several small European countries. Despite the widespread fiscal stimulus, the ratio of gross public debt to GDP is set to inch down in the majority of OECD countries. This reflects stronger GDP growth and, in many of them, a cyclical improvement in headline budget balances that frequently offsets fiscal easing. Moreover, despite rising market interest rates, net interest payments in relation to GDP are projected to fall or remain constant due to the issuance of debt at low interest rates in recent years. Amongst large EMEs, fiscal policy is becoming broadly neutral in China, but is being tightened modestly in many other countries.

Given the broad-based recovery, it is important that fiscal policy should avoid excessive pro-cyclicality and be focused on medium-term challenges. Opportunities remain for fiscal policy to help improve prospects for solid and more inclusive growth in the medium term, but any margins from stronger near-term growth need to be used to help build fiscal buffers for the future. Government debt and deficits remain high, in several countries higher than prior to the global financial crisis, limiting the room for policy responses in event of a future downturn (Figure 1.28). Spending and tax policy measures

Figure 1.27. **The fiscal stance is expected to ease in many OECD countries**

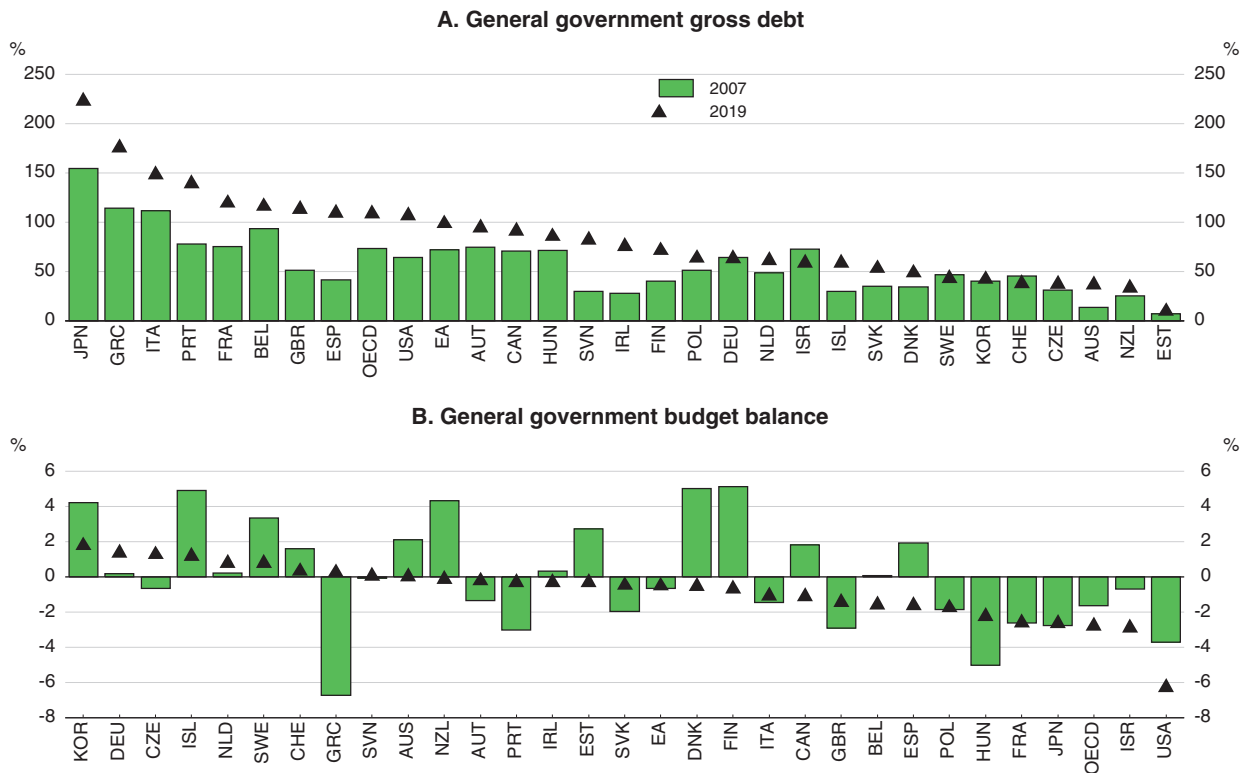


Note: The fiscal stance is calculated based on changes in the underlying primary balance as a percent of potential GDP. A large fiscal easing is when the balance deteriorates by more than 0.5% of potential GDP and a small easing is when the change is between -0.5% and 0% of GDP. Large and small fiscal tightening are defined analogously. Chile, Mexico and Turkey are excluded due to the lack of data.


Source: OECD Economic Outlook 103 database; and OECD calculations.

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Figure 1.28. **Fiscal buffers are projected to remain limited in a number of OECD countries**
In per cent of GDP



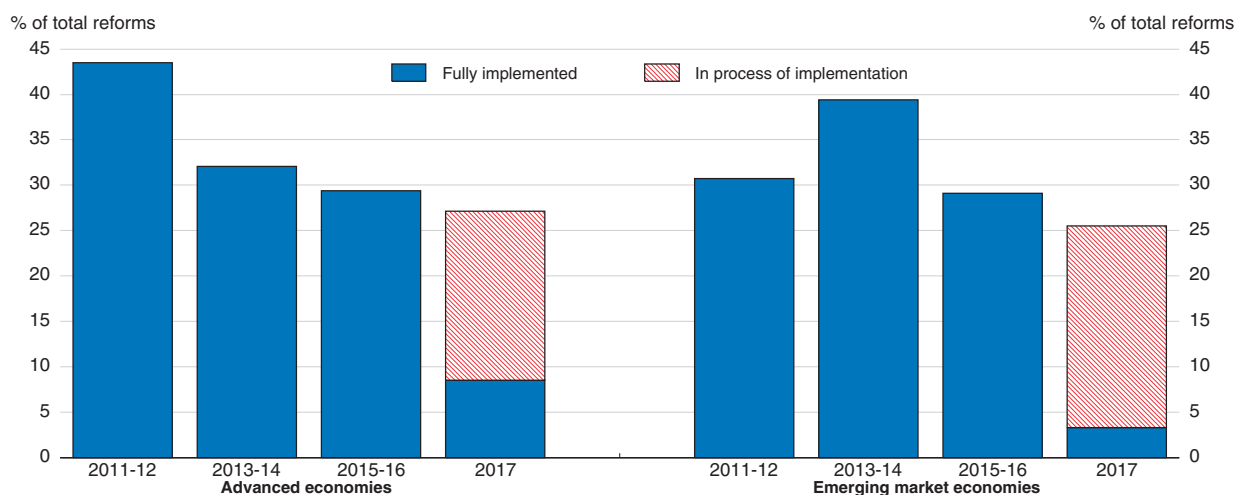
Source: OECD Economic Outlook 103 database.

StatLink  <http://dx.doi.org/10.1787/888933728926>

need to be well-targeted, enhance incentives to invest and participate in the labour market, and ensure that increases in incomes and living standards are shared more widely. Improved growth potential can in turn do much to underpin fiscal sustainability by helping reduce public debt-to-GDP ratios.


Structural policy ambition needs to be stepped up to achieve stronger medium-term inclusive growth

The much improved economic outlook provides an opportune moment to implement more ambitious structural policy reforms. Benefits from reforms may appear more quickly when demand and job creation are stronger, whereas undertaking reforms in crisis periods, as has been usual in the past, is more likely to accentuate short-term costs. Intensified reform efforts are needed in advanced and emerging market economies to improve the medium-term prospects for investment, trade and productivity, and to ensure that the recovery yields benefits for all. However, as highlighted in *OECD Going for Growth 2018*, structural reform efforts have slowed in both advanced and emerging market economies, including in 2017, despite major actions in some G20 countries including Italy, France, Japan, India and Argentina (OECD, 2018b; Figure 1.29). A continuation on this path, with weak productivity and wage outcomes, raises the risk of larger shortfalls from past performance in the growth of living standards, further diminishing trust in the capabilities of policymakers. A widespread retreat from open markets and common multilateral frameworks and standards would also harm prosperity.

Figure 1.29. **The slow pace of structural reform is a risk to medium-term inclusive growth**

Note: The estimated take-up of reforms is captured by the Going for Growth indicator of reform responsiveness. For 2017, reforms in the process of implementation are shown to ensure comparability with previous two-year periods. Emerging market economies include Argentina, Brazil, Chile, China, Colombia, Costa Rica, Indonesia, India, Mexico, Russia, South Africa and Turkey. Advanced economies include all non-emerging OECD member countries and Lithuania.

Source: OECD, *Going for Growth* 2018.

StatLink  <http://dx.doi.org/10.1787/888933728945>

Stronger reforms are needed to promote business dynamism and knowledge diffusion, enhance skill acquisition and innovation capacity and help workers benefit from fast-changing labour markets. Coherent reform strategies are crucial to reap synergies across these broad categories of reforms, manage trade-offs and ensure that the benefits are broadly shared over time. More can be done to exploit opportunities to combine measures to boost competition, either in domestic product markets or through lower barriers to international trade and investment, with specific labour reforms that help workers transition to new jobs and acquire new skills (Box 1.3). Improved skill acquisition would also enhance the benefits of actions to foster the greater investment in digital infrastructures that is essential if workers, households and firms are to benefit from the opportunities provided by the ongoing digital transformation.¹¹ Other reforms needed to enhance opportunities, such as improving the participation of under-represented groups in the labour market, are also more likely to have durable benefits if implemented at a time of job-rich growth. Improved redistribution through tax and transfer policies is also an integral part of well-designed policy packages, to make work pay, provide support for vulnerable groups, and help strengthen real income growth amongst poorer households.

In advanced economies, modest medium-term growth prospects also point to a widespread need for renewed efforts to implement competition-friendly regulations, including via trade policy. These would enhance incentives to invest and help revive the diffusion of innovations between frontier firms and the rest of the economy. Moving towards more reallocation-friendly insolvency regimes would free resources trapped in higher-debt low-productivity firms, improving the ability of more productive firms to attract additional capital. Progress in enacting other reforms to enhance growth and

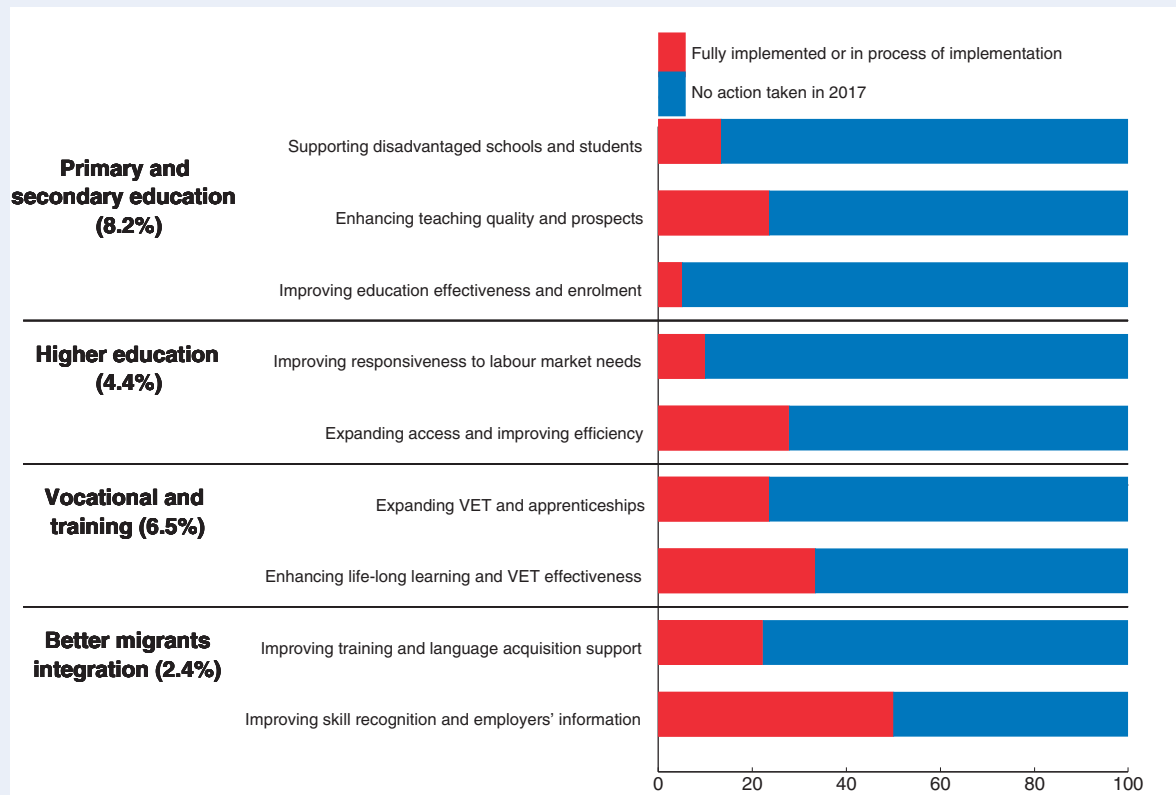
11. Key digital infrastructures include efficient, reliable and widely available broadband communication networks, data, software and hardware, as well as the services provided over such networks (OECD, 2017c,d)

Box 1.3. Reforms to improve educational attainment and skills acquisition

Reforms to improve educational attainment and skill acquisition account for around one-fifth of the full set of reform recommendations in OECD *Going for Growth 2018*. Such reforms are particularly necessary to help address growing signs of skills shortages in many economies (see main text) and to strengthen human capital and improve the prospects for medium-term growth. Helping current and future workers to acquire, or improve, their skills would also help mitigate the impact of stronger global integration on vulnerable workers and regions (Chapter 2) and allow all people to obtain the necessary skills (cognitive and non-cognitive) to deal with and benefit from new digital technologies.


Yet recent progress in undertaking new reforms in this area has been modest (see figure below). Key areas where more could be done to address current skill shortages include further support to help migrants participate fully in labour markets (particularly in Europe), expanding vocational training and apprenticeships, facilitating life-long learning, and aligning university and training courses more closely with labour market needs. Reforms to primary and secondary education are particularly important to help improve medium and longer-term growth prospects and opportunities. Key challenges in these areas for many advanced and emerging market economies are to improve teaching quality and incentives, provide additional support for disadvantaged schools and students, and (in emerging market economies) reforms to raise enrolment.

Progress in enacting reforms to improve education and skill acquisition has been modest



Note: The chart summarises the share of recommendations made in *Going for Growth 2018* by the status of their implementation. Fully implemented or in the process of implementation refers to the adoption of relevant laws or equivalent measures. Values in parenthesis represent the share in total recommendations.

Source: OECD, *Going for Growth 2018*; and OECD calculations.

StatLink  <http://dx.doi.org/10.1787/888933728527>

opportunities, such as improving the efficiency of the tax structure and skill acquisition, has been only modest.

Renewing economic dynamism in EMEs is also essential to improve prospects for further convergence in living standards across economies. Better performance could be achieved by lowering barriers to foreign trade, investment and firm entry. Tackling structural bottlenecks, expanding public investment in infrastructure and human capital, and strengthening resilience by addressing potential financial vulnerabilities would help to foster long-term investments. Improving education and tackling labour market informality would also help make growth more inclusive.

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ANNEX A.1

Policy and other assumptions underlying the projections

Fiscal policy settings for 2018 and 2019 are based as closely as possible on legislated tax and spending provisions and are consistent with growth, inflation and wage projections. Where government plans have been announced but not legislated, they are incorporated if it is deemed clear that they will be implemented in a shape close to that announced. Where there is insufficient information to determine budget outcomes, underlying primary balances are kept unchanged, implying no discretionary change in the fiscal stance. In euro area countries, the stated targets in Stability Programmes are also used. In Japan, it is assumed that a consumption tax rise is implemented in the fourth quarter of 2019.

Regarding monetary policy, the assumed path of policy interest rates represents the most likely outcome, conditional upon the OECD projections of activity and inflation, which may differ from the stated path of the monetary authorities.

- In the United States, the upper bound of the target federal funds rate is assumed to be raised gradually to reach 3.25% in December 2019, up from the current level of 1.75%.
- In Japan, the deposit interest rate is assumed to be kept at -0.1% for the entire projection period.
- In the euro area, the main refinancing rate is assumed to be kept at 0% until the end of 2019 and the negative deposit interest to be increased by 0.25 percentage point in the second half of 2019.
- In China, monetary policy is assumed to be neutral, with a tightening bias to address financial stability risks.
- In India, the repo rate is assumed to be increased from the current level of 6% to 6.25% in 2018 and then remain constant.
- In Brazil, the policy rate is assumed to be kept at the current level until the first quarter of 2019 and then gradually increased to 7.5% by the end of 2019.

Although their impact is difficult to assess, the following quantitative easing measures are assumed to be taken over the projection period, implicitly affecting long-term interest rates. In the United States, it is assumed that the Federal Reserve reduces, as announced, the stock of asset holdings. In Japan, the Bank of Japan's asset purchases and yield curve control are assumed to last until the end of 2019, maintaining the 10-year government bond yield at 0%. In the euro area, it is assumed that the ECB will gradually taper asset purchases in 2018, keeping long-term interest rates fairly constant until end-2018.

Structural reforms that have been implemented or announced for the projection period are taken into account, but no further reforms are assumed to take place.

The projections assume unchanged **exchange rates** from those prevailing on 26 April 2018: one US dollar equals JPY 109.3, EUR 0.83 (or equivalently one euro equals USD 1.21) and 6.33 renminbi.

The **price of a barrel of Brent crude oil** is assumed to remain constant at USD 70 throughout the projection period. Non-oil commodity prices are assumed to be constant over the projection period at their average levels from April 2018.

The projections for the United Kingdom assume little disruption to trade in 2019 given the transition agreement between the United Kingdom and the European Union.

The cut-off date for information used in the projections is 25 May 2018.