

Chapter 1

GENERAL ASSESSMENT OF THE MACROECONOMIC SITUATION

Introduction

The global expansion has peaked. Global GDP growth is projected to ease gradually from 3.7% in 2018 to around 3½ per cent in 2019 and 2020, broadly in line with underlying global potential output growth (Table 1.1). In the near term, policy support and strong job growth continue to underpin domestic demand. However, macroeconomic policies are projected to become less accommodative over time, and headwinds from trade tensions, tighter financial conditions and higher oil prices are set to continue. Growth in the OECD area is set to slow gradually, from around 2½ per cent in 2017-18 to just under 2% by 2020. Wage and price inflation are projected to rise, but only moderately. Considerable uncertainty remains about the strength of the relationship between capacity and inflation, and there are risks that a sharper inflation upturn could occur. The rise in oil prices this

Table 1.1. **Global growth is set to slow**

OECD area, unless noted otherwise

	Average 2011-2018	2017	2018	2019	2020	2018 Q4	2019 Q4	2020 Q4
		Per cent						
Real GDP growth¹								
World ²	3.4	3.6	3.7	3.5	3.5	3.5	3.6	3.5
G20 ²	3.6	3.8	3.8	3.7	3.7	3.7	3.8	3.7
OECD ²	2.1	2.5	2.4	2.1	1.9	2.2	2.1	1.9
United States	2.3	2.2	2.9	2.7	2.1	3.1	2.4	2.0
Euro area	1.2	2.5	1.9	1.8	1.6	1.5	1.9	1.4
Japan	1.3	1.7	0.9	1.0	0.7	0.6	0.6	1.1
Non-OECD ²	4.6	4.6	4.7	4.7	4.7	4.6	4.8	4.7
China	7.1	6.9	6.6	6.3	6.0	6.4	6.1	6.0
India ³	7.0	6.7	7.5	7.3	7.4			
Brazil	0.1	1.0	1.2	2.1	2.4			
Output gap⁴	-1.8	-1.0	-0.6	-0.4	-0.5			
Unemployment rate⁵	6.9	5.8	5.3	5.1	5.0	5.2	5.1	4.9
Inflation^{1,6}	1.6	2.0	2.3	2.6	2.5	2.6	2.5	2.5
Fiscal balance⁷	-4.1	-2.3	-2.9	-3.1	-3.0			
World real trade growth¹	3.6	5.2	3.9	3.7	3.7	3.3	3.8	3.6

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.

Source: OECD Economic Outlook 104 database.

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year has pushed up headline inflation, and import tariffs have begun to raise prices in a few countries. Global trade has already started to ease, with trade restrictions having adverse effects on confidence and investment plans, and global trade growth appears set to remain at under 4% per annum on average over 2018-20.

Outcomes could be weaker still if downside risks materialise. Further moves by the United States and China to raise barriers on bilateral trade would hit output in these economies, with adverse effects on global growth and trade. A supply-driven disruption in oil markets would place upward pressure on inflation, at least temporarily, around the world and slow growth. Financial market pressures on emerging-market economies could intensify, particularly if an upside surprise in inflation in the advanced economies were to trigger a further rise in policy interest rates and a new round of asset repricing. A decade after the financial crisis, vulnerabilities also persist in many economies from elevated asset prices and high debt levels. On the upside, a quick resolution of trade tensions, or stronger structural policy ambition around the world, could improve confidence and limit the drag on investment from high uncertainty.

Recent developments and the projected outlook pose considerable challenges for policymakers. An immediate need is to reduce policy-related uncertainty by arresting the slide towards protectionism and reinforcing the global rules-based international trade system through multilateral dialogue. Macroeconomic policy requirements differ across countries, reflecting the diverging challenges they face. In the main advanced economies, monetary policy accommodation can be reduced gradually, albeit at a differing pace. Fiscal policy is projected to turn broadly neutral in most OECD countries in 2019-20 after the notable easing in recent years. The planned neutral fiscal stance is generally appropriate given the economic outlook; the further easing announced in a few countries with already high public debt could lead to adverse reactions in financial markets. In emerging-market economies, careful choices are required to maintain policy credibility. Those economies with a robust macroeconomic policy framework and flexible exchange rate may need only a modest tightening of monetary policy in line with ongoing asset repricing, and solid fiscal positions provide scope to ease policy if necessary to support demand. There is less scope for such support in emerging-market economies where there are concerns about the sustainability of fiscal or external positions. Other priorities for policy in all countries are to enhance resilience against risks, particularly continued financial vulnerabilities from high debt, and to strengthen reform efforts to improve prospects for longer-term growth that is sustainable and provides opportunities for all.

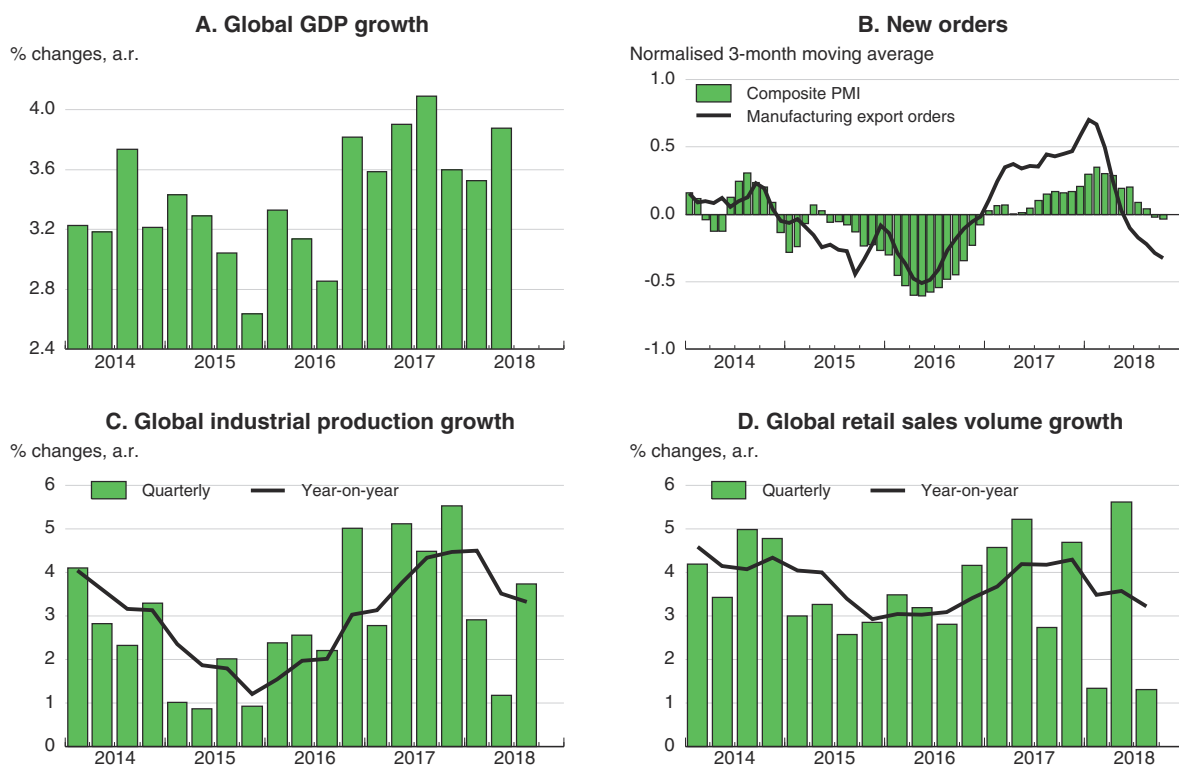
An interaction of the major downside risks would weaken global output and trade growth substantially, with the possibility that the level of global output could be over ½ per cent weaker than projected by 2020. If downside risks were to produce a sharper global downturn than currently projected, co-ordinated policy action across countries would provide the most effective counterweight. With limited scope to use monetary policy in some areas in the near term and the need to use instruments that have swift effects on growth, fiscal policy easing will be likely to have an important role in restoring growth, even if the room for manoeuvre has diminished with high public debt. Preparing for such an eventuality now by planning projects that can be rolled out rapidly would increase the effectiveness of a co-ordinated fiscal response.

Global growth is set to ease

Global growth is projected to moderate in the coming two years


Recent developments suggest that the global expansion has peaked and is likely to slow over the next two years. Global GDP growth has settled at around 3.7% this year (Figure 1.1, Panel A), and developments across countries and sectors have diverged, in contrast to the broad-based expansion seen in 2017. Labour market conditions are still improving, with the OECD-wide unemployment rate now at its lowest level since 1980, but investment and trade growth have proved softer than anticipated, financial market conditions have tightened, and confidence has continued to ease. Preliminary national accounts data for the third quarter of 2018 show continued solid outcomes in the United States, but slower growth in China, the euro area and Japan. Business survey data also point to easing growth in both advanced and emerging-market economies, and incoming new orders have weakened, especially in manufacturing (Figure 1.1, Panel B). Other high frequency indicators of global activity, such as industrial production and retail sales, also suggest that growth is moderating (Figure 1.1, Panels C and D). The slowdown in trade growth, tighter global financial conditions and higher oil prices are all contributing to the underlying easing of the global expansion.

Figure 1.1. **Global growth and confidence have moderated**



Note: GDP, industrial production and retail sales aggregation using PPP weights. Data in Panel D are for retail sales in the majority of countries, but monthly household consumption is used for the United States and the monthly synthetic consumption indicator is used for Japan. Data for India are unavailable for Panel D.

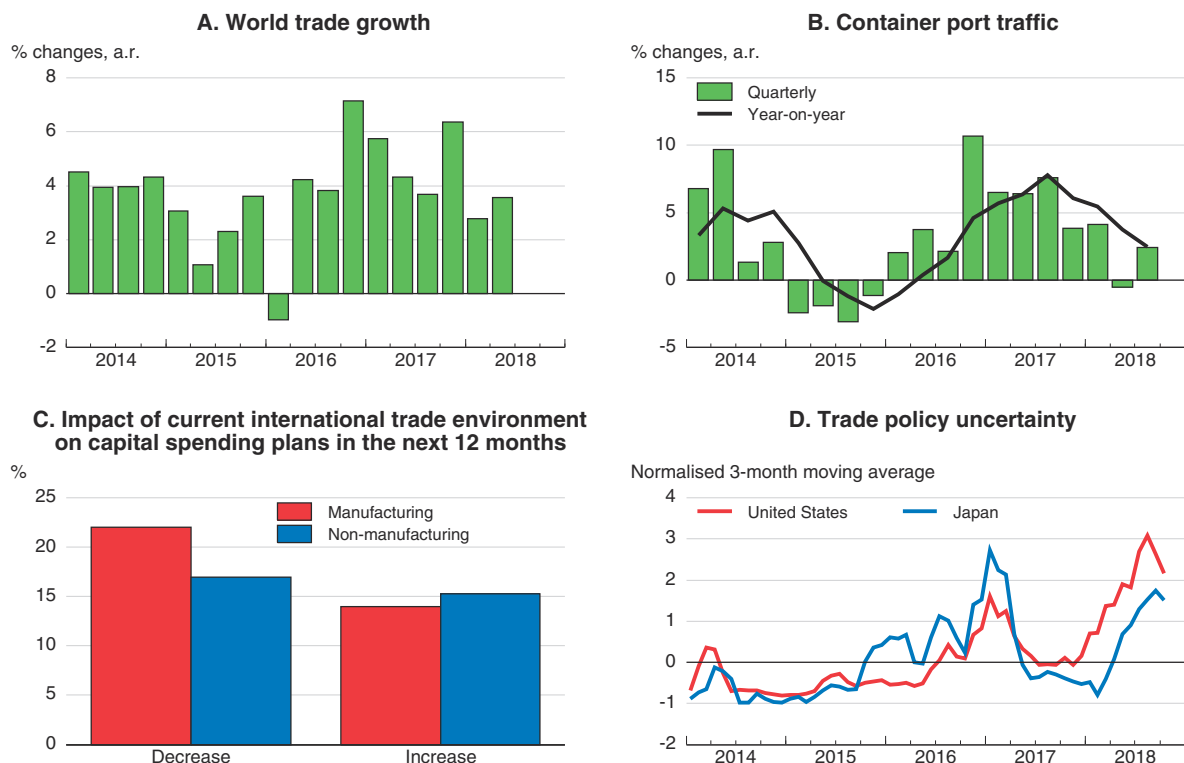
Source: OECD Economic Outlook 104 database; OECD Main Economic Indicators; Thomson Reuters; Markit; and OECD calculations.

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Amidst rising trade tensions, global trade volume growth (goods plus services) has slowed this year, with particularly weak outcomes in the first half of the year (Figure 1.2, Panels A and B). High frequency indicators, such as export orders and container port traffic, suggest that the prospects for future trade growth remain modest. A series of new tariffs and retaliatory counter-measures have already come into effect this year, and there is a risk that more may be implemented next year. New restrictive trade policy measures have resulted in marked changes in trade flows and prices in some targeted sectors, particularly in the United States and China, with some transactions being brought forward ahead of announced tariffs. Policy announcements are also affecting business sentiment and investment plans, especially in manufacturing, and have added to uncertainty (Federal Reserve Bank of Atlanta, 2018; Figure 1.2, Panels C and D).¹


Financial conditions have tightened this year, with rising long-term interest rates, particularly in the United States, triggering repricing across many asset markets and significant turbulence in a few emerging-market economies. The associated shift in risk sentiment has contributed to sizeable currency depreciations against the US dollar in many emerging-market economies, especially ones with large and rising external

Figure 1.2. **Rising trade tensions have affected capital spending plans and added to uncertainty**



Note: Panel C is based on combined responses of 513 firms, of which 100 are in the manufacturing sector. Decreases (increases) include all firms indicating a slight, moderate and significant decrease (increase) in their capital spending plans.

Source: OECD Economic Outlook 104 database; Institute of Shipping Economics and Logistics (ISL); Duke CFO Global Business Survey, September 2018; policyuncertainty.com; and OECD calculations.

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1. Other factors contributing to the softness of global trade include more moderate investment growth (a relatively trade intensive component of demand) and slower output growth in the euro area (a relatively trade intensive part of the world economy given sizeable intra-area trade).

imbalances. As discussed below, an additional weakening of market sentiment towards emerging-market economies would cut their growth further and place renewed downward pressure on their currencies.

Higher and more volatile oil prices over the past year have added to the challenges for oil-importing economies. Oil prices have been over 30% higher this year (as of mid-November) than in 2017. Production in the United States and Russia has risen to record levels, but continued uncertainty about potential supply disruptions in some OPEC economies, particularly Venezuela and Iran (who collectively account for around 4% of global supply at present), and expectations that demand growth might slow are resulting in considerable price volatility. The rise in prices over the past year is already having a mild negative effect on global growth and adding to inflation. This could intensify if further supply disruptions materialise (see below).

Overall, recent economic and financial developments and intensified downside risks suggest that global growth prospects have moderated, with outcomes diverging across the major economies. Global GDP growth is projected to ease gradually from 3.7% in 2018 to around 3½ per cent in 2019 and 2020, a rate close to global potential output growth. Outcomes could be weaker still if downside risks intensify (see below) or if policy uncertainty acts to restrain investment for a prolonged period.

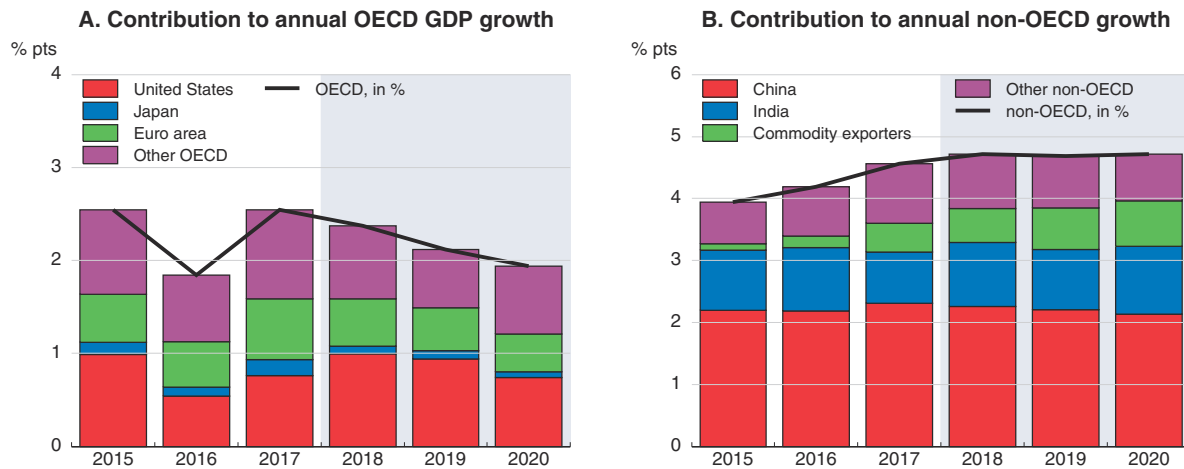
The growth slowdown reflects a move towards less accommodative macroeconomic policies over the coming two years, along with the continued headwinds from trade tensions, tighter financial conditions and higher oil prices. In the median OECD economy, the fiscal stance is projected to be broadly neutral in 2019 and 2020, after easing by 0.4 per cent of GDP in 2018.² However, fiscal easing of around 0.4% of GDP is still projected in the United States, the euro area and the United Kingdom in 2019, with easing of 0.5% of GDP or more in Germany, Italy, Korea and a few smaller European economies. Monetary policy normalisation is also set to continue in most economies, including the United States, and get underway in the euro area.

Strong job growth and the effects of current and past fiscal and monetary policy support should continue to help underpin domestic demand in the advanced economies in the near term. However, rising trade tensions, higher oil prices, softer confidence and heightened uncertainty are likely to temper trade and investment outcomes, with adverse effects on medium-term growth prospects. Emerging capacity constraints, particularly from tight labour markets, could also slow growth in a number of countries and add to inflationary pressures. Overall, OECD GDP growth is projected to slow from around 2½ per cent in 2018 to just under 2% by 2020 (Figure 1.3, Panel A).

- GDP growth in the United States is projected to ease from close to 3% in 2018 to just over 2% in 2020, in line with potential growth, as the support from fiscal easing wanes and gradual monetary policy normalisation continues. Tax reforms, higher government spending, elevated confidence and the strong labour market continue to support domestic demand. However, higher tariffs have begun to add to business costs and may moderate investment growth.
- Growth in the euro area is set to moderate slowly from around 2% in 2018 to a little over 1½ per cent by 2020. Accommodative monetary policy, a mildly expansionary fiscal


2. The fiscal stance is measured as the change in the underlying general government primary balance as a per cent of potential GDP.

Figure 1.3. Global growth is set to ease gradually



Note: Calculated using PPP weights. Commodity exporters include Argentina, Brazil, Colombia, Indonesia, Russia, Saudi Arabia, South Africa and other oil-producing economies.

Source: OECD Economic Outlook 104 database.

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policy in 2019, solid job growth and favourable financing conditions provide support for domestic demand, but headwinds are appearing from weaker external demand and higher policy uncertainty.

- GDP growth in Japan is set to be around 1% in 2018 and 2019, with high corporate profits and severe labour shortages boosting investment, before slowing to just under $\frac{3}{4}$ per cent in 2020. Fiscal consolidation will resume, following the scheduled increase in the consumption tax rate in October 2019, but higher social spending will cushion part of the short-term impact.

Growth prospects in the emerging-market and developing economies collectively appear steady over 2018-20 (Figure 1.3, Panel B), but this masks diverging developments in the major economies. The growth outlook is particularly weak in those economies facing substantial financial market pressures and uncertainty about the future pace of reforms. However, prospects are improving in some commodity exporters, particularly oil-producing economies:

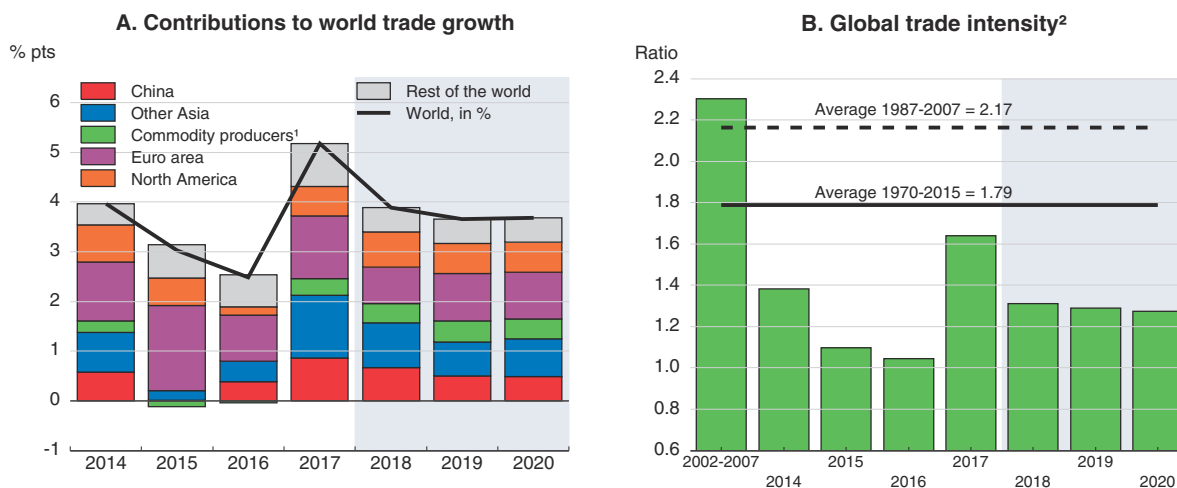
- GDP growth in China is projected to ease slowly to 6% by 2020. Infrastructure investment and credit growth have both moderated, the working-age population is declining, and trade tensions are likely to slow export growth. Recent policy measures have improved financial conditions, and scope remains to expand fiscal support if required, but this could delay the necessary deleveraging of the corporate sector and aggravate risks to financial stability.
- Strong domestic demand growth in India, boosted by new infrastructure programmes and recent structural reforms, is projected to keep GDP growth close to $7\frac{1}{2}$ per cent in 2019 and 2020.
- Growth in Brazil is projected to strengthen gradually to between 2-2½ per cent in 2019-20, with lower inflation and improving labour markets supporting private consumption. Political uncertainty remains high, but restarting reforms, particularly the pension reform, would help to improve confidence.

Global trade growth is projected to remain moderate, easing from around 4% in 2018 to 3¾ per cent in 2019 and 2020, on the assumption that trade tensions do not worsen. At this pace, trade intensity would remain mild by pre-crisis standards, but would be broadly in line with the average pace achieved over 2012-17 (Figure 1.4). Trade growth is projected to slow relatively sharply in China and other Asian economies, in part reflecting the likely impact of the tariff measures included in the projections and the potential disruption to regional supply chains. A further intensification of trade restrictions between the United States and China in 2019, or in other countries, could reduce global trade substantially further by 2020 (see below).


Longer-term growth prospects are modest

The moderate pace of trade growth is consistent with the more subdued outlook for investment in many economies. Higher policy uncertainty, a step-down in consensus expectations of future global GDP growth,³ a decline in business dynamism in several countries (OECD, 2017a) and the slowdown in reform efforts to tackle regulations that impede product market competition (OECD, 2018a) are all factors that reduce incentives to invest. In the OECD area, business investment growth is projected to ease to just over 3% per annum over 2019-20, from over 4% during 2017-18, amidst higher policy uncertainty. At this pace, growth of the net productive capital stock will remain weaker than in the pre-crisis period in most countries.⁴ The prospects for a stronger recovery in investment in future years are closely linked to structural policy choices. In some countries, particularly

Figure 1.4. **Global trade is slowing and trade intensity remains modest**



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. Period averages are the ratio of average annual world trade growth to average annual GDP growth in the period shown.
- Source: OECD Economic Outlook 104 database; and OECD calculations.

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3. Consensus growth projections suggest that PPP-weighted global GDP growth is now expected to average only 3½ per cent per annum over the next decade, compared with expectations prior to the crisis and its immediate aftermath that future annual global growth would average between 4-4½ per cent per annum.
4. Higher depreciation rates, in part due to the shorter lifespans of technology investments, mean that much higher gross investment is now required to achieve the same net capital stock growth.

Germany, higher spending on public infrastructure capital is also needed to boost the productive capital stock and help mitigate the build-up of external imbalances.

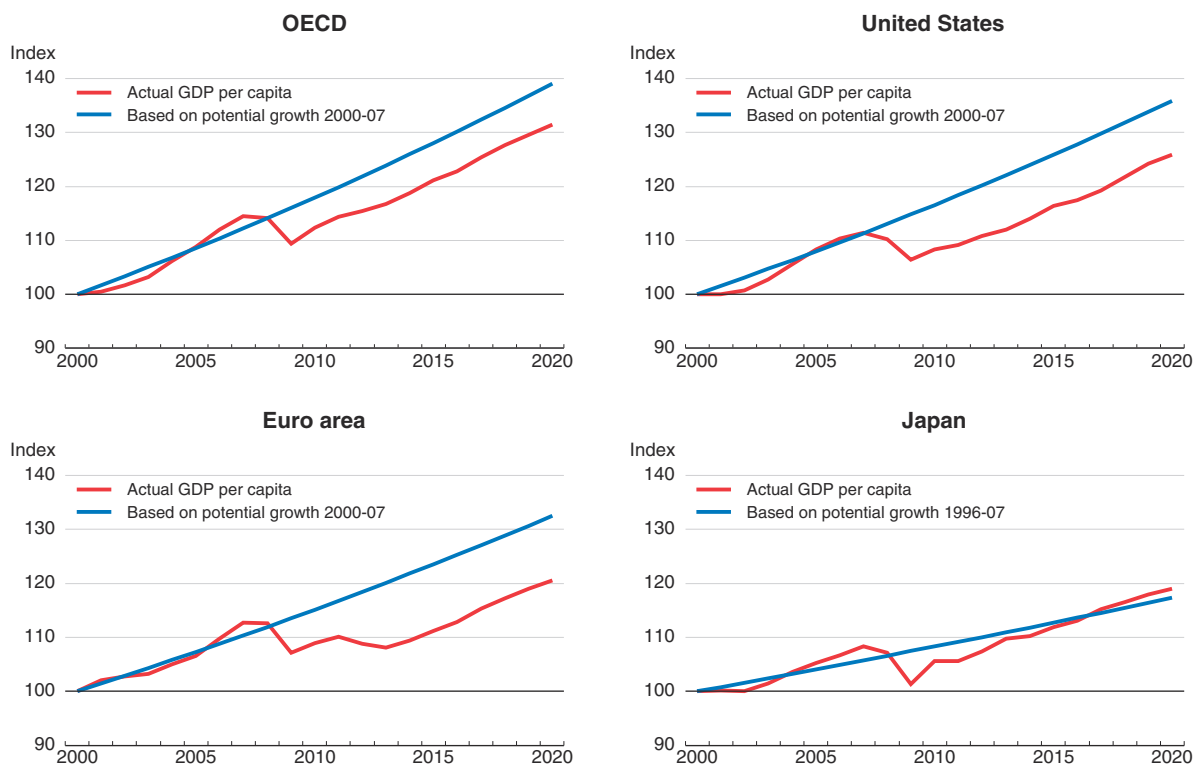
These projections suggest that the global financial crisis is having a persistent adverse impact on living standards in many economies, despite the prolonged period of exceptional policy support in its aftermath. In the majority of OECD and non-OECD economies, per capita incomes continue to fall short of what might have been expected prior to the crisis if growth had continued at pre-crisis potential growth rates over the past decade (Figure 1.5). This reflects less favourable demographic trends and the consequences of the past decade of sub-par investment and productivity outcomes. As a result, the prospects for strong and sustained improvements in living standards and incomes in the medium and long term remain weaker than prior to the crisis in both advanced and emerging-market economies (Figure 1.6).

Wage and price pressures are set to rise

Wage and price pressures are projected to continue to rise in the major advanced economies as spare capacity diminishes, but only modestly given well-anchored inflation expectations. Conventional estimates of economic slack, such as output and unemployment gaps, suggest that spare capacity is now limited in most major advanced economies and is diminishing at the global level. Unemployment rates are already below

Figure 1.5. The crisis has had a persistent impact on living standards

Index 2000=100, per capita incomes in constant prices



Note: The blue line shows a linear projection based on the average annual growth rate of potential GDP per capita in the 2000-2007 period for all countries, apart from Japan where the 1996-2007 average is used to ensure a comparison between cyclical peaks.

Source: OECD Economic Outlook 104 database; and OECD calculations.


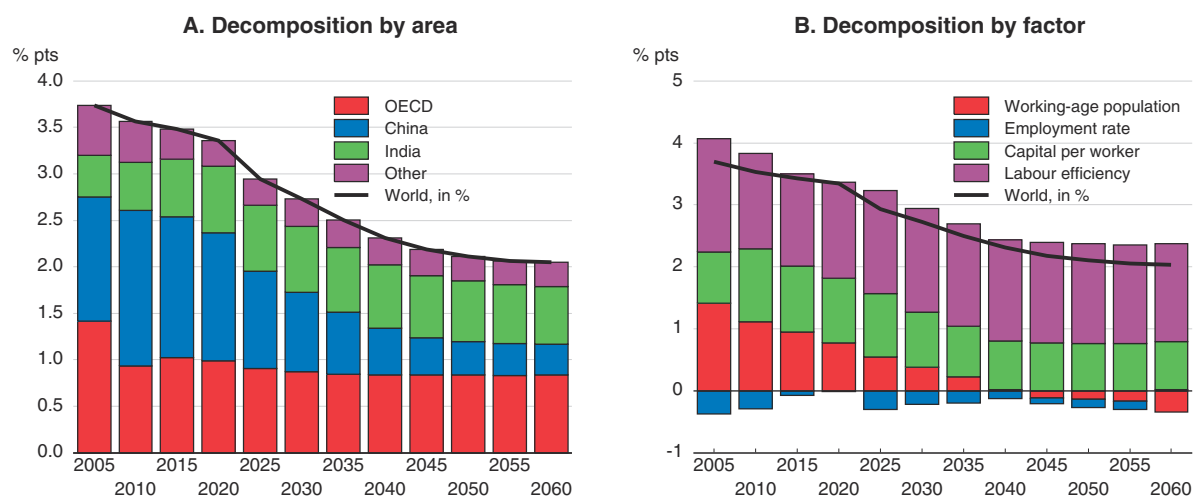
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Figure 1.6. Potential output growth is projected to slow under current policies



Note: 'World' refers to an aggregate of 46 countries, which today account for about 82% of world output at PPPs.

Source: Guillemette, Y. and D. Turner (2018), "The Long View: Scenarios for the World Economy to 2060", *OECD Economic Policy Papers*, No. 22.

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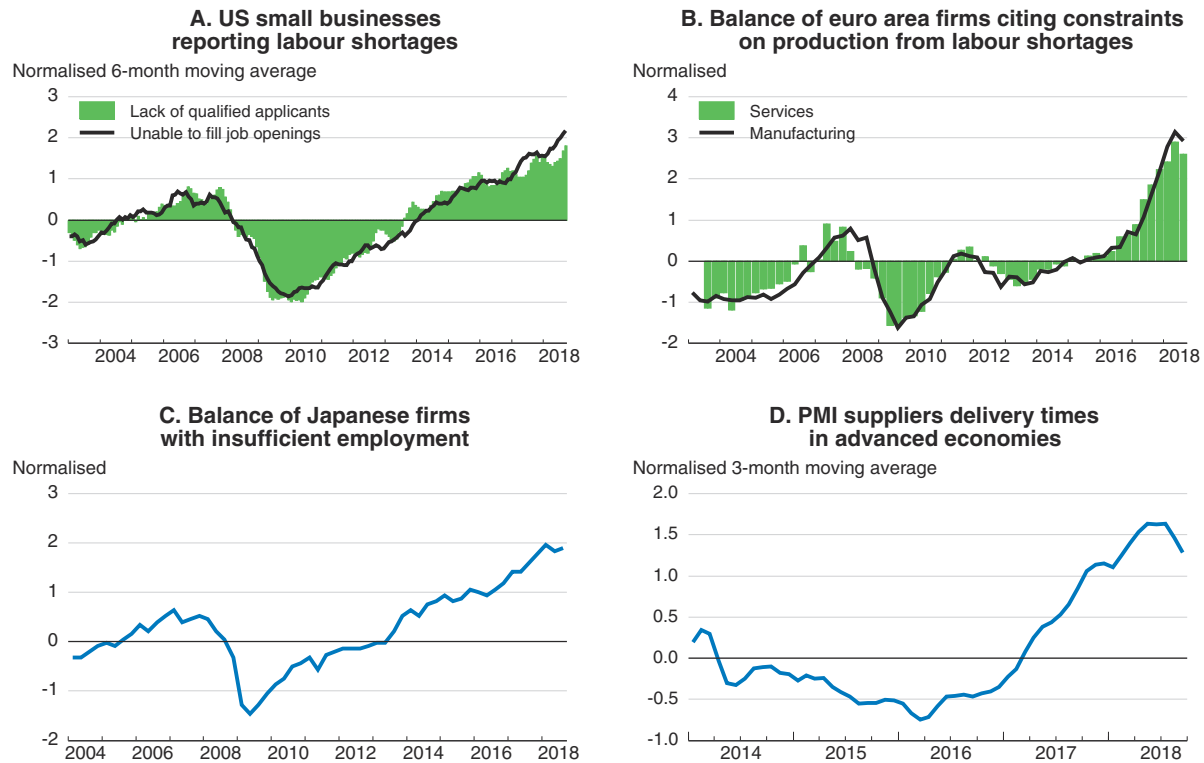
pre-crisis levels in the majority of advanced economies, and in many they are lower than estimated sustainable rates. Survey indicators also point to increasing resource constraints, with signs of labour shortages, particularly for high-skilled workers (OECD, 2018b), and longer delivery times from suppliers (Figure 1.7). However, participation rates remain below pre-crisis levels in some countries, notably in the United States, and scope remains to raise hours worked in other economies, particularly in Europe.

Labour markets are set to tighten further over the projection period. Steady employment growth is projected to continue in most economies over 2019-20, albeit at a slower pace than seen in the past two years, with OECD-wide employment rising by 0.9% per annum on average. The OECD-wide unemployment rate is projected to decline further to 5% by the end of 2020, nearly $\frac{3}{4}$ percentage point below the estimated long-term sustainable unemployment rate. Wage growth is now rising in most OECD economies, particularly in a number of smaller European economies where rapid demand growth has led to very tight labour markets. Overall, in the OECD economies, real wages are projected to rise by around 0.8% per annum on average in 2019-20, up from around 0.6% per annum on average in 2017-18.

There is a risk that the growth of wages (or other costs) could be stronger than projected, and add to inflationary pressures, given the degree to which wage growth has sometimes strengthened in a non-linear manner in the past as labour markets tighten (Figure 1.8). However, the extent to which this is passed through into prices will also depend on the behaviour of productivity growth and the extent to which firms can absorb higher labour costs in their margins. Stronger labour productivity growth would help to offset the impact of faster wage growth, and limit any increase in unit labour costs.

In many countries, real wage growth has lagged behind productivity growth for some time, holding down labour cost pressures, even though productivity growth has itself been much weaker than prior to the crisis. As discussed in Chapter 2, this is associated with the expansion of global value chains, technological change and the rising market shares of a number of high-productivity, capital-intensive firms with low labour shares. However, the

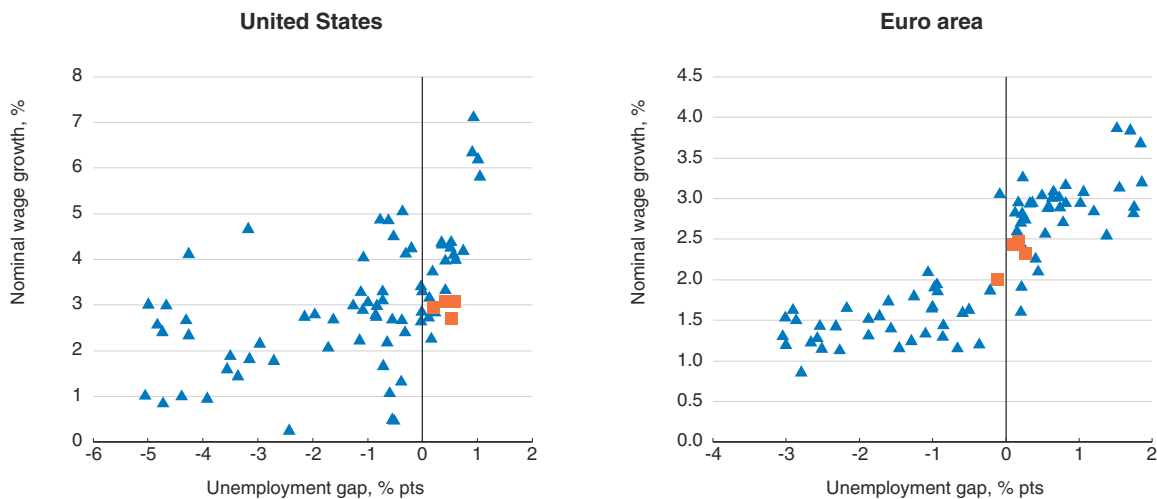
Figure 1.7. Survey indicators point to rising capacity constraints



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

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Figure 1.8. Wage growth could pick up quickly as labour markets tighten

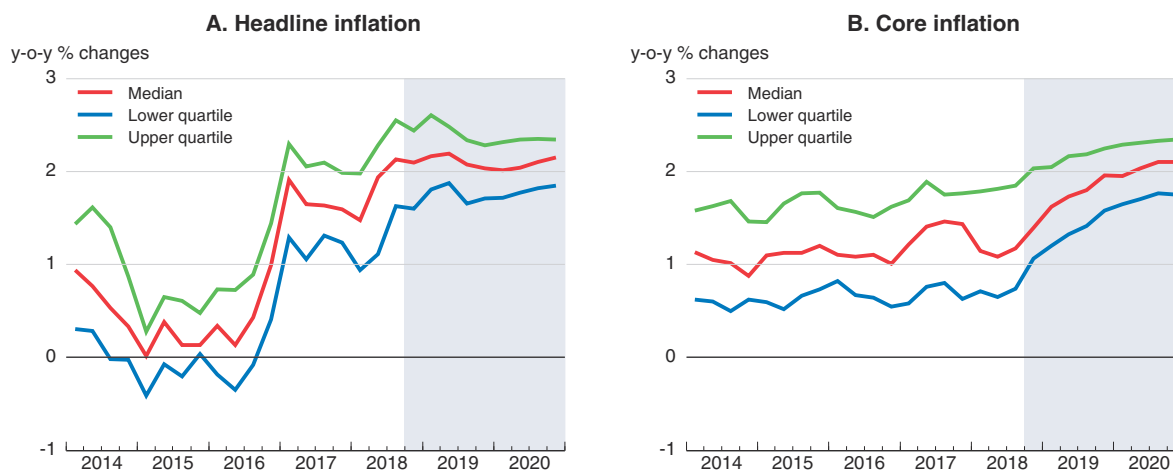


Note: Year-on-year wage growth and the unemployment gap over 2000Q1-2018Q4. The orange dots are the observations for 2018. The unemployment gap is measured as the estimated NAIU less the actual unemployment rate; wages are compensation per employee.

Source: OECD Economic Outlook 104 database; and OECD calculations.


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Figure 1.9. Inflation is projected to rise modestly in the advanced economies



Note: Based on a sample of 31 advanced economies. Data for Japan exclude the impact of the consumption tax increase in 2014 and the increase assumed to be implemented in October 2019.

Source: OECD Economic Outlook 104 database; and OECD calculations.

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extent to which these underlying changes can fully account for the observed moderation of aggregate wage and price pressures remains uncertain.

Headline consumer price inflation is already close to 2% in the median advanced economy, helped by the impact of strong commodity price growth over the past year (Figure 1.9, Panel A). Core inflation is softer – at between 1-1¼ per cent in the median economy – but is projected to rise to over 2% by the latter half of 2020, as spare capacity is eroded and unit labour cost growth slowly strengthens (Figure 1.9, Panel B). In the United States, where the labour market is already tight and new tariffs are adding to price pressures in some sectors, headline and core inflation are projected to peak at just under 2½ per cent. Headline consumer price inflation is currently rising in most emerging-market economies, reflecting the impact of currency depreciations and higher commodity prices, but is likely to moderate as the impact of tighter monetary policy is felt.

Key issues and risks

An intensification of trade restrictions would have significant costs

Increased trade tensions and uncertainty about trade policies remain a significant source of downside risk to global investment, jobs and living standards. Higher trade restrictions reduce living standards for consumers, particularly lower-income households, and add to production costs for businesses. Higher tariffs on intermediate goods (and services) can be particularly costly if products cross borders multiple times as part of global value chains (OECD, 2017b).

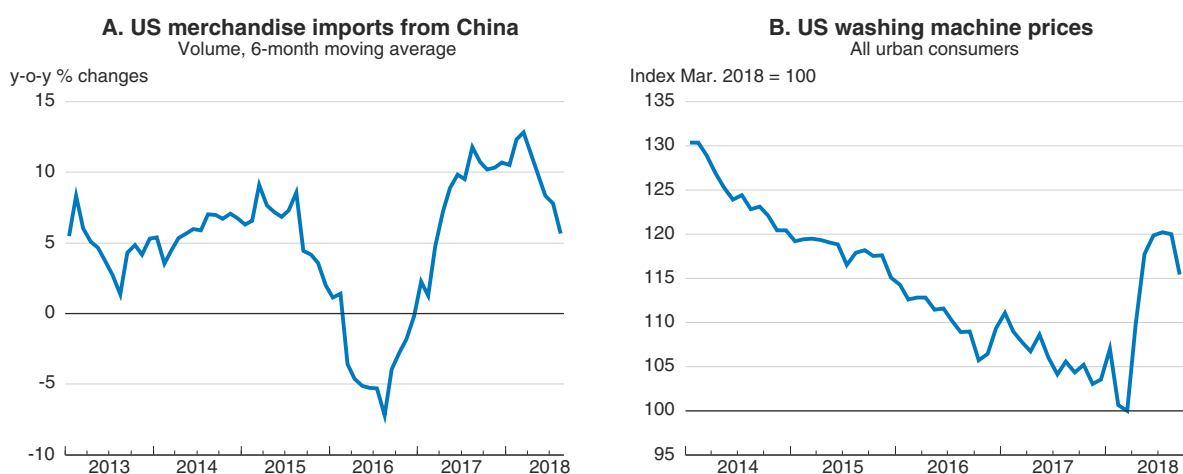
A series of tariffs and retaliatory counter-measures have already come into effect since the start of the year, and more may be implemented in the coming months (Box 1.1). Although the direct economy-wide impact of the restrictive trade policies imposed this year is only starting to appear, some effects and distortions are already visible in sectors where higher tariffs have been implemented or announced. Growth in the volume of merchandise imports into the United States from China has started to slow and US domestic prices have risen sharply for some affected products (Figure 1.10).

Box 1.1. Trade restrictions have increased this year


In the major economies, the number of new trade restrictive measures has risen in 2017-18 on balance, with a substantially broader coverage than in 2016-17 (OECD-UNCTAD-WTO, 2018). In particular, a significant number of new measures have been taken by the United States and China on their bilateral trade, with a risk that these continue to intensify in the coming months.

- An initial set of new tariffs were imposed by the United States on imports of solar panels and washing machines (February) and steel and aluminium (March), with the latter having some exemptions. Imports of these goods into the United States were around \$60 billion in 2017. Retaliatory tariffs have been imposed by some countries affected by the steel and aluminium tariffs.
- The United States has subsequently imposed additional tariffs on a range of imported goods from China. Tariffs of 25% were imposed on \$50 billion of imports in July and August and a 10% tariff was imposed in September on another \$200 billion of imports, with the latter rate potentially rising to 25% from January 2019. The baseline projections here incorporate the 10% tariff from September, but assume that the increase scheduled for next January is not implemented (Annex 1.1). There is also a risk of tariffs up to 25% being imposed on the remainder of US merchandise imports from China (around \$260 billion in 2017). This would increase tariffs on a broad range of consumer goods, as well as the intermediate goods that were the primary focus of the tariffs introduced this year.
- In turn, China has announced a set of higher tariffs on \$110 billion of imports from the United States, but has offset this in part by lowering tariffs on imports from other countries. Additional US measures could result in China either raising the tariff rates further on these categories of imports from the United States, or imposing additional tariffs of up to 25% on the remainder of Chinese merchandise imports from the United States (around \$40 billion in 2017).
- The European Union, Japan and many other economies in regional supply chains, including commodity exporters, are also affected by these bilateral tariffs and the associated trade diversion effects, especially if additional tariffs were to be imposed on imports of cars, trucks and auto parts.

Figure 1.10. Tariffs are already visible in US trade and price data



Source: United States International Trade Commission; Bureau of Labor Statistics; and OECD calculations.

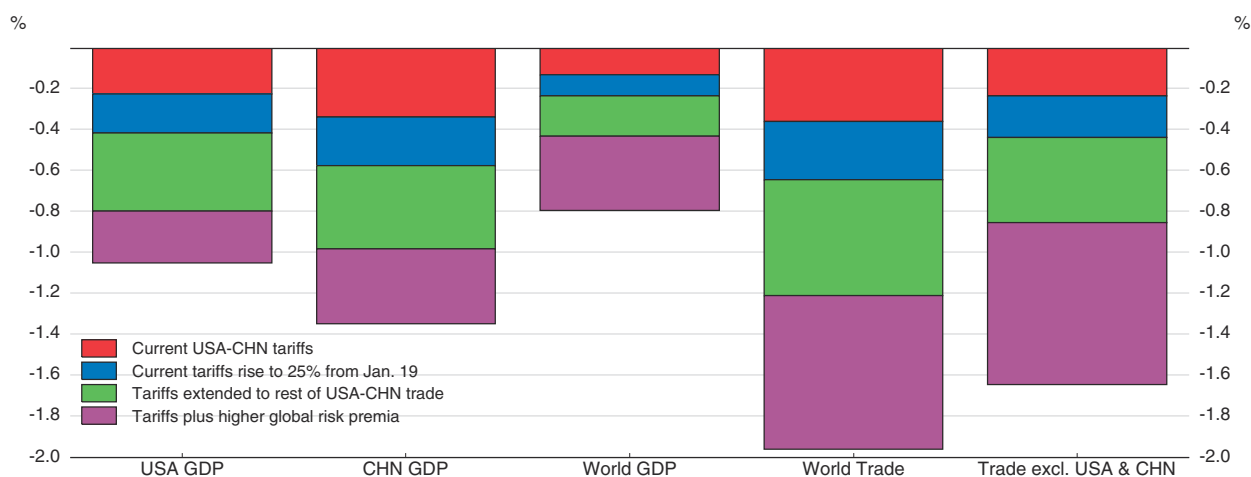
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Simulations on the NiGEM global macro-model illustrate the adverse effects that higher tariffs may have on global output and trade in the near term (see also OECD, 2018b) and the extent to which these could be magnified if tariff increases were to induce higher uncertainty that would slow investment around the world.

- The tariffs that have already been imposed by the United States and China this year will slow growth and add to inflation (Figure 1.11). By 2020-21, output in the United States and China could be around 0.2-0.3% lower than otherwise, with world trade reduced by around 0.4% and the combined level of import volumes in the United States and China declining by around $\frac{3}{4}$ per cent. Higher tariffs also push up costs for producers and the prices paid by consumers. In the United States, consumer price inflation is raised by around 0.2 percentage point in both 2019 and 2020. The effects of the US-China bilateral tariffs on trade and output in other economies are relatively mild, but negative. In the longer run, other countries should benefit from an improved competitive position in the US market, but in the near term the income effect from the overall decline in US and Chinese demand dominates the substitution effect, and trade and output growth decline in all economies.
- The adverse effects from tariffs would rise considerably if the United States raised the tariffs on \$200 billion of merchandise imports from China to 25% from January 2019, with retaliatory action taken by China (Box 1.1). This would almost double the impact on GDP in the United States and China by 2020 and 2021 (Figure 1.11), with world trade declining by over 0.6%. Consumer prices in the United States in 2020 would be around 0.6% higher than otherwise.


Figure 1.11. **The adverse effects of higher tariffs could intensify**

Impact on GDP and trade by 2021, per cent difference from baseline



Note: The first scenario shows the impact of the tariffs imposed on bilateral US-China trade in 2018 up to the end of September. The second scenario shows the additional impact of the United States raising tariffs on \$200 billion of imports from China from 10% to 25% from January 2019 (with reciprocal action by China on \$60 billion of imports from the United States). The third scenario shows the additional impact if tariffs of 25% are imposed on all remaining bilateral non-commodity trade between China and the United States from July 2019. The final scenario adds in the impact from a global rise of 50 basis points in investment risk premia that persists for three years before fading slowly thereafter.

Source: OECD calculations.

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- There is also a risk that tariffs of 25% on all remaining imports from China will be imposed subsequently by the United States, with China imposing tariffs of 25% on all remaining imports from the United States (Box 1.1). Under this scenario (assumed to occur from July 2019), the short-term costs are considerably higher and broader. Global trade would be over 1¼ per cent below baseline, with import volumes in the United States and China declining by over 2% in 2020 and 2021 (Figure 1.11). In the United States, GDP could be around ¾ per cent below baseline by 2021, with business investment declining by around 2% and consumer prices raised by 0.9%. Close trading partners, such as Canada and Mexico, would be adversely affected by the downturn in the United States, with their GDP around ¼ per cent below baseline in 2020 and 2021.
- Heightened uncertainty about trade policies, and concern that stronger tariffs might be applied on a much wider range of items, could adversely affect business investment plans around the world (Berthou et al., 2018; ECB, 2018). A rise of 50 basis points in investment risk premia in all countries for three years would raise the cost of capital and add to the negative effects on output from tariffs, with global GDP 0.8% below baseline by 2021 and global trade declining by around 2% (Figure 1.11). OECD-wide business investment would decline by close to 2¾ per cent on average in 2020-21,⁵ with investment down by 3¾ per cent in the United States.
- In these simulations, the majority of the burden of the tariff falls on US consumers in the near term in the form of higher prices. A stronger price response by Chinese exporters, with complete pricing of their products to the US market, would result in exporters (and in turn their suppliers) bearing the cost of the tariff. In this case, the impact on US growth and inflation would be lower, but the adverse effects on growth in China would be higher due to the terms-of-trade loss.

These shocks have implications for macroeconomic policies. The extent to which monetary policy reacts to higher tariffs depends on whether they are a one-off price level change or whether they have broader second-round effects on wages, prices and inflation expectations. This becomes more likely as tariffs are raised on a broad range of consumer goods as well as intermediate inputs. In all the simulations, monetary policy in the United States is tighter than otherwise for some time and there is a mild appreciation of the US dollar. In the scenario with the two further rounds of additional tariffs being imposed in 2019, US policy interest rates rise by around ½ percentage point above baseline, to help limit the extent to which the rise in import costs generates broader wage and price pressures. The US effective exchange rate appreciates by 2%, adding to financial pressures on emerging-market economies. Currency depreciations against the US dollar in other countries also push up import prices and result in mild monetary policy tightening. Tariffs also provide additional revenue for the government – possibly of the order of ¼ per cent of GDP in 2019 from the tariffs imposed this year (including those on steel and aluminium) and more in the scenarios with additional tariff measures next year, but this is offset in part by the decline in activity.

The decline in trade intensity that results from the imposition of higher tariffs could also be expected to have some adverse effects on productivity and living standards in the medium term via lower competition, reduced scope for specialisation, and the slower diffusion of ideas across national borders (Haugh et al., 2016; Guillemette and Turner,

5. This broadly corresponds to the peak impact on investment of a one standard deviation shock to uncertainty found by Caggiano et al (2017).

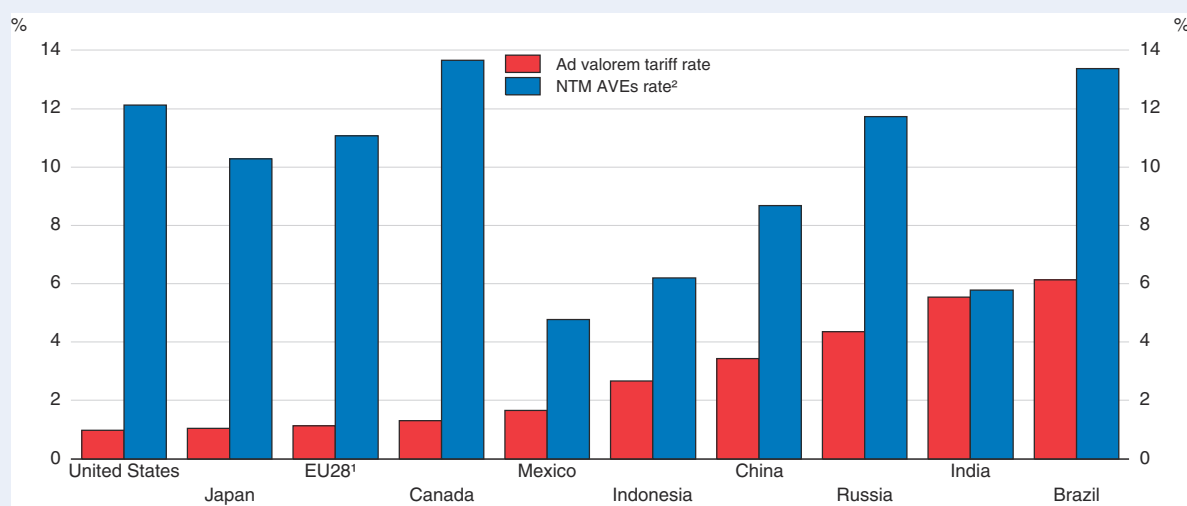
2018).⁶ In contrast, steps to lower tariffs could bring widespread gains (OECD, 2018c). Additional actions to raise non-tariff barriers, which in many countries are already higher than tariffs, would spread the impact of trade restrictions into many additional sectors and broaden the medium-term costs (Box 1.2).

Box 1.2. Non-tariff measures and trade

Non-tariff measures (NTMs) cover a diverse set of policies in terms of purpose, legal form and economic effect. They comprise all policy measures other than tariffs and tariff-rate quotas that have a more or less direct effect on the price of traded products, the quantity of traded products, or both. Generally, NTMs stem from domestic regulations that aim to overcome or reduce the impacts of market imperfections, such as those related to negative externalities, information asymmetries, and risks for human, animal or plant health. They also tend to increase the cost of production and trade and can influence, positively or negatively, the development of new technologies or production methods.

Recent OECD estimates of the *ad valorem equivalents* (AVEs) of NTMs show that, for most economies, current NTM levels are more than twice that of tariffs (Figure 1.12). Thus, international trade in goods and services can be strongly affected – both positively and negatively – by NTMs. However, because NTMs can have both positive and negative effects on trade, it is not practical to expect governments to eliminate NTMs in the same manner as they would eliminate tariffs. For example, compulsory labelling to address information asymmetries can increase business costs, but at the same time provide a signal of quality, strengthening consumer confidence in foreign products.


Figure 1.12. **Tariff and NTM estimates for selected economies**



1. Excludes Intra-EU trade.

2. Includes 4 types of non-tariff measures (NTMs) – Sanitary and Phytosanitary, Technical Barriers to Trade, border control measures, and quantitative restrictions.

Source: Tariff data are taken from the METRO model database. NTMs estimates are from Cadot et al. (2018), “Estimating Ad Valorem Equivalents of Non-Tariff Measures: Combining Price-Based and Quantity-Based Approaches”, *OECD Trade Policy Papers*, No. 215.

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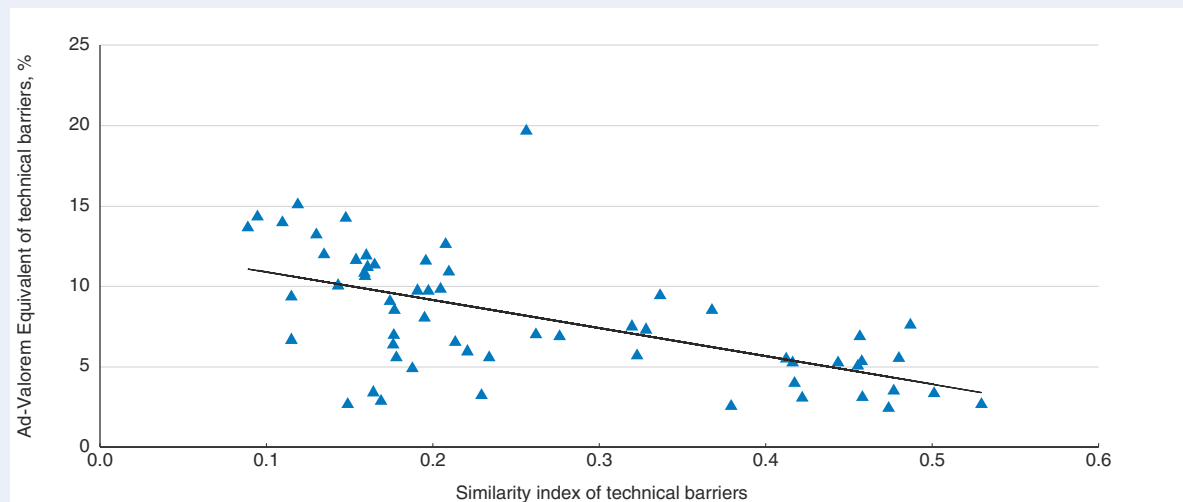
6. OECD estimates suggest that a decline in trade openness of 4 percentage points would lower total factor productivity by around 0.8% after five years, and close to 1.2% after ten years (Égert and Gal, 2017).

Box 1.2. Non-tariff measures and trade (cont.)

Nevertheless, there is scope to increase international trade by lowering the costs of NTMs, while still allowing governments to meet their objectives. Indeed the issue is not necessarily the regulatory objectives, which may be shared across countries. More frequently, the application of different standards or methods associated with regulatory measures raises costs for businesses seeking to access more than one market. Such costs can be related to different product and production requirements, conformity assessments and certification requirements, or information requirements to enter a new market. These can be especially burdensome for micro, small and medium-sized enterprises, where the cost of gathering the necessary information can be disproportionately high.

A growing body of evidence, including recent estimates by the OECD, suggests that reductions in regulatory heterogeneity lower trade costs (OECD, 2017c, Cadot et al., 2018). Using a measure of regulatory distance between trading partners, Cadot et al. (2018) show that the estimated AVEs for several NTMs tend to be higher when there are larger differences in regulations (Figure 1.13). Thus, there is scope to reduce trade costs by reducing regulatory differences, including through various avenues for international regulatory co-operation. Costs and benefits of increasing cohesion and reducing regulatory heterogeneity have also been identified in ongoing work on Preferential Trade Agreements. This evidence shows a strong, positive impact on bilateral trade flows when countries co-operate on issues such as Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade (TBT).

Figure 1.13. Price effects and regulatory similarity with partners



Note: Regulatory similarity is measured by scoring if a country pair has the same measure on a given product at six digits of the Harmonized Commodity Description and Coding Systems (index =1) or not (index = 0). The scores are subsequently aggregated and normalised to a number between zero and one.

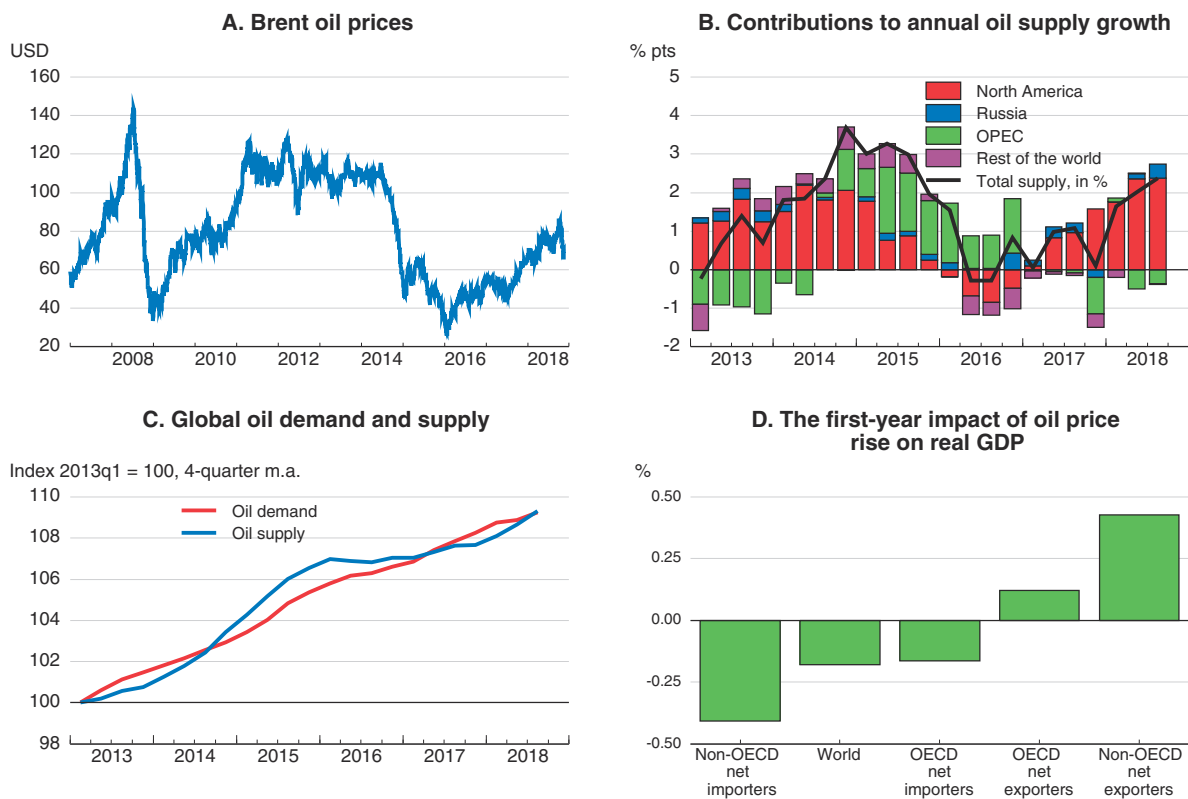
Source: Cadot et al. (2018), "Estimating Ad Valorem Equivalents of Non-Tariff Measures: Combining Price-Based and Quantity-Based Approaches", OECD Trade Policy Papers, No. 215.

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A rise in oil prices remains a downside risk

Despite strong production increases in the United States and Russia, oil prices have risen since the beginning of the year, pushed up by continued demand growth, supply disruption in Venezuela and uncertainties about the impact of sanctions on production in Iran (Figure 1.14, Panels A and B). While OPEC and selected non-OPEC producers agreed in

Figure 1.14. **Supply disruptions could push up oil prices, with a negative impact on global activity**



Note: In panel D, the results are from the NiGEM model based on an increase of 20 USD per barrel in oil prices, beginning in 2019. A negative shock on the investment risk premium is also applied for two years in Canada to better account for the investment boost in the oil sector such a shock is likely to produce. The OECD net importers group includes the euro area, Australia, the Czech Republic, Hungary, Japan, Korea, Mexico, New Zealand, Poland, Sweden, Switzerland, the United Kingdom and the United States. The OECD net exporters group includes Canada, Denmark and Norway. The non-OECD net importers group includes Brazil, China, India, Indonesia and South Africa. The non-OECD net exporting group includes Russia and the NiGEM regional groups for Africa, the Middle East and the CIS countries. Country groups are weighted together using purchasing power parities.

Source: OECD Main Economic Indicators database; Thomson Reuters; IEA, Monthly Oil Data service; and OECD calculations.

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May to ease supply restrictions, spare supply capacity has declined significantly, leaving the oil market vulnerable to major supply disruptions that could increase short-term pressure on prices (Figure 1.14, Panel C).

A rise in oil prices reallocates income between oil producers and oil consumers. Higher oil prices raise production costs and push up consumer prices in all economies, but oil-producing countries should benefit from a boost in investment in the oil sector and higher export revenues. The net impact of rising oil prices on global activity is expected to be negative, however, as the propensity to consume of oil importers is typically higher than that of oil producers.

Simulations on the NiGEM macro-model illustrate the implications of a rise in oil price by 20 USD per barrel starting in 2019 for five years. Monetary policy and exchange rates are both assumed to react endogenously. Such a shock weighs on trade, reducing world trade

volumes by 1% by 2020. Global output is also lower in 2019 and 2020 with differentiated impacts across countries (Figure 1.14, Panel D):

- In net oil-importing countries, higher oil prices weigh on investment, consumption and export volumes. The impact is largest in non-OECD net oil-importing countries as energy figures more prominently in consumption baskets and production methods.
- In the United States, which is still a net oil importer, higher oil prices have a negative impact on output, as the pass-through of oil prices to consumer and producer prices is relatively large in the economy. However, model simulations could understate the near-term boost to shale oil investment that could be generated by higher oil prices.
- Net oil-exporting countries benefit from higher oil prices through higher fiscal and export revenues. The boost in activity is especially large in non-OECD net oil-exporting economies, as they are on average less diversified than OECD economies with a larger share of the oil sector in the economy.
- Inflation would also rise substantially in the first year following an oil price shock, by around $\frac{1}{4}$ percentage point in the OECD economies and 0.4 percentage point in the non-OECD ones.

Some studies suggest that oil price fluctuations can also affect household and market inflation expectations (Coibion and Gordnichenko, 2015). Indeed, the fall in the oil price between 2014 and 2016 coincided with a decline in market-based long-term inflation expectation measures in the same period. This raises concerns about the possible long-term impact of the oil price rise over the past year on inflation expectations. However, the correlation could be due to common underlying factors. Distinguishing between “supply-induced” and “demand-induced” oil price rises is important. Some empirical studies have shown that only the latter typically have a significant impact on longer-term expectations (Perez-Segura and Vigfusson, 2016; Conflitti and Cristadoro, 2018), consistent with the theory that supply-induced increases in prices are a negative drag on economic activity, which could reduce longer-term inflation expectations.

Financial vulnerabilities are resurfacing

Risks of sudden tightening in financial conditions persist

Rising market interest rates and declining asset prices are normal adjustment processes during monetary policy tightening. However, the associated increases in volatility could pose risks to financial stability, as asset price corrections could be amplified and spread across different asset classes and countries, exposing vulnerabilities. Such risks are currently high. Monetary policy in the main OECD economies has been extremely accommodative for an extended period, keeping long-term government bond yields low, notwithstanding recent increases in a few countries, and encouraging risk-taking.

While recent reform efforts have made the banking system more resilient to shocks, some risks have shifted to non-bank financial institutions. Institutional bond investors, including pension funds, have become more vulnerable to interest rate increases, as they have bought riskier debt and extended maturities. Mutual funds and exchange-traded funds, which have grown strongly in recent years, are exposed to risks comparable to bank runs by offering liquid claims on illiquid underlying assets, with implications for broader financial stability (Chen et al., 2010; IMF, 2015). Life insurance companies, especially in the European Union, have accumulated long positions in interest rate swaps in order to hedge interest rate risks embedded in insurance contracts (ESRB, 2015). A sharp rise in interest

rates would generate losses on posted collateral and trigger margin calls on interest rate swaps, potentially forcing these companies to sell credit assets and propagating the shock to other asset classes. Over-the-counter derivative markets have become more transparent, but the role of central clearing has been strengthened and central counterparties can now aggravate market volatility (Heller and Vause, 2012; OECD, 2017a).

Financial stress has intensified in many emerging-market economies but to different degrees

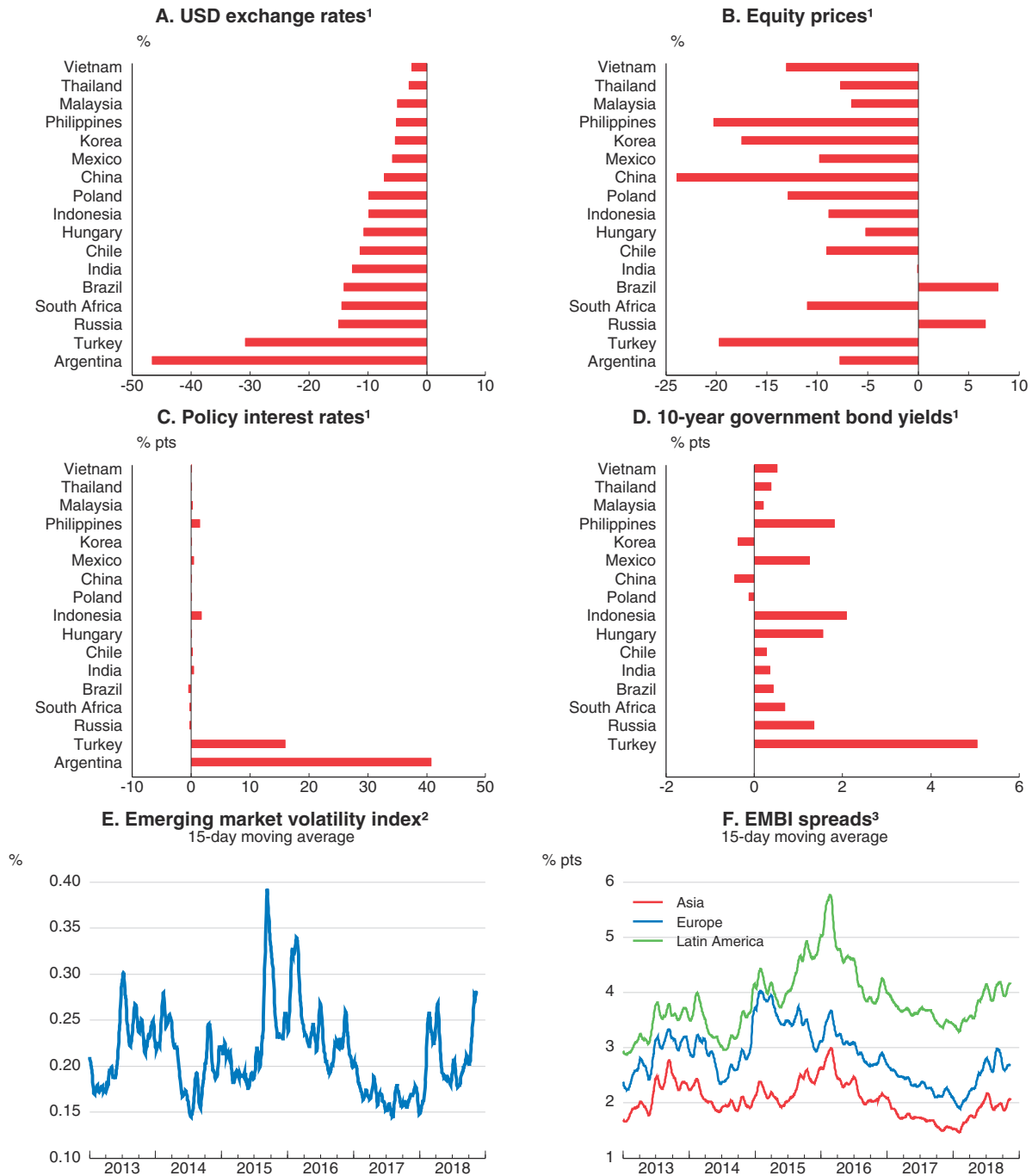
Argentina and Turkey have been experiencing severe financial turmoil (Figure 1.15). Rising tensions in these economies, in the context of US monetary policy normalisation and idiosyncratic domestic factors, led to a sudden change in market sentiment towards emerging-market economies and triggered capital outflows. However, the repricing of financial assets and the associated monetary policy reaction in other emerging-market economies has been more orderly and less extensive, largely reflecting differences in fundamentals (Figures 1.15 and 1.18).⁷

The financial stress in Argentina and Turkey does not necessarily imply systemic risks for the global economy given the extent of existing cross-border financial and trade links with other countries (Figure 1.16). Spillovers could be more consequential if a broader deterioration in investor sentiment were to arise. For instance, a persistent increase in investment risk premia of 100 basis points in emerging-market economies could reduce GDP by around ½ per cent over the next two years in the large emerging-market economies (Figure 1.17). This would have a small impact on the OECD economies in aggregate but countries with large exposures to emerging-market economies could be affected more substantially.

Emerging-market economies remain exposed to a further sudden change in market sentiment, particularly if there is a faster-than-expected normalisation of monetary policy in advanced economies. The impact of such shocks would depend on their magnitude and duration, and on economic fundamentals and political conditions in the affected economies. Countries with large government budget and current account deficits, small foreign currency reserves and a large share of foreign-currency-denominated debt are likely to be particularly exposed (Figure 1.18). Foreign debt and government debt have increased from the mid-1990s (relative to GDP) in many emerging-market economies, with the exception of some Asian economies and Russia, but their economic and financial conditions have generally improved in many other respects. Emerging-market economies have much lower inflation, improved external balances, higher foreign exchange reserves, more developed financial markets and more flexible exchange rate arrangements. The latter two aspects may help explain the generally smaller median decline in equity prices during recent episodes of market turbulence compared with the Asian crisis, and the somewhat larger median depreciation during the taper tantrum and 2018 episodes than in the late 1990s (Figure 1.19). Moreover, emerging-market economies have already adjusted to significant and protracted depreciation of their exchange rates during 2014-16 (Figure 1.19).

7. Government bond yield spreads in emerging-market economies against US bonds have increased, but remain below recent peaks in late 2015 and early 2016. Equity prices have declined in most economies and their volatility has increased.

Figure 1.15. Financial tensions have risen in emerging-market economies



1. Change between averages for January and mid-November 2018. For policy interest rates, changes between 1 January 2018 and 15 November 2018. No data are available for 10-year benchmark government bond yields for Argentina.
2. The equity market volatility index measures an expected symmetric range of movements derived from options in the iShares MSCI Emerging Markets Index for emerging-market economies (EMEs).
3. EMBI stands for J.P. Morgan Emerging Market Bond Index, which measures the yield spread between emerging-market economies' government bonds denominated in US dollars and US Treasuries.

Source: Thomson Reuters; and OECD calculations.


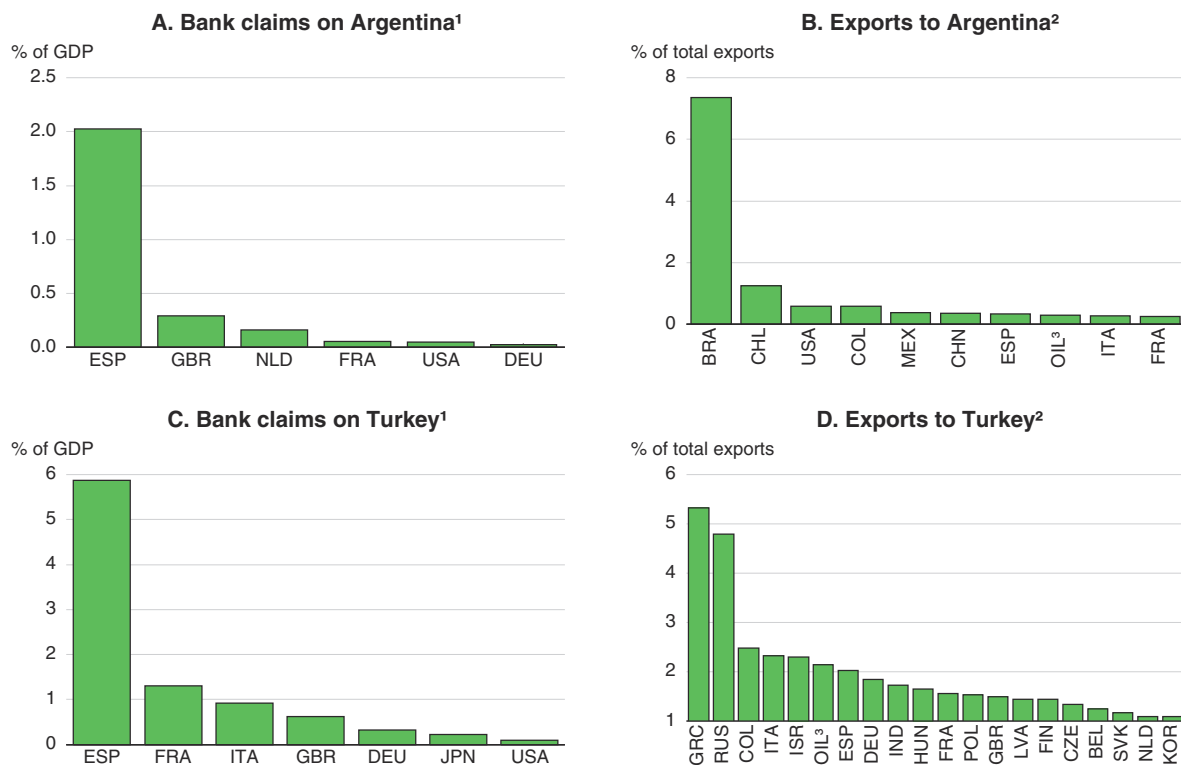
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Figure 1.16. **Financial and trade exposures to Argentina and Turkey are generally small**



Note: Percentages of GDP/total exports refer to GDP/total exports of the individual countries.

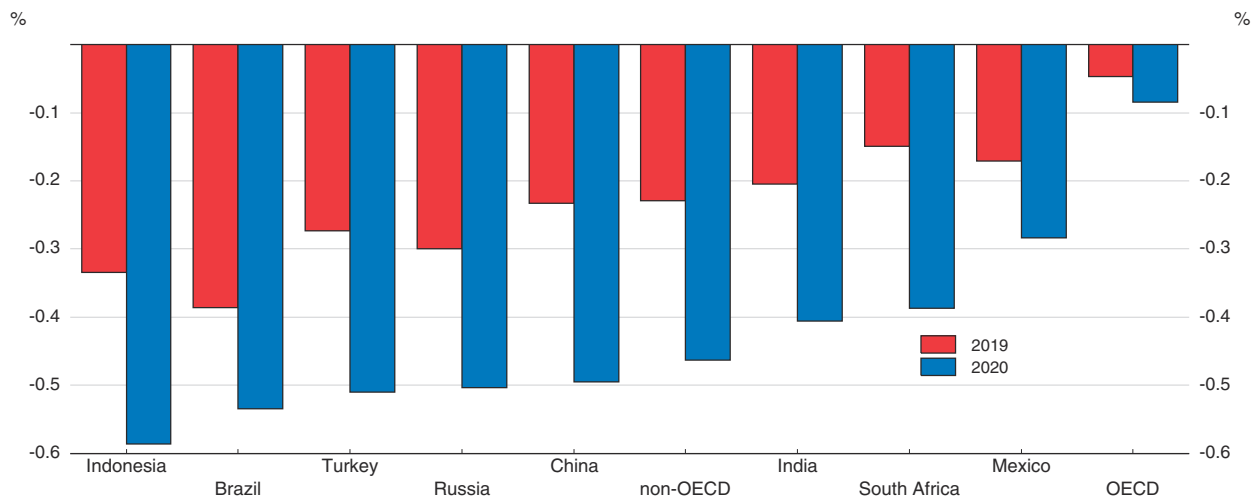
1. Based on an ultimate risk basis.
2. OECD estimates of bilateral trade in goods and services in 2016.
3. Oil producers include Algeria, Angola, Azerbaijan, Bahrain, Brunei, Chad, Republic of Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kazakhstan, Kuwait, Libya, Nigeria, Oman, Qatar, Sudan, Timor-Leste, Trinidad and Tobago, Turkmenistan, United Arab Emirates, Venezuela and Yemen.

Source: OECD Economic Outlook 104 database; Bank for International Settlements; and OECD calculations.

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Figure 1.17. **The output effect of higher risk premia in emerging-market economies**

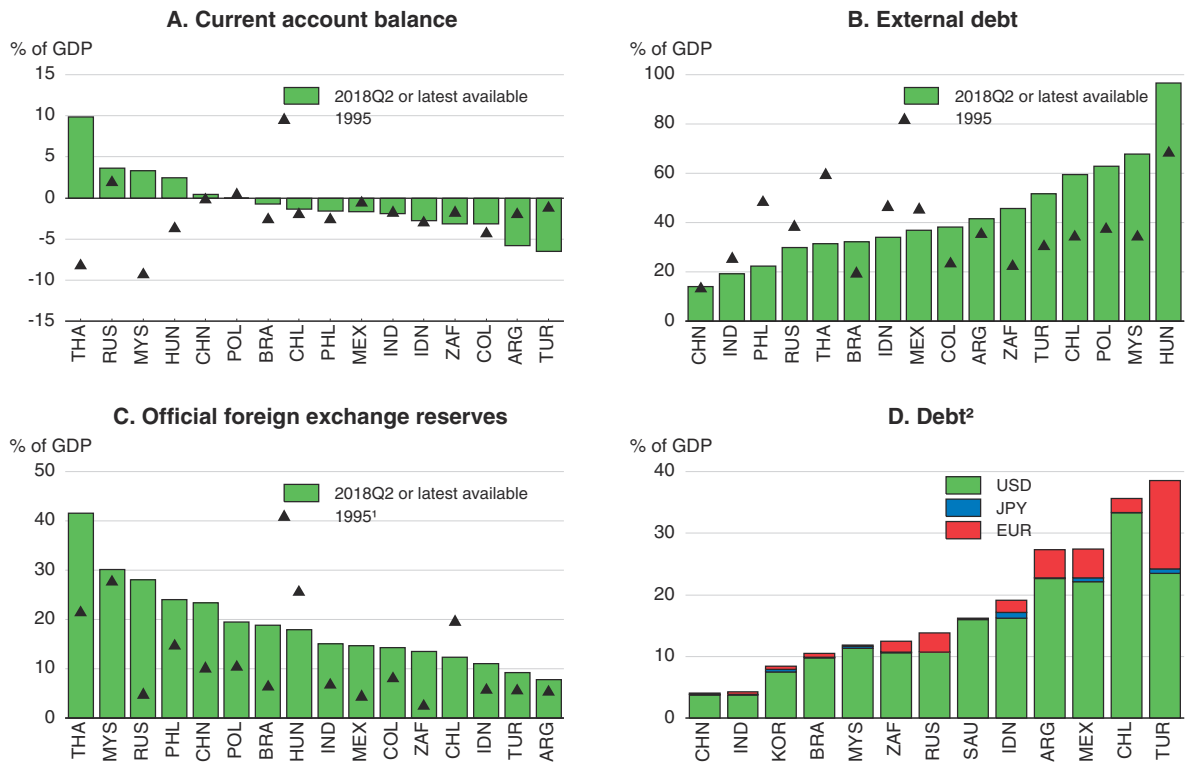
GDP impact of a 100 bps rise in investment risk premia in all EMEs, difference from baseline



Source: OECD calculations.

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Figure 1.18. Fundamentals differ across emerging-market economies



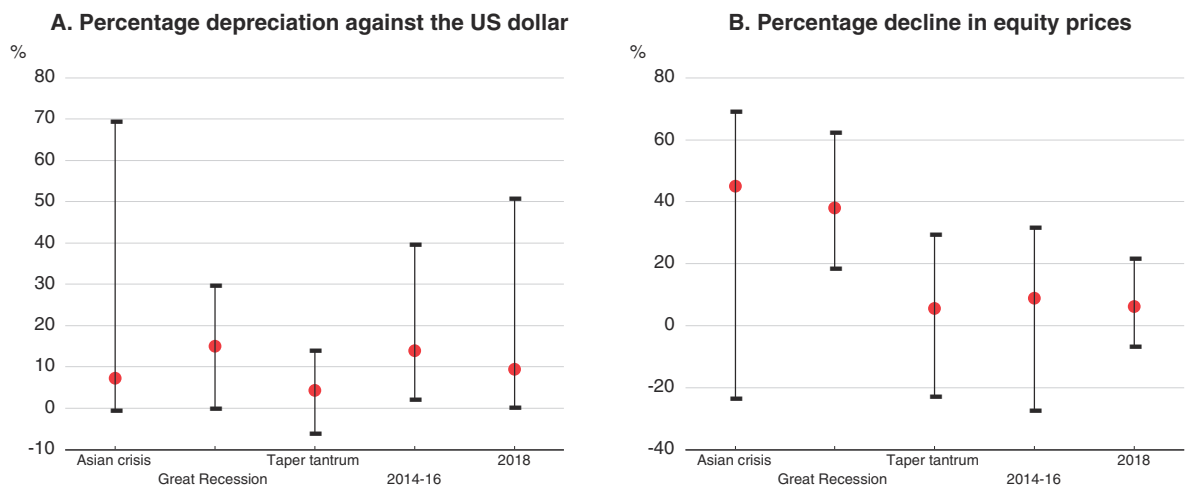
1. Data refer to 2000 for Malaysia and to 1998 for the Philippines.

2. Debt of non-bank borrowers in the form of bank loans and debt securities denominated in foreign currencies as of 2018Q2.

Source: OECD Economic Outlook 104 database; IMF World Economic Outlook database; Bank for International Settlements Global Liquidity Indicators database; World Bank Quarterly External Debt statistics; and OECD calculations.

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Figure 1.19. Changes in financial conditions in emerging-market economies during past and recent turbulence



Note: The dot refers to the median, and the bars show the range, of the countries covered. The “Asian crisis” refers to changes between the minimum for June-July 1997 and the maximum for January-September 1998; The “Great Recession” refers to changes between July 2007 and the maximum for November 2008-March 2009; “Taper tantrum” refers to changes between the minimum for March-April 2013 and the maximum for September 2013-February 2014; “2014-16” refers to changes between the minimum for May August 2014 and the maximum for November 2015 and January 2017; and “2018” refers to changes between January and September 2018. Based on the following countries: Argentina, Brazil, Chile, China, Hungary, India, Indonesia, Malaysia, Mexico, the Philippines, Poland, Russia, South Africa, Thailand, Turkey and Vietnam.

Source: Thomson Reuters; and OECD calculations.

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Risks of a slowdown in China have increased and trade-offs between sustaining high growth and stability persist

Growth in China has eased in the course of 2018, amidst tighter regulatory conditions on shadow banks (resulting in slowing social financing growth), a more rigorous approval process for local government investment, and new US tariffs on Chinese exports to the United States. The latter has weighed on equity prices and industrial production and, together with the narrowing of the interest rate gap with the United States, on the renminbi exchange rate (Figure 1.15). The authorities have begun to announce new stimulus measures, in addition to previously planned tax reductions, including steps by the central bank to ease financial conditions. The People's Bank of China has declared that it will not use exchange rate policy to cope with trade tensions and other external issues. However, perceptions that the currency is being used for such purposes could incite other countries in the region to follow suit, in order to maintain trade competitiveness, and intensify trade frictions more generally. The renminbi depreciation provides some offset to exporters facing higher tariffs in the United States, but potentially adds to challenges for competitors, especially those elsewhere in Asia.

Easier financial conditions may help to foster stronger credit growth and limit the slowdown in GDP growth. However, this could aggravate financial stability risks and delay the needed deleveraging of the corporate sector, increasing the risk of a significant downturn later on. Credit to non-financial corporations has begun to decline slightly but remains very high at around 160% of GDP, following a prolonged period of rapid growth. On the positive side, the authorities now monitor debt threshold levels for state-owned enterprises, potentially helping to limit indebtedness. In addition, the growth of shadow bank assets (entrusted loans, trust loans and bankers' acceptances) has declined. Similarly, any additional fiscal easing could help sustain demand growth but would limit room for fiscal stimulus if a sharp downturn subsequently occurred. Moreover, if the slowdown is of a structural nature, any policy stimulus could prove ineffective unless it is well targeted.

A much sharper slowdown in Chinese GDP growth than in the baseline projections would have significant adverse consequences for global growth, especially if it were to hit confidence in financial markets (OECD, 2015; OECD, 2018d). A decline of 2 percentage points in the growth rate of domestic demand in China for two years could lower annual GDP growth on average by around $\frac{1}{4}$ percentage point in Japan, East Asia and commodity exporters during these years. Overall, global GDP growth would decline by around 0.3-0.4 percentage point per annum. The impact would be over twice as large if the demand shock was accompanied by a significant decline in global equity prices and higher global risk premia, even with lower commodity prices acting as a shock absorber (OECD, 2015).

Policy requirements

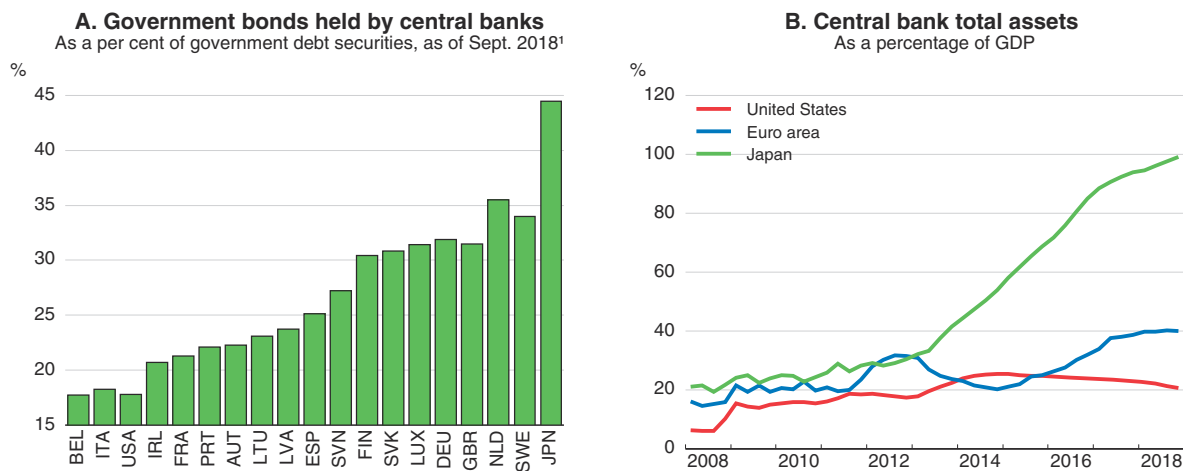
Macroeconomic policies need to maintain the global economic expansion, minimise the build-up of financial vulnerabilities, and ensure sufficient scope for policy support in the event of a future downturn. This calls for a gradual reduction in monetary and fiscal policy support, although at a differing pace across economies, augmented by ambitious supply-side policy reforms to strengthen medium-term growth prospects and enhance opportunities for all. Adequate financial regulation and supervision, including an enhanced deployment of macro-prudential policies, could mitigate some of the trade-offs that arise in reaching these goals.

Monetary and financial policy requirements

Reflecting different inflation, unemployment and output developments, monetary policies in the advanced economies have diverged and are set to diverge further:


- In the United States, monetary policy normalisation needs to be continued as planned, given strong near-term growth and the likelihood of medium-term pressures on inflation from low unemployment even after fiscal easing diminishes. The Federal Reserve has already increased the policy rate by 200 basis points since the end of 2015, taking the ceiling of the target range of the federal funds rate to 2.25%, and has started to reduce gradually its holdings of government bonds and agency mortgage-backed securities (Figure 1.20). On the basis of the projections discussed above, these measures should continue in order to bring the upper bound of the target range of the federal funds rate to 3½ per cent by the end of 2019 and then to keep it unchanged during 2020 provided inflationary pressures stabilise. As the reduction of previously accumulated financial assets will be advanced by 2020, the Federal Reserve should communicate its desired normal level of total assets and the future operating framework of monetary policy, thereby helping to minimise risks of market tensions. It could continue to operate a floor system with a larger balance sheet or return to a corridor system with a smaller balance sheet (OECD, 2017a).

Figure 1.20. **Several central banks have become dominant holders of domestic government bonds**



1. For the United States, marketable treasury securities, excluding treasury bills, held by the Federal Reserve as a share of outstanding marketable treasury securities, excluding treasury bills, at market value. For the United Kingdom, Asset Purchase Facility holdings as a share of outstanding (conventional) gilts, at market value. For Japan, government bonds held by the Bank of Japan as a share of outstanding treasury securities, excluding treasury discount bills and including FILP bonds, at nominal value. For the euro area countries, cumulative net purchases of government bonds in the Eurosystem Public Sector Purchase Programme at book value as a share of outstanding general government bonds at face value. For Sweden, the purchases of government bonds (338.74 billion SEK by 15 September 2018) as a share of outstanding government bonds as of September 2018, at face value.

Source: OECD Economic Outlook 104 database; Board of Governors of the Federal Reserve System; US Department of the Treasury, Bureau of Fiscal Services; Bank of Japan; Ministry of Finance Japan; Sveriges Riksbank; Swedish Central Government Debt statistics; UK Debt Management Office; Bank of England; European Central Bank; and OECD calculations.

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- In the euro area, the monetary policy stance should remain accommodative but the degree of policy accommodation should be reduced gradually. The ECB has already reduced its net asset purchases, and is expected to cease them completely by the end of 2018. With core inflation projected to rise towards 2% by the latter half of 2020, the ECB should start to raise the deposit interest rate in late 2019 from its current negative value to at least 0.2% by the end of 2020. As the normalisation of policy interest rates advances, a well-communicated plan with a gradual reduction of assets would be desirable to minimise the risk of financial market volatility. However, heightened uncertainty may require a more moderate pace of normalisation than otherwise.
- The Bank of Japan has strengthened forward guidance as achieving the 2% inflation target is taking longer than anticipated.⁸ Inflation remains well below the target despite the massive stimulus over the past five years and indications that the economy may already be at or above its potential. Against this background, a reappraisal of the monetary policy strategy and framework may be warranted (for instance by introducing an inflation target range with the lower bound below the current inflation target, see OECD, 2018d). This could also include a possible role for non-monetary policy measures, such as stronger increases in minimum wages.⁹ Increasing the flexibility in the yield curve control would be warranted if inflation moves closer to the target.

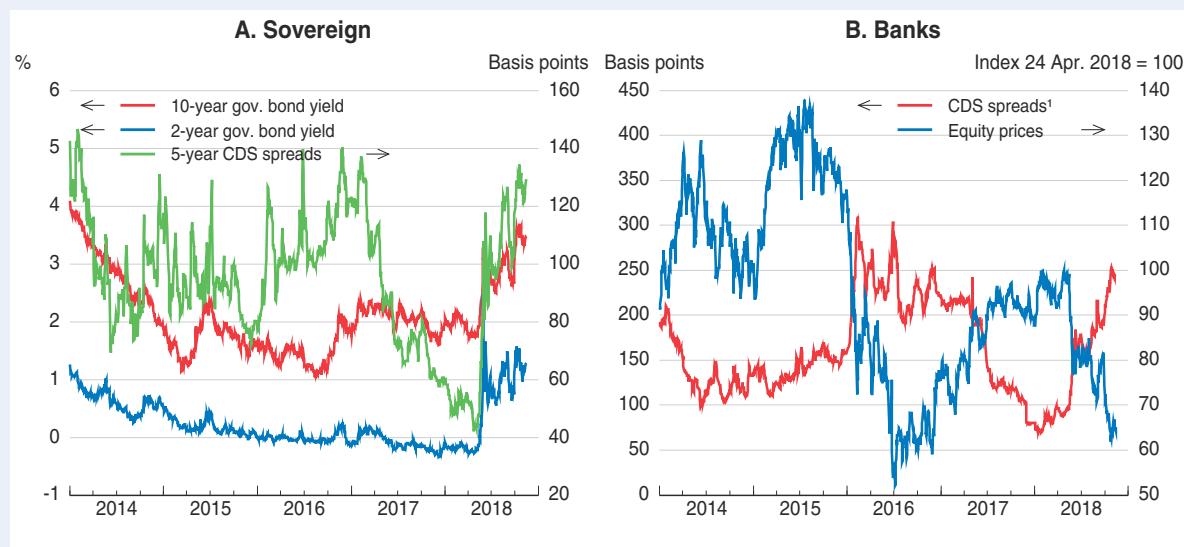
Further financial market volatility could arise during the normalisation of monetary policy in the main advanced economies, calling for measures to strengthen resilience. Financial resilience depends in particular on adequate regulation and supervision to secure sufficient capital and liquidity buffers of banks and other financial institutions. The use of macro-prudential policies has increased after the global financial crisis in emerging-market economies and, to a lesser extent, in advanced economies (OECD, 2018d). However, in the euro area, conditions for strong financial resilience are still missing, with little progress over the past five years. In June, it was agreed that the European Stability Mechanism would become a common backstop of the Single Resolution Fund, but practical details remain to be decided and it is not clear if sufficient resources will be secured. Moreover, no headway has been made with completing the banking union by establishing a common European deposit insurance scheme and severing the negative feedback loop between sovereigns and banks (OECD, 2018e). The recent increase in sovereign and bank risks in Italy (Box 1.3) makes implementing such reforms even more difficult politically.

8. The Bank of Japan has purchased government bonds equivalent to around 80% of GDP and now owns nearly 45% of total outstanding government bonds (Figure 1.20). It has also allowed some flexibility around the 10-year yield target on government bonds and enhanced flexibility in the purchase of exchange-traded funds' and Japan real estate investment funds' assets. As a side effect, this policy has lowered government debt servicing costs.
9. The government has already implemented a three-year tax break to firms that increase employees' pay by more than 3% and expand investment in fixed assets and human resources. In 2016, they also committed to increasing minimum wages by 3% per year, which has been observed so far. As the minimum wage is about 40% of the median wage (i.e. below the OECD average) and the unemployment rate is low, rising minimum wages by more than 3% could be considered but a rapid narrowing of minimum and average wage levels should be avoided.

Box 1.3. Vulnerabilities of Italian banks


Policy uncertainty has led to a sell-off of Italian sovereign bonds and depressed confidence in Italian banks. Government bond yields remain over 100 basis points higher than the average in the past three years, equity prices of Italian banks have declined by around 35% since end-April and both sovereign and bank credit default swap spreads have increased considerably, more than doubling from their recent lows (Figure 1.21).

Figure 1.21. **Sovereign and bank riskiness have risen in Italy**



1. The CDS index for Italian banks is the unweighted average of the 5-year CDS indices for: Intesa San Paolo, Unicredit, Mediobanca, Banca Monte dei Paschi and Unione Banche Italiane.

Source: Thomson Reuters; and OECD calculations.

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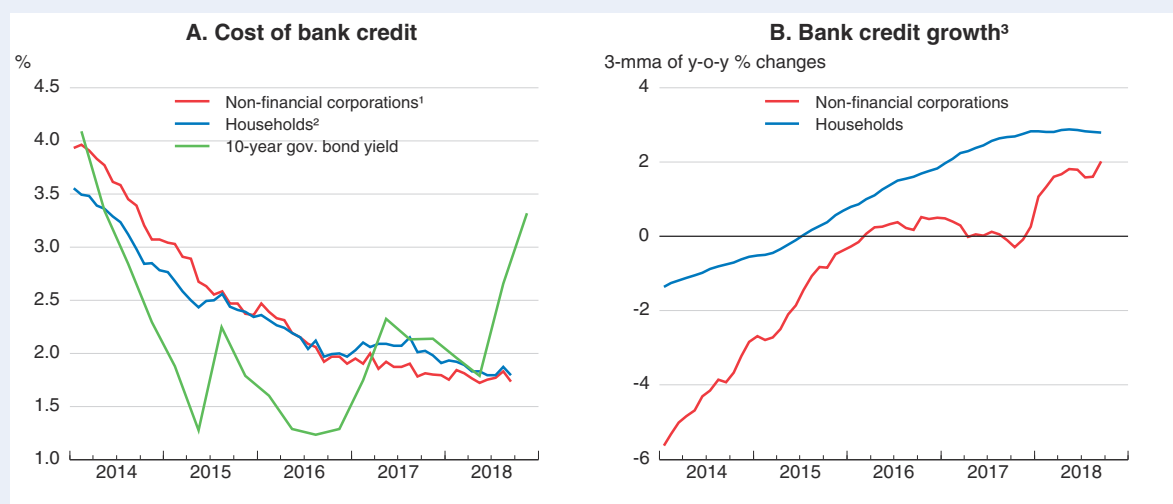
This renewed turbulence comes at a time when the soundness of Italian banks has improved, even if vulnerabilities persist. The banks on aggregate have doubled their ratio of regulatory Tier 1 capital to risk-weighted assets to 14.6% over the past decade. Few new non-performing loans (NPLs) have been registered and their stock has been reduced considerably, helped by the involvement of international investors and the introduction of a government guarantee for the senior tranches of NPL securitisations. Nevertheless, gross NPLs are still high, at 9% of total gross loans. The governance of Italian banks has also improved and profitability increased, partly due to lower provisions for credit losses.

Nevertheless, if sovereign debt tensions persist, they could affect Italian banks negatively, weighing on credit supply conditions and economic growth. Credit to the private sector has been growing but at a slow rate, despite the low and falling cost of bank credit, likely reflecting weak credit demand (Figure 1.22). Higher uncertainty about the Italian economy could slow the disposal of bad loans by banks and increase intermediaries' credit risks, reinforcing the negative feedback loop between the real economy and banks. Three specific mechanisms could play a role:

- Empirical evidence for Italian banks, based on 2011 data, suggests that bank lending rates are likely to rise following increases in sovereign credit risk, especially in banks with lower capital ratios and higher NPLs.¹ So far, higher government bond yields have not yet passed through to bank lending rates to the private sector (Figure 1.22)

Box 1.3. **Vulnerabilities of Italian banks** (cont.)

- By June 2020-March 2021 Italian banks will need to repay 240 billion euro of loans from euro area targeted longer-term refinancing operations (TLTRO), accounting for around 7% of their current total liabilities. Although banks have 70 billion euro of excess liquidity and will have access to low cost financing from other ECB loan facilities, this may result in somewhat higher refinancing costs.
- Italian banks maintain significant exposures to Italian sovereign bonds and thus remain vulnerable to mark-to-market impairments on sovereign bond portfolios (Figure 1.23).² A decline in sovereign bond prices similar to the one observed over the past year, without any offsetting measures, would reduce capital ratios in the banking system as a whole only marginally on average (Figure 1.23). However, sizeable declines in sovereign bond prices may be more damaging for those banks with the highest sovereign exposures. If banks wanted voluntarily to restore their capital ratios to have adequate buffers to meet future shocks, replenishing capital would be expensive with depressed bank equity prices. Banks might therefore choose to shrink their balance sheets to attain regulatory and desired capital ratios, with the associated reduction in the supply of credit weighing on economic growth.

Figure 1.22. **Cost of bank credit and bank credit growth**

Note: Data are in monthly frequency.

1. Total cost of borrowing.
2. Interest rates on mortgages for households.
3. Bank loans adjusted for sales and securitisation, index of notional stocks.

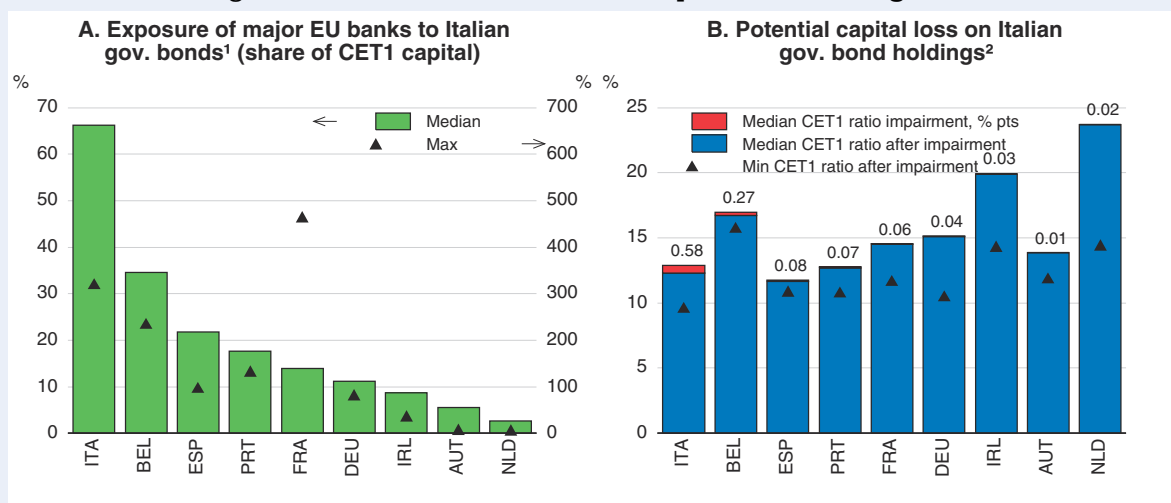
Source: European Central Bank; Thomson Reuters; and OECD calculations.

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1. Zoli (2013) finds that about 30-40% of the increase in sovereign spreads is transmitted to lending rates for companies within three months, and 50-60% is transmitted within six months, with a somewhat stronger pass-through for small loans. Albertazzi et al. (2014) suggest that a temporary 100-basis points increase in 10-year government bond yield spreads between Italy and Germany raises bank lending rates for companies by around 50 basis points after a quarter, while a permanent increase in sovereign spreads is fully transmitted after one year.
2. For the median Italian bank, holdings of Italian government bonds are well above Core Equity Tier 1 capital. Banks in other European countries are generally less exposed to Italian public debt, but pockets of risk remain in a few intermediaries with large holdings of Italian sovereign bonds (Figure 1.23).

Box 1.3. Vulnerabilities of Italian banks (cont.)

Figure 1.23. Italian banks remain exposed to sovereign debt



1. Exposure refers to both available-for-sale and held-to-maturity debt securities as of June 2017 based on the sample of banks participating in the 2017 EBA EU-wide transparency exercise for which data on Italian government bond holdings are available. It does not account for capital improvements or portfolio adjustments that may have taken place since June 2017.
2. An estimated impact on the Core Equity Tier 1 (CET1) ratio of banks due to a mark-to-market impairment on their holdings of Italian government bonds (classified in available-for-sale, held-for-trading and booked at fair value accounting categories) due to a 100-basis point parallel upward shift of the Italian yield curve. The estimates account for the average maturity of Italian government bond holdings.

Source: European Banking Authority; and OECD calculations.

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Fiscal policy requirements

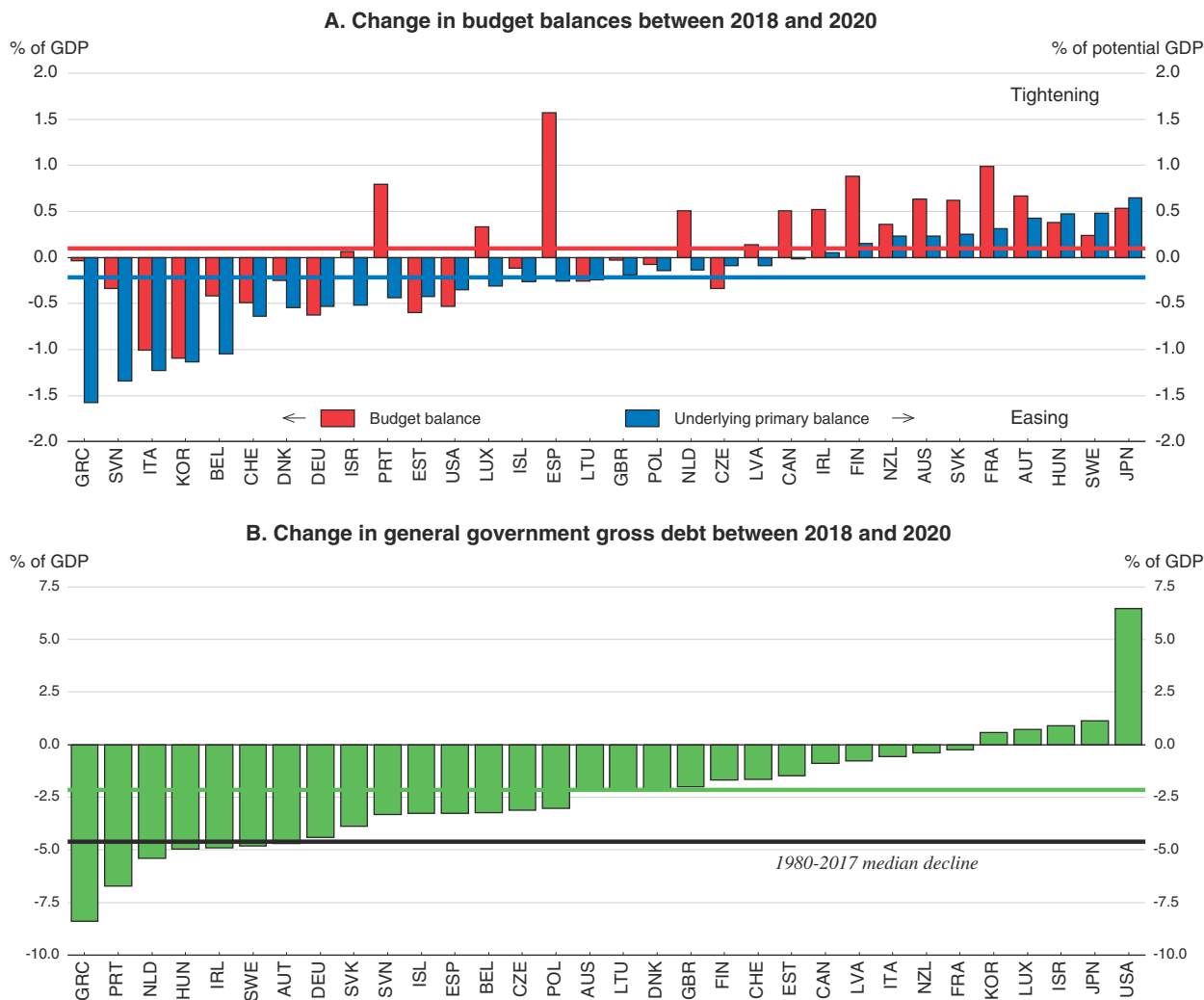
Following widespread significant fiscal easing in 2018, fiscal policy is projected to be broadly neutral in most OECD countries in the coming two years (Figure 1.24). Cyclical improvements, together with lower net interest payments, will help strengthen overall budget balances modestly in the majority of OECD countries, with the exception of the United States, Korea and a few euro area countries, including Germany and Italy. Government debt and deficits remain high (in most countries, higher than prior to the global financial crisis) and in many countries debt is not expected to decline by much in the next few years either in absolute terms or in comparison to past experience (Figure 1.24).¹⁰

The fiscal benefits from the prolonged accommodative monetary policy stance on debt interest costs in many advanced countries are expected to continue in the short term but gradually diminish. Lower and flatter yield curves in many advanced economies have helped to reduce debt servicing costs and thus strengthen overall budget balances.¹¹ At the

10. The expected median decline in gross government debt in relation to GDP is projected to be below the median pace of reduction observed for the OECD countries between 1980 and 2017.

11. In addition to the direct effect of lower interest rates, some governments have received higher transfers of profits from central banks. In recent years, the profits of the US Federal Reserve have been equivalent to more than 10% of government gross interest payments, i.e. twice as much as in 2008. In Italy, transfers of profits from the Banca d'Italia, that include the Italian share of ECB profits, increased to 7.5% of government gross interest payments in 2017, from around 2% in 2008-10. In the United Kingdom, cash payments from the Asset Purchase Facility Fund to the UK Treasury were around 20% of gross interest payments in the past four years. In Japan, the Bank of Japan payments to the government were around 5% of gross interest payments.

Figure 1.24. **Fiscal policy will be broadly neutral and government debt will fall in most OECD countries**



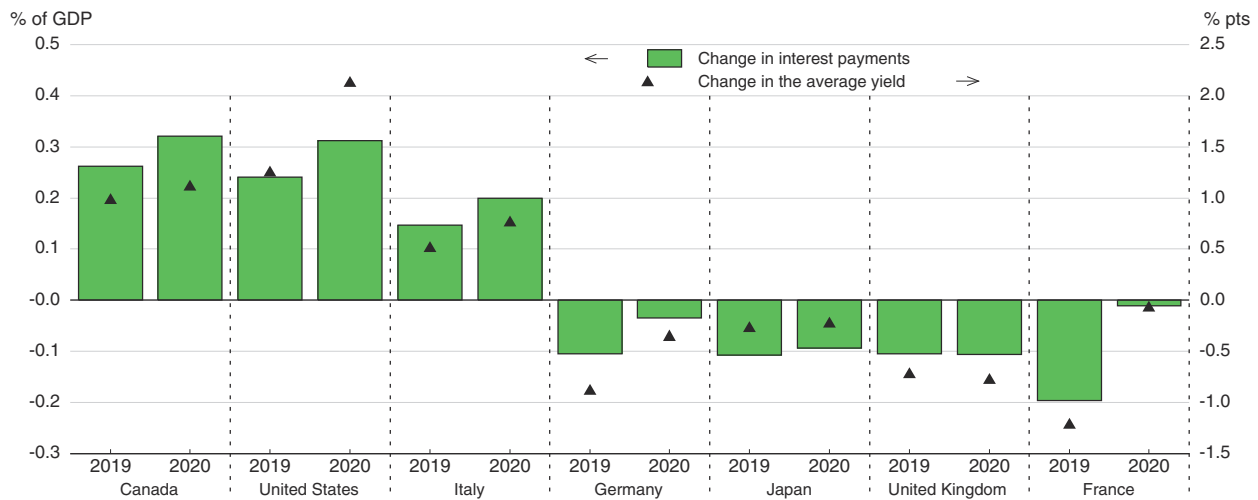
Note: Horizontal lines indicate median values for the corresponding variables. The median decline in gross government debt in Panel B is the two-year equivalent of an average annual decline in debt which lasted at least for two years across OECD countries between 1980 and 2017.

Source: OECD Economic Outlook 104 database; and OECD calculations.

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same time, they have made it possible to extend the average maturity of public debt, which helps to reduce rollover risks, at little extra fiscal cost, and slows the pass-through of market interest rates to debt servicing costs (Maravalle and Rawdanowicz, 2018). If longer-term bonds maturing in the next two years are rolled over at the same maturity in G7 economies, they are likely to have lower interest rates, helping to reduce average debt servicing costs in France, Germany, Japan and the United Kingdom (Figure 1.25).

Fiscal priorities differ across economies, reflecting differences in macroeconomic conditions and imbalances, and in policy needs. The neutral stance of fiscal policy in most countries in 2019 and 2020 is generally appropriate given the economic outlook. In some countries, the notable stimulus from fiscal policy in 2019 is warranted. This is the case for Germany, with its solid public debt position, high current account surplus and need to upgrade public infrastructure. However, in Italy, with high public debt and low productivity

Figure 1.25. **Debt servicing costs could still decline in some G7 countries**

Note: Aggregated changes in interest payments and in the average yield refer to individual marketable debt instruments (fixed rate and zero coupon bonds as of October 2018) maturing in the indicated years. They are computed by assuming that maturing debt is rolled over at the same original maturity at yields derived from estimated yield curves based on the OECD projections of short and long-term interest rates.

Source: Bloomberg; and OECD calculations.

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growth, the planned expansionary fiscal policy risks maintaining, or even raising, sovereign risk premia, which will weigh on growth. In the United States, continued fiscal stimulus in 2019 despite solid cyclical conditions will reduce the room for policy responses in the event of a future downturn. Only a few countries are projected to tighten fiscal policy significantly in 2019-20. The fiscal contraction in Japan in 2020 reflects the consumption tax increase, which will be compensated in part by higher social spending. Although this will help to reduce debt accumulation, further fiscal measures will be needed to attain the goal of primary balance by the mid-2020s.

Given the projected fiscal policy stance, governments need to prioritise measures to boost longer-term growth and foster inclusiveness. Countries with still high unemployment, and high inequality and incidence of poverty (like many crisis-hit European countries), should ensure adequate social programmes, including spending on education and active labour market policies. Similarly, economies with low growth and large infrastructure needs should implement fiscal measures that strengthen the supply side, such as increasing the availability of child care facilities to raise labour force participation (like Japan) and strengthening government infrastructure spending, including on digital infrastructure (like Germany and Central and Eastern European countries).

Policy options for emerging-market economies to deal with spillovers from advanced economies

Emerging-market economies remain exposed to a further sudden change in market sentiment, particularly if there is a faster-than-expected normalisation of monetary policy in advanced economies. Many are also experiencing rising inflationary pressures in the aftermath of the currency depreciations that have already occurred in recent months. The appropriate policy response depends on the magnitude of the shift in investor attitudes,

the extent to which vulnerabilities have built up, and the policy space available to mitigate these pressures.

- Emerging-market economies with a credible macroeconomic policy framework, flexible exchange rate arrangements and manageable exposures to foreign-currency-denominated debt may not need to implement any discretionary policy measures, leaving it to exchange rate adjustments to buffer shocks. Some further monetary tightening could be required to prevent exchange rate depreciations from adding to inflation (beyond the initial impact), but countries with solid fiscal positions can ease policy if necessary to support demand.
- In contrast, countries with fixed exchange rates or weaker macroeconomic fundamentals may have no choice but to tighten their overall macroeconomic policy stance, with negative implications for domestic demand, to restore investors' confidence.
- Imposing import tariffs and administrative price controls to deal with macro-economic imbalances (including current account deficits and high inflation) should be avoided as they introduce market distortions and are likely to harm growth prospects.

Structural policy ambition needs to be improved

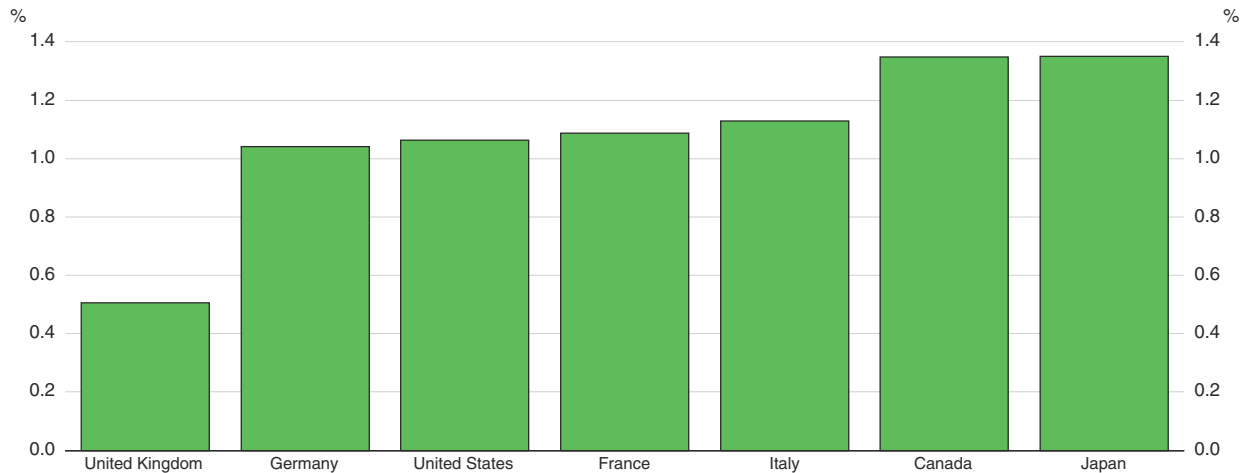
Structural reform efforts have recently stabilised in both advanced and emerging-market economies, but remain at a pace below that achieved in the aftermath of the financial crisis. Collectively, the G20 countries have implemented a number of beneficial reforms since 2014, but these fall short of the objective of achieving a 2% rise in the level of their combined GDP by 2018. Enhancing reform efforts in both advanced and emerging-market economies would help to improve living standards, strengthen the medium-term prospects for investment and productivity, and allow the benefits of growth to be distributed more widely.

Current cyclical conditions, with strong job growth, provide an opportune moment to implement reforms. Such 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. In all countries, 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. Improved redistribution through tax and transfer policies also needs to be 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.

As an illustrative example of the potential gains from stronger reform ambition, structural reforms that ease regulation in the energy, transport and communication sectors and boost spending on active labour market policies in G7 economies could increase the GDP level on average by 1% after five years (Figure 1.26; Égert and Gal, 2017), with slightly higher long-term effects.¹² The reform areas are illustrative but are broadly in line with the


12. These effects would either require changes in the two policy areas on a scale that has been typical among the OECD countries in the past or alignment with the best performer when the typical change is larger than the distance to the best performing country. The typical change refers to an average change in a policy indicator observed in the countries that implemented that particular structural reform in the past (Égert and Gal, 2017). The indicators include: overall regulation in energy, transport and communications (ETCR); and spending on active labour market policies per unemployed (as a % of GDP per capita).

Figure 1.26. GDP effects of selected structural reforms in G7 countries



Note: The GDP effects are calculated as a cumulative difference over five years between a country-specific reform scenario as estimated by Égert and Gal (2017), capturing the impact of structural reforms, and the baseline OECD long-term projections. Structural reforms include a typical past improvement observed in the OECD countries, or an improvement to the best performer if the gap with the best performer is smaller than the typical change, in two policy indicators (regulation in energy, transport and communications – ETCR; and spending on active labour market policies – ALMP).

Source: OECD Economic Outlook 104 database; Égert and Gal (2017), "The Quantification of Structural Reforms in OECD Countries: A New Framework", *OECD Journal: Economic Studies*, vol. 2016/1; and OECD calculations.

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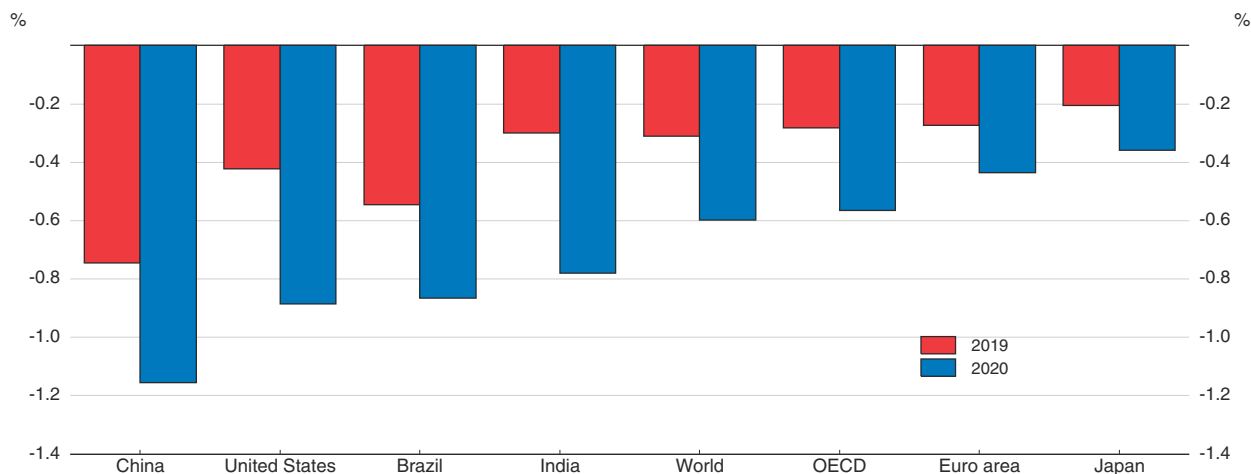
main reform priorities identified in 2019 *Going for Growth* (OECD, forthcoming). Such GDP gains could also improve government debt sustainability in high debt countries.

Arresting the slide towards protectionism and reinforcing the global rules-based international trade system through multilateral dialogue would also help to provide business with the confidence to invest and prevent the harm to longer-term growth prospects that would result from a retreat from open markets. Alongside steps to safeguard the rules-based international trading system, more needs to be done to mitigate the impact of stronger global integration on vulnerable workers and regions, helping those most exposed to the impact of global integration to find new jobs and acquire new skills. It is also vital to avoid policy mistakes, such as introducing trade policies that restrain imports rather than promote exports.

Policy options to counteract a future downturn


Increasing downside risks warrant an assessment of the policy options available if growth were to weaken more substantially than currently projected. Downside risks related to heightened trade tensions, financial market pressures on emerging-market economies and higher oil prices could all interact with one another, particular if stronger-than-expected price pressures from higher tariffs or a supply disruption to oil prices were to trigger additional monetary policy tightening in many countries. If substantial downside risks arise, policymakers could be faced with the challenge of having to respond to a significant growth slowdown at a time when inflation is rising and policy space is limited in many countries. For instance, the interaction of some of the risks discussed above could reduce global GDP by over 0.5% by 2020 relative to baseline and global trade by over 2% (Figure 1.27), based on simulations on the NiGEM macromodel. Global inflation would also be higher, by over ½ percentage point in both 2019 and 2020. If

Figure 1.27. **An interaction of downside risks would slow global growth substantially**
 Percentage difference from baseline in GDP at constant prices



Note: Combined effects from an increase of 20 USD per barrel in oil prices, an increase of 100 basis points in investment risk premia in all emerging-market economies and a further intensification of tariffs on US-China bilateral trade from 2019 onwards. All shocks are assumed to last for five years.

Source: OECD calculations.

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heightened trade policy uncertainty were to result in even weaker business investment than embodied in this scenario, the decline in global output would be even larger, at close to 1% by the end of 2020, with world trade declining by around 3%.

In many countries, there is less scope to use macroeconomic policy to boost growth than in earlier downturns. Very low policy rates and lower neutral interest rates make it difficult to reduce real interest rates substantially. Fiscal space is also limited in some countries, with a risk that any national fiscal stimulus could increase sovereign risk premia. This suggests that more international co-operation will be needed in the event of a serious downturn that affects a large number of economies, both on monetary and fiscal policies. Such co-operation, even if not formalised, could deliver sufficient collective action to address a global downturn, and make it easier for each country to ease macroeconomic policy, reducing the cost of such measures for individual countries.

Illustrative co-ordinated policy scenarios using the NiGEM global macro model suggest that moves to expand fiscal support could provide a faster way of offsetting a sharp cyclical downturn than steps to ease monetary policy in a co-ordinated fashion. However, the latter would have effects that persist for longer. Two particular forward-looking scenarios are considered:

- A three-year fiscal expansion of 0.5% of GDP in all countries and regions, with government budget targets being lowered by a corresponding amount. In most economies, this is assumed to occur via an increase in the volume of government consumption, but in some emerging-market economies it is a general rise in nominal government expenditure of 0.5% of GDP due to model limitations. Policy interest rates are assumed to remain at their baseline values for three years.
- The second scenario, which is also implemented in all economies and regions, is focused around a temporary monetary policy expansion. This considers the impact of an initial

¼ percentage point decline in policy interest rates in the typical economy plus additional quantitative easing for three years.¹³ The quantitative easing is assumed to lower the term premium on ten-year government bonds by 50 basis points for three years, implying a stimulus of around one-half of the initial quantitative easing measures undertaken by some advanced economies in the aftermath of the global financial crisis.

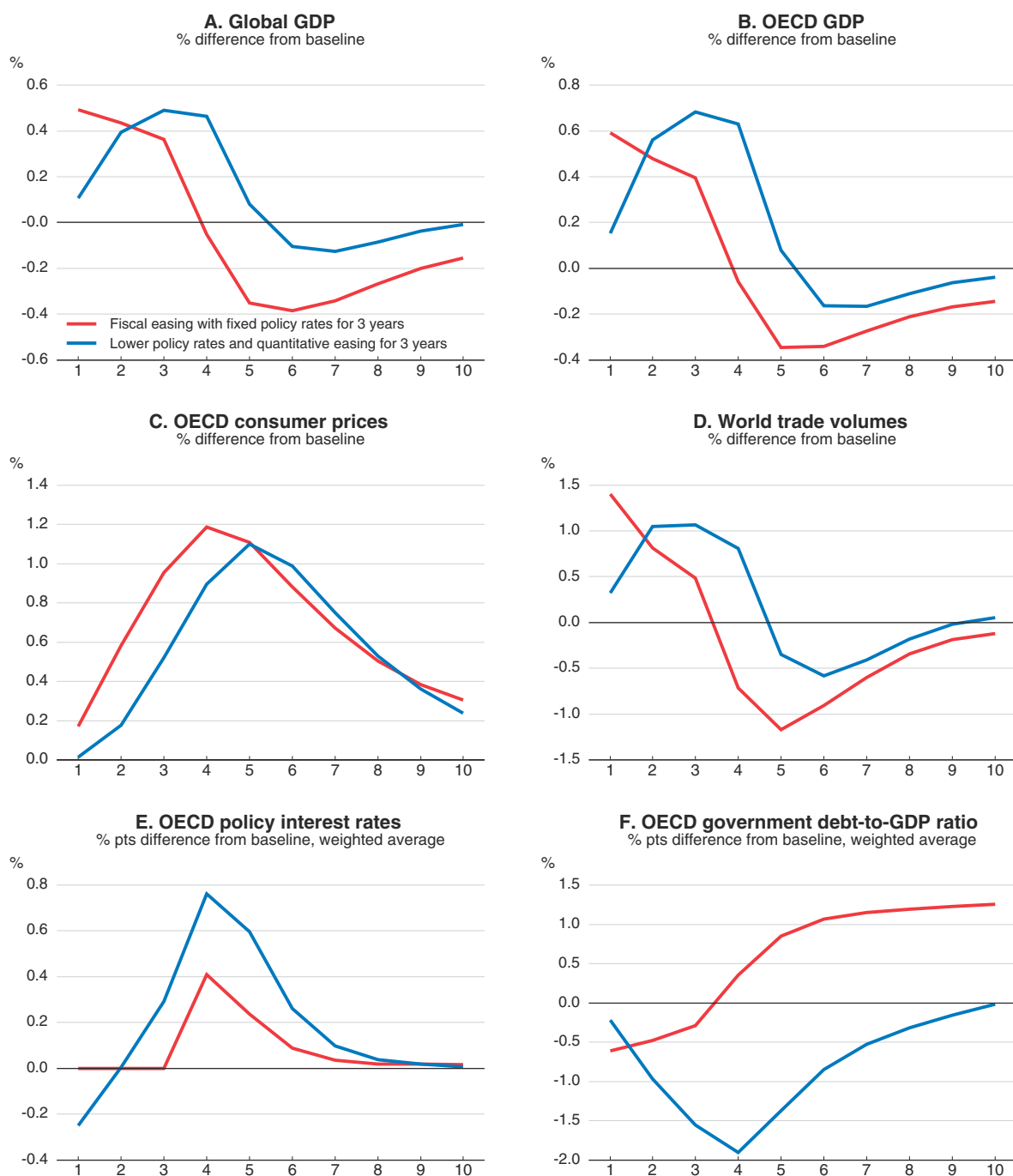
The co-ordinated fiscal expansion raises global output by around 0.5% in the first year, implying a multiplier of 1, but it starts to fade as inflation and policy interest rates rise (Figure 1.28). The co-ordinated monetary stimulus pushes down long-term interest rates relative to the fiscal scenario, and in the OECD economies long-term yields are around 25 basis points below baseline in the near term. This may be challenging to achieve in those economies in which substantive quantitative easing has already taken place and interest rates are at or close to their effective lower bound. The decline in interest rates brings about a sizeable increase in output, but this takes longer to appear than the effects from a pure fiscal shock. Policy interest rates are subsequently raised sharply, given the build-up of global inflation pressures (relative to baseline).

In addition to the different impact of these measures on output and inflation, they also have implications for financial markets and the level and composition of debt. However, the latter are in most cases small, in part reflecting the temporary nature of the downturn and the policy response. The fiscal expansion, focused on government consumption, results in a modest rise in the government debt-to-GDP ratio in the medium term. In contrast, the monetary expansion results in the government debt-to-GDP ratio remaining at or below baseline.


The results suggest that co-ordination could prove an effective counterweight to a sharp global cyclical downturn. Moreover, the effects would probably be larger than shown here, as collective action would help to underpin confidence and reduce uncertainty. Fiscal action involving a temporary period of higher government expenditure would provide the fastest offset to a downturn, but monetary stimulus could have longer lasting effects. However, a monetary stimulus on the scale considered here would be extremely difficult to implement in those economies where interest rates are close to the effective lower bound, reinforcing the importance of fiscal measures. The time lags typically involved in introducing new fiscal actions and in co-ordinating national responses also call for early planning on the possible measures that could be implemented in event of a sharp downturn. Using the margins available while above-trend growth persists to help rebuild fiscal buffers would create additional space for actions in event of a downturn.

13. The change in policy interest rates is brought about by a three-year increase of 1% in the nominal GDP target in the default policy rule on NiGEM.

Figure 1.28. Policy options to offset a global cyclical downturn



Note: The fiscal scenario is a co-ordinated global fiscal easing of 0.5% of GDP sustained for three years, with policy interest rates held fixed for three years. The monetary scenario is one in which the nominal GDP target is raised by 1 percentage point for three years and the term premium on long-term government bonds is reduced by 50 basis points for a similar period.
 Source: OECD calculations.

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ANNEX 1.1

Policy and other assumptions underlying the projections

Fiscal policy settings for 2018-20 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.

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 range for the target federal funds rate is assumed to be raised gradually to reach 3.5% in December 2019, up from the current level of 2.25%, and kept constant in 2020.
- In Japan, the short-term policy rate on the Policy-Rate Balances in current accounts held by financial institutions at the Bank is assumed to be kept at -0.1% for the entire projection period.
- In the euro area, the negative deposit rate is assumed to be increased from the current level of -0.4% to 0.2% by end of 2020, starting in the latter part of 2019.
- In China, monetary policy is assumed to be slightly accommodative.
- In India, the repo rate is assumed to be increased gradually from the current level of 6.5% to 7% in mid-2019 and then reduced to 6.75% in 2020.
- In Brazil, the policy rate is assumed to be increased gradually to 8.25% by the end of 2020.

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 continue but with more flexibility in the yield curve control towards the end of 2020, implying a slight increase in the 10-year government bond yield at the end of 2020. In the euro area, it is assumed that the ECB will gradually taper asset purchases in 2018, implying a gradual increase in long-term interest rates in 2019-20.

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 30 October 2018: one US dollar equals JPY 112.7, EUR 0.88 (or equivalently one euro equals USD 1.14) and 6.97 renminbi.

The price of a barrel of Brent crude oil is assumed to remain constant at USD 80 throughout the projection period, in line with the average price in September and October. Non-oil commodity prices are assumed to be constant over the projection period at their average levels from October 2018.

The projections for the United Kingdom use a technical assumption that the United Kingdom has a transition arrangement with the EU that extends to the end of 2020, following formal exit from the EU at the end of March 2019. This minimises potential disruption to trade. The end of the transition period is assumed to occur smoothly, but the final outcome of the agreement on the future relationship between the European Union and the United Kingdom is assumed to be uncertain through 2020.

Tariffs that have been introduced by the United States and China on their bilateral trade up to October 2018 are incorporated in the projections, but no additional measures are assumed.

The cut-off date for information used in the projections is 14 November 2018.



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