Prospects for individual economies

United States

In the previous *Review* we noted that although US quarterly GDP growth, at an annualised rate, had slowed from 4.2 per cent in the second quarter of 2018 to 3.4 per cent in the third quarter of last year, this pace of growth was not sustainable. Rapid growth had been supported by the fiscal boost, the effect of which was waning as time passed and the federal debt to GDP ratio has remained just over 100 per cent since late 2015. There had also been quite rapid growth of investment spending, particularly on residential construction and structures, and this was expected to moderate. The pace of GDP growth slowed further in the final quarter of 2018, to 2.2 per cent. This slowing takes the pace of growth to a more sustainable rate.

For the US, as with some other economies, there appears to have been a marked weakening in aspects of economic activity at the end of last year, although it was not perhaps recognised at the time. The Federal Reserve raised its policy rate by 25 basis points to the 2.25–2.50 per cent range on 19 December but since then monthly indicators have pointed to a slowing in activity and sentiment. Recent Federal Reserve statements have had a more 'dovish' tone and the future interest rate projections in the Federal Reserve's 'dot plot' were marked down for both short and long-term horizons on 20 March. Market expectations have backed away from projecting further rate rises this year; this view is reflected in our forecast.

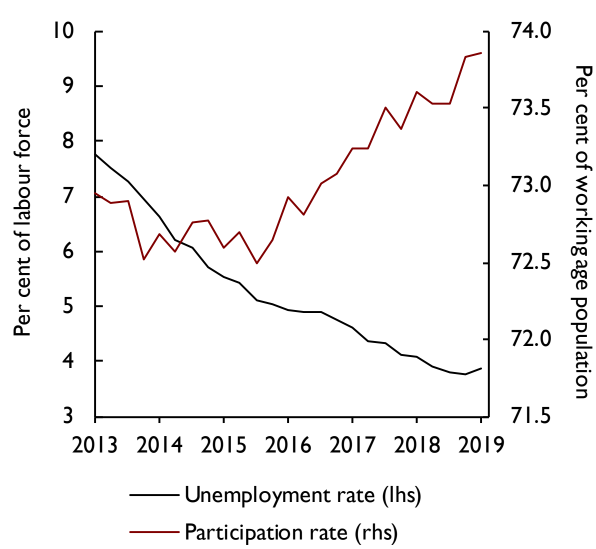
The anticipation of reduced monetary policy tightening should bolster economic growth. We expect GDP growth this year to slow to around 2½ per cent, from 2.9 per cent last year, a reduction in pace that takes it closer to estimated trend growth, with a further reduction in pace in 2020 to about 2 per cent. We expect that the rate of US output growth will still be faster than the other G7 economies collectively. The US will be contributing about 0.4 percentage points to global GDP growth each year (PPP basis). In comparison, China is expected to contribute around 1.2 percentage points.

Inflation has fallen back from 2.9 per cent last July to 1.5 per cent in February (the core PCE deflator at 1.8 per cent in January was its lowest since February 2018). The reduction in inflation provides the Federal Reserve with support to pause its rate normalisation policy, although average earnings growth has increased over the past year, reaching 3.2 per cent in March, up from 2.8 per cent a year earlier. At the same time, export growth has slowed, with exports to China falling in the final quarter of 2018. Whether this is a reflection of falling demand from China due to a broader picture of weaker Chinese activity or is due to the increase in tariffs that occurred last year, is difficult to assign. But the fiscal impetus in China this year and (at present) rather more positive signs on tariff negotiations could lead to this being a temporary effect.

Given the importance of the Federal government shutdown for both economic activity and the production of economic statistics, it may take some time for any irregular readings in economic statistics to give clearer messages, especially as the first quarter GDP growth figure will be negatively affected by this. The monthly non-farm payrolls figure for the number of new jobs fell sharply in February to 33,000, the lowest since September 2017, but increased to 196,000 in March. At the same time, the unemployment rate has now edged above its low point of 3.7 per cent recorded in September and November last year and shown signs of stabilising (see figure 7). Our forecast expects that, despite slower economic growth, the unemployment rate will remain at a historically low level in the near term.

There are risks to this outlook. In December there was a steep decline in equity markets which, although now

Figure 7. US: Labour market



Source: NiGEM database and NIESR forecast. U3 unemployment rate.

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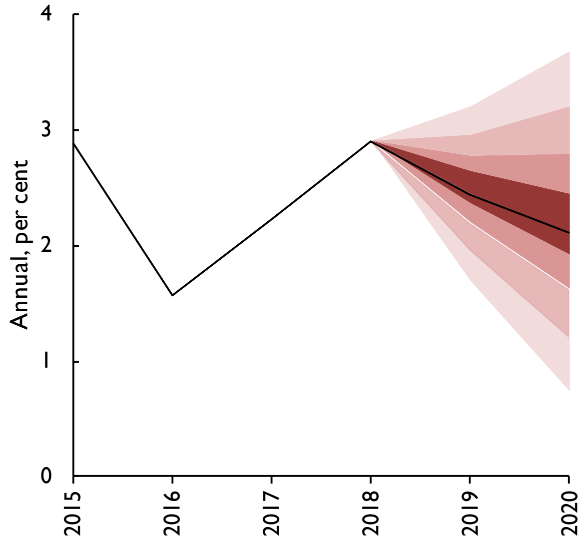
Figure 8. US: Annual GDP growth fan chart



Source: NiGEM database, NIESR forecast and NiGEM stochastic simulations.
Notes: The fan chart is intended to represent the uncertainty around the central forecast shown by the central line. There is a 10 per cent chance that GDP growth in any particular year will lie in any given shaded segment in the chart. There is a 20 per cent chance that GDP growth will lie outside the shaded area of the fan.

reversed, indicated a degree of volatility in financial markets that could be repeated, perhaps if a trade war is re-ignited. At the same time, although the yield spread is not signalling a recession, it is indicating an increased possibility of one and the current US expansion looks set to be the longest on the NBER record.[15] These indicate that downside risks to economic prospects are becoming more pronounced and may reduce business and consumer sentiment. If confidence and equity markets were to fall again, it is possible that, if the economy looked weaker than anticipated and inflation was below target, the Fed could move to ease monetary policy. Figure 8 illustrates the range of uncertainty in the economic growth outlook.

The trade and tariff discussions remain a key source of uncertainty for the both the US and the global economies. On 24 February President Trump announced that he would extend the 1 March trade-deal truce deadline and recent comments about the progress of negotiations between the US and China have seemed optimistic for a deal being struck. However, the possibility of the US imposing tariffs of up to 25 per cent on imported cars and car parts, which would adversely affect European exporters particularly, remains. Further increases in tariffs would reduce trade growth and could adversely affect financial market and business sentiment.

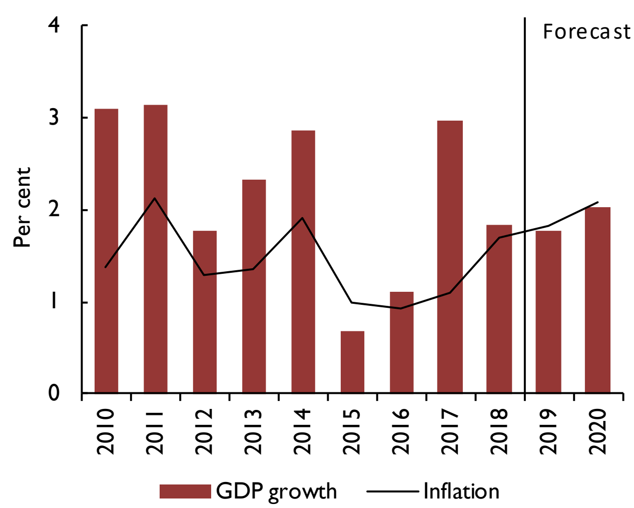
Canada

Canadian GDP growth in the last quarter of 2018, at 0.1 per cent, was the lowest quarterly rate since the second quarter of 2016. The economy was hit by a fall in oil prices and a reduction in oil production. Business and households' investment declined in the second half of 2018. The slight upward revision of our forecast for oil prices in 2019 should contribute positively to growth, but recent surveys have indicated mixed prospects at the start of the year. While the Bank of Canada's Business Outlook Survey indicator was still positive, manufacturing PMI dropped from a peak of 56 in June 2018 to 50.5 in March 2019. Balancing these forces, we forecast GDP growth of 1¾ per cent in 2019, unchanged from 2018.

Consumer price inflation declined further from a peak of 3 per cent in July 2018 to 1.5 in February 2019 and core inflation, which excludes gasoline, was stable at 2.1 per cent. We anticipate that inflation will remain close to the 2 per cent target over the coming year. As the slowdown in domestic and global economy has been more pronounced than forecast in its January Monetary Policy Report, we now expect the Bank of Canada to pause on its rate rises and keep its benchmark interest rate at 1.75 per cent.

Despite lower inflation and rising disposable income, households' consumption growth slowed down to 0.2 per cent in the final quarter of 2018, the slowest quarterly growth rate in 3 years, with the saving rate increasing slightly. We expect consumption to remain weak in 2019, growing by around 1 per cent compared to 2.1 per cent in 2018 as consumers progressively build up their savings.

Figure 9. Canada: GDP growth and inflation



Source: NiGEM database and NIESR forecast.

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Euro Area

During 2017 economic growth in the Euro Area was particularly strong (at 2.5 per cent) reflecting the tailwinds from the stronger global economy and the response to the monetary policy stimulus provided by the European Central Bank (ECB). But the impetus of above trend growth was not sustained, and growth weakened to a trend pace in the first half of 2018 (averaging 0.4 per cent a quarter compared to an average of 0.7 per cent in 2017). The second half of 2018 was very different, however, with a sharp drop in the pace of growth to 0.2 per cent, the weakest since mid-2014. The main reason was that two major economies, Germany and Italy, recorded falls in GDP in the third quarter with the industrial sector weakening, although growth rates in some other economies also dropped. Growth in the final quarter of last year held at 0.2 per cent, with Italy entering recession (as defined by two successive quarterly falls in GDP) and Germany narrowly avoiding the same fate.

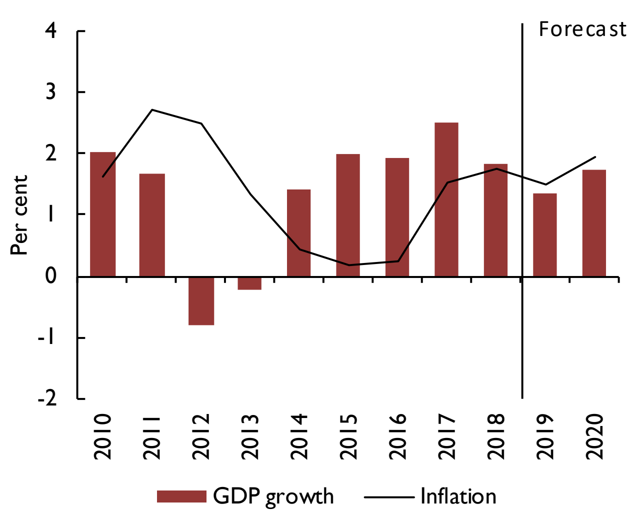
The industrial sector more widely has shown weaker performance. This has continued into the early months of 2019, with the IHS/Markit manufacturing Euro Area output PMI index at an almost five-year low in February and indicating falling manufacturing output. The service sector PMI output index has held up much better but still looks to be reporting the slowest growth for over two years.

The weakening in overall growth in late 2018 which has continued this year, and the particular difficulties in manufacturing industry, reflect the wider world trade growth pattern. Uncertainty over US tariffs and Brexit, together with the slowing of growth in China and the new emissions standards for EU vehicles, have all played some part in the industrial slowdown. Although the ECB ended its quantitative easing purchases of assets last year and provided guidance that key ECB interest rates would be held at least through the summer of 2019, the slowdown in the Euro Area economy has led to a monetary policy re-think. Following the 7 March ECB meeting, the period of holding rates was extended through 2019 and a new series of quarterly longer-term refinancing operations (TLTRO-III) was announced, with this due to start in September 2019. The ECB noted that these new operations would help to preserve favourable bank lending conditions and the smooth transmission of monetary policy. In turn, these actions should help to support economic activity and, while our forecast is for growth this year to be weaker than previously anticipated (1¼ per cent compared with 1¾ per cent), we expect quarterly growth in the second half of the year and into 2020 will be stronger than in the first half of the year. Our central forecast is for Euro Area growth to continue and not for a repeat of the 2012–13 reversal.

Consumer price inflation was initially estimated at 1.4 per cent in the twelve months to March, the same rate as a year earlier, but lower than the 2.3 per cent recorded in October 2018, when energy price inflation was running at just over 10 per cent. Our expectation is that inflation will continue to remain close to, but below, 2 per cent, aided in the near term by the reduction in oil prices in the second half of last year. If domestic price pressures, particularly from faster average earnings growth, build, core inflation, which has held below 1.5 per cent for the past six years, could pick up, with a possible limited overshoot of 2 per cent. But, in a slower growth environment, this would be unlikely to lead the ECB to re-consider dramatically its guidance on policy interest rates.

With inflation expected to remain close to, but below, 2 per cent beyond 2020, a very gradual path of rate rises is anticipated into the medium term, broadly in line with market expectations. Into the medium term, the continued slower annual rate of productivity growth and prospective demographic trends point to annual growth in the Euro Area being around 1¼ per cent a year, which would be lower than achieved over the past five years (2 per cent).

Figure 10. Euro Area: GDP growth and inflation



Source: NiGEM database and NIESR forecast.
Note: Inflation is based on HICP.

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Germany

The German economy lost momentum in the second half of 2018 in large part because of the disruption to automobile output which was triggered by a new emissions standard, and also because cargo transport along major rivers suffered as a result of low water levels. Activity slowed substantially, but official data suggest that the economy escaped a technical recession with output unchanged in the final quarter. Following from this and the weakness of industrial output indicators so far this year, we have revised lower our GDP forecast for 2019 from 1.3 per cent to 0.8 per cent.

We expect the economy to recover as the drag on activity from these one-off shocks fades, but the carry-over effect of the second half weakness will act as a headwind to calendar year growth in 2019.

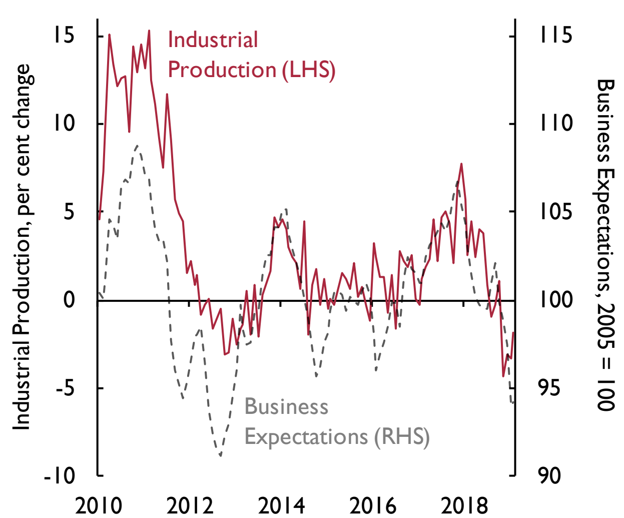
The outlook for 2019 will largely depend on the external environment – in particular, political developments in the Euro Area, any uncertainty associated with Brexit, and in trade negotiations. Export demand is likely to remain weak in the near term as seen in the manufacturing sector in the first quarter of 2019. As shown in figure 11, the business surveys, such as the IFO and the PMI, suggest that the sector has failed to bounce back after the surprising slowdown in the second half of 2018. The latest PMI manufacturing survey for March suggests that output fell at the fastest pace since 2012 and that the slowdown was broad-based. The forward-looking components of these surveys point to persistent weakness for at least the next few months. The slowdown in activity, combined with elevated levels of uncertainty around global growth and trade, is likely to weigh down on business investment in the manufacturing sector.

Employment has expanded at a solid pace, the unemployment rate is at 3.1 per cent and job vacancies are at elevated levels. The tight labour market has led to higher wage growth, with wage inflation at 2.8 per cent in the final quarter of last year compared with 2.0–2.2 per cent in recent years. Wage growth is likely to remain at these levels over the forecast horizon and we assume that the ongoing collective negotiations will strike a balance between pay increases and additional leisure time as was the case last year, probably reflecting a focus on encouraging participation to increase labour force potential.

Elevated levels of consumer confidence are likely to support retail sales and the services sector more generally. The latest services sector PMI has, in contrast to manufacturing, recovered to a six-month high and the household sector is likely to benefit from additional fiscal transfers. The German government has plenty of fiscal space, with the government budget remaining in surplus should there be a need to stimulate growth.

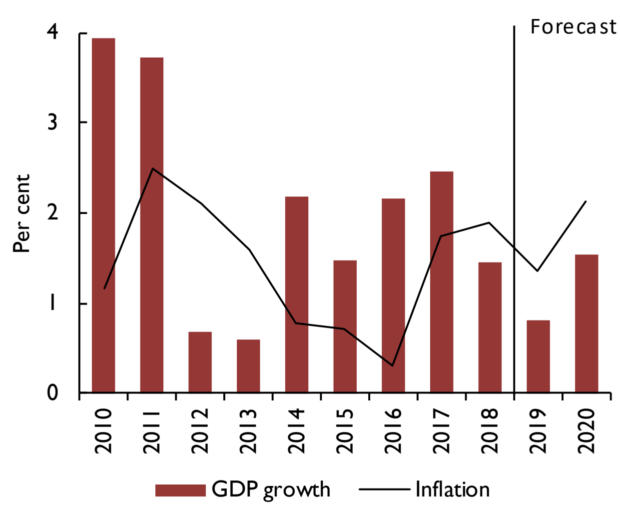
Activity in Germany is also likely to be supported by lower borrowing costs. Bund yields have fallen in response to the slowdown in global growth and the reversal in the ECB's monetary policy stance towards more accommodation. At the time of writing, the two- and five-year yields are below 0 per cent with the benchmark 10-year rate at just –0.03 per cent.

Figure 11. Germany: Short-run activity indicators



Source: NIESR, Datastream.

Figure 12. Germany: GDP growth and inflation



Sources: NiGEM database and NIESR forecast.
Note: Inflation is based on HICP.

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France

The French economy is expanding at a steady but moderate pace and we expect this to continue, with GDP growth in 2019 of 1¼ per cent, lower than the 1.6 per cent achieved in 2018. We expect the composition of growth to be rebalanced towards a relatively stronger contribution from domestic demand as foreign demand is expected to weaken, in part because of the uncertainty from the process of the UK exiting the EU.

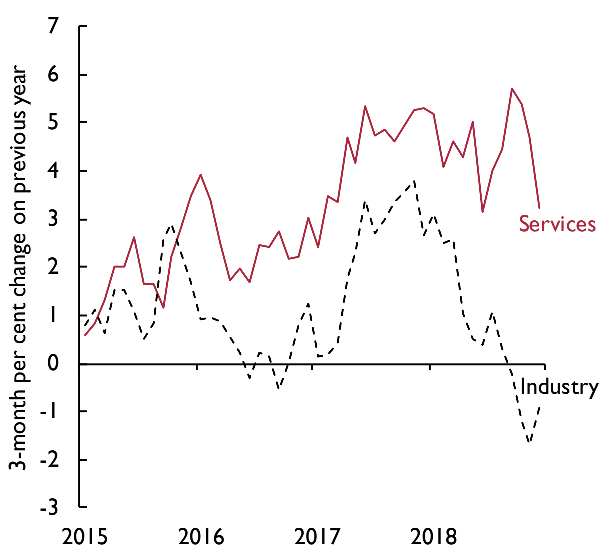
Production indices show a divergence in experience between the industrial and the services sectors, as illustrated in figure 13. Industrial output in the three months to January 2019 declined by 0.9 per cent compared to the same three months a year ago, but services output increased by 3.2 per cent over the same period. Leading PMI indicators in March were close to 50 in both sectors, suggesting that business conditions may be stable, but both surveys mentioned weak export sales as a significant negative factor.

Inflation was 1.3 per cent in March 2019, down from a peak of 2.6 per cent in July and August 2018, with the reduction driven by a slowdown in services inflation, a fall in the inflation rate of manufactured products, and the effect of the decrease in energy prices. Core inflation, which excludes the prices of food and energy, was even lower, at 0.7 per cent in February 2019. We expect inflation to edge up through this year and average around 1½ per cent in 2019 and to increase towards 2 per cent in 2020 as declining unemployment and above potential growth start to reveal capacity constraints.

Wages increased by 2.2 per cent between the fourth quarters of 2017 and 2018, up marginally from 2.1 per cent between the third quarters of 2017 and 2018. But the lower consumer price inflation provided for a boost to the purchasing power of households' disposable income, which increased by 1.1 per cent in the fourth quarter of 2018, after 0.3 per cent in the third quarter. On the back of a large fall in households' confidence that we highlighted in the February *Review*, consumption growth stalled in the fourth quarter of 2018, with the saving rate rising through the year to 15.2 per cent in the last quarter. We nonetheless forecast a rebound in consumption in 2019 as indicated by a strong rebound in INSEE's household confidence index from January to March 2019, and continuing real personal disposable income gains.

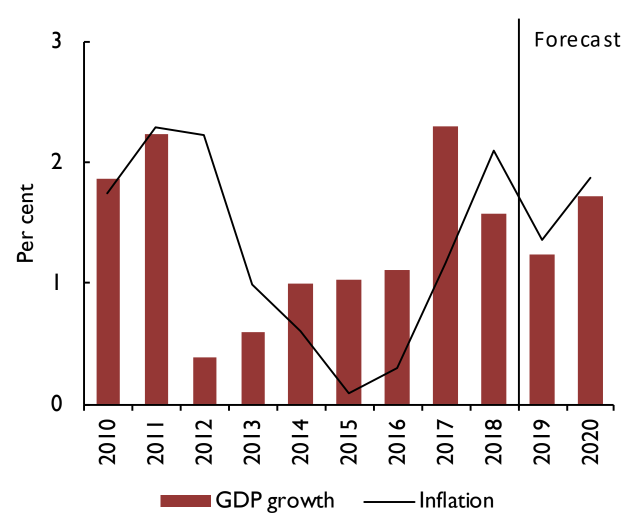
In an uncertain business environment, worries about a global slowdown and continued domestic social unrest, business investment grew by only 0.3 per cent in the fourth quarter of 2018, compared to 1.6 per cent in the third quarter. Inventories declined by 0.1 per cent of GDP. Unemployment declined only marginally during 2018, from 9.1 per cent in the fourth quarter of 2017 to 8.9 per cent in the fourth quarter of 2018. We forecast that the unemployment rate will continue to decline by a modest 0.3 to 0.4 percentage points this year and next. The main domestic downside risk to our forecast is that if household consumption fails to rebound despite stronger real income growth, then economic growth would be slower.

Figure 13. France: Industrial and service sector output growth



Source: NIESR, INSEE.

Figure 14. France: GDP growth and inflation



Source: NiGEM database and NIESR forecast.
Note: Inflation is based on HICP.

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Italy

We have revised lower our forecast for 2019 GDP growth from about 1 per cent to around ½ per cent. The downward revision reflects several factors, including a weaker-than-expected outturn for fourth quarter GDP growth, headwinds from domestic political uncertainty and a less favourable international backdrop. These cyclical factors accentuate an already challenging domestic economic environment.

The economy slipped into a technical recession in the second half of last year and lead indicators such as the PMI survey suggest that the weakness has persisted in the first quarter of this year and looks set to continue in the near-term. The PMI manufacturing output balance fell for the eighth month in succession in March and the outlook among businesses in the private sector is the weakest since late-2012. That pessimism, combined with relatively high borrowing costs, will likely act as an impediment to business investment in Italy.

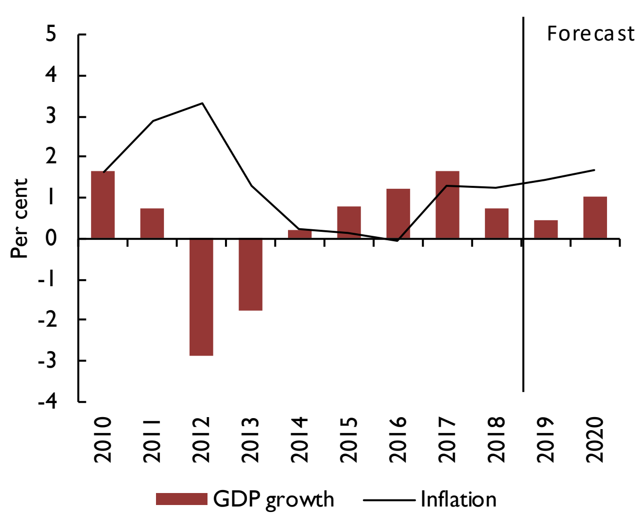
That said, there are a number of tailwinds that might support aggregate demand in the near term. The most proximate of these is stockbuilding. According to official data, inventory de-stocking made a large negative contribution to GDP growth in the final quarter of 2018 and there may be scope for a bounceback in the first quarter. In addition, the government's fiscal stimulus and, within that, the citizens' income programme will support consumer spending. At the same time, monetary policy is likely to remain accommodative for the foreseeable future.

Despite our expectation of GDP growth of ½ per cent this year and 1 per cent next, the risks to GDP growth remain tilted to the downside. Chief among domestic risks is higher borrowing costs for companies. Italian banks have made considerable progress in tackling their non-performing loans portfolio. However, the interdependence between the creditworthiness of domestic banks and the sovereign remains in place and, as a result of that, lending to the corporate sector is vulnerable to a sell-off in sovereign bonds.

Spain

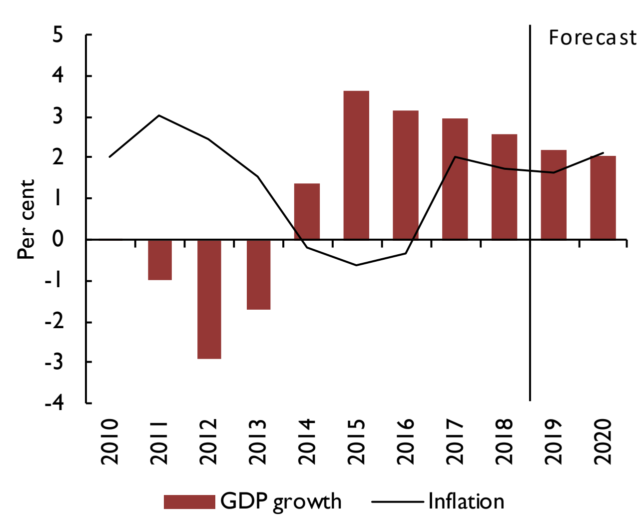
The pace of economic recovery in Spain is slowing. In the fourth quarter of 2018, the rate of annual real GDP growth fell by 0.2 percentage points to 2.3 per cent. While this is relatively strong compared to other economies in the Euro Area, it is somewhat weak compared to Spain's recent performance, with annual economic growth falling to its lowest rate since 2014. We anticipate this slowing to a more sustainable rate of growth continuing, with GDP growth of 2¼ per cent in 2019 and 2 per cent in 2020, as the strong recent investment growth edges down and the scale of annual falls in unemployment (the unemployment rate fell by 0.6 percentage points to 13.9 per cent over the last quarter) moderate.

Figure 15. Italy: GDP growth and inflation



Source: NiGEM database and NIESR forecast.
Note: Inflation is based on HICP.

Figure 16. Spain: GDP growth and inflation



Source: NiGEM database and NIESR forecast.
Note: Inflation is based on HICP.

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Inflation fell sharply during late 2018 to 1 per cent in January, but has ticked up to 1.3 per cent in March. We expect harmonised consumer price inflation to increase from this rate as the year progresses, to average around 1½ per cent in 2019 and 2 per cent in 2020.

There are important downside risks to the forecast. Internationally, these stem from the possibility of the China-America trade dispute escalating and from the uncertainty created by Brexit. Domestically, political risks remain. The Spanish parliament recently rejected the government's budget proposal, and a general election is to be held at the end of April, the outcome of which will be important for future fiscal policy. Upside risks might come from a faster pace of wage increases leading to greater domestic demand growth.

Japan

Japanese GDP grew by 0.5 per cent in the fourth of quarter of 2018, rebounding from a decline of 0.6 per cent in the preceding quarter, with a strong increase in capital expenditure. Increasing investment has become a particularly important factor owing to the chronic labour shortage facing Japanese businesses and the need for faster productivity growth.

We expect growth of around 1 per cent this year, aided by a slight pick-up in domestic demand ahead of the planned rise in the consumption tax from 8 to 10 per cent currently scheduled for October 2019. As previously, we anticipate an intertemporal shift in household consumption to favour 2019, before consumption spending is reduced following the tax change. A simulation discussing this was presented in the February *Review*.[16]

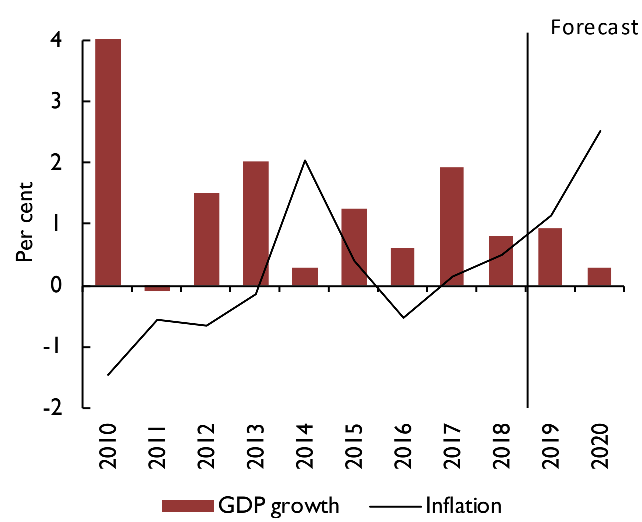
This consumption tax increase was originally planned for October 2015 but postponed on two occasions due to concerns about the impact on consumer spending. Prime Minister Abe has ruled out postponing the increase "unless an event with the magnitude of the Lehman Brothers shock happens"; while the Bank of Japan has promised to maintain its current accommodative monetary policy stance until the effects of the tax rise fade out. Our current assessment is that the tax rise will proceed, reflecting policy announcements mitigating the overall economic impact of the tax rise, such as Free Early Childhood Education and Childcare, which reduces the overall economic impact from 5.7 trillion to 2 trillion yen.

There remains a risk that the tax increase may be delayed if the recent weakness in survey data on economic activity continues. The March Nikkei Composite PMI Output Index posted its lowest reading since 2016; new export business declined in March for the fourth consecutive month, and the widely watched Tankan index for large manufacturers recorded its lowest reading for two years. However, growth in the service sector has remained above its long-run average, partially offsetting the weakness in manufacturing. We ascribe some of this slowdown in the industrial sector to recent weak sales to China and Taiwan, so the announced Chinese fiscal stimulus should mitigate some of this weakness, though any stimulus will not pass through immediately.

We expect GDP to grow by around 1 per cent in 2019, but with notably slower growth of about ¼ per cent in 2020 as the effects of the tax increase feed through. Stronger households' spending in 2019 is followed by weaker spending in 2020.

Despite the very low unemployment rate (relative to G20 averages), and an estimated positive output gap, inflation has continued to remain stubbornly below the Bank of Japan's 2 per cent target.[17] Headline inflation declined to 0.2 per cent in January and February, continuing the fall from the October print of 1.4 per cent. With the Bank of Japan expected to maintain its accommodative monetary policy stance until the effects of the consumption tax increase fade, we forecast inflation to average just over 1 per cent this year, increasing to 2½ per cent in 2020 as the effects of the consumption tax increase pass through to prices. Any alteration to the consumption tax reform

Figure 17. Japan: GDP growth and inflation



Source: NiGEM database and NIESR forecast.
Note: Inflation is based on consumer expenditure deflator.

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will put downward pressure on inflation in 2020 relative to this expectation. We view lower wage increases than in 2018 as a key downside risk to the inflation path, as survey evidence suggests some firms are planning on offering lower increases than last year. Toyota, the largest automaker in Japan, has offered average pay increases lower than the equivalent increase in 2018, perhaps reflecting the pressures in the car market globally. How the economy balances the current weak manufacturing performance with strong service performance will determine how the GDP and inflation paths evolve throughout the remainder of 2019.

China

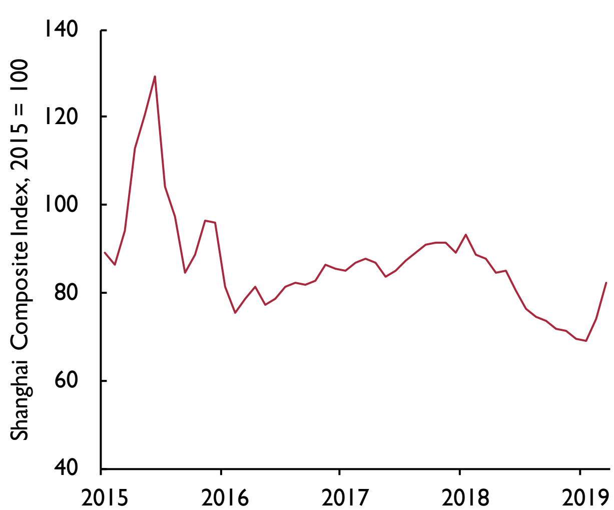
Annual GDP growth in China slowed to 6.6 per cent in 2018 from 6.9 in 2017, with the four-quarter growth rate in every quarter during the year being weaker than in the preceding quarter. Annual growth of 6.6 per cent was the weakest since 1990, reflecting both the continuing rebalancing of the economy but also international pressures, especially from US tariff increases. Fearing a significant worsening of economic activity, the government has introduced changes to monetary policy and a fiscal stimulus to stabilise output growth. So far, compared to previous episodes, the stimuli have been smaller and more targeted, suggesting a more modest impact on the economy (see Box C for analysis on the impact from the fiscal stimulus). Even with the fiscal stimulus, we continue to expect output growth to slow further, to 6¼ per cent in 2019 and about 6 per cent in 2020, and to around 5½ per cent a year in the medium term.

Both upside and downside risks to our forecast remain, depending on the results from the trade talks. Upside risks could materialise if a positive trade agreement is achieved and trade barriers are removed and the downside risk could be realised if talks were to break up and as a result a new round of tariffs was imposed by the US, with retaliation by China.[18]

At the time of writing, in mid-April, there is an expectation of a positive US-China trade deal outcome, with the possibility of a trade agreement being signed in May. The majority of outstanding issues appear to have been resolved, but questions still remain concerning implementation and enforcement of an agreement. Even though remaining issues are more complex than those that already have been agreed, this positive development was enough to lead to a jump in stock markets in China as well as around the world at the beginning of April (figure 18). Given the combined share of the US and China in world GDP of around 34 per cent (based on 2011 PPP), it is not surprising that businesses around the world are keenly waiting for the outcome of the trade talks.

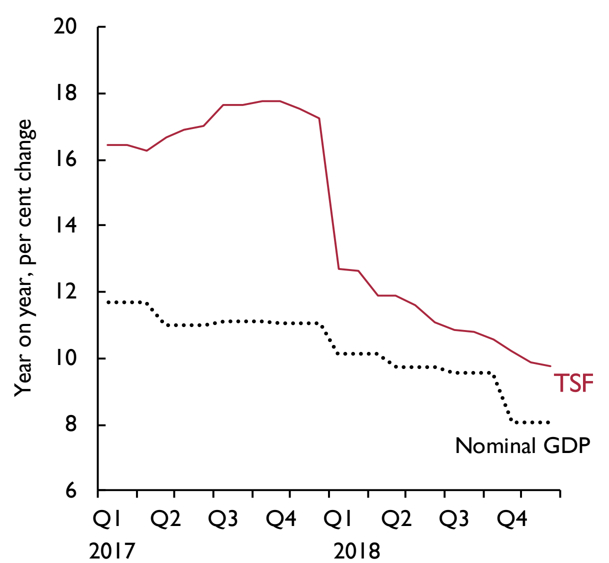
On monetary policy, we anticipate the accommodative stance will continue. The authorities have already taken several steps to increase the liquidity in the system. Reserve requirement ratios for banks have been cut

Figure 18. China: Stock market movement



Source: Datastream.

Figure 19. China: Nominal GDP and total social financing



Source: Datastream and NiGEM database.

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Box C. Fiscal stimulus in China to boost global growth

The slowdown in annual GDP growth in China to 6.6 per cent in 2018, the weakest since 1990, has received a lot of attention, given China's increased importance in world output growth (contributing 1.2 percentage points in 2018 based on 2011 PPP, up from 0.7 percentage points in 2000). While reforms to rebalance the domestic economy have gained traction over the past several years, this process has recently been overshadowed by the introduction of tariffs on goods imported from China by the US over the course of the past year and by trade related tensions. Partly as a response, there has been a significant weakening in economic activity in China in recent quarters. Based on our earlier work (see Liadze, 2018) we expect the level of GDP in China to be lower than otherwise by about 0.3–0.6 per cent as a result of the implemented and threatened tariffs. The Chinese government has responded promptly to the threat of weakening output growth and, since the summer of 2018, has started to use monetary and fiscal policy to support growth in the economy.

In March 2019, the government announced a fiscal stimulus of about 2 trillion yuan (2.2 per cent of nominal GDP in 2018) covering a reduction in taxes (VAT and personal) and employers' social security contributions. We use NIESR's Global Econometric Model (NiGEM) to run a set of stylised scenarios to investigate the impact of the fiscal package (alone as well as coupled with a reduction in investment premia) on output in the first year. We conduct three sets of simulations: first with simply the aforementioned cuts in taxes; second, the fiscal stimulus is augmented to take into account more freely available credit (via a reduction in investment premia) for private business in China; and lastly, added onto the second scenario, a simulation which allows for an increase in business confidence (via a reduction in the investment premium as a proxy measure) in the economies round the world following on from the action in China to boost output growth.

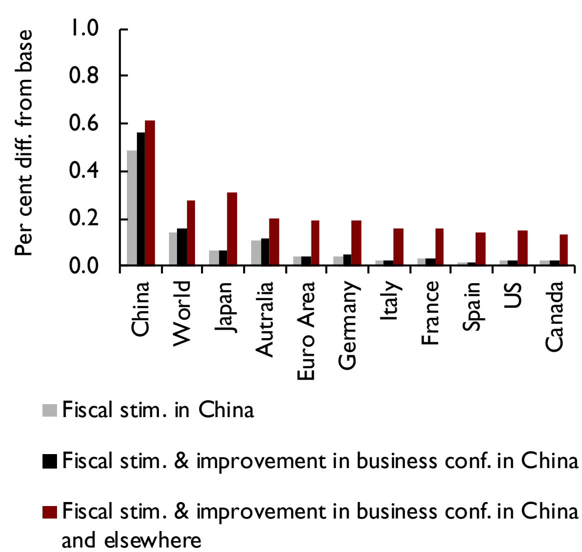
The fiscal shock is calibrated to deliver an annual reduction in 2019 only of about 750 billion yuan in VAT and corporate tax receipts, about 500 billion yuan in lower personal taxes and a 700 billion yuan increase in government transfers. To proxy credit loosening as well as an increase in business confidence, we reduce investment premia by about 0.4 percentage points (which is a reversal of a recent increase of the corporate premium observed in some of the developed economies). The shocks are applied for one year and monetary policy and fiscal policy rules in China are allowed to react to the developments in the economy from two years after the start of the shock.

Figure C1 illustrates the estimated impact on the GDP level (relative to baseline) in China, selected advanced economies and the world as a whole for all three scenarios. The fiscal stimulus alone is expected to lift output in China by about 0.5 per cent, roughly offsetting the anticipated negative impact from the implementation of tariffs. In the first year the fiscal boost in China is accompanied by a reduction in prices, as a result of cuts in VAT rates, further supporting output growth.

In the first scenario world output is expected to be about 0.1 per cent higher than it otherwise would have been, as some of the stimulus spills onto the rest of the world via higher Chinese imports. The effect from the fiscal stimulus on other countries would depend on the combination of their trade intensity with China as well as the reaction of monetary policies to changes in domestic prices. Inflationary pressures from the Chinese stimulus will spill over to other economies triggering monetary policy responses, and thus counteracting the somewhat positive impact from the trade channel.

The largest increase in world output (about 0.3 per cent) is observed when, as a result of the fiscal stimulus, business confidence is lifted in China as well as in its trading partner countries, leading to an increase in global business investment. Among the countries shown in the chart, the largest beneficiaries are Japan and Australia.

Figure C1. Impact on GDP level in the first year



Source: NiGEM simulations.

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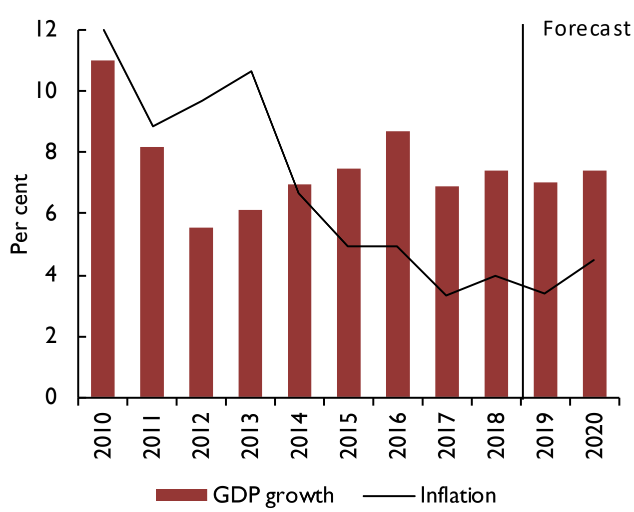
This box was prepared by Ian Hurst and Iana Liadze. The authors are grateful to Barry Naisbitt and Garry Young for useful comments.

since summer 2018, and, for this year, a special local government bond issuance quota was increased significantly by about 1 per cent of nominal GDP. The expectation is that the government will provide more targeted support to medium and small-sized businesses. However, growth of broad money supply is not expected to accelerate to rates seen in the recent past. As figure 19 illustrates, the growth rate of new total social financing (TSF) dropped significantly in 2018, following a reduction in off-balance-sheet (OBS) items. While the regulatory drive to reduce OBS activity is not expected to reverse, given an easing bias in monetary policy, TSF is expected to at least halt its declining trend, if not to increase modestly.

India

Annual GDP growth slowed to 6.6 per cent year-on-year in the final quarter of 2018, down from 7 per cent in the previous quarter (itself subject to downward revision from initial estimates), following slower growth rates in both private and public expenditure. We expect this slowdown to continue until the election is completed in May, as political uncertainty leads to some delay in private sector spending plans. We anticipate some rebound post-election as uncertainty fades and any postponed spending plans are unblocked. Overall, we expect the economy to grow by 7 per cent in 2019, and 7½ per cent in 2020, after 7.4 per cent in 2018.

Figure 20. India: GDP growth and inflation



Source: NiGEM database and NIESR forecast.
Note: Inflation is based on CPI.

Both main political parties, the incumbent Bharatiya Janata party (BJP) and the opposition Congress party, have announced direct cash transfer schemes for rural areas as part of pre-election promises, with the incumbent government scheme estimated to cost the exchequer 0.4 per cent of GDP in the 2020 fiscal year. Such promises of expansionary policy mean that India is unlikely to meet its fiscal deficit target of 3.4 per cent in the 2020 fiscal year, as set out in the Fiscal Responsibility and Budget Management Act (FRBM), and consequently makes it more difficult to hit the FRBM commitment to lower India's public debt from the current level of 70 per cent to 60 per cent by 2025, though this policy stance should support robust growth.

Inflation slowed to 2.6 per cent in the fourth quarter, with the latest monthly data indicating an inflation rate remaining well below the central inflation target of 4 per cent. The Reserve Bank of India responded at its April meeting by reducing interest rates by 25 basis points to 6 per cent, having already implemented a 25 basis point reduction in the benchmark rate at the February meeting. In the near term continued low inflation could give the potential for further monetary policy easing. We forecast inflation to remain below target in 2019, but expect it to return to target in 2020.

Brazil

The Brazilian economy continues its tentative recovery from the 2014 recession, growing by an estimated 1.1 per cent in 2018, as in 2017. Output growth was broad-based, with the agricultural sector and industry posting annual growth of 0.1 and 0.6 per cent, respectively, and the services sector grew by 1.3 per cent over the year, supported by stronger consumer spending due to subdued inflation and relatively low interest rates.

While sentiment indices for Brazil remain broadly positive and improving, the recent forecast from the Brazilian Central Bank (CBB) moderated its view of GDP growth by 0.4 percentage points to 2 per cent for this year, in part due to the statistical carry-over from weaker activity at the end of 2018. Our expectation is for GDP to grow by around 2 per cent in 2019, with growth improving to 2½ per cent in 2020.

Inflation remained below the central bank's target in January and February before increasing to 4.6 per cent in March. The pause in monetary policy normalisation by the US, and the economic slack in the economy, with an unemployment rate of 11.6 per cent, have provided the Monetary Policy Committee (Copom) the opportunity

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to maintain an accommodative monetary policy. The policy interest rate was maintained at 6.5 per cent for the ninth consecutive meeting, down from 6.75 per cent in March 2018. In these conditions, we expect inflation of around 4 per cent in 2019 and 2020.

One uncertainty for the outlook concerns the proposed fiscal reforms. Brazil's Economy Minister Paulo Guedes's proposed pension reform will save the economy an estimated $260 billion over the next decade, significantly reducing government spending on social security. These reforms are seen by the government as critical for the long-term sustainability of the fiscal position, as Brazil currently faces a public sector debt-to-GDP ratio of 74 per cent that is rising. However, the proposed bill submitted in February faces a particularly lengthy legislative process, leading to some financial market concerns about potential changes that could weaken the impetus of policy reform.

Overall, the risks from both a slower global growth environment and domestic factors to the current forecast remain markedly to the downside. Uncertainty regarding the implementation of fiscal reform could hamper the recovery of the Brazilian economy and impact on sentiment indices, while concerns over rising public debt could both discourage investment and adversely affect the Brazilian Real.

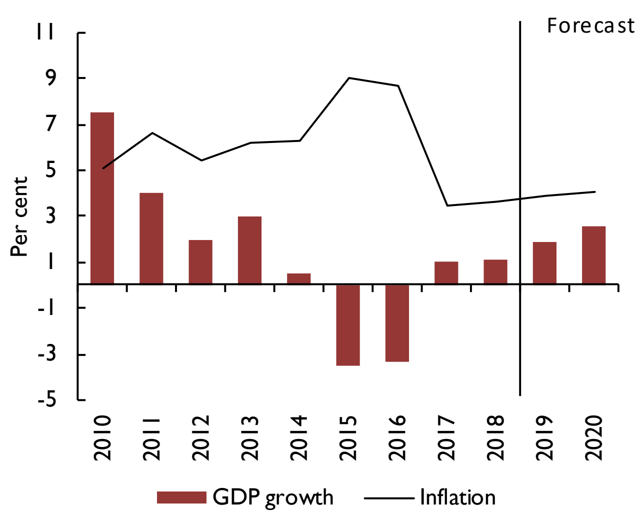
Russia

Higher global oil prices since the low point in early 2016 helped the Russian economy to return to growth in 2016. After GDP growth of 1.6 per cent in 2017, the economy grew by 2.3 per cent in 2018 – the fastest since 2012. Robust GDP growth was supported by consumption growth of 2.0 per cent as households likely front-loaded consumption in anticipation of the January 2019 increase in VAT to 20 per cent (from 18 per cent).

Our expectation is that growth will continue in 2019 and 2020, albeit at a pace somewhat below that in 2018, at 1½ per cent in each year. This reflects the stripping out of positive one-off effects from construction projects and the fall in oil prices in late 2018, as well as the increase in VAT early this year, which are likely to put downward pressure on growth. However, the budgeted increase in public sector investment spending is likely to feed through as the year passes to support output growth.

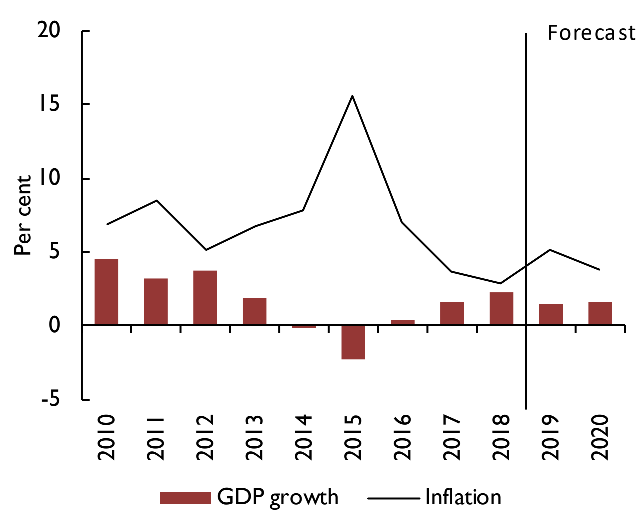
Consumer price inflation has been below the 4 per cent target level during 2018 but increased to 5.0 per cent in January, with the VAT increase raising it further in the following months. The fall in oil prices should, however, moderate the overshoot of the target. As a consequence, inflation is forecast to be 5¼ per cent this year and 3¾ per cent next. Policy interest rates increased to 7.75 per cent in December but substantial further tightening in monetary policy is not anticipated. Indeed, rates were held at the 22 March monetary policy meeting.

Figure 21. Brazil: GDP growth and inflation



Source: NiGEM database and NIESR forecast.
Note: Inflation is based on CPI.

Figure 22. Russia: GDP growth and inflation



Source: NiGEM database and NIESR forecast.
Note: Inflation is based on CPI.

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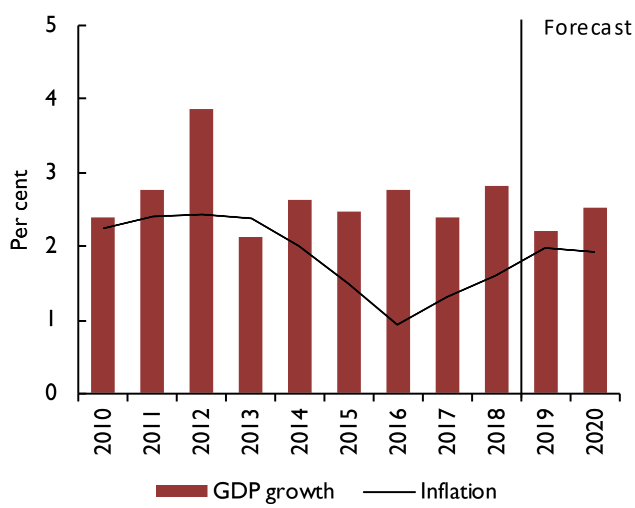
Australia

The Australian economy expanded by 2.8 per cent in 2018, a rate that is broadly in line with its potential. The year was, however, marked by two different halves – robust above-potential growth in the first half was followed by a sharp slowdown in the second half. Domestic demand eased over this period as did export volumes, which fell in the third and the final quarters of last year. It is the first time that export volumes have fallen for that length of time since the global financial crisis in 2008. The downturn in growth in the second half of 2018 in Australia is in line with other major economies that also lost momentum over the same period.

Notwithstanding this recent slowdown, the economic fundamentals remain sound. The fiscal position is strong, inflation is on target, employment levels are high, the unemployment rate is low and wage growth is moderate, with the average growth of wages over the past five years running at about half of the pace of the previous decade. This slowing in wage growth has occurred alongside a weakening in labour productivity growth. Monetary policy remains accommodative and the government injected a fiscal stimulus in the April budget that includes income tax cuts, additional spending on health and a one-off payment to pensioners and single mothers. At the same time, the 2 trillion yuan fiscal stimulus announced by the Chinese government is likely to raise GDP in Australia by around 0.2 per cent points (see Box C).

Figure 23. Australia: GDP growth and inflation



Source: NiGEM database and NIESR forecast.
Note: Inflation is based on consumer expenditure deflator.

Set against that strong performance are domestic risks related to household debt and the housing market, and on the external front, issues from trade tensions and commodity prices. Capital city house prices have fallen by around 9 per cent from the September 2017 peak. There are a number of factors at play, including supply, a reduction in foreign demand and tighter credit conditions. The adjustment in house prices has been orderly so far and our forecast assumes that the correction remains so. Trade tensions between China and the US have had an adverse impact on Australian exports and investment intentions. An early resolution of the uncertainty presents an upside risk to our forecast for the growth outlook, whereas an escalation in tensions will have a negative impact on our forecast.

NOTES

1. At 2011 PPP weights.
2. See Lennard (2018). The standard deviation of real GDP per capita growth for a panel of 20 OECD countries rose from 0.6 per cent in 2017 to 0.7 per cent in 2018.
3. See Naisbitt (2019).
4. "Patient" was the description used in a speech by Jerome Powell, Chairman of the Federal Reserve, on 8 March, see Clarida (2019) and Powell (2019).
5. CPB World Trade Monitor, January 2019.
6. *National Institute Economic Review*, November, p F41
7. As noted by the ECB President in his speech 'Monetary policy in the Euro Area' on 27 March 2019 at Frankfurt-am-Main
8. See Naisbitt (2018a and b).
9. The Vix index is seen as a barometer of investor sentiment and market volatility and is a measure of market expectations of uncertain volatility implied by S&P 500 index option prices.
10. Lenoel (2018) and Box A.
11. A discussion of the effect of oil on inflation and activity is in Lennard and Theodoridis (2018).
12. See Liadze (2018), Hantzsch and Liadze (2018), and Liadze and Hacche (2017a).
13. See Liadze and Naisbitt (2018) and Liadze and Hacche (2017b).
14. Naisbitt (2018a and b).
15. In response to a question at the December 2015 Board of Governors press conference, Federal Reserve Board Chairman Janet Yellen noted that "I think it's a myth that expansions die of old age." This issue is examined by Rudebusch (2016).
16. See Liadze and Piggott (2019) for further details.
17. See Bank of Japan (2019).
18. See Liadze (2018) and Hantzsche and Liadze (2018).

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