

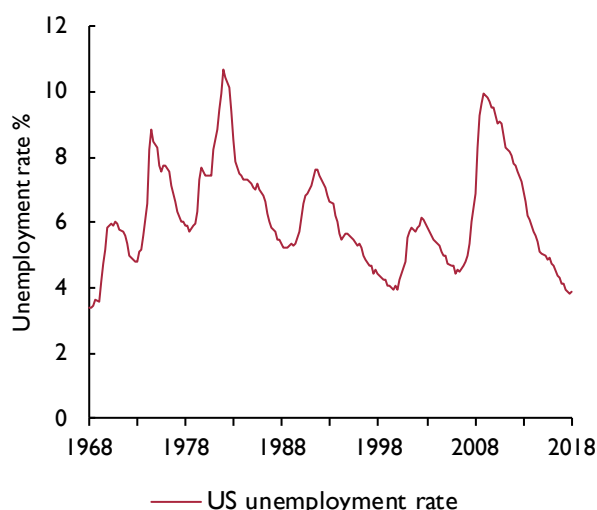
## Prospects for individual economies

### United States

Quarterly economic growth picked up strongly in the second quarter (4.2 per cent annualised rate) after a below-par first quarter (2.2 per cent annualised rate). The key distinguishing features of the difference between the periods was stronger consumption growth in the second quarter, somewhat offset by weaker inventory accumulation. The labour market has continued to strengthen, with total nonfarm payroll employment expanding by 134,000 in September, compared to an increase of 240,000 on a 6-month average. The unemployment rate has continued to drop, reaching 3.7 per cent in September, almost a 50 year low. Despite the slower growth in the first quarter, on an annual basis growth in the US has been outpacing that of the other G7 economies for two years and this shows no sign of ending this year. With the fiscal stimulus running over a number of years and the cyclically adjusted deficit estimated to increase in both 2018 and 2019, we expect economic growth to run close to 3 per cent this year. However, with the pace of growth running faster than potential, this momentum will gradually dissipate as higher interest rates help to adjust the pace of growth and prevent any potentially inflationary pressures from emerging.

With the continued expansion and the recent pick-up in growth, inflation had started to show some signs of

Figure 8. US: Unemployment rate

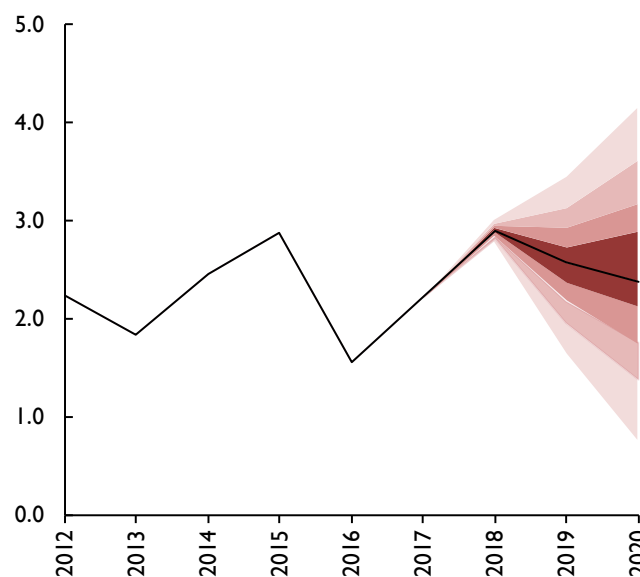


Source: NiGEM database and NIESR forecast.

increasing with the CPI showing annual inflation of 2.9 per cent in July. It has since dropped to 2.3 per cent in September. However, core consumer expenditure price inflation is at the 2 per cent target. The major concern is that growth running above potential will increase capacity utilisation and lead to labour shortages. At a time when oil prices have risen, this could put upward pressure on inflation, with the Federal Reserve having to raise policy interest rates more than expected to ensure that inflation holds to its target. While we expect inflation to overshoot the target marginally during the course of the next two years, this is viewed as consistent with a limited and gradual further monetary policy tightening already implied in financial markets.

With the economy growing strongly and the unemployment rate falling to below 4 per cent, the Federal Reserve has continued its well-signalled gradual monetary policy normalisation and has increased the Fed funds rate by a total of 75 basis points in three rounds so

Figure 9. US: Annual GDP growth fan chart (per cent per annum)



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.

far this year, with a further increase expected before the end of the year. The implication of the Federal Reserve's 'dot-plot' chart of rate expectations is that normalisation will continue until rates reach around 3 per cent. The US is leading the global interest rate cycle, but the pace of hikes is much slower than in the previous cycle and the expectation is that rates will peak at a notably lower level than previously.

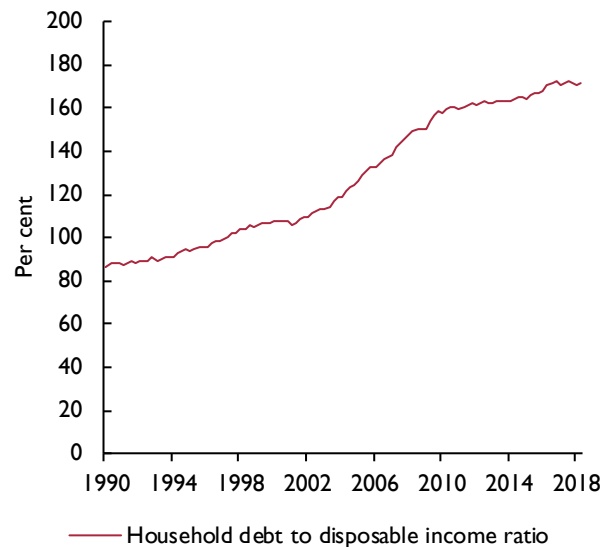
With consumer confidence rising and running at higher readings than in the previous decade, the near-term prospects for consumer spending look strong. Against this background, the expansion looks set to become the longest one recorded by the National Bureau and research indicates that expansions do not die of 'old age'.<sup>12</sup> A slower pace of expansion may sustain it but, if the threat to impose higher substantial tariffs on all Chinese imports is realised and is met by strong retaliation, a trade war might de-rail the path, especially if there is a large pass-through to domestic inflation. Higher import prices due to increased tariffs could both adversely affect inflation and hit supply chains, thus adding to any effect from over-performance correcting.

## Canada

The main news affecting the Canadian economy in the past quarter has been the announcement on 30 September of an agreement between the United States, Mexico and Canada to replace NAFTA with a new free trade agreement called the United States-Mexico-Canada Agreement (USMCA).<sup>13</sup> The fact that the imposition of new trade barriers and tariffs seems to have been averted is a welcome development for Canada and should support the growth of its trade. The Canadian dollar rallied on the news – it appreciated by 1.7 per cent against the US dollar between 27 September and 1 October. This agreement follows robust GDP growth of 0.7 per cent in the second quarter of 2018, up from 0.4 in the first quarter. The expansion was balanced; both households' consumption and net trade contributed to the acceleration in economic growth.

Leading indicators, such as the manufacturing PMI survey for September, suggest that growth may have peaked in the second quarter, with businesses less optimistic about future business than they were at the beginning of the year, citing capacity constraints and weaker demand. However, the announcement of USMCA and the continued increase in the price of oil could lift business sentiment. We forecast the Canadian economy to grow by 2 per cent in 2018 and 2.3 per cent in 2019, continuing its steady run.

Figure 10. Canada: Household debt to income ratio



Source: Statistics Canada.

Households are experiencing relatively high consumer price inflation (at 2.8 per cent in August) as past depreciation of the Canadian dollar against the US dollar and increases in petrol prices are passing through to domestic prices. The Bank of Canada expects inflation to move back towards its objective of 2 per cent in early 2019 as the effects of increases in petrol prices dissipate and the Bank of Canada's Governing Council kept its main policy rate fixed at 1½ per cent on 5 September following a hike of 25 basis points in July in response to the higher inflation. In the labour market, employment rose by 63,000 in September, driven by an increase in part-time employment, and the unemployment rate has been consistently around 6 per cent since the fourth quarter of 2017, suggesting that it may have reached its structural low point. We expect unemployment to stay around this level over the forecast horizon. While average weekly earnings have increased since last year by about 3 per cent on the back of capacity and recruitment constraints, up from around 2 per cent in 2017, there is little evidence that wage growth is picking up or that it may fuel inflation. We therefore expect inflation to hover around 2 per cent during 2018 and 2019 as a whole.

One area of potential concern for an economy in which the ratio of household debt to income has risen for over two decades (see figure 10) comes from the housing market.<sup>14</sup> Annual new house price growth declined

from 5.2 per cent in the second quarter of 2017 to 2.8 per cent in the second quarter of this year. Residential demand in particular was hit by a combination of ongoing increases in interest rates and tighter mortgage rules that took effect on 1 January 2018.<sup>15</sup> The Bank of Canada recently noted that it expects housing activity to have rebounded in the third quarter but a possible slow-down or reversal in the housing market constitutes a significant downside risk to our GDP forecast.

## Euro Area

GDP growth in the first quarter of 2018 in the Euro Area, at 0.4 per cent, was weaker than at any time in 2017 (at 0.7 per cent in each quarter) and raised the issue of whether the weakness was a ‘soft patch’ or showed the above potential rate of growth in 2017 returning to trend. The 0.4 per cent reading in the second quarter, and survey indicators for the third quarter which point to a similar pace continuing, seem to confirm that output growth in the Euro Area has returned to a pace closer to 2 per cent. We expect this to continue in the near term as it is still being supported by accommodative monetary policy.

In the second quarter, Spain saw GDP growth hold at 0.6 per cent; growth in France held steady at 0.2 per cent; and in Germany it increased from 0.4 per cent in the first quarter to 0.5 per cent. Overall, consumer spending growth weakened a little, dropping from 0.5 per cent to 0.2 per cent, but fixed investment spending growth

increased from 0.3 per cent to 1.2 per cent. The external sector saw exports fall by 0.7 per cent in the first quarter but rise by 0.6 per cent in the second quarter. Imports fell by 0.3 per cent in the first quarter but rebounded with 1.1 per cent growth in the second quarter. At this stage it is unclear how far uncertainty over trade policies with the US and the specific tariffs already introduced will have been reflected in the trade figures or whether the effects are still to come.

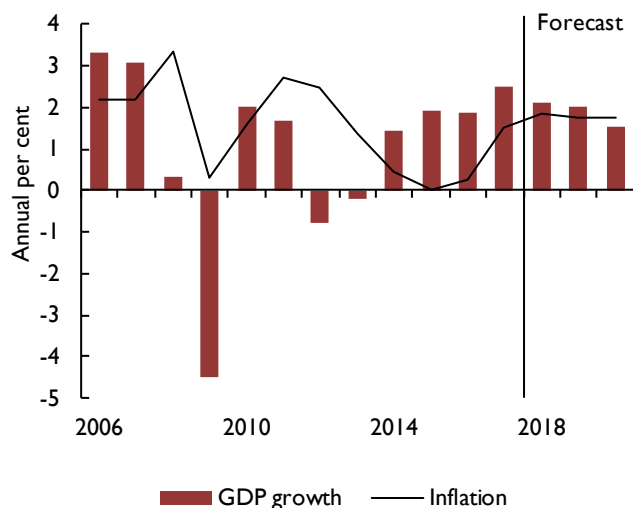
In the medium term, the Euro Area is anticipated to show annual growth of around 1.3 per cent a year, reflecting some weakening coming from the gradual withdrawal of the monetary accommodation and the effects of broader demographic trends.

Consumer price inflation was 2.1 per cent in the twelve months to September, similar to August (2.0 per cent) and still reflecting the jump in May when increases in the prices of energy, services and food, alcohol and tobacco were the main contributors to the sharp jump in annual inflation from 1.3 per cent in April to 1.9 per cent in May. Core inflation (inflation excluding energy and food, alcohol and tobacco) has remained much more steady. At 0.9 per cent in September, it is below the 1.1 per cent annual rate recorded a year earlier. Our expectation is that inflation will continue to remain close to its 2 per cent target with a slight downward bias as the forecast horizon progresses. If domestic price pressures, particularly from faster average earnings growth, build, then there could be a limited over-shoot of the 2 per cent target. The European Central Bank (ECB) sees no immediate need to raise policy interest rates, although quantitative easing is set to end this year which will, in effect, be a reduction in the extent of policy accommodation. Beyond 2020, a very gradual path of rate rises is anticipated into the medium term, broadly in line with market expectations.

## Germany

The German economy appears to have settled on a steady growth path after its more rapid expansion in 2017, weathering rising global trade tensions. GDP expanded by 0.5 per cent in the second quarter of 2018, following quarterly growth of 0.4 per cent in the first quarter. Short-term business indicators have stabilised in recent months, suggesting that output growth will continue at a similar pace, although the new environmental testing policy may reduce car production growth. For 2018 as a whole, we expect output growth of 2 per cent, 0.5 percentage point lower than in 2017 (2.5 per cent then). Momentum is likely to be maintained in 2019, when we forecast GDP growth to edge only marginally lower to 1.8 per cent.

Figure 11. Euro Area: Growth and inflation

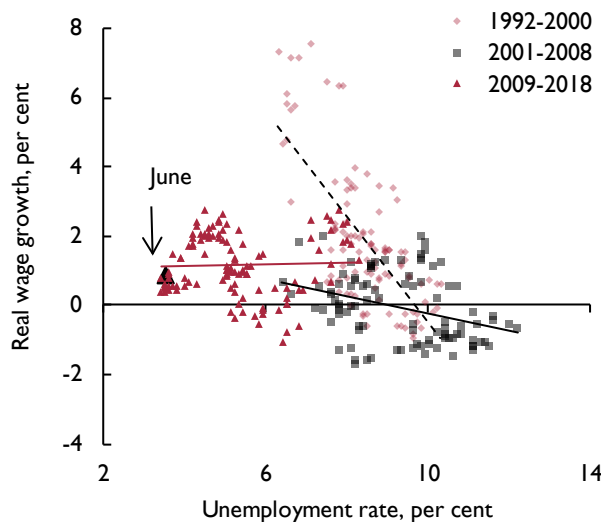


Source: NiGEM database and NIESR forecast.

The main contributor to growth is private consumption, bolstered by rising levels of real disposable income. We continue to expect business investment to make positive contributions to growth, accompanied by public investment. While the depreciation of the euro relative to the US dollar supports exports, we expect strong import demand to offset this and thus for net trade to subtract from overall GDP growth in 2018 and 2019.

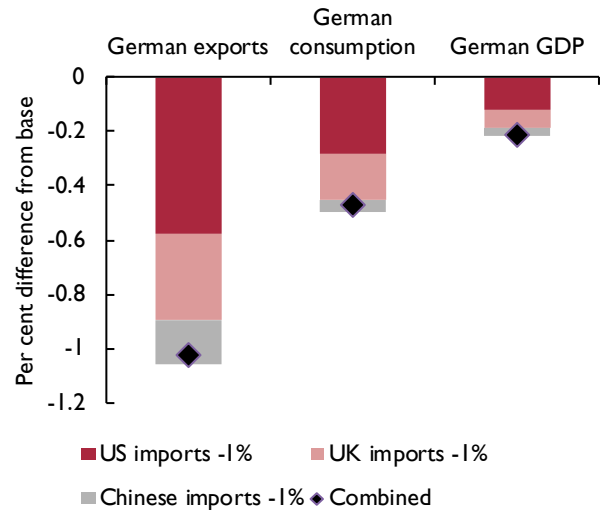
Output growth appears to be increasingly constrained by supply side factors. The job vacancy rate of 2.9 per cent is one of the highest in Europe and the unemployment rate remains at the lowest level reported for Germany post reunification. A new immigration law has been proposed by the German government that could ease labour market access for non-EU workers and help meet labour demand. However, despite the economy operating close to or possibly above potential, we do not see substantial inflationary pressure building up. Consumer price inflation edged up to 2.2 per cent in September but this was mainly driven by higher energy prices. Part of the reason why core inflation remains subdued is that wage growth, by historical standards and given very low levels of unemployment, remains weak. Figure 12 plots the annual real growth rate of negotiated wages and salaries against the unemployment rate. It highlights that the so-called Phillips curve relationship between these series has continuously weakened.<sup>16</sup> Most recent wage developments do not seem to reverse this trend and merely track inflation. For 2018 as a whole,

Figure 12. Germany: Wage Phillips curve



Sources: Deutsche Bundesbank, OECD, NIESR calculations.

Figure 13. Germany: The sensitivity of export volume and real GDP to a fall in foreign demand



Source: NiGEM simulations.

Note: The chart shows the average response of annual German exports, consumption and GDP over 5 years, separately, to a 1 per cent decline in the volume of US total imports, a 1 per cent decline in the volume of UK total imports, and a 1 per cent decline in the volume of Chinese total imports, as well as their combined effect.

we expect consumer prices to rise by 1.9 per cent, with this repeated in 2019.

A major risk facing the German economy is a slowdown in international trade, for instance as a result of tariffs imposed by the US, weaker import demand from China, and Brexit. Figure 13 presents results from a simulation of our NiGEM model illustrating the sensitivity of German exports, consumption and GDP to reductions in foreign import demand. It shows that for each 1 per cent reduction in total US imports from the rest of the world, German exports decrease by 0.6 per cent, lowering consumption and output in Germany by 0.3 per cent and 0.1 per cent, respectively. The sensitivity to UK import demand is around half that size, that for Chinese import demand around a quarter. However, the rebalancing of the economy towards domestic demand is likely to provide a buffer should such shocks occur. In any case, fiscal policy continues to have ample space to mitigate shocks to the economy, with an expected budgetary surplus of above 1 per cent of GDP in the current year.

### France

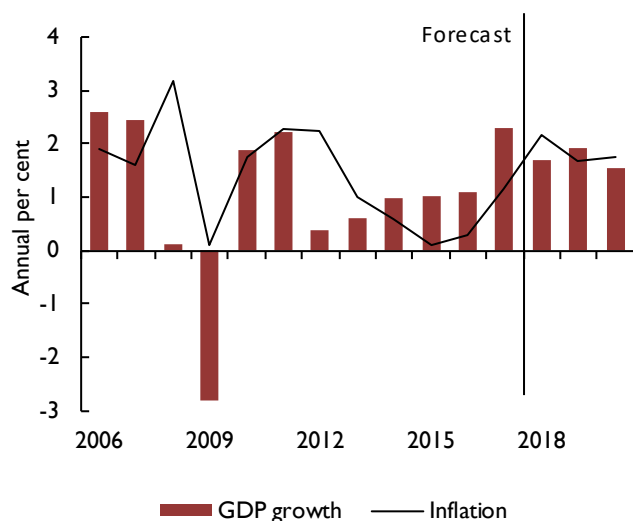
Growth in the French economy slowed in the first half of 2018 with GDP growth hitting just 0.2 per cent in each of the first and second quarters. Households' consumption declined in the second quarter (-0.1 per

cent, after rising by 0.2 in the first quarter) following a decline in purchasing power in the first quarter that can be attributed to increases in both taxes and inflation. However, we expect both of these factors to be temporary. In the second half of 2018, a decrease in tax on labour income is expected to more than offset the increase in tax of the beginning of the year and help support growth in real personal disposable income.

Despite a rise in wages and prices, we do not forecast any build-up of inflation pressure. Total labour costs per hour – the sum of the wage bill, social contributions and other charges to the employer divided by the number of hours worked – increased by 2.8 per cent in the second quarter of 2018 compared to a year ago, up from 2.2 per cent in the first quarter of 2018. Temporary factors such as the decrease in the labour tax credit from 7 to 6 per cent on 1 January 2018 and the phasing out of a tax incentive to recruit for SMEs contributed to the increase in labour costs.

Consumer price inflation reached 2.6 per cent in July and August, substantially above the rate a year earlier. Part of this increase has been due to higher oil prices and energy costs and, with core inflation relatively stable, we continue to expect inflation to ease back towards 2 per cent as the effect of the past increase in commodity prices recedes and the economy grows below potential, thus reducing any pressure from capacity constraints.

Figure 14. France: GDP growth and inflation



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

We expect an increase in output growth starting in the third quarter largely driven by the dynamism of the corporate sector and GDP growth to be 1.7 per cent in 2018 and 1.9 per cent in 2019. Manufacturing output rebounded in July (+1.1 per cent year-on-year, after declining respectively by 1.0 and 0.1 per cent in the first and second quarters of 2018) and service sector output stayed robust (5 per cent year-on-year growth in June). Corporate investment grew by a strong 1.2 per cent in the second quarter despite a soft patch of just 0.1 per cent growth in the first quarter, supported by an on-going reduction in corporate taxes, from 33.3 per cent to reach 25 per cent by 2022. Strong corporate investment spending, and the ramping up of a plan of €50bn in public investment over five years, are expected to increase the productivity of French firms and net trade is forecast to make a positive contribution to GDP growth in the coming years.

### Italy

The main focus for financial markets in 2018 has been on political developments and budgetary policy. Reactions have been most notable in bond spreads, with the spread over 10-year German bunds spiking in June to reach its highest level since the 2012–13 crisis period. With budgetary debates continuing, the potential for volatility remains, with the possibility of negative effects on growth prospects.<sup>17</sup> Output grew in the second quarter of 2018 but growth was weaker than in previous quarters, in line with our forecast of 0.2 per cent. Since the start of the year surveys have generally not painted an optimistic view of growth prospects. In particular, the composite PMI has been on a downward path overall since January, albeit with a short-lived recovery in May after the government formation, similar to the trend of the ISTAT business confidence index.

While consumption is expected to continue to grow in the near term, with rising wages and decreasing unemployment, it is set to expand at a slower pace this year than last year. The main risk to household spending comes from higher oil prices, which are expected to weigh on disposable incomes. Investment is weighed down by the financial market volatility reflecting global and domestic uncertainty, and next year the phasing-out of tax incentives and gradually rising interest rates would be likely to dampen investment growth. Net trade is expected to contribute positively over the next two years, with exports having picked up in the second quarter after a slow first quarter, and imports should increase at a less rapid pace as domestic demand growth decelerates. As a consequence, our projections are for GDP to expand at a rate of 1.2 per cent this year and 1.1

per cent in 2019, both marginally slower than forecast three months ago.

After a weak first quarter, consumer price inflation has risen from May onwards on the back of increasing oil prices. We expect headline HICP inflation to increase by 1.4 per cent on average this year and remain about that rate over the next two years. Core inflation is not showing the same impetus, hovering around 0.8 per cent as the services sector has suffered since the turn of the year, and unit labour costs are likely to increase moderately owing to the cyclical turnaround in productivity.

One main risk to these projections is driven by global factors, such as the risk of an escalation of protectionism in trade, which would likely have repercussions on business confidence, trade, global demand, and financial market volatility. A potential slowdown in economic activity could translate into weaker wage growth than projected, giving a downward risk on inflation. On the other side, a faster rise in energy prices poses upside risks to prices. Domestic political uncertainty poses significant downside risks to our projections, in particular concerning the Autumn Budget which was reviewed by the European Commission in late October and is due to be approved by the Italian Parliament by the end of the year. Coupled with that, recent and ongoing financial market volatility is concerning as higher sovereign yields, if sustained, will increase corporate financing costs, which would adversely affect investment spending and domestic demand growth.

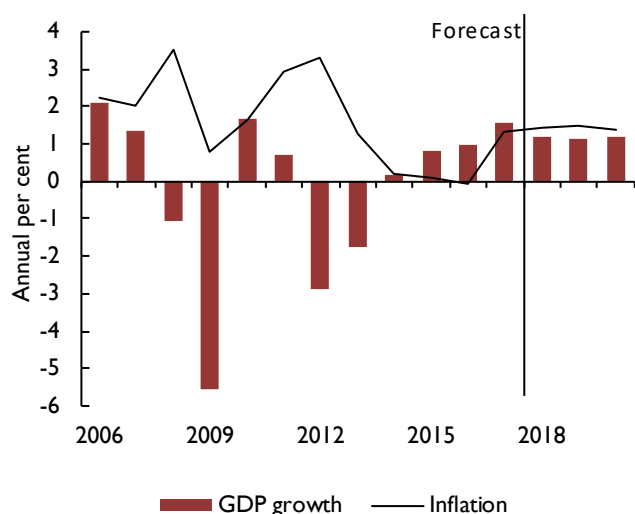
### Spain

The pace of Spanish economic growth has slowed, falling from 3.1 per cent in the final quarter of last year to 2.8 and 2.5 per cent in the first and second quarters of this year respectively. The deceleration was due to effects from the external sector, stemming from both lower export growth and higher import growth, while domestic demand growth increased, with the overall pace declining from recent rapid growth rates. The rate of unemployment, having fallen in almost every month since the peak in 2013, was unchanged at 15.2 per cent in August and inflation has been relatively flat since the jump in the spring, remaining at an estimated 2.3 per cent in the year to September 2018.

Looking ahead, we forecast that economic growth will slow to 2.7 per cent in 2018, reflecting the moderation reported in the first half of this year continuing, and stay around that rate in 2019 before slowing more notably in 2020. The unemployment rate is expected to continue to fall very gradually throughout the forecast horizon but not to fall much below 13 per cent. Inflation is forecast to settle at below, but close to, 2 per cent over the coming years, in line with the European Central Bank's target.

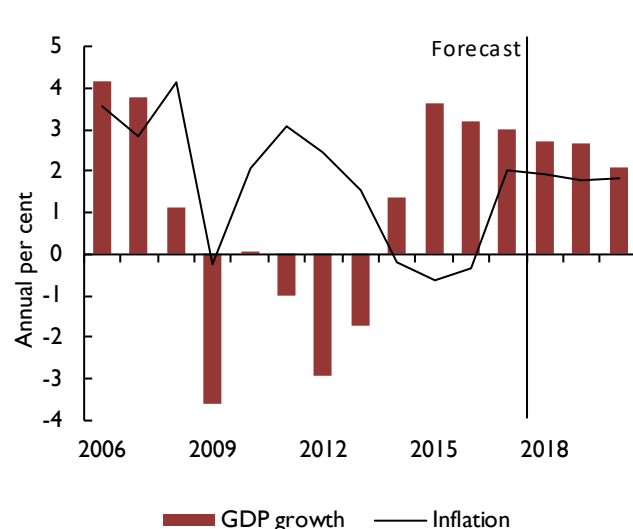
A recurring source of potential risk to our forecast is the political situation in Spain. The new minority government was defeated in its first major vote since taking office, concerning the relaxation of the country's fiscal rules, while the leader of Catalonia has issued an

Figure 15. Italy: GDP growth and inflation



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

Figure 16. Spain: GDP growth and inflation



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

ultimatum to the government, threatening to remove political support unless there is another referendum over independence. The risk stems not only from the outcome of these major issues, but also from the ebb and flow of uncertainty as discussions on them continue.

## Japan

The Japanese economy returned to growth in the second quarter of 2018, with output expanding by 0.7 per cent in the quarter. The growth was driven by a pick-up in domestic demand while export growth of 0.2 per cent was outpaced by import growth of 0.9 per cent. We expect to see a brief surge in consumption ahead of the scheduled rise in the consumption tax from 8 to 10 per cent in Autumn 2019 and our forecast is for output to expand by 1.1 per cent this year and next, before softening slightly in the medium term.

The Bank of Japan has promised to maintain short and long-term interest rates at their current extremely low levels until the effects of the tax rise fade out, likely in Autumn 2020, which will support growth. Although inflation rose to a 6-month high of 1.3 per cent in August, this remains well below the Bank's 2 per cent target, giving credibility to the Bank's promise to keep rates low.

The labour market readings remain somewhat of a puzzle. The unemployment rate fell by 0.1 percentage point to 2.4 per cent in August, while the ratio of active job openings to applicants remained at an all-time high

of 1.13 (figure 17) reflecting the growing problem of labour availability. The problem of labour shortages is chronic, and to address it the government plans to relax immigration rules, allowing up to 500,000 guest workers into the country. However, the lack of upward wage pressure given the tightness of the labour market remains puzzling. Nominal wages rose by just 0.9 per cent year-on-year in August following a 1.6 per cent annual increase in July, while real wages contracted by 0.6 per cent after rising by 0.5 per cent in July.

With uncertainty over global trade tensions continuing to loom over the economy, the threat of an increase in tariffs applied by the US remains the main downside risk to our output forecast.

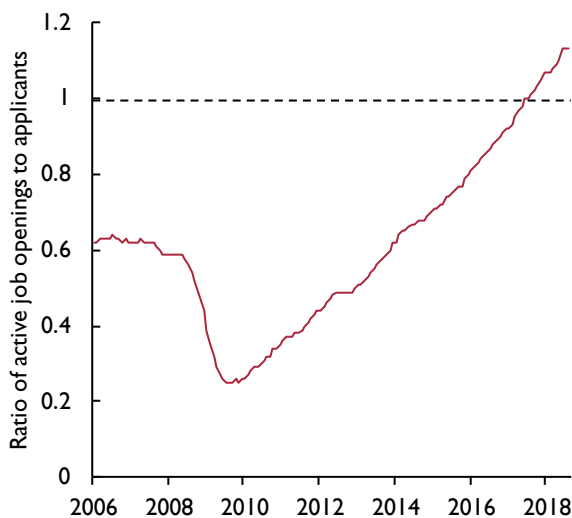
## China

Annual GDP growth in China has slowed in recent quarters largely due to the effects of previous policy tightening, although the 6.5 per cent recorded in the third quarter was in line with plans. The drive to rebalance the economy has coincided with recent trade related disputes initiated by the US, which do not seem to have abated and continue to weigh on domestic economic activity (see Box A for an analysis of the effects of tariff imposition).

We anticipate that the Chinese authorities will continue to use a mixture of measures to support growth in line with its plans. Monetary conditions became more accommodative after credit growth weakened during the first half of this year and banks' capital and liquidity constraints were loosened slightly. As a consequence, overall credit growth stabilised in July and strengthened in August. Recent announcements by the State Council also point to fiscal measures such as tax/cost cuts and an expansion of 'efficient' government investment most likely to be used to support the continued growth of the economy. While we do not expect output growth to accelerate as a result of monetary and fiscal stimuli, we anticipate that these will somewhat counteract a negative effect from the tariff increases which are expected to impact not only Chinese exports, but also business activity and private consumption via increased uncertainty. While our view of a gradual slowdown in output growth over time remains unchanged, escalating trade disputes add to the downside risks of our forecast.

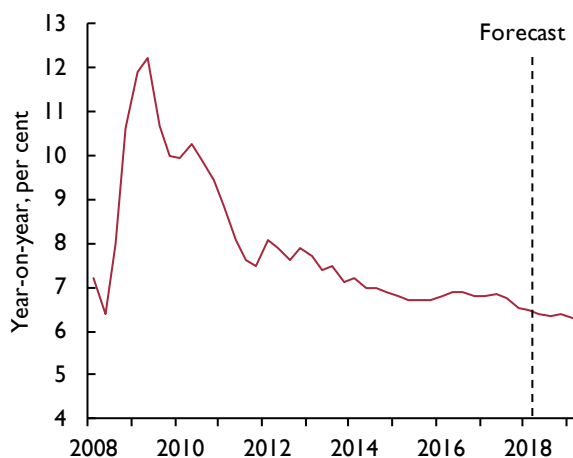
Trade related disputes have added to the volatility in financial markets in the past several months. Since the beginning of the year Chinese equity prices have lost about 20 per cent of their value and the renminbi has depreciated against the US dollar by about 10 per cent.

Figure 17. Japan: Active job openings to applicants



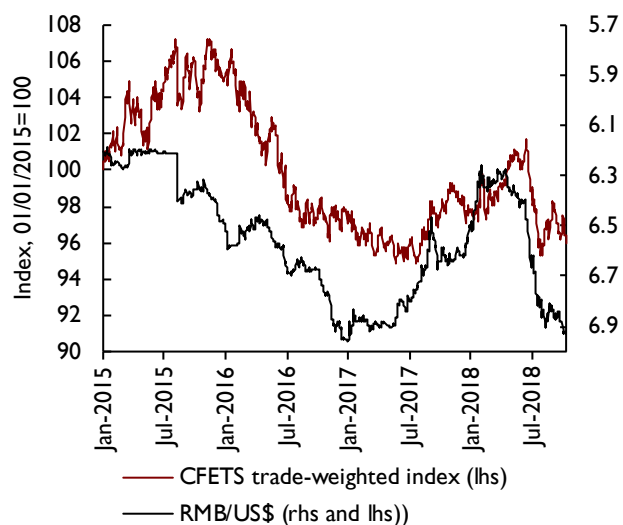
Source: Datastream.

Figure 18. China: GDP growth



Source: NiGEM database and NIESR forecast.

Figure 19. China: Exchange rates



Source: Datastream and NIESR calculations.

It has, however, remained largely unchanged against a wider basket of currencies (see figure 19).

The new round of tariffs and the depreciation could lead to an increase in import prices which, depending on the degree of pass-through to the domestic economy, may push up domestic inflation. On the other hand, trade

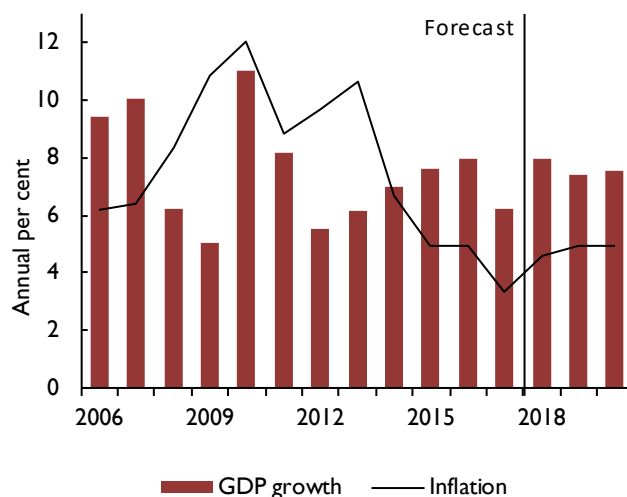
related disputes can simultaneously create deflationary pressures as they weigh on economic activity. The recent monthly outturns of annual inflation have shown an increase in consumer prices, but this has been mainly due to domestic factors, such as adverse weather conditions and pig disease pushing up fresh food prices, rather than a realisation of trade effects. In the short run, we expect consumer price inflation to remain above 2 per cent and closer to the central bank's target of 3 per cent. Higher domestic inflation does not mean that the authorities will not loosen monetary policy anymore, but rather they will be watching price developments more closely.

### India

Output expanded by 8.2 per cent year-on-year in the second quarter of this year, up from 7.7 per cent in the previous quarter and the fastest annual growth rate in two years. These data paint a flattering picture of the economy due to the comparison with the same period last year, when growth was disrupted by the effects from demonetisation and radical reform to the tax system. As this favourable comparison fades, we expect annual growth to moderate in the second half of this year and GDP to expand by 7.9 per cent this year and 7.4 per cent in 2019. Both of these will be amongst the fastest growth rates among economies.

The rupee has reached a near record low against the dollar, reflecting investor concern about the widening current account deficit, which rose to 2.4 per cent of

Figure 20. India: GDP growth and inflation



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



GDP in the second quarter of this year. This depreciation has been exacerbated by the rise in oil prices which has led to a sharp rise in fuel costs, with imports accounting for about 80 per cent of India's energy consumption. In a bid to boost the rupee and reduce the current account deficit, the government plans to curb non-essential imports. It is not clear at present which items will be affected, but it is likely that this measure will exacerbate tensions with some of India's trading partners.

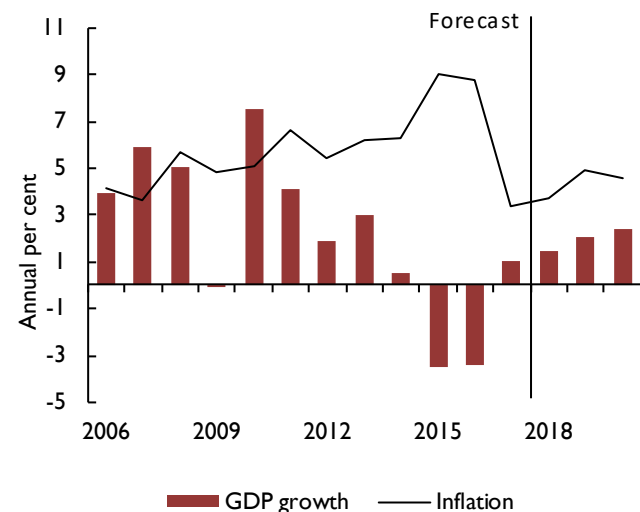
On 1 August, the Bank of India raised interest rates by 25 basis points to 6.5 per cent, following a 25 basis point rise in June, which was the first rate hike since January 2014. Although inflationary pressure has subsided in recent months, with consumer prices rising 3.8 per cent in September, we expect inflation to average 4.6 per cent this year and to rise to 4.9 per cent next year as oil price increases are passed on to consumers.

## Brazil

Output growth in the second quarter of 2018 was modest at 0.2 per cent, amid a slightly more uncertain global backdrop and the weakening of the country's outlook, especially with political uncertainties increasing. More recent data for the third quarter continue to be muted, indicating that a strong recovery has yet to materialise after the 2015–16 recession. Weak household spending is being partly driven by high inflation prints since June and highly volatile consumer sentiment. While consumption growth has been moderate, the benefits of a positive economic tide have yet to materialise for households. The unemployment rate has been on a steep downward path since the peak of over 13 per cent reached in March this year, but much job growth has been in informal employment rather than in 'regular' jobs. Business and consumer surveys both fell in September on the back of the political backdrop and weaker confidence in the economic situation. Our forecasts for 2018 and 2019 are for GDP growth of around 1.5 and 2.0 per cent respectively.

In the medium term, output expansion should be supported by further improvements in investment and a recovery of private consumption on the back of declining inflation. Solid investment growth has supported the recovery so far, helped by lower interest rates and reforms that improved confidence, including in financial markets. These included measures to contain credit subsidies and deepen private financial markets, as well as some labour market reform.

Figure 21. Brazil: GDP growth and inflation



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

Inflation should remain within the Central Bank's target range of 3–6 per cent in the near term but seems likely to run near the top of that range. Inflation within the range should continue to provide space for accommodative monetary policy, with the policy rate having been reduced to 6.5 in March, and so support investment and consumption. Some special factors, such as soyabean trade, have been boosted by trade disputes elsewhere and the relatively strong global growth picture has driven a sustained increase in demand for Brazilian exports, aiding the trade position. However, we expect such strength in exports to soften gradually going forward.

The risks to these forecasts for the prospects for the Brazilian economy are tilted to the downside. On the political front, the first round of the general elections was won by the populist far-right candidate. Should the run-off due on 28 October secure his victory, there is a risk that this could unsettle the political establishment and financial markets and risk aborting the already uncertain recovery cycle. Additionally, regardless of the election result, the sustainability of public debt and compliance with existing fiscal rules will require structural changes in public expenditures, as public debt to GDP reached 75 per cent in 2017, up from 55 per cent only three years earlier.

## NOTES

- 1 See Lennard (2018).
- 2 See figure 3, *National Institute Economic Review*, August 2018, 'The World Economy'.
- 3 See Lennard and Theodoridis (2018).
- 4 See Bell and Blanchflower (2018).
- 5 See Naisbitt (2018a and b).
- 6 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.
- 7 See Lenoel (2018).
- 8 See also Hantzsche and Liadze (2018) and Liadze and Hacche (2017).
- 9 See Lopresto (2018) for a discussion of co-ordinated fiscal expansion in the Euro Area.
- 10 See Naisbitt (2018a and b).
- 11 See Brainard (1967) for a discussion on uncertainty and policy.
- 12 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). A recent press commentary is by Wallace (2018).
- 13 <https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement/united-states-mexico>
- 14 See speech by Bank of Canada governor Poloz (2018).
- 15 The revisions to Guideline B-20, announced by the Office of the Superintendent of Financial Institutions in October 2017, are designed to strengthen residential underwriting practices.
- 16 See Hantzsche (2018).
- 17 See Lopresto and Kara (2018) and Lopresto and Naisbitt (2018).

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