

THE WORLD ECONOMY

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World Overview

Recent developments and the baseline forecast

Our revised baseline forecast

Recent data on economic activity in several major economies point to a more significant pick-up in global growth this year than we projected in May.

Among the advanced economies, our growth forecast for 2017 is unchanged for the United States but has been

revised up markedly for the Euro Area and Japan and also for Canada. The improvement in these economies' growth performance and short-term outlook may be attributed partly to the highly accommodative monetary policies adopted in recent years and the easing of financial conditions to which they have contributed, and

Table 1. Forecast summary

	Real GDP ^(a)												World trade ^(b)
	World	OECD	China	EU-28	Euro Area	USA	Japan	Germany	France	Italy	UK	Canada	
2013	3.4	1.5	7.8	0.3	-0.2	1.7	2.0	0.6	0.6	-1.7	1.9	2.5	3.6
2014	3.5	2.1	7.3	1.7	1.3	2.4	0.2	1.6	1.0	0.2	3.1	2.6	3.7
2015	3.4	2.3	6.9	2.1	1.9	2.6	1.1	1.5	1.0	0.7	2.2	0.9	2.7
2016	3.1	1.8	6.7	1.9	1.7	1.6	1.0	1.8	1.1	1.0	1.8	1.5	2.4
2017	3.6	2.1	6.7	2.1	2.0	2.1	1.3	1.9	1.5	1.3	1.7	2.7	4.2
2018	3.6	2.2	6.4	1.9	1.8	2.3	1.0	1.8	1.6	1.1	1.9	2.2	4.2
2007-2012	3.6	1.0	10.2	0.4	0.3	0.8	0.1	1.2	0.6	-1.0	0.4	1.3	4.0
2019-2023	3.4	1.9	5.6	1.4	1.3	2.3	0.8	1.2	1.3	1.0	1.8	1.8	3.7

	Private consumption deflator						Interest rates ^(c)						Oil (\$ per barrel) ^(d)
	OECD	Euro Area	USA	Japan	Germany	France	Italy	UK	Canada	USA	Japan	Euro Area	
2013	1.5	1.1	1.3	-0.2	1.1	0.6	1.2	2.3	1.4	0.3	0.1	0.6	107.1
2014	1.6	0.5	1.5	2.1	0.9	0.1	0.3	1.7	1.9	0.3	0.1	0.2	97.8
2015	0.7	0.2	0.4	0.4	0.6	0.3	0.0	0.3	1.1	0.3	0.1	0.1	51.8
2016	1.1	0.3	1.1	-0.4	0.7	-0.1	0.0	1.1	1.0	0.5	-0.1	0.0	42.6
2017	2.1	1.5	1.7	0.3	1.5	1.0	1.5	2.4	1.7	1.1	-0.1	0.0	50.0
2018	2.0	1.5	2.0	0.5	1.5	1.2	1.6	2.8	1.6	1.9	-0.1	0.0	49.9
2007-2012	1.9	1.7	1.9	-0.8	1.4	1.3	2.0	2.4	1.3	1.4	0.2	2.0	87.6
2019-2023	2.2	1.5	2.4	1.0	1.4	1.4	1.8	2.0	1.8	3.1	0.2	1.1	55.6

Notes: Forecast produced using the NiGEM model. (a) GDP growth at market prices. Regional aggregates are based on PPP shares, 2011 reference year. (b) Trade in goods and services. (c) Central bank intervention rate, period average. (d) Average of Dubai and Brent spot prices.

*All questions and comments related to the forecast and its underlying assumptions should be addressed to Iana Liadze (i.liadze@niesr.ac.uk). We would like to thank Jagjit Chadha for helpful comments and Matteo Ramina for compiling the database underlying the forecast. The forecast was completed on 26 July, 2017. Exchange rate, interest rates and equity price assumptions are based on information available to 14 July 2017. Unless otherwise specified, the source of all data reported in tables and figures is the NiGEM database and NIESR forecast baseline.

partly to a turnaround since 2015 in the stance of fiscal policies, including in the Euro Area, from contractionary to neutral or mildly expansionary, and the Canadian economy receiving a significant fiscal boost over the past year. Among the emerging market economies, our growth projections for 2017 have been revised up for Brazil, India, and Russia.

For the world as a whole, we are now projecting global GDP growth this year of 3.6 per cent, which would be the fastest expansion in six years, up from 3.1 per cent in 2016, which was the weakest expansion since 2009. For 2018, our forecast of world output growth is unchanged at 3.6 per cent, as is our projection of 3.4 per cent for the medium term, significantly below the average growth rate of 4.2 per cent in the decade before the global financial crisis. This reflects an almost halving of China's growth rate, from about 10 per cent a year in the decade that ended in 2008 to 5.6 per cent projected for 2019–23, as well as slower growth of labour forces and productivity in the advanced economies.

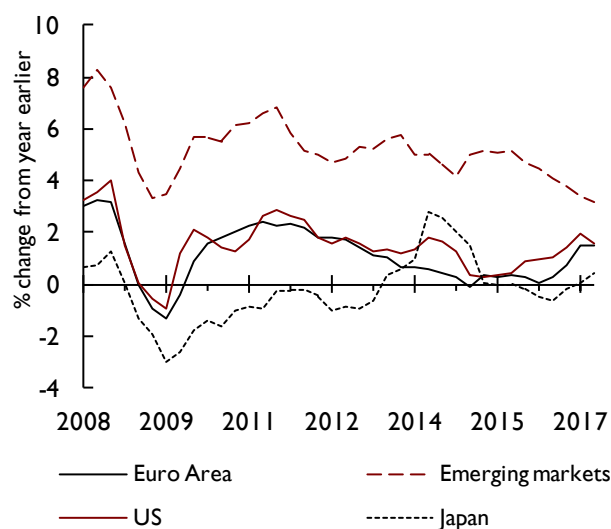
While our projections of growth this year have generally been revised up, our forecast of inflation has been revised down slightly, partly on account of a weaker outlook for global energy prices (see section below on commodity prices) and partly reflecting recent low consumer inflation surprises.

Recent economic developments

In the major advanced economies, economic growth has generally been maintained over the past year, and has strengthened in many cases. Stronger growth is most apparent in the Euro Area, where there has also been a notable narrowing of divergences in growth performance among member countries, and in Japan. The improvement in these economies' recent growth performance is accounted for by domestic demand in the cases of the Euro Area and Canada, while net exports have played a significant role in Japan. Underlying GDP growth in the United States has remained at about 2.0 per cent. Some short-term forecasts have been revised down in recent months as expectations of an early boost from fiscal policy have receded; since our forecasts are based on established policies, we made no assumption of expansionary fiscal policy in the US that we might have had to reverse.

Output and employment gaps have narrowed further in most cases, with unemployment rates having fallen to their lowest levels in more than a decade in the US, Japan and Germany. Nevertheless, consumer price inflation remains below central banks' targets (see figure 1). In

Figure 1. Consumer price inflation



Source: NiGEM database and NIESR forecast.

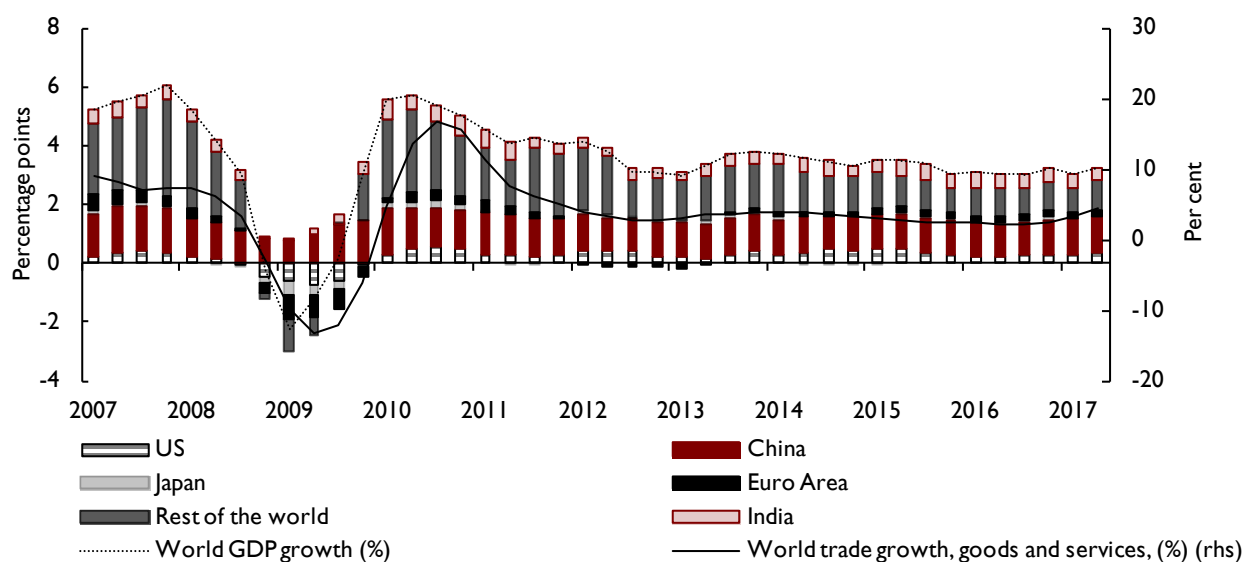
Note: 2017 includes forecast. Consumer expenditure deflator is used for the US, Euro Area and Japan, CPI for emerging markets. Emerging markets – weighted average of Brazil, China, India, Indonesia, Mexico, Russia and Turkey.

recent months, not only have 'headline' all-items inflation rates fallen back in many countries as last year's partial recovery of energy prices has dropped out of 12-month price comparisons, but core rates have also remained low, for reasons that seem only partly transitory. Wage inflation also remains notably subdued across all major advanced economies, including those with low unemployment.

Among the major emerging market economies, recessions appear to have ended in late 2016 or early 2017 in Brazil and Russia, but in both cases economic recovery faces significant headwinds, including, in Brazil, new political uncertainties relating to fresh corruption allegations, and in Russia renewed weakness in global oil prices as well as structural problems in the economy. In China, growth exceeded expectations in late 2016 and the first half of this year, in spite of a tightening of monetary conditions by the central bank and regulatory action to contain credit expansion and increases in housing prices. Consumer price inflation has recently fallen below or close to central banks' targets in Brazil and Russia, as well as China and India.

There are signs of a recent pick-up in the growth of world trade. Thus in the year to the first quarter of 2017 world merchandise trade volume grew by 4.2 per cent, the highest four-quarter growth rate since 2014 (figure 2).

Figure 2. World GDP growth and its contributors, and world trade growth (from four quarters earlier)



Source: NiGEM database and NIESR forecast.

Note: 2017 includes forecast.

Monetary policy

In mid-June 2017, the US Federal Reserve raised its target range for the federal funds rate by 25 basis points to 1–1.25 per cent – the fourth such increase since December 2015. The Fed's median expectation of the future path of the rate remained virtually unchanged from March, with one further such increase expected in 2017 and three more in each of the next two years. Our forecasting assumption for the federal funds rate is consistent with this projection. The Fed also set out details of the balance sheet normalisation programme that it expects to begin this year, unwinding the expansion that resulted from its large-scale asset purchases during 2008–14.

In July, the Bank of Canada raised its benchmark rate for the first time since 2010, by 25 basis points to 0.75 per cent, on the expectation that inflation, currently significantly below its target, will reach it within the next year as the economy approaches full capacity.

Monetary policy parameters have remained unchanged in the other major advanced economies in recent months, although in June the European Central Bank (ECB) removed the downward bias from its forward guidance on interest rates.

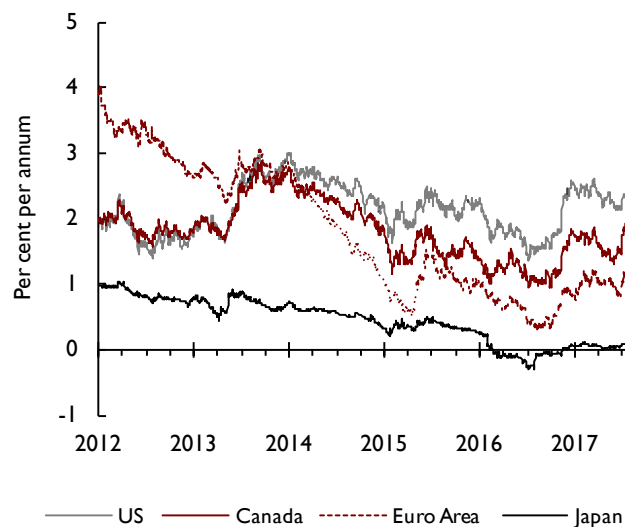
Falling inflation in the major emerging market economies has provided the basis for further interest rate cuts. The central banks of Brazil and Russia each

took a further step in June to lower benchmark interest rates – in Brazil, by 100 basis points to 10.25 per cent, and in Russia, by 25 basis points to 9.0 per cent. In Brazil, inflation has recently fallen to the lower end of the Central Bank's target range of 3.0–6.0 per cent, while in Russia it has recently been only a little above the target of 4 per cent. In both cases there seems to be scope for further interest rate reductions in the near future. In China, the central bank's short-term benchmark rate has not been changed since 2014, but monetary conditions have recently been tightened through open-market operations, causing a steepening of the yield curve. India's benchmark interest rate has been unchanged at 6.25 per cent since last October, but the recent drop in inflation to below the lower end of the Reserve Bank's target range of 2–6 per cent suggests scope for an early rate cut.

Financial and foreign exchange markets

Government bond yields in the US, at the 10-year maturity, fell from peaks of around 2.6 per cent in mid-March to about 2.1 per cent in mid-June as prospects of a significant fiscal boost to economic growth became more uncertain and as actual and expected inflation declined. In the following weeks, to late July, yields rose back to about 2.3 per cent, little changed from their levels in late April when the last *Review* was prepared. The recent rise seems to have reflected strengthening expectations of further tightening action by the Federal Reserve. With short-term interest rates having been pushed up by the

Figure 3. Ten-year government bond yields



Source: Datastream.

Fed's hikes in the federal funds rate in March and June, there has been a significant flattening of the US Treasury yield curve since mid-March.

In the other major advanced economies, bond yields have generally been subject to upward pressures in the past three months (see figure 3), in many cases reflecting stronger economic activity and expectations of monetary tightening. Yields have risen the most, by about 35 basis points, in Canada; the hike in official rates in mid-July was largely unexpected at the beginning of the period. In the Euro Area, 10-year government bond yields have risen by about 20 basis points in Germany but have fallen in other member countries, the general narrowing of spreads perhaps reflecting an alleviation of concerns about the future of the euro and the EU following the French elections in May and June. In Japan, upward pressure on yields has been largely absorbed by the Bank of Japan's asset purchases under its policy of yield-curve control introduced last September, so that the 10-year yield has remained below 0.1 per cent.

Among the major emerging market economies, bond yields have declined since late April by about 50 basis points in Brazil and India, reflecting declining inflation and actual or expected cuts in official interest rates. In these and some other emerging markets, real bond yields have reached their highest levels for more than a decade as rapid falls in inflation have not been matched by

cuts in policy rates. In China, bond yields have risen by about 20 basis points reflecting a tightening of monetary conditions by the People's Bank.

The shifts in long-term interest differentials over the past three months have contributed to depreciations of the US dollar by about 9 per cent against the Canadian dollar, 7 per cent against the euro, and 2 per cent against the renminbi. The Japanese yen, pound sterling, Brazilian real, and Indian rupee were roughly unchanged against the US dollar in late July from three months earlier, while the US currency was 5 per cent higher against the Russian rouble. In trade-weighted terms, the US dollar's value in late July was about 5 per cent lower than in late April and 8 per cent below the 14-year peak reached last December. The trade-weighted value of the euro in late July was about 4 per cent higher than in late April and 11 per cent above the lows reached two years earlier.

Recent equity market movements have been mixed. In the US, markets have been buoyant, with price indices reaching successive new peaks in the past three months while measures of market volatility have been unusually low. Prices have tended to move inversely with bond yields, in contrast with the period immediately following last November's US presidential elections when both rose, apparently on expectations of stronger growth in economic activity and corporate profits. Elsewhere, equity markets have tended to weaken where bond yields have risen and currencies have appreciated. In Canada, for example, stock market prices were about 3 per cent lower in late July than three months earlier, reflecting the rise in domestic interest rates and appreciation of the Canadian dollar.

Commodity markets

Global oil prices, in US dollar terms, in late July were little changed from early May despite upward pressure arising from the depreciation of the dollar and agreements reached in late May among OPEC and non-OPEC producers to extend to the first quarter of 2018 the production cuts first agreed last November for the first half of this year. At around \$47 a barrel, prices in late July were broadly similar to those prevailing in the weeks before last November's agreement. High stockpiles and the prospect of continuing excess supply in 2018, reflecting the continuing growth of non-OPEC production – notably including shale oil production in North America helped by declining costs – continue to weigh on the market. Our oil price assumptions for the forecast have been revised down since May, reflecting a downward shift in futures prices.

Other commodity prices, in US dollar terms, have risen slightly in recent months. The Economist all-items index in late July was about 2 per cent higher than in early May.

Risks to the forecast and implications for policy

Our forecast, as usual, is subject to number of risks.

Of the three sources of unusual uncertainty discussed in the May 2017 *Review*, one – the *contrast between relatively strong ‘soft’ data on activity obtained from surveys and less strong ‘hard’ data on actual spending and production* – has been partly resolved by the recent improvement in ‘hard’ data on activity in the Euro Area. We viewed this as an upside risk to our May forecast, and it seems to have materialised. In the US, measures of business and household sentiment have remained strong even though what appeared to be the basis for their improvement after the November elections – expectations of changes in fiscal and regulatory policies friendly to economic growth and corporate profits – have to some extent receded, as discussed in the next paragraph. In any event, as Chair Yellen of the Fed remarked in her June press conference, there is little evidence that the expectations of policy changes reflected in survey data have driven substantial changes in consumer or investment spending. Thus in the US the contrast between ‘hard’ and ‘soft’ data largely remains.

Related to this, the second source of uncertainty discussed in the May *Review* – *policy uncertainty in the US* – also remains. The outlook for fiscal policy is still unclear. The President’s budget proposals sent to Congress in late May have been widely criticised, including by the Congressional Budget Office for their unrealistic growth assumptions, and it is unclear whether they will form a substantial part of a budget to be approved by Congress. Related to this, prospects for tax reform also remain uncertain. The issue of the federal debt ceiling, which was hit in March, will need to be addressed in the next few months for the US to avoid default. In the area of trade policy, the investigations and renegotiations announced in the early months of the Trump administration (see May 2017 *Review*, F54, Box A) have yet to lead to significant action.

In the areas of monetary policy and financial regulation, the President has nominated a candidate for the position of vice-chair of the Fed for regulation who is reportedly in favour of liberalising current regulations, and speculation has increased that Chair Yellen may be replaced when her current term ends early next year. Some clarity on

the administration’s policy intentions with regard to financial regulation was provided by a Treasury report on the reform of banking regulations in mid-June (see section below on the US). The report points broadly to an easing of regulations; some of its recommendations will require legislative action for implementation, but many can be implemented without fresh legislation by regulators appointed by the President.

The risks discussed in the May *Review* relating to US economic policies thus largely remain, including the risks arising from fiscal policies based on over-optimistic growth assumptions; the risk that the Fed’s independence may be diminished; the risk that more lax regulation and supervision of financial institutions could increase the danger of future financial crises; and the risks of US-led protectionist trade policies.

The third source of uncertainty discussed in the May *Review* – *political uncertainty related to the unusual concentration of elections in several European countries* – has to a significant extent been resolved by the election of a government in France that is favourably disposed to the EU, to the euro, and to market-based economic reforms. Although elections are still to take place in the coming months in Germany and Italy, there are now stronger grounds for viewing the political environment in the Euro Area as conducive to reforms including the establishment of arrangements needed to complete the economic and monetary union (EMU). The ‘Five Presidents’ Report’ (FPR) of 2015 proposed a two-stage programme to achieve this objective by 2025, with the first stage to be completed by June 2017. Although some progress has been made, important elements of the first stage were not completed on schedule, including agreement on a European Deposit Insurance Scheme (EDIS) and on concrete steps towards a credible common backstop to the Single Resolution Fund (SRF), both of which are needed to complete the banking union. Lack of progress on these fronts reflects the unwillingness of some countries, particularly Germany, to countenance the introduction of mechanisms for risk sharing without more action to reduce risks, both in the banking sector and in countries’ fiscal accounts.

In May 2017, the European Commission published a new *Reflection Paper on the Deepening of the Economic and Monetary Union*, which suggests a revised programme for completing EMU by 2025, with somewhat greater emphasis on risk reduction than in the FPR (see Box A). There have been recent indications that Germany may be more ready to agree to progress in some of these areas, including the establishment of a fiscal

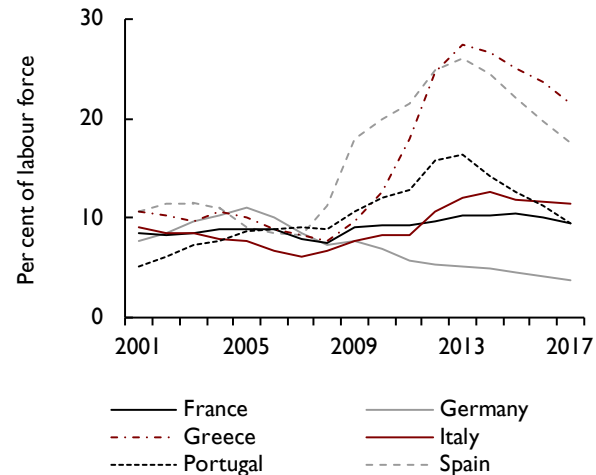
capacity for the Euro Area that could form the basis for a fiscal union, if France makes progress with economic reforms. In the meantime, as demonstrated by the role played by the Italian government in June in supporting the winding down of two regional banks (see section below on Italy), the dangerous interdependence remains between national fiscal authorities and national banking systems. Without a complete banking union, the Euro Area remains vulnerable to financial crises.

The improved political environment in the Euro Area, together with the recent improvement in its economic performance, provides an opportunity that should be grasped to strengthen and complete the institutional arrangements of the monetary union and thereby reduce the risk of further crises in the Area.

However, a successful future for the Euro Area depends not only on the completeness of the institutional arrangements of the monetary union but also on convergence of the economies of the member countries. One of the major problems of the Euro Area from its inception has been the divergence of cost competitiveness among member countries, and associated divergences among unemployment rates and financial imbalances. In particular, Germany has substantially improved its competitiveness, as shown by the transformation of an external current account deficit equivalent to 1.8 per cent of GDP in 2000 into a surplus of 8.5 per cent of GDP in 2016, at the same time as its unemployment rate has fallen from about 8 to below 4 per cent. In almost all other member countries, unemployment has increased since the adoption of the euro, in some cases to very high levels – the most extreme case being Greece, where in the wake of its financial crisis unemployment increased from below 8 per cent in 2008 to above 28 per cent in 2013, and remains above 22 per cent five years later. But also in France, Italy, Portugal and Spain unemployment today is around 10 per cent or higher (see figure 4). Because these countries are fiscally constrained, the only way they can act to reduce unemployment (apart from through their influence on the policies of the ECB) is by improving their international competitiveness by trying to hold down domestic wage and price inflation or promoting productivity growth through structural reforms. But the lower is domestic inflation, the more difficult it becomes to reduce public debt burdens, which in many cases are excessively high; while raising productivity growth through structural reforms is notoriously elusive.

Meanwhile, Germany has the largest external current account surplus in the world in absolute terms – a significant drain on global demand – and last year

Figure 4. Unemployment rates in selected Euro Area countries



Source: NiGEM database and NIESR forecast.
Note: 2017 includes forecast.

had a record fiscal surplus of 0.8 per cent of GDP. Wage increases are subdued, at about 2.5 per cent a year, and consumer price inflation, at about 1.5 per cent, is below the ECB's target. Germany thus has the space both to boost domestic demand through fiscal expansion – perhaps by raising the country's relatively low infrastructure investment – and to promote larger wage increases.¹

Several purposes would thereby be served. The boost to demand in Germany would promote growth abroad, including in its Euro Area partners suffering high unemployment. Larger wage increases in Germany would boost the cost competitiveness of its trading partners in the Area without the deterioration of their debt burdens that lower inflation in their own economies would involve. Increased public investment could boost Germany's potential output. And the reduction of Germany's external surplus would contribute to the reduction of global payments imbalances and thus reduce both the risks of instability in foreign exchange and financial markets and the risks of protectionist pressures.

Finally, a set of risks that has gained prominence in recent months concerns *monetary policy in the advanced economies*. Many central banks have been facing a dilemma, because on the one hand output and employment gaps have narrowed and unemployment rates in some major economies have been indicating

close-to-full employment, but on the other hand actual and expected inflation have remained below targets and have recently declined, and also wage increases have remained notably subdued. The Federal Reserve decided in June 2017 to raise interest rates for a fourth time since December 2015 and explained its decision in terms of “realised and expected labour market conditions and inflation”, arguing that recent below-target and declining inflation appeared to reflect transitory factors. The Bank of Canada decided in July to raise interest rates for the first time since 2010, also despite below-target inflation, which it similarly attributed to temporary factors, on the grounds that “the economy is approaching full capacity...with inflation expected to reach the 2 per cent target within the next year” and also taking into account the lag of 18–24 months that is generally considered to apply to the effects of monetary policy on prices.

In taking such decisions, central banks have to weigh at least three considerations: their confidence in their understanding of the determination of inflation, the credibility of their inflation targets in relation to inflation performance, and the relative costs of the policy mistakes that they risk.

With regard to the determination of inflation, recent experience has cast further doubt both on Phillips Curve relationships between unemployment and inflation and on relationships between interest rates and aggregate demand. Across many countries, inflation has recently

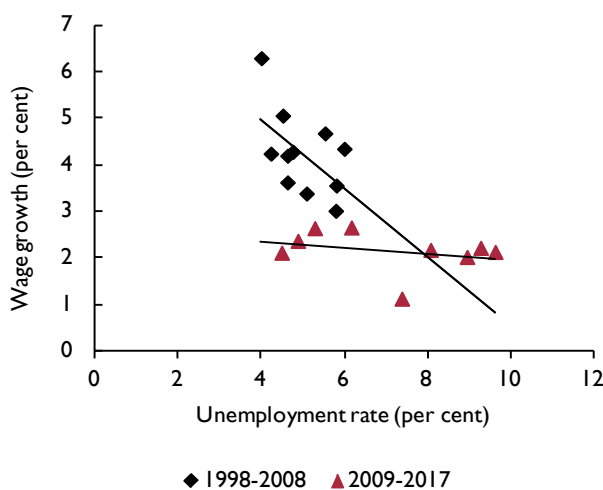
been lower than past relationships with unemployment would have implied, and estimates of the NAIRU (the non-accelerating inflation rate of unemployment) have consequently been revised down. Thus in the US, the mid-point of the Fed’s estimate of the longer-run unemployment rate consistent with its inflation target has been revised down in several steps from 5.6 per cent when it began inflation targeting in 2012 to 4.6 per cent in June 2017 (see figure 6). Even now, with actual unemployment below 4.6 per cent, price inflation remains below target and has declined in recent months, and wage inflation has remained subdued: there is little sign of a significantly downward-sloping Phillips curve in recent unemployment and inflation data (see figure 5). Further downward revisions in the Fed’s estimate of long-run normal unemployment clearly cannot be discounted. The relationship between unemployment and wage and price inflation may have changed for a number of reasons, including changes in the labour market that may have made the ‘headline’ unemployment rate less meaningful as a measure of the employment gap; effects of globalisation on competition and price formation; declines in the power of trade unions; and a downward shift and firmer anchoring of inflation expectations, perhaps resulting from inflation targeting or the Great Recession.

Relationships between interest rates and aggregate demand also seem to have changed significantly in recent years. Indeed, the fact that a secular decline in real interest rates in many countries over the past three decades has generated no more than mediocre demand growth has given rise to the notion of secular stagnation.² With estimates of the ‘neutral’ real interest rate (the real interest compatible with high employment and low inflation) thus having been revised down, it has become less clear how accommodative or expansionary an interest rate is that is low by historical standards.

These developments may recently have dented central banks’ confidence in their understanding of the determination of inflation.

Turning to the credibility of inflation targets relative to performance, perhaps the most notable feature of recent years is that, although the inflation targets of the central banks of the major advanced economies are purportedly symmetric, inflation in the US, Canada, the Euro Area and Japan has been predominantly below target in each case. In the US, for example, 12-month inflation was above target in only four of the 65 months between the adoption of the target in January 2012 and May 2017. For an inflation target to be credibly symmetric, it should presumably be somewhat above target around

Figure 5. US: Average wage growth and unemployment rate



Source: NiGEM database and NIESR forecast.

cyclical peaks, when output is close to capacity, and below target during cyclical troughs. This implies that currently central banks should be quite relaxed about inflation rising above target to a limited extent, even for fairly extended periods.

Finally, central banks have to weigh the relative costs of the mistakes with inflation that they risk making. It may be argued that the costs of the risks in either direction are significantly asymmetric. If a central bank tightens too late or too weakly, so that inflation rises inordinately above target, it can act quite promptly, and in principle it has unlimited ammunition to correct its mistake. But if the central bank tightens too soon or too strongly, not only will the scope for easing be more limited, given the zero lower bound, and given that interest rates are already low, but the economy could be unnecessarily weakened, with not only short-term costs in terms of

lost output, income and employment, but long-term costs arising from hysteresis.³

These considerations together suggest that there are strong grounds for central banks to pay more attention in their deliberations to data on price and wage inflation, and on inflation expectations, than to data on unemployment and estimates of output gaps; that the credibility of the symmetry of their inflation targets calls for them to allow inflation to rise somewhat above targets in the short term; and that without clear evidence that actual or expected inflation is rising significantly above targets central banks should approach with particular caution any decision to reduce accommodation.

For further discussion of the issues involved in the normalisation of monetary policy, see the Commentary by Jagjit Chadha in this *Review*.