

**Wages, inflation and current monetary policy**

Speech given by

Ian McCafferty, External MPC Member, Bank of England

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Quite a lot has happened since last summer, when I started voting for a 25bp increase in Bank Rate, in August 2015. Some three months ago, I decided to change my vote back to the consensus of no change. Today I would like to give some sense of how my thinking about the economy has evolved, and in particular of why certain recent UK economic developments convinced me that an immediate increase in Bank Rate is not needed at present. In my review of international and domestic developments, I will highlight the factors that have been important in my decision to reverse my vote, and set out my assessment of the conditions that would need to prevail to warrant a tightening of monetary policy.

To my mind, two broad themes have emerged since last summer. On the international front, fears about the outlook for the global economy, driven by concerns about the outlook for a number of emerging-market economies (EMEs), allied with a further net fall in the price of oil, have buffeted financial markets and caused considerable volatility in risky asset prices, while pushing down on headline inflation rates around the world. At home in the United Kingdom, although growth has abated a little and the recovery has remained steady, it has been accompanied by disappointingly weak growth in nominal wages and other domestic prices.

# Financial markets and the global economy

Let me start with the international environment, which has grabbed the headlines since the turn of the year and remains an important source of uncertainty.

Most noteworthy have been the gyrations seen in financial markets: heightened volatility and sharp falls in equity prices and a widening of spreads on corporate bonds until early February, followed by a corrective rebound in risky asset prices more recently (Chart 1). Initially, the fall in risky asset prices primarily reflected changes in the fortunes of energy companies, given the 23% fall in oil prices that took place during the first half of January (Chart 2). But during February, the sell-off widened, characterised by a broad-based rise in risk aversion amongst investors. This sharp rise in risk aversion was likely to have reflected a number of factors: a modest downgrading of the central outlook for the world economy; heightened fears of larger downside tail risks to that outlook – particularly focused on the economic and financial stability of a number of key emerging markets; increased uncertainty about policy strategy – particularly in China and the Eurozone; and concern about the potential impact of negative interest rates on bank profitability.

The asset price rally that started in late February is consistent with an improvement in risk appetite, suggesting that initial fears were overdone. The most recent data on the world economy suggest that, while the downside risks remain large and worrying, growth is holding up, in line with the outlook set out in the Bank’s February *Inflation Report (IR)*. Investors also appear to have drawn some comfort from the Chinese authorities’ clarification of their exchange rate policy and their stated goal of supporting growth in a 6.5%-7% range, as well as the European Central Bank’s announcement of stimulatory measures in early March.

Overall, the Monetary Policy Committee’s collective expectations about the global outlook are little changed from those set out in the February *Inflation Report*. China and other EMEs are likely to grow somewhat more slowly in coming years than in the pre-crisis period, reflecting a confluence of cyclical and structural factors; expectations about US monetary policy, combined with changes in risk appetite, have tightened credit conditions, especially for corporates; substantial falls in oil and other commodity prices have driven sharp slowdowns in commodity exporters, exacerbating vulnerabilities in Russia and Brazil; slower Chinese import growth is weighing on EME exports; and adverse demographic factors are starting to reduce potential growth in a number of key countries. In terms of global growth, this is somewhat offset by an expectation that growth in the United States and, to a lesser extent, in the Eurozone, should pick up through 2016 and 2017, such that growth in the global economy continues at a relatively moderate rate.

From a global perspective, this outlook should continue to be supported over the next year or so by the large, mostly supply-driven, falls in the oil price since the summer of 2014.1 These have been a mixed blessing for not only have they strained oil-exporting countries’ finances, but the benefit to the commodity-importing economies appears, so far at least, to have been less than was initially expected. There are a number of possible reasons for this, including the lower energy intensity of most economies these days, offsetting policies reducing energy subsidies, and the possibility that the impact lags are longer than in previous episodes. 2 Nevertheless, it is hard to believe that the sharp falls in oil prices are not net beneficial, and should continue to support consumer real incomes through to 2017.

Those sharp movements in the oil price have, of course, also had a direct impact on inflation rates around the world, pushing headline readings close to zero in most advanced economies (Chart 3). In the

United Kingdom, having been close to zero for 14 months, inflation edged up to 0.5% in March, still well below the 2% target. Over three quarters of that undershoot is accounted for by the falls in oil and commodity prices, together with the net appreciation of sterling since 2013. The remainder has been accounted for by subdued growth in domestic costs.

Notwithstanding the rally since the trough in January, the fall in the price of oil since last autumn caused us to revise down the February *IR* central projection for UK inflation relative to the August *Report*, such that headline inflation is expected to remain close to current levels for somewhat longer, and that the pick-up thereafter will be somewhat later and slower than originally expected (Chart 4). In the February *IR*, we expected inflation to reach 1% in early 2017 (a year later than in the August *IR*) and 2% at the start of 2018 (six months later than in the August *IR*). In itself, in policy terms, this might not be particularly important.

Short-term movements in the oil price represent one-off movements in the price level, and can often be “looked through” in setting policy. Indeed, the $16 rise in the oil price since the trough in January, if sustained, may well alter the trajectory for headline inflation once again by the time our May *IR* forecast is published. But behind that “lower for longer” trajectory for headline inflation, we also need to assess the

1 ‘Oil price falls – what consequences or monetary policy?’ – speech by Ian McCafferty on 10 March 2015

2 See ‘Oil prices and the global economy: It’s complicated’ by Obstfeld, Arezki and Milesi-Ferretti for a comprehensive assessment.

pressures for underlying domestic costs, and the extent to which they will offset the weakness in commodity and import prices over the course of the next couple of years.

# Evolution of domestic economic conditions

Such global considerations remain germane to UK policy, but for me, changes in domestic drivers of inflation since last summer have been much more important in influencing my policy decision.

In our February *IR* forecast, the outlook for growth in the UK economy remains steady. Output growth has slowed slightly since the middle of 2014 and has been a bit weaker than we were forecasting eight months ago, as export-dependent sectors have responded to the slower world economy, but domestic demand growth has held up.

Household consumption has been robust, supported by strong real income growth (in part reflecting the energy price falls), favourable credit conditions, robust confidence and a declining savings rate. This has been despite the drag from the ongoing fiscal consolidation. And notwithstanding a fall in 2015 Q4, business investment too has made a sizeable contribution to economic activity, growing faster than its pre-crisis average, reflecting supportive financing conditions and robust demand growth, and in spite of falls in the oil extraction sector.

Very recently there have been some signs that increased uncertainty linked to the outcome of the

EU referendum to be held on 23 June may weigh on investment in coming months, such that we may see a slight softening in GDP growth through the summer, but our central projection for demand growth remains one of ‘steady as she goes’.

Now, our assessment of the balance between that outlook for demand and prospects for supply – which together determine the degree of slack in the economy – allows us to gauge underlying inflationary pressure in the economy. There have been key uncertainties about how the supply side has been performing. But our latest assessment is that the amount of remaining slack in the economy is now very small, while recent productivity growth has remained disappointing.

In the labour market, key variables are estimated to be close to their equilibrium level, bearing in mind the large margin for error around these estimates: the participation rate has been stable in recent years, reflecting broadly offsetting trends of aging population and increased participation by older people; despite a recent pickup, average hours worked have been on a downward trend since late 2014, which I judge to have reflected a decline in the number of hours people wish to work, given the recovery of real wages; and last but not least, the unemployment rate is now at 5.1%, close to its long-run equilibrium level.

Productivity growth has been recovering following puzzling weakness in the aftermath of the financial crisis, although the gap relative to its apparent pre-crisis trend remains. Despite a fall in 2015 Q4, we expect it to rise modestly in the near term.

With remaining slack negligible we would have expected to see a stronger revival in wage growth. So far, though, this has been stuttering. Indeed, after a pick-up in the first half of last year, wage growth slowed into the second half. And although growth has now started to recover since the turn of the year, it remains weak. Last summer, in voting for an increase in Bank Rate, I had expected that the narrowing of slack would drive up wages through 2016 as firms competed for increasingly scarce labour. But it now appears that opposing factors are acting to hold wage growth down, for rather longer than I had thought. Three of these have been well-rehearsed in the MPC’s external communications, and have been observed for some time:

First, the growth of average *weekly* earnings may be underestimating effective wage growth as workers have been, in general, working fewer hours per week. When we look at the growth of average *hourly* earnings, we see that it is slightly stronger than the *weekly* equivalent. Even so, wage growth has slowed since last summer (Chart 5).

Second, even once we consider hourly wages, there is still a little more weakness in wage growth than we would expect to see. This may be partly due to the composition of employment growth which appears to have been pushing down on wage growth as roles that are associated with lower pay have continued to form a larger-than-usual share of net employment growth (Chart 6). As an MPC colleague explored in a speech late last year, these compositional effects tend to be counter-cyclical.3 They are already fading and, as unemployment stabilises around its equilibrium level, should continue to dissipate and cease pulling down on wages.

Third, there may be an anticipatory effect from the National Living Wage (NLW) which was introduced earlier this month, where employers of lower-paid staff have been holding off on offering wage increases. While only a small proportion of the workforce will be directly affected, the effect may be slightly larger as those near the boundary demand wage increases in order to maintain differentials.4 As we observe the wage data over the second quarter of the year, we should have a better idea about the impact of the NLW; a surprisingly large pick-up in wage growth might imply that this hypothesis has some viability.

But it is clear that even though these factors have acted to depress recent wage growth, they are not the whole story. An additional factor seems to be involved.

3 ‘Compositional shifts in the labour market’ – speech by Ben Broadbent on 23 September 2015

4 For more detail, see the box in the August 2015 Inflation Report

# Low inflation and wage determination

Over and above these three factors, it has become increasingly clear to me that the current low level of headline inflation is also having a material impact on the pace of wage growth – and it is this factor that has been paramount in the evolution of my thinking about the balance of risks around domestic cost pressures, and the appropriate policy stance.

Wage determination is usually thought to be driven by a combination of the balance of demand and supply in the labour market, labour productivity and inflation expectations. But in the current circumstances, it appears that an additional factor – recent headline inflation – is also having a strong influence.

The current importance of recent low inflation has been reported to the MPC through the Bank’s Agency network and to me personally during conversations I have had with business groups and employers. Many of the firms that I have visited recently have told me that they are using the current rate of inflation as a starting point for wage negotiations with staff.

Now, there is still plenty of room for firm and industry-specific situations to drive wages up, for instance in the presence of pronounced labour shortages. But it is becoming increasingly clear that negotiations are taking place in a very different environment to that of a year or two ago.

Economists’ usual wage equations contain inflation expectations as an explanatory variable, not actual inflation. But businesses inform me that the unusual situation of sustained low inflation has limited their power to change prices and has thus dictated that they keep a very close eye on costs. Only to the extent that very specific labour market conditions dictate, are firms likely to be able to offer significant pay rises. For many firms, the starting point for their wage negotiations has been the near-zero inflation of the past year or so.

Actual inflation has fallen by much more than measures of inflation expectations, which remain well anchored and relatively little affected by low headline inflation, both in surveys and financial market measures. Were expectations to become deanchored, we would have to worry not only about lower nominal wage growth, but also other potentially deflationary changes in behaviour – there would be a more compelling case for loosening policy. But much as the period of post-2008 above-target inflation did not lead to much deviation in expectations, the current undershoot of inflation has made similarly little mark.

This shift in wage-setting, to being dependent on realised rather than expected inflation, may well be temporary, and specific to current circumstances, but suggests that wage growth is becoming increasingly adaptive. Wage growth, absent changes in productivity and slack, is unlikely to pick up in anticipation of inflation rising towards target, but instead increase only as or after headline inflation picks up. But, as I mentioned earlier, the point at which this is likely to happen has been delayed by the falls in energy prices

since last summer, and the consequent slower pick-up in headline CPI inflation. It is this mechanism, and the more attenuated outlook for wage acceleration that results, that was central to my change of decision in February – that, in a world in which we believe the maximum impact of a change in policy takes effect within 18-24 months, an immediate rise in Bank Rate is, for now, no longer justified.

Although the pick-up in wages as the labour market has tightened appears to have been interrupted by current low inflation, once CPI inflation starts to rise, behaviour is likely to revert, and wage inflation may rise surprisingly quickly in response. To the extent that low inflation has been holding back wage growth, a pickup in price inflation should lead to a correspondingly faster bounce in wage growth – faster than changes in productivity growth and declining slack would suggest.

The pace of this joint acceleration will of course depend on the strength of the feedback from wages to prices. This will, in turn, reflect factors such as the proportion of firms that emphasised weak price inflation in wage negotiations, employers’ ability to resist bidding up the price of labour as instances of scarcity become more widespread and firms’ ability to defend or even expand their profit margins.

Although the point at which this wage acceleration should begin has been pushed out by the changes in our forecasts for price inflation since last August, it still poses a risk of an inflation overshoot in the third year of our forecast. So the change in my policy position is more one of timing than any root-and-branch change in my thinking about the fundamental outlook for the economy.

# The importance of gradualism

Much as my view on the timing of inflation developments has changed while my fundamental view of the economy has not, I have changed my immediate vote for an increase in Bank Rate without abandoning my preference for gradualism in policy normalisation.

Even though the appropriate timing for starting the process of policy normalisation has been delayed, the benefits of a gradual rise in interest rates once we start remain, to me, convincing. The economy may develop such that an optimal policy rule would suggest that interest rates should rise slowly as a consequence, but that would be to conflate a gradual rise in interest rates with a policy of gradualism, which has benefits over and above that suggested by standard reaction functions.

The benefits of gradualism arise from two key considerations. First, the MPC’s usual estimate for the lag with which monetary policy will have its peak impact on inflation is around 18-24 months. Second, Bank Rate has been 0.5% since 2009 and we should not necessarily assume that any changes will have the same effect they would have had prior to the financial crisis.

Implementing a gradual path of interest rate normalisation allows for agents in the economy the maximum possible learning and adjustment process. We, as monetary policy makers, have difficulty in separating the

impact of changes to monetary policy from other economic developments at the best of times, but to do so in the near future might be especially difficult given uncertainty about how the economy has adapted to the

low-rate environment of the past eight years – a variant of so-called Brainard uncertainty – and that heightened volatility in the global economy and financial markets might not dissipate for some time. Therefore, tightening policy slowly would afford the MPC a greater opportunity to observe the impact of its first actions earlier in the tightening cycle. Policy makers will never have the full set of information that we would like, but having a more complete view of the impact of our actions is likely to lead to improved policy formulation.

Furthermore, a gradual path for interest rate increases should help minimise the risk of disruption to consumers and businesses. The slower the tightening cycle, the less are the risks of economic instability as the economy reacts to a change in the price of credit via sharp changes in consumption, investment or volatility in the housing market. Pleasingly, the Bank’s NMG survey suggests that households are already in a better position to absorb a small increase in interest rates than for some time.5

The benefits of information gathering during a tightening cycle are themselves convincing. But, in addition, I view an evolution of inflation that returns to 2% over a reasonable horizon, but not overshooting thereafter, as a successful achievement of our mandate – even if this might mean arriving at exactly 2% just a little later than could otherwise be achieved. Given that the February *Inflation Report* forecast an overshoot of inflation by the end of the forecast horizon, starting to tighten monetary policy earlier than the yield curve upon which that forecast was conditioned should improve the likelihood of meeting our mandate.

But what does gradualism actually mean? It is not equivalent to “lower for longer” – it is not a policy strategy aimed at providing stimulus to the economy through lowering the yield curve. Instead it implies that one should pursue a preliminary increase without undue delay so as to be able to spread the total quantum of tightening over a longer period.

In more practical terms, ‘gradualism’ suggests that we should tighten at a slower pace than in previous cycles. One estimate of that pace is 50bp per quarter6 – to be truly gradual would be to undershoot this with some margin to spare. So although a gradualist policy might start tightening slightly earlier than alternative policy schema or market expectations, it would tighten by less in following quarters than alternatives.

# What might shift my vote towards raising interest rates?

It should be clear from my views on the economic outlook and monetary policy strategy that it is entirely possible that the reversion of my vote of no change to Bank Rate might be relatively short-lived. But what might cause such a shift?

5 For more detail see ‘The potential impact of higher interest rates and further fiscal consolidation on households: evidence from the 2015 NMG Consulting survey’, Bank of England Quarterly Bulletin 2015 Q4

6 ‘From Lincoln to Lothbury: Magna Carta and the Bank of England’ – speech by Mark Carney on 16 July 2015

Fundamentally, to an inflation targeting central bank, a shift in the balance of risks to inflation should lead to a re-evaluation of the appropriate stance of policy. The first avenues for such a change would likely be either the dissipation of the external forces holding down headline inflation, or renewed wage growth.

If headline inflation were to pick up, or if we were confident that such a pickup was imminent, the speed with which wage growth responded would be key to the validation of my diagnosis and the outlook for monetary policy.

But such developments are certainly not the only game in town, and I will pay close attention to other inflation risks. In particular, the impact of exchange rate movements will be important.

At present, judging to what extent moves in the exchange rate will prove persistent is more difficult than normal, given the timing of the referendum on Europe. But once this uncertainty lifts, any persistent weakness in the exchange rate would also need to be taken into account in judging the appropriate stance of policy, particularly to the extent that its impact on headline inflation then fed into the outlook for wage setting.

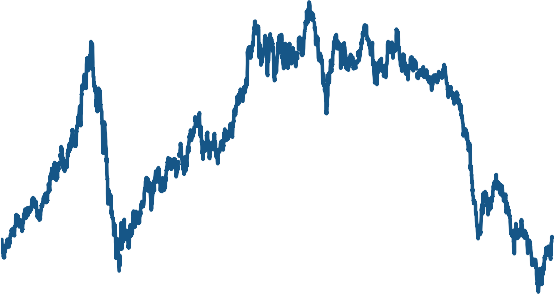
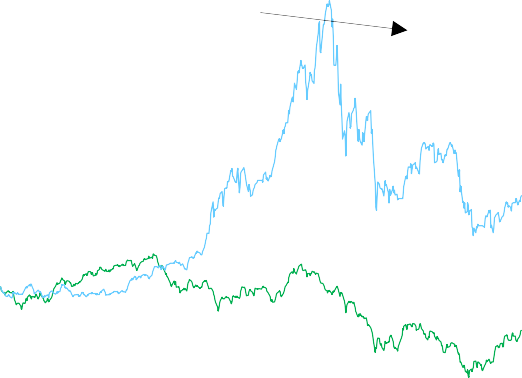
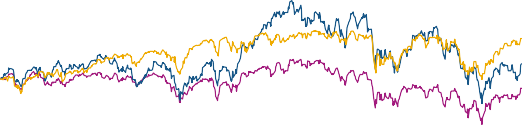
# Conclusion

Although the outlook for the economy remains broadly unchanged, there have been some important developments in terms of the evolution of underlying inflationary pressures that have affected my vote on monetary policy. I continue to expect the ongoing process of normalisation to proceed and for the economy to continue to recover, as well as for consumer price inflation to revert to our 2% target. But the time over which this is likely to occur has been delayed. This delay, combined with the current dynamic between current inflation and wage determination, has led me to suspend my call for an immediate increase in

Bank Rate.

It would be foolish to pretend that policy makers can make pronouncements of forecasts with any certainty, but I hope my remarks cast some light on the issues that concern me at the moment. On the basis of our current central outlook for the UK economy, I still anticipate having to return to a vote to tighten

monetary policy at some stage, although I cannot offer a firm date as to when that might occur – the uncertainty surrounding the evolution of the economy over the coming months is particularly acute at the moment. As a result, the long-standing guidance from the Monetary Policy Committee that we expect to raise interest rates in a gradual and limited fashion is not a promise – the actual path of monetary policy will, of course, depend on the performance of the economy. I, along with other observers of the UK economy, will be watching how the economy evolves in coming months with great interest.



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| **Chart 1: International equity prices** | **Chart 2: Sterling oil price** |
| All Indices: 2 January 2014 = 100  250 200  November *Report*  220 Shanghai Composite 180  (lhs)  190 160  160 Euro Stoxx 140  S&P 500 (rhs)  130 (rhs) 120  100 100  70 FTSE All-Share 80  (rhs) MSCI Emerging Markets (rhs)  40 60  Jan-14 Jul-14 Jan-15 Jul-15 Jan-16  *Sources: Thomson Reuters DataStream and Bank calculations.* | £/b  90  80  70  60  50  40  30  20  10  0  2007 2008 2009 2010 2011 2012 2013 2014 2015 2016  *Sources: DataStream, Financial Statistics and Bank calculations.* |
| **Chart 3: International inflation rates** | **Chart 4: Inflation forecasts** |
| Euro area headline HICP % change on  US headline CPI a year earlier 6  UK headline CPI  5  4  3  2  1  0  -1  -2  2010 2011 2012 2013 2014 2015 2016  *Sources: Thomson Reuters DataStream and ONS.* | August 15 IR % change on  February 16 IR a year earlier  Data 6  5  4  3  2  1  0  -1  2011 2012 2013 2014 2015 2016 2017 2018 2019  *Sources: ONS, August 2014 Inflation Report, February 2016 Inflation report.* |
| **Chart 5: Hourly vs. weekly earnings growth** | **Chart 6: Compositional effects on wage growth** |
| Hourly % change on  Weekly a year earlier  8  6  4  2  0  -2  -4  2006 2008 2010 2012 2014 2016  *Sources: ONS.* | Other Per Cent  Occupation  Tenure 1.5  Total Compositional effect  1.0  0.5  0.0  -0.5  -1.0  -1.5  2008 2009 2010 2011 2012 2013 2014 2015  *Sources: ONS and Bank Calculations.* |

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