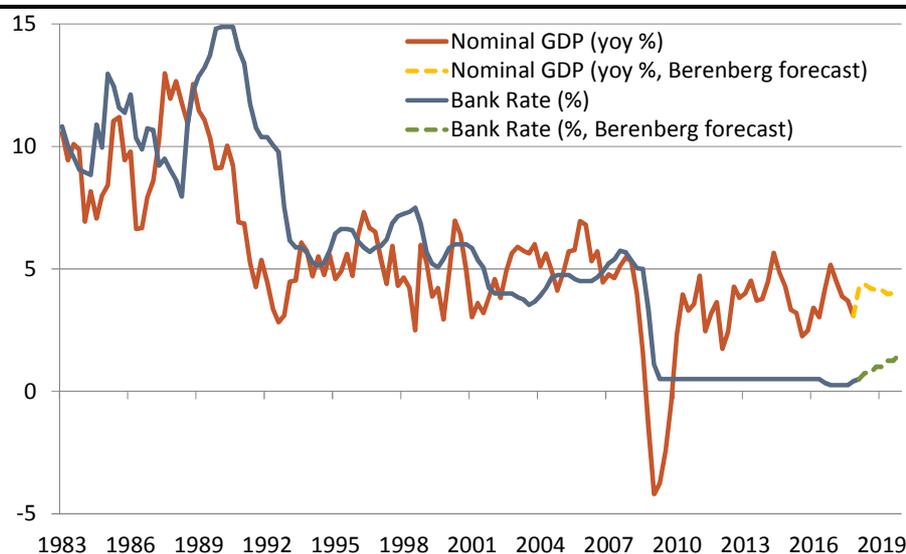


## BoE: balancing inflation risks and Brexit uncertainty

Chart 1: Crisis over – rates can gradually rise towards economic fundamentals



Quarterly data. Source: Bank of England, ONS, Berenberg calculations

In this report we analyse UK monetary policy since the Brexit vote, and the likely future path as the BoE balances Brexit uncertainties and modest inflation risks.

- Quite a turnaround:** The Bank of England (BoE) has taken a dramatic U-turn with its monetary policy since the UK voted to leave the EU in June 2016. The BoE initially responded to the risks to demand from the Brexit vote by loosening monetary policy in August 2016. Now, we see a 65% chance the BoE will raise rates at the upcoming Inflation Report meeting on 10 May. It will be the second of what will likely turn into a series of hikes that began last November.
- Thanks to Brexit, slower growth is the new normal.** Slower rates of growth in labour supply, foreign investment and trade as the UK leaves the EU will lower the UK's long-run growth potential. The BoE's justification for tightening is straightforward. There is limited slack in the UK economy and demand growth is likely to outpace the new, slower rate of supply growth over the medium term. If left unchecked, inflation would rise above the BoE's 2% target on a sustained basis.
- Modest inflation risks:** Inflation expectations for the 12 months ahead have risen to 3% on a sustained basis since the Brexit vote, as the weaker sterling has pushed up import prices and headline inflation. Tightening labour market conditions are already pushing wage growth higher. By gradually normalising monetary policy, the BoE can prevent the elevated inflation expectations from feeding too much into current wage and price setting behaviour.
- The BoE will proceed slowly:** Yes, the Brexit-related risks to growth and risks stemming from high debt in parts of the household sector need to be watched carefully. However, these are not strong enough reasons for the BoE to keep its policy on hold. Instead, they imply that the bank rate will need to be increased slowly and predictably, and to an end-point that is well below the 5% pre-Lehman level.
- Policy outlook:** Amid the healthy acceleration in nominal wages and above-trend real GDP growth above, we expect four 25bp hikes over the next two years, with two increases each in 2018 and 2019. This would take the bank rate to 1.5% by the end of 2019. With its negative real rate policy and large balance sheet, the BoE will remain accommodative well into the medium term.

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## The evolution of the BoE's forecasts since the Brexit vote

The BoE updates its economic forecasts in each of its four quarterly Inflation Reports. These occur in February, May, August and November. Chart 2 compares the BoE's projections for real GDP growth before and after the Brexit vote and to the actual data. In May 2016, the BoE expected annual UK GDP growth in 2017 to average 2.2%. This was lowered to 0.8% in the August 2016 Inflation Report when the BoE eased its policy in response to the downside risks from the Brexit vote.

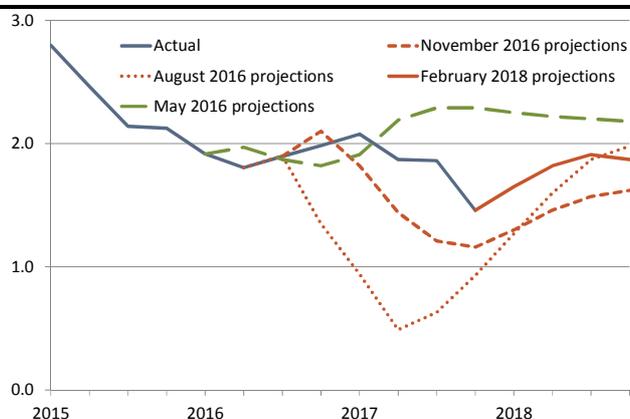
In August 2016, the BoE cut its main policy rate to a historic low of 0.25% and decided to add £60bn in government bonds to its already large holdings (now £435bn) while also buying £10bn of corporate bonds. It eased its policy to counteract an expected slump in demand linked to Brexit-related uncertainties.

The initial batch of survey data in the weeks that followed the referendum was very soft indeed. The composite PMI dropped 5ppt to 47.5 in July 2016 – clear recession territory. Other key soft data such as GfK consumer confidence fell sharply too, from -1 to -12 between June and July.

In the end, things turned out better than initially expected. Real GDP growth accelerated after the Brexit vote. The H2 2016 annualised growth rate was 2.6%, up from 1.4% in H1 2016. The early collapse in the soft data seems to have been driven more by the sheer shock and panic linked to uncertainty about what would happen next than any serious deterioration in underlying economic activity.

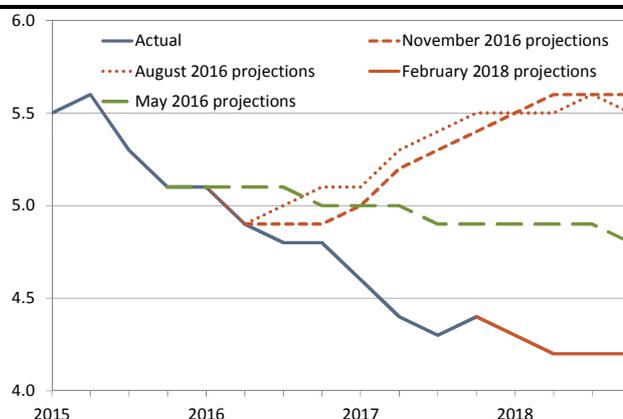
As the shock faded, confidence rebounded. The resilient economic performance that followed the Brexit vote was reflected in the BoE's economic projections which were upgraded sharply after the Brexit vote.

**Chart 2: BoE forecasts for UK real GDP (yoy %)**



Quarterly data. Source: Bank of England, ONS. BoE data shows mean forecasts based on the market's projection for interest rates at the time of the forecast.

**Chart 3: BoE forecasts for the UK unemployment rate (%)**



Quarterly data. Source: Bank of England, ONS. BoE data shows mean forecasts based on the market's projection for interest rates at the time of the forecast.

By November 2016, it was quite clear that the economy was set to be more resilient to rising inflation from the temporary surge in import prices – due to the fall in sterling – and uncertainty from the Brexit vote than the BoE initially anticipated. At the November Inflation Report, the BoE upgraded its 2017 outlook to 1.5% from 0.8% in August.

Latest data shows that the UK economy grew in real terms by 1.8% in 2017, well above the BoE's August 2016 forecast and a little above its November 2016 projections. Data for the labour market shows an even clearer picture of how 2017 turned out significantly better than the BoE had initially anticipated. Instead of rising as the BoE expected, the unemployment rate fell to a record low during 2017 – well below what the BoE had projected prior to the Brexit vote in May 2016 (Chart 3).

## The BoE's reaction function shifted in 2017

As H1 2017 brought more evidence of sustained growth and rising labour demand, the Monetary Policy Committee (MPC) started to signal a change in its reaction function. Back in August 2016 when the BoE eased its monetary policy, the risk that inflation could

overshoot the BoE's 2% target on a sustained basis seemed low. The annual change in headline consumer price inflation (CPI) was 0.6%, while core inflation – CPI excluding energy, food, alcohol and tobacco – stood at 1.3%.

Although the MPC expected the drop in sterling in Q3 2016 to push the headline inflation rate towards 3% in 2017, it judged that the expected slowdown in demand and rise in unemployment would ensure inflation fell back towards the 2% target as the effects of the one-off jump in import prices faded. Because the long-term inflation risks seemed low, the MPC was willing to tolerate a temporary period of above-target inflation in order to support near-term growth. Here is the BoE guidance from August 2016:

*“Consistent with this, recent surveys of business activity, confidence and optimism suggest that the United Kingdom is likely to see little growth in GDP in the second half of this year. These developments present a trade-off for the MPC...given the extent of the likely weakness in demand relative to supply, the MPC judges it appropriate to provide additional stimulus to the economy...at the cost of a temporary period of above-target inflation. Not only will such action help to eliminate the degree of spare capacity over time, but because a persistent shortfall in aggregate demand would pull down on inflation in the medium term”.*

In 2017, as demand growth outperformed the BoE's expectations and unemployment declined, further eliminating the degree of spare capacity in the economy, it became less likely that inflation would self-correct. Gradually, the BoE's tolerance for above-target inflation started to wane. In May 2017 already, the minutes from the MPC meeting noted, *“there are limits to the extent to which above target inflation can be tolerated.”*

At the May 2017 meeting, Kristin Forbes dissented against the committee by voting in favour of a rate hike. By November, more committee members, including governor Mark Carney and deputy governor Ben Broadbent, were persuaded by the balance of evidence that pointed to rising medium-term inflation risks, continued stable demand at home and improving global demand. The BoE hiked the bank rate by 25bp in November 2017. This, the first hike in a decade, merely raised the bank rate to 0.5% – the rate before the Brexit vote.

## The market is still pessimistic about the UK's medium-term prospects

The market woke up late to the prospect of a November 2017 rate rise. Despite two dissenting votes in favour of a rate hike in the June and August MPC meetings, the market was still pricing in only a 25% chance of a November rate hike as late as September. The markets seemed to give more weight to the downside risks to demand from Brexit uncertainty than the BoE's increasingly hawkish communications. Here is the guidance from the August MPC minutes:

*“If the economy were to follow a path broadly consistent with the August central projection, then monetary policy could need to be tightened by a somewhat greater extent over the forecast period than the path implied by the yield curve underlying the August projections”.*

Even today, after the UK has consistently outperformed consensus expectations since Brexit, the market remains more pessimistic about the UK prospects than the BoE and compared to our own forecasts. According to the Bloomberg consensus on 20 April 2018, the market expects 1.5% real GDP growth in both 2018 and 2019, implying a slowdown this year from a growth rate of 1.8% in 2017. In its latest forecasts from February, the BoE projects 1.8% real GDP growth in both 2018 and 2019. We have consistently been above consensus in our forecasts for medium-term growth since the Brexit vote. We currently expect real GDP growth of 1.7% in 2018 and 1.8% in 2019.

## Bad economic policies cause inflation

The more resilient than expected demand growth since the Brexit vote is only half of the story when it comes to the BoE's hawkish policy shift. The other is linked to developments in the supply side of the economy.

Thanks to Brexit, slower growth is the new normal. Slower rates of growth in labour supply, foreign investment and trade as the UK leaves the EU will lower the UK's long-run

growth potential. The BoE’s justification for tightening is straightforward. There is limited slack in the UK economy and demand growth is likely to outpace the new, slower rate of supply growth over the medium term. If left unchecked, inflation will rise above the BoE’s 2% target on a sustained basis. The March 2018 MPC minutes highlight this key point:

*“In the MPC’s most recent projections, set out in the February Inflation Report, GDP was expected to grow by around 1¾% per year on average over the forecast period. While modest by historical standards, that growth rate was expected to exceed the diminished rate of supply growth of the economy, which was projected to be around 1½% per year”.*

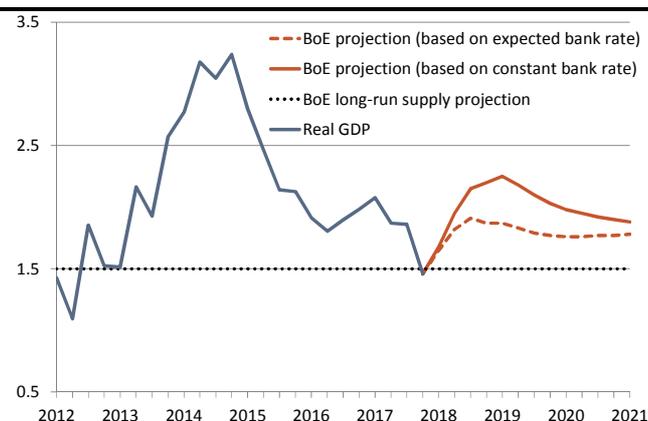
## 65% chance of a rate hike in May – risks skewed towards July

We see two reasons why the BoE is likely to hike its main policy rate by 25bp to 0.75% in May.

### Firstly, the BoE has re-opened the playbook it used ahead of the November 2017 rate hike

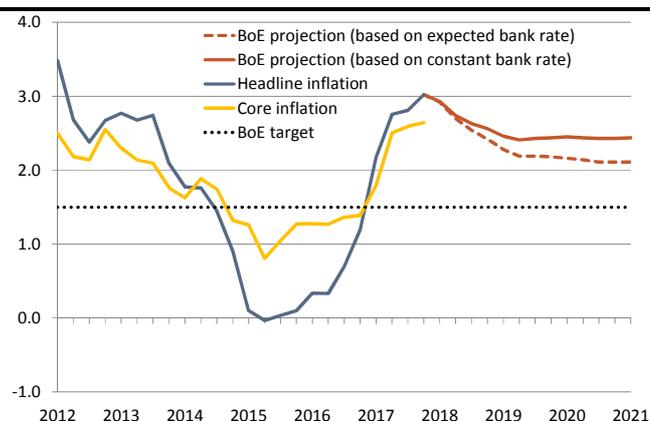
After signalling in the February 2018 Inflation Report that a rate hike could come soon, two members of the nine-member MPC – Michael Saunders and Ian McCafferty, both known hawks – voted in favour of raising the bank rate by 25bp to 0.75% at the March MPC meeting. This was the same process used before the November hike: first, the BoE signals to markets that a hike could come soon, then a couple of known hawks vote for a hike shortly thereafter, and finally, the BoE hikes rates. The next such step would be a hike in May.

**Chart 4: UK GDP and BoE projections for potential GDP (yoy %)**



Quarterly data. Source: Bank of England, ONS, Berenberg calculations. Forecasts show BoE mean projections from February 2018 Inflation Report. Supply projection based on guidance from policy summary of August 2017 Inflation Report. The “expected bank rate” is calculated by the BoE on the average of market pricing ahead of the forecast round. At the time of the February Inflation Report the market was pricing in roughly two 25bp hikes by the end of 2019.

**Chart 5: UK headline inflation and BoE projections (yoy %)**



Quarterly data. Source: Bank of England, ONS, Berenberg calculations. Core inflation = headline CPI minus food and energy. Forecasts show BoE mean projections from February 2018 Inflation Report. The “expected bank rate” is calculated by the BoE on the average of market pricing ahead of the forecast round. At the time of the February Inflation Report the market was pricing in roughly two 25bp hikes by the end of 2019.

### Secondly, the BoE’s forecasts signal the need for tighter monetary policy

Like other inflation-targeting central banks, the BoE’s forecasts are its main method of guiding markets on its policy intentions. In February, the BoE projected that real GDP growth would average c1.75% over the medium term – slightly above its 1.5% estimate for potential supply growth (Chart 4). In addition, the BoE projected that the headline inflation rate would remain above its 2% target through to 2021, noting that “domestic inflationary pressures are expected to rise while the temporary hit from higher import prices since the Brexit vote fades.” By forecasting above-target inflation until 2021, well beyond the two years the BoE usually considers an appropriate horizon to return inflation to target, the BoE is signalling that monetary policy will need to be tightened to bring inflation back to the 2% target rate.

The risks to this call are skewed towards a possible delay of the first 2018 hike until the July Inflation Report, following comments by BoE Governor Mark Carney on 19 April at the IMF Spring Summit, please see [“BoE: May hike still likely, but Carney comments highlight uncertainty”](#).

As the governor of the BoE, Mr Carney's comments carry more weight than those of other members of the MPC. While Mr Carney did not precommit to any specific policy action in May, he opened the door to a possible delay of the next hike: "*there are other meetings over the course of this year*". He maintained that the UK should prepare for "*a few interest rate rises over the next few years*".

It is likely that the UK Q1 GDP data will come in a little soft due to the temporary impact of the wet and snowy weather. The data will probably show the quarterly growth rate slowed from 0.4% in Q4 2017 to 0.3% in Q1 2018 – below the potential rate of c0.4% qoq. We expect a rebound in Q2 and, as a result, the BoE to look through the temporary softness. However, a big surprise on the downside could strengthen the case for delaying the next hike until July in order to confirm a rebound in economic activity in Q2.

Before Mr Carney's interview, the market was pricing in a c85% chance of a rate hike in May. Now market pricing for a May hike is c55% – implying the market still expects a hike in May, but now sees the chance of a hike at just a little better than evens.

## Should the BoE really be tightening now?

This question is often raised. Economic uncertainties linked to Brexit still cloud the outlook. UK real wages are only just starting to recover after the sterling-related falls last year. Household debt levels are still high at c130% of income, down from 152% at the Q1 2008 peak. And recently, amid the market volatility, softening of confidence in major economies, and a likely weak Q1 in Europe, doubts about the strength of the global upswing have grown modestly.

Such concerns are not unjustified. We still see a 25% risk of a no-deal "hard" Brexit. Such an outcome would present significant downside risks to the medium-term outlook and could prompt a second U-turn by the BoE. However, chances are that the UK and the EU will agree to a semi-soft Brexit (40% chance) that lowers UK potential growth to c1.6-7% (from 2.1% inside the EU) but does not risk a major near-term slowdown.

Although global economic risks linked to the threat of US-led trade wars are rising, because all sides would have too much to lose from a genuine trade war, we expect pragmatism to prevail in the end and a full-blown trade war to be avoided. Economic fundamentals in the western world are robust. We do not expect much more than a temporary dent to Q1 confidence as the trade war risk subsides over the course of the year.

What about the risks to UK household balance sheets from rising interest rates? Because debt and savings are unevenly distributed across the economy, interest rate changes affect different households in different ways. As rates rise, economic agents with high net debt levels may be worse off while net-savers will benefit. But this is always the case when rates rise.

The job of the central bank is to decide whether there is an overall benefit to its policy decisions. Consider the BoE's response to the financial crisis: while the cut in the policy rate to a historic low of 0.5% badly hurt savers, this cost was smaller than the benefit to the wider economy from higher employment and stronger growth during the recovery thereafter.

Yes, there are Brexit-related risks to growth and risks stemming from high debt in parts of the household sector that need to be watched carefully. However, these are not strong enough reasons for the BoE to keep its policy on hold. Instead, they imply that the bank rate will need to be increased slowly and predictably, and probably to an end-point that is well below the 5% pre-Lehman level.

## Risks go both ways

While the downside risks to the economic outlook need to be monitored, the upside risks to inflation – some of which are starting to materialise already – matter more for the medium-term monetary policy outlook. The two major risks are as follows.

### **Above-target inflation expectations that are not likely to might not self-correct**

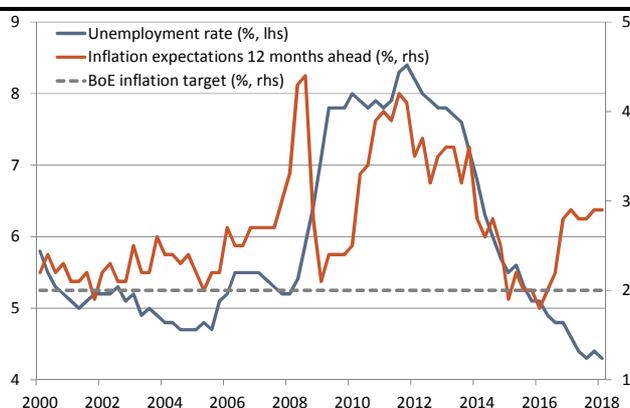
As Chart 6 shows, inflation expectations for the 12 months ahead have risen to 3% on a sustained basis – including in Q1 2018 – since the Brexit vote, as the weaker sterling has pushed up import prices and headline inflation. Although the BoE has largely ignored

similar shocks in the past – such as in 2008 and 2011 when oil prices spiked – this option is not possible available now because there is much less slack in the economy.

When oil prices spiked in 2008, unemployment was rising towards 8%. Then in 2011 unemployment was above 8% when the oil price spike stoked another sharp rise in inflation expectations. When inflation expectations surged towards 4% on each of these occasions the BoE correctly judged that the spare capacity in the economy would return inflation to target after the effect of the rising oil price had faded.

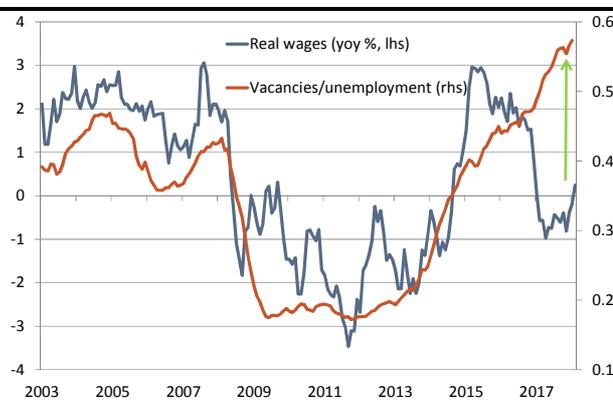
Today, however, with the economy running at close to full capacity and unemployment (currently 4.2%) below the BoE’s estimate of full employment (4.5%), a self-correction in inflation and inflation expectations towards the 2% target seems unlikely. Without tighter monetary policy, inflation expectations will likely stay elevated at c3% or rise further as expectations for future price rises are incorporated into current wage and price-setting behaviour.

**Chart 6: Unemployment rate versus inflation expectations (%)**



Quarterly data. Source: ONS, Bank of England, TNS.

**Chart 7: Real wages rising again after Brexit-related hit**



Monthly data. Real wages = average weekly earnings including bonuses adjusted by yoy % change in headline CPI. Source: ONS, Berenberg calculations.

### Wages are finally responding to tight labour market conditions

Strengthening household fundamentals suggest upside risks to medium-term demand growth. As Chart 7 shows, real wage growth tracks the degree of tightness in the labour market. The jump in imported inflation from the shock Brexit vote temporarily forced a gap in this relationship. But the tide on real wages is turning.

Labour market fundamentals point to significant upside risks to real wage growth. Strong labour demand is no longer driving up employment. Instead, the degree of mismatch between the skills of the remaining workers and the skills demanded by firms is widening. Thanks to the drop in headline inflation to 2.5% in March (3.0% in January), and the uptick in nominal weekly earnings to 2.8% in February, real wages are growing again, albeit very slightly, for the first time since January 2017.

Following on from the upside surprise to domestic and global growth last year, wage growth is likely to accelerate further this year. Tight labour markets should push nominal wage growth higher over the medium term as inflation gradually trends towards a rate of 2.0-2.5%. Real weekly earnings growth can rise towards 1.0% by the end of the 2018.

### Policy outlook: responding to modest, but growing, inflation risks

Strong growth in the global economy, stable demand at home amid rising inflation expectations and tight labour markets point to more aggressive wage and price setting tendencies over the medium term. While the current inflation risks are modest, inflationary dynamics can take hold fast. The BoE could find itself behind the curve if upside risks to wages materialise.

Beyond a likely 25bp rate hike in May (65% chance) to take the bank rate to 0.75%, we expect the BoE to continue to lean harder against inflation risks over the next few years. We look for another 25bp hike in November 2018, followed by two such hikes in 2019. This would take the main policy rate to 1.5%. Such a path is consistent with the BoE’s guidance

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for “gradual and limited” rate hikes. Risks around this call are tilted toward a slightly faster path of rate hikes after Brexit in March 2019.

Even with four 25bp hikes over the next two years, monetary policy would remain highly accommodative well into the medium term. The real policy rate would remain negative and the bank’s balance sheet large by historical standards. A gradual normalisation of monetary policy should not pose a threat to continued growth at or a little above the underlying potential rate. Instead, by taking the necessary steps to credibly achieve its 2% inflation target and preventing households and firms taking on too much risk, modestly higher rates can bring benefits in the form of a longer and less volatile business cycle.

### ***What about the BoE’s balance sheet?***

Unlike in the US, reducing the size of the BoE’s balance sheet does not feature strongly in the public debate on UK monetary policy. The MPC is under little pressure to reduce the bank’s balance sheet soon, and thus is unlikely to even consider any such steps until after Brexit in March 2019, and realistically, probably not until the early 2020s. As various MPC members have stated in the past, the BoE wants the bank rate to be the primary policy tool again. That means returning the bank rate to a sufficiently high level – so that it can be cut by enough to offset a future downturn – before the BoE begins to reduce the size of its balance sheet.

The BoE usually cuts its bank rate by c300bp during a downturn. With the BoE expected to tighten only very gradually, the eventual balance sheet unwind seems far away. That said, if the Fed’s balance sheet unwinding proves successful and does not lead to a significant rise in long-term borrowing costs, the BoE might be encouraged to start its balance sheet unwind earlier.

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