BANK OF ENGLAND

MEETINGS OF THE MONETARY POLICY COMMITTEE
April 2016

A meeting of the Monetary Policy Committee was held on Thursday 7 April 2016. The following members of the Committee were present:

Mark Carney, Governor
Ben Broadbent, Deputy Governor, Monetary Policy
Jon Cunliffe, Deputy Governor, Financial Stability
Nemat Shafik, Deputy Governor, Markets and Banking
Kristin Forbes, External Member
Andrew Haldane, Chief Economist
Ian McCafferty, External Member
Gertjan Vlieghe, External Member
Martin Weale, External Member

Clare Lombardelli was present as the Treasury representative

The following members of staff were present:

Gareth Ramsay, Director, Monetary Analysis
James Bell, MPC Secretariat
Fergal Shortall, MPC Secretariat
Simon Hayes, MPC Secretariat
Melissa Davey, Editor of Inflation Report

Transcript of the Monetary Policy Committee Meeting on

Thursday 7 April 2016

Governor Carney. Good afternoon everyone. So, Andy, I take it we don't have any new official data since yesterday?

Andrew Haldane. No data.

Governor Carney. Alright, we have one pre-release – actually we have two pre-releases but one's so irrelevant because it's the trade data. Of course, incredibly important but bears no resemblance to what actually happened! So, UK trade for February. Goods exports' volumes fell by 1.9% in the three months to February. That's broadly as expected. Staff had a 2% fall, so basically bang on. And import volumes fell by 0.2%, again in the three months to February, which was 1 percentage point less than expected. So, net exports of goods fell by around 1 percentage point less than expected – just goes with the math. And, for what it's worth – I'm getting with the spirit of the times – the release draws particular attention to the overall trade deficit with the European Union which reached £23.9 billion in February, the widest on record. Depending on how you view that it's some form of obligation to each other, or mutual dependency, or negotiating leverage, or none…

A little more seriously, the Index of Production for February – and this IoP is a bit of a surprise. It fell by 0.3% between January and February, whereas we had expected a rise of 0.4%, so a 0.7 percentage point swing. And it wasn't energy this time – energy was broadly as expected – but it was explained by a weak manufacturing outturn where output fell by 1.1% on the month compared to an expectation of a 0.2% fall. If you apply this mechanically, which they won't necessarily do, but if staff applied it mechanically, this news would tip our first quarter [GDP][1] nowcast down by at least 0.1 percentage points, in other words bringing it from 0.5% to 0.4%. Technically, this is about three quarters of a…basis point, of a…percentage point? Three quarters of a percentage point![2] But obviously the precise scale of the adjustment [to the GDP nowcast] will depend on judgement and patterns in other data. The deceleration in production output is visible in the three-month on three-month and the twelve-month growth rates. Three-month on three-month in the IOP the outturn was -1.6% versus what we would have expected, consistent with what I just said before. A fall of 1.3 percentage points. So that is that from the IOP. That's all I have.

Ben Broadbent. And that will probably – I heard you say this – probably a 0.1 [impact on GDP growth].

Governor Carney. Probably 0.1, yes that's right. And this is coming out tomorrow morning. OK, that's great. Alright, so let's turn to the decision in this…interstitial meeting? Special interstitial meeting, and starting with Dr Broadbent.

Ben Broadbent. Thank you Governor.
So let me begin as usual with a summary of the global economic developments. In the euro area, there was little aggregate news. The PMI surveys bounced back in March but by slightly less than expected. Industrial production has surprised on the upside in the first couple of months of the year, as did the German ifo index. Overall, our forecast for growth of 0.4% in each of the first two quarters of this year is unchanged from the February *Inflation Report*. Unemployment continues to edge down and has fallen 1.6 percentage points over the past couple of years.

In the US the official data point to a weak outturn for GDP in the first quarter of the year – our estimate has been revised down from 0.5% to 0.2% on the quarter – but at the same time a slightly more encouraging Q2. The survey indicators, particularly on the industrial side, have picked up. The Philadelphia Fed's current activity index for manufacturing firms, which had fallen throughout last year, rose very strongly in March, for the third month in a row.

We've had several conversations about the possible causes of the sharp dip in prices of equities and other risky assets in the early part of this year and the equally sharp rebound since. Jan has said that central banks have helped, either through new policy or more dovish communication. But it's worth noting, I think, that the high-frequency activity indicators, which were very poor late last year

[1] Square brackets indicate MPC Secretariat clarification.
[2] MPC Secretariat clarification: In fact, the impact was 7.5 basis points, or 0.075 percentage points.

and early this, have also improved. It's possible, I think, that there may have been particular global trends – a bout of de-stocking and very sharp falls in investment by commodity firms – that weighed on global industrial production through last year but that can only go on, at least at the pace they have been, for a finite period of time. A recent report from S&P, using company level data, suggested that commodity firms cut investment spending by almost a quarter last year. Their plans implied continued reductions in 2016, but by "only" 10%. Non-commodity capital spending, which fell slightly in 2015, is expected to rise a bit this year.

None of that is to deny the reality of the longer-term risks that continue to weigh on markets. The International Directorate has revised up its near-term estimates of Chinese growth but, noting the associated acceleration of bank lending, it has also become more worried about the possibility of a hard landing at some point. Though it may be experiencing something of a cyclical recovery, the structural challenges facing the euro area remain daunting. And weak output numbers in the United States, set against continuing strength in employment, have served to reinforce what has been a very disappointing trend for productivity. Output per person is likely to have fallen in the US in the first quarter of the year. But I do think it's possible that some of the weakness in global growth in the past few months, particularly on the industrial side, reflects factors that are inevitably temporary. And at least, having been perennially disappointed by the performance of the global economy since the crisis, forecasts of global growth started the year at a much lower level. "Blessed is he who expects nothing", said Alexander Pope, "for he shall never be disappointed".

If those longer-term risks for the global economy haven't changed much, those associated with the UK's referendum on EU membership have only intensified. That's certainly what the behaviour of the exchange rate would suggest. Sterling's trade-weighted index is now around 6% lower than at the time of the February *Inflation Report*, it's 8% down on the year and over 10% below its peak in early November. MA analysis has linked half of this, roughly, to explicit news about the referendum. But it's not clear what else might have driven the move – certainly the UK data haven't been noticeably weaker than those elsewhere over that period – and the referendum also provides an environment where the currency is probably more vulnerable to downside news elsewhere, stuff that's not linked directly to that issue. Anyhow, my guess is that more than half the decline relates to the referendum, and that come the May forecast and, whatever the fraction of sterling's fall we do finally attribute to it, we should think about moderating the impact on economic growth over the future.

This is only part of the difficulty we will face in May – what exactly is the nature of our modal forecast going to be. Because referendum risk is likely to affect many other things usually relevant for monetary policy, not least near-term economic growth itself, the hurdle – the magnitude of economic news necessary to prompt a change in interest rates – must be higher, as Jon pointed out yesterday.

Now as of today, these effects are only beginning to emerge. And, as it happens, I don't think the data are pushing me, at least, in one direction or another anyway. Yes, there are signs that employment is growing less rapidly, and unemployment falling less rapidly, than in the past. But those have existed for quite a while now – the peak rate of decline in UK unemployment, over the course of any 12-month period, was actually in the year to June 2014 – and I don't see much in the latest numbers to disturb either our projection of only very gentle falls from now on or, for that matter, much else in the last *Inflation Report*. My guess is that the rate of inflation will pick up a little more smartly through the second half of this year, thanks to sterling's decline, and there are these very difficult conditioning questions we'll have to settle before landing on an appropriate medium-term forecast. But for the time being I am inclined to vote for no change in either Bank Rate or the stock of purchased assets.

Governor Carney. Very good, thank you Ben. So I have Andy and then Ian.

Andrew Haldane. Thank you. Despite plenty of undulations, overall the world economic outlook seems relatively little changed since the February *IR*.

Staff have shaded-up their projections for China on the back of the authorities' new "double-down" growth strategy, together with some better activity data – the latter potentially a response to last year's significant monetary [and other policy] easing. This firming of Chinese activity may have had the side-effect of helping stabilise commodity prices which, while still volatile, have fluctuated around a steady-ish mean since the end of last year.

Near-term data for the euro area and the US have been more mixed, with surprise indices for the euro area a touch more negative. But viewed in the round, the data from both blocs suggests continuing economic expansion, at rates relative to trend which would mean slack is still being eroded. Indeed, in the US there may be signs that real expansion is beginning at last to translate into nominal pressures, with wages and core inflation both nudging up.

Meanwhile, both the US and euro area will benefit from the further monetary easing experienced since the start of the year, with a further shift down in their respective yield curves of between 20 to 50 basis points out to the five-year horizon, plus extra QE and liquidity-provision measures in the euro area. Even if, as seems possible, these doses of monetary medicine are less potent than in the past, they are still a significant further dose.

On international financial markets, risk appetite has continued to recover over the past month, such that the falls in asset prices in the early part of the year, risky asset prices, have now been pretty much fully reversed. What had seemed like an impending financial storm back in February now looks more like a fleeting squall.

That's left credit conditions for retail investors little different than at time of the February *IR*, while those for wholesale borrowers are now materially looser than in February, with investment grade yields 40 basis points lower, and sub-investment grade yields 60 basis points lower.

With the honourable exception of Brexit risk, the picture domestically is also much the same. Data on UK activity has been broadly neutral over the month, leaving unchanged the staff's GDP forecasts for the first half of this year, while growth in the fourth quarter of last year was nudged upwards. Taken together, the various surveys paint a picture of slightly slowing, but not stagnating, activity. And, mirroring that, labour demand – measured by heads employed but also, of late, by hours worked – has continued to be robust.

As for Brexit risk, despite dominating media headlines and cocktail party conversations, the evidence of this materially influencing company behaviour on the ground remains rather spotty, and for households close to non-existent. Investment intentions surveys have continued to nudge down, though it is unclear exactly how much of this is truly Brexit-related. And some sectors – such as CRE – and some corporate activities – such as IPOs and buy-outs – do appear to have taken a knock. Looking forward, it would be odd if Brexit uncertainty didn't generate some further planning blight among companies, with large-scale outlays deferred into the second half of the year. That feels to me like the central case rather than a risk. But conditional on a "Remain" vote, that delaying effect ought to wash out over the course of this year and hence be broadly neutral for our policy stance.

Brexit risk plainly is having real effects in the FX market. But like others, I do not think this will affect either demand or prices by anything like as much as our standard ready-reckoners would imply, given that this is plainly a risk-premium related event and will, with probability close to one, prove to be transient in one or other direction. Taking all of this together, then, and despite the rollercoaster in asset prices and the media bombardment on all matters Brexit, the underlying growth picture for the domestic and world economies remains solid – stodgily solid, but solid nonetheless. That being the case, one puzzle for me is how we then explain the behaviour of yield curves internationally since the start of the year.

UK one-year OIS rates are down 40 basis points and stand at 0.36%. While three-year OIS rates are down 80 basis points and stand at 0.55%. Or put differently, the market implied path of rates over the next three years is, on average, now below the constant rate assumption. Looking beyond three years, the profile is no less striking. UK OIS forward rates now never get above 2%, though implied gilts rates are higher. Having never in the Bank's history been below 2% prior to 2009, OIS rates now imply they will never again get back to that level. And given what we've said about the conditions for exiting QE this means, on a balance of probabilities, the market now expects us never to sell our gilts.

The money helicopter has, if we are believe market expectations, already dropped. Of course, it is possible to tell stories which, on the face of it, make sense of these curves: negative term premia, global growth fears, low productivity concerns, asymmetric policy constraints and the like. I buy the argument Jan used last month that this fall in safe rates is part of

the reason why asset markets have reversed and activity has remained stable, in a sort of monetary automatic stabiliser.

Yet, despite being one of the people on the Committee who probably places greater weight on those downside risks, I still find the notion that rates will be that low for that long someway between truly, madly and deeply implausible. I'd put a decent chunk of my pension on Bank Rate hitting 2% before the date I actually start drawing that pension. And if so, that begs the question is there a case for communicating, perhaps seeking to correct, that "implausibility" in the yield curve, at least at the longer end? Although that sounds reasonable on the face of it, I think the case against doing so is pretty compelling.

First, Fed experience in doing so, including through their "dots", is not especially encouraging. The market has tended not to "correct" to the dots. More often of late, it is the dots that have corrected to the market, including again over the past month. And that's not an especially great advert for central bank credibility.

Second, with risks skewed to the downside, if the yield curve were to correct in response to a monetary policy communication, it may do so abruptly and in ways which could, in current circumstances, precipitate those very downside risks. Or put differently, with risks downwards skewed, running with credit conditions "too loose" may be more prudent than running with them "too tight". This is a risk management argument.

A third factor, less touched on, is the impact of policy communications on uncertainty. Claude Shannon, the grandfather of information theory, defined information by how much it reduced the uncertainty facing the recipient. In the current environment, there is both heightened uncertainty – global, Brexit, geopolitical – and heightened uncertainty-aversion. For me, that increases the chances of any attempt to surprise the yield curve adding to these uncertainties. Monetary policy communications which sought to "correct" the yield curve, at least at the longer end, could add to uncertainty and thereby reduce the market's information, using Shannon's definition of information. Too much monetary policy jawboning, even if we think the yield curve is implausible, could make a bad uncertainty situation worse.

If so, I think there is a strong case, not so much for rational inattention as for rational inactivity in our monetary policy actions and communications. So against that background I am minded this month to remain inactive, rationally or otherwise, leaving unchanged both Bank Rate and the stock of asset purchases. Thank you.

Governor Carney. Very good. A tribute to Alan Rickman embedded in there. Ian and then Jan, please.

Ian McCafferty. I found it hard this month to find any strong evidence in the news that would materially alter my judgements of the past couple of months, so I am going to limit my comments to just a few areas.

Financial markets have calmed down, but drawing strong explanatory conclusions from the recent moves still remains tricky. The continuation of the falls in rates and the flattening of yield curves suggests that there has been a reappraisal of the central outlook for the world economy, as well as reassessment of risk, but against this, the recovery in equity prices suggests that there may be now a little more belief in the ability of central banks to deal with such sluggish growth, and that, at the margin, some of the big downside risks of earlier in the year, perhaps those centred in China, may be seen as a little less imminent than perceived in recent months as a result of the growth strategy announced by the Chinese government.

Minouche estimated yesterday that, net of the move in sterling, the moves in financial markets over the past six months had been essentially neutral, with the widening of credit spreads and reduction in risk sentiment offset by lower risk free rates. On a shorter comparison period, that is, relative to the February *Inflation Report*, it seems to me that the moves in both fixed income and equity markets have been beneficial for UK financial conditions, even before judging the impact of the moves in the exchange rate.

Judging just how much of the fall in sterling is the result of Brexit uncertainty is difficult, and yesterday's discussion showed that there is a range of views.

I have only two observations to add:

First, to the extent that recent sterling weakness is a Brexit story, I would have expected to see some falls in Cable, as well as against the euro, but since January, sterling and the dollar ERIs have fallen almost together, and using the current 15-day average against that in the February *Inflation Report*, the dollar-euro spot rate has fallen by only 1.4%, compared with sterling's fall of 5.9% against the euro. I wonder, therefore, if at least some of the recent moves in currency markets are in fact a reappraisal of the relative outlooks for, on the one hand, the US and UK economies, and, on the other, the eurozone. For the US and UK, the recent news backs up the view that the improving outlook may be slightly less dynamic, and the expected policy paths consequently shallower, while in the eurozone, the recent ECB stimulus and the encouraging news about the first quarter suggest that the outlook there is likely to be a little less moribund.

Second, given that I am unsure of the underlying drivers of recent sterling weakness, I remain to be convinced that recent weakness will simply reverse itself following the referendum, even if the result is to remain. The rise in sterling to the peak of €1.44 against the euro last July, and the sustained period in the mid €1.30s last autumn were set against a background in which the economic and policy outlooks for the UK and eurozone were quite polarised. This polarisation is now much less marked, and is likely to remain so, even in the event of a vote to remain. The current euro/sterling rate is close to most equilibrium estimates, and while this remains a lousy way of forecasting exchange rates, against a background of a sharply wider UK current account deficit, it would probably take a strong story of economic divergence to drive sterling sharply higher.

As a result, when thinking about our May forecast, I do not believe we can simply "look through" the recent sterling weakness, and adjust our conditioning assumptions on the basis that, in the event of a continuation of the status quo, the recent weakness will be reversed. I recognise that such treatment will leave us with some difficult communication problems, but to me they appear less difficult in the current febrile political climate than the alternatives that we may have.

In terms of the real economy, there does not appear to be much material news.

On the international front, I am reluctant to take too strong a signal from the weakness of the latest Q1 US GDP estimate. Unless revised away, and we did have this debate a year ago as to whether Q1 is the most underestimated quarter, it will clearly affect the arithmetic of US growth rates through 2016, but I find it hard to believe that, as in the Bank of America survey that Jon cited yesterday, a US recession is the largest global tail risk, or that the probability of such an event is already as high as two thirds, as estimated by JP Morgan. Market curves have pre-empted the more cautious tone in Janet Yellen's recent statement, such that a slower pace of Fed tightening is likely to help support that outlook.

Counterbalancing this is the slight upgrade to our outlook for China, following the recent commitment at the National People's Congress to the stronger growth target. More important, though, I think, is how this announcement affects our balance of global risks. I agree with the assessment at Pre-MPC that such a move increases the tail risks of Chinese financial instability, but that it also probably pushes out those risks, such that, at the margin, the global risks over a two-year horizon may have diminished slightly, albeit that they are still heavily to the downside.

In terms of the UK, the most recent data still look very consistent with our February forecast. The mood in the corporate sector has turned more cautious, as the referendum moves closer, and where there is option value in delay, such as in M&A deals and some large strategic investment projects, there is now some evidence of postponement. But we should not exaggerate the impact on corporate fixed investment, which so far appears more modest. However, I would caution that the mechanics of such investment decisions are such that they are unlikely to be revived immediately after the referendum result is known, such that we will probably see a softer patch in GDP growth not only in the run-up but for several months following the referendum as well.

So all in all, my conclusions are very similar to those of last month. The medium-term growth outlook in the February *Inflation Report* still looks our best central case. Key and significant international downside risks remain, but if anything, they may have been kicked slightly down the road. Referendum uncertainty is now apparent, such that a period of slightly softer activity than forecast through until the autumn is likely, but this should not be exaggerated. And overall monetary

conditions have loosened over the past month, and if sterling weakness persists, the risks of a more significant inflation overshoot towards the end of our forecast may have risen.

But while those longer-term upside inflation risks should not be dismissed, they do not necessitate, in my view, an immediate policy response. We've still got time to watch and wait, and see how things develop. So next week, I am likely to vote for no change in Bank Rate and no change in asset purchases.

Governor Carney. Thank you Ian. Jan and then Martin please.

Gertjan Vlieghe. Thank you Mr Governor.

Governor Carney. Sorry Jan and then Jon.

Gertjan Vlieghe. I want to address three topics today.

First, an assessment of the recent global and UK data.

Second, an assessment of the impact of the referendum on the UK economic outlook.

And third, a discussion of monetary strategy in relation to the referendum.

Recent global data releases have been mixed. Mixed is good. This is the second consecutive month that data is mixed, after a long spell of systematic disappointments.

Eurozone momentum seems to be holding up reasonably well for now, although inflation expectations are still too low. The narrowing of spreads following the ECB's actions should be supportive.

China has changed its relative priorities towards a bit more of "growth at any cost" and away from "tolerating a slowdown to achieve rebalancing". As far as our own outlook is concerned, that is good news in the short-term, via stronger short-term global demand, but it does mean that the risk of a medium-term disorderly outcome has probably risen.

That is the positive part in the "mix".

On the negative side, the US keeps disappointing, as does Japan. I did not put much weight on the talk of a US recession back in February, and I still don't. But I do see the subdued US growth as a product of a secularly weak world, rather than a sequence of short-term shocks that will dissipate soon. The only bit of the US story that plausibly falls under the heading of "short-term shocks" is the weakness in extraction investment.

Turning to the domestic economy, the news here is mixed too. Again, mixed is good, after a long period of disappointment. GDP growth was revised up a little in 2015, so that the slowdown since 2014 now looks slightly less pronounced. CPI inflation was a bit weaker, but wage inflation a bit stronger and consumer sentiment and demand indicators continue to look resilient. Housing market activity still looks strong, for now, but as we have discussed before, what really matters is what happens after the stamp duty related volatility has dissipated.

Survey-based growth indicators are not encouraging. Investment intentions have eased some more, and the composite PMI, which had fallen by 3½ points in February, only recovered just under one point of that loss in March. It still very much paints a picture of a persistent slowing since 2014, rather than a slowing and stabilisation, which is what we need for our forecast to materialise.

As we approach the referendum date, evidence that it will have at least a temporary effect on growth is starting to build, both from our Agents and from some business surveys. That's not a surprise, of course. When we started discussing the impact of the referendum on FX markets a few months ago, we explicitly discussed the likelihood that the impact would not be limited to FX markets, and was likely to spread to the real economy.

If the referendum outcome is a vote to stay in, I would expect the uncertainty to dissipate quickly. Any softness in activity should, in the subsequent quarters, be fully offset by a short pent-up demand

boost. This is the kind of volatility that, as a policymaker, I would like to look through. The difficulty is that a softening due to the referendum may also mask a continued loss of underlying momentum. By waiting until after the vote, and waiting to see evidence of a pent-up demand boost, we run the risk that we are unnecessarily postponing a policy easing that would optimally have been carried out earlier. At the current juncture, that is a risk I am willing to take. As I have mentioned before, I have little tolerance for further disappointments in the underlying growth and inflation outlook, but since February we really have not seen enough clear-cut evidence of further disappointment to warrant a response. Mixed, rather than disappointing, is my assessment of the data. And any evidence of disappointment in the coming months is sufficiently likely to be linked to the referendum that a wait-and-see approach is justified.

So far, I have discussed the monetary strategy on the assumption that the referendum outcome is to stay in. I want to spend a few moments discussing the monetary strategy if the referendum outcome is a vote to leave.

A vote to leave is likely to have adverse supply consequences for the UK. However, the optimal response to adverse supply developments crucially depends on the timing. I think the most likely scenario is one where future supply is affected, while initial supply is unchanged. The optimal monetary policy response to a future supply shock is an easing, as the adverse expected future supply causes an immediate reduction in demand. As time passes, and actual supply declines to meet already lower demand, the appropriate degree of stimulus is reduced, relative to a counterfactual of “no change in supply”. Depending on the precise timing, at some point monetary policy might need to be tighter than the counterfactual, but only after a period where it has been looser than the counterfactual.

That is really the essence of the argument. All the other ancillary mechanisms – the rise in uncertainty, the possible rise in corporate spreads, a threat to bank funding, the risk of a fiscal tightening, the reduction in wealth and collateral, spillovers to the EU – are all further arguments in favour of a monetary easing.

As far as I can see, there are only two scenarios that require a monetary tightening. First is one where most or all of the supply fall occurs immediately after the referendum, and demand needs to be restrained to meet that lower supply path. This would also be a scenario where all the ancillary demand-restraining effects just mentioned – uncertainty, spreads etc – do not operate much at all, so that monetary policy has to do the work instead. Given the likely lengthy trade renegotiations, that does not seem to me to be the most likely scenario at all, both the “immediate supply impact” part of the story and the “limited demand impact” part of the story.

The one other hypothetical path that requires a policy tightening is if the inflation impact of the initial FX move is so large that it damages our inflation credibility. Of course, if that were to happen, we would need to respond. But how likely is that? Not very, I would argue. First, the UK’s inflation credibility has been established entirely independently of the EU. So it is not clear why a break with the EU would endanger it. Second, we have had two very large depreciations in the inflation targeting period already, and on both occasions long-term inflation expectations went down, not up.

In conclusion, while the impact of an exit vote is highly uncertain, and while we have to emphasise that we will do whatever it takes to keep inflation expectations anchored, I think most scenarios would involve a monetary policy easing, not a tightening.

After that detour to the hypothetical, and coming back to this month’s decision, I am minded to vote for no change in Bank Rate and the stock of assets purchased.

Governor Carney. Jon Cunliffe and Martin, please.

Jon Cunliffe. Starting with the external economic outlook, like others, I don’t think there has been a big change over the month. But within the overall picture there have been some developments that are worth picking up.

On a positive note, markets have remained calm and emerging market economies look a bit more stable. The MSCI is up around 10%, and capital inflows were at their highest level in 21 months. I think this is a case of an overshoot correcting rather than a signal about stronger economic

prospects. But nevertheless the risk of financial markets dragging down real economies has reduced.

In China, recent PMI data has increased the staff's nowcast for Q1 by 0.1 percentage points to 1.6%. And more significantly, as we discussed, the Chinese authorities have announced a number of policy targets during the People's Congress in mid-March. Most notably, they are aiming for growth of 6.5 to 7% in 2016 and credit growth of 13%. And in addition, they repeated their intention to double [per capita] GDP by 2020, which at face value implies keeping growth rates above 6.5%, higher than our February forecast, and maintaining strong rates of credit growth. So this should boost growth in the near-term and there may even be a little bit of upside risk in Chinese activity.

It comes at the cost of increasing some of the tail risks from China. The credit to GDP gap is already approaching 30%. And, based on the growth and credit targets, and a plausible assumption about the reduced impact of investment on growth, staff analysis suggests that China's private sector credit to GDP ratio could increase to over 270% by 2020 from its current level of 200%. If credit to GDP were to rise to that level it will put it over 100 percentage points higher than the UK, and even further above its emerging market peers.

The outlook for the euro area has remained stable and in line with the February *Inflation Report*. It has been supported by the ECB's large stimulus package announced last month. The ECB have clearly used up policy space, and they are not, in my view, unconstrained but the innovative policy measures at least suggest that their policy space can be a little more elastic than I might have thought. Staff think that inflation in the euro area will remain subdued, reaching only 1.6% in 2016.

US news was clearly to the downside. Staff have revised down their Q1 nowcast to 0.2%, which is 0.4 percentage points lower than in the February *Inflation Report*. They have also revised down their projection for growth this year materially from 2.4% in November *IR* to 1.8% in the May Benchmark. The main reasons were weak data on capital goods and consumption and they expect these factors to be temporary, but I think there is now increased downside risk around US growth going forward. The drop in corporate profit margins of around 7% from their peak at the end of 2013 may be signalling something more persistent.

But in addition to demand weakness, US potential supply might be weaker than previously thought. The FOMC's latest projections suggest that they have – at least implicitly – revised down their expected path for productivity. And that would square the rising inflation-weak growth circle.

Putting all that together, I think news on the international front over the month has been mixed but marginally to the downside, although not significantly so.

On the domestic economy, the referendum, I think, is making the economic picture harder to read. It is also contributing to moves in financial markets, most notably sterling, and to increased uncertainty about the economic outlook. The staff's measure of uncertainty has increased sharply in recent months driven largely by media references to Brexit. Uncertainty can affect a range of economic decisions, including hiring, investment and consumer durables, all of which have adjustment costs which creates an option value of delaying the decision. The option value of delaying is higher when uncertainty is elevated.

And domestically, we remain reliant on private investment and consumption to drive growth. So I have been looking for signs that either of those components are weakening.

On consumption, the picture still looks solid. Consumer confidence has ticked down a bit, but only a little bit and it remains above its historic average. Of the constituent series of the GfK/EC consumer confidence series, the 'major purchases' series has the highest correlation with current, and one and two quarters ahead, consumption growth (even higher than the headline series at times). The major purchases series has remained broadly stable over the last year or so.

Second, durable and semi durable goods consumption has been strong over recent years: the largest contribution to the increase in household consumption in the last quarter of 2015 was from furniture and household appliances.

Third, although there may be downside risks to the central outlook for housing market activity and house prices stemming from the recent tax and regulatory measures on buy to let, the housing

market remains buoyant. House price growth is still running at nearly 9% and transactions are holding up. The twelve-month growth rate in net secured lending increased to 3% in February, which is its highest rate since December 2008. And it was notable that the major UK lenders, in recent discussions with Bank staff, reported that secured lending had been stronger than expected in Q1, and this was not just the bringing forward of buy-to-let transactions, and that consumer confidence was one of the factors boosting demand for mortgages.

And finally, the growth rate of consumer credit continues to increase. It increased to 9.3% in February, which is its highest rate since December 2005.

The consumption picture is not uniformly positive. Consumption was revised down in the last quarter of 2015 by 0.1%, car registrations fell, and the saving rate continues to hit new lows. But overall, I judge that the outlook on consumption remains solid.

The picture on investment I think is more fogged by the referendum. Investment intentions have dipped again. And that is consistent with reports from some surveys, and from the Agents, that the referendum is weighing on businesses decision-making. A number of external economists expect the referendum to weigh down on investment. To some extent these intentions and reactions are not surprising. They don't, however, seem to have strongly affected the data to date: weakness in investment in the last quarter of 2015 looks to be oil and gas related, rather than referendum, related. And the staff's nowcast for Q1 and Q2 is 0.5%, as it was at the time of the February *Inflation Report*.

And finally, inflation pressures look to be broadly in line with our forecast. Pay has been a bit stronger than we expected, but it's still weak. Inflation expectations were broadly unchanged although there were some bits of less positive news such as the shift down in the distribution of CFOs' two-year ahead CPI inflation expectations. And actual inflation came out a bit weaker than expected.

One small development I would note is that according to the Markit/CIPS PMI, average input prices in the services sector increased at their fastest rate since September 2014, due to higher labour costs, rents and fuel prices. In terms of output prices, some firms indicated that this was the first increase in their charges for a number of years. And the manufacturing input prices index showed the slowest rate of price deflation since mid-2015. The CIPS picture is broadly consistent with the ONS producer prices data, with both sets of indicators consistent with the gradual pickup in the STIF [short-term inflation forecast].

Taking all this together, I don't see any developments this month that would cause me to change my vote. Moreover, a range of economic and financial data could increasingly be affected by the forthcoming referendum. With that only three months away, it could be increasingly unclear what data are telling us about the underlying economic picture. So for me there is a high hurdle in terms of the signals from variables that could be affected by the referendum, like the exchange rate, that would be necessary to lead me to reconsider my position before the vote.

With that in mind, I provisionally vote for no change in Bank Rate or in the stock of asset purchases.

Governor Carney. Thank you. So Martin and then Minouche.

Martin Weale. Thank you, Governor. We've had downside news on the United States, but upside news on China. In the United States there has been an extended period of weak productivity growth and it may be that productivity growth rates there are now converged with those in France and Germany – in other words that the factors that supported them before 2010 are largely fading. Of course, from our own point of view, the widening of the historical productivity gap in the aftermath of the crisis creates more room for catch-up, but that catch-up has so far failed to materialise. Output per hour has only grown at 0.4% over the last year. Sir Charles [Bean] suggests that, over the last few years, alternative treatment of digital activity might have resulted in productivity growth of 0.4 to 0.7% more over the period 2005 to 2014, an observation which would presumably apply to other advanced economies as well as our own. An immediate conclusion might therefore be that the productivity puzzle is smaller than we had thought, but before jumping to that conclusion I would want to understand whether there were any sources of hidden productivity growth between, say, 1995 and 2005. Anyway, if continuing weak productivity performance lies behind the recent weak

growth in the United States, that seems to me to imply that in the near term inflation will be stronger and interest rates are likely to be higher than if the underlying cause of the weak growth were weak demand. I am not sure that markets have grasped this yet. Should the near-term yield curve turn up in the United States, it is likely that yield curves internationally will also rise; at least, recent correlations imply that.

We had a very helpful discussion of the referendum as a source of uncertainty. It may well be, as staff work has suggested, that this is responsible for a significant proportion of the decline in sterling since the autumn. It does not automatically follow that a win for "remain" will lead to a sustained revival of sterling. At around €1.24, sterling doesn't appear to me to be particularly low and staff reminded us, a further fall of 15% or more would be needed to reduce the current account deficit by four percentage points of GDP.

The weakening flow of net foreign income is certainly a concern. Even smoothing out last quarter's figures, net primary income from abroad has fallen by about three to four per cent of GDP over the last five years – a very material source of weakness in national income. If, as was suggested, a depreciation of 15% or more would be needed to reduce the balance of payments deficit by about that amount, then perhaps something much like that would be needed to offset the effects of the fall in net income from abroad. In fact, since 2011 the effective exchange rate has risen by 8% or so. Perhaps traders have seen the loss of income from abroad as temporary, in which case a failure of income to recover is likely to put marked downward pressure on the exchange rate. Or perhaps the returns are appearing as capital gains rather than income, but I do not think that we have the data needed to allow us to establish this with any confidence.

Following on from our discussion about forecast errors and uncertainty at the Challenges meeting, I examined our forecast performance through the lens of a two-part t-distribution. This allows both for skew and for fat tails. For GDP there has been a strong skew to the downside relative to our forecasts. This is hardly surprising given that our predecessors were no better than I was at seeing the recession coming. There is also strong evidence of fat tails. Our forecast errors come from a distribution of two to three degrees of freedom, while our present use of the normal distribution suggests that there should be a very large number of degrees of freedom in the best-fitting t-distribution. In fact this makes less difference to the width of the fan charts than I might have thought. It suggests that the inner bands should be a bit narrower than we show while the width of the ninety per cent band is somewhat wider. The skew, however, is much more pronounced, leaving me wondering whether there is an inconsistency in what we currently present: if we think the dispersion needs to reflect the risk of 2008 happening again then we should show the downside risk that comes with that; if, however, we think that the probability of this is appreciably lower than the realisation of the period 2000 to 2015, then perhaps our bands should be narrower than they are.

Looking at our forecast errors for inflation, I find an upside rather than a downside skew, albeit one that is less pronounced than with GDP, but there are similarly fat tails. The realisation suggests that the bands we use are however too wide. Once again, if we think that the probability of the factors which led to the period of high inflation recurring is remote, then we should probably shrink our bands even more. Even if we think that the experience of 2008 to 2013 was a realisation which could equally well have been one of low inflation – in other words if I impose a symmetric distribution – it still seems to me that our inflation bands should be narrower than they are.

Now, while these distributions are nothing more than a summary of our experience, they do draw attention to the fact that a downside skew to GDP does not automatically translate into a downside skew to inflation. That, of course, reflects the presence of adverse supply shocks as sources of large forecast errors. I'm not sure how far we should want to assume that this combination is a good representation of future risks, but it does highlight, for me, the possibility that inflation will return to target not because demand pressures do anything in particular but simply because of some unexpected price movement. That actually I think would probably be my main bet.

That price shock has, however, has not happened yet. Unit wage costs in today's release grew at 1.4% over the last year, materially weaker than is consistent with the inflation target, although the most recent AWE figures, which we had not been able to examine properly last month, continue to suggest that the period of very weak wage growth is over. The GDP revision was slight upside news although the IP data are weaker than had been expected and perhaps the Q1 GDP outlook is also slightly weaker. We do not have to wait for very long to find out how the exchange rate reacts to the

result of the referendum, so in the short term it would be wrong to respond to the depreciation even if, in combination with the falling yield curve, that pushes modal inflation two to three years ahead more materially above target. Coming from the same point of view, I think it unlikely that any weakness in GDP in the second quarter figures will tell us much about the underlying economy. As Jon said, there has to be a high hurdle to any change at the moment. So at present I vote for no change to Bank Rate and no change to our asset holdings – or I expect to.

Governor Carney. Thank you very much Martin. So Minouche and then Kristin please.

Nemat Shafik. So as I sat down to consider my vote this month, I realised that opinions about financial markets, the economy, and the efficacy of monetary policy have tended to oscillate between two states in recent times. Financial markets are either calm or in risk off mode. The global recovery is either on track or in peril. Central banks are either the cause of, or the solutions to, all of the world's problems. So we seem to be living in bi-modal times. So, in reaching my decision this month, I have found it useful to think about two potential outcomes – a 'bad outcome' and an 'ok' outcome.

Let me start with the 'ok' outcome, which is our familiar central case. In it, growth continues around trend, and once the effect of past movements in the exchange rate and commodity prices have passed through, inflation gets back to target by a pickup in domestically generated inflation. And as it turns out, I think the developments this month have probably marginally increased the likelihood of that 'ok' outcome. Domestic activity has been revised upward a little, and despite both genuine uncertainty about the outcome of the referendum, domestic activity doesn't seem to be materially affected thus far. The household savings rate fell even further in Q4 – showing once again that the Great British Consumer's ability to keep calm and carry on regardless. And although business surveys are a little on the weak side, neither they nor anecdote from the agents show any signs of a sudden lurch lower.

Developments abroad have been more mixed – but there hasn't been anything to dramatically change our view that world growth will remain below past averages, and that there are downside risks emanating from a more severe slowdown in China. In the US, the apparent loss of momentum into Q1 is a worry, though the pickup in core inflation is welcome proof that developed economies are not incapable of delivering consumer prices increases at around 2%. In Europe, the ECB slightly over-delivered on expectations, and the staff expect their March policy announcements will add about 0.6% to the level of GDP. And in China, the authorities' relapse toward credit-driven GDP growth will provide some near term growth, but will increase the risk of a hard landing.

The other development on the month worth mentioning is a mini-recovery of faith in central banks – perhaps best summarised by the bellwether metric of the US five-year, five-year inflation forward which has risen by 10-15 basis points since we last met. It's difficult to pin down what has driven this, although it probably helps that the Fed's dots have moved closer to markets' expectations. And it probably helps that central banks more generally been more cautious about the merits of negative rates. I thought it was amusing that the market responded favourably to Benoit Coeuré saying that the ECB would not take rates into "absurdly negative territory." I guess it's comforting that the markets don't think monetary policymakers will do absurd things, and I guess we should be grateful for small mercies!

Despite some positive developments, the risk of a bad outcome, though, remains. Although uncertainty isn't yet having a material impact on activity, there is still plenty of time for it to do so before the referendum has fully played out. As well as resulting in consumption and investment activity being deferred, such uncertainty could manifest itself in lower risky asset prices and tighter credit conditions, as well as worsen the monetary policy trade-off through a depreciation of the exchange rate. This situation could be amplified were it to be considered enough to end the exorbitant privilege which has allowed the UK to run a current account deficit since 1983.

At the margin, I think the risks of such a bad outcome have probably increased on the month for two reasons. First, although it hasn't had a significant impact on the economy yet, uncertainty has picked up – I think, as Jon said, our preferred measure has risen by around 1½ standard deviations. And were this increase to continue in the run up to the vote itself, and display some persistence thereafter, it may well reach the tipping point where bad things happen.

Second, the current account has increased to a record breaking 7% of GDP. There are several reasons to think that some of the commentary accompanying this was a bit alarmist – some of the move was in erratic components, in fact net international investment position actually increased. But whatever way you cut it, it is a big number. And the fact remains that, on the day of the referendum, it will be the latest available UK data on the current account deficit. And that increases the risk that an otherwise containable situation turns into something more serious.

So in sum, developments on the month have re-enforced the bimodal nature of the outcomes we face. In such a situation, what is a policymaker to do? Well, fortunately for us, I think in both cases the policy prescription for today is to make no change. Even though the 'ok' outcome seems still the most likely at the moment, I have not yet seen the pickup in labour cost growth that is needed to ensure that headline inflation will return to target. Unit wage costs grew by only 1.1% in the year to Q4, and the average of a broader measure of domestically-generated costs is still languishing at 1.2%. Even though I think the risks of a bad outcome are real, there is not a strong case for pre-emptive action now. In part that is because to do so could involve undue volatility in output were the bad outcome to fail to materialise. And in part it is because we cannot know in advance what the appropriate policy response would be – there are conceivable scenarios in which we would tighten or loosen.

So for this month I intend to vote for no change in Bank Rate, and no change in the stock of purchased assets.

Governor Carney. Thank you. Kristin, please.

Kristin Forbes. At MIT, I have a fun exercise to teach the issue of selective attention. Students are instructed to watch a video of a ball game and count the number of times that one team successfully passes a ball – despite several distractions. Have any of you seen this?

Ben Broadbent. I've heard about it.

Kristin Forbes. You'll know in a minute if you have. Students focus intensely during the short video, and most correctly count the number of passes. When then asked if anyone saw the gorilla, most students laugh, thinking I'm joking. Most didn't see any gorilla. A replay of the video, however, shows that a person dressed in a gorilla costume walked through the middle of the game, thumped his chest at the camera, then sauntered off screen. Students are flabbergasted that they missed this because they were focusing on something else.

Over the last few weeks, as most media and UK economic commentary has fixated on the upcoming referendum, I've worried about the same insight from the gorilla. Has the attention on the referendum put us at risk of missing economic developments that should merit adjusting monetary policy?

To be fair, this selective attention applies more to outside commentary than the MPC. I was impressed yesterday that our agenda and discussions managed to largely compartmentalise Brexit-related discussion, allowing time for our standard discussions of UK developments. My comments today will begin by assessing if these developments indicate a fundamental shift in the outlook that could indicate a change in monetary policy in the absence of Brexit risk. At the end I will discuss Brexit.

As usual, last month's data included some positives and some negatives for the UK. Overall, however, my assessment is that the positives outweighed the negatives. One major downside risk that has featured prominently in our discussions is a sharp slowdown in China. This risk – although certainly above zero still – has abated somewhat for now. Our nowcast for Q1Chinese GDP is up to 1.6%. The government has shown that it will provide stimulus, especially in the form of credit, to sustain growth. I agree with the staff analysis that this increases the risks of a more difficult adjustment in the future and likely implies delays in needed rebalancing and how capital is allocated. But, for now, this is positive for the short-term UK forecast and an important reduction in immediate global risks. We are already seeing the benefits in terms of lower global risk aversion and a rebound in capital flows to emerging markets.

Moving to the UK, GDP growth in 2015 was revised up, so that the recent slowing from 2014 was less stark. Moreover, this slowing in 2015 relative to 2014 could be largely explained by stockbuilding normalising after its 2014 catch-up – albeit the usual caveat that this data is prone to substantial revision.

Evidence is also building that prices and wages have turned the corner and are starting to pick up – possibly faster than expected by year-end. Private-sector regular pay growth over the three months to January was 2.4% – notably above the 1.8% of three months ago. The services CPI increased to 2.4% in February. The prices components of the Markit/CIPS indicators picked up in March, as Jon noted, such as input prices for services increasing to its highest level since September 2014 and output prices for services increasing to its highest level since January 2014. The lagged effect of sterling's 10% depreciation from its mid-November peak should further support a pickup in import prices and then inflation, especially if productivity continues to show little life.

To be clear, I am not suggesting that inflation is about to spike and jump above 2%, but rather the period of near-zero inflation is over and prices are picking up. The increase in US core inflation – to 2.3% for core CPI and 1.7% for core PCE – is also noteworthy. Although some of this reflects health costs, it supports the argument we have been making for the UK; tight labour markets will feed through into higher wages and prices over time, even if the process has recently been more prolonged.

Of course, the data never all point in the same direction, and there has also been downside news. US GDP is likely to be weaker in Q1 than expected. In the UK, several measures of business activity have softened – such as disappointing PMI data, some weakening in investment intentions, the sharp fall in the CBI output balance, and fall in CRE transactions by around 45% in Q1 of 2016 (relative to 2015 Q4). The current account deficit increased sharply to 7.0% of GDP in Q4, and even if some of the recent deterioration is erratic, some is likely to persist. Despite the pickup in several cost and price measures, most are still below levels consistent with our target and the DGI average remains flat.

Nonetheless, my overall assessment is that the economy is evolving as expected or slightly stronger, combined with an important reduction in downside risks related to China. This strength is noteworthy given increased UK uncertainty and referendum-related risk. But it is also too soon to say this is a "gorilla" in terms of a major change we have missed and should act on this month. The series of small positive data surprises may not persist.

And of course, there is an elephant in the room – one that overshadows any gorilla – the referendum. Even if there has been minimal impact on the economy (outside of the exchange rate, increased uncertainty, and possibly on investment and CRE), there is likely to be more substantial effects over the next few months. We have discussed referendum effects and risks at length, so I will just make two points.

First, if the vote is to remain, we are likely to be in a position to raise interest rates sooner than markets expect – especially if the recent positive news continues or after we get some validation that any weakness in the next two months is temporary and referendum-related. The gorilla could otherwise soon be a problem.

Second, if the vote is to exit, we will need to evaluate the various effects and likely trade-off between slower growth and higher inflation. Since this would likely entail a major depreciation and negative supply shock, my prior is that the inflation risks would be greater than suggested in the staff note. But there are many unknowns – so I would prefer that we not send any strong public signals and keep options open.

Finally, back to the gorilla. Some recent students had seen the video aimed at teaching selective attention. So I recently introduced a new version. I still ask who saw the gorilla, and a few students confidently raise their hands. Then I follow-up and ask if they noticed anything else. The confident smiles fade. Even students aware that the goal of the exercise is to broaden their focus so they don't miss something major – they still do. The wall colour changes behind the gorilla. No one ever gets that. This is another reminder for us: not only do we need to monitor our usual MPC variables, but also additional variables that could interact with the referendum to amplify economic risks, such as exposure to currency mismatch. The joint FPC meeting was useful to identify these types of

issues and at least reduce the chances of us missing a gorilla – or colour change. But we should also not succumb to overconfidence bias. And given this risk, the related uncertainty on the outlook, and restrained price pressures, and challenges interpreting data in the near-term, I likely will vote for no change in monetary policy this month.

Governor Carney. Very good. Excellent. I never would have got into MIT, so I wouldn't have had to face that. Such challenging questions!

So, when the NICE ["non-inflationary consistent expansion"] decade ended, central bankers became nice people. Riding to the rescue. The situation of negative demand shocks that were painful for the economies – hundreds of thousands of people losing their jobs, everyday uncertainty for families and businesses, anxiety about the future – but shocks that were relatively, at least in a dominant sense, straightforward for monetary policy, and shocks that were seen as not creating a trade-off between inflation, or at least persistent inflation, and activity. So it's a sort of situation of benign misfortune, at least benign from a monetary policymakers' perspective. But it [the crisis] was also a reminder that sometimes that can morph into a more malign adversity. In other words, what happens when there is supply-side damage that means that output falls but inflation rises. And such dynamics were relatively infrequent prior to the crisis, as Ben Broadbent has reminded us, and reminded people externally on a number of occasions. The MPC could generally steer the economy by stabilising demand around a more or less predictable path for supply, and inflation was on average at target as a result.

Post-2008, those certainties, or at least that approach, was upended and we've spent a number of years aiming towards determining where supply is settling. And we were confronted – at least, in the immediate aftermath, the MPC was confronted – with the fact that, like it or not, financial shocks can well entail supply-side disruptions. Now, we don't know exactly why that's the case, but leading explanations include resources getting stuck in the wrong place. We can think about capital and a sort of variant of reverse liquidationism, to use Andrew Mellon's unfortunate logic: capital getting stuck in the wrong place, a variety of possible mechanisms including the option value of holding on to capital (including physical capital) given the possibility that it becomes productive once more. And subject, in a financial crisis, to the possible reinforcement by zombie-like banks, who impose less discipline on their borrowers, reflecting the banks' own gambles for redemption. You can also see similar dynamics on the labour supply side, which I won't go into at the moment. You don't detect this by looking at the aggregates of growth accounting, but you will see a slowing of output growth and what this means, mechanistically at least, for total factor productivity is that it falls. In other words such shocks manifest, or at least take on the appearance of, supply shocks.

We saw that such effects on inflation post the crisis, and it's possible that we also saw the opposite during the great moderation. For example, financial shocks likely contrived to push up on inflation post the crisis by keeping supply lower than otherwise would have been. And, equally, likely kept inflation lower than it would have been in the pre-crisis period, part of the contributor to the missing disinflation of that period. I ran a simple VAR [vector auto-regression], some empirical analysis between core inflation ex-VAT, UK corporate bonds spreads and the ERI, and it suggests that low corporate bond spreads and easy credit conditions subtracted on average 0.2-0.3 percentage points from core inflation in the five years in the run up to the crisis – possibly because they helped finance excess capacity – and that contribution swung dramatically in the other direction as the crisis hits. Credit conditions tightened and went from taking 0.3 off to adding 0.3 to [core] inflation by the middle of 2009, explaining most of the pickup in [core] inflation [between the start of 2008 and mid-2009] above and beyond the exchange rate pass through.

So why go to such length making that point? Obviously with all these things, one takes them with a grain of salt, but it's still to draw out a bit the nexus between financial conditions and supply.

The reason I raise this is it's plausible that a Brexit shock could contain some of the same elements as the post-crisis shock. First, there's a possible tightening of financial conditions. Staff went through a number of the channels yesterday, so I won't repeat that but certainly they could be reinforcing. And secondly, and most fundamentally, a Brexit will create the need for a significant reallocation of resources within the economy, and Don Kohn was quite difficult to hear yesterday, but he hit the nail on the head in terms of terms of the adjustment, not just from one traded market to another traded market, as trading relationships have shifted, but the more difficult adjustment from tradable to non-tradable sectors, which will take time.

Importantly, the financial shock, the first financial shock, can affect the speed with which the second, the one I will call the resource reallocation shock, can happen. In such short run impediments to resource reallocation could well pose a monetary policy trade off, something that Kristin just alluded to. And perhaps,

I would suggest, one more severe than the calibration we were shown on Wednesday, which somewhat down-played even more simple supply-side effects. Now, in saying all that I don't mean to suggest in any way, shape or form that there is a pre-ordained path to monetary policy in the event of Brexit, and I certainly endorse what Kristin said that we should avoid sending any strong signal either way around these issues. There is absolutely no need to do so and a part of the point of having this discussion, I think, is just to draw out that this could be a difficult set of considerations and we might as well start, at least amongst ourselves, thinking about it in advance. But we will have to think carefully about the path of policy we would need to deliver.

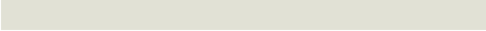
Just before I conclude on that, I'll just note – and I'll echo some others in some of the signs that we've seen recently – there are signs of Brexit. I think there is a few more than just in sterling, we have seen it in commercial real estate as Ben and I pointed out yesterday, it's marked. Obviously there's the uptick in the uncertainty indicator which has been mentioned. UK-focused equities have actually under-performed quite notably since this rebound. I mean, if the S&P is up 9%, emerging market equities up 15%, FTSE All Share up 5%, UK-focused equities off just under a point. And the underlying economic data is inconsistent with that relative performance, I think we would agree. Obviously all of this in a context of the larger measured current account deficit (whether that's a big change remains to be seen).

There are some positives, as others have pointed out: a still solid consumer and resilient investment outside of oil. As noted yesterday, the uncertainty is concentrated in media citations, not that that isn't a leading indicator – that's the whole point of it – but also in FX vol [volatility], but we're not seeing it yet in core confidence indicators, whether it's household or business surveys. And there has been a recovery in financial conditions overall, as went through. And obviously our labour market remains resilient with unemployment close to – the least one can say is it's close to u*.

So we are in a world that Minouche described as bi-modalities or Andy has in the past talked about bi-modalities. I'm not sure the Tale of Two Cities would have quite worked with "these are the 'ok' of times, these are 'bad' of times", but we might work on that. But in one mode, in the absence of Brexit, I would suggest most likely is that we're on a path to track r* higher, and that has implications for the normal path of Bank Rate. And that strikes a contrast with the current market pricing for Bank Rate, which is unusually low. I agree with Andy, there's no point protesting that, but if you look out to two-year forward rates, the staff estimate of the term premia there is -45 basis points, compared to a forward rate of about 55. So you basically have two hikes taken out, arguably because of uncertainty, and the Reuters survey on the same horizon is 175, so again you've got four hikes almost taken out.

The other mode, Brexit, could put us in this difficult trade-off world which would require the best of our vigilance and dexterity. And I'd suggest the base case – and I'll finish with this – the base case is the prospect of a substantial exchange rate pass through in the presence of a known supply shock. And I would suggest that – and I'm glad this could take eight years to come out – that I'd be a little hesitant to fully bring forward the supply shock to demand adjustment. You've got to remember that this is an electorate that would have voted for an economic outcome that has the potential to shave off, in the next decade, another order of magnitude of GDP equivalent to the financial crisis, quite reasonably, on scenarios. So I think, at best, one might suggest that there might be adaptive expectations to their views of future supply, future income, future activity, and so there wouldn't necessarily be a big jump. I don't want to overplay it. I do think, though, that there is an element of regime shift, certainly in the economic outlook and, at a minimum, one way we would want to reinforce our credibility and certainly take into account the possibility of the types of supply disruptions or supply headwinds that we've been talking about and work through those, lest there's a perception of an inflation bias. To finish up, and to paraphrase Nick Lowe – the famous Nick Lowe – "sometimes you have to be cruel to be kind", even as a central banker so I will finish with that.

All of that leaves me though in the "high hurdle" camp, which I think we can discuss when we have the minutes depending on our discussion, that's where I'm minded to be as "no change, no change". But we can discuss, when we have the minutes, whether or not it's a useful phrase that I think captures a number of the sentiments around the table, in either direction, just given the cross currents we're seeing. But the high hurdle for action. So, with that, unless there's any other comments we'll conclude the meeting and give everyone a break from seeing each other for days.



A meeting of the Monetary Policy Committee was held on Wednesday 13 April 2016. The following members of the Committee were present:

Mark Carney, Governor
Ben Broadbent, Deputy Governor, Monetary Policy
Jon Cunliffe, Deputy Governor, Financial Stability
Nemat Shafik, Deputy Governor, Markets and Banking
Kristin Forbes, External Member
Andrew Haldane, Chief Economist
Ian McCafferty, External Member
David Miles, External Member
Martin Weale, External Member

Clare Lombardelli was present as the Treasury representative

The following members of staff were present:

Gareth Ramsay, Director, Monetary Analysis
James Bell, MPC Secretariat
Fergal Shortall, MPC Secretariat
Simon Hayes, MPC Secretariat
Melissa Davey, Editor of Inflation Report

Transcript of the Monetary Policy Committee Meeting on

Wednesday 13 April 2016

Governor Carney. OK, good morning everyone. Welcome to the decision meeting. I do not have any pre-release data so I'll go straight to – actually why don't I go to you, Minouche, just to give an update on what's been happening in the markets please.

> **Nemat Shafik.** Since our March meeting there have been further falls in UK short-term interest rate, with the three-year instantaneous forward rate down 24 basis points now to 0.55%. The date at which the UK OIS curve crosses 0.75% has moved out by a further fifteen months to April 2020. The sterling ERI has fallen further, by around 2.5% since our March MPC meeting, and around 4.5% compared to the conditioning assumption used in the February *Inflation Report*. Following Pre-MPC on the 6 April, sterling has continued to depreciate. UK interest rates have remained largely stable since then and there was pretty muted response to the CPI data release, which was slightly above expectations. Our estimated yield curve data are close to that on Monday. Short rates have risen slightly over the course of yesterday by 6 basis points based on Libor futures. Risk sentiment continues to be driven by familiar factors: international central bank communications, concerns about the banking sector and global growth outlook, and the more UK specific risks around the referendum.
>
> Markets are likely to continue to place weight on all of those risk factors, and with the IMF Spring meetings this week, attention to global factors will probably increase, driven in part by the downward revisions to the global growth forecast which were published in the World Economic Outlook yesterday.
>
> That's it.

Governor Carney. Great. Thank you. Andy for CPI and other data, turn to you.

> **Andrew Haldane.** Just perhaps two small pieces of data. The first internationally was that we had overnight some Chinese trade data, and particularly the export side there surprised on the upside. Chinese export volumes up 11.5%, year on year, so that continues the pattern we've seen of somewhat more positive Chinese activity data over the recent past. And secondly, we have had since last we met the CPI data for March, which you will have seen. The headline measure came in at 0.5%, that's 0.2 percentage points higher than our forecast last time round. Core also about 0.2 percentage points higher than our expectations. Although viewed in the round that still leaves both relatively little different than what we expected at the time of the February *Inflation Report*. Digging into the index numbers, more than half the surprise appears to have sat on the air fares side – comfortably more than half of the pickup in core – and some of that staff expect to be temporary, such that the STIF [short-term inflation forecast] for the remainder of this year remains relatively little changed. Let me stop there.

Governor Carney. OK, great. Thank you. OK, so let's turn to the formal decision. Propose that Bank Rate be maintained at 0.5% and that we maintain the stock of purchased assets financed by the issuance of central bank reserves at £375 billion. Go in the same order, try to go in the same order, as last week, starting with Ben.

> **Ben Broadbent.** I confirm my vote for no change in neither Bank Rate nor asset purchases.

Governor Carney. Thank you. Andy.

> **Andrew Haldane.** No change, no change.

Governor Carney. Ian.

> **Ian McCafferty.** No change, no change.

Governor Carney. Jan.

> **Gertjan Vlieghe.** No change, no change.

Governor Carney. Jon.

Jon Cunliffe. No change, no change.

Governor Carney. Martin.

Martin Weale. No change, no change.

Governor Carney. Minouche.

Nemat Shafik. No change, no change.

Governor Carney. Kristin.

Kristin Forbes. No change, no change.

Governor Carney. And myself, I also vote no change in Bank Rate, no change in asset purchases, which by my count makes nine-nil in favour of both propositions. That's good. So with that, I'll end the formal part of the meeting and we'll shortly go down and write up the minutes – of the entire thing, not just five minutes.