BANK OF ENGLAND

MEETINGS OF THE MONETARY POLICY COMMITTEE
March 2016

A meeting of the Monetary Policy Committee was held on Monday 14 March 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

Dave Ramsden was present as the Treasury representative

The following members of staff were present:

Gareth Ramsay, Director, Monetary Analysis
James Bell, MPC Secretariat
Simon Hayes, MPC Secretariat
Chris Young, MPC Secretariat
Matthew Tong, Deputy Editor of Inflation Report

Transcript of the Monetary Policy Committee Meeting on

Monday 14 March 2016

Governor Carney. Ok. Good morning. So let's kick off. I'm going to ask Andy to give an update of the data releases since we last met, including the pre-release of the labour market report, so Andy, the floor is yours.

> **Andrew Haldane.** Thank you Governor. So on the international side we have had, in the euro area, some industrial production data for January particularly for the core countries, Germany, Italy and France, and in each case that came in stronger than expectation. That may mean we end up nudging up our best guess of Q1 GDP in the euro area. We have had, as you will have seen, the ECB's announcements from last week, I'll not dwell on those; I'm sure you have seen the background and the notes on them. And finally, internationally, we have had somewhat stronger than expected inventories data for the US for January, which has been enough for the staff to nudge up their nowcast of Q1 US GDP growth to 0.5 from 0.4. Here in the UK we had construction data for January and although that was a little weaker on the month there were some revisions up throughout much of last year, which have been sufficient for the staff to nudge up their nowcast for Q1 GDP growth back up to 0.5 from 0.4 in the final vintage of the data. And then on the housing market side, we saw last time the approvals number which had been stronger. We have now a breakdown of the approvals number and it looks as if that rise was more than accounted for by buy-to-let mortgages on the month, as you probably expect in the run-up to tax changes later on this year. And then finally, as the Governor mentioned, we have the pre-release of the labour market statistics which are out on Wednesday. There isn't huge amounts of news in these I don't think. On the quantities side unemployment was down 28,000, compared with three months earlier to a rate of 5.1%. Employment broadly in line with expectations. As too were average hours, which I am told by staff, we got right on the month to two decimal places, albeit a bit off from the February Inflation Report projections. And then on the earnings side, again not huge amounts of news but the whole economy total pay growth came in at 2.1% and regular pay growth at 2.2%. Both of those are a touch above our expectation, about 0.1 above our expectation in both cases. There will be a more detailed decomposition and note from staff coming round on Wednesday, but those are the headlines on the labour market side. Thank you.

Governor Carney. Great, thank you Andy. So unless there's any questions about any of that we'll go straight to Ben please.

> **Ben Broadbent.** Thank you Governor. Let me begin with a brief summary of the international news on the month. Estimates of growth were generally a touch softer. In the United States, GDP growth in Q4 was revised up slightly, by a tenth of a percentage point. But that reflected a rise in inventory investment and there has been a correspondingly negative effect on our forecast for Q1. In the euro area, growth in Q4 was also a tenth of a percentage point lower than we'd anticipated. The surveys for Q1 are also a bit softer. Our nowcast for growth in the rest of the world is unchanged, as are the data for Q4. But, overall, UK-weighted world growth is 0.1 percentage points weaker in both Q4 and Q1.
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> If these changes are moderate, perhaps the main news on the month was in financial markets and in ECB policy. With core inflation still below 1, and longer-term breakeven rates still well below target, the ECB had been expected to ease policy again at its meeting last week. But in one respect at least, it probably went further than anticipated. There were three measures. The deposit rate, paid on excess reserves, was cut to -40 basis points. This was as expected. Indeed, by suggesting in the press conference that this was the floor, or close to it, ECB president Mario Draghi succeeded in pushing up the euro exchange rate very slightly. Asset purchases were expanded, both in size – by a further 20 billion euros a month – and in scope: the ECB has allowed itself to buy non-bank, investment grade debt. In total, this market is probably worth close to ½ trillion euros and, although it's unlikely the ECB would want to own any significant proportion – market contacts predict purchases of around five billion euros a month over the next year – the decision has contributed to a sharp rally in the corporate bond market. Spreads on non-financial corporate bonds fell eight basis points on the day, and are now slightly lower than at the start of the year. Yields themselves, adding in declines in sovereign yields, are down 30 basis points relative to the start of the year.

Finally, and perhaps most importantly, the ECB has said it will conduct a new round of lending operations, the TLTROs, on which the terms have become significantly easier. As long as their net lending growth exceeds 2½% or, for those whose lending has been contracting, as long as that improves by 2½ percentage points, banks will pay interest at the deposit rate. With that now at -40 basis points, and the TLTROs issued at four-year maturity, this resembles an even cheaper version of the FLS, protecting the banks from the income effects of a negative rate on reserves, and incentivising greater lending to the real economy. As with the FLS, the impact will depend on the extent to which it undercuts the rate on existing funding of the banks, or rather what that would have been. If investment and borrowing in the euro area are depressed by fears about the future, and credit growth is therefore constrained more by demand than supply, perhaps the impact will only be moderate. But the move has at least insured against any significant deterioration in banks' funding costs. And, overall, the ECB announcement has contributed to the significant rebound in prices of risky assets we've seen over the past month. Corporate bond prices are up significantly. Global equity prices are more than 10% off their lows and are now close to where they were at the start of the year.

Let me turn now to the UK, starting with the near-term picture for GDP growth. As Andy said, construction output is estimated to have fallen between December and January, but our prediction for the first quarter has nonetheless gone up, thanks to an upward revision for the data at the end of last year. And this is enough to push predicted growth in aggregate GDP to +0.5%, on the backcast, in line with the February Inflation Report.

Upward revisions to construction aren't uncommon. In fact, they've been very significant in the past few years. The average, in the quarterly data, is over four percentage points, at an annualised rate. In the monthly data it's seven percentage points. And the revised data also look more consistent with the overall rise in investment in the past two or three years. According to the expenditure estimates, comparing the last two years with the previous two, buildings investment rose by 11%. Even on these revised numbers construction output is up only 7%, although if you strung together all the initial estimates you get a number around zero.

Over the medium term, robust growth of investment and construction may well continue, given particularly the plans for housebuilding. But the likely fall in housing market turnover, following the rise in taxes on buy-to-let investors, won't do much for home improvements spending in the near term. More significantly, there are good reasons to put many investment projects on hold, ahead of the EU referendum. The risk of Brexit has also been the main contributor to the near 3% fall in sterling's exchange rate since the February Inflation Report, matching that over the previous three months.

In that Report, we attributed this to the "uncertainty" created by the Referendum and, no doubt, that's partly true. But if the implication is that the currency, or for that matter investment spending, will simply bounce back on June 24, regardless of the outcome, this seems more of a stretch. For one thing, an out vote would create its own uncertainty. And secondly, the economic fundamentals will change if the UK leaves the EU. The terms of trade would probably decline, depressing sterling's fair value. A rise in the risk premium on UK investment would do the same and, in the end, necessitate an equivalent rise in official interest rates relative to those in the rest of the world.

Whether exit would necessitate a rise in the near term is less clear. A falling currency puts upward pressure on inflation; declining investment does the opposite. The MPC would make that assessment at the time.

As for today's interest rate, the decision to me seems relatively straightforward. On balance, I don't think the picture is so very different from that in the February Inflation Report. Global growth is again slightly weaker than we'd expected. So, in the PMIs, is the picture for domestic output growth. But we are still expecting 0.5% for Q1, at least on the mature estimate. Our expectations for the labour market, prices as well as quantities, also look to be on track. Finally, if the backdrop for near-term growth is weaker, that for financial conditions looks more supportive. The exchange rate is down close to 3%, the OIS curve is 10 basis points lower, averaging across the first two years of the curve, risky asset prices are significantly higher.

Whether one is enough to offset the other is unclear: we will have to go through the numbers in the next Inflation Report. What the Budget means for growth is also unclear – for example, the two measures of fiscal policy, one using the cyclically adjusted balance the other based on explicit measures, are likely to go in different directions.

What is clear I think is that these shifts are an order of magnitude smaller than those that would result from a vote to leave the EU in June.

Against that backdrop I expect on Wednesday to vote for no change in either Bank Rate or asset purchases.

Governor Carney. Very good. Thank you Ben. Go to Ian and then Jan.

Ian McCafferty. Thank you, good morning everyone. Last month, in changing my vote, I set out how my judgments about the economy had shifted since last autumn in some detail. This month there seems to be little in terms of news that would cause me to revise them again. Overall, I still judge the outlook set out in the February Inflation Report plausible, albeit that the degree of uncertainty around the central case continues to edge up. As a result, I can be relatively brief this morning.

As Minouche set out in her presentation, it is difficult to draw firm conclusions from the moves in financial markets over the past few weeks, but in principle the recovery in UK share prices, the fall in gilt yields, and the move in the exchange rate should all be supportive for medium-term growth and inflation.

For what it's worth, my interpretation is that three factors are at play. First, the extreme risk-off positions of January have been mitigated by improved clarity about key central bank reaction functions, particularly those of the ECB, as Ben has just described, and in China, where we now have greater understanding of the PBC's renminbi targeting strategy and signs that the Chinese government is committed to a new short-term growth stimulus. Second, yield curves are responding to the growing belief that continued global growth is likely to require rates to be lower for longer, with some reassessment of the Zero Lower Bound for those central banks in easing mode and a growing belief that the Fed will tighten more slowly than initially signaled. Third, with market commentators continuing to fixate on the wide range of downside economic risk scenarios, it is also probable that the dispersion between modal and mean economic outcomes reflected in financial prices has widened again.

But the economic and political news does not suggest that any of that long series of risks we discussed at our deliberation meeting – I wrote down at least six or seven key concerns we discussed – is yet any closer to crystallising. Capital outflows from China slowed in February, and the oil price rose by some $7 per barrel, at the margin easing the difficulties of the most exposed exporters. Meanwhile, fears that slower growth in emerging markets was starting to erode prospects in the advanced economies should be assuaged by the stronger than expected GDP and industrial production data for the US, Germany, Italy and France. So far there is little in the recent news to cast doubt on the international outlook embodied in the February IR, and while this may be tested in coming months, I see little yet to contradict my earlier instinct that some of the market pessimism of the start of the year was perhaps overdone.

In terms of the UK, the slight deceleration in the pace of growth over the past few months appears to have continued into the early spring, and the hints in the CIPS and CBI surveys that that slowdown might be starting to spread into business services sector do give me some pause for thought. However, individual month survey data can at times be quite misleading, even when, as in the CIPS survey, we have a two standard deviation move. I am minded of several episodes when volatility in financial markets and febrile media comment influenced sentiment and answering practices, clouding the signal on output and activity. Survey responses on investment intentions have also softened slightly, but whether this is similarly in response to recent financial market turmoil, or to growing referendum uncertainty, it is yet difficult to determine.

Nevertheless, all consumer indicators continue to suggest that strong consumption spending is likely to continue. In addition to the solid employment and income data, there is no sign as yet that referendum concerns are affecting consumer confidence or attitudes to large ticket purchases. Moreover, the housing market continues to firm, even allowing for the uncertainties and potential distortions in the buy to let market. January CML data on mortgage approvals showed the number of loans for owner occupation, 84% of the total market, up by 18% on a year ago. And this is driving solid growth in housing starts. As Ben has pointed out, this is one of the few reliable advance indicators we have of GDP growth.

So while business activity will continue to struggle against the headwinds of weak foreign demand and heightened economic uncertainty, which may lead to a period of softer survey data for business services as well as manufacturing, and hence some softness in GDP growth over the first half of 2016, I still believe that our broader trajectory for GDP in the February IR looks plausible.

The weakness at present is more in nominal than real GDP. The most recent estimates of the GDP deflators look suspiciously weak, and may well be subject to revision. I thought the Pre-MPC analysis of the six to 18 month trajectory for CPI inflation very helpful, both in terms of the timing of the expected pick up and in the comparative static analysis of key components. It was reassuring to see how much of the initial pick up is dependent primarily on the simple unwinding of base effects. This will be important in assisting the second leg – a return of service sector wage inflation to more normal rates – to get going. Given that, by the end of this year, inflation will already have risen by close to a percentage point, with expectations of further rises to come, it does seem likely that, in a tight labour market, a revival in service sector wages will eventuate through 2017.

So all in all, I find little in this month's news to justify any changes in my judgement of the outlook. The key international risks remain, but there is little evidence that they are really any closer to crystallising. The referendum is now adding further uncertainty, such that a period of slightly softer activity than forecast through until the summer is quite possible. But overall monetary conditions have loosened over the past month, and the medium-term outlook in the February IR still looks our best central case.

We will clearly face a stern challenge in communicating our views at the May forecast, particularly if continued shifts in financial markets deliver a significantly different forecast to that of February. We can discuss this further nearer the time, but I continue to believe that the protocols and conventions around our conditioning assumptions continue to be our best option.

So for this month, it seems to me that the only sensible strategy is to watch and wait. So I am minded to vote for no change in Bank Rate, and no change in asset purchases.

Governor Carney. Thank you Ian. Jan and then Minouche.

Gertjan Vlieghe. Last month I argued that global risk sentiment in financial markets had been moving in a wide range since last August, and that moves down in sentiment had justifiably been associated with a combination of a weaker global growth outlook and elevated risks around that weaker outlook, notably but not exclusively emanating from concerns about China and its impact on the rest of the world.

After deteriorating significantly further in the first half of February, risk sentiment has improved. It is impossible to forecast precisely when markets will swing from optimism to pessimism and back, and even ex post it is difficult to identify triggers or causes. But given that one of my concerns was that pessimism in markets would feed back onto the real economy, as an independent factor over and above the market's response to a weaker outlook, the improvement in market sentiment, and the associated easing in financial conditions, are a welcome development.

It is likely to have been helped, at least in part, by an acknowledgement by global central banks that the outlook had deteriorated sufficiently to warrant a change in the policy outlook. China, Japan and the ECB have eased outright. As have central banks of smaller economies such as Sweden and New Zealand. The Federal Reserve acknowledged that the weakness was significant enough to change their policy outlook. If central banks had played no role in this episode, and markets had just moved from, say, being excessively pessimistic to being slightly more optimistic, or were responding to an improvement in the data, we would have seen risk-free yields rebound as much as the prices of risky assets. But that has not happened: risk-free yields have recovered a much smaller portion of their January to February decline than risky assets. So despite all the talk of central banks being out of ammunition, we have just been through an episode where central banks have used ammunition, and global risk sentiment has improved. Timing does not prove causality, but I find it hard to think of a convincing alternative interpretation, i.e. one where sentiment would have improved by the same amount (or more) if central banks had done nothing.

I do remain concerned though, that it is still not clear that economic data related to global growth has stabilised. H2 2015 was a period when there were large downside revisions to the outlook for EM growth. In recent months, that seems to have stabilised, i.e. no significant further downward surprises. But that is not yet the case in advanced economies. Despite having made another downward adjustment to our forecast for advanced economies as recently as February, since then we have already seen some further downside news in the eurozone, in the US, and in Japan. Our own version of events in the February forecast was that there would be an impact of weaker EM growth on advanced economies via trade, confidence and financial channels, and that there was significant uncertainty about the magnitude of the impact. It may be that the impact is larger than we had pencilled in.

Turning to the domestic economy, the news has been mixed. We have seen strong data related to consumption, with both retail sales and car demand solid. Housing market activity has also been strong, with a further move up in mortgage approvals and house price inflation remaining resilient. As we have discussed before, the interpretation of housing data is particularly problematic right now, as the stamp duty increase is expected to lead to an activity spike in anticipation, followed by a sharp fall immediately thereafter. We will have to wait until later in the year before we can get a reliable reading on the housing market.

Turning to the recent data for the corporate sector, the data has been decidedly less rosy than for the household sector. Investment intentions have eased off, and some business activity indicators have fallen quite sharply, particularly the PMI and the CBI surveys. Looking back at the broad shape of the surveys since 2014, it looks like we have seen a continuation of the gradual but persistent loss of momentum since then. And, just as with the global economy, it is still not clear that growth has now stabilised at a lower rate.

If the loss of momentum is entirely supply-driven, it may not have much impact on the appropriate near-term path for monetary policy. Resilient employment growth and a falling unemployment rate may at first blush seem to support a supply-driven interpretation. But a deeper look at the data does not support this interpretation. First of all, the slowdown in GDP growth since 2014 has coincided with, if anything, a slight improvement in productivity growth, not a deterioration.

Second, the wage data do not support a primarily supply-driven interpretation either. With wage growth both too low to be consistent with the medium-term inflation target, and not showing any convincing signs of upward momentum, this does not look like an economy that is primarily slowing due to lack of current supply capacity. Recent data on hours and composition effects in wages strengthen that conclusion. I continue to think that the weakness in wages is probably due to three factors: domestic slack, migration (i.e. foreign slack) and inflation expectations.

On domestic slack, I note that part-timers wanting to work full-time and temps wanting permanent jobs are still nearly three percentage points above their pre-crisis level, as a fraction of total employees. That is closer to the peak than to the trough.

On inflation expectations, the most benign version of the wage-inflation interaction, the one that we had in our February forecast, is that low headline inflation is keeping down wage demands temporarily, but as headline inflation recovers this year, wage inflation will recover along with it. A less benign version of the story is that inflation expectations have shifted down persistently, so weak wage inflation is itself a signal that medium-term inflation is expected to be lower. The evidence from inflation expectations surveys and financial markets is mixed, and less worrying in the UK than in other advanced economies. I would nevertheless call it a dim amber light warning.

Summing up, we have a global economy where financial sentiment has improved, possibly due to central bank action, but global growth momentum is still disappointing, in particular in advanced economies. In the UK, growth momentum is still disappointing somewhat too, at least on the survey evidence. Weak wage growth, inflation expectations which are somewhat on the weak side, and productivity growth which is not obviously losing momentum, suggest to me that this is not an economy that is slowing primarily due to lack of current supply capacity. Recent data developments are therefore bringing me somewhat closer to the point where I think additional monetary stimulus might be warranted.

The referendum will complicate matters in the months ahead, in three key areas. First, the data will be harder to interpret. To what extent is any slowing in the data referendum-related, or driven by underlying economic developments? Second, the way we take into account exchange rate developments is more complicated than usual. If we think the FX weakening is largely referendum related, it would be unwise to count on any stimulative effect from its recent weakness in the baseline case of a remain vote, as much of the weakening would be expected to unwind. Third, there is the risk that the vote is to leave. Economic uncertainty would then be likely to rise significantly further after the referendum, and be a more persistent drag on growth, with sharply increased asset price volatility, opening up a whole new set of issues for monetary policy.

Even though I am minded to vote for no change this month, I no longer think the next move in policy is more likely to be a tightening than an easing.

Governor Carney. Thank you Jan. Minouche and then Andy.

Nemat Shafik. The past month has been dominated by headlines about the pros and cons of EU membership. But today I would like to focus my remarks on three cons of a different nature: concern about the world economy; the conditionality of the UK recovery; and confidence in central banks' ability to hit their targets.

Let me begin with concern about the world economy. Were one to have switched off all mobile phones and electronic devices at the time of our last discussion meeting, only to switch them back on toward the middle of February one might have thought that there had been some devastating news about the world economy. Advanced economy equity indices were down 7% to 10%, the VIX was back at levels comparable to the height of the eurozone crisis, corporate bond spreads had widened by 10s of basis points, and the lift off date for Bank Rate had been pushed into next decade. General concerns about the world economy were one of the explanations given for the moves, and financial markets were said to be pricing in a 45% to 50% probability of a US recession.

Since then, of course, we have had a near complete recovery of asset prices and in my view that is consistent with how the actual data has turned out over the past month when compared to the modest expectations that we and others held to begin with. As Ben said, US GDP data for Q4 was revised up, payrolls came in stronger than expected. And although the outlook is a little softer, it still indicates growth in the region of 2% for the year ahead in the US.

The near-term indicators for the euro zone have softened, but the ECB has provided a substantial stimulus package that means concern about how the recovery can be sustained in the medium term is a bit less pressing. And the rise in the price of oil – which is around the $40 mark – will provide some relief to those emerging markets who are dependent upon oil revenues to maintain short-term stability.

So taken all together, the news on the world economy is probably somewhere between a small net positive and a small net negative. And that's consistent with the cumulative news in risky asset prices.

So let me turn now to the conditionality of the UK recovery. In the data, the unexpectedly weak outturn for business investment was probably the most notable development this month: the output PMIs declined and our preferred measure of uncertainty picked up. However, it is difficult to determine how much of this news is due to worries about the effect of the referendum on activity, and how much is due to a deeper slowdown. My own opinion is that it is primarily about the referendum rather than a material further slowing. So conditional on the result of the vote not triggering a broader loss of confidence, I would expect growth to be sustained at around trend.

The outlook for inflation is also conditional. Thus far measures of domestically generated inflation – such as labour-intensive services inflation – have remained remarkably flat, proving themselves immune to the kinds of cost pressures we would have expected in a tightening labour market. And news that nominal GDP grew no faster than real GDP over 2015 raises further concerns about the strength of inflationary pressure in the economy.

Of course, one common driver of the weakness in both services inflation and the GDP deflator is pay growth: with wages growing only 1% to 1½% more quickly than productivity so far, it is not surprising that measures of domestically generated inflation remain weak.

Much as the continued recovery in the real economy is conditional on the referendum not leading to a sustained period of instability, so is the return of headline inflation to target conditional on the so far elusive recovery in wage growth.

Finally, let me say a few words about confidence in central banks' ability to hit their targets, which has oscillated over the month. When the Bank of Japan surprised the market with their three-tiered system, Governor Kuroda's confidently stated that "the constraint of the zero lower bound has been almost overcome by the wisdom and practice of central banks, including those of the Bank of Japan". Views of the effective lower bound were promptly reappraised and one strategist released a note saying that the effective lower bound in the UK was -2.5%, and that the policy rate in Europe could go as low as -4.5%.

But sentiment quickly turned as the extent to which negative marginal central bank rates would be passed through to the real economy was called into question. Perhaps that is why over recent months the market implied path for policy rates has fallen internationally, but so too has the market implied forward path for inflation rates. A simplistic interpretation would be that central banks are expected to do more, but with less success. The shape of our own yield curve could certainly be interpreted in that way.

It would be going too far to say that there is a crisis in confidence in central banks. But it may be the case that after such a long period of low inflation market participants are beginning to scrutinise in more detail the declarations of central bankers. And if they are not convinced by what they hear they feel able to disagree – as perhaps also demonstrated by the wedge between the FOMC's dots and comparable market-based expectations. The lesson for us, surely, is to wait until we are confident in our path before we take a first step.

And I am not yet confident that the recovery in inflation is assured. So this month – having given it due consideration – I intend to vote for no change in Bank Rate and no change in the stock of purchased assets.

Governor Carney. Thank you Minouche. So Andy and then Kristin please.

Andrew Haldane. Thank you. Since the start of the year, uncertainties seem to me to have been the main factor driving financial markets and, prospectively, the global economy.

These are uncertainties, as distinct from risk, because they seem to concern not so much the future state of the economy as its future functioning. Just what is the new normal for global growth? The new Phillips curve? The new monetary policy reaction function? In the UK, the likely post-referendum economic regime?

Globally, these uncertainties have recently come in various stripes and, as Ian pointed out, are almost certainly not independent. They include:

- First, uncertainties about global growth. These uncertainties have arisen not so much from the incremental news about global growth as much as from the serial correlation in this news. Since 2010, global growth forecasts have been consistently revised down, by on average 0.1 percentage point per quarter. World price forecasts have been revised down by similar amounts. These small, repeated surprises have generated uncertainty both about the potency of the global monetary stimulus being provided and potential supply-side headwinds to growth.

- Second, uncertainties about the monetary policy reaction function of at least some of the major central banks. It is striking how much of a downwards correction in safe rates internationally resulted from the recent monetary policy announcements by the BoJ and to a lesser extent the ECB. Yet these announcements probably revealed more about the monetary strategies of these countries' central banks – their approach to negative rates, QE etc – as about the state of their economies. These downwards surprises to safe rates, like those for growth and inflation, have also been serially correlated. One-year-ahead market interest rates have on average fallen by 10 basis points per quarter since July 2014.

- Third, uncertainties around the political regime, broadly-defined, in a number of countries – whether tensions in the Middle East, or social cohesion in China, or Russian revanchism, or the European refugee crisis, or the US's political future. These are, in a sense, existential uncertainties.

- And last but no means least, Brexit uncertainty. That has plainly been a potent factor in sterling's fall since the start of the year.   The uncertainty here is not so much the odds of Brexit – that can and is being priced, however imperfectly – as about the UK's future regime were it to occur.

At least some of these uncertainties are being picked up in the staff's "uncertainty swathe" of indicators. This measure has risen by 1.7 standard deviations from its low point last year, though it remains close to its historical averages. These uncertainties may also be beginning to percolate through to business surveys, a number of which fell globally this month and sharply so in the UK. And perhaps, to lesser extent, in consumer surveys too, at least when it comes to people's confidence in the global economy, if not in their own finances.

Our forecast already makes some allowance for these uncertainty effects – 0.1percentage point off growth for a quarter. I suspect this might understate the impact of uncertainty on spending, both in scale and persistence. In persistence, because – referendum risk perhaps notwithstanding – it is hard to see many of these uncertainties disappearing by mid-year. In scale, because as I have discussed previously, companies and households have I think been psychologically scarred by the crisis, as they were after the Great Depression, and hence more uncertainty-averse than normal.

If so, what are the implications of this heightened uncertainty, and uncertainty-aversion, for financial markets, the wider economy and policy?

The academic literature on asset pricing under uncertainty – for example, Epstein and Wang's 1994 Econometrica paper – yields two interesting conclusions. First, uncertainty (as distinct from risk) generates what appear to be "pessimistic expectations" among investors. This is the result of them following maximin strategies – maximising the probability of avoiding the worst possible outcomes. To be clear, these expectations are still rational, in the (often misunderstood) Muthian sense of making best use of available information. These expectations are just now uncertainty-corrected. And those "pessimistic expectations" would chime with the extra-ordinarily low, and falling, level of market yield curves globally – lower even than market participants' themselves would think of as a central view of the economy.

Second, under uncertainty the link between asset prices and their fundamentals becomes foggy. For given fundamentals, assets prices are then defined by a range rather than point. And this uncertainty-induced indeterminacy may help explain the rollercoaster in risky asset prices during the course of this year, during which time they appear to have been even more delinked from fundamentals than normally.

As for the impact of uncertainty on spending, the well-known work of Nick Bloom, while not uncontentious, points not only to a quantitatively important impact but, in addition:

- One which is typically persistent;

- One which is proportionately larger for large or existential uncertainties; and

- One which is better captured by popular perceptions, rather than financial market, measures of uncertainty.

All three factors are probably relevant in the current conjuncture, with popular perception measures of uncertainty having spiked most markedly through this year.

Finally, to policy. Work on dealing with uncertainties, especially existential ones, by scientists such as Martin Rees and philosophers such as Nick Bostrom are relevant here. The existential risks they discuss – obliteration of earth or the universe – are rather higher-order than ours of course, but nonetheless some of the self-same principles I think apply.

One is the "precautionary principle" which emphasizes the need to act pre-emptively to head-off, or insure against, downside policy risks when it is difficult, or costly, to insure against them after-the-fact. Another is the "maxipok principle". This is the humbler cousin of the maximin principle and it states that the aim of policy should simply be to maximise the probability of an "OK" outcome.

What might these principles mean for our own approach to policy in the current, uncertain environment?

For me, it underscores three points:

- First, given the uncertainties about the UK and global economies, and about the efficacy of monetary policy at or beyond the lower bound, there is a case for being more responsive to accumulating downside risks to the economy than about accumulating upside risks. More even than standard risk management arguments would imply. I think that is consistent with Jan's "limited tolerance" maxim. My own tolerance for further downside surprises, before I would wish to consider an easing of policy, are certainly limited. Put differently, I think the argument that we should wait for uncertainty to resolve itself before responding is compelling, seductive and probably wrong.

- Second, following from this, I think there is now a stronger case for altering our policy communications to emphasize the symmetry of our stance on the future direction of interest rates. Put differently, I do not know what re-emphasizing that interest rates are more likely to rise than fall, over some defined horizon, gains us in the current environment. If safe rates internationally are responding rationally to heightened uncertainty, then talking up the yield curve is unlikely to be effective. And financial markets are after all currently pricing around a 50% probability of a rate cut over the next year, versus 10 to 15% for a rate rise. So my preference would be to emphasize that it is the fortunes of the economy which will determine the direction of the MPC's next move. In the current environment, I think this would support delivering an "OK" outcome for the UK economy.

- Third, I am also slightly cautious about the MPC emphasizing in public its potentially limitless ammunition, and its efficacy, be that more QE, negative rates or other measures. My caution here arises in part because I am myself not convinced that these more extreme measures would be effective or indeed desirable. But it is also, more fundamentally, because I think that such statements could, without care, generate more uncertainty, not less, about our policy reaction function, and so prove counter-productive. Japanese experience is perhaps salutary here. None of this should of course stop us discussing these issues privately, in line with the precautionary principle.

None of this alters my view, however, on the appropriate stance of policy today, which is to be minded to leave unchanged Bank Rate and the stock of asset purchases. Thank you.

Governor Carney. Thank you. Sorry, I have Kristin and then Jon, sorry.

Kristin Forbes. A major theme of investment reports this year has been bears – and not the kind you meet in the forest. There seemed to be a competition on the most creative use of bear in titles to capture the negative sentiment in financial markets and about the global economy. One of my favourites was a note entitled "A Sleuth of Bears" (a sleuth is a group of bears). Investors certainly fit this description – at least until about four weeks ago when many financial measures suddenly reversed course. Another report described the shift as: "Goldilocks Eats the Bears."

These shifts have raised a number of questions for me. First, does the economic data support the bears or Goldilocks? Second, what are the implications for UK inflation? Finally, what are the risks for the UK current account if more global or UK bears emerge?

On Thursday we discussed the market fluctuations at length. My conclusion was that you could find some small bear cubs around the globe, but not a sleuth. Economic growth in some major economies slightly disappointed in Q4, but recent data has been a bit more positive (some of which we just heard from Andy). Productivity growth continues to be depressed around much of the world. This in itself could justify some downward assessment of potential growth. But at least some of the volatility in financial markets is likely being caused by the substantial global portfolio rebalancing – with commodity-based sovereign wealth funds and China no longer exporting capital, while the ECB and BoJ increase asset purchases, especially when combined with reduced liquidity and changes in regulation. Of course, there can still be real economic effects from market volatility through wealth effects and confidence. But the recent reversals provide a reminder that we need to be cautious reading too much into these movements and carefully assess real effects on the UK.

Moving to the UK, recent data suggests some softening – but not a bear. The sustained strength in private final domestic demand – with annual growth remaining around 3% for the last 2½ years – is a reminder of the continued drags bringing down overall growth from a weaker external environment and fiscal tightening. But our estimates of the external and fiscal drags don't fully account for recent weakness. So what is going on? One obvious answer is Brexit. The staff analysis suggests that Brexit risk is contributing to sterling's depreciation, but otherwise having little effect so far. I would not be surprised if we are not fully capturing it though. If I was a business, I would be delaying any hiring or major investments. I would not be surprised to see more evidence in the next round of data.

Unfortunately this will make it difficult to ascertain if any weakness is a temporary Brexit-related effect or more permanent. Also, any improvement in fundamentals could be masked by negative Brexit effects.

My second topic is the inflation outlook. The Pre-MPC presentation was helpful. I'll build on two points we haven't discussed in this room. First, for core goods, the baseline is critical. From 2000 to 2007, the contribution of core goods inflation to CPI inflation was persistently negative and averaged 0.3 percentage points which is a combination of 0.7% average inflation with the 38% share of core goods in the CPI basket, so that 2% headline inflation was consistent with inflation in other non-core (mostly domestic) components of the CPI basket around 3.7%. But is it realistic to expect core goods to continue to make that large a negative contribution after pass-through effects have waned? Much of the past deflation in core goods resulted from China joining the WTO, integrating with the global economy, and shifting global supply chains. Growth in global trade was crucial to bringing down core goods prices in the UK and supporting productivity. This is unfortunately unlikely to continue – especially given global resistance to free trade agreements. A comparable negative contribution of core goods to headline inflation in the future seems unlikely, suggesting service inflation can be lower than our baseline to hit our 2% target.

The inflation analysis also highlighted the importance of what happens to wages and domestic costs. On a positive note, this supports a key MPC message which seems to be understood in markets (as seen in the analysis showing increased sensitivity of the yield curve to AWE data). On a less positive note, the DGI measures have not shown any momentum. The latest data sends the same message as over the past 18 months: steady as she goes. The DGI average has barely moved since 2014Q2. Low headline inflation hasn't dragged the average down, but there is also no reacceleration. Hibernation. And although sterling's recent depreciation will provide some support to prices, any pass-through may be small if this primarily reflects UK risk and is short lived.

My final topic is the implications of heightened global and UK risk and uncertainty for the current account. In 2015 the UK is expected to have the largest current account deficit of the advanced economies for the second year in a row. Gross capital inflows – a measure of "sudden stop" risk – suggest an even greater risk than implicit in net flows. Our discussions about the current account last year covered many reasons why risks were less than implied by the headline statistics – but some of our conclusions may not hold if Brexit looks more likely (or occurs). For example, the relatively large share of FDI flows may not provide the usual stabilization as Brexit could sharply slow FDI inflows – and even spark FDI outflows.

I've recently taken a closer look at some of these risks, and the analysis has made me less concerned in some ways, but more on others. More specifically, I've focused on how the current account responds to heightened UK risk (i.e. Brexit) and global risk (i.e. China). Both would likely involve a sterling depreciation. A substantial amount of adjustment could also automatically occur in the NIIP and current account even without major trade adjustments, simply due to financial adjustments related to the interaction of different types of risks with the currency and composition of

UK assets and liabilities. This is quite a change from the past. From 1980 to 1990, 88% of the variance in the current account was explained by trade, while 22% was explained by changes in primary investment income (this doesn't add to 100 due to changes in other investment income and covariances between components). But over the last 10 years, trade explained only 50% of the variance in the current account, while investment income has explained about 100%. In other words, more adjustment in the current account can occur today through automatic financial risk sharing.

Incorporating these types of considerations into an analysis of the vulnerabilities from a sudden stop suggests that heightened UK risk (i.e. Brexit) could substantially improve the NIIP and moderately improve the current account before any adjustments occur in trade. On the other hand, higher global risk (i.e. China), does not have substantial mitigating effects and generally causes a deterioration in both the NIIP and investment income component. Of course, even in scenarios where there is some risk sharing that occurs, and this reduces net financing requirements in sudden stop risks, this would be unlikely to balance the negative real effects of heightened risk and uncertainty on the broader economy. And this automatic risk-sharing would be unlikely to continue over long periods of time if UK uncertainty was high for an extended period.

To close, what does all this mean for monetary policy? There is still not enough momentum in domestic costs and inflation to merit an increase in interest rates. But I do not see enough weakness in the UK or global economy to shift my view that the next move will be up. There is no sleuth of bears, although there are enough risks that I also wouldn't yet claim victory for Goldilocks. Unfortunately, I expect the data over the next few months to be even murkier than usual – raising the bar to change this stance and move me out of hibernation.

Governor Carney. Good. Jon and then Martin please.

Jon Cunliffe. Thanks very much. I'm not going to do An Exultation of Larks. Starting with financial conditions and the global economy, the yield curve and exchange rate have both fallen sharply over the month although the yield curve moved up noticeably in recent days, particularly on Friday. The date of lift-off according to the market yield curve on Friday is around the end of 2018, about four quarters later than the yield curve used in the February Inflation Report, though that date has come in by around five quarters in the last week or so. Sterling has depreciated by around 3% on the month. So how should we react to such a volatile picture?

At face value, even with the most recent tightening, the moves in the yield curve since the February Inflation Report should still provide a substantial boost to activity and inflation. But I'm a little sceptical, not so much because they might reverse but because I think they are signalling some more persistent reassessment of the global outlook and risks around global growth. While there has been no big macroeconomic shock, even with the most recent news, there has been a noticeable softening in near-term growth prospects. Relative to the November Inflation Report, the staff forecast for the euro zone before the ECB action for Q1 is down 0.1 percentage point, for the US it is down 0.2 percentage points, and it is down 0.2 percentage points for PPP-weighted world growth. Consensus full year forecasts for 2016 GDP growth in a number of advanced economies have fallen significantly since the start of the year. On average, economists now expect 2016 growth to be 0.6 percentage points lower in the US, 0.5 percentage points lower in both Japan and Canada and 0.3 percentage points lower in both the euro area and UK. And risks in China remain elevated not least because of the very strong credit growth in January, which suggests the Chinese authorities are betting on a further credit expansion to keep growth up. The yield curve move is probably reflecting some world weakness.

On the exchange rate, I think most of the move is due to uncertainty and concerns related to the EU referendum and a possible 'Brexit'. This is broadly consistent with market intelligence and staff analysis. If the vote is to remain in the EU, it is highly probable that the exchange rate will rebound. As I said at the deliberation meeting, I think the presumption should be that we do not put weight on the impact of exchange rate moves until we know the result of the referendum.

So overall, even with the very recent corrections, I take a pessimistic signal from what has happened in financial markets since the start of the year.

On the domestic front, household consumption is holding up. The annual growth rate picked up to 3.1% in Q4, which is the strongest since 2007. Retail sales grew by 2.3% in January, significantly above the staff expectations, and car registrations have been strong. The GfK/EC consumer confidence indicator fell in February, but remains well above its historical average.

I think it is worth separating out the consumer confidence series into its components because that tells a slightly more nuanced story. The series showing expectations of the general economic situation over the next 12 months has fallen sharply, in contrast to the other components which have held up. As Andy noted last week this 'cognitive dissonance' probably cannot last forever. As I've said previously, consumer confidence tends to move in a non-linear way from 'high' to 'low' confidence regimes and vice versa. So a resolution of the cognitive dissonance could happen fairly quickly. But for now the picture on consumption remains solid.

Housing investment is also holding up, with stronger than expected growth in Q4. The housing market seems to have momentum more generally. Housing starts were up in Q4. Total housing starts in 2015 were at their highest level since the financial crisis, and this will feed through in the investment numbers over the next year once the end-owner of the house is known, which is the point at which it goes into investment. House prices are growing at around 9% a year on a three-month on three-month annualised basis and mortgage approvals for house purchase are growing strongly too – last month's numbers were the highest in two years, although I think as Andy has confirmed, much or most of this was due to forthcoming changes in tax policy around buy to let.

However, business investment, the other main driver of growth in the forecast, was weak in Q4. And downward revisions to business investment over 2015 leave the four-quarter growth rate at 2.4% – well below our expectation in the February Inflation Report of 7.2%. This, of course, may be erratic and revised away. But there has also been some downward drift, and increased dispersion, in measures of investment intentions. And this sentiment has been mirrored in broader business surveys. The Markit/CIPS composite output index dropped sharply in February falling below its long-run average to its lowest level since April 2013, although the expectations series was broadly unchanged. I think we may also be seeing some referendum effects here, particularly on the investment side.

So the domestic picture does not appear to have shifted very much. Consumption has remained strong as has housing investment. But there may now be signs of weakening in business investment, possibly linked to the referendum. A key issue is how long private consumption in the UK can hold up in the face of continued weakness elsewhere, at home and abroad.

On inflation, both headline and core were lower than expected but only slightly. Oil prices have rebounded over the month which should provide a boost to inflation over the nearer term – they are up a third from around $30 to $40 per barrel. This is one of the sharpest rallies (in terms of percentage change) since the oil price began to drop in summer 2014. And it's pushed up the STIF.

In terms of inflation expectations, there has also been a tick up in some measures of household inflation expectations which given the very low level of inflation is somewhat reassuring.

Given that the drag from energy may now finally be beginning to wane and inflation expectations look broadly anchored we end up at a familiar place – what we need to be confident of a sustained and sufficient pick-up in inflation is a pick-up in pay, assuming productivity picks up.

Pay growth seems broadly as expected at around 2% even taking account of the latest numbers. There was some evidence of further tightening in the labour market – vacancies reached a new all-time high and the vacancy/unemployment ratio at its highest level since 2005. Total hours were 0.6% higher than expected in Q4, driven by upside news in average hours. So the disparity between labour market prices and quantities continues.

Annual productivity fell back to around 0.3% in Q4. The picture across different measures of unit labour costs continues to be mixed but on the whole they continue, for me, to be much weaker than pre-crisis averages and weaker than expected in Q4.

This is my 29th MPC meeting. And I'll conclude now as I did then with a (provisional) vote for no change in Bank Rate or in the stock of asset purchases. The ghost of David Miles is very clearly in the room. But the backdrop to this conclusion is different. When I arrived I was thinking 'not yet' but I was waiting confidently for good news to arrive. I'm still thinking 'not yet' but I'm rather hoping that bad news does not happen.

Governor Carney. Very good. Martin.

Martin Weale. Thank you, Governor. Since our last meeting there have been sharp swings in both financial and commodity markets. The FTSE 100 has risen by over 10% since its February trough, recovering to its value at the start of the year – a sharp if hardly unprecedented recovery although the price index of UK-facing shares has risen rather less. Emerging market share prices are up sharply, also pointing to improved sentiment. The Brent oil price has moved from around US$30 to around US$40 and the most recent data show that base metal prices are firmer. Petrol prices have risen slightly although expert opinion, i.e. Ian, tells me that we are likely to see downward pressure on oil prices again.

The ECB eased by more than was expected last week; the initial response was a stronger euro and weaker stock markets. Perhaps fears about the perverse effects of negative interest rates are starting to have an impact; the suggestion is that the response was a function of indications that further rate reductions were unlikely.

None of this means that the risks we had identified have gone away. On the other hand, we had calibrated our forecast to the asset prices of late January, and the sharp improvement in share prices, if sustained, will be a positive influence on the outlook. While the stock market may have been influenced by the risks that we saw, there is no reason to believe either that it was correctly calibrated to those risks at the time of our February forecast, or indeed that it is correctly calibrated to those risks at the moment. To the extent that we use asset prices as a market measure of risk, if the risks have not changed, the market has nevertheless revised its estimate of their importance; it may of course continue to do so, although I will not hazard a guess about the direction of the next substantial move.

Business survey results, particularly for the euro area, have become a source of concern, with DG-ECFIN's economic sentiment indicator at its lowest since June of last year. An interesting box in the note on Demand and Output suggested that responses to UK business surveys, which have also been weak, were affected by market volatility as well by actual outcomes. The volatility index nevertheless accounts for only about a fifth of the decline in the CIPS index in February. An analysis of firms' responses to the CBI inquiry some years ago, showed clear evidence of a common factor, best described as the influence of collective sentiment, after taking account of individual respondents' output movements. I doubt that this factor is perfectly correlated with volatility suggesting that perhaps staff calculations understate the extent to which the CIPS index reflects poor sentiment rather than weak economic growth.

Indeed, while we do not yet have data for February, the January figures show sharp increases in industrial production in France, Germany and Italy. Industrial production is not as closely related to GDP as elsewhere as it is in the United Kingdom, though. Nowcasts for Q1 growth in the United States have also been revised up, although since an increase in stocks is behind this, it may indicate either greater business confidence or disappointing final demand. At home, the weak survey data had led to a final estimate for Q1 of 0.4%. The latest construction data have base effects which lead to this being revised up to 0.5%. So we have tentative upward indicators in the four largest European economies and in the United States. Less importantly, industrial production also rose in the large developing countries, apart from China. None of this means that the gloom of the deliberation meeting is not justified; I'm not saying May has come and winter is out. In particular, of course, increasing focus on the referendum may act as a depressant in the near-term.

Meanwhile market expectations of the date of the first change in Bank Rate put it nearly three years ahead. Markets seem to have a remarkable degree of confidence that, without very low interest rates, demand will be too weak to bring inflation very close to target in reasonable time. One explanation of this relatively late lift-off may be that markets believe, as a staff note suggested, that the lower equilibrium value of world interest rates, relative to the average for the period over which our model was estimated, means that interest rates are not providing the stimulus we had assumed. This is despite the very low household saving which I see largely as a consequence of our policy. I certainly don't see much evidence of high precautionary saving.

Anyway, in terms of demand and supply, weak demand would be represented by headwinds and require a low interest rate to offset them. That's what we have assumed, and if the headwinds fade less than we have assumed then the policy is less of a stimulus. But at least a part of the reason for lower interest rates is weaker supply growth in both advanced and emerging economies. I was not clear how the staff analysis had handled that. While the equilibrium interest rate was lower, I don't think that that the growth path of potential GDP had also been changed. It's the interaction of these two effects and the way they follow through to our target variable, inflation, which also matters and I look forward to learning about this.

Domestically, the most striking figure for me since our last meeting has been the disappointment over productivity. With hours worked up 1.7% and GDP up by 0.5% in 2015 Q4, the decline in labour productivity of 1.2% is appreciably larger than I had expected on the basis of partial data. Over the four quarters to Q4 of last year, output per hour worked has grown by 0.3% on ONS output figures. This means that unit wage costs, calculated from regular pay, are growing at about 1.6% suggesting that cost growth consistent with the inflation target may not be too far off. The figures the staff kindly supplied show that 2015 Q2 was weak with unit wage costs static or falling slightly. In the second half of last year, the growth rate of unit wage costs was only slightly below what is compatible with the inflation target in a steady state. While I would not want to assert that there is a strong short-term connection between wage growth and productivity growth, the wage data certainly need to be interpreted in the light of what is happening to productivity. On top of this, of course, there's the matter of continuing effects from past commodity prices and I obviously understand that, despite recent exchange rate movements, these may be a depressing influence on inflation even at a two-year horizon.

There remains great uncertainty about the outcome of the referendum and the possible consequences of the decision. We also of course need to assess the effects of the Budget.

But as things stand I see no reason for any change to the monetary stance. I expect to vote for no change in Bank Rate and no change to the stock of assets we own. I continue to believe that the next Bank Rate movement is more likely to be up than down.

Governor Carney. Thank you Martin, thank you all. As today's discussion has indicated, Brexit risk has come in to centre stage. We've seen sterling continue to depreciate, some signs of domestic slowing, although a bit ambiguous and off stage, global risks remain and so the question is whether monetary policy should beware the Ides of March. As you can perhaps suggest I'm going to try to channel Kristin here with Caesar as the expansion, Calpurnia as sterling and the question of who might play Brutus. So Calpurnia's dream, I won't live up to your example, Kristin. Calpurnia's dream foretold carnage and the question is whether sterling is doing the same. The figures are familiar – 3% depreciation since the February IR on top of the previous one, and the simple question is whether just some of the dampening force that we had expected over the forecast to rise in on inflation will begin to fade away. Obviously we have to, as many have already commented, look at why it has moved. There are three or four plausible candidates. Three of which are Brexit related. The first is the pure risk premium that's come in to play because of Brexit itself, the possibility of Brexit. Second, it could reflect prospective downward adjustment in the real exchange rate, as Ben detailed in our Discussion Meeting – a reverse Balassa-Samuelson effect reflecting lower prospective productivity as markets price the consequences of a supply-side disruption that could follow a vote to leave the EU, potentially markets pricing in a revised view of productivity, although I'd be surprised if it was that marked in that short a time, irrespective of Brexit. Ben's calculation looked at this by the terms of trade channels suggesting a 10% real depreciation; that would rise to 20% if one took the income balance into account. The third possible explanation for sterling's move is a reassessment of our effective lower bound, something Minouche picked up on after the Bank of Japan's negative interest rate move, shifting markets' expectations of the mean path for policy as opposed to the term premium and in this regard there should be a steepening of the sterling yield curve because absent any change in fundamentals, markets should have assumed the same amount of stimulus but in a different format, so less QE and more on rates. And the fourth is weakened UK demand momentum possibly related to Brexit, but also possibly reflecting slowing business investment growth, the potential slow-down in housing to come, continued drag from net trade and inference taken from slowing surveys and this is something a number have touched on.

As Kristin has taught us and we have discussed, the mix of these shocks matters greatly for the impact on inflation. On a first pass, if you just assume that everything's from a risk premium, everything since February from a risk premium under our standard treatment has been outlined, the 3% depreciation since February would be about 0.2 percentage points on inflation in Year 1 and about 15 basis points on Years 2 and 3, so something but still relatively modest. However, if you look into the potential causes, as we've discussed, negative supply shocks have the largest implications for inflation, followed by monetary policy, then exchange rate risk premia, and finally demand shocks who have obviously reversed sign. So the question is whether that standard treatment is an over or under estimate and what is the plausible mix of shocks.

The staff moves flow analysis has Brexit accounting for both a half to two-thirds of the fall since November and all of the fall since January, after controlling for interest rate differentials and data surprises. So, slight of hand, but I'm taking my third explanation for sterling off the table, the effect of a lower-bound move. Making a simple adjustment by crudely averaging Kristin's estimates and scaling by the recent move, implies an inflation boost of around 40 basis points at Year 1. That's material, you could argue it's an over-statement; it's been pointed out, given that the potential supply shock post-Brexit hasn't actually happened, but of course this is a probability. And if one scales up from the betting market probability that implies more than a point on inflation if it were actually to happen, that's implied again, which is certainly something that's quite punchy and that's a point at Year 1 and up to half a point at Years 2 and 3, so enough to have potential implications for the path of policy and of course as we discussed in our meeting it depends on the timing of that supply versus the demand hit that is likely to happen.

So a scenario where there's a firming of inflation due to weakening supply, exchange rate depreciation alongside slowing demand, is obviously not a comfortable combination. If these dynamics go further, indeed if leave were actually to happen, we would be in uncomfortable trade-off territory as the 2014 Stress Test amply demonstrated. Now Andy drew attention to a number of things but including the one standard deviation rise and the staff's principle component measure, that's notable, and it adds to previous moves as various uncertainties came into place, were almost at two standard deviations. It captures a range of influences, but including financial market volatility and, obviously, media citations. We do have to be a little careful, and as we are aware, just straight using that analysis takes about, would take about ½ percentage point off growth next year, moving us from slightly above trend to notably below what we currently think as trend. We have to be careful not to double count though, because this should show up – the financial conditions component shows up financial conditions, and ultimately the survey components one would expect to show up in the PMIs and the confidence indicator, so we should be able to capture, but it's a useful rule of thumb which adds to some troubling straws in the wind. We do have slower measured, underscore measured, business investment growth in Q4, obviously prone to revision, but something consistent with, I think as Jan described, a persistent loss of momentum, the scale of that momentum is open. We have rising global uncertainty, another small softening of global outturns, with the caveats that Martin just mentioned. I have already mentioned tighter financial conditions, ex-monetary conditions that is. And then these are all overlaid on top of existing concerns including the effects of policy changes on the housing market, particularly in buy-to-let where we do, I think we would be surprised if we didn't see a marked deceleration. And the possibility that despite possible tweaks this week, fiscal policy may be having a bigger impact on growth, at least from my perspective.

So, to move towards conclusion, there's a potential nasty trade off in the event of a Brexit vote. In the near term, Brexit risk adds to the risk to growth while pushing up on inflation by the direct exchange rate effects. Tail risks have clearly increased; one of the most notable tail risks, Brexit, could go away by June. And throughout, the consumer will have to pay a central role. Uncertainty effects can be expected, as I think everybody's mentioned, to sort of drag, particularly on those components of demand where the real value of waiting, the option value of waiting, are most important. So not just investment but also consumer durables, and 60% of the year-on-year consumption growth to the most recent quarter was accounted by durables, so we need that solid contribution to continue. You can guess that the potential identity of Brutus, the friend and loyal servant, is consumption and that has clearly served our expansion. For now though, I do see consumption as solid. Whether it's cognitive dissonance or not, it is built on relatively solid foundations, including a labour market which is on track with our expectations, a housing market which we expected to decelerate but has not yet turned. Core inflation – and I'll nod to Jamie's build – but certainly relative to expectations core and other are building as expected and the exchange rate move the extent to which it is retained, would at a minimum reinforce those.

I'm not so, well I'm not as impatient as Jan or Andy, if I listened carefully, I can foresee scenarios where interest rates could go down. I'm very cautious, though, about sending an inadvertent message, given Brexit that it would imply lower interest rates. It's not at all clear to me that that would be the path although it's also absolutely clear to me that that's not a call that we need to make, so I would, I think we would have to have a good discussion about language. I do think that the way the language is currently crafted, and we oughtn't to be wedded to language, but is currently crafted as more than likely to, more likely than not to be higher at the end of the forecast horizon, and I think that captures where I continue to be. So I expect later this week to vote for no change Bank Rate and no change in asset purchases, as I believe that if I count correctly everyone else, the current intent that we will confirm or change those intentions later this week.

So with that I might stop the discussion. But I'll just raise one thing we keep tapes on. Andy, you referenced one thing and I didn't want to interrupt the flow, but you suggested that we shouldn't speak about, and it was a slight straw man because you said "limitless" ammunition, or words to that effect, in terms of the various tools we have. We have been referring to them, from memory, in our letters. I can't remember if we always refer to the options we have, we refer to them in the minutes as well.

Ben Broadbent. I don't know how specific we are, I think we are…

Governor Carney. It's something akin to, we have the ability to move towards a lower ...

Ben Broadbent. We say further towards zero, I think we mentioned asset prices and we also talked about the yield curve.

Governor Carney. Do you really want to take that on? I mean it'd be curious to …

Andrew Haldane. So the context here was discussing more extreme measures, than those we've already got on the table, and I'm thinking about negative rates, in particular, so it is in the context of going beyond that which we have already discussed.

Governor Carney. Ok, helpful clarification, I had misunderstood. Because obviously our language is towards zero as opposed to continuing to go – understood. Ok, so that's good for now, unless anyone has any other business we will close this bit of the meeting, or this meeting rather.

A meeting of the Monetary Policy Committee was held on Wednesday 16 March 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

The following members of staff were present:

Gareth Ramsay, Director, Monetary Analysis
James Bell, MPC Secretariat
Simon Hayes, MPC Secretariat
Chris Young, MPC Secretariat
Matthew Tong, Deputy Editor of Inflation Report

Transcript of the Monetary Policy Committee Meeting on

Wednesday 16 March 2016

Governor Carney. Ok. Good morning everyone. Welcome to the Decision meeting here. I'd like to start with two things. The first, if Minouche could give us a brief update on recent market moves and then I'll turn to Andy for any update on data since we met two days ago, so …

> **Nemat Shafik.** Since our February meeting there have been further falls in UK short-term interest rates with the three-year instantaneous forward rate down eight basis points, now at 0.79%. The date at which the UK OIS curve crosses 75 basis points was July 2018 at the time of the February MPC it then moved out into 2020 when we have that financial market turbulence, it's now come back into January 2019 and we now have only a very small chance of a rate cut priced in so the curve has flattened even further. Sterling has depreciated further with the effective exchange rate having fallen around 3.5% and the price of a broad range of risky assets has increased with the FTSE All Share around 3.5% higher. The only other thing I'd say is that we have had some improvement in UK 5-year 5-year inflation swaps which have risen 11 basis points since the February MPC, so a positive piece of news on inflation expectations.

Governor Carney. I have just two things. So, since Feb the currency ERI move…

> **Nemat Shafik.** The ERI move since the February MPC data cut-off. The ERI was 88.3 and it's now 85.4.

Governor Carney. Ok, so that's consistent …

> **Nemat Shafik.** So a 3.3% change.

Governor Carney. And then, the 10-year …

> **Nemat Shafik.** The 10-year gilt yield, is that what you want, sorry …

> **Gertjan Vlieghe.** Meeting to meeting or average to meeting? … 145 to 155 …

> **Nemat Shafik.** The 10-year gilt is 1.53 as of this morning.

Governor Carney. Ok, good, and then just last thing. On the probability of a rate cut I think it's basically the Sonia spread, that the curve is pretty flat at 45 …

> **Nemat Shafik.** How flat is it, I can give you exact numbers. It was 46 basis points, it's now only slightly downward sloping by one or two basis points at its trough in October so it had a downward trough and now that's almost virtually flat, it's literally one or two basis points.

Governor Carney. Thanks Minouche. Andy, labour force is coming out this morning …

> **Andrew Haldane.** It is, we heard about that on Monday, so nothing to add to that, just three very small bits of international data if I may. Firstly, and continuing from what we said on Monday, we now have the January industrial production data for the whole of the euro area, we had it for the core on Monday remember. That came in very strong, up over 2% on the month and that's sufficient for the staff to have nudged up their nowcast for the first quarter in the euro area to 0.4%. Secondly, from the Bank of Japan, they left policy on hold but revised down their outlook for the economy. That was partly on the back of their own weak industrial production figures in January, which were down three and a bit per cent. And then, finally, in China it's been a bit of a mixed bag on the data, but weaker industrial production and retail sales offset some extent by somewhat stronger fixed asset investment. The staff nowcast remains unchanged for now in China. Thank you. No UK data.

Governor Carney. So let's turn to the decision on both Bank Rate and asset purchases and I'll go in the same order starting with Ben.

> **Ben Broadbent.** I confirm my vote for no change on either Bank Rate or the stock of purchase assets.

Governor Carney. Thank you. Ian.

Ian McCafferty. No change, no change.

Governor Carney. Jan.

Gertjan Vlieghe. No change, no change

Governor Carney. Minouche.

Nemat Shafik. No change, no change

Governor Carney. Andy.

Andrew Haldane. No change, no change.

Governor Carney. Kristin.

Kristin Forbes. No change, no change.

Governor Carney. Jon.

Jon Cunliffe. No change, no change.

Governor Carney. And Martin.

Martin Weale. No change, no change.

Governor Carney. I also vote for no change in Bank Rate and no change in the stock of asset purchases so can confirm that's 9–0 for both propositions if you will for no change for Bank Rate, no change in asset purchases. Alright, so that will conclude this bit of the meeting. We'll meet this afternoon to write the minutes which will be released tomorrow morning.