BANK OF ENGLAND

MEETINGS OF THE MONETARY POLICY COMMITTEE
February 2016

A meeting of the Monetary Policy Committee was held on Monday 1 February 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
Fergal Shortall, MPC Secretariat
Simon Hayes, MPC Secretariat
Melissa Davey, Editor of Inflation Report

Transcript of the Monetary Policy Committee Meeting on

Monday 1 February 2016

Governor Carney. Good morning everyone let's kick off. I do not have any pre-releases so we'll start with Andy.

Andrew Haldane. Thank you. There's been a fair amount of international data that is covered largely in the background notes, I'll just canter through that if I may. For the euro area we had French and Spanish GDP for the fourth quarter, the Spanish number was in line with expectations, the French number a touch weaker. We had euro-area CPI, which was in line with expectations. We have had indicators of both consumer and business confidence across the euro area for January, both of which were a touch weaker, notably, actually, in Germany. And then this morning we have had the manufacturing PMIs for the euro area for January all of which were negative with the exception of Spain – on average down just over a point. In the US, we had the fourth quarter GDP release, although that was weak it was in line with *Inflation Report* expectations. The news flow there as the background note makes clear has on the whole been on the mixed side. We had, of course, the Bank of Japan's announcement on the monetary policy side last week. I won't linger on that as I'm sure you will have all seen it. And then finally on emerging markets, we have had two Chinese manufacturing PMIs for January, one a bit weaker, one a bit stronger. We have also had a non-manufacturing PMI for China in January and that was a bit weaker. And just to show that all of my news flow is not relentlessly negative, the PMIs for India and Russia were both sharply up a bit, so it's not all …

Martin Weale. Sorry, could I ask one question please? The PMIs for the continental countries, were they pointing to continuing expansion or a decline in output?

Andrew Haldane. So in the main those are still - with the exception of Greece - above 50, if you take 50 to be the metric for expansion versus contraction. Some for example in France are at 50.1, so I guess that's sort of on the cusp.

Martin Weale. Thank you.

Andrew Haldane. And just finally on the UK, there are a couple of things there. We got the consumer confidence numbers for January after our last meeting. Although they didn't contain huge amounts of news, they were pretty flat and we also had the REC survey results, and they too were flat, be it vacancies, employment or wages. That's all, thank you.

Governor Carney. Thank you very much, okay, so we'll start with Ben please.

Ben Broadbent. Thank you Governor. Good morning everybody.
In the latest full set of national accounts estimates for the third quarter, UK GDP growth was revised down materially. Our latest *Inflation Report* attributes the bulk of this to weaker growth of underlying supply. I think this is reasonable – most of the revisions apply to a period a year or so in arrears and obviously leave unchanged the more direct indicators we have of spare capacity in the economy, including those in the labour market. And it means my impression of the appropriate policy judgement is also broadly unchanged.
Before explaining that in a little more detail, let me first cover some of the international developments, over the past month and during the period since the previous *Inflation Report* in November. Global growth slowed sharply in the fourth quarter of last year. Weighted by UK export shares, world GDP rose by only 0.4% between the third and fourth quarters – the slowest quarterly rate since mid-2012.

The survey indicators are not quite so pessimistic. Taking the euro area and US together, the weighted PMIs, for example, are consistent with a quarterly growth rate of over 0.5%, twice that in the official data. It's possible that these survey measures are picking up better the trend in final output which has been stronger – in the US, part of the weakness in GDP reflecting a significant negative contribution from stock-building. And, of course, employment has continued to grow relatively strongly as well. In the United States, non-farm payrolls were up 0.6% in the fourth quarter of last year, and by close to 2% through the course of 2015 as a whole. The counterpart is a much slower rate of productivity growth than expected a year ago: a problem familiar to us. Employment

is a lagging indicator, particularly in Europe, but for the time being the rate of unemployment continues to fall in both economies.

The other significant developments over the past quarter have been in financial and wholesale commodity markets. The moves in the past month in particular are relatively small: equity prices are down only slightly and the price of Brent crude oil is actually up a bit, by $3 per barrel. But it is nonetheless $16 per barrel lower than in November and advanced-economy equity prices have fallen by over 6% during the same period. Share prices of commodity-producing firms have seen larger falls than this, but the fall has been broadly based. Yields on government bonds in advanced economies have also fallen materially. Some of this can be attributed to the effects of lower oil prices – somewhat surprisingly, this effect extends to longer-term breakeven rates in US Treasuries and, to some degree, in euro yields as well. But those breakeven rates appear to have declined by more than – more than can be explained by the normal effect of lower oil prices – in the US, and global real yields are also lower as they are in sterling markets. Last, but certainly not least, sterling's exchange rate is down materially. On a trade-weighted basis the 15-day moving average has fallen by over 3½% since the November *Inflation Report*, the largest intra-*Inflation Report* move since the big declines during the global financial crisis.

What does all that mean for our inflation forecast? Well, on balance, not that much it turns out. As I say, I think we're right to attribute the downward revision to estimates of UK growth mainly to supply. Most of them apply to periods long enough ago where one might have expected to see some impact on nominal things. Our more direct measures of spare capacity, which have continued to evolve as expected since November, are not affected. And, although wage growth has been weaker than we thought it would be, I continue to attach some weight to shifts in these compositional effects, and note that the surprise in unit costs in Q4 is smaller than that in wages and statistically insignificant. We have lowered our forecasts for near-term growth in both wages and unit costs in the latest *Inflation Report*. And, for me, neither the relevant wage suite models, those that put a high wage on spot inflation for example, nor the latest intelligence from our own Agents point to an additional downside risk on top of this.

Regarding the future evolution of the output gap, and the pressures on inflation from now on, we have made two offsetting judgements: demand growth is weaker, partly reflecting a weaker projection for the world economy; but we have also revised down our assessment of desired average hours. Both seem sensible to me, although obviously if we're uncertain about each on its own, we are surely that much more uncertain about the difference between the two. And on top of that we can identify discrete and very significant risks associated with the sustainability of Chinese capital flows; the extent to which UK fiscal policy affects demand, and in turn is affected by demand; and, of course, the forthcoming EU referendum.

While these specific risks may be novel, we live with uncertainties all the time and they are not a reason for avoiding a decision on interest rates. But, in truth, I see little reason for such change even on the central projection – certainly one to push me towards any need to tighten policy here or to send any signal, via the *Inflation Report*, that such a tightening is imminent. So, less expertly than the late Michael Jackson, I am moonwalking in pretty much the same spot I was a month ago and, indeed, three months ago, and am therefore inclined not to vote any change in policy, either to Bank Rate or indeed to asset purchases.

Governor Carney. Let the record show that Dr Broadbent moonwalked around the MPC table at that point. Thank you Ben. So I have Kristin and then Martin please.

Kristin Forbes. I've recently had some not so subtle hints (Jon!), that you were looking forward to my winter update on US weather effects. Since a large storm just hit the mid-Atlantic region, and US Q4 GDP growth slowed sharply, this seems the appropriate time for an update. Then I will shift to the issues of trend growth and global storms.

Just as last winter, the recent US storm generated headlines. Record flights cancelled. Predictions of record snowfall. On a more morbid note, several deaths from heart attacks while shovelling. But, as for any event, it's important to look beyond the headlines. The snowfall was impressive – but according to the official measurement at Reagan Airport it was only 17.8 inches. Solid, but not spectacular. Just like recent US and UK GDP growth. And just like growth estimates, there are

questions on data accuracy. Snowfall reported at nearby Dulles was over 60% greater; rumours suggest that the measuring equipment at Reagan failed because it was lost in the snow.

Measurement issues aside, the economic effects of the storm should be small – and certainly not of last year's magnitude. The recent storm's timing over a weekend will minimize the impact on business, and one storm has less effect than the nonlinear effect of several. If anything, unusually warm US weather, until recently, has provided a small boost to US employment and GDP growth; Goldman estimates it increased non-farm payrolls by 80,000 jobs and raised Q4 GDP growth by 0.2 percentage points. One must look at other factors than the weather to explain the weak Q4 GDP growth of 0.2%. The slowdown appears to stem from a mix of temporary, medium-term and more permanent factors.

The temporary factor is an inventory drawdown – estimated to detract about 0.1 percentage points from Q4 growth, with more to come in Q1. The medium-term factor is the dollar's 25% appreciation combined with weaker global trade and manufacturing. The sharp 5.1% fall in US durable goods in December supports this; this is the largest annual decline in US durable goods orders outside a recession since records began in 1992. Manufacturing will continue to detract from US growth as the effect of a stronger dollar is in its early stages.

On a more positive note, only 9% of US jobs are tied to manufacturing and manufacturing is only 12% of total output. If the US can maintain momentum in other sectors of the economy, it should maintain solid growth. Most data suggests that it should: strong consumer confidence, robust employment gains, the equivalent of a tax cut from cheaper energy, plus loose fiscal policy. Robust private sector demand should balance weakness in manufacturing and exports. Sounds familiar.

Longer-term, another similarity between the US and UK is slower trend growth – even after demographic effects. This is increasingly difficult to explain as a lagged effect of the crisis and seems primarily to reflect weaker supply, especially slower productivity growth. Recent Fed analysis highlights that severe recessions generate a sustained and sizable negative impact on the level of output (which we knew), and growth often does not recover to previous trend, which we were less clear on. Estimated output gaps only close slowly, usually through downward revisions to potential rather than stronger growth. Forecasting models and policymakers tend to be slow to realise this, so they overestimate potential growth for some time.

This warning resonates in recent data. UK Q4 productivity growth will likely be around –½%. Although we know not to make much of one quarter, annual productivity growth will be only about 1% for 2015. This is an improvement over recently, but still sharply lower than pre-crisis and hard to explain given the broader recovery. If trend productivity growth is closer to 1% than the 1¾% in our forecast, then only a moderate pickup in wage growth is needed to be consistent with our inflation target. This is also an issue in the US. Wage growth through Q3 was weaker than in the UK by most measures, but productivity growth was weaker still, so that US unit labour cost growth in the private sector was 3.0% in Q3.

Moreover, the recent supply stocktake and analysis I did for a recent speech suggest that one is hard pressed to find slack in the labour market in either economy. Our updated top-down filtering estimates of UK slack were informative. Not for the exact number they popped out – but rather how the estimates changed after incorporating recent downward revisions to GDP growth. Just as the previously mentioned paper predicted, this yielded lower estimates of potential output and the models took some time to catch this downward shift due to the lags used in filtering.

Finally, there are other storms brewing in the world – China and emerging markets. Just as with US snowstorms, there are economic risks, especially for those economies (and shovellers) not in good shape. Azerbaijan's and now Nigeria's requests for financial assistance from the IFI's is undoubtedly the first of several oil exporters. Market volatility will continue as oil exporters grapple with lower oil prices and China transitions to slower, more consumer-led, growth. A Chinese devaluation would undoubtedly create a storm – consider the volatility after its 3% August devaluation. But it will be important to look through this volatility, assess what the real effects are, and how any adjustments – even if disruptive in the short-term – lay the groundwork for medium-term sustainable growth. Japan's move to negative interest rates showed that central banks still have tools – and the will – to provide support if needed.

Increasingly important parts of these adjustments are the corresponding major shifts in global capital flows and their impact on currencies and credit conditions in different markets. Oil exporters have shifted from being large net capital exporters (averaging financial outflows of about $400 billion per year from 2010 to 2013, according to the IMF) and now they are liquidating investments. China has shifted from accumulating reserves (averaging about $360 billion per year over the same period) to outflows probably double that in just the last 6 months. Asset purchases from the ECB and Bank of Japan provide some counterweight, but the shifting demand for specific assets will introduce additional volatility to asset prices and currency markets.

To conclude – what are the implications for the UK? The intersection of risks from these global transitions, combined with the Brexit vote, could magnify volatility. But UK fundamentals remain solid and barring major surprises, should support continued solid, albeit not spectacular, growth. Headline inflation is on track to gradually pick up as the effects of cheaper energy fades, and the tighter labour market feeds through into wages and domestic costs.

If anything, this forecasting round felt different than past rounds in the sense that upside risks to inflation after a year have increased to me. Unlike past rounds, there were no 'nudges' supporting inflation in the forecast – instead we had to find ways to 'nudge' it down (such as widening the output gap). The 'unexplained' bars after incorporating the suite models now weigh down on our inflation forecast – not up. Some of the nudges could certainly be justified – such as building in slower wage pickup given persistence in this series and low headline inflation. But while the forecast incorporates substantial downside risks, it doesn't incorporate some plausible scenarios that would generate a faster pickup in inflation – such as faster second stage pass-through and slower long-term productivity growth. If these occur, we should be increasing rates today. But this hinges on trusting that the tightness in the labour market will feed through into more momentum in wages and unit labour costs. This momentum is not in the most recent data. I continue to expect this to occur, but I want validation. Therefore, I am likely to vote for no change this month.

Governor Carney. No change, no change?

Kristin Forbes. No change, no change.

Governor Carney. Thank you very much. Martin and then Andy please.

Martin Weale. Well thank you Governor. Jon commented last month that it's difficult to follow Kristin and I'm not really rising to the occasion. Anyway, the last month has seen considerable volatility in asset prices, probably as a result of concerns about China's economy. Growth there was at its lowest for twenty-five years and there are expectations of a further renminbi depreciation against the dollar fuelling a capital flight. It remains to be seen whether the worst of the disturbances in international financial markets is now over.

Supported most recently by a move to negative interest rates in Japan, share prices are markedly higher than their lows of a couple of weeks ago. The FTSE 100 index is back to where it was in early January. The FTSE 250 index, which is a better but hardly a good indicator of domestic prospects is weaker, but, looking at changes over twelve months it, unlike the FTSE 100, has held its own. Of course, since yield curves have fallen, that could still be seen as a weak signal, or at least as an adjustment to the weaker growth we saw last year. Anyway, daily movements remain large, probably pointing to unusual sensitivity to market news. A high short-term correlation between asset movements here and those in the United States persists, notwithstanding separate monetary policies and different economies. To the extent that the United States market is being depressed by a belated realisation that it too is affected by the productivity puzzle, we may see that acting as a drag on sentiment here as well.

The exchange rate has fallen by about four per cent since the November forecast. Over January the effective rate fell by about two per cent, and the euro rose by over three per cent. Nevertheless, my sense is that, judged in terms of levels rather than movements, the euro, at over €1.30 to the pound, still leaves margins on exports to the Continent rather squeezed and delivers favourable margins on exports from the euro area to Britain. Sterling is high rather than low.

The weakening exchange rate might suggest that Britain is seen as an increasingly risky prospect or at least one that, relative to other economies is less appealing. This does not, however seem to

have affected the gilts market where prices have been generally firm. The forward yield curve has fallen since the start of the year, with the largest declines at the short and long ends of the curve. The yield on zero coupon twenty-year stock has fallen by 0.17 points with nearly all of that being a fall in real yields. Long-term inflation expectations have not moved materially. All told this seems to me to imply that the message from financial markets is mixed. Prices of gilts do not suggest that the UK is seen as increasingly risky and the higher risk premium on corporate bonds does not look so far as though it is having an impact on bank funding costs. The yield curve on bank liabilities fell more in January than did the yield curve on government debt and staff analysis shows that bank funding spreads are lower than they were at the time of the November *Report*. Perhaps this indicates that market concerns are, for once, focused on businesses other than banks. On the other hand weak share prices raise the cost of equity finance and higher corporate bond yields point to a higher cost of debt finance. A key concern would still be a marked increase in banks' cost of funding feeding through to higher loan charges for clients. That has yet to happen.

Given this backdrop of volatile markets, the GDP figures for 2015 Q4 were reassuringly boring. The growth rate of 0.5 per cent was in line with our expectations, although lower than the 0.6% which had been forecast in November. I draw some comfort from these figures because three months ago it was possible to imagine near-term effects on confidence arising from what were already then unstable financial markets and commodity markets. On the other hand, perhaps there are increasing indications that news from the markets is starting to take its toll here in Europe. The UK CIPS expectations indicator points to weaker domestic growth in Q2 while the ifo index fell materially and the indicators produced last week by DG-ECFIN for both the [euro area and the EU][1] as a whole declined in January. January manufacturing PMIs are weak but generally still pointing to expansion. Overall perhaps our forecasts for the current quarter and the near future are on balance at downside risk.

I remarked last month that two good quarters for productivity did not make a summer and so it has proven. Winter has come to productivity if not meteorologically. Hours worked are estimated to have increased by 1.1% in Q4 with both employment and average hours up; output per hour has declined sharply. This news on average hours worked does not, of course, on its own contradict my view that higher wage rates push down somewhat on hours worked. No model should be expected to account for all short-term movements, and attempts to explain short-term movements may result in over-diagnosis. But slower prospective growth in real hourly pay, as a result of the exchange rate depreciation, may imply a marginally smaller decline in hours than we had assumed. My immediate response to Kristin's comments on productivity all felt like: been there, done that. We certainly revised down our estimates of supply fairly sharply several years ago, I would like to be confident that, as our forecast assumes, the weak productivity figures do not presage a return to the period of stagnant productivity. With the puzzle remaining poorly understood, only time will tell. Attention often focuses on the connection between structural policies and productivity growth, but the impact of these is probably weak. An OECD study in 2013 suggested that only about 20% of the variation in productivity in the advanced economies could be explained by structural variables and also that variable by variable studies overstated the overall importance of each issue.

We have rightly considered the possibility that low inflation could lead to low wage growth which would re-inforce low inflation. Gertjan remarked that monetary policy should not wait to react until it was absolutely clear that this had happened, and I agree completely with that general principle. To repeat what I have said previously, in the world of policy-making, if you wait until you are sure, you can be sure that you have waited for too long.

That said, there were three reassuring pieces of evidence. The first was the Agents' reports on settlements which pointed to wage settlements being slightly higher than last year, despite a year with no inflation. Secondly, the monthly figures for Average Weekly Earnings suggest that weekly wages have been growing in the last couple of months after two months of slight decline. This is not a strong signal. There is a large random, and thus inexplicable, component to short-term fluctuations in rates of wage growth, but it is positive news. Finally our forecast was produced on the assumption that there is an interaction between actual inflation and wage growth, and that still reassured me that that the most likely projection for wage growth is of substantial recovery.

[1] MPC Secretariat clarification.

A striking assumption underlying our forecast is a marked decline in the profit share and if this decline is somewhat smaller than assumed, as indeed a time-series analysis implies, my successor may well be grappling with above-target inflation. There are always upside as well as downside risks and my own view is that inflation in year three is likely to be further above target than our forecast shows. But that does not need immediate action, and this month I expect to vote for no change to Bank Rate and no change to our stock of assets.

Governor Carney. Thank you very much Martin. Perhaps we should have Kristin last all times so no-one has to follow her. I have to follow her. That's no good. Andy and then Jan please.

Andrew Haldane. Thank you Governor. In 1942, investment banker Sidney Wachtel observed that stock markets tended systematically to out-perform in the first calendar month of the year. Thus was born the "January effect".

The existence of the January effect remains a point of academic contention. Nonetheless, since 1942, stock markets have risen in January by on average 1.5 percentage points more than in the remaining 11 months of the year.

With global stocks having already fallen by 8% this year and by 20% from their peak level in 2015 if we did believe in a January effect that may give us cause for concern about what the rest of the year might hold in store.

Some of these price falls have of course been directly related to oil and other commodity stocks, whose prices have fallen sharply further.

But even after stripping those out, the price of UK shares are down around 4% and global shares around 6% since the previous MPC.

And that pattern is mirrored in debt markets, where investment grade spreads have risen by between 10 to 25 basis points, and sub-investment grade spreads by 30 to 40 basis points. And unlike during last year, that rise in spreads is not confined to non-oil and commodity-related firms being as great as non-commodity companies.

On the face of it, these are not the correlations we would expect if oil price falls are boosting the profit streams of non-commodity companies and thus global growth.

That would tend to generate a negative correlation between non-energy equity prices and oil. In fact, what we have seen globally, as well as in the UK, US and the euro area over the past few months is a consistently positive correlation between oil prices and non-energy stock prices.

Indeed, that positive correlation has existed over much of the period oil prices have been falling and has been mostly, if not always, statistically significant at the 95% level.

This asset price correlation poses something of a challenge to our standard story about the link between oil prices and higher global growth.

One explanation could lie in us having under-estimated the contractionary impact of lower oil on commodity exporters and perhaps as evidence of that in the progressive down grade to emerging market growth prospects that we and others have been making. As a matter of theory, sharp movements in oil prices – in either direction – could be contractionary for global growth if financing conditions bind for the net losers from those movements in a way which raises their marginal spending propensities relative to that of the net gainers.

In other words, financing constraints could mean there is a natural asymmetry in the global growth response to a sharp terms of trade shock.

Whether this can fully account for the asset price correlations we have seen recently, however, strikes me as more doubtful.

For example, the terms of trade benefit to oil-importers would still be expected to boost non-energy equities, not lower them as we have seen.

An alternative, more plausible, explanation lies for me in risk premia in equity and debt markets.

Here, a combination of recent events – including extreme movements in the price of oil, the rebalancing of the Chinese economy, geo-political uncertainty and, latterly, concerns about world growth – might have raised the compensation investors require for risk-bearing.

The simultaneous downwards movements in risky asset prices, both across asset classes (debt, equity and commodities) and across a range of countries, would support that hypothesis.

Correlations among high-yield debt, equities and commodities the UK, US and euro area have risen since mid-December to between 0.4 and 0.7. And the negative correlation between oil prices and the equity risk premium in the UK, US and the euro area has also picked up notably over the past month or so.

And as Jan and Minouche said, with inflation break-evens and sterling now also trading like risky assets, that flight from risk may also help account for their falls.

The key question, then, becomes whether this rise in risk premia within financial markets is persistent and thus whether it transmits itself to the wider economy.

If we concluded that this was no more than a "January effect", I think its impact on the economy would likely be relatively modest. The movements over the month in debt and equity spreads would only add a few basis points to the real cost of capital for an average company because they have been almost matched by a fall in safe rates.

The concern would be if these effects persisted and extended – if you like if the "January effect" became a "January to June" effect. And the likelihood of that probably depends importantly on what underlies the rise in the risk premium in the first place.

For example, if its source is China transition risk or geo-political uncertainty, those effects seem unlikely to dissipate quickly. If it is instead oil-related or a short-lived world growth scare, it is possible – as we saw in the Autumn of last year – that those concerns may prove more ephemeral and their impact on the economy modest. At present, it is difficult to know. That means there is probably option value in waiting to see.

Nonetheless the fact that this is the second equity-market-cum-world-growth scare in six months is, I think, significant. That's symptomatic of brittle confidence at least in financial markets. And for all its well-known false positives, the equity market was the one market that foretold of some of the banking horrors that played out during 2008.

Turning finally domestically, there was little in the activity indicators, including the fourth quarter GDP release, to call into question the growth story told in this time's or indeed earlier *Inflation Report*s. It remains on the nominal side that the bigger uncertainties remain.

I am pleased we have the downwards adjustment to the near-term wage projection in the *IR*, to reflect the effects of expectational persistence. Even with that adjustment, however, my judgement is that the risks to our inflation, and to wages, projections remain still skewed a little to the due to one or more of the following:

First, for a flatter Phillips curve than is currently assumed, that might arise from some combination of higher actual or more likely prospective migration, higher substitutability between capital and labour and the effects of low inflation itself on 'going rates' in the labour market. Second, a potentially lower NAIRU, in part due to improvements in job-matching technology. I think there is some chance the NAIRU might be closer to 4% than 5%. And third, the potential for low levels of measured inflation expectations among companies and households to impart a longer-lasting drag on wages and prices.

As with the world, these are all risks rather than realisations. Nonetheless close to the zero lower bound. I think it's wise to weigh these risks more heavily in our monetary policy strategy than in normal times. And it's also important externally that we communicate that we have the policy insurance necessary to cushion these risks were they to materialise.

For those reasons this month I am minded this month to leave unchanged Bank Rate and the stock of purchase assets with a neutral stance on the next move in both. Thank you.

Governor Carney. Thank you Andy. Jan and then Jon, please.

Gertjan Vlieghe. Thank you Governor. Last month I summarised global markets as having oscillated in a risk-on, risk-off range since August, and many markets are back approximately to these August lows. There are four interesting exceptions: EM equities, credit, sterling and oil prices, which, in the past ten days, have hit levels that were much lower than in August.

The fact that EM equities have performed so badly, together with the fact that risk-off episodes have often coincided with movements in the exchange rate in China, tells me that pessimism about the global economy remains centred on pessimism about emerging markets, and the resulting impact on the rest of the world. It seems to be some combination of worries that their growth rates will be persistently lower, and fears that their slowdown could yet evolve into a crisis. Fears of an EM crisis are probably related to the fact that emerging economies experienced an even sharper run-up in indebtedness in recent years than advanced economies did in the decade before their own crisis.

It's important to keep in mind that even though the Chinese exchange rate is often an initial trigger for a bout of heightened risk aversion, it is not the impact of a weaker exchange rate per se that is the main concern. Rather, it is the fact that a weaker exchange rate might be signalling heightened pressure on the Chinese economy from capital outflows, which could tighten financial conditions severely. Another possible cause for concern is that any exchange rate weakening could also be interpreted as a move by the Chinese authorities to re-emphasise short-term growth at the expense of longer-term domestic and external rebalancing, which shows the daunting scale of the problems they face.

Credit spreads have been widening steadily for nearly a year now. Initially, there was a temptation to write this off as merely a side-effect of lower oil prices, which affected US companies directly involved in oil extraction. But the widening has been spreading to other currencies and non-energy sectors. We seem to be witnessing a steady tightening in market-based credit conditions, the source of which we have not yet fully understood, but the consequence of which is a clear negative for growth, or at least a negative for growth at a given level of risk free interest rates. Heightened global risk aversion and the realisation that secondary credit-market liquidity is permanently lower both seem to be playing a role.

Sterling exchange rate weakness has been the fourth asset price that has broken out of its range. You will note I skipped oil prices, because I have nothing new to add relative to our discussion in recent months. The broad trade weighted sterling index is nearly 7% off its highs of last summer. Looking at the depreciation in recent months, I see clear evidence of three driving factors: (1) the expected path of policy rates has fallen more in the UK than in the US and the eurozone; (2) there is heightened concern about Brexit risk; (3) increased global risk aversion tends to weigh on sterling, a common pattern seen among high current account deficit countries. One way to achieve some sort of identification of these factors is by analysing the movements over shorter time periods. For most of the month of November, the market re-assessed the prospects for relative monetary policy paths, and UK short-term interest rates fell by more than those in the eurozone and US, triggering sterling weakness driven by interest rate differentials. For most of December, sterling continued to weaken, but interest rate differentials were moving the wrong way, i.e., in sterling's favour. There was relatively little change in global risk appetite over that period. There was, however, a sharp rise in sterling risk reversals as expectations firmed of a summer EU referendum. In the first few weeks of this year, sterling continued to weaken against the dollar while interest rate differentials moved little, risk reversals moved little, but global risk aversion in financial markets increased sharply. So I interpret the November FX moves as driven by interest rate differentials, the December moves as driven by Brexit risk, and the January moves as driven by increased risk aversion in global financial markets.

As was the case in August, I think some of the concerns in global financial markets are justified, and indeed sharp downward revisions in many forecasts of global growth since then support the case. As does the fact that Q4 was the weakest non-crisis global growth quarter in about 15 years. And the fact that two large advanced economy central banks, the ECB and the BoJ, are still adding stimulus.

As was also the case in August, the current risk-off episode might not last. In China the cumulative effect of earlier fiscal stimulus and housing stimulus could provide some better near-term data. However, frequent recurrence of these bouts of global risk aversion, together with the tightening in global credit markets, might start to weigh on business sentiment, in turn feeding into investment and hiring decisions. I believe the risks to global growth remain tilted to the downside, even if the Q4 global growth weakness will turn out to be partly erratic.

Turning to the domestic data, GDP growth looks to be stabilising around 2% annualised after the earlier slowdown. Some surveys support the picture of stabilisation. On the whole, that's encouraging.

At the same time, we have had a sizeable downside surprise on wages relative to the November forecast. As I keep emphasising, it is not just that AWE growth weakened from a temporarily high growth rate in early 2015, it is that a broad range of pay-related indicators fail to show significant and sustained upward momentum even with the unemployment rate down to 5.1%.

In December, I considered three explanations for the wage weakness: persistently low inflation; more slack; and a bigger effect from increased immigration. All three explanations have the feature of either flattening or shifting down the Phillips curve. A flattening or shifting down of the Phillips curve is also consistent with the pattern of forecast errors over the past few years: namely persistent downside surprises in wage growth, including during a period when the unemployment rate fell faster than expected. I think the downward adjustment to the near-term wage profile in our February forecast is therefore entirely justified.

I had previously discussed the housing-wages-consumption nexus. 2016 is likely to see a markedly lower rate of real household income growth, and I think a reasonably strong housing market is necessary to justify the kind of savings rate decline that we are pencilling in. The downside risk to housing activity from the housing-specific fiscal measures remains in place. But it was always going to take time to play out. We are starting to see evidence of a boost to housing turnover as we approach the April stamp duty change. We will see a fall back almost certainly immediately thereafter. The key is what happens after that. And I agree with staff conclusion that we will not know the underlying state of the housing market until late in the year.

On the residential investment side, there are reasons to be more optimistic over a slightly longer time horizon. Price rises and a supply shortage are a good base for the medium-term outlook. And even though small private landlords will be hurt by the fiscal measures, larger companies will not, and I think the emerging "build-to-let" industry is promising.

On business investment, I continue to see improved loan growth, increased bank credit availability as supportive, and strong investment intentions surveys are encouraging. The risks to business investment are from the global environment and from referendum-related uncertainty. It remains to be seen whether referendum concerns will result in some investment plans being temporarily put on hold.

Thinking about my own monetary strategy, I continue to see two pre-conditions for a hike in Bank Rate. (1) I want to see growth not slowing further relative to supply. Recent news has been encouraging on that front, although risk from the global economy, from domestic politics and from fiscal policy, remains skewed to the downside. (2) I want to see broad-based upward momentum in a range of price and cost indicators. We are still some way off on that front.

I am therefore minded to vote for no change to Bank Rate and the stock of purchased assets.

Governor Carney. Thank you very much Jan. Jon and then Ian please.

Jon Cunliffe. Thank you very much. I have no weather-related points in this, I'm afraid. The main news internationally was the continued deterioration in global financial markets. There have been further fall in equity prices and increases in investment grade and high-yield bond spreads, though a market rally late last week made up some of these falls.

There doesn't, as we've discussed, seem to have been enough hard economic news to justify these market moves. There are perhaps a few possible explanations.

The first is renewed concerns about a sharper-than-expected correction in Chinese growth. For example, the share of investors in the Bank of America Merrill Lynch survey citing 'China recession' as the top tail risk increased from 33% to 45%. And I have some sympathy with this concern. Chinese policymakers have used up policy space; are facing large capital outflows; a huge ramp up in credit in the economy; and a transition towards a more consumption and a services orientated economy that history suggests is hard to manage without a material disruption to growth at some point.

Second perhaps, a weakness in US growth. The staff nowcast for Q4 is just 0.2%. US retail sales fell by 0.1% in December; vehicle sales were down 4.7%; and industrial production fell by 0.4%. This weakness is stark but it should be short lived. There have also, as has been said, concerns about US productivity growth which has been exceptionally weak over the last five years.

And third, the fall in oil prices has further weakened oil exporters, notably Russia and Latin America. This might explain the unusual dynamic we've seen recently, whereby increases in oil prices lead to equity market rallies.

Markets are driven by more than rational expectations and hard data. They are susceptible to herding and to narratives. The risk is that, even if the market moves are not well-founded, they become self-fulfilling as uncertainty and tighter credit feed into spending and investment decisions. In addition, Sterling has tended to depreciate during times of risk aversion which, if the movements are sharp, could raise doubts among external providers of finance to the UK.

Overall, whether the moves in financial markets reflect genuine concerns about growth prospects, unfounded pessimism, or just risk aversion, I think the downside risks have increased.

Movements in the yield curve and the exchange rate should however provide some offsetting boost to UK output and inflation. The yield curve has fallen by 40 basis points on the month and 25 basis points since the November *IR*. The exchange rate has fallen by a significant amount on the month and by even more since the November *Inflation Repor*t. And it's conceivable that moves in the exchange rate could come through more quickly than we expect as Kristin has argued, though identifying the source of the shock is not straight forward.

The big picture domestically is more of the same. Demand, although a little softer, continues to be held up by consumption and business investment on the expenditure side and this is expected to continue in our February forecast. On the output side, recent growth has been driven almost entirely by services – and consumer services.

There is, however, a notable and increasing gap between confidence levels about the world, implied by financial market moves and growth downgrades, and the sunny disposition of British consumers. Consumer confidence remains at near record highs and consumption is strong across a range of items like cars, furniture and holidays.

There is a risk that domestic sentiment moves towards global sentiment. Consumer confidence often moves in a non-linear way. The Gfk balance went from -10 at end 2007 to -35 at the end of 2008, and then recovered sharply before being driven back down by the euro crisis. It then went from -25 in April 2013 to zero one year later and has stayed around that level since.

A wobble in consumer confidence may halt or even reverse the recent decline in the savings ratio as precautionary motives set in. The savings ratio, whether relative to total or disposable income, falls to very low levels in the forecast and contributes to the continued strength in consumption. At the very least, it's hard to see any upside risk to consumer confidence.

It's a similar story for business investment. I would have expected business investment intentions to have been more adversely affected by referendum risk; global market volatility; the weakness in manufacturing and the CIPS expectations survey. We may yet see an impact from these factors, though I take some comfort from the downward revisions in our investment forecast.

Overall, to date, domestic strength has been resilient to world weakness and my central case is that continues. But I think risks are to the downside.

On the supply side, on the labour market, the big story remains a relatively tight labour market with muted pay.

Unemployment fell to 5.1% in the three months to November, as expected. This is the lowest rate since January 2006. Most survey measures continue to point to robust employment growth; the vacancies to [un][2]employment ratio is at its highest level since 2005 and job risk – the risk of transiting from employment to unemployment – is at a record low. So the labour market is clearly tight on a number of measures.

There was not much news in the official pay data this month which remains weak. The Agents' pay survey did, however, suggest that more firms expect a pickup of the growth rate of total labour costs per employee in 2016.

So one risk is that pay growth will start to pick up more strongly than expected and inflationary pressure will pop out when the external [dis][3]inflationary blanket lifts. But I am less concerned about this risk for two reasons. First, there might be more labour market slack than we think. I don't want to revisit the supply stock-take but one possibility is that there is more slack than we think in unemployment. Short-term unemployment is now at 2.8% - it's been below its pre-crisis average of 3.2% for nearly two years alongside subdued pay growth and unemployment benefits have been tightened since the crisis.

Second, and probably more important, due to recent energy price falls, low inflation will stay low for even longer. The inflation forecast reaches 0.4% in January and stays at around that rate for the first half of 2016 and below 1% until the start of 2017. So to the extent that very low headline inflation is holding down pay growth – maybe because workers do not consider inflation sufficiently salient to be factored into their decisions – then it will do so for longer than expected. This self-reinforcing interaction between wages and prices should add only temporarily to the persistence of weaker than expected wages but we need to monitor it very carefully.

I take some comfort from the fairly strong profile for wages given by wage equations that include a term for inflation expectations. However, I wouldn't rule out pay growth lagging the pickup in inflation to a greater extent than implied by the model. Overall, I see the risks around our wage profile as balanced.

And staying on supply, our forecast for productivity also strikes a balance between a continued healing process following the crisis and evidence that financial crises often have a permanent impact on growth rates as well as levels. On the healing process, recent ONS analysis, drawing on the Annual Business Survey, suggests that the proportion of firms and employees working at zero or negative levels of productivity was lower in 2014 than at any point since 2008.

So bringing pay and productivity together, I note that nearly all of the standard measures of unit labour costs are either below, or forecast to fall below, their long-run average.

To sum up, I'm broadly happy with the narrative set out in the forecast. There are a number of opposing developments in the economy that will resolve themselves in due course, but I think the risks from that process are to the downside. And so I provisionally vote for no change and no change.

Governor Carney. Great, thank you Jon. Ian and then Minouche please.

Ian McCafferty. Thank you Governor. Good morning everyone. Today I thought I'd dispense with our normal custom of making you wait until the end of my remarks to hear my voting intention. It is easier to signal upfront that the balance of risks around the outlook for inflation now look to have shifted sufficiently for me to pause in my call for a rate rise, at least for the immediate future.
But let me set out what this judgement is based on, as well as, equally importantly, what it is not based on.

[2] MPC Secretariat clarification.
[3] MPC Secretariat clarification.

It would be easy to conclude that the shift in my policy judgement is primarily a reaction to the volatility in financial markets and heavily negative sentiment about the global outlook that has prevailed since the turn of the year. Easy, but wrong. While the downside risks to the global economy have intensified over the recent months, led by increased confusion about policy strategy in China and concerns about financial stability in some emerging markets, there appears little news to alter the modal outlook that we adopted in November.

Clearly, the global economy is in fragile health and vulnerable to a downside shock stemming from either policy error or financial market anxiety. This outlook is quite bi-modal – either we continue to plod on with modest but probably improving UK-weighted global growth, or we succumb to the possibility of a nasty downside shock. The potential shocks that we face have evolved, as Brexit has replaced Grexit, and worries about the cohesion of the euro have given way to fears of renminbi devaluation, but this is a world with which we have had to deal for some time. We can continue to deal with this uncertainty through our treatment of the forecast skews, and I am also happy with our proposed treatment of Brexit risk itself. However, while agreeing with the current downside skew in the forecast, I am also mindful of the likely upside to growth that we could see in oil consuming countries, and particularly the eurozone, from the most recent falls in crude prices.

In terms of the impact on the UK of the recent global and financial market news, the biggest risk looks to me to be less through the direct trade and financial channels and more were it to markedly erode confidence. So far – touch wood – this does not seem to be the case. According to the surveys, consumer confidence remains reasonably robust, and business confidence and investment intentions are holding up. My recent conversations with business bear this out – the mood remains realistic but positive.

More critical to the changing balance of risks around the outlook for UK inflation, and thus to my policy stance, is my judgement on the changing relationship between the real side of the economy and nominal wage growth that we have seen recently.

Since August, I have argued that low and diminishing levels of slack generated significant upside risks to our profile for nominal wages, and hence inflation, by the end of the second year of our forecast.

And as far as the outlook for the real side is concerned, little has changed. We are still forecasting an economy in which GDP growth, combined with our estimates of potential supply, is sufficient to close the output gap well within our forecast horizon, and if anything slightly faster than earlier projections.

But the upward impact of this on wages has been less than I feared last summer, as growth in AWE has slipped back.

While it is clear that growth in AWE has been held back by changes in average hours, and I agree with Ben that the compositional drag remains a factor, this does not appear to be the whole story.

Importantly, it appears that current very low rates of inflation are also playing a significant role in determining nominal wage growth. Demonstrating this is tricky, as our wage equations tend to be based around an inflation expectations term rather than one for current or lagged inflation, on the basis that when used individually the expectations term has slightly higher significance, and when used jointly the lagged inflation term is insignificant. But in most estimations the difference in significance if current inflation is substituted for expectations is small, so it is likely that current inflation can be an important determinant of nominal wages at least some of the time. And having spent a good deal of time recently discussing current wage setting with firms themselves, it is clear that, for most, the current inflation rate forms the strong start-point for their offer calculations at present.

In our narrative on wages, I think it is important to make a clear distinction between current inflation and inflation expectations as the driver. Were expectations to become de-anchored, we would have to worry not only about lower nominal wage growth, but also other potentially deflationary changes in behaviour. But expectations appear on balance to be little changed, and well anchored. It is more that wage setting appears to be an adaptive, rather than fully rational, process, such that the drift

down in the wage Phillips curve will likely prove only temporary, and nominal wage growth will accelerate as soon as inflation recovers.

But if I combine this narrative on wage determination with the most recent falls in crude oil prices, and the later and shallower recovery in headline inflation that results, I am faced with an outlook in which the pickup in nominal wage growth is likely to come somewhat later than I had previously thought. This outlook is not only built into our new forecast, but is supported by the results of the Agents' special survey, which suggested that settlements are expected to pick up only modestly in 2016, from 2.4% to 2.8%. And, while I continue to believe that wages will respond quickly to the eventual pickup in headline inflation, the more persistent weakness in inflation through 2016 does mean that the risks around nominal wage growth are now more balanced in the near term and the upside risks that I see are now focussed further out in the forecast, into the third year. They are thus less critical to the immediate policy decision using an 18 to 24 month policy horizon.

This shift in the balance of inflation risks is sufficient to lead me to stay my hand for now, but I should emphasise that it is more a judgement on timing than any root and branch change to my broader view. The upside risks to inflation posed by the labour market have shifted out, not disappeared. Nor are they my only worries about inflation. I can see a number of other potential upside risks that derive from our forecast assumptions and conditioning paths that could lead us eventually to a rather more marked overshoot than in our new central projection.

First, our calculations of the timing and scale of pass-through are relatively uncertain. Second, our assumption that corporate returns and margins are squeezed, which Martin has already mentioned, such that the labour share rises. Third, our conditioning path for sterling assumes that the exchange rate is not heavily hit by further Brexit risk. And fourth, our conditioning path for oil prices is based on a relatively flat oil futures curve into 2019. Each of these, to me, represents a potential upside risk to inflation in the medium term. So my return to the "no change" camp may not be a long one.

When considering this month's vote, I am slightly concerned about the signal it might send. I believe that the date for lift-off derived from the OIS curve [prevailing at the time of the staff briefing on 27 Janaury][4], the end of 2017, has already receded too far, and I am reluctant to push it further out. Moreover, I am still in favour of a policy of gradualism, such that we start the process of normalisation in sufficient time to minimise the pace of tightening required thereafter.

Nevertheless, we rightly set policy on the basis of the independent judgement of individual members, based on the latest evidence, and on that basis, this month I expect to vote for no change in Bank Rate and no change in asset purchases.

Governor Carney. Thank you very much Ian. Minouche, please.

Nemat Shafik. Surveying developments since our previous forecast was published, it's hard not to come to a conclusion that all the news points in one direction. To illustrate this I want to just give you my interpretation of developments in financial markets and the economic data before ending with what I think it implies for monetary strategy, starting with financial markets.

As I said in our Deliberation meeting, it no longer seems plausible that the persistent weakness in risky asset prices and the continued elevation of volatility reflects a series of idiosyncratic events or a series of unfortunate events as one of my children's favourite books is entitled. It now seems likely that sentiment is being driven by a more pervasive sense of pessimism. Whereas a decline in oil prices would have once been a source of cheer, now it's a source of instability. Whereas the dovish statement from FOMC would have once provided a boost to equity markets, it now causes concern that central bankers have gloomy private information.

One interpretation of financial market pessimism is that the faith in policymakers ability to generate aggregate demand sufficient to match supply has continued to ebb, while the church of secular stagnation has been actively recruiting. Anecdotally this is consistent with reports from our own reserves managers, who say their inboxes are clogged up with references to Summers, De Long and Stiglitz. And it's also consistent with the decline in that summary statistic of faith in inflation targeting – the US five-year five-year forward break-even inflation rate. I am not yet a member of the

[4] MPC Secretariat clarification.

secular stagnation congregation, I still have faith in our institutional arrangements in the ability of central bankers to return inflation to target over the medium term. But I do think that financial markets draw attention to some short-term risks to the inflation outlook. Should the ECB decide to further loosen in March, for example, we could see a renewed appreciation of sterling relative to our largest trading partner. Should the Chinese allow a material depreciation of the RMB, it would put more downward pressure on the price of our imports. And should the dollar continue to appreciate, it would cause further difficulty for emerging markets, with a heavy burden of dollar denominated debt. Put another way, there may be yet more disinflation heading our way from abroad.

So let me turn next to the economic data. While the hard data on the world economy hasn't been bad, relative to our expectations, it hasn't exactly been good either. We've learned that although moderate declines in the price of oil have in the past provided a modest boost to world GDP growth, it doesn't necessarily follow that a large fall in the price of oil would provide a large boost to world activity. The severe recessions in Brazil and Russia are symptomatic of this, and the broader story of capital outflows from emerging markets and associated currency depreciations suggest the story has further to run.

In contrast to the wobbly world, UK growth seems to have been steady in Q4 with strong business services growth, not to mention the highest output of the motor industry since 2005, suggesting that domestic demand remains robust and that the intense media coverage of the EU referendum has not yet manifested in material uncertainty for the real economy. This steady growth has been reflected in the employment numbers. Unemployment has fallen to 5.1%, its lowest since 2005, putting it firmly within the range implied by our estimate of the equilibrium long-term rate of around 5%, and the vacancy-to-unemployment ratio is at its highest since 2005.
But yet, despite these measures suggesting the labour market is the tightest it has been in a decade, wage growth has fallen and although there are some mitigating factors, compositional effects being one of them, I think the fact that unit wage costs have been so slow to pick up does suggest a more generalised weakness in domestically generated inflation. By way of example, all seven alternative measures of unit-labour cost growth shown at Pre-MPC project annual growth to be lower in the first quarter of this year, than six months earlier. I find it plausible that current low-level inflation is exerting some downward pressure on wage growth and I wasn't surprised to see it backed up by the econometric evidence we were shown in the forecast round. After all it is a message we have been hearing from the Agents for some time.

So what does all this mean for monetary strategy? You will have gathered by what I have said that so far I am not sufficiently certain that the resumption in wage growth will be strong enough to warrant an increase in Bank Rate this month.

But what about staff's recommendation that we take a step in the opposite direct and soften the relative emphasis on the MPC's current guidance places on how a tightening of policy is likely to proceed. This has been suggested as a pre-emptive move to soften the surprise factor were we to decide to lower Bank Rate at some point in the future, reducing the risk that such a move would be interpreted as us having negative private information. Although I was glad to receive such a clear policy recommendation from the staff, and it's important that they continue to challenge us in this way, I don't advocate we adopt it yet for three reasons.

First, although I am dismayed at the current weakness in wage growth, I do believe that so long as growth remains steady and the labour market continues to tighten, a pickup in wage growth is inevitable. Second, I think our new forecasts which embody a slower pickup in both wage growth and headline inflation, will in any case be interpreted as a dovish signal and it would be premature to go further by making a change to our guidance. And third, with the market curve already implying that Bank Rate won't increase as of this morning until June 2018, and only rising at 5 basis points per quarter thereafter, I don't think there's a need to further temper expectations about the pace of tightening.
So in summary, all of the news on the month has tended to point toward waiting longer before tightening policy, so for this month I intend to vote for no change in Bank Rate and no change in the stock of purchased assets, but I am not yet ready to change my expectation that the next move in Bank Rate will be up, although as a precaution I do think we need to think through the options.

Governor Carney. Ok, thank you Minouche. Just for point of information since I'm now last to speak and this isn't going to affect how I speak, but I seem to recall that staff guidance was around de-emphasising a bit the overshoot element – de-emphasising our emphasis on overshoot and sustainable return to target – as opposed to actual change in broader guidance, but maybe I missed something. Gareth? This is the monetary policy strategy now, just this point of information.

> **Gareth Ramsay.** I think that the big element was indeed de-emphasising the, or not playing up the emphasis, to the overshoot at least.

> **Minouche Shafik.** There was also a separate staff note which suggested that we soften our communication about the future direction of Bank Rate, more likely to be up and that we …

Governor Carney. I think we've done that already, actually. We have taken that phrase out of the minutes. I think it's within the last six months it's come out of the minutes just to [inaudible]. And actually part of the reason we took it out at the time is, well, the mass of the Committee certainly was of that view and we thought we could pull it out, as opposed to having to give that specific type of short-term guidance and it didn't get noticed, even by staff, apparently.

> **Minouche Shafik.** Which his maybe why the staff suggested something additional …

Governor Carney. We can circle back obviously as we go through the MPR. Right, that's helpful. Sorry, so I'll just go through my thoughts. I'm going to talk largely about international, since I outlined some of my views on the domestic side a few weeks ago and the work that's been done, the very good work that's been done on supply stock-take in the forecast round, I would say as a whole, makes me marginally more confident in our views of supply, including around the productivity path subject to all the usual caveats of forecast errors, etc. And reinforce confidence that household consumption is likely to remain resilient, if growing somewhat more modestly this year as real income growth is more challenged. But I just want to spend my time on potential combinations of domestic and international circumstances, which opened for the first time the possibility that we may have to ease policy before we tighten. I'm not going to bore you again with fiscal except to note that we may end up relying on another gap between rhetoric and reality on the fiscal side. Long may that last.

In my mean, not modal, view, the global outlook has softened notably and the risk to disinflation have increased further, the prospects of a deflationary shock from China have risen sharply just as emerging market stabilisation policies, of both fiscal and monetary, are turning pro-cyclical and the efficacy of advanced economy monetary policy is being questioned by some. These possibilities increase the risk of tighter financial conditions and reduced inflation expectations. So to be clear, these possibilities, in my view, increase those risks, as opposed them actually being realised.

Against this backdrop, I think, as a number of you noted, we are being appropriately vigilant to the potential existence of second-round effects from persistent low inflation here at home. Although the management of these may be made harder if the Brexit risk, tail risk, materialises.

So seven years on from last shock, why are markets beginning to ask whether monetary policy is up to the task?

Well the first point is that there is not much room for conventional policy, even on a forward basis. The US, UK and euro area OIS curves are exceptionally flat. You just gave another example Minouche, pricing less than 10 basis points per quarter of rate increases across the board, and only 5 basis points per quarter for the UK. For the purposes of our forecasts two years ahead, it's not far off from a constant rate. In fact it is a constant rate projection now, with the most recent moves.

Real rates are exceptionally low across the curve. German 10 years -½, US is only +½, if you adjust for the RPI wedge. Adjusting for the RPI wedge, UK real rates are around zero as far the eye can see. UK break-even rates have broadly held up and, of course, there's questions to what extent LDI dynamics are impacting that.

Elsewhere inflation expectations are beginning to list. Market-based inflation expectations have fallen to ½ percentage point in the euro area, and, since the start of 2014, inflation swaps have fallen by a full percentage point in the US and are now closer to 100 basis points lower than the troughs observed in the run-up to past QE operations.

Now much has been made and dismissed of the co-movements between oil and the US break-evens. They are striking, especially since no such co-movement was seen during the 2007 to 11 period when oil gyrated quite sharply. It's a discomforting thought that the fall in oil during the 2008 crisis might not have dislodged inflation expectations because central bank policy space was then judged to be adequate.

Monetary policy is certainly having to work harder. As I mentioned in our discussion meeting, aggregate G4 QE is a much higher proportion of the flow of government debt. That net flow has plummeted from $2.7 trillion in 2010 to just $400 billion last year, helping to compress term premia by over 150 basis points on average, down to single digits, outside of Japan, single digits in all cases.

So why might unconventional policy having to be worked harder? One possibility is around the wealth effect and this is crude, but it's just illustrative. If you look at the US equity rally of 2012 to 14, following QE3, equities rose by about 50% in real terms. Real consumption, on the other hand, grew by as much as 2½ percentage points less in each of 2012, 13 and 14 than past relationships would have suggested. And it's not entirely surprising, in fact it would be consistent with the way we look at these things, that wealth effects may have weakened if asset price increases were viewed as reflecting lower discount rates and portfolio balance effects, rather than sustainable increases in the future real stream of earnings.

I think one of the things that is happening is that – the latest global growth disappointments hammer this point home – this difference between financial and real performance. If portfolio balance effects have less traction in the real economy, central banks increasingly have to rely on cash-flow effects, including negative interest rates that are actually passed through, and the exchange rate. And the poster job for this is the oft-studied Riksbank, which is pursuing what its once most vocal policy board member termed the "free lunch" over exchange rate intervention.

Put differently, monetary policy has been playing its traditional bridging role, but the edifice is looking more like a pier or potentially just a span between two low-growth equilibria.

Now, there's a number of reflationary counterpoints. I am painting a darker picture here, but certainly fiscal policy has turned in Europe and the US. Recall the financial system is healthier and much less likely to amplify shocks. Advanced economy growth is reasonably broad, if unspectacular. And while awkward for inflation expectations, I very much agree that developments in the oil market should be net positive for demand.

On the supply side, it's possible that a global growth disappointment, just as here, could reflect a worse outlook for supply. Certainly that's how our forecast has been run. And it's tempting to read that as supporting inflation. However, lower supply growth tomorrow impairs debt sustainability today – and this is particularly relevant in Asia – raising the possibility of short-term demand deficiency due to deleveraging. And financial markets to some extent may be catching up to this possibility. And obviously further out over the policy horizon, demand and supply are more likely to move in line with fewer implications for inflation.

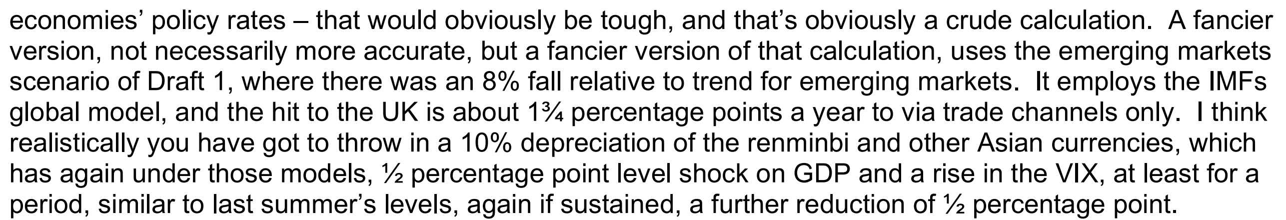
Finally, lower supply suggests a lower equilibrium – lower global supply, I should say – suggests a lower equilibrium real rate of interest and lower cumulative required tightening in nominal space.

So all of this means reduced policy space and possibly less bang for the monetary buck. As a result the impact of the negative shock could be greater and the prime candidate that we have been discussing for that shock is China. Napoleon prophesised that when the giant awakes the world will tremble. Now that it is stumbling the world is shaking. In my view, and I think in the view of a number of you, China's undergoing a classic balance of payments crisis, with a slowing economy, deeply entrenched problems that will ultimately constrain fiscal space, a peg that's losing credibility, self-fulfilling capital outflows and pro-cyclical monetary policy. I think we have seen this movie before. The difference is now that it's on IMAX in surround-sound and 3D. We know how it's going to end. The question is whether the reverberations are manageable.

And just to give a rough cut of those reverberations, there's two ways to assess.

First take the '97 Asian crisis at its most acute phase, advanced economy policy rates were cut on average by 100 basis points. The UK actually cut by a cumulatively 2½ percentage points, likely reflecting a fiscal consolidation at the time, that was of a similar magnitude to that envisioned in the next three years.

Back then, those emerging markets were 40% of global GDP and Asia 16% of that. Now emerging markets are 60% of global GDP and Asia's half of that. In fact Asia's counted for almost all the growth in emerging markets' share over that period. So if you just take a 1½ multiplier: think of 150 basis points off of advanced



economies' policy rates – that would obviously be tough, and that's obviously a crude calculation. A fancier version, not necessarily more accurate, but a fancier version of that calculation, uses the emerging markets scenario of Draft 1, where there was an 8% fall relative to trend for emerging markets. It employs the IMFs global model, and the hit to the UK is about 1¾ percentage points a year to via trade channels only. I think realistically you have got to throw in a 10% depreciation of the renminbi and other Asian currencies, which has again under those models, ½ percentage point level shock on GDP and a rise in the VIX, at least for a period, similar to last summer's levels, again if sustained, a further reduction of ½ percentage point.

So you are getting into the 2½ to 3% range out at year 2, very similar to results from simulating a GVAR, knocking roughly 1½ percentage point off inflation at year 2 and necessitating a policy response – I gave that 150 basis points one earlier. Another way to do it, again simulated, would be 75 basis points of monetary policy here and a fiscal loosening, relative to plan of 1½ percentage points, which is basically equivalent to holding the structural balance flat instead of further tightening. That would account for the trade side. You would have to do more to account for the financial conditions side, again under modelling. Although the possibility of a higher fiscal multiplier might be enough to bridge the gap.

Anyways, for all of this, these just reinforce the case that the path of policy isn't preordained and continued progress will require both vigilance and dexterity. Certainly on the mode, I do think we are in a very slow process of tightening policy and that's still the most likely scenario; and I think for now it's sufficient to signal alertness to the implications of possible second-round effects as many of you have – the second-round effects of low inflation on wages – and signalling awareness of the downside risk to the global economy. I intend to vote for no change to Bank Rate and no change to asset purchases at the meeting. Okay.

So with that, I think we can end the formal bit and do some housekeeping on a few items.

A meeting of the Monetary Policy Committee was held on Wednesday 03 February 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

Fergal Shortall, MPC Secretariat

Simon Hayes, MPC Secretariat

Melissa Davey, Editor of Inflation Report

Transcript of the Monetary Policy Committee Meeting on

Wednesday 3 February 2016

Governor Carney. Okay, good afternoon everyone. Let's start this decision meeting. I think, maybe, Andy before I turn to you, I might just ask Minouche to say a few words on recent financial market developments. So Minouche …

> **Nemat Shafik.** Okay, since our meeting last week, which was in January, there have been sizeable falls in UK short-term interest rates and sterling. And UK equities have also fallen slightly. UK market interest rates three years forward are now at 0.87, when we met they were at 1.14. So that's a fall of 27 basis points, just really in the last week. The sterling ERI is 0.2% lower, UK equities are 0.6% lower and the date at which the one-month forward OIS curve crosses 0.75 has now moved a full year from when we met: from July 2017 to July 2018. So that's quite a big move. There's also now a 20% probability priced in of a rate cut this year, if you look at what's happening in the OIS market. Now most this news, following our Pre-MPC meeting on 27 January, was following the Bank of Japan's reduction in interest rates and the introduction of negative rates for the first time. And following that, there were sharp moves in the UK short-term interest rates to a greater degree than that in other advanced economies. So that's an interesting point to note. That means that current UK market rates are below the conditioning assumption incorporated in the February *IR*. The latest curve reaches a little less than 0.9% at the three-year horizon compared to 1.1 in the conditioning assumption and interest rates are on average across the curve out to 3 years about 15 basis points lower than what we have got in our forecast. And much of that reduction, much of that fall, happened after the BoJ announcement.

Governor Carney. Ok, good, thanks Minouche. Any questions on that? Okay Andy, recent data?

> **Andrew Haldane.** There were one or bits and pieces, starting internationally. We've had the steady drip-feed of PMIs, including in the US for manufacturing in January, where both the indices picked up a little bit. In the euro area for services, which were weaker in January. In China the PMIs for non-manufacturing show a rather mixed picture. In non-China EMEs, however, the PMIs we have for January are on the whole a bit stronger, certainly for Brazil, for India, for Russia, and for South Africa.
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> Domestically, the only two bits of news I would mention are that we now have the decomposition of the Markit/CIPS composite for January. You remember the aggregate was roughly flat, within that we saw manufacturing sharply stronger in January, construction sharply weaker and services roughly flat on the month. And finally, we had the Halifax house prices for January, which were up 1.7% on the month – that's a slightly less large increase on last month, but continues the pattern of Halifax house prices seeming to rise more rapidly than the Nationwide indices and the gap between those two re-opening up. I think that's all, thank you.

Governor Carney. Good. Very good. So let's move to the decision. Put forward the propositions that Bank Rate should be maintained at ½% and that the Bank of England should maintain the stock of asset purchases, financed by the issuance of Central Bank reserves, at £375 billion. Try to go in the order of last time, so we'll start with you Ben?

> **Ben Broadbent.** I agree with the proposition.

Governor Carney. Ok, thank you. Kristin?

> **Kristin Forbes.** I agree with the proposition.

Governor Carney. Okay, Andy?

> **Andree Haldane.** I agree with the proposition.

Governor Carney. Martin?

Martin Weale. Yes, I agree with the proposition.

Governor Carney. Jan?

Gertjan Vlieghe. I agree with the proposition.

Governor Carney. Jon?

Jon Cunliffe. I agree with the proposition.

Governor Carney. Ian?

Ian McCafferty. I too agree with the proposition.

Governor Carney. Minouche?

Nemat Shafik. I agree with the proposition.

Governor Carney. And I agree with the proposition. That is a full house so just for absolute certainty: that is 9-0 that Bank Rate should be maintained at ½% and 9-0 that we should maintain the stock of asset purchases at £375 billion.

Okay, very good. Okay, so that concludes the formal part of the meeting and we will in a moment go down and work on the minutes so they can come out tomorrow on schedule.