BANK OF ENGLAND

**MEETINGS OF THE MONETARY POLICY COMMITTEE**
**December 2015**

A meeting of the Monetary Policy Committee was held on Tuesday 8 December 2015. The following members of the Committee were present:

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

Dave Ramsden was present as the Treasury representative

The following members of staff were present:

Gareth Ramsay, Director, Monetary Analysis
Simon Hayes, MPC Secretariat
Chris Young, MPC Secretariat
Venetia Bell, MPC Secretariat
Melissa Davey, Editor of Inflation Report

**Transcript of the Monetary Policy Committee Meeting on**

**Tuesday 8 December 2015**

**Governor Carney.** OK good morning everyone. I call this meeting of the MPC to order. Starting with a data release that is coming out this morning, which is Index of Production for October. The figures for October are 0.1% which is slightly weaker than the 0.2% expected by staff and expected by the market. That's weaker than expected manufacturing growth and tempered a bit by stronger than expected energy growth. That said, the three-month-three-month outturn is actually slightly higher for the overall industrial production because there is a revision to, I'm just looking at this, to manufacturing. There is a revision in September which they do to the overall index; I don't have the detail on whether it's manufacturing or energy. But it ends up three-month three-month to October, ends at 0.6% for the overall index versus our in-house projection of 0.5%. So I don't think we are going to be taking a lot of news for that for the staff forecast, I don't want to pre-commit the staff to that. Interesting some details confirms overall, you know, a tough time for manufacturing and the volatility of the energy sector as we've seen. That's about what I would take from it at least. OK, Andy, do you want to review…

> **Andrew Haldane.** Thank you. It has been reasonably heavy on the international side. Let me mention just one or two of the pieces. For the euro area, we had the composite PMIs for November, which were up a touch. Counterbalanced a little by a weaker retail sales figures for October. Of course we've had the ECB announcement, I think everyone has seen those so won't go into them in any great detail. In the United States we had the November Employment Report, of course, a little bit stronger than expected. A rise in payrolls of 211,000. And perhaps, as interestingly, we also had some figures on productivity and wages for the second and third quarter, where both costs and productivity were revised up a touch and therefore unit labour costs were significantly stronger than we'd expected although the staff are clear in pointing out that series is volatile.
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> In China we've had weak PMIs actually for both manufacturing and services. And reserves also fell pretty sharply in November, and this morning we've also had some weak import and export data from China, mainly on the export side actually, so the overall news there I think is to the downside. Whereas in Japan we had this morning the second estimate of Q3 GDP which was revised up from a negative number of -0.2 to a positive one of 0.3 although that continues the rather bumpy pattern we've seen out of Japan for quite some years.
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> Then finally internationally to note that the oil price has fallen further since last we spoke. It is now down to around $40 a barrel, Brent crude. A touch above this morning.
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> On the domestic side it's been much lighter on the data side. We had car registrations for November, which were up a touch on the month but the overall pattern there is of a flattening off after a period of quite rapid growth, I think. And then overnight we've had the BRC Retail Sales Monitor which was a shade weaker, I think, although it's hard to interpret the timing of these things at the moment, given Black Friday and all that. How much of that is real and how much of its timing is unclear. I think that's it. Thank you.

**Governor Carney**. OK. Very good, thank you Andy. Any questions on that, or are we fine? OK, Ben I'll ask you to kick off.

> **Ben Broadbent**. Thank you Governor
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> Last week we discussed at length the causes and implications of divergent monetary policies elsewhere in the developed world. Before touching on that, I begin first with the usual tour of data releases.
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> The Fed's impending decision takes place against a backdrop of steady, if unspectacular US growth. Revised estimates imply GDP rose by half a percent between the second and third quarters. That was due partly to a jump in inventory investment, final demand rose 1.6% and MA expects some slippage in the growth of aggregate demand to 0.4% in the fourth quarter. That's weaker than the latest indications from some surveys, the PMIs in particular. Although that's been true for a while.
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> If output growth in the US has been below average, however, the same has not been true in the labour market. US employment continues to rise, up close to 2% over the past year; unemployment

continues to fall, down 0.8 percentage points over the past year; and unit labour costs in the non-farm business sector rose 3% in the year to Q3, faster than the historical average.

These trends have been in place for a while, it should be said. Indeed, employment growth – so much the focus of financial markets, in the US and elsewhere – has actually has been fractionally lower in the past three months than earlier in the year. It's also been lower than expected immediately beforehand.

If you weight US data surprises according to their average impact on dollar interest rates over the past, as judged by a simple regression, the news since the spring would normally have depressed slightly the one-year rate one year forward by around 20 basis points. For given news elsewhere, it would also have depressed the dollar slightly. Yet the dollar exchange rate has risen materially, notwithstanding last week's reversal – the trade-weighted index is up 7% in six months – and forward interest rates have risen. This is not to say that a tightening of US policy later this month would be unjustified. But it does indicate that markets have, in recent months, been more sensitive to the FOMC's communication about that decision, in particular its determination to push ahead with and "pre-announce" it seems, a rate hike, than to the near-term economic data.

The same is true, albeit in the opposite direction, in the euro area. Since we last met, markets have reacted negatively to a perceived disappointment in the extent of ECB easing announced at its December meeting. The euro rose by over 4% against the dollar, near-term interest rates went up, stocks declined. But if that bears out Jan's caution about its communication strategy – to paraphrase, "you can't fool all the people all the time" – then it also emphasises the more general point that ECB policy communication, rather than the economic data, have been the more important driver of asset prices in the euro area. Unlike the US, euro area economic data have generally surprised in a positive direction in recent months. Q3 GDP growth was a touch lower than assumed in the November Inflation Report, 0.3% versus our expectation of 0.4%. But the PMIs picked up a little in November, as we've just heard, and are consistent with that same rate of 0.4% in the fourth quarter, perhaps a little higher. Over the past six months, the economic news in the euro area would normally have raised interest rates slightly and, even with no news elsewhere, pushed up the euro exchange rate. Over the past year, as we saw at Pre-MPC, the estimated output gap has narrowed faster, core inflation is no lower, and growth of unit labour costs is closer to average, than in this country. As we also saw the euro area has already done its fiscal tightening while the UK's is still in train. Yet the euro exchange rate has fallen sharply, by over 10%, and euro interest rates have fallen relative to those in sterling and dollars markets.

It may be, as we discussed last week, that the ECB is simply taking longer than others to react to economic slack and weakness in inflation. But if it is, the scale of that reaction has nonetheless surprised financial markets, even as the near-term economic data have been more supportive. Even if only in that narrow sense, this counts as regime change, and we've been wrestling with the implications of that shift – in particular with the consequences for our exchange rate – for over a year.

That brings me back home, and to the consideration of our own policy. I won't say the UK has been a sea of calm amidst all this noise. But it is true that the picture we face is not that different from in the November Inflation Report. Estimated GDP growth in the third quarter was unrevised, at 0.5%; we continue to think the real number is 0.6%; surveys support the same 0.6% figure, in the mature data, for Q4. Changes in sterling's effective exchange rate, and sterling interest rates, compared with the November Inflation Report, are small.

Two things do stand out. One is the fall in the price of oil. Brent crude is down by over $7 a barrel since the Inflation Report, over $8 since our last meeting. These moves aren't unprecedented. The standard deviation of monthly moves is $6.8 over the past five years. But it will have the familiar effects, adding a little to real incomes, further depressing near-term inflation.

Second, average earnings growth has been weaker than expected in November. Private-sector AWE, ex bonuses, fell a touch between August and September and, in that month, were barely higher than in April, five months earlier. In part, that may reflect weak headline inflation. Flat prices may have given employers room to accommodate some of the effects of a tighter labour market. If so, then unit cost growth too may be weaker for a while, propagating the impact of low oil and import prices, before rising more sharply through the latter part of next year. But it's not clear that our suite

models need that helping hand, not as clear as in 2014 at least. And it's also possible to explain weaker wage growth by declines in average hours and other shifts in the composition of employment. Time will tell.

So my preferred response to these numbers is to defer judgement. It still seems reasonable to me to expect further acceleration in nominal pay, and in unit costs, over the next year or so. But neither of these two pieces of news certainly has brought forward that date and we will probably still be living with below-average nominal growth rates – for prices, wages and unit costs – for some time. I therefore expect to vote for no change in either interest rates or the stock of purchased assets.

**Governor Carney**. Thank you Ben. I have Ian and then Jan please.

**Ian McCafferty**. Thank you, good morning everyone. Last month I expressed my reservations about the degree of negativity that I felt had crept into our November forecast in two areas. First I felt that the downgrade to the central forecast for the global outlook was probably a little overdone. And second, that especially given the yield curve conditioning path, the balance of risks around the inflation projection for the later part of the forecast were to the upside.

On the international front there remain big uncertainties, but for me at least, the recent evidence supports the view that global growth is holding up with the slowing amongst EMEs significant mainly for those countries heavily exposed to commodity prices and with specific domestic problems such as Brazil. At the same time, there is continued positive momentum in both the US and the euro zone. Perhaps the most encouraging of recent is the recovery in world trade growth in recent months. This is consistent with the argument that the softness we saw earlier in the year was less an early signal of a sharp downturn in the global economy, and more the result of a combination of a mini inventory cycle as Chinese manufacturing went down a gear, and the lagged impact from the shift in purchasing power between producers and consumers of oil and commodities.

Looking forward, the JPMorgan PMIs suggest that while global manufacturing output remains subdued it's stabilising relative to the autumn, while global services activity continues to strengthen. Overall I remain of the view that the international environment provides a somewhat less negative backdrop for the UK than we portrayed in the IR and that while significant downside risks remain some are slightly diminished relative to a few months ago.

Global output should be further supported by movements in oil prices, both in the recent past and, in my view, looking forward. Last night the price of Brent crude had fallen by close to 12% since the IR, as Ben has mentioned, and on my reading of the fundamentals that weakness looks set to persist for some time yet. Global oil supply remains robust to lower prices because of both the stance of OPEC policy and the resilience of US production. In the US total oil production peaked in April but has since fallen by only some one quarter of a million barrels a day, hardly making a dent in the rise in production since 2010 of four million barrels a day. That persistent supply overhang continues to drive up inventories, with onshore storage now touching record levels and the amount held at sea estimated to have doubled since earlier this year. However, with the oil curve so flat much of this offshore storage is again uneconomic, such that further weakness in spot prices is likely unless the northern hemisphere winter gets a lot colder than it has so far. That persistent weakness in oil prices should provide some further support for demand in consuming countries, albeit at the expense of producers, but net-net a positive for global growth in 2016.

In the UK, the little new data we have suggests the economy has weathered the financial market volatility and the wobble in confidence of the early autumn. While the manufacturing sector continues to labour under the twin burdens of soft global demand and the stronger pound, and there are some puzzles about the construction sector, the services sector continues to surprise, with the September Index of Services stronger than expected, and the November Services PMI rebounding. As such our GDP forecast for Q4 and Q1 still look very plausible. And to the extent that oil price weakness persists it will provide a prop for demand growth well into 2016.

As such, I remain confident that the pace of demand growth still looks to be consistent with a further tightening in the labour market. Although total hours worked have recent fallen back this does not appear to be due a weakening in labour demand. Survey measures remain firm and vacancy rates are at high levels. Unemployment continues to edge lower in spite of the rise in participation and is already in line with our estimate of medium term U*.

In terms of the hours conundrum, some analysis by my team shows that the recent falls in desired hours closely match what would be expected if desired hours are closely correlated with changes in real incomes, an argument I've put forward in the past. As such, the movements in hours are unlikely to represent any more slack, which appears to be being eroded quite quickly.

So why then the recent sluggish performance of nominal weekly wages? There is, of course, the danger of reading too much into short term data movements, especially at a quiet time of year pay wise. But I'm with Ben on this; once we adjust for the change in hours and the shifts in the compositional drag on wages, there is less that needs explaining. Intelligence from the Agents' sources suggests that there may also be some drag from employers holding down settlements as a result of low inflation, a story I've also heard on regional visits.

But all of these are likely to be temporary factors, and ones that are, in my view, likely to decline and then go into reverse quite quickly as the labour market tightens further.

- First the rate of unemployment for those aged 18 to 24 has fallen rapidly in the past year, and at 12.7% is now close to its pre-crisis average of 11%. As such the scope for a persistent age-driven compositional drag is diminishing rapidly.

- Second, the ability of employers to hold down settlements will lessen as the labour market tightens and is likely to reverse quite quickly once inflation starts to rise. Given that wage negotiations still tend to be more influenced by RPI than CPI, this effect could be more marked than our path for CPI would imply. RPI inflation, currently at just under 1%, is expected by City forecasters to pick up to an average of 2.5% next year, providing quite an uplift for any going rate.

As such, even with some improvement in productivity growth now underway, I still believe that the balance of risks around wage-induced inflation pressures are on the upside over the second half of our forecast, and the pick up next year could well be quite rapid.

Now although our mandate is for headline inflation, which will remain depressed by international factors for some time yet, I find it difficult to remain indifferent to the risks such a pickup in domestic wage costs and place perhaps greater weight on divergences from levels consistent with our inflation target for wages than for some other components, as, at least when the economy is close to equilibrium the degree of policy change and the policy lag required to shift wage trends are likely to be somewhat greater than for other components.

Overall it still appears to me that the movement in Bank Rate is therefore most likely upward, and the key issue remains that of timing.

In terms of policy strategy, the risks of disruption to consumers and businesses from the lift-off event itself seem limited. Households appear to be in a slightly better position to absorb a modest rise in interest rates than for some time, according the NMG survey, and two-thirds of households are expecting a rate rise in the foreseeable future. However, the more gradual path of rates thereafter, the lesser are the risks of economic stability via sharp changes in consumption, a loss of business confidence or volatility in the housing market. These factors, I would argue, supplement the standard arguments in the literature in favour of gradualism, those factors being uncertainty, control of long rates and risks to financial stability. For me a policy path that delivers our inflation target while utilising a degree of interest rate smoothing is therefore highly desirable. As such I expect to continue to vote for a rise in Bank Rate of 25 basis points this month, and no change in asset purchases.

**Governor Carney.** Thank you Ian. So I have Jan and then Kristin please.

**Gertjan Vlieghe.** Thank you. The international data seems broadly on track relative to our updated forecasts. The focus has not been so much on the data themselves, but on the policy front, with the Fed widely expected to tighten in December, and the ECB easing at its December meeting.

I agree with the staff assessment that the US and eurozone policy divergence is explained by a significantly smaller US output gap and a more mature recovery than in the eurozone, which results

in stronger domestic cost growth in the US. The US has weak inflation in part due to a strong exchange rate, while the eurozone has weak inflation despite a weak exchange rate.
The UK is somewhere in between the two: on the output gap front, we are probably closer to the US than to the eurozone. But our recovery did start later than in the US, and our domestic cost pressures remain lower than in the US, relative to their historical averages. Given how much more open the UK economy is than the US, any given exchange rate appreciation weighs more heavily on growth and inflation in the UK than in the US. For the next few years, the UK faces meaningful fiscal headwinds, while the US is facing none. Subdued eurozone growth or inflation, if that indeed materialises, would weigh more on the UK than on the US. Finally the UK economy responds more quickly to interest rates, given a much shorter average period over which interest rates are fixed in mortgage contracts.

So it is not that surprising that, broadly speaking, expectations for UK interest rates are somewhere in between the US and the Eurozone. Over the next two years, the market is pricing in approximately 70 basis points of hikes for the UK, right in between the 140 basis points of hikes in the US, and no hikes at all in the Eurozone.

Turning to the domestic data, I think the most interesting aspect is the wages, housing and consumption nexus.

Our November forecast features a slowdown in household real income growth of three quarters of a percentage point next year. But the impact of that slowdown of real income growth on consumption is entirely offset by a further reduction in the savings rate, keeping consumption growth steady at 3%. This scenario is likely if the pick-up in nominal wage growth indeed materialises, and if it coincides with an ongoing housing market recovery.

Without a housing market recovery, it is difficult to see how the savings rate would decline enough to keep consumption growing in the face of a decline in real income growth. We know there is a good historical correlation between housing and consumption, but we are less clear on the mechanism. In addition to the now well-documented collateral channel, I think two further channels are material. Housing is important as a summary statistic of future income expectations, which is not causal, but nevertheless an important indicator for us. Moreover, while housing is not wealth for mythical infinitely lived consumers, it is wealth for those who own houses and have finite lives. As Mian, Rao and Sufi (2013) showed, higher marginal propensities to consume of lower income and highly leveraged households are enough to generate significant aggregate wealth effects of housing.

So let me now turn to the wage and housing data.

The recent slowing in the pace of wage growth continues, in contrast to our forecast of an acceleration. After some strength in late 2014, we have seen a persistent loss of momentum in AWE growth ever since. The quarterly growth rates of regular private sector pay have eased from an annualised pace of 3.9% in Q4 last year, to 3.0%, 2.7% and 1.5% in the subsequent quarters. The analysis on the impact of falling hours and compositional changes has been very useful. But I think it is important to stress that this would only explain AWE weakness. In actual fact, we have also seen a loss of momentum in the REC pay survey – albeit from a high level – as well as in the BCC survey. The agents' survey has not declined, but neither had it picked up late last year or earlier this year.

All in all, I think the evidence of a broad-based pick-up in wage pressure is just not there yet.

Why might that be? I see three candidate explanations.

First, the fact that headline inflation has averaged just 0.1% over the past year, and that's an average of the yearly rates of the past year, is probably having a downward effect on wage demands. Feedback from the agents supports that conclusion, as does the fact that household inflation expectations surveys are somewhat below average.

Second, while there are multiple interpretations, as Martin and Ian have pointed out, there is at least a possibility that domestic slack is bigger than we think, given the large number of workers who say they want to work more.

Third, a record pace of migration from other European countries might mean that, to some extent, European slack is our slack too. Even if clear historical evidence is difficult to obtain, I am reluctant to dismiss this channel, given how large these migration flows have become quite recently. We have seen gains of 420,000 in total employment over the past year, and gains of 330,000 of non-UK nationals working in the UK, almost entirely from the EU.

These three reasons for do not necessarily mean that wage pressure will not go up in the future. A rise in headline inflation next year (if the oil price ever stops falling), combined with the introduction of the living wage and the apprentice levy, and a further reduction in the unemployment rate, could well be enough to generate the upward momentum in costs eventually. But we have time to wait for some more evidence.

Having argued that both wages and housing are key to our consumption forecast, I now turn to the housing market data. Unfortunately, there are some tentative signs of a loss of momentum in the housing recovery. The RICS new buyer enquiries component is one of the best leading indicators of broader housing market momentum. It peaked in July this year and has fallen every month since then. This slowdown has not come out of the blue. The government introduced a drastic reduction in the tax relief for buy-to-let investors in the Summer Budget, as well as a 3% additional stamp duty for second home transactions in the Autumn Statement. We know that a significant part of the housing recovery was driven by buy-to-let activity, so it should not be surprising that measures that adversely affect buy-to-let investors can have an impact on the housing market as a whole.

When it comes to our investment forecast, on the other hand, the data seem generally supportive. The CIPS capital goods order balance ticked up after a decline earlier in the year, as did the CBI capex survey. I am also encouraged by credit developments in the corporate sector. Most of the post-crisis period has been one of issuing bonds and equities to repay bank loans, a clear period of "repairing balance sheets". In the past few quarters, this has turned into a phase of expanding net external finance, where both bond issuance and bank loans are now adding to total financing. That is at least consistent with our forecast of improving investment growth.

To sum up, I think our forecasts for the international environment and domestic business investment growth are on track for now. But I am concerned about the development in wages for two reasons. First, because it goes against our general outlook for a rise in cost growth that should underpin the required rise in underlying inflationary pressure. And second, because, together with tentative evidence of some slowing in the housing market, it puts a question mark over our forecast that strong consumption growth of 3% can be maintained into next year.

I am therefore minded to vote for no change in Bank Rate this month.

**Governor Carney.** Thank you Jan. So Kristin and then Andy please.

**Kristin Forbes.** In honour of the holiday season, my comments this month are motivated by the movie Elf - about a man who grew up in the North Pole believing he was one of Santa's elves and then returns to New York City. A theme is the power of belief; lost faith in Santa causes his sleigh to break down in Central Park, and only when the New Yorkers belt out Christmas carols to show their renewed belief can Santa's sleigh gain enough speed to outrun the park rangers…..

Recently I have wondered if people have lost their "belief" that the UK economic sleigh will keep moving forward - despite the solid recovery. Quarterly growth has been at or above 0.6% for 11 quarters (including the backcast) - and continued strength in domestic demand is expected to keep it around 0.6% over our whole forecast period. The global economy is stable - especially in our key trading partners - and weakness in emerging markets should not yet substantially drag on the UK. Most aspects of the economy appear healthy and around normal levels - as well as we can define normal - from tight labour markets, to abundant credit and lending, to solid consumer, corporate and bank balance sheets. Despite fiscal headwinds and the contraction in global manufacturing, this is a fairly healthy economy - an economy that seems well positioned for gradual increases in interest rates.

So why have so many people lost faith in interest rates increasing soon? The main reason seems to be inflation and cost pressures. Despite extremely accommodative credit conditions, tight labour markets, and a solid recovery - why are cost pressures not picking up faster? Why does our

November forecast predict it will take about two years for inflation to return to target? Has something broken down in the economy?

Unfortunately, answering this has been complicated by the series of shocks - largely from abroad - that have held down inflation. We have discussed these at length - especially sharp falls in energy and food prices and sterling's appreciation. These have contributed to falls in prices, and generated direct and indirect drags on other measures of inflation. But until recently, we had faith that the effect of these shocks on inflation would be temporary - albeit different lags from different shocks - and more normal inflation and cost pressures would soon re-emerge.

Why have we recently become less comfortable with this belief? One factor is undoubtedly the continued falls in energy prices (25% since January) and appreciation of sterling (4.4% since January) - which will extend the drag on headline inflation and continue to mask underlying cost pressures. But an important factor behind this loss of faith also seems to be concern that wages and other domestic costs are not increasing as expected - even after controlling for these shocks. We discussed how the slightly disappointing AWE data may simply reflect composition effects and lower hours, so underlying wage growth may be increasing as expected. But there is still the nagging question: will this prolonged series of shocks dragging on inflation have additional or cumulative effects that persist longer than expected? Or, could this "masking" effect be accumulating - potentially hiding a more rapid build-up of cost pressures that will only become apparent when the effects of the external shocks fade?

Data this month provided little new insight on these questions. In fact the more important UK and global data was mostly as expected or a bit stronger - so I won't repeat any now. Instead, to inform our thinking on the outlook for cost pressures and inflation, let me draw on three different analyses I've recently looked at.

First, to test if the dynamics in cost pressures were puzzling, I estimated a series of Phillips curve regressions. I tried numerous specifications and many are not stable - so rather than focus on one - let me summarize the consistent results. Oil prices and sterling have large and significant effects on headline inflation - as expected. They also have smaller and often significant effects on core inflation - averaging about one third smaller - confirming that core is less affected by external shocks but certainly not immune. Oil and sterling usually do not have significant effects on various wage and DGI measures - confirming these measures do a decent job capturing underlying domestic cost pressures. When predicting DGI inflation and various wage measures (including composition-adjusted and Ben's favourite AWE measure - private sector ex-bonuses), the only variable regularly significant is the relevant lagged inflation measure. This supports Thursday's discussion that low inflation last month may be slowing domestic cost growth today. But this also does not suggest that the inflationary process has become derailed - just that lagged effects of recent inflation may protract the process.

A second analysis I found helpful was to revisit the SVAR model I developed with [redacted] that estimates how pass-through changes after various exchange-rate shocks. The model also decomposes the shocks behind other variables - including UK inflation. The results are quite striking. Most of the deviation of CPI inflation from trend is estimated as caused by negative shocks to global demand (0.7 percentage points) and global supply (0.9 percentage points). Strong domestic demand and weak productivity growth are pushing up slightly on inflation relative to their average contribution - by a total of 0.3 percentage points. For me, this confirmed my belief of the role of external shocks on today's inflation. And once these fade, inflation could not only recover quickly, but be above target.

Finally, DGI measures. These continue to tick up slowly - and the average of the most recent of the nine measures I follow was 1.5% in Q3, up from its low of 1.0% one year ago. This average has increased in each of the last 4 quarters. The rate of increase is slow - but has continued long enough to be safely called an upward trend. However, all nine measures are still below pre-crisis averages. If this trend continues - when would the average DGI measure reach 2% - or its pre-crisis average of 2.6%? If you assume the average increases at the same pace since the start of 2015 (which is about 9% and conservative as it ignores the sharp wage increases at end-2014), then the DGI average would reach 2% in 2016 Q3 and its pre-crisis average in 2017 Q2.

What does all this imply for monetary policy? The Phillips curve and SVAR estimates suggest we should not lose faith in our underlying story. Low headline inflation is primarily caused by the series of global shocks, and as these effects fade, inflation should recover quickly. However, the Phillips curve results suggest some caution as low inflation today can slow this recovery of wages and domestic costs. But the DGI results suggest that despite this effect, domestic costs have been steadily increasing. If this rate of increase continues and external drags on inflation have faded by the middle of 2017, domestic cost pressures will accelerate past levels previously consistent with our inflation target. This would imply we should be raising rates today if monetary policy has a 1½ year lag (with the caveat that the persistence of pass-through becomes critical in this thinking.)

These pieces of evidence from unrelated sources have reinforced my belief that the solid domestic economy, combined with fading effects of external shocks, will propel inflation faster than our forecast. As a result, I believe rates should be raised much sooner than the market path, possibly quite soon, albeit not this month. The park rangers (aka global economic shocks) should not stop the UK economic sleigh. Unfortunately, evidence supporting a belief in Santa has proven weaker….

**Governor Carney.** Masterful. OK Andy beat that and then Minouche.

**Andrew Haldane.** I'm afraid no elves today. There's been relatively little new news over the month to change materially the economic assessment in the November Inflation Report.

On the international side, the focus has been the divergent paths of US and euro-area monetary policies, with a 50 basis point widening in the spread between US and euro-area one-year, one-year forward rates, although this has narrowed somewhat following the ECB's decision last week.

This firming of monetary policy intentions in the US and euro area has been a touch surprising given that, as Ben said, at least as measured by their respective surprise indices, the news in the US has if anything been to the downside while that in the euro-area has been to the upside. For all the talk of data-dependence, monetary policy expectations appear to have danced to a tune played by policymakers, rather than the data, over the month.

Nonetheless, in the UK there appear to be fewer such puzzles. Surprise indices for the UK point to little net news over the month, with activity data coming broadly in line with expectations. Mirroring that, UK one-year, one-year forward rates, and the sterling effective exchange rate, are both little changed from their November IR levels. Whatever push and pull forces from the US and euro-are have been operating, their overall impact on UK credit conditions appears to have been modest.

The Autumn Statement did potentially contain news relevant to the nearer-term outlook, with a net fiscal easing equivalent to perhaps a quarter of a percentage point on next year's growth rate, using our conventional fiscal ready-reckoners. If anything, I think these ready-reckoners might understate the impact of, for example, the shift in tax credit policy. As the NMG survey made clear, there was a fear factor around the next phase of fiscal consolidation, which could have weighed materially on household spending. The Autumn Statement announcements may have helped reduce that fear, at least in the short term. I also think the "pulling-forward" effect of higher stamp duty on buy-to-let and second house purchases could transmit fairly quickly and significantly to the housing market.

Ultimately, though, these measures are about re-profiling activity rather than boosting it, with a more positive nearer-term profile likely to be counter-balanced by a weaker profile later on. So, viewed in the round, I don't think the Autumn Statement fundamentally alters the economic story at policy-relevant horizons.

The area of discussion which I found most interesting was on the weaker-than-expected AWE data. A few months ago, after a period of dormancy, there appeared to be evidence of the Phillips curve re-establishing itself. I remember asking myself whether the slowing of employment growth, alongside the rise in wages, was evidence of the economy bumping up against its NAIRU. A quarter on, with employment growth having re-commenced but wage pressures having weakened, that interpretation now looks less plausible. As Ben discussed, there is no shortage of candidate explanations, nor different cuts of the data, to account for what might be happening to AWE. But as Jan pointed out, faced with this uncertainty of interpretation, perhaps the best we can do is to seek corroborative evidence from our broader swathe of wage indicators.

Having been towards the bottom a year ago, it is striking that AWE is now pretty much at the top of the swathe. On the face of it at least, that is difficult to reconcile with AWE being significantly downwards biased - for example, as a result of composition effects. Moreover, other elements of the swathe point to flat or falling wage pressures. The REC survey has fallen during the past six months and is now pointing to rates of wage growth below 3%. The picture on wage settlements is also benign, with a continuing flat-lining. The CIPD measure remains at around 2%, as it has been for the past two years. And our own measure of settlements, once we strip out the effects of a single supermarket, have also flat-lined at around 2 to 2½%.

So having narrowed a little so far this year, the wage swathe is probably set to narrow further as AWE growth rates fall in the months ahead, probably becoming centred in the two-point-something zone. Of the possible explanations for this relatively subdued wage picture, one of the most plausible is for me probably the simplest: the low level of measured inflation and household and company inflation expectations. We would expect bargaining to take place over real wages - and indeed that is consistent with the treatment in our wage equations. This wage/price dynamic is one reason why our near-term profile for wages has been revised down in line with our short-term inflation projections.

This wage-price dynamic is also likely to be important looking forward to the next settlement round. Most settlements will occur over the next few months against a backdrop of CPI inflation little different than zero. This is likely to impart a degree of extra persistence into low wage and price inflation.

As headline inflation picks up through next year, it is plausible that this wage-price dynamic will reverse sign. Indeed, there are risks this dynamic could gather too much speed, causing wages and prices to overshoot the levels consistent with the inflation target. Our current projections embody a modest form of this overshoot, at the two and three-year horizon. This forecast path is predicated both on the wage/price dynamic reversing sign and on wage growth outpacing productivity growth over the next few years – in other words, the labour share rising.

I think there are risks around both these factors.

Wage-price dynamics appear, in the past, to have been quite non-linear, with wage growth remaining for long periods in quite tight ranges, but subject to periodic regime shifts. This is what Alan Manning, when he came into the Bank a few months ago, called the "earthquake model" of wage determination. One plausible explanation for these patterns is that wage bargaining is subject to wage "norms" or "going rates". These generate high correlations of wage growth across firms at any one point in time. But they would also impart inertia in wages over time - unless, that is, tectonic forces are sufficient to cause a break.

It is plausible that the crisis was just such a tectonic shift, with "going rates" falling to a 1 to 3% range. The shift down in public sector pay norms, at a national level, may have contributed to this ratchet. If that interpretation is right, then it makes clear the risks on both sides. On the one hand, a shift downwards in pay norms would be expected to impart greater persistence into low rates of wage inflation. On the other, there must be some risk of a wage earthquake - this time upwards - if labour pressures were to continue to build, although it is hard to see much evidence of such tectonic movement at present.

The second structural factor is the UK labour share and its future evolution. Other countries' experience is that the bargaining power of labour may be being chipped away due to the forces of migration, globalisation and technology, lowering the labour share. It is difficult to see why the UK would buck those trends indefinitely, meaning any upward movement in UK wages and the labour share could face structural resistance. And that would exert some downward drag on wages relative to our forecast, at least over the policy horizon.

On balance, these forces would tilt my own subjective probability for future inflation towards the downside – albeit with some probability of an upside earthquake - at least until there is some more definitive evidence of core wage and price pressures picking up.

Against that background, I am minded to leave unchanged Bank Rate and the stock of asset purchases. Thank you.

**Governor Carney.** Thank you Andy. Now so Minouche and then Martin please.

**Nemat Shafik.** As we discussed on Thursday, barring any major surprises, December 2015 will likely be remembered as the month that monetary policy in the US and Europe diverged.

During our discussions, some questions were raised about just how much extra stimulus was warranted by the deterioration in the outlook for the euro area – and perhaps consistent with the subsequent announcement by the ECB that they would extend the time horizon for QE, but not increase the pace of purchases. As for the US, I found the reasons that Jon went through why they would be moving before the UK quite compelling: including that their data has been more consistently positive than ours, their fiscal drag is less, the transmission lags may be longer on account of the duration of US mortgages, and that they don't have a well-developed macroprudential toolkit.

All that said, relative to these other central banks one does get the feeling of being a little bit inactive. It has been 77 months since Bank Rate was cut to 0.5%, compared with the 45 months that Bank Rate spent at its trough following the 1990s recession and only five months following the 1980s recession. But of course there are plenty of reasons why Bank Rate should remain at its trough for longer than past recessions.

- First, as we have said many times, it is not the level of Bank Rate that matters, but where it is relative to some measure of neutral. That fell by more than Bank Rate during the recession, and even by more than the "shadow" rate implied by QE. Now that rate is increasing, but only gradually

- Second, at least some of the initial increase in the neutral rate will be offset by the waning impulse of asset purchases. The stock of QE is slowly declining relative to nominal GDP and the broader money stock, though as we have discussed before we have no way of knowing precisely what the contractionary impact of that is.

- Third, and most importantly, the relationship between the real economy and inflation hasn't borne out quite as we expected. We can attribute around three quarters of the weakness in inflation to the fall in energy prices and the past appreciation of sterling, but that still leaves about ½ percentage point of weakness that is attributable to domestically generated inflation. And I'll say a few words about that now.

On a recent agency visit I went on to Southampton and it sort of brought home the paradox. All of the businesses I spoke to bemoaned the recruitment difficulties they were facing. But despite the apparent skills shortage, the agents tell us that awards are likely to remain firmly in the 1% to 3% range.

That is reflected in the economy wide numbers for wage growth that many of you have cited this morning. Although whole economy earnings were 3.0% higher than a year ago in Q3, the higher frequency numbers suggest they have plateaued, with annualised quarterly numbers running at closer to 2%. We have become expert in explaining the weakness in wages in recent years – for example the role of compositional effects in explaining why wages recovered relatively slowly in 2014. Or the explanation that hours worked per week have been behind the current weakness.

But we can't rule out other possibilities. And one alternative I find very plausible is that the current rate of low headline inflation is affecting pay awards, and many of you have cited that this morning. The agents do tell us that employers feel able to award lower headline pay increases as the low level of headline inflation compensates real incomes. And of course this won't have a permanent effect on inflation - past moves in energy prices and the exchange rate will ultimately drop out of the calculation of annual headline inflation rates. But given that we are forecasting headline inflation to be low for some time to come, and the lags between it and the agreement of pay awards (which tend to occur around January and April), this effect could be persistent.

In the face of this uncertainty about the link between the real economy and inflation, I think it is prudent to wait for more certainty that wage growth will indeed recover to the level consistent with inflation returning to target over the medium term before voting for an increase in Bank Rate. Of course there are risks to such a strategy, but I currently judge them to be manageable. It typically takes about a year for an unexpected change in unit labour costs to feed through to inflation, and the latest work suggests that the peak effect of the transmission of monetary policy in the UK is at the shorter end of the 18 to 24 month horizon we all have in our heads. Coupled with the weak outlook for headline inflation, I believe this gives us some buffer with which to correct for an unexpected increase in unit labour costs and Andy's earthquake problem without losing control of inflation expectations.

Let me just say something about the yield curve and communications. All that said, like most of you I expect to increase Bank Rate more quickly than the path currently implied by the market curve. That's because the most likely case remains that wages will recover, and that the risks won't blow the recovery off course. Conditional on that most likely outcome, it seems difficult to believe that the 25 basis points increase in Bank Rate of the next three years will be all that is required of us.

There are two possible explanations for why the market curve is where it is. In the first, market participants have a similar outlook as we do: their central expectation is also that Bank Rate will increase more quickly than that implied by the current market path. But they place some weight on downside risks, and are willing to accept a lower expected return in order to insure against them. If that is the case, then we shouldn't be surprised that the market curve is where it is, nor should we expect it to move when we publish an above target inflation forecast conditioned on it. But once we do increase Bank Rate, we can expect the forward curve to move higher, as it has tended to do in past cycles.

The second possible explanation is that market participants have not taken as strong a signal as we expected from the forecast of the inflation overshoot that we published in November. I had thought that publishing a projection that was 0.2 percentage points above target at the end of the forecast horizon for the first time since 2005 would garner more attention than it did. It may be that in a world of greater communication and transparency, such subtleties don't have the power that they used to. Or it may be that the current abnormally low level of inflation naturally skews commentators' attention toward the shorter end of the forecast, despite the fact that it's less relevant for policy.

In the end, I think there is little point arguing with the yield curve – there may be good reasons for why it diverges from both our and market participants' true expectation of the most likely outcome. But we should continue to engage in constructive dialogue with the yield curve, and where possible focus attention on the policy relevant horizons of our inflation forecast. Meanwhile in the absence of steady and sustained domestic cost pressures, I intend to vote for no increase in Bank Rate, and no change to the stock of purchased asset.

**Governor Carney.** Very good. So Martin and then Jon please.

**Martin Weale.** Thank you, Governor. As I have observed before, Paul Samuelson famously pointed out that the stock market has forecast nine of the last five recessions. It seems to me, so far, that the market weakness in the early autumn was one of those false signals. Of course an indicator which is right about half of the time may be the best that one can do. As Ian had suggested some months ago, there seems to have been a weak stock cycle which was associated with weak international trade in the first half of this year, but which does not seem to have had strong effects on the advanced economies. Perhaps the stimulus from low oil prices supported consumption enough to offset this. It was helpful to be shown in Pre-MPC that world trade growth picked up in the third quarter, just when the discourse was at its gloomiest. We have of course discussed the fact that indicators of economic activity in China may point to more of a slowdown than do their GDP figures. If it is possible that China is weaker than the data show, it's also possible that the mix of output in China is changing rapidly, such that "old economy" indicators which used to be reliable proxies for GDP are no longer meeting this function. Nearer home, growth in the euro area in Q3 was slightly weaker than we had forecast. The PMIs point to firm growth in Q4 and the Ifo index rose markedly in November. Consumer confidence is generally firmer. As Ben pointed out, while the euro area is more tightly connected to emerging markets than is the UK, the overall effect of weakness arising from reduced exports to emerging economies is still likely to be small.

None of this, of course, detracts from the fact that commodity producers, who had expanded output on the basis of growing demand, are now hanged "on the expectation of plenty" with commodity prices are showing continuing weakness. Prices of industrial metals are down around 10% and the dollar price of oil has also fallen markedly since the Inflation Report, pointing to some further weakness in domestic inflation in the near term.

The immediate effects of the ECB policy easing have been a jump in the euro and a rise in bond yields. This probably reflects the fact that market traders were disappointed by the monthly volume of debt purchases was not being increased appreciably, ie, by the flow of debt purchases not being increased appreciably. Compared with the average for November, the euro has recouped about a sixth of its fall against sterling since September 2014 - but sterling remains high.

At home there is little news in the pattern of demand. Staff did, however, point out that, in producing our forecast we had marked GDP down by 0.1 percentage points in years one and two on the basis of heightened uncertainty, and that this uncertainty had now fallen back, reinforcing my sense that the autumn wobble has now faded from the data. Demand has been modestly affected by the fiscal changes announced in the Autumn Statement. I share the view that it might be helpful to review the impact of the fiscal path of the next few years. Of course long rates might be higher if the fiscal path were more like that of the United States.

We had a substantial discussion of the weakness in wages which is perhaps the most striking feature of the recent UK data. This has come with weakness in the length of the working week, so as Ben has pointed out, an implied figure for hourly pay shows greater stability recently than do weekly earnings. Nevertheless I do feel somewhat cautious about combining data from different sources (LFS and AWE) as more than a general guide to what might be going on. In Q2 the composition drag declined and productivity growth picked up. While I am very comfortable with the view that relative wages reflect relative marginal products, I also do not think that any growth accountant would expect to observe a close relationship between the composition of the employed labour force and productivity on a quarterly basis. I'm not really surprised that the composition effect in Q3 is much as it was in 2014 while the data so far point to hourly productivity growing by 0.6% in Q3 over Q2. How rapidly we should expect it to be unwound may depend in part on how far the compositional effect reflects, or perhaps buries, cohort effects. The problems of distinguishing age, time and cohort effects are well-known.

Anyway, looking at Q3 relative to Q1, ie, averaging over the two quarters which have shown fairly normal productivity growth, I find that unit wage costs grew by only 0.6% while output per hour grew by 1.5% and output per worker by 0.8%. Unit wage costs are growing appreciably less rapidly than would be needed to deliver the inflation target even if there were no further downward pressure likely to come from the effects of the higher exchange rate and the renewed weakness in oil and other commodity prices. This is not a great surprise given that AWE has grown only by 1.4% cumulated over these two quarters.

What about the future? I had wondered whether the weakness we have seen in the length of the working week reflected a rebalancing of work within households. I do not find, from the Labour Force Survey micro data, evidence of evening out the working week between household heads and their spouses. On the other hand, there are preliminary indications that for men, while longer hours seem to be associated with more pay, increases in hourly pay between wave one and wave five of the survey are associated with a reduction in hours worked. For women the results are more affected by outliers, but with trimmed data a similar effect is found. This suggests that, as Ian has described using macro data, there may be a connection between revived real pay growth and a shorter working week, even if the former is only a partial explanation of the latter. We must wait for the supply stock-take before reaching conclusions, but the pattern developing in the aggregate data seems to be fairly normal productivity growth with hours worked rather weaker than we had assumed in the past.

How far is weak wage growth a consequence of weak inflation? Some specifications of wage equations estimated over the relatively recent past have a significant role for lagged inflation while others do not and I am not sure that one can clearly distinguish between them. Similarly, whether there is a role for survey or financial market measures of inflation expectations depends on how you look at it. Overall though, it seems to me quite likely, as others have suggested, wage growth is held down by low inflation and will, as a consequence pick up once base effects fade from CPI inflation.

The fact that this is unlikely to feed immediately into CPI inflation combined with what we have learned about lags means that, while I expect Bank Rate to rise faster than the market curve, I do not see a need for an increase this month. I expect to vote for no change and also to vote for no change to our stock of assets.

**Governor Carney.** Thank you Martin. And Jon please.

**Jon Cunliffe.** Thank you very much. I wasn't going to do elves or earthquakes, it feels a bit more like Sleeping Beauty actually! Overall, there was some mixed news on the month.

Starting with the domestic economy, Q3 GDP was unrevised and there was no standout news in the expenditure split. And the nowcast for Q4 remains at 0.6%. But output and expectations surveys gave mixed signals. And consumer confidence fell to a six month low but remains well above its long-run average. There was also downside news on pay but I'll come back to that.

The Spending Review delivered a small near-term fiscal stimulus which increases estimated GDP growth in 2016 by around 0.2 percentage points but probably offset further out, as Andy has said. It also included a raft of measures on the housing market. And it's too early to say what impact these measures will have on prices transactions and dwellings investment, but my instinct is that for one the stamp duty changes may have a bigger downward impact over time than the official estimate and than our own initial estimates.

There were some bright spots in the 2015 NMG survey, particularly it showed that households have more income available to meet any increase in mortgage repayments, and that a rise in interest rates would now push fewer households into having very high debt service ratios.

Looking abroad, euro area Q3 GDP was slightly below the November Inflation Report forecast and the ECB policy announcement on 3 December underwhelmed the market. And in the US, lift off is clearly in sight but I don't think very much has changed in the big picture there.

So for me the November forecast remains a reasonable representation of my outlook. As such, my view remains that the next move in Bank rate is up. But not yet, and for two main reasons.

First, domestic cost pressures remain weak. Although pay has picked up so has productivity growth. Unit labour costs are still significantly below the rate needed to return inflation to target.

Our forecast treats some of the near-term increase in productivity as cyclical and then with a dip in the middle of next year with annual productivity growth forecast to be below 1% before bouncing back. And the reasons for this is, as we have discussed, are to do with the way we've distributed productivity growth and capital utilisation, and there is probably an over-estimate of the cyclical component. And although, as Martin has noted, a stronger near-term productivity outlook may be linked to weaker equilibrium average hours – and if that's true the combination of the two may not have a material impact on the path for inflation – I still think productivity is a downside risk to inflation going forward.

The weakness in domestic cost pressures has been an ongoing theme. But the recent hiccup in pay growth brings the issue into sharper focus this month. It is weaker than our forecast on all measures, and on Ben's preferred measure - private sector regular pay growth – it was 2.8% (0.2 percentage points below the November Inflation Report estimate) – the same rate as it was at six months ago. And three-month on three-month annualised private sector regular pay growth is 1.4%, down from 3.1% in Q2.

There is a long list of possible explanations for the weakness in pay, which took us through last week. I won't dwell on the ones like hours and composition which may have an offsetting effect on productivity because actually we need pay to grow faster than productivity to reach the inflation target.

There may be more slack in the labour market than we currently assume and that may be an explanation for weaker pay growth. And indeed, total hours worked were 0.3% lower than expected in Q3 driven by a fall in average weekly hours. But while it's impossible to rule out additional slack it

wouldn't be my top explanation, at least not until we have taken stock of equilibrium average hours in February.

Weak public sector pay growth could be acting as a drag on private sector pay but I put some weight on the recent staff paper that struggled to find significant evidence of this effect. And as to migration I hear Jan's argument but there is no strong evidence that migration has an impact on pay overall.

So for me one plausible explanation for weak pay growth may be low inflation. CPI inflation was minus 0.1% in October, it has not been above 1% for nearly a year or above 2% for nearly two years.

We were concerned this time last year that the onset of low or negative inflation might lead to a shift in inflation expectations and to weaker pay awards. We didn't see obvious signs of these affects earlier in the year when pay was picking up but it may simply have taken more time to come through.

I think inflation expectations are generally anchored. But low inflation has pulled down on household inflation expectations which have fallen consistently since the start of 2014. Currently, ten of the eleven cells in the heat map covering household inflation expectations are either blue or dark blue. And that may be weighing on pay. And low inflation has also boosted real pay and to the extent that workers are short-sighted, actual inflation and real pay growth may be attenuating workers' willingness to push for further pay increases.

There may also still be some timidity amongst workers in pay negotiations. Job-to-job flows (churn) are still below pre-crisis levels, particularly resignation rates. Churn has been picking up but it is still got some way to go to get back to pre-crisis levels.

Putting all that together, for the moment I am not too worried about pay-driven pressures building in the inflation pipeline, pressures that could emerge when external disinflation pressure stops. And that external disinflation pressure is likely to last for a bit longer given the further drop in oil prices. It is worth recalling it was at our December meeting last year that we first realised that the Saudis had decided to squeeze out high cost producers but we didn't realise then how long it would take and how low the price would have to go.

The other main reason I do not think it is the right time to increase rates is that there remains for me a risk of being blown off course by the international economy – and particularly by an EME-led crisis in particular for the reasons we have discussed.

The UK will suffer via all the standard channels: trade, risk aversion and financial channels.
But on top of that I think the nature of our recovery – driven entirely by private domestic demand – could magnify the standard impacts. And I'm referring here mainly to the impact on business investment. Business investment makes a much larger contribution to growth in the forecast than it did pre crisis. And the ratio of real business investment to real GDP increases over the forecast to its highest level on record, and the records go back to 1965.

Without downside risks materialising, this path for investment is fully plausible. After all, the cost of capital, corporate gearing and uncertainty are all relatively low. And we are coming out of a post crisis period of underinvestment.

But the nature of business investment – often long-term and irreversible – makes it extremely susceptible to an increase in uncertainty which would probably increase if the risk to global growth materialises.

There may be straws in the wind that global jitters are already starting to affect firms' investment intentions. In the latest Deloitte survey (Q3 2015) the proportion of CFOs who think now is a good time to take risk dropped to 46% down from 59% in Q2 and a peak of 72% a year ago. And in the Q4 EEF manufacturing survey, investment intentions were negative for the first time since 2010 Q1.

So to sum up, at the moment inflationary pressure in the UK looks weak. And the risk of a downturn in the world economy, including impacts on investment, is still there. It's possible that pay may come back in the near term and drag up unit labour costs. But we may also get a sharper rebound in

productivity. The supply stocktake in February should be a good opportunity to reassess some of these issues. But for the moment I don't see a strong case for changing policy so I expect to vote for no change in Bank Rate and no change in the stock of purchased assets.

**Governor Carney.** Ok, thank you very much Jon. Thanks everyone. I'm not sure I'm necessarily going to add to your many insights this morning. I'll start by focussing on growth, domestic costs and core inflation. I think that you know the second estimate and surveys broadly confirm our basic picture in the November IR of robust private domestic demand growth, and overall growth around historical averages as Kristin noted. Likewise in terms of core inflation the uptick in ONS core of 1.1% was unremarkable and I will come back to that, but I would say, in general, it confirms a picture of muted cost pressures.

As with others, I've focused on the interaction between wages and productivity and I won't go through the details in terms of the sequential move down on rates. I will associate myself with some of the discussion that we had last week and the comments of both Ben and Kristin, and I believe Martin as well. We did a bit more work in my office on some similar simple wage Phillips curves, like you did Kristin, so we'll share them, and, yes, this relationship between contemporaneous or lagged inflation and wages does appear to be significant. Long and short of it, we may have been successful in maintaining, as per the heat map, inflation expectations, but may have underestimated a bit the impact of contemporaneous inflation on wage dynamics.

Perhaps what I can do to supplement, and this is more a thought experiment than anything else, but if we have this relationship - a simple wage Phillips curve with inflation as one of the arguments - is use it to ask what needs to happen according to that in order to get wages back to the 4¼% range historically from its current annual rate of 2.8%? There is obviously an infinite number of variants that one could have in order to satisfy the maths on this. But if inflation returns to 2% I'll take that we'd add about three-quarters of a percentage point to annual wage growth, getting us to about 3½%. For the balance we would need to see unemployment go down through our current forecast of 4.8% at the end of our forecast horizon to about 4½%. So it just reinforces the fact that, as in our forecast, we're putting weight on an additional source of wage catch-up to lagged productivity; said another way, as Andy has been emphasising, a rise in the labour share. And it does imply that there could be some downside risks to getting there.

Of course, neither inflation nor wage growth is exogenous - they are co-determined - but the point is we need to see some progress in both of them moving up together to have reasonable confidence in meeting our mandate sustainably. The likelihood of that happening hinges on many things but that certainly includes wages relative to productivity growth. Many have noted the recent pick-up in productivity growth. I think we are all aware that at least in our near-term forecast we've ascribed some of that to cyclically-elevated factor utilisation rates, and we have some of it coming off in the near-term. There is no evidence of that yet, but of course contemporaneous evidence around productivity is extremely hard to find and it's dangerous to credit it too much. But I think as we do the supply stock take, it's an open question whether we'll end up with a greater gap, net adjusting, as seems very likely, down on average hours but taking into account overall productivity performance. I think I would emphasise the importance of looking at top-down measures as part of that process.

All this means that thus far the cumulative progress we've seen in firming domestic costs has been insufficient to warrant an adjustment in policy; the prospects of unit wage costs rising towards the 2½% range, historically 2½% range, consistent with the inflation target, but let's say 2% range that's consistent with hitting the inflation target: in a world without imported disinflation, and we're not going to be in a world without imported disinflation for some time; particularly given the relative lags of monetary policy in this country on wages; given what we've been talking about last week and this week; and on margins and on the pass through of wages ultimately to prices.

What about looking ahead? I thought it was useful to go back to August and look at our forecast of wage growth. We are tracking about 0.3 percentage points below where we had it at the turn of the year, so in other words right now, which is a relatively small downgrade, but it extends into 2016 - to the second half of 2016. That's our forecast as it is right now, and we look like we may be stretching to meet that forecast. So I think there is a real note of caution here - I'm picking August for a reason as you might be able to gather. More striking, core inflation is expected to be running at a slower pace as we entered 2016, as we were shown at Pre-MPC. The near-term shortfalls, 0.3 percentage points in core relative to what we'd expected in August, but that builds to a 0.6 percentage points shortfall by April of next year, so it's a big miss, it's a big miss on core, I mean it's a big delta, this may be a better way to put it, non-judgemental.

The STIF unfortunately is too short-term for it to capture this sort of firming and uptick in core inflation that we had expected to see by this point in our August forecast; so we don't yet see the turn there. And we'll need to see some, in my view, we'll need to see some of that in order to think about moving, and that can be easily reconciled with gradualism in my view.

So all of this for me puts me in a position where I see that we have the sharper relief; and it is that there is not a need to adjust policy at this meeting. That seems very clear to me, I thought it was sharper relief, it came in an imperfect way. I don't expect to be losing any sleep later this week before I have to make the actual decision.

But I would say that given the underlying dynamics I still absolutely do think the next move is going to be up. The underlying dynamics are there, I just think we can see, I personally think I can see a little more clearly the type of data that we need to fill in in order to have the confidence that we'd make reasonable progress to get back to that 2%. And I do take the comments that you started Ben, and others observed, in terms of policy relative to so-called data dependent policy, and relative to underlying data, and I do think a few of our brethren have diverged from that. I don't think we have and I have to say in the end with the wisdom of hindsight it's not clear that the yield curve has by and large diverged from that for the UK. At any given point we may have felt that the yield curve was too soft but in broad direction it's been right - in terms of reacting to data - and time will tell in the fullness of time, but I think we're still in a position where the yield curve understands our actual reaction function as opposed to our words around our reaction function, if you will, in terms of its ability to predict where the path of policy will actually be, and long may that last and long at least I, I believe I've been doing this, but continue to resist the sort of siren call of calendar-based guidance, tying oneself to a mast of a certain timeframe in order to overcome, you didn't use this word Minouche, but to overcome the sort of frustration of inaction.

And I thought I would just end off by cataloguing what I think everyone knows but in terms of relative action since 77 quarters[1], since we reached the zero lower bound, the perceived effective lower bound. Obviously there was a lot of action in terms of quantitative easing but then there was action in terms of the end of quantitative easing, then there was the action in terms of the ending of the debating of additional quantitative easing, which is action to be honest. There was the headwind of a huge restructuring of the financial sector, the banking sector, the raising of capital for the banking sector, and the uncertainty about the scope, scale and timetable for that. So those were all relative tightenings. Subsequently there was of course the more positive guidance and maintaining the interest rate as equilibrium rates have been rising, it was hard to say exactly with precision but there's that. We provided I think in the end some net stimulus with clarity around the APF, at least in terms of reducing uncertainty. We have on balance reduced the stimulus from the FLS, although I wouldn't say that that's materialised as per our discussions around that with the most recent tapering. And I think on balance there is last week's announcement by the FPC in terms of effectively completing the aggregate capital structure that will provide some stimulus for banks, and it provides a lot more in the fullness of time as it sinks in, provide a lot more certainty about their ability to deploy their capital and return their capital to shareholders.

On the other side of the ledger and I'll finish with this: on the whole macro-prudential policy has tightened although I would probably say that what it has done is that's really on the margin what it has done is to enable us as a Committee to continue to fulfil our primary responsibility, which is to achieve the inflation target; so the measures for housing last year, the PRA announcement last week that it would be reviewing the underwriting standards of banks for buy-to-let lending, there's more to that than it sounds because the process of a review will have an impact in terms of the discipline on underwriting standards. I join others in thinking that there may be more to the fiscal measures, cumulative fiscal measures, announced by the Government, particularly in July. It really does change the economics of buy-to-let and we'll think about how to properly and efficiently brief the Committee on some of the economics of that.

And then fiscal, the interesting thing, I join Martin in thinking we should take a fresh look at net fiscal. Certainly the measures taken a few weeks ago, mean a short-term loosening, and some element of re-profiling. But overall fiscal is a headwind, with the orders of magnitude open to debate.

So as I say I expect to vote for no change, no change. That bit seems pretty clear but equally in my view the next move is up and it is a bit clearer in terms of the underlying dynamics. But I do want to see those dynamics start to fill in to maintain a data dependence to ultimately adjusting monetary policy.

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[1] MPC secretariat clarification: speaker meant to say 77 months.

OK good.  With that, unless there are any additional comments I will close the meeting.

A meeting of the Monetary Policy Committee was held on Wednesday 9 December 2015. The following members of the Committee were present:

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

Dave Ramsden was present as the Treasury representative

The following members of staff were present:

Gareth Ramsay, Director, Monetary Analysis
Simon Hayes, MPC Secretariat
Chris Young, MPC Secretariat
Venetia Bell, MPC Secretariat
Melissa Davey, Editor of Inflation Report

**Transcript of the Monetary Policy Committee Meeting on**

**Wednesday 9 December 2015**

**Governor Carney.** Afternoon everyone. I call this meeting to order. I will just go through before we begin our decisions. I just have one piece of data which will come out tomorrow morning, which is the UK trade in goods for October. So take it for what it's worth. Yes it is there. It is a down sawtooth. It is headline good export volumes down 2.7% on the month and then so three-month three-month that means that goods export volumes are flat versus an in-house projection of growth of growth of 3.6%. Headline goods import volumes on the month for October up 8.2%. 8.2% yes you heard it here first. Outturn for three-month three-month ended in October is growth of 3.1% on headline goods import volumes. But that is lower than our in-house projection of 5% which tells you that things were revised back in previous months including in August quite substantially and in July marginally, which all goes to reinforce the point which you all know is that this data is very volatile, revised and has virtually no short-term explanatory power for the pace of activity which probably raises the question why I bother to give you the data. But someone gives it to me and I don't feel comfortable having data that you don't have so now you know from there.
So Andy any summary since we met yesterday of what…

> **Andrew Haldane.** I can't compete with that. There is no real material data since we last met.

**Governor Carney.** OK good. Minouche, do you have anything to add?

> **Nemat Shafik.** I do, I have an update of the latest market data. So since our November meeting there have been further falls in UK short-term interest rates, with rates three years forward now at 1.3 compared with 1.5 at the time of our November meeting. The timing of lift-off is still Q1 2017. Also obviously following our Pre-MPC meeting on 2 December, the ECB announced its decisions, I won't run through those because you know them well. But the changes that they announced did have, were clearly disappointing to markets but led the euro to appreciate, including against sterling and so the ERI is now almost 2% lower than at the time of Pre-MPC and at our November meeting. And equities have weakened internationally. The FTSE All-Share is now down 3% since Pre-MPC. And then finally, clearly markets are looking ahead to events in the US and the FOMC decision.

**Governor Carney.** Very good. Questions on any of that? Very good, ok so let's move to the decision. I'll put the propositions on the table that Bank Rate is maintained at 0.5% and secondly that we should maintain the stock of purchased assets financed by the issuance of central bank reserves at 375 billion sterling. I'll start with you Ben.

> **Ben Broadbent.** I confirm my vote for no change in either Bank Rate or the APF.

**Governor Carney.** Thank you Ben. Ian please.

> **Ian McCafferty.** I vote against the first proposition, preferring a 25 basis point increase but vote for the second.

**Governor Carney.** Jan please.

> **Gertjan Vlieghe.** No change in Bank Rate and no change in the stock of APF.

**Governor Carney.** Very good. Kristin.

> **Kristin Forbes.** I vote for no change in Bank Rate and no change in stock purchases, stock holdings.

**Governor Carney.** Thank you. Andy.

> **Andrew Haldane.** No change in Bank Rate and no change in the stock of asset purchases.

**Governor Carney.** Minouche.

**Nemat Shafik.** No change in Bank Rate, no change in asset purchase facility.

**Governor Carney.** Martin.

**Martin Weale.** I vote for no change in Bank Rate and no change in the stock of assets held.

**Governor Carney.** And Jon.

**Jon Cunliffe.** No change in Bank Rate, no change in stock of assets purchased.

**Governor Carney.** OK. And I vote for no change in Bank Rate and no change in the stock of assets held. So that makes nine votes to nil for no change to the stock of assets held. Eight votes in favour of no change in Bank Rate, and one vote, Ian's, in favour of a 25 basis point increase in Bank Rate. Very good, with that unless anyone has any other business I close this meeting and we will go to write up the minutes of our discussions.