BANK OF ENGLAND

MEETINGS OF THE MONETARY POLICY COMMITTEE
AUGUST 2016

A meeting of the Monetary Policy Committee was held on Monday 1 August 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
Simon Hayes, MPC Secretariat
Sarah John, MPC Secretariat
Garry Young, MPC Secretariat
Melissa Davey, Editor of Inflation Report

Transcript of the Monetary Policy Committee Meeting on Monday 01 August 2016

Governor Carney. OK, morning everyone. Welcome to a very special meeting, because it's Martin Weale's last meeting as a member of the MPC, which comes with certain privileges, Martin, as you know as a long-serving member. We're going to start with Andy, just to give an update on any recent data that has come in. Andy.

Andrew Haldane. Thank you Governor. Starting internationally, just a couple of pieces of data from the US, actually. We had Q2 GDP, which came in at 0.3%, which is somewhat – about 0.3 percentage points – weaker both than our and the markets' expectation. We also had, on Friday, some consumer sentiment data from the US, which also saw a substantial fall in July. And then, turning domestically, just three quick further surveys. We had the CBI composite and service sector indicator for July – we'd had previously manufacturing and distributive trades. That showed, on the backward-looking basis, a modest decrease. The more forward-looking expectations output balance dropped rather more sharply, in line with you've seen from some of the other surveys. Secondly, we had the GfK consumer confidence indicator for the whole of July. Previously, we have had just a snap survey post the referendum. Roughly speaking that came in in line with the snap survey results with a pretty sharp fall overall in consumer confidence. And then, finally, we had the Lloyds Business Barometer for July, which showed quite a sharp bounce-back from the sharp fall we'd seen in the immediate post-referendum period. That indicator remains below where it was immediately ahead of the referendum, but nonetheless a pretty sharp bounce-back. That's all, thank you.

Governor Carney. OK, very good. Thank you very much. We'll start with Ben and then go to Minouche please. Ben.

Ben Broadbent. Thank you Governor.

In the August Inflation Report we suggest that one of the costs of the referendum is that firms exhaust time they'd otherwise spend improving their products working out what to do about it. After a rather busy few weeks I know how they feel. I imagine the Monetary Analysis division does too, and I want to begin by commending everyone involved for all the exemplary work, and there's been bags of it, they have done, including through this last weekend.

I also want to commend Martin. He was, as it happens, the first and best economics teacher I had. He's brought the same penetrating insights to the MPC, to his, I think, 24 speeches and every one of the 73, I think, policy meetings he's attended. And he's done so, throughout, with enormous integrity, disinterest, politeness and good humour. Someone else will be taking his place but he is, in fact, irreplaceable. So please don't go too far, Martin.

Let me turn to this month's decision. As last month, reflecting the relative flow of news, I will curtail my usual summary of global economic developments and concentrate on what's happened at home. Suffice to say that the main thing to note about the news from the rest of the developed world is how little there's been of it. Second-quarter growth, according to early official estimates, was a little lower than expected in both the US and the euro area. But early survey evidence since the result shows few signs that the UK referendum has disrupted confidence or activity – or, for that matter, that it's encouraged anti-EU sentiment elsewhere in Europe. Yields on government bonds are lower, including in the US; yields on some European banks are higher; but beyond that the visible effects have been relatively limited.

The same is not true in the United Kingdom itself. Some indicators had already been weakening ahead of the referendum – employment surveys only gently, the RICS balances on housing market activity and prices more sharply. Those released since the referendum have declined much more noticeably. July has seen the steepest falls in the CBI industrial confidence indicator for over 20 years, the sharpest decline in the REC employment balance, over any two-month period, since 2008 and, as Andy just told us, the steepest fall in the PMI composite output indicator on record. All those are now at their lowest level since the financial crisis and, taken together or separately, they are at levels at which previous Committees would have been easing policy aggressively.

Some of these falls were, no doubt, exaggerated by the immediate shock of the result of the referendum. The Lloyds Business Barometer, as Andy mentioned, actually recovered a fair bit of its initial decline, although that is not, I believe, something that has made its way into our nowcast.

More importantly the surveys have to recover, to a degree, to be consistent with our new forecast. That shows small but positive growth, through the second half of the year, in housing market activity, in overall economic activity and even, just about, in employment, at least measured in heads (we do project a 0.4% decline in total hours over the next six months). So we are already, to a degree, discounting the weakness of these surveys released immediately after the referendum.

And we are doing so against a backdrop in which, even if there had been a reasonable prospect of a pick-up in such pressures, and I believe there was, domestically generated inflation pressures have been well contained. And there's a nice chart in the Inflation Report, showing a swathe of those DGI measures, all of them still well below normal, that's as good a summary of that as any.

But, taking that near-term forecast as given for the moment, what does it say about the appropriate policy response?

I'll make three points here.

First, it seems likely to me that a deceleration this sharp tells you more about the evolution of economic slack than it does about slowing supply. We've become used to supply shocks since the financial crisis, and it won't, any longer, do simply to assume that potential output grows serenely, undisturbed, at some God-given rate no matter the economic environment.

More than that, we've identified various channels through which EU exit specifically is likely to dent potential supply, even before that exit actually occurs. I've no doubt these are real and that potential output growth will slow and it was right, therefore, to allow for a fair bit of that in our central forecast.

But it seems unlikely to me that it could have done so at quite the rate implied by these output surveys, imperfect though they are. So I've little doubt, either, that spare capacity in the economy will grow over the next few months. And that is consistent, for what it's worth, with the further decline in the employment surveys since the referendum; the staff's nowcast shows a gentle rise in unemployment even through the third quarter.

The second point is about the timing of our response. We were shown during the round various optimal policy simulations conducted on a model which, like most others in this area, has policy working pretty quickly – faster, in all probability, than we and other monetary policy makers believe to be realistic. As such, they often recommend aggressive responses to events – in particular short-run deviations from the inflation target that, in the real world, policymakers would tend to forego. If you suspect such effects are temporary, and if there's any cost at all to policy reversals, it's often not worth bothering responding to these.

But if the reality is that policy works more slowly than in these models then it also has to be more forward-looking. It would be nice, of course, to wait for confirmation before doing anything. But we would be waiting an awfully long time for that to be true. Lags in policy mean we have to look forward and act, as far as possible, in anticipation of changes in the economy. Indeed that's why we make forecasts in the first place. "Implicit in any monetary policy action or inaction", Alan Greenspan once said, "is an expectation of how the future will unfold, that is, a forecast". Doing nothing involves a judgement about the future as well as doing something.

The third point is to re-iterate what I said last week about the coherence of the so-called package. Forecasts are, of course, highly imperfect and reasonable people can very easily disagree about them. There can also be disagreement, therefore, about the scale of any policy response. But, as regards its composition, I continue to believe that the advantages of the package – the breadth of the response – are higher the larger its scale. That's because one of its elements, the TFS, is designed specifically to protect the transmission of Bank Rate, something we'd already described as our

preferred marginal tool: the first line of defence. So it is one thing to reduce the official interest rate by only 25 basis points and to leave it at that, even if – in my view – that would be inadequate to the task. But if our next step is to make sizeable asset purchases, people might well ask, with the TFS in place, why we hadn't first exhausted the remaining room for Bank Rate to be cut. And we would, I think, need a clearer answer to that question.

At these PMI readings, previous MPCs would have done more than cut official interest rates by 25 basis points. Notwithstanding the fall in the sterling exchange rate, I think we too should do more today. Even the deeper cut on which the forecast is conditioned results in a predicted trade-off that, in my view, gives undue weight to a relatively small overshoot on the inflation target. That's why my preferred option would be to cut Bank Rate by 40 or even 45 basis points and to make some asset purchases on top. I will support the TFS either way, scaling the allowance as appropriate; I will also listen to others, and be prepared to compromise on Bank Rate. My preferred level of asset purchases would then depend on what, if anything, we are able to say about the room for a likelihood of further cuts in Bank Rate. And I would also like to hear what defence we have for, as Jan put it last week, "leaving cuts in Bank Rate on the table", while pursuing other options about whose effects we are less certain. Sorry to give only an indicative opinion for the time being but I'll stop there.

Governor Carney. So I have Minouche and then Kristin.

Nemat Shafik. So when looking at the data for Q2 that we have received this month, I can't help but think wistfully of the journey we didn't complete. It turns out that GDP grew by a healthy 0.6% in Q2, core inflation rose to 1.4% in June, and unemployment fell below the 5% mark. Thus had things turned out differently in the referendum, we would likely be debating the case for moving monetary policy to a more normal setting – a destination, I think, we all would have liked to have reached. Instead – like a ship which cannot enter port on account of a storm and must sail to another destination – we find ourselves debating an easing rather than a tightening of monetary policy.

So, the case for easing. There's no doubt that the UK has experienced an economic shock. Its long run potential growth rate suddenly looks less bright than it did a few months ago, uncertainty has risen, and – partly in response – the exchange rate has fallen by about 10%. Our stage in the data cycle makes it very difficult to determine the size of the shock, though I thought the "pyramid of indicators" that we were presented with last week provided a helpful summary of what evidence we do have. The best-performing indicators of growth in the coming quarter have turned from predominantly green to predominantly orange or red – and are consistent with outlook being flat in the months ahead and potentially contracting a little thereafter.

Matters are complicated by the fact that we face a trade-off between supporting growth and minimising the overshoot to the inflation target. I must say, I have found very helpful the monetary strategy material and studied them, my feeling is that I would be comfortable tolerating inflation up to 2.4% in the third year of the forecast in order to get the output gap below 1% in the second year. In the parlance, that probably gives me a lambda of a bit under a half.

But my lambda is state contingent. I am aware that this would be a record overshoot of the inflation target at the end of the forecast, and wouldn't always be willing to accept such an outcome, as it risks signalling a lack of commitment to reaching that target. In this instance, however, I think there are two important justifications. The first is that allowing inflation to rise above target following a depreciation is consistent with past MPC behaviour to tolerate price level shocks – the only difference is that this time we are aware ex ante that the shock will take a longer time to fully pass through. The second is that after nearly three years of below target inflation and seven years of weak wage growth, I find it difficult to envisage a scenario in which a modest overshoot leads to de-anchoring of inflation expectations. The fact that measures of longer term inflation expectations in our heat map are decidedly blue, gives me further comfort.

So, I'd like to turn to the available options. I believe there is a case for stimulus. But, reflecting the fact that we never made the journey back to a more normal setting of monetary policy, the options immediately available to us all have limitations. Broadly speaking, these options fall into two familiar categories: reducing Bank Rate or asset purchases.

So let me start with Bank Rate. It's the instrument whose transmission we know the most about, and as such I believe we should reduce it as far as we are comfortable with, before considering anything else. For me, that implies a small positive value, and I am reassured by the PRA's analysis suggesting that 0.05% would be manageable for the vast majority of banks and building societies.

But the transmission of this change will be impaired by the downward rigidity of retail deposit rates around zero, and so I support launching the Term Funding Scheme for that reason. I expect this scheme to work through two channels. First by making funding available to banks for an extended period at – or close to – Bank Rate, it should strengthen the link between their overall cost of funding and our policy rate. And second, by providing a backstop source of stable funding, it should act as a form of insurance against a sharp increase in bank borrowing costs. For either of these two channels to be credible, it is important that banks have a sufficiently large borrowing allowance with us, and so I am glad the design of our scheme incorporates that. I would see it as a bonus were the scheme to also stimulate or maintain lending and increase competition through inbuilt incentives, but for me these are not the primary objectives of the scheme. The analysis we were shown last week suggested that cutting Bank Rate to 0.05% was unlikely to be sufficient to achieve the combination of growth and inflation that I would consider optimal. So I would support a further round of asset purchases, on an order of magnitude of about £50 billion.

Within that, the purchase of corporate bonds should improve credit conditions for companies by lowering their cost of borrowing. It will also make the sterling corporate bond market a more attractive place to issue debt, and in turn incentivise a greater level of business investment. However, the current size and structure of the market – which is more concentrated and less liquid than its euro equivalent – means that we shouldn't assume we could buy more than £10 billion over the coming 18 months.

So I would also advocate a further round of gilt purchases, to the order of £40 billion. I do believe in the efficacy of gilt purchases: by lowering the risk free rate they increase the price of all assets, boosting financial wealth for households and lowering the cost of finance for companies. But they are unlikely to be as effective as they were when financial markets were dislocated during the crisis. Moreover, the negative side effects of gilt purchases are the same or even more acute than the last time they were undertaken. The continued move lower in yields has put pressure on insurers' solvency ratios, and record pension fund deficits mean that we are closer to the point at which companies are obliged to take action to address them.

This combination of reduced effectiveness and greater side effects is one reason we should be less reliant on gilt purchases than the MPC has been in the past.

I am grateful to the hard work by staff in Markets, MA and PRA for helping us to think through this fairly complicated package of measures.

So let me sum up. Our ship has been blown of course by the result of the referendum, and corrective action is needed to ensure that we avoid the worst of the storm. That action can be delivered through a reduction in Bank Rate – the transmission of which can be strengthened by the TFS – and a further round of asset purchases – the effectiveness of which will be improved by the inclusion of corporate bonds.

But we remain unsure about our final destination. We don't know, for example, what the UK's trading arrangements are likely to be upon leaving the EU, how long it will take to transition to them, or what the ultimate impact will be on the economy's potential output. It seems more likely than not that we will encounter more turbulent waters rather than plain sailing over the months and quarters ahead.

I appreciate that some colleagues may want to hold back measures to await more data or to respond to future shock. In my judgement I think we have enough evidence to justify significant stimulus now and that this calibration still leaves us room to manoeuver in future. So, this month, my preference would be to vote for a reduction in Bank Rate to a small positive number, such as 0.05%, reinforced

by the launch of the Term Funding Scheme. I would also support a further £50 billion of asset purchases, of which £10 billion could be corporate bonds.

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

Kristin Forbes. Today is a historic day. And no, I am not just referring to the decision before us. Today is the last MPC meeting at which we will benefit from Martin's comments. Therefore, I will structure my comments around some of Martin's insightful quotes from over the years. There are so many, that it was easy to find one to motivate every point I wanted to make.

In May, Martin lamented: "Descriptions of the monetary policy making process often invoke various vehicle-driving analogies…." Then he used his own such analogy: "compared to the drivers of most vehicles, the MPC is much less certain about how fast the economy is currently moving…."

This is even more relevant today than in May. We are extremely uncertain about how the economy will evolve. This is not just the usual uncertainty that always colours our decisions. The UK is undergoing a major structural change with no historical precedent. Past data is less informative, forcing us to scramble with new techniques to create a forecast. So little data about the economy is available that we are regularly talking about high-frequency data that has shown little informative power and which have probably never before been mentioned in MPC meetings. To revert to my own vehicle-driving analogy, we are not just driving by looking in our rear-view mirror, but doing so in the dark with no street lights.

What is the optimal policy response in the presence of heightened uncertainty? Brainard suggests using a range of policy instruments. Several of you have advocated taking strong pre emptive action and easing aggressively, knowing that it can be reversed if needed. These arguments have merit, although I am less convinced of the simplicity of reversing a monetary easing. Just hinting at raising interest rates can generate currency appreciation that mitigates the need for tightening. Selling asset purchases is even harder. If a slowdown corresponds to a supply shock – as is likely today – it is harder to tighten under slower growth, especially given the challenges in estimating the role of supply versus demand shocks in real time. Today many of you have and will be advocating for an aggressive monetary easing. My comments will therefore focus on additional considerations to ensure that all relevant issues are part of our deliberation. Most important, I am more wary than usual about relying heavily on the forecast to motivate monetary policy. One reason is that it is driven more by survey data, given the structural break and paucity of hard data. Martin always highlighted "the importance of making the best of what we have". That is what we are doing. But he also continually reminded us of the importance of assessing how informative different data is, including caution about putting too much faith in what people say, and instead focusing on what they do. And a good example of this was Martin's evidence that people often choose to work less hours than they claimed they wanted to work. These insights are particularly relevant today as we are relying more on business surveys, confidence measures, and expectations to create our forecast. Most of these show a sharp deterioration. Will this translate into comparable reductions in real activity? Or will this be another false signal (such as after the Asian crisis or September 11) – when sharp deteriorations in sentiment quickly reversed (as the Lloyds Business Barometer has already done) with much less impact in output? We don't know. But we will know substantially more very soon.

There are other reasons why the forecast may be overly pessimistic. Of course, Martin has constantly reminded us that: "forecasts are inevitably speculative", or "each forecast is only a forecast", or "we need to be humble due to …the perils of thinking that we know too much…"

With those caveats, I see two areas of meaningful upside risk. One is from over-estimating the effects of uncertainty. Uncertainty before the vote did not have the dampening effect we expected. The academic papers showing significant negative effects of uncertainty do not control for asset prices and other variables through which uncertainty works, but which we do control for directly in our forecast, suggesting we may be double-counting even after our partial adjustment. Moreover, since our new arrangements with the EU may take a substantial amount of time to resolve, people and businesses could adapt and be less affected. These effects could cause us to overstate the drag on GDP and inflation in our forecast from uncertainty.

Another forecast risk is consumption growth. Although consumer confidence has fallen, most measures are still close to or above long-run averages. A variety of high frequency indicators and discussions with companies does not indicate any slowdown in consumption (except for the week around the referendum, which also coincided with bad weather). To get a sense of what a stronger consumption profile would imply, the forecast team ran a scenario using our Draft 1 forecast, except raised consumption growth for the rest of the forecast to the average rate over the past year through Q1. Stronger consumption growth than forecast could occur for a number of reasons: weaker uncertainty effects; less deterioration in unemployment; or less weakness in house prices or wages than expected. In this scenario, GDP growth troughs at 1½% year over year (instead of 0.1%), the output gap ends the forecast at +1.7%, and inflation reaches 2.9% in year 2 before increasing further. This scenario and the inflation overshoot would not require a looser monetary policy today.

Martin frequently reminded us of the importance of our inflation target, recently arguing that: “given the primacy of the inflation target…it is appropriate to give less weight to output deviations than to inflation deviations”. Today’s restrained inflation, though, helps with this trade-off. With headline inflation at 0.5% in June, with nine of the 10 DGI measures below their historic averages and eight of the 10 below 2%, the upward price pressure from the recent 10% depreciation will only cause a moderate inflation overshoot in our baseline forecast. This gives us some flexibility to modestly ease monetary policy today.

But even if growth slows sharply, there is less flexibility than might be expected due to the shocks behind this slowdown. The vote to leave the EU will likely generate a substantial reduction in potential growth – primarily through lower productivity growth. Our forecast predicts that potential growth falls by a half a percentage point to 1¾ percentage points. This is a major supply shock. There is limited room for monetary stimulus without driving inflation above target for an extended period. Moreover, an aggressive monetary easing – especially if a surprise – could likely cause further sterling depreciation. Our empirical work shows that currency movements corresponding to monetary policy shocks generate greater pass-through than average. Any such additional depreciation could quickly raise inflation to levels which I am not comfortable “looking through”, creating a more difficult trade-off that limits our ability to act in the future.

Tying this together, I have outlined several reasons why the economy may be stronger than in our forecast, of why an aggressive monetary easing would therefore not be merited. But, there are also arguments why the economy will evolve as forecast, or be substantially weaker. By our next MPC meeting, we should have substantially more information on if, where, and how much weakness is occurring. I see little cost to a modest easing today, combined with communication we are ready to take additional action if supported by more information in the future.

We have limited easing tools available, and although we could devise others, our remaining tools are already experiencing diminishing returns. If our limited tools are not needed today, we could be grateful to have them in the future. Moreover, looser monetary policy also has costs (such as on banks, pension funds, and insurance companies). Although our analysis suggests these costs are manageable, and the benefits outweigh the costs if the economy slows sharply, I would rather not generate those costs if not needed.

What does all of this imply for my votes? I raised several reasons why we should be cautious adjusting monetary policy today. But the weak business survey data has increased the probability of a sharp slowdown in investment. A sharp slowdown in commercial real estate is already occurring. Even if consumption growth remains solid, the economy is going to slow, perhaps sharply. A moderate easing of monetary policy would help mitigate the slowdown and support employment, without increasing inflation to a level inconsistent with our target in the medium term. Therefore, I support a reduction in Bank rate to 0.25%, combined with language that we are ready to act if needed as more information is available, and that any such action need not occur in conjunction with an Inflation Report.

I will also support the proposed Term Funding Scheme. This highlights we are cognisant of the costs of lower Bank Rate, that we want a lower rate passed on to borrowing costs for individuals and businesses, and to provide a funding backstop against additional negative shocks. By improving the transmission channel as rates near zero, this provides evidence of our readiness to lower Bank Rate further if justified by the data. This programme is also attractive in terms of the trade-off between

inflation and growth. Staff analysis suggests that the other easing policies under consideration have a “two-for-one impact” in terms of twice the boost to GDP relative to inflation; i.e., cutting Bank Rate to 0.1% is estimated to have a peak effect on GDP of 0.4% and on CPI of 0.2% (at year 3). Proposals for different asset purchases also have a 2-for-1 relative impact. In contrast, the TFS is estimated to have a 4-to-1 relative impact on GDP and the CPI. The overall effects are small – but the relative trade-off for growth and inflation is attractive.

As for the two asset purchase proposals – I will not vote to support them at this time. I do not think the benefits of these programs currently outweigh the costs. I worry about the effects on insurance companies and pension funds. I worry about the whole set of issues related to distortions of asset prices (especially equity prices) and what has been called a “central bank put”. Of the two proposals for asset purchases, the private sector scheme is novel and could have signalling value despite its small size. But it also involves a new set of risks. If we go forward, we will need to carefully structure this programme and think through various scenarios.

I will close with one final quote from Martin, “learning from my colleagues [is] one of the most fascinating and enjoyable parts of my job.” I am sure that I speak for all of us when I say that learning from you has been insightful and enjoyable. Your real-time input will be sorely missed, but your insights will continue to influence our discussions for years.

Governor Carney. Hear, hear to that. So I have Andy and then Ian please.

Andrew Haldane. Thank you, Governor. Like others, let me just start by thanking staff both for the enormous quantity of exceptionally high quality work they have produced during the round, but also for the speed and patience with which it has been delivered. Those exact same sentiments, I think, could also be said of Martin’s role on the Committee over a number of years. Whatever decisions we end up making this month, they will have been improved immeasurably for both of those efforts.

Turning to those decisions, the two key dimensions are: the quantum of monetary stimulus necessary to meet our objectives; and the coherence of the accompanying stimulus package.

Let me start with quantum.

Our August Inflation Report forecasts for the output gap and inflation provide, for me, a very reasonable, if necessarily uncertain, starting point for judging the required degree of stimulus. Using the current yield curve, those forecasts show that, taking years two and three together, the cumulative deviation of inflation from target is around 45 basis points. The cumulative deviation of output from trend over the same period is 1.6 percentage points. Or, put differently, the ratio of inflation to output deviations is around 0.3. If we stretched that to include year four, the ratio of inflation to output deviations is closer to 0.2.

To assess the case for monetary stimulus, over and above what’s implied by the yield curve, that ratio needs to be compared with the subjective weight we each place on inflation versus output deviations – or lambda. My own subjective lambda, based on the welfare costs of inflation deviating from 2% and output deviating from trend, is perhaps close to one. So, for me, the case for monetary stimulus over and above what is already priced into the yield curve, to better balance that output/inflation trade-off, is pretty clear.

Or, put differently, in my view we need a package of measures, beyond the rate cuts embedded in the yield curve, to get a more reasonable trade-off between inflation and output, on the assumption the August IR projections are reasonable ones. In that sense, the first-order case for a broad package of monetary measures is not Brainard – that we should not put all of our eggs in one basket. It is that we need to do sufficient to ensure the economic pudding is not under-egged.
So how much extra stimulus?

One way into that question would be to ask how many extra asset purchases would be needed to equalise cumulative deviations of inflation from target, and output from trend, at the two and three year horizon. The answer to that question is around £100 billion.

So, for me, the benchmark answer to the question of the appropriate quantum of monetary stimulus is around a 40 basis point reduction in interest rates plus around £100 billion of asset purchases, or some stimulus-equivalent combination of the two.

But this back-of-the-envelope calculus has been done assuming risk-neutrality, so let me discuss some upside and downside risks.

On the upside, it's possible that a dose of monetary medicine of this strength could dislodge upwards medium-term inflation expectations, as inflation would then be a ½ percentage point or more above target for a period. While that risk weighs with me, I have been reassured by the recent behaviour of inflation expectations, both from financial markets and consumers. Financial market measures, at 5-10 year maturities, have fallen by 15 basis points since the referendum, while consumers' expectations over a similar horizon have fallen by around 10 basis points. And this was from already-low levels by historical standards.

For me, this suggests the upside inflation risks from stimulus are no greater, and even maybe lower, than the downside risks from insufficient stimulus.

Our current forecasts already embody downside risks to output at years 1 to 3 and to inflation at year three. Using mean rather than modal projections, as any risk-fearing central banker should of course do, implies an inflation-to-output trade-off ratio which is possibly below 0.2. Equalising the trade-off in risk-adjusted terms would require a few extra tens of billions of asset purchases, on top of the £100 billion.

That naturally takes me to the question of what package of monetary measures best delivers this degree of stimulus.

Coherence seems to me the watchword here, by which I mean the package needs to be effective in its impact and mutually consistent in its composition. My starting point here is that interest rates are both the most effective (high return) and least uncertain (lowest risk) of our monetary tools. They risk-return dominate all the alternatives. In fact, I think that is overwhelmingly the case even if interest rates cuts are somewhat less effective and somewhat more uncertain at current levels. We have hundreds, if not thousands, of interest rate data-points to calibrate their effectiveness, compared with about a dozen for asset purchases. That is of course the reason why, repeatedly in its communications, the MPC has spoken of interest rates being the marginal monetary policy tool. And I find it hard to think of any substantive grounds for deviating from that judgement now.

This links to the Term Funding Scheme. I understand the key aim of this scheme is to augment the effectiveness, and hence reduce the uncertainty, around the interest rate tool. And on those grounds, I think the in principle case for the scheme is very strong, calibrated broadly to offset the impact on banks' margins of a rate cut so as to maximise incentives to pass through those cuts. But I do have a concern that, on the staff's calibration, the case for the TFS is strong with interest rates at 10 basis points, but more questionable at 25 basis points. In particular, I think it is crucial the MPC is able to say, hand on heart, that it has designed the TFS to neutralise the impact of rate cuts on banks' profits, but not to subsidise those profits. Flexing the scheme's allowance, at different levels of interest rates, would be one way of achieving that objective.

Turning to asset purchases, I view these as a top-up measure necessary to achieve the required degree of stimulus. And, on that basis, I see a clear rationale for purchasing both public and private assets – the Brainard diversification argument does have real force here.

I am attracted to a corporate bond purchase programme as part of any package on those grounds, even if it is small in scale and would build only slowly. And on quantities, although my benchmark is £100 billion or so, I could live with a smaller package on the grounds that, if the data were to evolve in the way expected in our forecast, these could be scaled-up in future months. This, rather than leaving a few basis points of rate cuts on the table, would, for me, be the more coherent way of ensuring our toolkit is flexible.

Finally, just a word on the zero lower bound. Whatever the interest rate decision, it strikes me important we say something further about this. My stating point would be to say that we now have confidence that, with a TFS in place, interest rates of five to 10 basis points can be sustained without a counter-productive impact on credit conditions and the wider economy. But I would also be minded to say that, as past experience has shown, this bound is not a fixed point, and we will keep it under review when assessing the appropriate monetary policy stance in the period ahead.

So to summarise, my starting point for today would be a package comprising: 40 to 45 basis points of rate cuts; a TFS, suitably calibrated; a corporate bond programme of around £10 billion; and gilts purchases of around £50 billion.

Thank you.

Sir Jon Cunliffe. Last one was 50?

Andrew Haldane. 50 or so.

Governor Carney. 50 or so, but you would go up to 100. OK. OK, yes. So Ian and then Jan please.

Ian McCafferty. Thank you, good morning Governor. Before I turn to this month's considerations I'd just like to second Ben and others comments about the recent efforts of the staff, and also pay my own tribute to Martin's contribution to this Committee over the years.

Our discussions over the past 10 days have been exhaustive – in every sense of that term – so in an effort to avoid repetition, as well as hesitation and deviation, I shall restrict my comments to those issues most pertinent to my voting inclinations.

The data about the post referendum economy are still scarce, and we need to be wary of the volatility of survey evidence at times of unusual shocks. On previous such occasions, their initial readings have often turned out to be false friends. It is not yet clear how far the sharp falls in confidence and activity will be sustained, with some more recent reports from the Agents and other business contacts slightly less negative than the initial surveys.

In broad terms, however, the effect of the shock appears to conform to prior expectations – it is significantly negative, its initial impact falls more on investment than consumption, domestically-facing rather than exporting firms, and services more than manufacturing. But calibrating the scale of the impact on demand is as yet difficult to determine with any precision. It is very possible that some of the initial hit to confidence, for both consumers and businesses, was the result of political as much as economic uncertainty, such that it may stabilise, or even rally in future months. This is the pattern of the Lloyds Bank business barometer, a reasonable signal for GDP growth, and, I think, the only indicator for which we yet have two fully independent readings since the referendum.

As a result, while I agree that the August forecast is our "best collective" synthesis of our understanding to date, I still believe that, as I suggested last month, we may yet see a more "slow-motion downturn", with the rate of GDP growth falling somewhat more slowly over coming quarters than we have in the central forecast.

Now, how demand reacts in the short to medium term via this confidence channel is one of the key uncertainties within this forecast. There are others – particularly the longer term impact of Brexit on supply – but while they will take a long time to resolve, the uncertainty about the initial demand response is likely to diminish relatively rapidly as we learn a lot more from the data in coming months. This likely reduction of at least one aspect of Brainard uncertainty steers me towards a measured and gradual policy response for now – while not ruling out further measures should they become necessary. If ever there was a time to conduct policy on a "learn as you go" basis, it is now.

Other features of our latest forecast also have implications for my policy judgement. In the central forecast, the estimate of the trade-off between the amount of inflation overshoot and the size of the output gap points towards a significant policy easing, for anyone who does not possess a very low lambda. However, I am more confident of the path of inflation than I am of GDP, and can see some upside risks to our inflation profile. In particular, the response of nominal average wages to the pick-

up in inflation at a time of regular increases in the National Living Wage is yet unclear, and may possibly flatten the Phillips curve even further as unemployment rises. For me, the risks around the trade-off calculation lean toward slightly higher inflation and, if demand growth does not fall sharply in coming quarters, a slightly lower output gap. My lambda is clearly higher than the 0.15 we've discussed, although probably slightly lower than some others on the current committee, but my preferred quantum of easing, and its timing, are influenced by that risk-adjusted trade off, such that I am inclined towards a slightly lesser degree of stimulus than contained in the central forecast, at least for now.

So how much stimulus, and what form should it take?

The current forecast is predicated on an eventual fall in Bank Rate to 10 basis points, and some expectation of further QE in coming months, with a weighted average of survey responses yielding a quantum of £65 billion of additional asset purchases over the coming year. I am inclined to start with a degree of stimulus slightly lower than that, at least at this meeting.

I strongly agree that we should continue to use Bank Rate as our marginal instrument, especially as the multipliers around asset purchases are both less certain and likely lower than in earlier rounds. That does not mean, though, that we have to exhaust our room for manoeuvre by hitting the effective lower bound completely before considering asset purchases, but they should, at least initially, be ancillary to moves in Bank Rate. When considering asset purchases, and particularly the corporate bond scheme, we should also consider what they bring to the party, over and above direct monetary stimulus. Even though the purchase of corporate bonds is necessarily limited in its magnitude and pace, I believe that such a policy would generate some benefits through both the signalling channel (in that it raises the possibility that the universe of non-government assets could be broadened further if required), and the confidence channel (in that we are considering our policy options creatively, and have not run out of ideas). It also provides monetary stimulus through a slightly different route, by reducing corporate credit risk spreads, which may prove effective given the nature of the particular shock we have experienced. For me therefore, corporate bond purchases are therefore not simply equivalent to further purchases of gilts, and in my view would better be considered as a separate policy instrument, requiring a separate vote at this month's meeting alongside those for Bank Rate and changes in the level of gilt purchases.

If using Bank Rate as our marginal instrument, it makes perfect sense to try to ensure that the transmission channel is not impaired through the impact on banks' net interest margins of a very low Bank Rate. The staff analysis suggests that while the impact on NIMs increases slightly more than proportionately as Bank Rate falls from the current 0.5%, the impact is still material at 0.25%. As such, it can, and in my view should, be introduced on any decision to cut Bank Rate from current levels, and its introduction need not influence the quantum of our Bank Rate decision.

So for this meeting, my preferred combination of easing options is as follows.
I am intending to vote for a reduction in Bank Rate of 25 basis points, but to vote against an immediate reduction to even lower levels. In the Minutes, and in the press conference, we can send a message that 0.25% does not represent our effective lower bound, and that a further reduction would be possible once we know more about how the economy is responding. If Bank Rate is cut, I support the immediate introduction of the scheme designed to prevent the impairment of the normal transmission channel of monetary policy by offsetting the squeeze on net interest margins, particularly if we can finesse that to further demonstrate that we are offsetting, but not subsidising, bank profits.

Subject to being finally reassured of some of the more technical operational details, I am inclined to vote in favour of the immediate announcement of a corporate bond purchase scheme, of £10 billion. But I am likely to vote against a proposition to increase gilt purchases immediately. I would hold the restart of gilt purchases in reserve, but recognise that they may be required in coming months if the central forecast path for GDP is fully borne out.

Jan has talked of the risk that shifting policy only slowly suggests reluctance. That is possibly true for financial market participants. But I worry about the opposite risk, for a different audience, that if we announce a bigger package than the public feels comfortable with, including Quantitative Easing, which has a pretty negative press amongst the general public, we may damage consumer and

business confidence further, which I would prefer at this stage not to do. If the economy does deteriorate rapidly, the public will be made aware of it soon enough, such that further easing at that stage, including the possibility of restarting gilt purchases, will be supportive to confidence.
I am keen to hear of the views of colleagues, but to me, this approach is a proportionate, measured response, which diminishes the risks that we are accused of "talking the economy down" through the scale of our actions, recognises the high level of immediate uncertainty about the path of the economy, and offers the prospect of further easing should developments warrant it.

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

Gertjan Vlieghe. Thank you. It has been five weeks since the referendum. Still early days, but we know a lot more than we did in July.

The spill-over of the leave vote to the rest of the world is a risk that has not materialised so far, and that is encouraging. Neither the post-referendum activity data, nor movements in global financial markets – after a very short-lived bout of volatility – point to a marked change in growth or sentiment between June and July. The recovery in financial market sentiment does seem to be predicated, at least in part, on easier global monetary policy, given the more persistent moves down in government bond yields.

On the domestic front, the picture is far less benign. Brexit has truly been a domestic shock. Sterling remains down 10% from its pre-referendum level. Share prices of domestically oriented banks are down 20 to 25%. Share prices of home-builders are down 20%. Share prices of retailers are down 9%.

The preliminary data covering the post-referendum period supports the idea that there has been a sudden reset in the growth outlook. Indicators covering business sentiment, business output, housing activity and consumer confidence have all fallen sharply, in several cases experiencing the largest drop in many decades.

These indicators are, on average, a good signal of future output growth. But they are prone to occasional false signals, when falls in the surveys are quickly unwound and output growth on official measures remains stable.

It is reasonable to ask, given that we are at the very early stages of the post referendum period, what the risk is that we are seeing such a false signal now. The evidence is mixed so far.

For the PMI and GfK surveys, we had both a preliminary balance based on an early sample, and a final balance based on a full sample that included later responses. The headline measures of both surveys were weaker in the full release than in the preliminary release, meaning there had been a further deterioration, not a rebound, in responses later in the sample.

The one indicator where we did see a rebound was the Lloyds Business Barometer, a survey of large firms. There had been a sharp fall in the survey taken 24 to 29 June, which almost entirely unwound by the time of the subsequent survey taken 18 to 22 July. Note that the July survey window for Lloyds falls in the middle of the PMI survey window, so it is not the case that the Lloyds survey was stronger because it was taken later. It just moved in the opposite direction to the PMI survey over comparable dates.

My reservation about the Lloyds survey, as I pointed out last month, it that it is far more volatile than either the PMI or CBI surveys. It's better than nothing – we had little else last month – but it is not better than the other surveys we now have. I do not dismiss it entirely, but, on balance, I think the chances of a full rebound in sentiment in the coming months are not that large, even if they are not zero.

Moreover, it must be emphasised that our forecast implicitly includes a meaningful rebound in business activity surveys. For example, an unwind of more than half of the PMI's July drop would be consistent with GDP growth in our central case.

Overall, the downshift in business and consumer surveys, as well as the on-going deterioration in housing and commercial real estate markets, which had already started before the referendum, leave me comfortable with a central forecast that the economy is about to stall for several quarters. Despite the resulting opening up of the output gap and the rise in unemployment, exchange rate pass-through is likely to push inflation above target for a period. The staff simulations and our discussions on this topic in terms of a loss function were very useful. Our forecast of the output gap for next year and the year after is more than 1% on the modest stimulus scenarios, while inflation overshoots by only a few tenths in years 2 and 3. At those levels of the output gap and inflation, the marginal gain from a tenth reduction in the output gap is worth three to four times the marginal loss from an additional tenth in inflation. The case for significant stimulus is therefore overwhelming, in my view.

Over and above the loss function considerations, I would like to add three more.
First, the medium-term risks to our growth forecast lie to the downside, in my view, and arise from the risk that net trade will benefit less than usual from the weaker exchange rate, and that household savings might rise more than the flat profile that we project. These are downside risks to demand, and therefore point to downside risks to inflation.

Second, when conventional monetary policy is close to its limit, the effect of unconventional monetary policy is probably smaller and more uncertain than it was when we first deployed it. So the policy prescription is to do more and do it sooner. I would much rather be in a position where, sometime next year, I judged that we had perhaps slightly overdone the stimulus, than to be in a position where, sometime next year, we find ourselves in a position of having to go ever further down the unconventional route, as we realise that either the economy is in worse shape than we thought or the effectiveness of the stimulus we had already carried out was less than we thought.

Third, we do not start from a position of an economy in equilibrium. Even though the headline unemployment rate is close to our estimates of the NAIRU, underlying inflation pressures remained too weak, suggesting either our estimates of slack are wrong, or there were other disinflationary forces at work. That starting point of weak inflation pressures also suggests we should be erring on the side of more and earlier policy action in response to the deterioration in the outlook.
Faced with a central forecast that justifies more stimulus, downside risks to that forecast, and risk management considerations related to the effectiveness of our tools and the low starting level of inflation pressures, a full package of stimulus is justified.

I am therefore inclined to vote for a cut in Bank Rate of 40 or 45 basis points, which would take Bank Rate to its effective lower bound in current circumstances. I also favour implementation of the Term Funding Scheme, an increase in the stock of gilts purchased of around £60 billion, and an increase in the stock of private sector assets purchased of £10 billion.

I understand there is some desire on the Committee to hold back and cut rates only 25 basis points this month. I support the general strategy of keeping some stimulus measures in reserve until the data sheds some more light on the extent of the downturn in the coming months. But I do find it difficult to explain the logic of keeping a small amount of interest rate stimulus in reserve when we are also implementing a significant package of other stimulus measures, thereby clearly showing that we believe we need more stimulus than can be provided by a 25 basis point rate cut alone. Leaving 15 basis points or so on the table for the future risks being confusing: first, we are implicitly putting a lot of weight on such a small step by holding it in reserve for the future; second, we are reneging on our strategy to keep interest rates as the marginal instrument, without a strong justification; and third, I would not want to modify the terms of the TFS within months to match the further rate adjustment, partially undermining the insurance that TFS stability would bring. Thank you.

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

Jon Cunliffe. Thank you very much. Can I just join Ben's compliment to the staff for the work that's been done in the time available. I think it really is very impressive. And also all the comments that have been made about Martin. I first came across Martin's evidence-based reality checks in the light of UK fiscal policy, and probably didn't take enough notice of them then. [Laughter.] It's been very

useful to have had them on monetary policy, and I certainly hope they won't stop even though he leaves the Committee. So thank you very much.

As I said last month, I hadn't expected to learn very much between our July and August meetings from the hard economic data, or to learn very much about the speed with which uncertainty will dissipate, or the end point of negotiations in the UK's future economic relationships with Europe.

The key sources of information at the moment, given the lack of hard data, are financial markets and surveys and, perhaps, political developments. And how we read those sources, and what we do, is for me more a question of strategy rather than of data. So rather than begin with the data and 'news' as I normally would, I think I want to begin with strategy.

Our forecast this round is, of course, unusual in that it follows a regime shift in the UK's economic relationships. I mean, in some sense we are starting this forecast at year zero – the past economic forecast trends and relationships are just much less informative about the future. We foresee an adjustment in the UK economy to a different path of potential supply, but how different the path and how different the end point is to the status quo remains very uncertain. And in that world, to me sentiment and confidence channels assume an even greater importance than they do in more usual economic circumstances.

We are, I think, reasonably clear about the mechanisms through which the adjustment is likely to happen in the current climate of uncertainty – a cut back in business investment, and then in hiring, leading slower growth in household consumption. And our forecast for GDP and inflation is based on the paths for demand and supply moving at relatively similar speeds.

We have talked a lot about the risks around the profile for changes in supply. But I am particularly concerned about the risks around the path for demand. There are, as others have pointed out, risks that demand growth will fall back more slowly than we forecast and considerably more slowly than supply. And in those circumstances extra stimulus now to support demand will increase inflationary pressure. But I am more concerned about the opposite risk – that as corporates cut back on investment and hiring, and as the difficulties of resolving the tensions around the UK's negotiating position become apparent, consumer confidence could drop sharply and demand could fall faster than supply opening up a larger output gap. Consumer confidence is not linear – it can quite easily overshoot going down as well as going up. The data show that moves in consumer confidence between 'high' and 'low' confidence states are typically abrupt and typically significant.

So a key aim of my strategy in this environment is to prevent a sharp downward adjustment in consumer confidence over coming quarters that could overshoot on the downside and so to keep supply and demand moving together as smoothly as possible. Against that backdrop, I do want to act pre-emptively and robustly to underpin confidence and to show that we have adequate monetary ammunition, that we are willing to use it and that we still have more available.

An alternative strategy would be to wait and see, in the hope that a clearer picture emerges. My pre-emptive strategy is clearly not immune to the data. If there were no evidence that the actual and prospective downward moves in output growth, investment and hiring – the initial stages of the process we expect – were likely to happen, then I would be happier to wait.

But this does not look to be the case so far. Markets point to a downturn in the UK economy. Since the referendum, UK-focused equities are down 6% versus an increase of 7% for non-UK-focussed equities; house builders' share prices are down by nearly 25%, as are the share prices of major UK-focussed banks; REITs prices are down around 10%; and UK 10 year gilt yields are down 70 basis points to a record low. And, of course, financial market moves needs to be interpreted with care – markets are pricing in a wide range of possible Brexit outcomes and they have expectations of a monetary stimulus.

And survey indicators also should be treated with some caution, particularly at turning points in the economy and when uncertainty is elevated. But the indicators we put most weight upon due to their predictive properties are pointing to a sharp slowdown. The composite output and expectations balances of the Markit/CIPS survey both fell to their lowest levels since 2009, each recording the

largest monthly declines since the survey began in 1998. Services output and expectations saw their sharpest fall since the survey began in 1996, and are now at 2009 levels. The manufacturing balance fell to its lowest level since October 2012. Expectations were very weak in both the Markit/CIPS construction data for July and the RICS construction survey for the second quarter and output is falling according to Markit/CIPS (the more timely of the surveys).

Companies do indeed seem to be reacting to the uncertainty and to the possibility of bad outcomes by cutting planned investment and hiring. Investment and hiring intentions have fallen, in some cases sharply, in the July CBI Quarterly Industrial Trends Survey, the latest Deloitte CFO survey and according to the Agents reports. Both the REC and CIPS employment data for July indicate a fall in labour demand. The permanent staff placements balance in the REC Report – an indicator of labour demand – saw its largest month on month fall in July since May 2009.

And the staff GDP nowcast – which aims off a bit for the impact of CIPS surveys, which is one summary of the impact of all of these developments – is 0.0% in Q3 and -0.1% in Q4.

Households have also reacted adversely to the referendum, but less adversely than corporates so far. The GfK/EC confidence fell sharply in July to its lowest level since June 2013 – the sharpest month-on-month fall since 1991 – but it does remains around its historical average. And the YouGov/Cebr consumer confidence index also weakened in July, but again remains above its historical average. This slower reaction of consumer confidence to the shock is pretty much what I would be expecting at this stage.

The picture is not universally downbeat. The Lloyds Business Barometer suggested that business confidence recovered in July most of the drop in the immediate aftermath of the referendum. And at the meeting I attended last week with major retail CEOs, they hadn't picked up a post-referendum fall in consumer spending, but again that is pretty much the process that I was expecting. Q2 data were stronger than expected, which suggests that the impact of uncertainty might be lower than we expected, although, like British railways and snow, we may find that we are dealing with a rather different type of uncertainty and a more difficult to manage uncertainty that we had predicted. And credit conditions have remained broadly stable. The depreciation of sterling, as we've discussed, has provided a boost to manufacturers.

But when I put all that together I don't see any reason to change my strategy. There is enough evidence for me that the adjustment process is beginning through a slowdown in the corporate side. And therefore my concern about ensuring the smooth adjustment of consumer confidence over coming months remains and, by extension, my concern to avoid consumer confidence overshooting on the way down and a consequent, and faster than forecast, fall in spending and increase in the savings ratio, that concern remains. I think we should act early, using a range of instruments, and we should demonstrate that even after action we have policy space. It's not just that there is an argument for using multiple tools in the face of elevated uncertainty about the transmission mechanism. It is that I also believe that we should show that our toolbox is fully open and that there are no additional hurdles to using particular tools. And that we will use those tools coherently. These objectives point to having a diverse policy package.

And it is not just, for me, a question of the trade-off between the output gap and inflation in the forecast, though I too would be prepared to see a smaller output gap than implied by the market curve and the current constant rate curve at the cost of some higher inflation. It is for me also insurance against what I fear as the most difficult to manage downside risk. It may be that the slowdown is shallower than we feared. That would then create the risk of a sustained overshoot in inflation. But I would much rather be in that position where we can take away stimulus than avoid the loss of confidence and a growing output gap. And inflation expectations have remained fairly stable throughout large overshoots of the target in the financial crisis and more recently the prolonged undershoot of the target.

On the specifics of the policy package, I therefore provisionally vote for a 25 basis point cut in Bank Rate alongside an appropriately calibrated Term Funding Scheme, to increase the stock of gilt purchases by £60 billion and to purchase £10 billion of corporate bonds.

I would expect the Bank Rate cut and gilt purchases to do most of the work and for the TFS to support this by strengthening the transmission mechanism of Bank Rate cuts to the real economy and I feel strongly this is the justification we should use rather than any objective of credit easing.

The corporate bond purchases will probably have a direct impact on economic activity only at the margin, but the indirect effect through the signal that the Bank is willing and able to purchase private sector assets could be more important. It should reinforce the message that the Bank has more monetary ammunition and is prepared to expand its toolkit as necessary.

I hope the design and size of this package should put a floor under consumer confidence. I would also want to communicate that we see the effective lower bound as positive, and close to zero. I'm not sure that we need to mention a precise number. This would make clear that we have scope to go further if necessary and should hopefully quell concerns about negative rates which, in conjunction with the TFS, should give banks less reason to prepare, publicly or otherwise, for negative rates.

I could go further on a Bank Rate cut to 45 [basis points]. I would prefer not to because I am concerned about holding some ammunition back, and also about the impact that concerns about negative rates could bring and could overcloud the package. I think if we do go further on Bank Rate that one would clearly want to recalibrate the TFS. But, as I say, my preference is for a Bank Rate cut of 25 basis points, QE of £60 billion of gilts, £10 billion of corporate bonds, and an appropriately calibrated TFS.

Governor Carney. Thank you Jon. Alright, the man we've all been waiting for. Martin.

Martin Weale. Gosh, I hope I don't disappoint.

Governor Carney. No limit. [Laughter] Don't worry about it now.

Martin Weale. I hope I neither abuse your patience nor disappoint. Anyway, thank you Governor. This is the most distinctive of the 73 meetings of the Committee that I've been to because, in the aftermath of the referendum, past data movements are, to say the least, much less good as a guide to the future than is normally thought to be the case. Staff have pointed out that, from the available indicators, the CIPS balance is the best performer as an indicator of final GDP and it, like other indicators, shows a sharp decline.

It's important to remember that best is not very good. In May I looked at the performance of the CIPS balance as an indicator of final GDP growth. Using an equation estimated over the period before the slump to project final GDP growth for the period 2009 Q4 to 2012 Q4, I found a root mean square forecast error of 0.45 percentage points, despite a t-statistic of 5 for the period over which the equation was estimated. By contrast, an equation which relied only on preliminary GDP had a standard error of 0.2 percentage points.

What about assuming, following the surveys, that the pattern of the last recession will be replicated? That seems to me rather like inferring that there would be a late swing in favour of remain in the recent referendum because there had been in Scotland in the referendum two years ago. What is, in effect, a single observation is not normally a very good predictive tool. After all, the Lloyds Business Barometer suggests a recovery in confidence in July following a weak climate after the referendum; things may be different from 2008. More generally, were I staying on the Committee I would urge staff to keep up-to-date tables of the performance of the disparate indicators that we discuss, so at least we, or rather you, can agree on the facts. And I do mean tables.

How do I approach the policy decision today? I start with a prior belief that the economy has suffered an adverse shock and a larger shock to demand than supply. Since the exchange rate did not fall as sharply as seemed possible after the referendum, that makes a case for policy to be eased. Even with the exchange rate where it is, that case could have been overturned had survey indicators suggested that this prior was wrong. But the balance between the surveys and the prior has come out together. They've confirmed the idea that output has been adversely affected although, as the analysis above points out, there's a great deal of uncertainty as to by how much.

What are the implications of this for policy? I found our forecasts very helpful as a means of understanding this and I'm very grateful to the staff for their work. The constant rate forecast shows inflation being brought to target at the end of the forecast period, but at the cost of a substantial output gap. If instead Bank Rate follows the market rate, then the output shortfall is reduced by about 0.5 percentage points with inflation being 0.2 to 0.3 percentage points above target in two to three years, reflecting a Phillips curve slope of about a half. Given that, would I want to ease more so as to have a smaller output gap? How much of a further increment to inflation would I want to trade off against a narrowing of the output gap, even if the economy continues to allow that sort of trade-off? Like Minouche, I have considerable reservations about substantially more inflation; to be expecting to deliver inflation of say 2½ per cent may start to run risks with the credibility of the framework, even though we know that in the past actual inflation exceeded 2½ per cent for a lengthy period without leading to a general and sustained increase in inflation expectations. A limitation of our analysis of the trade-off is that it relies on a quadratic loss function and assumes that policy does not lose its credibility. So my concerns about credibility could be interpreted as saying that I have a higher power loss function for inflation than for output.

It is, I am sure, possible to construct fine-tuning paths where extra output is obtained while inflation approaches its target from below more quickly. In our model these might be sustained by the expectation of tighter policy beyond our forecast horizon rather than with a corrective tightening of policy coming during the forecast period. I do find that argument rather disconcerting. It relies on a particular view of how monetary policy influences demand – a view which, for all of its merits and logic, may not be correct.

If that is my sense of the forecast, there is a further consideration. We actually know very little about the effect of the vote on the economy. I do not see that as a reason or doing nothing but I do see it as a reason for proceeding with caution. The staff note on monetary strategy made a powerful case for a very powerful immediate response – a combination of cutting Bank Rate to 0.1%, substantial purchases of government debt and some purchases of corporate debt and the introduction of a Term Funding Scheme to make the reduction in Bank Rate fully effective. I understand, however, that the costs of waiting for at least some of this until the September or November meetings will be small. In September you will have industrial production figures for July together with more survey data and, in November, GDP figures for Q3. To repeat, my research suggested that they are a much better guide to final GDP growth than are CIPS figures, although that analysis didn't use the latest GDP revision.

There, I think, is much merit for the Committee to make clear that we cannot be sure of the effects of Brexit, and that we are prepared to adjust policy in the light of what is learned. We should not construct a false policy choice between now and never. To quote the motto of the City of Oxford: "Fortis est veritas et praevalebit".

This leaves me prepared to set Bank Rate, I think, in line with market expectations. I expect to vote for a reduction to 0.25%. If things turn out as the forecast suggests, then there'll be case for further reduction. I am also in favour of introducing the TFS, despite the fact that the need for it is lower than would be the case if Bank Rate were reduced further. There are two reasons for this. First, as Ian has pointed out, it has some impact, and the staff work suggests that the impact falls disproportionately on output rather than inflation. Secondly, it helps make credible any statement that there is room for a further reduction in Bank Rate. Staff have suggested that the structure might be different with a Bank Rate of 0.25 rather than with a Bank Rate of 0.1 or 0.05%. In order to support the Committee's decision, I expect to vote for the structure most appropriate to the Bank Rate that the Committee sets, rather than appropriate to my own views on the Bank Rate.

I do not see any need for further purchases of government debt today. They can be used later if the forecast path appears to be confirmed, or if things turn out to be weaker than forecast. I suspect there may be more inflation resulting from gilt purchases than was built into our simulations.
I do, however, support corporate bond purchases up to a maximum of £10 billion, and subject to being reassured tomorrow that the risks associated with this have been properly considered and addressed. Such a scheme will give a signal that we are able to intervene in a wider range of markets than was hitherto thought to be the case, itself reassuring people that there remains very substantial scope for further monetary easing should it be needed. Assuming that the economy evolves as forecast and that, as the market curve implies, Bank Rate is subsequently cut to 0.1%,

this package implies slightly more inflation in two to three years' time than we have forecast, but will do relatively more to support output and, of course, the option of gilt purchases will remain. If I could now come to the end of my statement, colleagues have made kind and underserved comments about my involvement on the Committee, for which I'm very grateful. I would also like to make one additional comment about Ben's success and the pleasure I have taken in it. About 30 years ago one of my teachers, said that he felt very old because a former pupil of his had just been made Governor of the Well, I can assure you, that the feelings of great age come on seeing the success of a pupil who becomes Deputy Governor of this central bank.

Governor, please could I go further over the word limit to thank you, all of the members of the Committee and also, of course, the Treasury observer, for the great privilege and pleasure I have had in working with you, as I have also with other Bank colleagues. I have always found I needed to separate my prejudices from conclusions reached by interpreting the data using a proper analytical framework. Both the staff input and our own deliberations have helped with that enormously. Setting monetary policy is something I would not have missed.

Governor Carney. Thank you very much Martin. Impossible to follow you. You've made many firsts to this Committee – that has to the first time the Treasury observer has ever been thanked. Don't let it go to your head, Dave. Don't report it back. I'll just refer to my much longer comments at your reception as testimony to my personal appreciation for all you've done.

And I want to join others as well in thanking staff from MA, Markets, FSSR, the PRA, Legal, Comms and beyond for their work since the vote to leave, but specifically MA intensively in the run-up, including literally in the run-up to this meeting. First they worked seamlessly together; and then second, they have put us in a very solid position from which to formulate the right policy response, as the richness of the interventions thus far indicate.

Let me say a few words on near-term outlook and then go on to strategy and options. Back in May we identified the effects a leave vote could have on demand, supply and the exchange rate. The economics of that were sound, they still feel sound, and early indicators suggest the direction was correct. The questions now concern the order of magnitude and the persistence of these effects.

With respect to the exchange rate, I would note that it's been a significant but manageable decline. Manageable in the sense that it leaves room for a better monetary policy mix, which is what we're coming to. As others have commented, I will add mine in terms of the questions about the growth momentum and I'll just recall that, well, nowcast models point to growth of 0.1 to 0.3 in Q3 after a robust but somewhat fading Q2. Business surveys, as others have noted, suggest a sharp deterioration. We have with the July PMI really a unique situation of the clear break between pre and post-referendum data, such clean identification about which econometricians can usually only dream. The services expectations and composites are all at their lowest levels since the dark days of early 2009. They suggest a contraction, as others note, in Q3, but I think we've been right in being cautious in taking too much of a signal from one month of data and have aimed off with 0.1% growth in this quarter – a rational, measured approach. Notwithstanding that other indicators point to a slowing, including CBI's July surveys of industrial production and distributive trades, where optimism has collapsed to its lowest level since 2009, others have noted that the Lloyds Business Barometer has bounced back, turning a red to an orange cell on Pyramid. But I would note that it suggests growth in Q3 of 0 to 0.3% range, so again consistent with what we are forecasting, or intending to forecast.

On expenditure dynamics, I suspect they will be more nuanced over time. On consumption the main negative signal, apart from softness in car sales, has been that sharp fall in confidence, bringing it back to its lowest level since October 2012. But, consistent with conversations with retailers, it feels right that our IR profile has consumption growing positively until the first quarter of next year, when it starts to fall, with that weakness building over time as real income growth slows and confidence catches up with a darker reality.

Investment weakness can be expected to come sooner, driven by the increased uncertainty, as we have noted, a softer demand outlook, consistent with the CBI's latest QIT survey, and, on balance, marginally tighter financial conditions.

And finally, property markets appear to be softening, just as expected. I won't go through all the gory details of either the RICS survey for the housing market, which is about as gory as it can get. In fact, it is as gory as it can get with three and 12-month-ahead series reaching record lows and the sharpest falls since the questions were first introduced. And the commercial property survey, which has a sharp deterioration in sentiment, is entirely consistent with a broad range of conversations we have had with those in the sector. It looks like commercial real estate is going through a protracted period of adjustment, which layers a cyclical adjustment on top of a potential structural adjustment. So I think all of those developments are consistent with deficient private domestic demand that is sufficient to drag overall growth below potential, despite a likely boost to net trade from sterling.

So moving to strategic issues and the monetary policy horizon. There is obviously little that policy can do in the very short term to check this negative momentum. Although, on balance, I would note – before I go into the strategic issues – that it could support confidence with a coherent easing and reduce uncertainty about credit supply in conjunction with other policies of the Bank.

Over the medium term, the combination of these Brexit effects on demand, supply and exchange rate are likely to generate a monetary policy trade-off. Setting monetary policy to merely fix inflation at 2% in two years' time would give us an output gap of around 1¾% next year, and contribute to 400,000 or more people becoming unemployed in 2018, relative to our May projection. In my view, this would contradict our remit, which requires, and I quote, "in exceptional circumstances, the MPC should meet a forward-looking inflation target while giving due consideration to output volatility". And really, providing no stimulus would imply zero weight on output stabilisation and total indifference to rising unemployment, and I certainly welcome that colleagues share that view.

The other end of the spectrum from no stimulus is that sort of classic new-Keynesian targeting rule with a lambda of one and Phillips curve, say, around a half. A rule that implies larger inflation deviations than output gap deviations – and I think Ben referred to this in his comments – inflation deviations about which, as conservative central bankers, we might instinctively feel wary. Certainly that has been the case in the past, in terms of outturns actually delivered by past MPCs, who at times have tolerated output gaps peaking at 5%. So the right policy trade-off lies somewhere in between. In my view, the largest revision to our GDP forecast on record and, not unrelatedly, a significant but manageable exchange rate depreciation, yields a considerable trade-off which demands an exceptional response – a response that should be timely, coherent and comprehensive.

Specifically, I'd support four measures. First an immediate cut to the effect of lower-bound, in other words of 40 to 45 basis points. I'd underscore that this matters. 50% of household borrowing is floating, more than three-quarters of it is after two years, and four-fifths of business borrowing is at floating rate, at present.

Secondly, I would join others in supporting a launch of the Term Funding Scheme because it first and foremost reinforces the pass-through of Bank Rate and reduces that effect of lower bound to almost zero. Secondly, in and of itself, it's likely to provide stimulus, given the potential expansion of central bank reserves in excess, and its largest incarnation, of £190 billion – I'll return to that. And thirdly, it'll add insurance against stresses in bank funding markets, much as the FLS currently does.

Thirdly, I would implement a private sector purchase programme. Specifically, committing to purchase £10 billion of corporate bonds in the secondary market in the first instance. And I do so because it's a targeted intervention with the domestic focus, so part of being a good global monetary citizen. It reaches down the transition mechanism of monetary policy in a direct, tangible way, more so than gilt purchases. By supporting investment, on margin, it creates a more favourable trade off with inflation. In other words, supply should benefit on the margin. It's complementary to the TFS, both by operating through a capital markets channel, not a bank channel, and by supporting companies as opposed to banks.

Fourth, I would support £60 billion in gilt purchases, as otherwise the trade-off is too wide. They are stimulative in and of themselves, and they reinforce the signalling channel of Bank Rate.

Now that package, according to staff analysis, implies a lambda of about a third at Year 2. So a fairly high weight, as you would expect – quite a high weight, in a north-American sense – on inflation deviations. I think there is merit to a package of measures that provides appropriate stimulus and demonstrates that, because we understand the interactions with the financial system, we have taken steps to avoid unintended consequences. We can remove residual uncertainties about the supply and the price of credit by providing a

coherent response with maximum consensus; we can boost confidence. So that's where I would be. That is indicative of where I would be.

Which brings me to strategy and consensus, because I haven't actually proposed anything as yet. By my count, the indicative votes would be 5 votes in favour of going to the effective lower bound, 4 in favour of 25 basis points. This is on rates. 9 votes in favour of the TFS. 9-0 in favour of the TFS. 7 votes in favour of the corporate bond purchase programme, 7-2 for that. And 6 votes in favour of Quantitative Easing, albeit at different levels of purchases. Everybody on corporate bonds at £10 billion, people said different things, those who supported Quantitative Easing.

So let me just talk through…

> **Gareth Ramsay**. Sorry, Governor, I think it's 8 votes for corporate bonds and only 1 against.

> **Martin Weale**. That was what I had thought too.

Governor Carney. I'm sorry, you are right. Thank you, Gareth, so 8 votes in favour, where I miscounted. Now, let me say the following. I do think that, at a time of elevated uncertainty and in a time of very large revisions in terms of our forecast, I think there is merit to having as great a consensus as possible on Bank Rate. I think there is merit to that and I'm informed by other people's opinions.

I think there are two alternatives here. I think only one of which actually holds. Well, I'm guided by others. The first is that if those whose preference is for 40 to 45 basis points would give up QE in this round in exchange for others who voted for 25 basis points to vote for going to the effective lower bound – in other words, following the marginal path. It's not quite a one-to-one trade, if you will, if that QE amount is 50 to 60 basis points. I see a challenge with that. I'm trying to explore all options. I mention it for the purposes of completeness. The challenge in my way of thinking is that it's not clear that both sides, having listened to people, would necessarily be willing to go in that direction. So maybe the Venn diagram doesn't overlap.

Secondly, it is a package that clearly signals, although we can be more inventive and we have signalling with private sector purchases, it would signal that QE is effectively the marginal instrument. That would be the message that people would take out, and then that coupled with uncertainty on the forecast, might lead people to jump to that.

I think probably more promising would be, and I certainly would support this, a comprise to a 25 basis point cut now, provided it was stated clearly in the Minutes something to the effect of "a majority of members would support a further cut of Bank Rate to its effective lower bound, which is close to, but just above, zero in upcoming meetings, if incoming data were broadly consistent with the forecast". So, I mean, that doesn't have to say exactly that, but language to that effect. And I'm informed by what people said. So I would ask those who were thinking of – including myself, I mean I would support doing that – and others who supported an immediate cut to the effective lower bound, to consider a package.

What I'm considering proposing is a reduction in Bank Rate to 25 basis points; an introduction of a TFS, scaled to a 25 basis point cut – to be specific, as per the staff guidance, it would have a 5% of total lending initial allocation with the incentive structure for new lending providing additional allocations if there is additional net lending; a corporate bond purchase programme of £10 billion; and a gilt purchase programme of, I have £60 billion in my mind for that – that's what the staff guidance was, and it bridges a bit of those who think in there. I recognise this isn't fully consistent with the strategy, in economic theory, of managing policy to a certainty equivalence outcome. In other words, just because we have a more uncertain forecast, we shouldn't necessarily manage this way. I do think in an everyday sense – Ian was referring to financial markets and real economy – I do think in a real economy sense it is explainable in that regard. We've made the biggest revision ever, we've provided a very large package, which has demonstrated that we have a broad range of instruments – I'm going to come back to that – but we have something in reserve, and I'll expand on all those points.

First, in terms of the size of the package. This would be our largest package ever. Central bank reserves would rise by around £170 billion, because the TFS, unlike the FLS, is funded by central bank reserves, as opposed to financed through the issuance of Treasury bills by the DMO. So this is the biggest change in the indemnity we would ever have been given. The previous largest was £150 billion. And let me state for the record: I am not a monetarist, but neither do I think that money doesn't matter at all. One of my

predecessors at the Bank of Canada, Gerry Bouey in the 80s, signalled the end of monetarism and foreshadowed the advent of inflation targeting – no, inflation targeting was not invented here – when he said, "we didn't abandon money, it abandoned us". And what he meant was that there wasn't a stable relationship between money and inflation, not that they were entirely unrelated. Now, we have ascribed zero impact for swapping these T-bills for reserves in the TFS, in terms of stimulus as we go from the FLS to the TFS, but I think there's something there in the margins. So this is a substantial package. And then I mentioned having a package that can be scaled. We could not be accused of being out of bullets, given that we could do more along each of the dimensions. Obviously Bank Rate could go down to the effective lower bound, and we will have given an indication of at least a majority of being minded to do so if the data comes in. The TFS can be scaled up, and would be more stimulative, in any event, with further cuts in Bank Rate. Jan, in that regard I didn't quite understand your insurance point, I'm sure there's a deep point there, but …

> **Gertjan Vlieghe**. The only thing I had in mind is the disadvantage of launching the TFS with the 5% thing and then potentially within a month saying, oh no it's 10%, and thereby inviting the comment that, even though it's an 18-month scheme, you can change the terms at any point. It's a small thing. It just goes in the direction of the clarity of doing the one-shot thing.

Governor Carney. The comeback to that obviously would be, that that's consistent with ensuring that we can go from 25 to 5 in this case, as we currently think, and ensuring that that is passed-through. Martin …

> **Martin Weale**. I just wanted to make the point that if, or rather, looking at the vote, when, the TFS is announced, if it went with a Bank Rate of 0.25 it would be possible to explain that there would be adjustments to the Scheme in the event of further reductions in Bank Rate.

Governor Carney. I think that in fact it's probably a necessary point in order to give clarity. So scaling up Bank Rate could go lower, TFS could be scaled up. We could consider buying more corporate bonds, including primary issuance, although I suspect over time if we really got into this situation we would spend more time thinking about whether we could buy other private assets. Provided we could do so in an allocatively neutral fashion. And, of course, the advantage of having outstanding bonds is somebody else has decided what's out there, as opposed to us. And obviously the universe of gilts is large and expected to grow.

So just to sum up – and I'm going to put a proposition to everyone, explaining to the outside world what we have done, if we were to pursue such a package. First, we're recognising that the outlook has changed markedly. Early indicators are consistent with the economic effects that the MPC had identified before the vote. The direction is clear, although still early days. There is naturally uncertainty about the ultimate magnitude and persistence of these effects. What is clear is that we now face a trade-off between much lower output and somewhat higher inflation. We are not indifferent to unemployment and lost output. Within our remit we are compelled to act. Acting now can dampen the effects of uncertainty and support the necessary adjustments in the real economy. Acting now can bolster confidence and blunt the slow-down. But we are acting prudently. It's appropriate given the scale of the shock, some uncertainties about the degree of the hit, and relatively limited data. And we're clear that, depending on the data being broadly consistent with the forecast, we can be expected to do more, consistent with our remit.

Thirdly, that this is a joined-up approach, and you see that with the TFS and the Bank Rate cut. The FPC's decision on the leverage-ratio adjustment is actually very important given the potential expansion in central bank reserves. And its previous decisions on the counter-cyclical buffer and the PRA's flexibility on the transition mechanisms for insurers is actually quite important, given where the yield curves are. And all of that insures that stimulus has its maximum impact, and overall we're reducing uncertainty amongst businesses and households about the supply of credit and its price. And by acting in this manner we can support output, return inflation sustainably to target, and support the necessary adjustments of the UK economy and – I wouldn't say it, but parenthetically I would suggest – it would provide a better platform for negotiations with our European partners. It's easier to negotiate out of recession than in, I would suggest. So what I'm going to propose – and then I'll go in the same order as I did last time – is that we would cut Bank Rate at this meeting to 25 basis points, and provide language in the Minutes indicating a predisposition to make further adjustments provided the data were consistent – language consistent with what I said, we would obviously work on that; that we would introduce a Term Funding Scheme, consistent with that 25 basis point cut – in other words a 5% initial allocation, and the incentive structure; that we would introduce a corporate bond purchase scheme of £10 billion and we would restart gilt purchases with an intention to buy

£60 billion of gilts. My one caveat to that is the corporate bond purchase scheme would be up to £10 billion, given the language. So, that's the proposal. And if I can go Ben please, first…

Ben Broadbent. The three last elements I vote for comfortably on TFS, on corporate bonds up to £10 billion, on gilt purchases. On rates I do vote for that assuming we have this sentence in there. I have to say, I'm slightly uncomfortable in the sense that, even with that in there, the question then becomes, either, don't you believe the forecast if fulfilling it is enough, in short order, to do another, say 20 basis points. And in some forms the question about the marginal instrument remains, even when one divides it up into two short-term chunks. So, all I'm saying there is all help with the language when it comes to explaining these things and thinking of the defensive questions will still be appreciated from everybody round the table, not just the direct people with the pen on chapter 5 and the MPS. But I vote for all four.

Governor Carney. Thank you. Minouche …

Nemat Shafik. So I would also be comfortable with all four with the proviso of adding the sentence in the Minutes as Ben said. I also just wanted to mention two other things. On the corporate bond scheme, I agree that we would focus on the secondary market. But it would be helpful if in the Market Notice we could say that the MPC would keep primary market participation under review, and just leave that option open for the medium-term, if others are comfortable with that. Just as a possibility. And just one other thought, the TFS – I think the name Transmission Funding Scheme might be more in keeping with the actual objective of it, and has the advantage of keeping the same acronym which we've all gotten used to over the last couple of days. So I just put that proposal as a thought that we might want to consider. Because the objective is not to extend the term of lending but actually transmit Bank Rate more effectively. So it's just a thought.

Governor Carney. It's a slippery slope opening up the acronym.

Nemat Shafik. Sorry. It just came to me as a possibility.

Governor Carney. But having said Transmission Funding, of course, it's Transmission Reinforcement Scheme, if we really want to get… TRS.

Ben Broadbent. Fifth vote then.

Governor Carney. Yes, everyone can call it whatever they want, as long as it works. OK, Kristin please, sorry.

Kristin Forbes. I would vote for a cut to Bank Rate to 25 basis points. I will support this programme, whatever is called, and also support efforts to rename the programme in a more creative way. I do not support purchases of corporates or gilts this time. I also would be hesitant to, to your suggestion, clarifying that we might expand it to primary issuance. I feel like there are a number of ways if we wanted to expand it, we could expand it, and I'm not sure, if I was at some point voting for it, which way I would go.

Governor Carney. Good, thank you. Andy please.

Andrew Haldane. So I thought both the package you outlined Governor, and the one that I originally voted for would both be good packages. I think a lot will depend upon the words that are used to describe the future path on that. I think I'd like to look at those words before changing my vote to support your package on the interest rate dimension of that. So I'd like to reserve my position for today. Stick with what I voted for but, if the words are sufficiently clear on that future path, I'd be all in support of the package come later in the week.

Governor Carney. I just wonder whether we could nail down the words now. I mean, granted this is all indicative, so we have Wednesday. But just because the spirit… you understand the spirit of what I was trying to say?

Andrew Haldane. Absolutely.

Governor Carney. Which is effectively, well, what about what I said didn't sit?

Mincouche Shafik. Do you want to read it again?

Governor Carney. Yeah, I'll read it. "A majority of members" – in other words, I understand that given where, you know, there's a relative continuum, I wouldn't say all members, but a majority of members – "would support a further cut in Bank Rate" – and I had – "to its effective lower bound, which is close to but just above zero." So there's some wiggle room on, is it 5, is it 10, even though we feel, you know, we'd provide that guidance. I'm happy to be more specific but I felt that, at this stage, we didn't necessarily have to. So recapping, "A majority of members would support a further cut in Bank Rate to its effective lower bound, which is close to but just above zero, in its upcoming meetings if incoming data were broadly consistent with the forecast." I guess it should technically be "in one of its upcoming meetings" because it's unlikely we would slice it. Well, let me see the reaction to that, if I can.

Andrew Haldane. So I think that language is a real step forward from just the straight 25 basis points. I'd quite like to take away the language to reflect. So I think my mind is open at present on the possibility of voting for the package, but it's quite a lot of information to absorb in one sitting. I'd quite like to take that away for Wednesday if that's OK.

Governor Carney. OK, we will circulate the language. Then, Ian please.

Ian McCafferty. I earlier indicated that I would be supporting a Bank Rate cut to 25 basis points, but was unwilling to go further. So I'm clearly in favour of the proposition and I did indicate in my earlier remarks that I anticipate, if the economy continues to perform poorly – the wording you used I don't think is materially different to that as far as I'm concerned – so I'm very happy to support the signalling on Bank Rate about future intentions. Very happy to support the TFS in whatever form is most appropriate to the cut we end up with. Corporate bonds, yes. I would still be voting against QE, but I would be prepared, if I were to turn out to be in a minority, I would be looking within the Minutes in a minority paragraph to be saying that I do believe that it may be appropriate to use QE in the not too distant future, should the economy continue to deteriorate further. My objection is more based on timing than it is a complete aversion to QE at any stage.

Governor Carney. That's helpful, OK. Jan please.

Gertjan Vlieghe. I'm obviously happy with the TFS and the gilts and the corporate bonds. I do struggle – the 25 versus 40 is hard because, just like I'm saying it doesn't make sense to hold a little bit back, by the same reasoning it doesn't make sense to die in a ditch for the opposite argument. [Laughter] And I'm very happy with the language on the future meetings. I remain uncomfortable with the reason why we didn't do it, and I'm just wondering how we are going to explain that to a smart observer. I know that most people will say, oh, they're doing some and they'll do some more later when the data comes in. Somebody who thinks carefully about marginal instruments and QE and all that – I don't think we'll have a good answer. If the coherence of the message is important I'm happy to go to 25, but I just think it's a shame. And whenever somebody is going to ask me the question, I'm going to have to fudge it slightly and say, well yes, it was very close. Because I really can't think of a good story other than getting a higher majority on the vote of why we're doing this – a good economic story, I mean, or indeed communications story. I think that that's why I felt strongly about it in the beginning, and like I say, it's not worth dying in a ditch over. I just think it's a shame to give up this clarity.

Governor Carney. Jon please …

Jon Cunliffe. Yeah, I'm ok on a quarter point cut, with the language you suggest with up to £10 billion on corporate bonds and £60 billion of gilt purchases. And on the TFS, yes to an appropriately calibrated TFS in, I think we should call it Fundy McFund Face[1] and it would have popular support. [Laughter] Fundy McFund Face.

Governor Carney. We could actually ask the public.

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[1] MPC Secretariat clarification: This part of the conversation is making reference to the 2016 meme based on the naming of 'Boaty McBoatface'.

Nemat Shafik. Have a public consultation to name this thing.

Jon Cunliffe. That's the answer they'd give.

Ben Broadbent. Banky McBank Face.

Governor Carney. I'll tell you a story about that afterwards. Martin, please.

Martin Weale. Well, I think my position is the same as Ian's. I hope I made clear that what I was describing was something I thought appropriate to what we know at the moment, not something that I thought would be appropriate if the economy evolves as the forecast suggests. And, should that be the case, it seems to me highly likely that, were I still on the Committee, I would want to undertake further easing. But, as things stand today, I'm voting for, or I expect to vote for, a Bank Rate of 0.25%, for the Term Funding Scheme and for the scheme to buy up to £10 billion of corporate stocks. I would also make the observation that, depending on how you vote on Bank Rate, Governor, it seemed to me that we had a clear majority for either lower bound or 0.25% on Bank Rate. We have a clear majority for gilts. We have everyone supporting the TFS. We have nearly everyone supporting a corporate bond scheme. And that does deliver a coherent package. I would feel quite a strong obligation to vote for something that wasn't quite my first choice if that were needed to ensure that there was a majority for one view or another view, because the Committee has to be a coherent decision-making body. But there are clear majorities for all of these things, and so I wouldn't see ruling out simply aggregating the votes as a way of coming up with a coherent package.

Governor Carney. My totalling was 5-4 depending on where I voted, although I think maybe what you'd read was that if Jon voted – I mean 5-4 isn't a clear majority, it's a majority, but that's why we have 9 people – but if Jon also voted for 40, then it would be. Is that your calculation?

Martin Weale. Well sorry, but I mean 5-4 to me was clear enough. The point I wanted to make was that through aggregating the vote we come up with something which is perfectly coherent. And I would have thought we need rather good reasons to try and twist. I mean, not only is it coherent, but it's also the case that I think all of us, including Kristin, who have been in favour of a weaker, less powerful immediate response, have said that it's data dependent. Not that we would say that this was our final thought on the matter and, to the extent that you are concerned about explaining why there are divergences of views, I would have thought people would understand perfectly well the point about data dependency.

Nemat Shafik. You could have a sentence saying…..

Martin Weale. Well we would want one.

Nemat Shafik. …. there was a minority of 4 that only held back because of data issues.

Governor Carney. Look, my view is that something as important as this, coming out 5-4 is awkward – big package and its key component is only marginally supported. Now, granted, support curiously goes up as you go into the middle of it and then it comes down when we get back to quantitative. So on the QE and the Bank Rate, I fully recognise that from a model perspective and from other perspectives that shouldn't matter. But I think real world… I personally think there is a big difference between having 9-0 behind Bank Rate – which is what we potentially would have subject to wording – and then that and TFS 9-0, 8-1 on corporates, 6-3 on gilt purchases, which is potentially what we would have. Versus 5-4 on a bigger Bank Rate, then 9-0, I think, 8-1, 6-3, it's just much, much messier. The next purest thing would be 9-0 on going to the effective lower bound, 9-0 on TFS, 8-1 on credit easing and no gilts, because it isn't time yet for gilts. So we can look at that and say, well I can't plug that into a model and say it all makes sense. But, particularly if the whole back of the additional 20 basis points – so it's not quite as stingy as it appeared last week – is clearly data dependent, and not just amorphously data dependent but data dependent relative to the forecast, people can judge where the things are coming in. And I know language is also in the Minutes and other things. But I do see some value in having everybody in the easing tent of actual easing at a time that policy has changed. So we can say all those things don't really make sense when you plug it in the model, and when you're sitting across from George Soros or some sharp-end hedge fund. But in the broader scheme of things, I

think actually it does help. And it also allows us to say we could provide more stimulus across all components of this package if needed, which again, to me, has value. And maybe that can't be perfectly modelled, but it has value.

Now if we were 7-2 or 8-1 on 40, then it becomes marginal. But that's not my read of where things were. So, does that make sense, Martin? I mean I know it doesn't make perfect objective sense, but does it make sense from a …

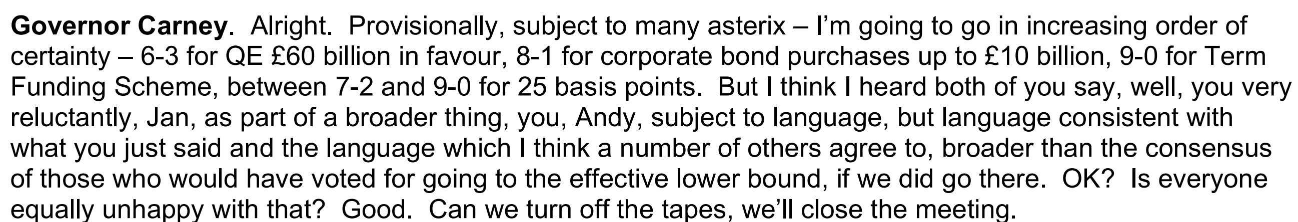
> **Martin Weale.** No, I understand your position. But I suppose at the end of it, having listened to that, I still find myself wondering why we can't simply vote. If we voted in the way that we described, as I say depending on your vote, everyone would be voting for easing because not easing is 0.5%. So you'll be able to say that everyone is voting for easing. You would say that, because things are early days, there was a division between people who wanted to wait for slightly more information before going as far, or further, than the forecast implied, and those who felt things were sufficiently clear cut now and wanted to go immediately. And I should have thought people would understand that.

Governor Carney. Yeah well, I think it's, candidly, I think it's hard to sell. I think it's a harder sell a 5-4 vote on …

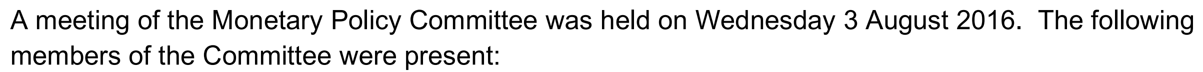
> **Ian McCafferty**. What would your proposal be under that Martin, 25 or 10?
>
> **Martin Weale**. No, for the Bank Rate it would depend entirely on Mark's vote, because Mark's the marginal voter.
>
> **Ian McCafferty**. Right
>
> **Jon Cunliffe**. Look, we're struggling with the permutations here, and trying to work out what it is we all think in relatively different strengths, different things across the package. I have to say, I think there is a distinction between audiences on how you explain this, so I take your point. For one particular audience putting it broadly, the fact that there is more that can be done across all the dimensions, has a kind of cruder resonance, even though it's difficult to explain given what we've said about our marginal instrument of choice. But I think if we get into, we're all kind of in favour of easing, but we didn't all vote for it because it was different sorts of easing, whatever…
>
> **Martin Weale**. We will all have voted for it.
>
> **Jon Cunliffe**. Well no, we'd have all voted for easing, but we'd not all have voted for the easing that was done. And I just about understand that. I think explaining it out there, with the noise is just – we'll just get taken apart to be honest

Governor Carney. We have a package where the three main components virtually everyone – you know 9-0, 9-0, 8-1. That's OK. And then we're buying some gilts on, I don't want to be cavalier about it, but we're also restarting gilt purchases, and that's where you see the sharper distinction. So to the weights in terms of who would have done a bit more on Bank Rate and who would do less on gilts, and we're seeing how things go. That's much quicker, much cleaner, much more consensus, in terms of direction. When you're doing more than one thing, I do think you want as much behind it as possible. I mean, in theory, we could have variable – what we actually have is quite a logical tapering-off of people as you move out the spectrum – but in theory we could have different people, a different majority, voting for gilts and a different one for Bank Rate. In which case I'm not sure I would put that proposition there because it wouldn't feel coherent. And I know that's conceptual. Andy, do you want to say something helpful?
[Laughter]

> **Andrew Haldane**. Yes, I do Governor, yes I do. I'd find it helpful if there were some language – a sentence – that sought to meet Jan's challenge about how we explain this in as coherent a fashion as possible. Maybe it's no more and no less than saying what you and Jon have just said, which is that this provides scope for us providing further stimulus using a variety of instruments. But I think having some way of explaining coherently why we have left some interest rate room on the table would be good. And that would certainly help me in explaining what we're doing. And I accept your points completely on clarity for different audiences. But I think a sentence like that would help provide clarity to a particular audience.



Governor Carney. Alright. Provisionally, subject to many asterix – I'm going to go in increasing order of certainty – 6-3 for QE £60 billion in favour, 8-1 for corporate bond purchases up to £10 billion, 9-0 for Term Funding Scheme, between 7-2 and 9-0 for 25 basis points. But I think I heard both of you say, well, you very reluctantly, Jan, as part of a broader thing, you, Andy, subject to language, but language consistent with what you just said and the language which I think a number of others agree to, broader than the consensus of those who would have voted for going to the effective lower bound, if we did go there. OK? Is everyone equally unhappy with that? Good. Can we turn off the tapes, we'll close the meeting.



A meeting of the Monetary Policy Committee was held on Wednesday 3 August 2016. The following members of the Committee were present:

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

The following members of staff were present:

Gareth Ramsay, Director, Monetary Analysis
Simon Hayes, MPC Secretariat
Sarah John, MPC Secretariat
Garry Young, MPC Secretariat
Melissa Davey, Editor of Inflation Report

Transcript of the Monetary Policy Committee Meeting on Wednesday 03 August 2016

Governor Carney. Good afternoon everyone. We will do a couple of things before we move to the formal vote. First, there have certainly been some moves in government bond markets over the course of the last few days, so maybe Minouche, you can touch on that and any other important financial developments. Then I'll go to Andy just to summarise recent data, and we'll move to the propositions.

> **Nemat Shafik**. OK. Since Pre-MPC markets have actually digested a relatively large quantity of news without significant volatility. The FOMC kept policy on hold as expected. The Bank of Japan eased policy via an increase in ETF purchases and delivered less new stimulus than expected, but committing to a "comprehensive assessment of their current policy stance in September". And on Friday evening the EBA released the results of its stress test of 51 European banks. Since then, European bank equities have suffered relatively sharp falls, driven primarily by concerns around Italian banks' non-performing loans, and the knock-on need for capital raising. Barclays and RBS, deemed the UK's worst performers, are down 5.5% and 3.4% respectively since Friday's close. Broader risk sentiment is little changed since Pre-MPC. Market intelligence continues to point to expectations of looser monetary policy supporting risky asset prices with expectations for easing in the UK firming. Little expected from the FOMC in terms of tightening. And further policy easing expected in Japan and the Euro area in September.
>
> Long rates fell in response to disappointing US GDP and UK PMI data but this move has since largely retracted and the Sterling ERI is little changed at 79.5. One notable outlier to this narrative is the oil price which has continued to fall in recent days and is now about 6% lower than at the time of Pre-MPC. Market intelligence generally attributes the decline in the oil price to supply-side factors. Recent data have shown signs that US supply has stabilised and even started to rise again, and the historically high level of global supply disruptions has abated somewhat.
>
> So where does that all leave expectations in terms of UK monetary policy? Market expectations for the August MPC are broadly unchanged since Pre-MPC, with some firming of expectations in the past week for a "package of measures to be announced in August". There's a very high degree of conviction on Bank Rate being cut by 25 basis points, but there continues to be much less consensus around what the package of measures will look like that might accompany that in August. Meeting-to-meeting OIS swaps now fully price in a 25 basis point cut in Bank Rate for our August meeting. The latest Reuters Poll shows that this is the consensus view, and in which 42 of 50 respondents expect a 25 basis point cut. In the same Reuters Poll, around half of respondents expected some asset purchases to be expanded this month. Of those 50% who expect some sort of QE most expect £50 to 75 billion in gilt purchases this month. This is in line with market intelligence with half of contacts surveyed expecting asset purchases to be announced this month, and the majority of respondents expecting a move by the end of the year. There's some evidence of this being priced into the gilt market, for instance when looking at the spread between OIS and gilt yields.
>
> As for credit easing, such as either corporate bond purchases or an extension of the FLS, this does feature in some external commentators' analysis, but is considered less likely by market participants than more conventional policy easing options. So that's where we are.

Governor Carney. OK, very good. Any comments on that? Alright. Andy, over to you please.

> **Andrew Haldane**. Very briefly one piece of international and one piece of domestic data. Internationally we had the final PMI numbers for the euro area for July. They were a touch stronger than the flash estimate, and the overall message there is of a pretty resilient picture, actually, from the euro area PMIs, certainly relative to the UK ones. Relatively little, if any, evidence of spillovers into their surveys so far. And then domestically we had the RICS housing market survey for July, or a provisional estimate of that based upon 75% of their sample. That showed something of a recovery, certainly in price expectations, somewhat less of a bounce back in terms of activity. But in both cases something of a recovery from the previous month's survey. That's all, thank you.

Governor Carney. OK, great. Thank you Andy. If there are no questions/comments on the data I turn to the formal decision. And maybe as just a preamble note that, as is always the case, the final decision is informed by developments whether in markets or, most importantly, in underlying data, but also informed by

the debate and discussion during the deliberation meetings. In our last meeting we included a detailed discussion of the rationale for a comprehensive package of measures that works through multiple channels and which has room on each of those channels for additional stimulus if that were to be required. And we're also informed by the views expressed by a majority of members, that they expected to be of the view that moving Bank Rate to its effective lower bound which was close but a little above zero in the judgement of staff and the Committee, doing so would be appropriate during the course of the year if subsequent data proved broadly consistent with the forecast in our August Inflation Report.

So with that backdrop I'm going to put forth four propositions, which we discussed last time. The first is that Bank Rate should be reduced by 25 basis points to 25 basis points. The second is that the Bank should introduce a new Term Funding Scheme financed by the issuance of central bank reserves that would reinforce the transmission of our cut in Bank Rate. The third, that the Bank of England should purchase a stock of sterling non-financial investment grade corporate bonds, issued by firms making a material contribution to the UK economy and financed by the issuance of central bank reserves to the amount of up to £10 billion. And fourthly that the Bank of England should increase the stock of purchased UK government bonds, again financed by the issuance of central bank reserves, by an amount of £60 billion, bringing that total to £435 billion. So those are the four propositions, and I'm going to go in the same order as before and start with Ben Broadbent, please.

> **Ben Broadbent**. Thank you. I vote for all four parts of the package.

Governor Carney. Thank you. Minouche please.

> **Nemat Shafik**. I also vote for all four elements of the package and of course with the language that we'll discuss in terms of forward expectations on Bank Rate.

Governor Carney. Thank you. Kristin Forbes please.

> **Kristin Forbes**. I vote for the proposition to lower Bank Rate to 25 basis points and support the term TFS. I do not support the two proposals for purchases of bonds.

Governor Carney. OK thank you. Andy.

> **Andrew Haldane**. I support all four propositions. Thank you.

Governor Carney. Thank you. Ian.

> **Ian McCafferty**. I support the first three – to cut Bank Rate to 25 basis points, to introduce the TFS, and to purchase up to £10 billion of corporate bonds – but vote against the fourth in terms of £60 billion purchases of government bonds at this stage.

Governor Carney. Jan please.

> **Gertjan Vlieghe**. I vote in favour of all four propositions.

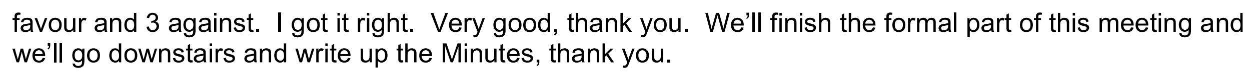
Governor Carney. Thank you. Jon.

> **Jon Cunliffe**. I vote in favour of all four propositions.

Governor Carney. OK. Martin please.

> **Martin Weale**. I vote in favour of the first three propositions, supporting the proposition to buy corporate bonds having been reassured by the staff on questions of risk that had concerned me. I vote against the proposition to buy any UK government bonds.

Governor Carney. And I vote in favour of all four propositions and support the forward-looking language. So by my, always dodgy, arithmetic, the cut of 25 basis points is 9-0, the introduction of the new Term Funding Scheme – show that there is a pause to get that right [Laughter] – 9-0. Support for the purchase of up to £10 billion of corporate bonds is 8-1, right. And the support for the £60 billion of gilt purchases is 6 in



favour and 3 against. I got it right. Very good, thank you. We'll finish the formal part of this meeting and we'll go downstairs and write up the Minutes, thank you.