BANK OF ENGLAND

MEETINGS OF THE MONETARY POLICY COMMITTEE

July 2016

A meeting of the Monetary Policy Committee was held on Thursday 7 July 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

Anthony Habgood and Bradley Fried were present as observers in the role as members of the Oversight Committee of Court

The following members of staff were present:

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

Transcript of the Monetary Policy Committee Meeting on

Thursday 7 July 2016

Governor Carney. We are now officially in session. Andy, data released since day one. The IoP obviously, which I was unable to…

> **Andrew Haldane.** Yes, well let me start with that. That's right, so that fell 0.5% on the month, which nonetheless was quite a lot better than our, and indeed the markets' expectations, which was for a fall of, in our case, of over 2%. And that relative strength looked to be pretty broadly based in the IoP.
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> Just on a couple of other pieces of domestic data we've had since yesterday. We had Halifax house prices for June. They rose 1.3% on the month, so on a three-month on three-month annualised, the rate was down to 4.7%. That's broadly in line with the Nationwide, and consistent with a pattern of a falling off, falling away, in growth rates of house prices. And then finally domestically, we had the REC survey of the labour market. Most of this, actually almost all of this, was taken prior to the referendum it's worth noting. Nonetheless, and not withstanding that, I think the notable feature was that both employment and vacancies were both down, and now at historically what are pretty low levels, and at the bottom of our survey swathe. Wages are also at the bottom of the earnings swathe from the REC.
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> Just internationally, and very much more briefly, we had industrial production for May from Germany. That was down 1.1%. But I'm told by staff not to panic because that is a volatile series. And we had a couple of surveys of services in the US for June. They were both up broadly in line with our forecast for the United States. That's all, thank you Governor.

Governor Carney. Thank you. So we'll start with Ben please.

> **Ben Broadbent.** Thank you Governor. It's customary for me to begin with an overview of global data. I'm going to depart from usual practice in response to where the news has been and concentrate on the UK.
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> Going into the referendum, the economy was in reasonable health. Growth in both the year and, in annualised terms, the quarter to Q2, looks to have been something a little over 2%, close to our estimate of the underlying rate of supply growth. Unemployment had steadied to around its natural rate. After a period of stagnation in the middle of last year, following a sharp drop in headline inflation, private-sector wage growth has picked up again. In the six months to April, excluding the volatile bonus component, it rose at an annualised rate of 4%. Personally, therefore, I did not think at that time that further easing in policy was necessary and continued to believe that the next step was more likely to be a tightening.
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> But, as I said yesterday, the past is another country and we are now in a rather different place, economically as well as politically. The 12 to 13% decline in sterling's exchange rate against the dollar since the referendum is similar in scale to the devaluation of 1967 and easily outstrips anything since. And at that time, half a century ago, the UK had a significantly less open economy. Added together, exports and imports were worth less than 40% of GDP, compared with 60% today. Over that period the overseas balance sheet has risen from less than one half to over five times annual GDP. In the last 30 years alone, FDI assets have, on both sides of the balance sheet, risen four-fold relative to GDP.
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> The precipitate fall in the currency will therefore, on its own, help both the flow and stock position of the UK. Collectively, the country is marginally short its own currency. We are therefore likely to see a rise in net overseas assets at the end of this quarter. All else equal sterling's depreciation also supports net trade, at least in volume terms. Indeed it may be that the depreciation that occurred prior to the referendum was already acting to boost tradable output, including manufacturing.
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> But all else is not equal. The currency has declined in anticipation of severe headwinds to trade, and to the economy, associated with leaving the EU and the single market. And if its greater openness has increased the UK's sensitivity to the exchange rate, it has also, after decades of continual

adaptation and specialisation, increased the economic costs of closing down trade and closing down international capital markets.

The foreign exchange market looks, or should look at least, to the long run and, as I said yesterday, those eventual costs are, in my view, likely to be very significant, certainly if we're forced into WTO-type relationships. My own view is that, if anything, the Treasury's study under-estimates this eventual impact. For that reason the sterling exchange rate, precipitous though its fall has been, may still actually be clinging onto the hope of something better. And I think that's probably why the fall has actually been less sharp than in our May scenario.

And in the short term of course, and quite possibly throughout our forecast period, the UK will remain a member of the European Union. Could we possibly hope for the benefits of a cheaper currency without the costs of the reason it has occurred. To some degree, perhaps we can. And if domestic demand too takes a little time to process and respond to the shock, perhaps aggregate output will also respond only gradually – Ian's "slow burn". I think Jan is right to warn against forecasting too hasty a reaction, in particular an economic contraction in the current quarter, in our August Inflation Report forecasts.

But I do think there will be a reaction soon enough and that, in spite of the depreciation, I think growth is likely to fall significantly below trend supply growth, and even perhaps below zero, over the next year.

And let me just make a few points in this respect:

First, uncertainty has spiked. Our media-citations series is one particular measure of that, but I think it represents reality. It may be that it has some impact on supply, as well as demand but, one way or another we should take the empirical link with output seriously. We don't need to know the worst will happen in terms of trade arrangements, or even formally to leave the EU, for this to matter.

Second, whatever the idiosyncrasies of particular cycles, the fact is that the few robust indicators of UK growth a year ahead are generally to be found in the housing market; and that, we surely know, is in trouble. Turnover had already fallen quite a bit before the referendum and now looks set to fall a lot further, at least according to the latest RICS survey. The Agents tell us that house builders are already minded to put projects on hold: so housing completions may yet continue to grow in the next few months but, I suspect, housing starts will not.

Third, and despite significant monetary easing priced into fixed-income markets, equities of UK-facing companies – banks and home builders in particular – have fallen extremely sharply. I don't think banks' solvency is in any real doubt – that's what the limited reaction of the price of their debt (and indeed the latest FSR) tells one. But the rising cost of bank equity is unlikely to encourage them actively to seek out opportunities for business.

Fourth, and this is a shorter-term point, although the second quarter looks to have been stronger than we expected, the high frequency indicators – consumer confidence, business, housing, employment surveys – were actually declining through the quarter, even ahead of the referendum. I note, for example, that the REC survey (advance notice of which we've just got I think) showed in June the lowest balance on vacancies for over a year, the lowest balance on permanent hires for two years. And the few surveys, the few snippets of information since the referendum – the IoD survey, the private cut of the services PMI we saw at Pre-MPC – have fallen further.

I therefore think that the updated scenario – in which growth all but stalls over the next year – is broadly reasonable. And because it implies that slack rises by significantly more than inflation over that period, I also think it makes a strong case for easing policy. We should not have to wait to see the downturn materialise in hard, lagging data before we act.

At the same time, however, it is important – as we discussed yesterday – to have a clear and coherent package, one that reduces Bank Rate without unduly impairing banks' margins (hence the need for some FLS/TLTRO-type scheme), and – ideally – one that doesn't disappoint in overall scale. I say this because the scenario is based on asset prices that already discount significant easing, including a cut in Bank Rate to 10 basis points over the next three months or so and – in one form or another – material purchases of assets. So for the sake of devising and delivering such a

package, and the vehicle of the Inflation Report to explain it, I am not inclined to vote for anything today. But, even though our next decision is barely three weeks away, I would like send a clear signal of our intention to deliver in the minutes of this meeting. I'll end there.

Governor Carney. OK. So with that, no change, no change for today.

Ben Broadbent. Yes.

Governor Carney. OK. So next I have Martin and then Minouche please.

Martin Weale. Thank you, Governor. The last two weeks have demonstrated the importance of all the work that the FPC and PRA have done to ensure that the financial system is able to withstand a shock at least as substantial as the referendum result. This careful work meant that the large movements in asset prices we have seen since 23 June did not lead to questions about the solvency of systemic financial institutions. In turn, this means that we don't face any pressure to make immediate changes to monetary policy on the grounds that it is important to do something to reassure people or to stabilise markets. We have time to consider the implications of the forecasting challenges raised by the vote before making any change to policy.

Yesterday, a number of people made the point that it would be desirable to produce a forecast which reflects the uncertainty we all share about the eventual trading arrangements that will be agreed between the UK and REU. We have traditionally produced a modal forecast; to do that would be likely to involve a judgement as to which arrangement is most probable, and I am not sure at present on what basis we might do that. On top of this, I have some concerns about the assumptions we are making about both the short-run and the long-run effects of Brexit. Nick Crafts has argued that one of the factors behind the relative improvement in economic performance which came with EU membership was that home firms faced more competition. Whether our domestic competition laws, thought by the OECD to be some of the most effective in the world, can be any substitute for this, I don't know, but at least it's possible.

Separately, of course, it does not follow that all of the increase in openness which is gained by joining a customs union is automatically lost on leaving the customs union. Models of trade often assume that there are fixed costs to setting up trade networks. These may not be worth setting up therefore before joining a customs union, but, to the extent that the costs of setting them up are sunk costs, will not necessarily be abandoned on departure. How far that happens will depend on the importance of maintenance costs relative to one-off fixed costs. These observations lead me to think that, conditional on any particular arrangement, the figures quoted by bodies such as the CEP represent a fuzzy upper limit. On the other hand, HMT did introduce some attenuation of the effect and also made the point that some changes, like loss of passporting for financial services, might have rapid consequences. We will need to form our own judgement on this.

Studies have suggested that uncertainty about trade arrangements also discourages trade; the classic example looks at Portugal before and after it joined the EU. The same point applies. Fixed costs will discourage trade when people are uncertain of the arrangements and thus of the net benefits. But once networks are in place it does not seem that uncertainty on its own will lead to their abandonment. Once again it depends probably on the balance between set-up and recurrent costs.

I have a related malaise about our uncertainty analysis. The nature of the model and thus of its conclusions is that it reflects the effects of variables correlated with our principal component measure of uncertainty as well as the variable itself. But these correlates, if they could be unpicked, are not necessarily driven by the factors which have led to the rise in our indicator, and the very specific nature of the disturbance makes it more likely that the hidden relationships in the model have changed. So that too points to the possibility, and I put it no stronger than that, that, despite efforts to avoid double-counting, we may overstate the depressing effect of our uncertainty measure on GDP. At the same time I have little doubt that the referendum will have a material depressing effect on demand.

If I now turn to the possibilities for stimulus, could I first express my unease about reducing Bank Rate to 0.1%. We were assured that such a reduction could be sustained for two years without any malign influence, but what happens after that? I would certainly not assume that things will look

sufficiently different in two years' time and that macro-economic circumstances will justify raising the rate by then. I agree, however, that measures to ensure that any reduction feeds through to retail rates are important and that decisions about these should be made at properly-minuted meetings of this Committee. It may be that such measures can be robust enough to ensure that a rate of 0.1% will not be contractionary.

I look forward to the inclusion of corporate bonds as part of any further asset purchase programme. Nevertheless, unless one assumes that the main effect arises from the announcement rather than the actual purchase, it does not seem to me that purchases of corporate bonds alone could be used to deliver a prompt material stimulus to GDP. Purchases of corporate debt could be a part of a wider asset purchase programme, but, unless some means is found of including a much wider range of corporate liabilities than just loan stocks, not the whole of the package.

Staff keep suggesting that asset purchases might be less effective at a time when the financial systems function normally than when they are impaired, and that this might point to the effects of asset purchases being weaker now than in the past. We have not been shown any evidence for this. Indeed, ECB purchases seem to have had more effect in Spain than in in Italy, although the banking system is impaired in the latter and not the former. I can imagine, however, that the effect is weaker when rates are already very low, and that may explain why the impact in the euro area has been weaker than it was here.

We've had some surveys on the way businesses and people see things after the referendum and they suggest that investment is likely to be affected and that firms will cut back on recruitment. There are also indicators of weakness in housing and commercial property. I agree with Ian that any weakness this time will probably emerge more slowly than in previous slowdowns. We will know more about firms' plans in August even if we have few hard data.

This month, ahead of work on the forecast and given the paucity of relevant data, I am expecting to vote for no change to our asset holdings and no change to Bank Rate. The discussion on the trade-off was very helpful, and we shouldn't lose sight of the primacy of the inflation target in our mandate. If I re-estimate the staff model reversing the equation with output growth as the dependent variable I get an estimate of the trade-off of 0.7 to 2.3 (95% confidence interval), entirely consistent with say lambda of 0.7 to 1 and a Phillips curve slope of a half to one.

As Ben has noted in the past, we vote on the current Bank Rate and not on the future Bank Rate. I do not see a need for any commitment to easing in August. Despite the referendum, I can envisage circumstances, a further sharp fall in the exchange rate being the most obvious, in which I would not vote to ease in August. Past experience suggests that any statement about what we might do, even if qualified, is likely to be reported without its qualifications, with adverse consequences for the Committee's reputation should policy easing turn out to be inappropriate next month.

Governor Carney. Thank you. Minouche and then Jon please.

Nemat Shafik. So the UK economy seems set to undergo a material change in its trading and regulatory arrangements, and there are plenty of historical examples where such change has led to very, very bad outcomes. In 1929 the introduction of the Smoot-Hawley tariffs in the US marked the beginning of a new wave of global protectionism that contributed to the duration of the Great Depression. And in 1992 the Swiss voted against accession to the EEA, which was followed by a decade in which growth, employment and public finances all deteriorated, before another referendum produced the opposite result.

And while there is little that monetary policy can do to directly influence our external arrangements, we can act as a stabilising force into these new arrangements – and ensure that the coming years are (as my old boss at the IMF said) only pretty bad, rather than very, very bad. The question in all of our minds is what action, if any, would prove the most stabilising. And to help get at that I would like to talk through first, what the early indicators suggest we might expect to see in the coming years, two, what the case is for monetary policy action, and three, what form any action should take.

So let me start with the early indicators – where the short summary is that the prospects for the UK economy have deteriorated significantly.

Uncertainty over the outcome of the referendum has given way to uncertainty over what exactly it means. This is in no doubt contributing to evidence from the Institute of Directors, the Deloitte CFO survey and our own Agents that investment and hiring look set to fall.

A property market that looked fragile before the referendum now seems set to enter a serious period of sharp decline. The withdrawal of money from property funds and the weakness in pricing surveys are all consistent with a decline in commercial and residential property activity.

And our nascent fears about credit growing too quickly have been replaced by a concern that credit conditions may tighten. Meanwhile, bank equity prices have fallen sharply reflecting a combination of concerns about the UK economy and the real estate market as well as what the future regulatory regime means for bank business models.

Such developments bear all the hallmarks of an economy that is on the verge of a material slowdown or a recession. And as if that wasn't difficult enough, the sharp decline in sterling has meant that our previous worries about whether inflation would ever get back to target have been replaced by the question of how far above target it will rise. So let me turn next to the second question of how we should consider the trade-off.

My initial view is that the trade-off we are likely to face when we come to update our forecast will suggest that an easing of monetary policy is warranted. And that's for three reasons.

First, the sacrifice ratio embodied in the staff's initial assessment of a leave scenario is consistent with (ex post) outturns that the MPC have tolerated in the past. And that analysis is predicated on a market expectation which already embodies an easing of policy, suggesting that such action would be consistent with past MPC behaviour.

Second, our proximity to the lower bound means there is some value to acting more aggressively to return inflation to target than would otherwise be the case, consistent with the "risk management" approach to monetary policy put forward by Charles Evans that we have discussed before.

And third, one of my biggest concerns prior to the referendum was that the 2008-09 recession has had a lasting effect on behaviour. One of my favourite charts showed how the financial crisis had a lasting impact on how long people would drive on worn out tyres before replacing them, and how that's changed since the financial crisis. And I find it plausible that the memory of the crisis is also making workers marginally more reluctant to push for the kinds of pay settlements that would have been consistent with inflation returning to target.

The concern that inflation may go above target at the end of the forecast can be handled by careful messaging about the one-off nature of the tariffs that would drive a pick-up in inflation in the third year. And I also think the risks we face are asymmetric and that we have well tested tools to return inflation to target if it overshoots.

Taking it all together, then, my preliminary view is that the trade-off implied by an initial update of the leave scenario, based on market expectations for easing, is acceptable. And that there may be arguments for going further. But all of this will need careful packaging to ensure that our commitment to inflation targeting is not undermined. And so it is to this "package" that I turn next.

And while I believe that there is a case for easing, I think there is work to be done over the coming weeks to calibrate exactly what form that easing takes.

As always, the starting point will be the forecast. The illustrative scenario has served its purpose of framing the discussion up to this point, but over the coming weeks we will need to form considered opinions on the key judgements. And once the forecast begins to take shape we will need to analyse how sensitive it is to various policy packages and how they operate through the portfolio rebalancing, signalling and confidence channels.

But perhaps the most difficult piece of all will be choosing a package which minimises the counterproductive side effects on banks' net interest margins, on insurance companies' surplus capital and on pension fund deficits. To be clear, such side effects have always been a feature of monetary policy, but the proximity of the lower bound, and the low level of interest rates that we begin from, will make these trade-offs more acute at this juncture.

Bearing in mind the strong caveat that this work lies ahead of us, my hunch is that a reduction in Bank Rate should form part of any package, though the impact on the banking system will be an important determinant of how low we should go. Something I have coined an “Expansionary Lending Facility” (an ELF, perhaps) has potential to help ensure the transmission of a lower Bank Rate to the real economy. But I would like to see more details of what such a scheme would look like before embarking down that route. I think another round of conventional QE would be effective, and that it would be enhanced by the signalling effect of expanding our purchases to include corporates, but we need to do some further estimates of impact and calibration.

So, to sum up, the best thing that monetary policy can do at this moment is to act as a stabilising force. That involves careful consideration of what lies ahead, and what the wider impact of our actions would be. I think it's likely that an easing of monetary policy is warranted, but also think it is worth using the coming weeks to ensure that we have a well thought out package before embarking on this path. I also think we also need to take great care in our minutes this time to explain what we are thinking. So for this month I intend to vote for no change in policy.

Governor Carney. Thank you, Minouche. Jon and then Kristin, please.

Jon Cunliffe. Thank you. Well there's clearly been some news on the month [laughter] and the referendum result I think means the news is a regime shift and a major shock to the UK economy.

The UK is going to need to reconfigure its relationship with the EU. The structure of our economy has been shaped by over 40 years of EU membership and there will almost certainly be some structural adjustment as a result of the decision to leave, though the extent and the pace of that adjustment will depend on our negotiations with the EU and will not be clear for some time. What is clear is that reallocating resources in the economy takes time and involves costs.

And while the main contours of the UK's preferred relationship with the EU and the position of EU member states and institutions will probably become a little clearer over the next year or so, it's likely that there will be a high, if slowly diminishing, degree of uncertainty over our policy horizon.

And reduction in the uncertainty about the eventual outcome may reduce the adverse impact of that uncertainty. But, depending on what the news represents, it could also provide a further material adverse shock if it points to a ‘hard Brexit’.

We clearly know the source of the shock and its directional impact on the economy over the policy horizon. And even though we don't know the scale of the adjustment, it is difficult to see how it could provide upside risk to the May growth forecast, though it may well mean upside news on inflation. And for both growth and inflation that's not a very high bar for me. Before the referendum I had concerns that the economy was slowing more than forecast and that underlying inflationary pressures were very weak.

It's pretty clear that growth will now slow over the forecast horizon relative to our May forecast and to recent growth rates. Consensus forecast estimates for UK growth in 2017 have fallen from 2.1% before the referendum to 0.3% in the latest estimates, the 10-year gilt yield has fallen 60 basis points to a record low, equity prices of UK-focussed companies have fallen sharply and the level of GDP is around 3.5% weaker in year 3 in the illustrative staff scenario compared to the May Inflation Report. And I agree with Minouche that it's framed our discussion and we now need to move to the forecast.

Potential supply is also likely to be weaker. We can identify, conceptually, channels from the vote to leave to supply. But the timing and size of the supply shock, and the extent to which households and businesses factor it into their decisions today is difficult to estimate with confidence.

To try and make sense of the economy and optimal policy in these circumstances, I find it useful to work through the expenditure components of demand and the broader strategy considerations.

Business investment growth was negative in the final quarter of last year and the first quarter of this year. Investment intentions were surprisingly solid in the Q2 surveys, which pre-dated the referendum. But investment is particularly susceptible to uncertainty and concerns about weakening demand, so I expect it to continue to be very weak in the near term and possibly over a longer horizon.

Surveys undertaken since the referendum and intelligence from the Agents support this view. The IoD survey conducted immediately after the referendum suggests that a large proportion of firms plan to reduce investment. And a significant net balance of respondents to the post-referendum Deloitte CFO survey thought that it would affect their own decisions relating to M&A, capital expenditure, hiring and discretionary spending. Corroborating these responses, the staff's monthly uncertainty indicator increased in June to its highest level for four years.

Weaknesses in CRE prices could also hurt business investment through the collateral channel. REITs' equity prices have fallen by about 20% following the EU referendum. Staff work suggests that this implies a 13 to 14% fall in CRE prices by Q3 2017. And research by Bank staff suggests that for every 10% fall in UK CRE prices, that is associated with a 1% decline in economy-wide investment.

Housing investment is also likely to be weak. Equity prices of the UK's largest housebuilding companies have fallen by around 35% following the referendum, which implies a significant moderation in house price growth. Shares of large UK property market focussed banks have fallen by a similar order of magnitude. A provisional survey, a reading from the latest RICS Residential Housing Survey, was peppered with record falls and lows. For example, the RICS balance for prices three months ahead showed the largest negative balance recorded since 2010, and the sharpest fall in the balance since 2004.

Furthermore, the main driver of housing market activity recently – buy to let lending – was already likely to slow relative to earlier forecasts, due to the government tax changes and perhaps the PRA's policy on upholding underwriting standards. And the Markit/CIPS construction output index in June fell to its lowest level for seven years with commercial and housing activity seeing the sharpest falls – with four-fifths of the responses pre-dating the referendum.

And the signal on the direction for the property markets is, I think, being confirmed from a number of directions, though we should recognise these sources are probably being driven by a common factor so we shouldn't treat them as additive.

The key component of demand in terms of determining the severity of the slowdown will, for me, be household consumption. It's fuelled the economy recovery since 2013. And it's been much less driven by a falling savings rate than we previously thought. But nonetheless the issue is how long and how well will it hold up?

It's too close to the referendum to draw any definitive conclusions. The GfK/EC consumer confidence index – carried out before the referendum – fell in June to its lowest level since March 2014, driven by declining confidence in the general economic situation rather than households' own financial situations. The more timely, but less informative, YouGov/Cebr Consumer Confidence Index, fell sharply following the referendum but it remains above its 2007 average. I think households' concerns about job security will be a key factor in the development of their spending decisions and their confidence. And the extent to which consumer confidence falls in coming months will be a key indicator of the speed and the scale of adjustment.

We may get a boost to exports from the depreciation in the exchange rate. And the Agents have reported some opportunistic positioning by export-orientated firms. But, as time progresses, uncertainty around the UK's trading arrangements with its largest trading partner is likely to dominate the exchange rate fall.

In addition, the outlook for growth in the euro area, our biggest export market, is likely to be weaker following the referendum.

Turning now to my policy strategy. We haven't had much hard data since the referendum and we have a forecast in three weeks when we will know a bit more. And I've learnt the standard reaction of the monetary policy maker is often to want to wait until there is more data and until the data can be processed in a forecast round.

However, while we will have some more data, I do not expect the August forecast to give us the amount of insight and the direction we usually derive from forecast rounds.

We are in a pretty unique situation where the prospects for the UK economy over the forecast period depend very heavily on a number of political variables both here and abroad, including the timing and process for the UK deciding what relationship it wants with the EU, the timing and the outcome of our European neighbours' objectives for their relationship with us, and of course the timing, nature and outcome of the negotiation process itself. So while I expect to learn a little bit more from the data by August and have a more in-depth exploration of these issues, we will necessarily be making decisions under conditions of unusual uncertainty in August and that will likely persist for a large period of time thereafter.

Against that background, I am risk averse and I see merits in a risk management approach given the current balance of risks around the economy and around meeting our inflation target. My preferred approach is to respond to the shock early, robustly and transparently even though it's very difficult to determine the size and the timing. The risks of acting too late or timidly outweigh, in my mind, the risks of providing too much stimulus.

The questions in my mind are about the 'what' and the 'when'. In recent years the context in which monetary policy operates has changed. As policy rates have fallen towards zero and below, much more focus has been placed on the impact that monetary policy can have on the financial sector and the way in which this can feed back into the real economy.

And a broader range of monetary policy tools are now regarded as familiar, if not conventional. I think we will need to use a combination of instruments, including a funding for lending type scheme, to ensure that the transmission mechanism works as efficiently as possible and that banks are able to pass on monetary stimulus to borrowers. I also think that asset purchases are likely to form part of the necessary package.

However, whatever package we decide, I think it is very important we set it in a clear exposition of the range of tools we have available, their interaction and our framework for deciding how they should be used. Absent that exposition, there's a danger of external confusion around these issues which would reduce policy effectiveness.

All of this leads me to conclude that we should wait until August before announcing any policy changes, not, as I have explained, because I expect a huge amount of greater clarity by August, but because we can make a better prepared, better set out and hence more effective policy intervention. I would want to give a clear signal this month that this is where we are heading. With that I provisionally vote for no change in Bank Rate or in the stock of assets purchased this month.

Governor Carney. OK. Thank you. OK, Kristin and then Jan.

Kristin Forbes. Does anyone know what this is? [Holds up a gold necklace with a spinning pendant.]

Ben Broadbent. It's Hermione's time travel thing.

Kristin Forbes. Well done, you can tell you have children. Pass it around. It's a "time turner" – used in the Harry Potter series. It lets you go back in time. Many people wish they had an operational form of this today – whether to go back to vote differently or to better plan for a "leave". Before I shift to the challenges we face today, however, let me start with one positive: we would not be at the front of the line for a time-turner. Although some criticised the Bank for our warnings of the economic effects of a leave vote, now that we have seen the immediate impact and are working through the implications for the economy and monetary policy, this confirms that we should not have been silent about these implications.

But now it's time to look to the future. My comments will focus on three risks: the current account, inflation, and demand. I will close with implications for monetary policy.

To begin – how does the vote affect risks around the current account deficit? ONS revisions suggest it was larger than we expected, 6.9% of GDP in Q1. Will the recent depreciation make UK assets attractive enough to support net capital inflows to finance this? To help assess this risk, I've updated the analysis I did several months ago with [redacted] to evaluate the implications of recent events. The analysis only focuses on the financial channels of the current account – the most immediate risk – and ignores slower trade adjustments. There are three results relevant for today.

First, based on historic correlations between exchange rates and their effect on investment income, if you only incorporate the impact of sterling's depreciation, UK net investment income would improve by roughly 0.5 percentage points of GDP. That is relative to a 3.1% of GDP deficit in net investment income in Q1 – so a moderate reduction in net financing needs. But if you also incorporate some very rough adjustments of relative yields to date, this could erase much of these expected gains in international investment income from currency movements for 2016. Therefore, we may not get immediate relief in the current account deficit; so maintaining confidence and adjustment through trade will be important.

Second, on a more positive note, capital gains from the depreciation should improve the UK international investment position by roughly 28% of GDP in 2016. This is a substantial improvement and comparable to that during the 2008-2009 crisis. This should reduce any concerns about the UK net foreign asset position and international solvency.

Finally, how the current account deficit was financed during the 2008 crisis suggests a key role for UK investors selling foreign investments and bringing the proceeds home; this helped balance foreigners' sales of their UK investments. So how UK residents and companies respond at this juncture will therefore be important and worth watching carefully.

Another issue to revisit is the outlook for inflation. Will the upward pressure on inflation from sterling's depreciation more than counter the downward pressure from weaker demand? A team is working on this, but it is so critical that I did a preliminary analysis building on our past work on how pass-through can vary based on the shocks driving sterling's movements to assess whether our "rule-of-thumb" is overestimating or underestimating inflation risks. I've looked at five alternate scenarios with different shock weights: weights based on our initial benchmark forecast (as of this morning); historic weights (which are basically our rule-of-thumb); weights from new model that decomposes sterling drivers using weekly asset price movements; fourth, weights from the 2008 to 2009 depreciation, and finally equal weights for the four domestic shocks (to demand, supply, risk premia and monetary policy) and no role for global shocks.

So this yields a wide range of potential pass-through effects; for example, a 10% depreciation could increase import prices by between 4.0% and 8.7% in one year. But the approaches that seem most realistic (shock decomposition updated through Friday or equal weights for the domestic shocks thereby putting much less weight on global shocks) suggest pass-through to import prices of 54% to 57% – almost identical to our 60% rule of thumb. This suggests to me that our approach of starting with our rule-of-thumb estimate of the impact on inflation makes sense as a base case – and risks are currently balanced in both directions.

A third issue is the impact on demand and the different components of demand. There's no doubt that the commercial real estate sector is under substantial stress – with initial vulnerabilities aggravated by the vote. Business investment was already slowing and this will likely worsen due to uncertainty – especially for exporters unclear about market access. But I am also cautious about putting too much weight on uncertainty effects in addition to those incorporated through other channels. Uncertainty undoubtedly slows demand and will continue to do so – but we overestimated its drag in Q2. Are we double-counting? Do the effects of political uncertainty differ from those of economic uncertainty? Or does the UK consumer simply "carry on" despite heightened uncertainty?

The UK consumer has been remarkably resilient in the run-up to the vote, and once the immediate shock of the vote has worn off, it is difficult to predict how consumers will respond. If mortgage rates increase, this could lower consumption – but the report on intelligence from major UK lenders suggests that any such impact may be muted. For example, it states, quote: "Lenders expect availability of credit for mortgages to remain broadly the same"; quote: "mortgage rates were unlikely to change much"; and quote: "no one thought mortgage rates were heading up". Of course this could all change quickly, but I would like to see evidence of a slowing in consumption and understand what is driving any weakness before reacting.

Also, partially balancing these channels potentially weakening demand is the stimulus that has already been provided. The FPC reduction in the countercyclical capital buffer has raised banks' capacity for lending to UK households and businesses by up to £150 billion. The government has already announced some fiscal support through automatic stabilisers, no longer balancing the budget by 2020, and possibly reducing corporate taxes. The yield curve has shifted down by around

60 basis points toward the end of our forecast horizon (compared to the May IR) and sterling has depreciated by 12% since 23 June and 17% relative to expected in the May IR. This combination of stimulus is unlikely to fully counter the negative effects on demand, but it could provide a meaningful counterweight already.

Finally, what does all of this imply for monetary policy? Before the referendum, I believed that the next move in interest rates should be up and I expected that I would support this soon – possibly in August or November. I now believe the next move in monetary policy is more likely to be some form of loosening. I expect growth to slow, but given the extremely limited information we have at this point, I have no confidence in our ability to predict by how much or how this will evolve over time. I also do not feel that we currently have enough information to accurately assess the trade-off between weaker demand and higher inflation. Sterling continues to depreciate, and there are a number of reasons we discussed yesterday why it's likely to fall further – potentially much further. If so, this could make me more hesitant to loosen monetary policy and complicate the trade-off with weaker demand.

For all of these reasons, I would like to see more data on the effects of the referendum before committing to easing. Before the crisis, our standard models predicted wage growth should be accelerating faster than it did. Just as I wanted to wait to see hard evidence that wages were picking up in a way consistent with our inflation target before raising rates, today I want to see more evidence of the effects of the referendum on demand and inflation. Data dependent works in both directions.

Also, I am no longer sure my preferred choice of easing would be lowering Bank Rate. Our discussion yesterday highlighted the costs of low rates and potential to aggravate risks in other vulnerable areas – such as banks, insurance companies, pension funds, and corporate pension liabilities. I would therefore prefer to wait to get a better sense of exactly where the weakness in the economy is occurring, and why, and try to address those fragilities directly, if possible, to minimise the negative externalities of looser monetary policy. For example, if we see weakening in consumer spending due to increased mortgage costs, or in business investment due to corporate spreads, I would prioritise focusing on a creatively-named program to reduce borrowing costs in those specific areas. I am strongly opposed to lowering Bank Rate below zero, and given our limited room to manoeuvre, want to use the ammunition we have carefully and for maximum effect.

I am also concerned that market expectations indicate substantially more easing than where I am – and not delivering on these expectations could have market implications. But I also do not want to fall into the trap of feeling that we need to vindicate market expectations if they do not coincide with our own analysis.

To summarise, I am likely to vote for no change to monetary policy this month. I am likely to support easing monetary policy in some form in the future, but am also not comfortable committing at this time to when or in what form that would take and would prefer to keep our options open. If only the time-turner could allow me to pop into the future by a few months.

Governor Carney. A luxury we don't have, but Jan and then Andy.

Gertjan Vlieghe. Well before the financial crisis, Dani Rodrik wrote about the political trilemma of the world economy. He argued that the continued integration of the world economy would run into political constraints. Ever freer trade and reduction of non-tariff barriers requires deep harmonisation of regulation, which can only be achieved by a supra-national level of government – giving up some sovereignty – or by making domestic regulation ever more subservient to the needs of a globalised economy – giving up some democracy. Between deep economic integration, democracy and sovereignty, you can pick any two, but never fully have all three.

How much of each is a political choice, and it appears that, collectively, the UK has just chosen to move somewhat away from economic integration in order to regain some nation-state sovereignty. It will be important for political leaders and voters alike to realise that this trilemma exists, and that in order to have more of one we have to have less of the other.

As setters of monetary policy, our concern is with the economic impact over the next few years. We all individually came to the conclusion that the economic impact of such a move would be

significantly lower demand, lower supply and a weaker exchange rate. So far, the preliminary economic data, the intelligence from our Agents and other contacts, and the moves in financial markets all firmly support our conclusion.

I find it useful to think of the likely impact on economic activity as taking place in several stages, which are partly overlapping. The biggest impact is likely to be on the property market, both commercial and residential. These areas of the economy had already started to show weakness ahead of the referendum, and the additional uncertainty about future incomes and the future composition of economic activity is likely to amplify the downturn that was already underway.

The next phase is business investment, employment, and household demand. Given that the financial system is well supplied with liquidity and capital, there is no pressure on banks to reduce lending sharply, and therefore no financing pressure on firms to cut back spending sharply. Instead, it is more likely that future expansion plans – whether in capital or in labour – will be put on hold or scaled back over a period. The weakness in investment and employment might therefore build over time, a few quarters perhaps. I expect that household spending might also take time to adjust to the weaker housing market and to higher unemployment.

What early data do we have to support or refute these preliminary forecasts?

Post-referendum, we have no new direct price or transactions data on commercial property, but we know that the share prices of REITs fell sharply, and that outflows from open-ended funds investing in the CRE market have accelerated to such an extent that several funds have been gated, a pressure point that had been well flagged by the FPC, and that suggests a sharp deterioration in the outlook for the sector. Concerning the residential housing market, we have had the preliminary RICS survey, where the responses after 24 June showed a sharp further weakening in both price and transactions balances, from already low levels.

On overall economic activity, the message from the Agents was that the impact on activity is indeed negative, but the scale is hard to judge. More than half the respondents thought they would "slightly reduce" capital spending and hiring, but only a small minority thought there would be a substantial reduction. The survey data suggests that the negative effect on activity has already started. The part of the services PMI survey responses that related to the post-referendum period were consistent with a fall in the output balance to around 50, a level not seen since 2012. There was also the Lloyds Business Barometer, released overnight. It is a similar survey to the PMI survey, but gets less attention as it is significantly more volatile. However, it does have a correlation of 77% with the composite PMI since 2010, and even higher if you include the financial crisis. The reason to pay some attention to it this time around is that all of the responses in the June survey related to the post-referendum period. The survey saw a 2.5 standard deviation fall, to the lowest level since 2011.

Let me now turn to the policy implications. We discussed, before the referendum, what the required monetary policy response might be. I agreed that the response would depend on the relative magnitudes of the changes in demand, supply and the exchange rate, and I also argued that the most likely scenario would be one where we ease, because the demand contraction was likely to be larger and earlier than the supply contraction, and the exchange rate effect on inflation was unlikely to un-anchor medium-term inflation expectations.

While we do not have independent evidence so far on demand vs supply, we do have some information from financial markets on inflation expectations. Near-term inflation expectations rose slightly, reflecting the weaker exchange rate, with break-even RPI inflation over the next five years up about 20 basis points since the referendum, which almost brings it back up to the average of the past 20 years. Break-even inflation further out has continued to fall. 30-year break-even inflation is down 12 basis points since the referendum, and 35 basis points since the start of the year. And all that despite the fact that a much looser stance of monetary policy is now priced in, with 10-year nominal yields down 60 basis points since the referendum, and 120 basis points since the start of the year. If there are any concerns about inflation expectations, the worry remains firmly on the downside, not on the upside.

All these considerations lead me to strongly favour an easing of monetary policy. The only questions are how, and when.

We had a useful discussion about the various tools at our disposal. I am comfortable that Bank Rate can be cut somewhat further without too high a risk that the adverse effects via bank profitability outweigh the positive effects via lower borrowing costs. I do feel that we should explore what additional tools we can deploy to make sure that the cut in Bank Rate gets transmitted to the wider economy to the fullest possible extent. In particular, the rise in bank funding costs and in corporate bond spreads represents an unwelcome tightening in financial conditions, acting to offset the effect of a Bank Rate cut.

The next step is to consider timing. I am not persuaded by arguments to wait for more data. We formed a well-considered, analytically grounded view of the likely economic impact of a Leave vote ahead of the referendum, and we already have some preliminary data to support that broad outline of this view. Questions will remain about the magnitude and duration of both the downturn in activity and the temporary rise in inflation, but the required policy direction is already clear to me.

I am, however, sympathetic to the argument that waiting until August will allow us to present various easing measures as a package, and the Inflation Report and press conference will allow us to explain the package in more detail.

Set against that, early action could act to reassure households and firms at a time of drastically heightened uncertainty. Events, data and financial market prices are moving rapidly. I do not want to be in a position in three weeks' time of regretting not having acted earlier. Moreover, having been quite close to voting for an easing even on a 'Remain' assumption, I am not able to justify any further delay now that the economic outlook has clearly deteriorated again. On balance, these latter arguments dominate.

I am therefore minded to vote for a 25 basis point cut in Bank Rate this month, and favour a package of further easing measures in August.

Governor Carney. OK. But no change to asset purchases this time?

Gertjan Vlieghe. No.

Governor Carney. OK. Thank you. Andy and then Ian please.

Andrew Haldane. Thank you Governor. Yesterday we went through an enormous and indeed exhausting range of information and analysis on the conjunctural situation in the UK and the tools at our disposal for helping manage that situation.

Given the long-lived period of uncertainty that the referendum vote ushered in, we are now inevitably set for a protracted period when monetary policy needs to be both more active and more flexible in response to the evolving, unpredictable economic landscape. In other words, this is a new dawn for monetary policy as well as for the economy. In that light, let me offer some reflections on how I am thinking about our policy response to this changed landscape, along three dimensions – how much to respond, how to respond, and when to respond.

First, how much. This is for me both the easiest and the hardest of the questions. Hard because, at this stage in the data cycle, there is only the smallest trail of breadcrumbs on which to base any judgement on the economy. But easy because, despite that uncertainty, there is a remarkable, some might say slightly worrying, degree of conformity among economists on the broad contours of the economy in the period ahead.

But if only judging by the initial response from company surveys, such as the Bank's Agents, the IoD and Deloitte's, this likely to be a period of throttling back among a large, perhaps even the majority, of companies. And the key word here, as many of you said yesterday, is probably throttling back, with the car slowing down a couple of gears, perhaps even into neutral, rather than slamming on the brakes and going into reverse.

And our initial projections, like those of external economists, are broadly consistent with that picture. GDP treads water for the next few quarters, allowing a larger output gap to accumulate steadily that peaks at 1.4% in 2017 Q2, with unemployment rising by over 1 percentage point to 6.3%, a rise of around 500,000 heads. At the same time sterling's sharp depreciation pushes inflation back to

target by the first quarter of 2018, and to 0.4 percentage points above target by the fourth quarter of that year. On the face of it, then, this is in the lingo a "trade-off inducing shock", the type of which can put monetary policy in a bind. In practice, for me, there is not much of a trade-off to manage here at all and no real ambiguity about the appropriate direction (easing) and scale (big) of the necessary monetary response.

In Ben's terms from yesterday, not only is my lambda high (the weight I place on output versus inflation), but my beta (the slope of the Phillips curve) is also low. Even before the events of the past month, the Phillips curve appeared to be as flat as pancake. And in a world of stalling output and rising unemployment, I find it hard to imagine wage and price pressures will intensify and the trade-off become more adverse. One thing that could of course have shifted that trade-off would be an exchange-rate-induced jolt to inflation expectations. But we have had that jolt, or probably the lion's share of it, and the evidence at least from financial markets, as Jan mentioned, is encouraging, with break-evens at longer maturities holding steady, or perhaps even falling.

The other factor that weighs with me when judging the scale of monetary response is the asymmetry of risks now facing the economy. And that asymmetry comes in two stripes. First, now more than for some time, confidence in the economy is likely to hinge on our actions, and those of other policymakers. With expectations and animal spirits fragile, a failure to take, or being seen to take, decisive enough action to restore confidence could itself prove damaging for confidence and hence activity.

If ever there were a world of self-fulfilling, multiple equilibria, it is probably this one. And although it is not for monetary policy and monetary policy alone to bear all of the burden of cushioning the economy, this is nonetheless a moment when for me it has a particularly important role to play in helping bootstrap those expectations to a higher confidence, higher growth equilibrium.

Second, there is of course an asymmetry in the potential effectiveness of our monetary toolkit when dealing with shocks. And if nothing else, yesterday's presentations underscored for me some of the question marks around the effectiveness of those tools. The policy implication of this policy asymmetry is that more should be done to cushion the effects of negative shocks, the like of which we have just had. This is of course the familiar risk management argument. And in the current environment, with risks elevated, I think it has particular force.

Put differently, I would rather run the risk of taking a sledgehammer to crack a nut than taking a miniature rock hammer to hack my way out of prison, like that other Andy, the one in the Shawshank Redemption.

On the how, this for me flows very much from the how much. The scale of shock, and the risks around it, mean for me that interest rates alone are unlikely by themselves to be sufficient of a cushion, even when taken down to their new effective lower bound of closer to zero. In other words, we need a package of monetary policy measures.

To be clear, as our preferred and most potent signalling device, I think it is natural to use interest rates as the fulcrum of that monetary response and to lower them as a first step towards their effective floor. And while we should await the details, I am also very much open to a scheme, as others have said, which creates incentives among the banks to pass through any rate changes to end-borrowers, thereby improving the monetary transmission mechanism. Beyond that, I think the package will need to comprise some monetary braces as well as an interest rate belt.

On that front, and having heard the evidence, two design principles struck me as potentially having merit. First, "risk diversification" by looking to purchase a range of assets, public and private, short and long, real and nominal. That can be justified partly on the grounds that we simply cannot know which of these asset channels will prove most effective. In other words, spreading the risk of policy ineffectiveness. But it can also be justified on the grounds that it may reduce some of the adverse consequences of an action which is otherwise concentrated in one asset market. In other words, spreading the risk of adverse side-effects.

The second principle is that optics and expectations really matter for asset purchases. I think we know that from earlier rounds of asset purchases, in the UK and elsewhere. And rightly or wrongly, that means this is to a significant extent a numbers game, where bigger is optically better. For me

that probably speaks to having a relatively muscular headline number for asset purchases. And so while I see the logic, a corporate bond programme on its own may run the risk of looking numerically too modest to bootstrap expectations. If you like, taking that miniature rock hammer to dig your way out of Shawshank prison. And yes I know that Andy did eventually escape, but it did take him over 20 years.

Finally, on when, I can see the case that Jan has made for making a response in instalments, with a first instalment this month and I can see no great harm in doing so. My preference, though, would be to present this package as just that – a package – with an accompanying macro-economic hook (the Inflation Report) on which to hang our policy hat. That would probably increase the optical benefits of the intervention – considered, joined-up, expectations-shifting. Of course, if that were the chosen course, it would still be important this month to signal enough – but not too much – about our intentions for next month so as not to risk any adverse shock to expectations. I am sure we can draft around that.

So while a new monetary day has dawned, I am still minded this month, and for one month only, to leave unchanged Bank Rate and the stock of asset purchases. Thank you.

Governor Carney. Thank you, Andy. Ian, please.

Ian McCafferty. It was Confucius who said "Study the past if you would define the future."

Unfortunately, for us, this is not currently possible, given the magnitude of the shock that has hit the economy since our last meeting. I have argued that we may gain some insight from the reactions to previous shocks, from Black Monday, the ERM exit, the Far East Asian Crisis, the Dot Com bust and 9/11, but to be honest, the current shock represents such a regime change that such insights can be only partial, at best.

As yet, we have little or no data to inform the new conjuncture, as, with the exception of the housing market, the data for Q2 provide few pointers about the second half of the year, and few of the new-fangled real time economic indicators correlate well with broader ONS data. I also agree with Kristin's comment yesterday that we should avoid taking over precise readings from the financial markets, given the scale of the surprise, until we see where they settle. I take little reassurance, for example, from staff comments that sterling has fallen less than our pre-referendum calculations suggested, for, as was discussed yesterday, following the exit from the ERM it took five months for sterling to reach its initial trough, and its ultimate low point was not reached until over three years after the event.

Our best guides to the impact remain theory, as well as the Treasury's, the IMF's and our own analysis, all of which do a good job in difficult circumstances. But for the moment, we are still left with a range of likely outcomes that range, and Minouche beat me to this quotation, in Christine Lagarde's immortal words, from "pretty bad to very, very bad".

Yesterday, we spent a good deal of time looking for the "silver lining". If there is one, I would offer the fact that, at least so far, markets have functioned well, with reasonable two-way pricing and liquidity, bid-offer spreads at worst only mildly elevated and no signs that, as in 2008, whole asset classes could not be realistically valued. Moreover, following the work of the FPC and PRA, individual banks do not face the same concerns about solvency, allowing interbank and wholesale markets to continue to function. As long as this persists, therefore, the Brexit result represents a shock centred on the uncertainty involved in regime change and the likely hit to business and consumer confidence, but uncomplicated by the highly damaging effects of a dysfunctional financial system and the resulting constraints on credit supply.

In such circumstances, the most immediate hits to the economy are likely to come from the demand side in the housing market, and commercial property and business investment – each of which, at least on the preliminary data, were already weakening over the first half of the year. To the extent that investment decisions had been postponed because of referendum uncertainty, a good proportion is now unlikely to be revived, such that the weakness persists. However, my initial intelligence from businesses is similar to that from the Agents – that such is the uncertainty about the range of outcomes, businesses are in a 'wait and see' mode, so are not yet rushing to cut back on capital investment aggressively.

The likely impact on consumers is harder to judge. Staff analysis at Pre-MPC suggested that, as recessions set in, consumer spending reacts quickly, but of course, by the time a recession is underway, unemployment and job insecurity are already on the rise. My guess is that a marked slowdown in consumer spending may not really take hold until after the inflection point in the path of unemployment, which even with the survey evidence of a new reluctance of firms to hire, may take a little time to be recognised. A weakening housing market will also have effects on consumer spending, but the marked weakness of the immediate post referendum RICs survey may overstate the loss of interest of both buyers and sellers in moving house, so the impact on house prices may also take a little time to hit the front page of the Daily Mail. At this stage, all of this is, of course, speculative, but suggests that the downturn may be slightly more slow burn than the initial staff projections. But this, and the speed of the likely supply response to the shock, are both discussions better left to the forecast round.

So, to policy considerations. Probably the only thing we can say with a high degree of certainty is that we face a more marked trade-off in terms of our primary and secondary objectives than for several years. At the beginning of the week, as Ben pointed out yesterday, that trade-off was somewhat less than set out in in our initial leave scenario, but with sterling still on the slide (falling by a further 1.5% so far this week), that trade-off is likely to become further acute in coming weeks. That, combined with the lack of useful information in our possession, leaves me more inclined to go for a more considered policy response in August; a slight pause for reflection and more considered analysis, a pause which, judging from our intelligence about expectations, would not cause consternation in the markets.

Ben provided a useful conceptual analysis of the trade-off between the slope of the Phillips curve and our individual ‘lambdas’. I was minded of an exercise we conducted soon after I arrived on the Committee, in which Mervyn went round the table asking us to declare an estimate of our individual lambdas. For the majority of the then-Committee, it was somewhat less than 1, centring around 0.7 to 0.8; that is we collectively cared slightly more about stabilising inflation than about stabilising output. But of course since then both the membership and the mandate have changed.

But, within Ben’s framework, either a lambda of less than one, or an assumption of a Phillips curve slope only slightly higher than the three that he cited makes a big difference to his inflation overshoot/output gap ratio and hence the guidance towards the optimal policy response. By next month, that ratio may look somewhat different to that based on the initial movement in sterling and the scenario estimates of the combined demand and supply hit to the economy, and may therefore justify a slightly different reaction.

This, for me, provides another argument for a short period of reflection and observation before committing to a policy change. It also leads me in the direction of caution about any unconditional signal of detailed future intentions from this month’s meeting. I believe that on most exchange rate and output gap scenarios, we will need to ease policy in the near future, but I would be reluctant to promise anything that we cannot yet guarantee. If the Committee agrees that some signal is required immediately to inject confidence – and a number have suggested this – then I would not demur, but would hope that it can be carefully worded to reflect the continued uncertainty.

Yesterday’s discussion of the tools in our toolbox was helpful, and I believe that were we to cut Bank Rate significantly, it would have to be accompanied by measures to ensure that the cut was passed through to retail rates, and the two would be best announced as a package. In terms of the deployment of other tools, I believe that the signalling benefits of widening our Asset Purchase programme to corporate debt could be helpful, even if the magnitude of such purchases is necessarily limited. In terms of restarting gilt purchases, I am slightly more cautious. Given where we start on Bank Rate, we may well end up having to supplement cuts in interest rates with such purchases if the effects of the shock on the economy estimated by the Treasury are realised, but I am uncomfortable moving to this option immediately, for three reasons.

One, I am uncomfortable explicitly flattening the yield curve yet further. Two, the likely reduced multiplier associated with gilt purchases relative to our previous QE operations means that we would be likely to have to announce significant larger quantities of purchases than hitherto. And I think this risks having a perverse impact on confidence for other than the most sophisticated observers unless it were well explained in advance. Three, while we are in a position to offset some of the damaging side effects of yet lower gilt yields for the insurance industry, we are less able to do so for the

corporate sector, where the impact on the valuation of pension fund deficits, and the potential negative impact on corporate activity, will be marked.

As such, for this month, I am minded to vote for no change in policy, believing that the merits of a short period of reflection and a little more information outweigh the advantages of an immediate response. If other members feel strongly that some explicit signalling of our future bent is required immediately, I am happy to consider this, but am not convinced that it is imperative to reassure either markets or households, and would need to reflect the continued uncertainty about the size of the trade-offs that we may face.

Governor Carney. Very good. Thank you, Ian. We're all familiar with this, but there are theories of recessions that rely on co-ordination failures. You know: one firm expects a slowdown in demand, or becomes uncertain about future prospects, so its hiring and investment fall, making it worthwhile for others to do the same. These effects cascade, creating the downturn that was initially feared. The fancy terminology around this is "strategic complementarities" in firms' activities. More colloquially, it's an "after you" recession: after you I'll fall into recession; no, after you, I insist after you. It's all very British when you think about it.

And it would be apt that if, after "taking back control", such British deference promoted stagnation. Look, I don't really think that such a pure co-ordination failure leads to the weaker path through to output. We have a supply shock here, and we have an uncertainty shock, as others have detailed. And it's in this environment that this institution needs to show leadership and reduce uncertainty where it can. It's a component but it is an important component. Other areas of the Bank have acted. The question is: what's the role of the MPC?
Now, we said in advance that the monetary policy response to Brexit would not be automatic but would depend on the balance of factors that others have detailed, but I'll just make a couple of comments on demand, supply and the exchange rate.

We were in a backdrop of demand, in Q2, relative to our expectations notwithstanding, but we are in a backdrop of demand slowing. The Blue Book shows this in a little more marked sense. And then, on top of that, we did have an uncertainty move that now looks consistent with our illustrative scenario. Early evidence, and pretty much all the evidence, but early evidence that we've seen, coincident with the referendum and following, is consistent with an impact on what Andy described last time as large, lumpy or irreversible economic decisions. The IoD survey had one-third of respondents expecting to cut investment and a quarter freezing of hiring of new staff. Deloitte has half the respondents cutting investment, 80% expecting the overall economy investment hiring to fall - going to the co-ordination point. I also looked through the Lloyds business barometer – you know, a secondary or tertiary indicator – but a 2½ standard deviation move does get your attention, particularly given the timing.

Regarding the housing market, I won't detail what others have discussed on the RICS indicators, except to note that, including in three-month-ahead sales expectations and new instructions, they are at series lows. So it's not just going back to particular periods; they have never been lower. Now that's in some respects preliminary, and we'll get the final read next week.

On consumption, obviously we had very little to go on. We have auto sales flat, which in some respects is an improvement from the previous month when they had fallen. The GfK confidence measure somewhat encouragingly ticked down gently, not dramatically. The YouGov measure fell rather more sharply in the week after the referendum.

The biggest survey, and probably the most credible around output as everyone knows, is around the CIPS – with a sharp fall in construction output consistent with the sharpest fall since June 2009, which was not a particularly happy time, balanced a bit by the uptick in manufacturing, and then obviously noting that the services balances moved to the cusp of a slowdown at 50. So overall broad-brush, as others have said, remarkably consistent with what our priors would have been given where uncertainty went and given the outcome of the vote.

On the supply side, it's extremely difficult to make these judgements. I think we'll have to think quite hard about how we, as we discussed yesterday, how we actually model this without picking a side in terms of ultimate model. And we will have to appeal a bit, and maybe a bit more than we would want to – some of us might want to – to uncertainty effects and the uncertainty impact on supply, for communication purposes,

rather than be stuck into, you know, a WTO, or Norway, or no Brexit world for that matter – that way lies madness. But there are ways to map that into supply.

On the exchange rate, you know I, like others, note that the move has been more modest. But, as Ian just finished just outlining, and I absolutely agree, quite often these things grind down over time, and in fact that has been the experience when you get a major shock. And it's reasonable to expect that in coming months and maybe even longer, as reality comes into sharper focus – I mean we don't really know where we're heading at this time, which is the uncertainty point, but as it comes into sharper focus – the move may be more significant. But as for now the trade-off is much less pronounced than I had expected. We can do more to stabilise real activity and as others, and I think Jan went through this most comprehensively, actually I am encouraged by what's happened on the inflation expectation side. This is not our 2014 stress test in any way shape or form. In fact, the only thing on the inflation expectation side is, if you had to take a pure objective direction out of it, I would be slightly more concerned about where inflation expectations are going in the opposite direction, as opposed to getting pass through from the exchange rate.

Regarding the implications for policy, given what's happened, including what's happened to the exchange rate on the balance, I do think that some policy easing is merited. I note the trade off, I thought it was a quite useful trade off discussion, albeit it's a revealed trade off, as opposed to my personal preference, but the trade-off discussion based on the constellation of asset price moves, including priced-in rate cut and where the exchange rate is at present, is consistent with additional stimulus than just a cut. Obviously, that's a positive statement not a normative one.

Secondly, I think this is a situation, well actually I should say that there are factors which would suggest either refining, to my eye, refining the forecast or retaining as downside risks. In fact I would be more minded to have retaining these as downside risks. As Kristin was referencing – and actually quite helpful hearing about your five shocks, five different approaches – obviously there's a demand shock component here. Staff analysis suggests about half of the exchange rate move is a demand shock, which would suggest less pass through based on previous work. The uncertainty about the trade arrangements obviously could lead to less stimulus coming from the exchange rate move. And the default into WTO, our forecast had defaulted to WTO – our risk scenario I should say – and to the extent to which it is conditioned off something milder than this, or to the extent to which the adjustment to that, as we discussed yesterday, is more exponential as opposed to linear, would point to a more adverse trade off, as we've discussed. All of that said, I would view those more as risks as opposed to trying to, you know, be overly precise and embed them. I do think this is a scenario though where, in an environment of great uncertainty, one tends to look for insurance. Ideally you bought the insurance in advance, but if you haven't go out and get it. And that leads to issues around risk management approach, Orphanides and Williams, although granted that would be more on a projection basis as opposed to an actual, and recognising that in an environment of uncertainty we may need to do more to have that stimulus on demand.

On fiscal policy, it's not clear what sort of fiscal policy response we're going to get, and it's not reasonable to ask the question as yet when we don't have a new Government. It is good news that the automatic stabilisers will be allowed to work. But it's also reasonable to expect that the structural fiscal position has deteriorated and it's not clear how that will be resolved, and so the fiscal space may be less than appears, and that's obviously a judgement that others will make.

So, most importantly, I do think in this environment it's important that institutions have plans and the plan that we have, across the Bank, have tried to pursue has been to identify and explain clearly the risks to monetary and financial stability from the referendum. This Committee has led in that, through the Minutes and public communications. Secondly, appropriate contingency measures to build on the core strength that had been built over the years. Those are in place, they're working. They all haven't been deployed yet; it's possible some of them might still need to be, we will see, depending on how exchange rates in particular move – exchange rates other than ours. Thirdly, and most importantly I think, is taking action to support the economy during a period of heightened uncertainty while keeping inflation on track and inflation expectations well anchored.

So that brings us to a decision. We can be confident that risks to credit supply, given actions of others, the risks to credit supply are being addressed. The banks really are strong. This movement on the CCyB two days ago by the FPC is material and even if you mark to market the banks' balance sheets to the falls in their equity prices, or if you mark to market their capital, with that there is about a quarter of a trillion of lending capacity available to them – so about four times a good year of lending. So that's not an issue, or it's much less of an issue.

How do we aim our limited fire-power? I would advocate, given the natural adjustment of the exchange rate and given uncertainty about where it could go, that we aim it as much as possible domestically. I join others who suggest a cut in the Bank Rate. I'm certainly in 25 basis points, I'm not sure I'm in more than that yet given other options and given pressure on banks. But that's analysis still to be done. I agree very much on the value of the clarity there. With others, I search for a new suitably-branded "Funding for Lending" scheme – I'll suggest "Financing Credit UK", although I think that acronym may have been branded [laughter]. But, more importantly, the point is to recalibrate to ensure that that transmission of the Bank Rate move is effective. I do view it as very much a complement, as Ben and others have said, very much a complement to the move on Bank Rate.

On asset purchases, as you may have gathered, I'm keen that there is a credit easing element to that, a diversification element to that. I suspect when we sit down and quantify the scale of the package that, in and of itself, won't be enough, and that gilt purchases may well be required. But I start from not wanting to do that, if you will, if it can be avoided.

But, as a whole I see, as some others do, a real value in a package which shows the breadth of instruments, how they work together, that shows an understanding between monetary measures and how they are transmitted through the financial system. I think what the FPC is going to do on the leverage ratio helps reinforce that; us having a package and an FLS-type scheme alongside a Bank Rate that helps reinforce that. And all of it, it's going to be hard work, but if there's enough of a consensus on working on this, it has the potential to have a much bigger impact than a series of measures rolled out. So it's more about getting the tools right, for me, and understanding the interaction between them. I'm not sure we have to maximise the quantum of all those tools, and that's a judgement. And I would like to stress the domestic nature, the primarily domestic nature, of the measures.

So I don't know the answers to all these issues that I have put down. Since I have a preference for a package, I'm not in a position to put that on the table now or vote for a component of it now. So there's lots of details to be worked out, quantum to be decided and, as much as possible, a consensus to be developed amongst the Committee. I think that will also be incredibly important to the effectiveness of this.

So I'm minded to vote for no change, no change at this meeting. I would very much favour a signal now. I think it would send quite a shock with just a blunt no change. But I'd also like to get across that we would expect to ease policy in August using a range of tools and state words to the effect that the exact degree or depth will be decided, based on our updated forecast, and our assessments of supply, demand and exchange rate effects. And the exact form or, put another way, the breadth, will be based on further detailed analysis across our policy areas of the interactions of any stimulus measures with the financial system in order to ensure that we maximise their effectiveness to support the domestic economy, and meet the inflation target in a sustainable manner in an environment of heightened uncertainty.

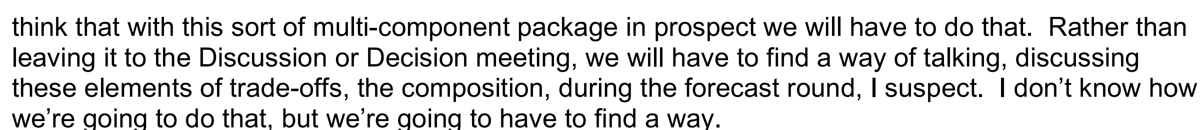
On state contingency, and the exchange rate point, I do accept that this is an issue. There are extreme moves that could happen, which changes the balance. I'm not sure – I mean obviously Martin you'll caution never say never – I'm not sure it would change the balance to the extent that it would take it off the table. But I could see language around: based on the current constellation of asset prices, including the exchange rate and the broad outlook – something that brings in asset prices that there would be an expectation of easing.

Ben Broadbent. I, you know, of course…

Governor Carney. I'll stop there for me and then you can…..

Ben Broadbent. I would just point out that in the Inflation Report, and indeed presumably therefore in intervening months, we have always, for good reason, based on policy on asset prices as they are, not what they could do. And indeed we confidently, well maybe we didn't say it confidently, but no one contradicted the scenario in which the opposite was true, in which we had an overshoot of the exchange rate early on. So I mean, I'd be happy with having some sort of contingency but I mean, you know, frankly the chances of its going down are the same as the chances of its going up in my view. You know, and furthermore my belief is that if it were to go down very materially it would do so in response to further bad news about the economy.

Can I just make just one other point about the procedure here, which is difficult. MA has always pushed us to try and get more policy discussion into the forecast round, as a general matter. I do



think that with this sort of multi-component package in prospect we will have to do that. Rather than leaving it to the Discussion or Decision meeting, we will have to find a way of talking, discussing these elements of trade-offs, the composition, during the forecast round, I suspect. I don't know how we're going to do that, but we're going to have to find a way.

Nemat Shafik. I also wanted to ask about the decision-making process because you can imagine a scenario where some members want Bank Rate cut and….

Ben Broadbent. We have to think about that.

Nemat Shafik. We need to think about how we would do that.

Ben Broadbent. Well, that's why we need to get it into the round.

Governor Carney. Yes, we need to iterate it a bit. So let me just close off this bit of the meeting if I may, which is just to summarise the indications, that were 8 members for no change in Bank Rate, one member preferred 25 basis point reduction, but all 9 members preferred no change in asset purchases at this meeting. That's the indication at this stage, and we'll vote next week, where anyone can change. OK.

A meeting of the Monetary Policy Committee was held on Wednesday 13 July 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 represented by Gareth Ramsay

The following members of staff were present:

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

Transcript of the Monetary Policy Committee Meeting on

Wednesday 13 July 2016

Governor Carney. OK, so we'll call this meeting of the 13 July to order and we will start with recent market developments, which have been more positive. Minouche.

Nemat Shafik. Let me start by updating you on moves relative to the data that we saw at Pre-MPC. First risk sentiment has improved over the week since Pre-MPC, with equity prices up, credit spreads narrower and the VIX down. On the domestic front, market contacts point to the sooner than expected confirmation of a new Prime Minister as having removed some post-referendum uncertainty. And at a global level contacts point to the good US non-farm payrolls numbers as a proximate driver, as well as a result of Japan's election where the clear victory for the ruling coalition has raised expectations for both additional monetary and fiscal stimulus.

Domestically-focused equity prices have risen about 4% since Pre-MPC. The gilt auctions held since the referendum have been well received by the market and the sterling ERI has appreciated in recent days reaching 79.5, and it remains at a similar level to at the time of Pre-MPC. Cable is at 1.32 today. But risks remain at both the world and UK level with continuing concerns about the vulnerabilities of the Italian banking sector, the outlook for UK commercial real-estate and following the suspension of trading in a number of property funds.

So where does that leave us relative to where we were a month ago at our last meeting? As you'd expect the moves have been pretty significant. UK market interest rates have fallen sharply at both the short and long maturities, with the 3 year instantaneous forward OIS rate down 22 basis points, and the 10 year gilt yield down 32 basis points. Sterling has depreciated by around 6% on a trade-weighted basis relative to our last MPC meeting. The FTSE all share has risen 11% reflecting sterling's depreciation and the international exposure of that index. Equity prices of more domestically focused firms, on the other hand, have fallen. The UK equity focused index has fallen by about 1½%.

So let me just end on a word of where this leaves UK monetary policy expectations. Market prices suggest that Bank Rate is expected to be cut at this meeting. The July meeting-to-meeting OIS swap rate is around 0.26, which using a simplistic rule of thumb implies about an 80% probability of a 25 basis point cut being priced in. Over half of the economists surveyed in a recent Bloomberg poll expect Bank Rate to be cut this month. However additional asset purchases are not expected in July, with less than 10% of respondents to a Bloomberg poll expecting an extension to the asset purchase facility this month. But, looking further ahead, market prices suggest further cuts to Bank Rate are expected, with the August meeting to meeting OIS swap rate at levels consistent with Bank Rate, at 0.19% and 0.12% respectively. Market intelligence shows that additional asset purchases are generally expected to be announced in August, although there's greater uncertainty among contacts about the timing of such a move, and while a few market contacts have mentioned the possibility of a corporate bond purchase, or an extension of the FLS, there's generally less focus on credit easing options as alternative policy tools. I think that's it.

Governor Carney. No questions on that? OK, Andy over to you, please.

Andrew Haldane. Thank you. So starting internationally, Minouche mentioned the strong payrolls number from the US last week. I think an important point on that is that, despite that, with participation picking up in the US, the unemployment rate actually picked up 0.2 percentage points to 4.9 in the US. Another piece of international data was that we got industrial production for the whole of euro area for May. That fell 1.2%. That fall was pretty broadly based across countries. So now our nowcast for the euro area for Q2 remains at 0.3, it could be there are risks to that now to the downside.

Turning domestically, on the consumer side we had a snap survey from GfK of consumer confidence after the referendum that showed readings falling sharply – indeed their sharpest falls since 1994. Within that, it was interesting that this wasn't just weakness in peoples' perceptions of the general economic situation, but also in their likelihood of making a major purchase, which was a change from what we've seen over recent months. Nonetheless, the bits and pieces we have on consumer

spending, including on peoples' Barclaycards, are yet to show any sign of that showing up in at least that measure of spending.

Finally, just on the property market, we had Halifax data for the whole of the second quarter on a regional basis. That shows a picture of a generalised slowdown across pretty much all of the regions. And indeed, in a number of them, moves in house prices over the quarter were consistent with falls rather than rises. So in Scotland, in Northern Ireland, in Wales, in London, in the North West it appears that house prices are now falling as of the second quarter. And I guess that's pretty consistent with what we heard from the RICS survey at the last meeting. I think that's all from me, thank you.

Governor Carney. Just remind me, Andy, you may not have the figures here, but the RICS at the last meeting, do we have a full sample of the RICS at last meeting?

Andrew Haldane. We didn't. So….

Governor Carney. Do we have it now?

Andrew Haldane. We have it now. It isn't out until tomorrow, but we now have it.

Governor Carney. Could you just pass it on, or if you had the figures…

Andrew Haldane. I have some of the figures here now. I can send round the full set. So a net balance of 27% of respondents expecting prices to fall over the next three months. New buyer enquiries fell to a negative net balance of 36%, which is the lowest since 2008. I have some other bits and pieces, should I just send round the whole of those, Governor? I mean, it's broadly consistent with the picture we had last time.

Governor Carney. OK, but it's full sample?

Andrew Haldane. Full sample.

Governor Carney. And comes out tomorrow? Comes out tomorrow, or Friday?

Andrew Haldane. It's confidential until tomorrow. We have the data table.

Governor Carney. Alright, good. OK, so if we turn to the decision. Put forward two propositions, the first that Bank Rate should be maintained at 0.5% and secondly that we should maintain the stock of purchased assets finance by the issuance of central bank reserves at £375 billion. And I'll try to go in the order we discussed at the last meeting. I'll start with Ben.

Ben Broadbent. I confirm my vote for no change in either Bank Rate or the stock of purchased assets.

Governor Carney. Thank you. Martin, please.

Martin Weale. No change, no change.

Governor Carney. Minouche?

Nemat Shafik. No change, no change.

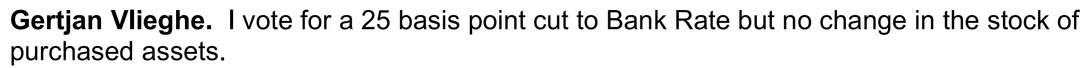
Governor Carney. Jon?

Jon Cunliffe. No change, no change.

Governor Carney. Kristin?

Kristin Forbes. No change, no change.

Governor Carney. Jan?



Gertjan Vlieghe. I vote for a 25 basis point cut to Bank Rate but no change in the stock of purchased assets.

Governor Carney. Andy?

Andrew Haldane. No change, no change.

Governor Carney. OK. Ian?

Ian McCafferty. No change, no change.

Governor Carney. And I will also vote for no change, no change as indicated previously. So that is a vote of 8-1 for maintaining Bank Rate at 0.5%, with one vote, Jan's, preferring to reduce it by 25 basis points, and 9-0 for no change in the stock of purchased assets. OK, very good. So everyone agrees with that? That was the vote. Good, very good. We will close this off.