Inflation Report Press conference

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Ed Conway from Sky News. Governor, you've spent the last five years or so trying to prepare households and businesses for this moment when we were going to move out of crisis-era rates to something that's getting towards normality. Do you think people, businesses, are ready for this? I, kind of, would draw your attention to something, no doubt, you've seen, which is the ONS talking about the fact that households have become net borrowers across the economy, that there might be pockets of household, particularly at the lower end of the income spectrum, who have large amounts of debt, proportionally. Are you concerned about the impact this is going to have?

Mark Carney: Okay, there are a couple of ways to answer that. I'll make a few points and then pass to Ben, if I could, because this is an important issue. The first thing I want to say is, we spend a tremendous amount of time as the MPC but also as the FPC, looking at the various cohorts of households, if I can put it that way. So, highly-indebted households, households who have cleaner balance sheets, households in different regions, households with a lot of floating rate exposure, households with a lot of assets, and try to determine, if it's the FPC, where the pockets of risk are and what can be done about them. If it's the MPC, what is the aggregate impact of any change in monetary policy on spending decisions on the economy. We make the point, very importantly, as an MPC, is what we're looking to do is to return inflation not just to target but sustainably to target. So, we're looking to take into account those feedbacks from the change in interest rate. So, that's the first thing. The second is part of our guidance, in fact, the first purpose of our guidance on interest rates, which has been twofold. (1) We've been saying this for a while, expect interest rates to go up, but (2) expect them to go up at a gradual pace and to a limited extent, is to give households, first and foremost, also businesses and then financial market, some context to the type of changes that we think are necessary for that sustainable path for the economy.

We're in a situation, and you can look at it a variety of ways, but in the run-up to this rate increase, and it's been the case for a while, about three quarters of households have expected that rates would go up over the course of the next year. A similar, in fact higher proportion of businesses, similar expectations. Obviously, for financial markets, it's very precisely calibrated to certain points in time. Then, what we do, to go back to the first point, is look very carefully at the ability for various households to shoulder interest rate increases, and, of course, the benefit of interest rate increases to those households who carry significant savings. It is detailed in this monetary policy report, some of the analysis that we look at, and it's not comprehensive but it's some of the analysis. I think the important thing to recognise is that since the financial crisis, over the course of the last ten, eleven years, British households, UK households, have worked very hard to put themselves in a better financial position. Now, that has been difficult because, as we all know, real income growth has been quite slow. The fact is that they've paid down a lot of debt and actually, their ability to service that debt, the ability to pay debt, has improved quite markedly.

I'm going to give you two snapshots on this that are detailed in the report. If you look at the average debt service ratio of households, it's currently well below historic averages, and certainly below the peak of going into the crisis. It would take another 100-basis-point increase in interest rate, so a 1%

increase in interest rates, instantaneously, to bring that debt-servicing burden back to the historic average. Of course, that's a calculation that's done without any increase in households' income alongside. Now, it would be a pretty curious set of circumstances that an MPC were to raise interest rates substantially without, you know, some corresponding growth in household incomes, but that gives you a sense of it. Secondly, another calculation in there which is important, is when you look at those households who are more burdened by heavy debt, so those who have debt service ratios above 35, above 40%, to get that proportion of households back to the historic average, not the pre-crisis peak, the historic average, would take 200 basis points of rate increases, again, without any corresponding increase in wages. So, there is a lot more capacity that, through the hard work of UK households, they have created to service those debts.

The last point, before I pass to Ben to talk about overall balance sheets, is recognise, and the MPC is very cognisant of this, one thing the FPC, the Financial Policy Committee, did a few years ago, which is to put in place a mortgage affordability test. So, as anyone here who's taken a mortgage out in the last three years would know, you have to be able to service that mortgage not at the current, you know, 2% rate on a 75 LTV two-year fixed rate that you can get today, but at 7%, okay? We just raised interest rates by 0.25%. It all fits together. The question's important, but we've got to look at it in the aggregate. We look at it disaggregated and bring it back together. Maybe, Ben, (TC: 00:20:00) you can just say a word on that.

Ben Broadbent: Yes, I just wanted to talk a little bit about this financial balance of households, and just to remind people about the potential revisions to that number. So, household saving has two bits, it has a financial bit, what are they adding to assets, financial assets, less what are they adding to debt. Then, it has a, sort of, physical bit, new housing, mostly. The ONS stuff was about the financial bit, about the financial balance. It's true that if you look at the latest financial data, 2017 is the first year for many, for three decades, in which that was negative. It is certainly not the first year in which the initial estimate was negative. So, I've just dug out numbers since 2000. So, seventeen years' worth, up until 2016, the initial estimate was negative on thirteen occasions. So, thirteen out of those seventeen years, it was negative. In every single year, the latest estimate is above that, and initial estimate and been revised up seventeen years in a row, and the average revision is pretty big, it's like £50 billion. So, I've no doubt at all, you know, it's clear that saving has fallen in the last two years since the referendum, and that is likely to be a feature of the data, even when they do settle down the estimate. I think one should probably wait until they're settled down to conclude that it's definitely negative. That remains to be seen, I think.

Joel Hills from ITV News. Sorry, I want to stay on this subject and this theme. You've been talking about average household debt levels. The concern among debt charities in particular is those on lower incomes who the ONS suggest are the most overextended. Step Change, the debt charity, has responded this lunchtime and it's saying, 'The wider economy can cope with higher interest rates, but it doesn't mean individual households can.' How many individual households do you think will struggle to absorb this interest rate rise?

Mark Carney: A couple of things. Just to quality, a bit, my answer. Actually, I'm qualifying your question, because I went into detail, I didn't just talk about the aggregate. By going into those vulnerable households, which consistent experience in this economy, it happens to correspond with other economies, whether on the continent or in North America, is where households actually get into real trouble in terms of servicing their debts is when that debt service ratio gets to around 35 and then

40%. So, we spend, as an MPC but even more so as the FPC, which takes all the time to the MPC, I can assure you, a lot of time, looking at those kink points, if you will. So, we do look at exactly this issue. The other thing we do is we look at not just disaggregated data by cohorts, but we look at survey evidence in terms of ability to handle rate increases, and what will individuals have to do, potentially, to adjust to these rate increases? One of the issues is whether the cohort, you know, what's the debt burden of the poorest households, what's the nature of the debt burden of the poorest households, and what's the impact of that? Mortgage debt, it's quite often not mortgage debt, quite often credit card debt, unfortunately, or overdraft debt, that's relatively rate insensitive.

It's very high-cost debt and it's a very difficult position to be in, but the impact, the pass through of a 25-basis-point change on a mid- to high-teen credit card bill, is relatively minor, and in many cases, it's not passed on by the credit card company. To go to the specific question, you know, the estimate is around 2.5% of households, this is through the NMG survey, something we run on a twice a year basis to assess precisely these issues in terms of sensitivity, about 2.5% of households would have to take quite significant action in order to adjust to a rate increase. Joel, I'll finish on this, which is to pull it back up, is monetary policy, like financial stability policy, is for the economy as a whole. One of the reasons why that is the case, is that the pressures, ultimately, on inflation, and the forces that determine whether the economy can get to and remain in full employment, have to be addressed on the economy as a whole. The households that are most affected by high or volatile inflation, and most likely to be out of work, unfortunately are the poorest households. So, the best thing we can do is to make sure that we're keeping inflation sustainably at target and keep this economy on track.

James Burton from the Mail. Thanks, Governor. I just wanted to ask on the other side of the coin about savers. I think the last time you raised rates, only about half of the 3,200 savings rates in the country actually saw an increase, and in a lot of the cases, that was below base rate. What would your message be to banks, in terms of passing this rate increase on to savers, and what can the bank do, to try and ensure that happens?

Mark Carney: Yes, thanks, James. Important, as you say, other side of the coin. I mean, savers have suffered over the course of the last decade, with very low interest rates. Absolutely necessary levels of interest rates for this economy, and I think they're pleased that we're in a position where we now have more people in work than ever before. Two words of context, and then where this goes. The first is that when interest rates went down to historic lows, the difference between where bank rate was and where banks' deposit rates were became compressed. So, the banks were squeezed because they couldn't lower deposit rates to the same extent, they kept them positive, zero to positive. So, even though what happened when we had the first rate increase - broad brush, and Dave can speak to this - the pass through of that rate increase was broadly consistent with the historic average. That compression of the spread for banks was still there. Every time we raise rates, that becomes less of an issue.

The second thing of context is that what banks pay you or I, or your readers, more importantly, in terms of returns, partly depends on how much it costs them to borrow in international markets. That had been very low at the time of the last rate increase. What's happened from then until now is that those costs of borrowing in the international market for UK banks have gone up, which should reinforce the pass-through of this. In a different side of the house of the Bank of England, we have a secondary competition objective for the PRA, we watch closely with the FCA, which has primary responsibility for this, and I know watches this very closely, to make sure that this market is upgrading competitively, and that if your readers shop around that they can get the best possible rates. As rates move up, one should expect more of them to be passed along. The only bit of caution I would add to all of that is the other half of our message, which is rates rising to a limited extent and at a gradual pace. I think everybody, whether you're a borrower or a saver, needs to keep that in mind. Dave, do you want to add anything on pass-through?

David Ramsden: I think what I'd add on the detail, kind of, underneath the context that the Governor has given, is, as we've said before, historically, you never get full pass-through of rate changes to slight deposit rates. Those take time. We have seen some pick-up in instant access deposit rates, but it's not full pass-through. Then, when you go to the wider range of savings products, you have quite a lot of different things going on. We detail this in Table 1.D of the inflation report. So, we have actually seen some pick-up in time deposit rates more recently, and this may be consistent with the trend the Governor was talking about in terms of the pick-up in bank funding costs. When you look at price comparison websites at the moment, you do see that there are a lot of different things going on, so it's definitely worth looking at the different products if you're a saver to see how they're changing.

Simon Jack, BBC News. We've gone from 6,3/7,2 against a rate rise, to unanimously voting in favour of one. I just wonder what it is you've seen in the jobs market that has made you move so quickly, and does that indicate you're actually, you know, a bit more hawkish in that rates may have to rise a little bit faster than the gradual and to a limited extent that you've mentioned before?

Mark Carney: Do you think I've changed my views since my opening statement, is that the second part of the question? No, is the short answer, and I'm speaking on behalf of the committee, no is the answer to that. In terms of, I think the context is, and I don't want to get into specific voting dynamics of the committee, because when we speak here, we speak on behalf of the committee as a whole. So, whatever the majority or best collective judgment is of the committee, that's our job to represent. The view of the committee in May and June was still that limited and gradual rate increases would be required to return inflation to target. Particularly in May, given the softness of the data in the first quarter, there was this question, the shorthand, whether it was the weather or a change in the economic climate. The judgment of the committee was that it was very likely to have been erratic, the weather, a series of factors, but that we had the luxury of some time to confirm that view and to see if underlying economic momentum was maintained. There were a number of indicators even in May that suggested that the underlying economic momentum was there, but there were a series of things that had slowed the headline numbers. The data filled in with our expectations, not just in the job market but in broader economic activity, and it was consistent with taking the decision that we did today.

Larry Elliott of the Guardian. Can I follow up on that? The Bank's labour market assessment is that the natural rate of unemployment is around 4.25%, and unemployment's currently below that, hence the justification for a rate rise. A former member of this committee, Professor Blanchflower, says that the natural rate is actually a lot lower than that, it could be as low as 3%. Given that Professor Blanchflower's predictions for labour market and particularly earnings growth have been, recently, a lot more accurate than the Bank's, why is he wrong, and you're right?

Mark Carney: Where do I begin? Great respect for Professor Blanchflower, but his time on the MPC has passed, and this is a judgment of this MPC, first point. Second is that I think one bigger point of context in terms of wages, which is not precisely going to your question, I'll go into your question, go in precisely, is that, you know, given how low productivity is, wage growth that is in the upper twos, low threes, is actually wage growth that's consistent today with a 2% inflation target. If you have productivity growth at 1% or less, or slightly above, that works out to unit labour cost growth in the 2, 2.25, and above. We're actually seeing that level of unit labour cost growth, 2.25% labour cost growth, on various metrics. You can cut it different ways. There'll always be short-term volatility because the productivity numbers get revised, they're very hard to estimate in real time, but you can see the broad trend of that building. Now, unit labour cost growth, particularly, is in the range that's consistent with having inflation at 2%. That is, you know, if you look back over the longer sweep of the MPC's history, that has been the case. So, there are a few uncomfortable new normal you know, to reconcile ourselves with. One is the productivity growth around 1%, secondly, corollary of that, is 3% wage growth is consistent, broadly speaking, in that environment, with the inflation target. It's not the only thing that determines inflation.

Thirdly, that the speed limit of the economy is about 1.5%, in our judgment. If you think about those numbers previously, you know, pre-crisis, which is a long way back in the past, and some of it was temporary and ephemeral, but, it's productivity growth of 2.25%, it's wage growth of 4.25, 4.5%, and it's a speed limit of the economy of 2.75-3%. So, we have to reorient ourselves to the current realities. I don't know, Ben, if you want to say something?

Ben Broadbent: Just a tiny thing, which is that, actually, wage growth is, just defending the forecast here, bang in line with the forecast we made in May. Indeed, it's bang in line with the forecast we made a year ago. What's happened since then, actually, you know, one of the misses we've had is that productivity growth has again been weaker than we were expecting. So, actually, unit cost growth has been slightly faster over the past year than we predicted a year ago.

Mark Carney: Yes, and we think that, you know, particularly in the first quarter, the very weak productivity growth is an aberration. We think that, you know, that, sort of, 1, 1.25 type rate is what it comes up to.

Francine from Bloomberg TV. Can I ask you about the neutral rate? How is it discussed on the MPC, how should investors look at it? If it's very long-term, then how useful is it?

Mark Carney: Well, the first thing is, we have been talking about this for four years, as the MPC. February 2014, we put out guidance, limited and gradual guidance for the overall path of interest rates once they increase, because of these structural changes in the global economy and the UK economy that had pushed down this neutral rate. There's been a lot of research in this institution and other institutions around the concept subsequently, and to provide some numbers around it. What we wanted to do is to update our thinking, first point, and provide a coherent framework for analysing it. So, to get into the econometrics, and I'll just mention it and not go into detail, but, you know, using an overlapping generation model that covers the globe, also the UK, to do some of the estimations and cross-check with other estimations, including implied market estimates of where R*, the neutral rate, would be. So, the value of that is providing more rigour to something that we have thought and talked about and guided policy, and guided UK households and businesses on, first point. Second is, and this is to go to the market, how we talk about structural and short-term factors that influence. So, the UK economy, one of the most open economies in the world, is heavily influenced by the global level of the neutral rate.

The big forces on global R*, if I can use the shorthand, are demographics, ageing demographics in advanced economies, and weak productivity. Big picture, those are the big forces, there are other factors, you can get into them, we list them, but those are the big things that have helped put down. Plus, a degree of post-crisis deleveraging, okay? In the UK, in every economy but particularly in the UK, there are some shorter-term factors that have meant that the estimate of that longer-term global R*, my shorthand, is lower in the UK. Why is that? Well, the UK has been undergoing a, not just private deleveraging which is largely stopped, but fiscal consolidation, there have been fiscal headwinds for the last several years, which continue. They're not as big as they were but they continue. That creates a wedge. Secondly, there's a higher degree of uncertainty in this economy for reasons that everyone knows, particularly in the short-term because of the wide range of Brexit outcomes. That also pushes it down. Apropos to the discussion we just had, there may be a wedge in terms of productivity in the UK relative to the world.

What's useful about that from a market perspective, without overegging it and over-leading, first, broad brush, market's figured out that R* is lower itself, anyways. Our view of where that is, it's a wide range, but 2 or 3% nominal space, okay, broader brush. UK, below. What are the factors that influence the UK being below? Then, you can make a judgment, whether you're in the market or academic, you know, etc. How likely are those factors to go away? Do we think uncertainty's going to increase or decrease in the UK? Do we think fiscal consolidation's going to increase, decrease? What's going to happen to the path of productivity in the UK? Around the principal issue that occupies a lot of people's minds here, Brexit, well, it actually influences virtually all of those, and, depending on the outcome, can influence them positively or negatively. That will be part of the judgment that needs to be made, when there's greater clarity about the future relationship with the European Union, is what happens to those wedges between the UK and global? Different people have different views, both on the deal and how important that will be, but those are issues that the MPC will have to think about, do think about, and provide context at the appropriate time. Right now, you know, I think we have similar degrees of foresight in terms of what that relationship's going to be, with the EU.

David Smith, the Sunday Times. Governor, just to follow up on that, there is one estimate in here which suggests an R* of between 0 and 1%, compared with 2.25-3.25% pre-crisis, which converts into a nominal bank rate of 2-3%. I know you can't be precise on this, but is there any reason why, people, businesses and markets shouldn't use that as some sort of guide to the final destination, once your limited and gradual rate rises have been completed?

Mark Carney: Well, the reason they wouldn't, or shouldn't go all the way to that, is that the reasons that I just gave to Francine, which is that there are certain factors, shorter-term factors, which are creating a wedge between that range and where equilibrium is, today. So, let's bring it back to the forecast we have. We use the markets curve to do our forecast, plug that in to our forecast or other assumptions, and that has a little less than three rate increases, including the one that we did today, that was what the market's judgment was. Plugging it in to the forecast, and inflation is back at target at three years but a little higher at year two. Tells you something. It doesn't tell you that R* is up at that higher level that you just quoted, that 2-3 rate. You don't have to run the whole forecasting model to figure that one out, certainly you don't have to, David. Those short-term factors I just referenced, uncertainty, fiscal, UK productivity, as those change, and if they all improve, then it moves up. That's as much guidance as one can reasonably give. Now, that's a good environment, obviously We'd all rather live in an environment with greater clarity, we'd all rather have a higher-productivity economy and higher wage growth as a consequence of that, and we want fiscal balance. You know, the

Government's on track for that. It's also an environment where we'd be a little closer to that level, that range. That range, last point, is much lower than the old range.

You know, average rate of bank rates since this institution was founded was 5%, bank rate and its equivalents. Average rate through crisis, life of the MPC up until the crisis, 5%. We're talking 2-3. That's different, and that's different if you're a saver and that's different if you're a business or a broader financial market participant.

Jason Douglas from the Wall Street Journal. My question's about the global trade war, the prospects for a global trade war. Can you give us any sense of how vulnerable you think the UK might be were trade tensions to escalate? As you already mentioned, Governor, the UK is a small, open economy. One of the potential lessons from history is that small, open economies can sometimes set an outsize hit, whenever protectionism rises and so on. Can you give us any sense of how vulnerable you think it is? I'm thinking in terms of the export mix relative to tariffs, in terms of financial vulnerabilities, some which you talked about, I think, at the FSR press conference, if that makes sense. Thank you.

Mark Carney: Yes. Well, the first thing to say is that in this forecast, we have put in some of the trade measures. It's obviously a moving target and one has to make a judgement about what's announced and actually implemented. The steel and aluminium tariffs are in. The $50 and then the $200 billion US tariff actions against China are in, as well. The reciprocal actions of the trade partners vis-à-vis the US are also in. So, those are in the forecasts, not last night's Tweet, is not in the forecast not surprisingly, but those are in the forecast. It's one of the reasons why global growth is a little weaker. We do observe that what we found, and as you can appreciate, that's just capturing the direct effective tariffs. What we have seen, and it's observed in the minutes of the meeting, is that there is some tentative evidence of tariffs having an impact on trade flows. You see it in capital goods orders, you see it in some slowing on trade, you pick it up from conversations. There is yet not that much evidence of a hit in business confidence is translating into less investment, I'm speaking globally, or big risk premia going into the financial markets, more broadly, some specific countries are, obviously, affected, but not more broadly.

To answer your question, for the UK, and there are some simulations that we did, and it's in a speech of mine, a month ago or three weeks ago in Newcastle. It's a fairly comprehensive analysis that goes into one chart, is that the UK can be affected by a trade war scenario, and, you know, a sharp ramping up of tariffs and asymmetric, everybody responding with the US at the centre, from memory. The main effects for the UK are these confidence effects and financial market effects. So, those really have to kick in for it to have a big impact, at least as it's currently happening, where it's a US action and then a counteraction by the country that's affected, as opposed to a global application of tariffs to everyone. So, China isn't putting up tariffs on the European Union at the moment, for example. In that order of magnitude, it's a little less than 1% off the level of GDP for the UK, it's a simulation. Three years out, so over three years, but it's more than 3% off the level of GDP for the US.

So, you know, at some point, it gets to something that's material. So, I can give you that sense. I would say that, obviously, the MPC, you know, we spent time on these issues and look at various sensitivities analysis, but where we land for this forecast and this decision is we can understand how it could get worse and have this impact, but we're not picking that up yet to a material degree. There's some in the forecast, but not to a major degree, given our conversation with businesses and observations. .

Cat Contiguglia from Politico. I wanted to ask, you mentioned that you were working with the ECB on some of these cross-border Brexit cliff edges. How much progress have you made with getting EU officials to come up with an official solution for some of the problems around contract continuity and interim permissions?

Mark Carney: I'll give you another question, if you want, because it's going to be a short answer. The reporting mechanism for that is we sit down with the ECB and other relevant regulators, in the presence of Her Majesty's Treasury and the European Commission and we have, sort of, real-time reporting of what the issues are and potentially people can imagine what could be done about them. That's the reporting mechanism, as opposed to either myself or the President of the ECB coming out and giving a detailed answer to a question like that.

David Goodman, Bloomberg News. Governor, before today's decision, a number of economists and business groups were warning of the risks of a hike, at this point, given the current Brexit situation. A discussion of those then just seemed largely absent from the minutes, and, obviously, the vote was unanimous. Is there a risk this is taken as another example of BOE Groupthink, and what do you make of the warnings against the policy move, today?

Mark Carney: We have robust discussions about a wide range of issues, risks, positive and negative to the outlook or to any particular policy move. Holding rates is also a policy move, just to be clear, that's as decision, as well. I think the important thing on Brexit to recognise is that there are a wide range of potential outcomes for Brexit, both in terms of the end relationship but also in the transition to that end relationship. What matters for the economy is not just the arrangements but also how people in the economy, households, businesses and financial markets react to those, that's what matters for the outlook for inflation. In a number of those potential outcomes and transitions to them, rates need to be higher. Certainly, in the path where that's consistent with the forecast, so there may be lots of headlines but a relatively smooth transition to some sort of average relationship, that we need this gentle increase in interest rates over the next few years. So, we can't be handicapped or tied by the range of Brexit possibilities. The last thing is, it's quite clear. If there is a major shift as a consequence of the Brexit negotiations, that is disinflationary, it has to be disinflationary or it creates a very, you know, extreme trade-off, such as one we saw post-referendum, then that could have consequences for monetary policy. That's why we meet every six weeks and take decisions every six weeks. We can incorporate at that time. Well, it really is that simple.

It's not that we don't discuss the potential range of outcomes, it's not that we don't have some view on what could happen in certain environments, but equally, we can adjust when necessary. It is not as simple as saying, 'Brexit equals a reduction in interest rate.

Tim Wallis at the Telegraph. Governor, you've touched on this a little bit but I wonder if you could expand slightly on the effect on businesses. Business groups, the IOD, the British chambers, have responded to today's rate rise by saying it's too soon, it comes at a time when business confidence is already quite weak, investment's not great, and this could make matters worse for them. Have you got any words of comfort for them, or do you think there are some reasonable worries in there?

Mark Carney: Well, I think we have a good sense of the challenges that British businesses are facing. As I said in my opening remarks, it's detailed in the report, you can see it in our agency reports. This is the shallowest investment recovery in over 50 years, and that's despite having relatively clean balance sheets, good access to capital, very competitive currency, very limited spare capacity, and therefore a reason to invest, and now labour markets tightening consistently. We have investment growth, but it's relatively shallow. So, we're well aware of that. The overwhelming issue for most business is the outcome of the Brexit negotiations, that's the biggest issue. As I said, there's a wide range there. The comfort we can give businesses and households is we're going to stay focused on our responsibilities. We're not conducting the Brexit negotiations. What we can do is make sure that inflation is going to return sustainably to target. Secondly, the other side of the Bank is making sure that the financial system is going to be there for British business and households, whatever the Brexit outcome is. That's what we can do. We will all get to the other side of these negotiations, whatever the outcome is. We're going to want price stability, the job of the MPC, and financial stability, job of the rest of the Bank. That's going to allow UK business to invest with confidence. We can't take the time off in advance of these negotiations.

Harry Daniels, LiveSquawk News. Sticking with the Brexit talk, really, we've seen a number of polls, the latest Ipsos MORI poll, for example, the issues index, showing that evidence was soft of consumer confidence. It says that those who view EU/Brexit as the most important concern facing the UK has risen to 58% from versus 46% in July, the highest reading in the index history, and 45% of respondents believe it's the most important issue, again, some four times higher than the next most cited issue. I'm just really trying to get an idea of the response mechanism. You said before that the MPC continues to recognise the economic outlook and that you'll respond to households, business reaction as opposed to the Brexit talks themselves. Could you give some sort of framework around that response, reaction, timings? I mean, would you necessarily want to get it in front, once there is a Brexit solution or a conclusion? Secondly to that, again, if we do see an extension to Brexit negotiations, would that then bring forward another rate hike, say, within a period of time? That's a second question, if you like.

Mark Carney: Yes. I think the best way to answer that is to say that since the referendum, you can see the reaction of the MPC to two broad sets of circumstances. One in which, immediately following the referendum, you had a relatively substantial degree of slack in the economy, inflation above target, but entirely because of the view of financial markets that there was going to be a real income shock in the future, and that adjusted the level of sterling that flowed through. We called that a trade off and we stepped back and said, 'Okay, how do we manage this? Do we take the real income hit in jobs, fewer people in work, as the economy as a whole, so do we raise interest rates to get inflation quickly back to target, lean against that exchange rate, and we take the real income as the economy as a whole in jobs? Do we take it in a little more inflation because we take a little longer to bring inflation back to target and we get more people in work?' We chose the latter. There are limits to our ability to do that, obviously. Ultimately, we have an inflation remit, but we explain that, and it gives a sense of how we would react if there were a Brexit outcome that led to a similar set of circumstances. A policy response but within certain tolerances, and there's a track record on that, and you can look at it.

Then, there's the more conventional circumstance which we find ourselves in right now, which is the economy is basically at full employment, there's very limited spare capacity, and it's a question of managing, simplifying but managing demand consistent with the growth of supply in the economy so that we stay on track. That tells you that depending on a different Brexit outcome what the broad reaction function would be. I don't want to, pre-wire it more than that. Ben?

Ben Broadbent: Just a very quick, tiny thing, which is that that consumer confidence number gets published in two forms, one here by the people who collect it, and they also pass on the numbers to the European Commission. Only the European Commission numbers are seasonally adjusted. If you look at the seasonally-adjusted numbers, which we have on a graph at the bottom of page 14 of the report, they did not go down in the latest data, they actually ticked up very slightly. Overall, they've actually been pretty stable for the last two years, at around average.

Andy Bell, 5 News. Just to go back to Brexit, again, you've acknowledged that it's the biggest challenge in terms of you trying to assess impacts and how people will respond. I mean, in that case, wouldn't it have been a smart move to keep your powder dry and to wait before making this interest rate rise? We could have a much better idea of how Brexit is going to shake out even within three or four months.

Mark Carney: We're finally getting to a situation this year where people's pay packets are growing faster than prices in the shops or prices online, so we're finally getting ahead. Our job is to maximise the probability that that's going to continue to be the case, keep that on track, and keep that on track by making sure that the prices in the shops and online are rising around that 2% target as wages go up. That requires some modest adjustment to policy, 0.25% interest rate rise in a timely way, and that's what's happened, today. As I just said a moment ago, but it really does bear repeating, so I'm glad you asked the question, which is, there is a wide range of Brexit outcomes, but in many of them, interest rates will be at least as high as they are today. So, we don't need to keep our powder dry, for that. There are certain circumstances that one can imagine, and I'm sure the ultimate Brexit outcome I can't imagine, but it doesn't matter. There are certain circumstances where it would be appropriate to either keep rates the same or lower them. If that's the case, that's what the MPC will do. We'll do it once that knowledge is there. The mistake is to always wait, wait, wait, until you have perfect certainty, because we don't know exactly when that higher degree of certainty is going to transpire from tentative agreement to parliamentary approvals, because it's not just here, across the channel, to implementation.

If there are important details that still need to be fleshed out during the transition period, that may also be relevant to business confidence, consumer confidence, degree of activity. You can't just wait, wait, wait through all of that. If we collectively have the economy in a position where people are just starting to get ahead, you want to make sure that you preserve that as much as possible.

Jasper Jolly from City A.M. Sorry, another Brexit question. I know you've said there are a range of possible outcomes, but one outcome that has been floated by various Government ministers, including the Foreign Secretary, is no deal and therefore defaulting to WTO terms of trade. Do you think the shock from that would be comparable to, equal to, or greater than the shock that you saw after the vote in 2016? Do you think that the monetary policy response would be similar in terms of magnitude, or greater?

Mark Carney: Well, I think in terms of the monetary policy response, it will matter, if there were a WTO outcome, is there any transition to it or not and what's the impact in any of those scenarios, again, on demand, what happens to business investment, consumer confidence and consumption? The supply impact, we can start to figure out, in terms of lost access, but also, importantly, the exchange rate. It's the sum of those that will help determine the monetary policy response. I would say that all the contingency planning at the institution, which is away from the monetary policy committee, so the financial policy committee, the PRA, the broader institution, as you would expect, is around a no deal cliff-edge situation at the end of March. So that, as much as possible, the financial sector is dampening the impact as opposed to amplifying it, and we see that as very much our job.

Delphine Strauss from the FT. it was a follow-up question on the equilibrium real interest rates. Does the fact that this is now so much lower suggest that QE stays as a standard part of policy rather than just a tool for exceptional downturns?

Mark Carney: Yes, it's a very good question. I think you can look at both the guidance we gave in June and the broad guidance of the range. It's imprecise, but for the range for the equilibrium interest rate, and can see how they're different issues, but they actually, in response to your question, can work together. The guidance on QE in the MPC's judgment is that we wouldn't start to think about reducing the stock of asset purchases until the rates were around 150 basis points, 1.5%, as you know. That's in order to use bank rate as the marginal instrument of policy, if we needed to ease. That's, obviously, potentially below the equilibrium rate, for the economy, particularly in a scenario where there's some reduction in uncertainty, some pick-up in productivity in this economy, as one would hope, as many people have questioned, with the resolution of the Brexit negotiations. The implementation of that resolution may be required, as well. So, if you put those two together, it means that, certainly, it is not necessarily the case that the lower level of equilibrium interest rates, at least in our judgment, means that QE has to remain on the balance sheet. You could envision more extreme scenarios where that might be the case, but as it happens in terms of the judgment of the committee, that's not the case, provided these shorter-term factors dissipate over time.