

# Treasury Committee

Oral evidence: Bank of England Inflation Reports, HC 596; UK's economic relationship with the European Union, HC 473

Wednesday 4 September 2019

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[Watch the meeting](#)

Members present: John Mann (Chair); Rushanara Ali; Mr Steve Baker; Alison McGovern; Catherine McKinnell; Wes Streeting; Alison Thewliss.

Questions 476 - 564

## Witnesses

I: Dr Mark Carney, Governor of the Bank of England; Andy Haldane, Chief Economist and Executive Director, Monetary Analysis and Statistics, Bank of England; Professor Jonathan Haskel, External Member, Monetary Policy Committee, Bank of England; Dr Gertjan Vlieghe, External Member, Monetary Policy Committee, Bank of England.

Written evidence from witnesses:

[Dr Mark Carney, Governor of the Bank of England](#)



## Examination of Witnesses

Witnesses: Dr Mark Carney, Andy Haldane, Professor Jonathan Haskel and Dr Gertjan Vlieghe.

Q476 **Chair:** Welcome to the Treasury Committee evidence session on the Bank of England *Inflation Report* and the UK's economic relationship with the European Union. I would like to thank the Governor for responding to the Committee's request for an updated economic analysis of scenarios for our future relationship with the European Union. We are now publishing this document, and it will be available on our website shortly. Gentlemen, can I ask you to introduce yourselves, please?

**Professor Haskel:** Jonathan Haskel, Imperial College and Bank of England.

**Dr Carney:** Mark Carney.

**Andy Haldane:** Andy Haldane, the Bank's chief economist.

**Dr Vlieghe:** Jan Vlieghe, external member.

**Chair:** Welcome back, gentlemen, to the Committee, in these strange times in which we live, so strange that I am chairing the meeting.

**Dr Carney:** It seems entirely natural.

Q477 **Chair:** Governor, has the economy stagnated?

**Dr Carney:** If we look over the course of this year, there has been volatility in the data because of Brexit preparations, stock-building by companies, shutdown and restarting of car production activity. If you look through the underlying trend, our judgment is that the economy is growing, very weakly, slightly positive but close to zero.

Q478 **Chair:** From the letter you have sent us, would it be fair to conclude that the one change of real note is that the worst-case scenario you previously outlined has been reduced somewhat, because of preparations, with output loss down from 8% to 6%? If so, if Parliament extends the ability to do preparation to 31 January, will that have any impact on your analysis?

**Dr Carney:** It is a fair characterisation. Our assessment is that the impact of the preparations put in place since November, not just infrastructure at the border but initiatives such as the TSPs—these temporary permissions—and the improvements on the derivatives

markets that we have negotiated with the European Union, has been to reduce the worst-case scenario. I remind you that this is the worst case, not the most likely scenario. There is more preparation that can be done, both public preparation and preparation by businesses, so it stands to reason that, if there were more time, more would be accomplished.

Q479 **Chair:** In your *August Inflation Report*, you are presuming a smooth transition rather than a no-deal Brexit. How would that change, if there was a no-deal Brexit, in terms of inflation?

**Dr Carney:** In our judgment, as is referenced in the report, in the event of no deal it is likely that the economy would slow, the exchange rate would fall further and inflation would rise. Directionally, it is relatively clear what would happen to the main macroeconomic variables, what would happen to the direction of the overall economy. There are substantial uncertainties about the orders of magnitude of all those factors. Of course, as you know better than we do, no deal means different things to different people. No deal can be as simple as leaving with no side arrangements in place, but could involve some side arrangements being put in place, as we have done with respect to key aspects of the financial services sector, and as I see the European Union has extended today, for example, in air transport.

Q480 **Chair:** Governor, when I asked you in December about food prices, you said they could go up as much as 10% following no deal. Is that still your advice?

**Dr Carney:** Things have changed since November. The most important change since November is that the Government have released their tariff schedule, with much lower tariffs than the common European tariff on food in particular. You need to adjust for that. Back in November, applying the European tariff to the basket of UK food added about five percentage points, so almost half of that 10%, in effect. The balance is a judgment about where the exchange rate could go, because there is almost immediate and full pass-through of movements in sterling to food prices.

Now, with the new tariff schedule, there is wide variance, depending on the specific food items, but on the whole, on average, the tariffs are very low. They are on average about 0.3 percentage points, as opposed to five percentage points, on imported food. Effectively, all of the impact is an exchange rate impact. Given the market's judgment, market moves and the likely level of exchange rate move that would happen—which has already happened recently, but would happen in the event of no deal—the scale of those exchange rate moves would mean that not absolutely all but most food prices would increase in the order of five to six percentage points. Again, that is lower than it was in November, but still substantial.

Q481 **Chair:** Will that be a permanent increase?

**Dr Carney:** It would be a level increase, yes.

Q482 **Chair:** If we leave on 31 October without a deal, what will you do?

**Dr Carney:** There are several aspects of the Bank's response. In these types of situations, many of the most important things are done in advance. The preparations for the financial sector have been put in place, and we can go into more detail on those, if the Committee wishes. The bottom line is that we believe the financial sector is ready for Brexit. The core of the UK financial system is ready for Brexit, whatever form it takes. In the letter I sent to you, Chair, there is some greater detail about that, using the stress tests and potential impacts of a hard Brexit on the Bank capital position. I will just refer to that in general terms. The first thing is what we have done in advance, in terms of preparedness.

Secondly, that core set of measures to ensure overall financial stability does not ensure market stability, and we would expect fairly notable market moves. We stand ready to provide liquidity to the system as necessary. Major financial institutions have already prepositioned collateral with the Bank of England that would allow us to lend up to £300 billion to them, to make sure the system continues to function as it should. The Financial Policy Committee has indicated that it will consider, if appropriate, cutting the countercyclical capital buffer, as we did just after the referendum. That buffer is larger now than it was then; it is a percentage point of capital, so that releases up to, potentially, £300 billion—it happens to be the same number—of balance sheet lending capacity. To put that into context, last year, in this economy, overall credit to the private sector was £65 billion, so it is considerable firepower for the banks to lend to the economy.

The last component of the potential response, in the interests of all of us here, is the setting of monetary policy. We have said consistently that that policy response would not be automatic. We are not going to commit to a policy response in advance of Brexit, whatever form it takes. We will have to look at the impact on demand, supply and the exchange rate, and take a judgment at that point in time. We would look to provide the support we can to the economy, to smooth the transition as much as possible, but it is all subject to our remit to maintain price stability.

Q483 **Chair:** Dr Vlieghe, in that scenario, what indicators would you be looking at, in terms of giving your advice and making decisions? What are the big indicators that you will be looking out for?

**Dr Vlieghe:** The framework for thinking about this is that there is a short-term disruption effect on the supply side, and a longer-term potential adjustment of the economy to the new realities. Then there is the exchange rate that drops, which is going to result in inflation going up temporarily. The really big question for us, which we will be looking at a lot of indicators for, is what happens to demand sentiment and confidence in the economy. You can think of ranges: people see the disruption and say, "Yes, but that is okay. We knew there was going to be some short-term disruption. It does not really influence my longer-term plans"; or people see the disruption and say, "Actually, this is not what I was expecting. This is worse", and they make big adjustments to their consumption demand, or firms to their investment demand and their employment.

These short-term indicators of economic activity will be very important. What will take a little longer are indicators of prices. Are prices just going up in line with the exchange rate effect, or are prices actually going up by more because, all of a sudden, lots of costs are going to be incurred by companies that did not have to be incurred before? There is magnitude of disruption, sentiment, demand and confidence, and then, which will take a little longer, the price impact.

**Chair:** Have you anything to add, Professor Haskel?

**Professor Haskel:** No, I would agree with that. I would say two things. First, as you will know very well, the Bank has an extensive network of agents. On the Committee—I think I can speak for all of us—we all spend a lot of time and commitment going round, talking to the agents and getting real-time information from them. That is one thing.

Secondly, in the era of big data, the internet and all of that, the Office for National Statistics has been doing a lot of work on trying to bring forward very fast indicators of GDP and economic activity in general, most notably by getting VAT information, which enormous numbers of firms are obviously involved in, and using it to make very quick diagnoses of what is happening to the economy. I would look at those indicators as well.

Q484 **Chair:** Governor, how far would sterling have to drop before you intervened?

**Dr Carney:** Our regime in the United Kingdom, which has served the country very well, is to have a floating exchange rate. The Bank, and by extension the MPC, has never intervened for monetary policy purposes. We have to recognise that this situation, Brexit in whatever form it takes, will represent a real adjustment to the economy for a period of time. Relative incomes in the United Kingdom will be lower than they otherwise were. There will be a terms-of-trade shock, again determined by the nature of the final arrangements: no deal or some form of deal. The exchange rate needs to adjust accordingly for that. Let the exchange rate do its job and let us focus on ours, which is to maintain price stability and, in doing so, support the economy, job and growth as best we can.

I would underscore that we have never done it. I would also draw attention to what happened around the referendum, when expectations in the market—they were wrong—put very low weight on the outcome that occurred. As late as 10 o'clock at night, on the evening of the referendum, probabilities were around 20% that the vote would go the way it did. The market adjusted very quickly once it realised the vote was going the other way. It was an orderly market. There were high volumes. There were big moves in sterling, but it moved to a level that was consistent with, at least at that point, the market's assessment of the new economic realities. It has subsequently adjusted those expectations further, as the potential outcome of Brexit has shifted.

We do not want to get in the way of that. It would only be in the most extreme circumstances with respect to market functioning that we could contemplate any activity. We did not see it under the most severe—

Q485 **Chair:** What do you mean by “the most extreme”?

**Dr Carney:** The most extreme circumstances would be that the market is not functioning, for some reason that, to be candid, I cannot contemplate, but never say never. It would be a situation where there were very low volumes and large price gaps, bid-offer spreads became very wide and there was actually a dysfunctional market. As I say, there was a huge test of the market with the referendum, which is quite different than the process unfolding right now, so it is very hard to envision. To be clear, I do not contemplate and cannot see a circumstance where we would intervene for market functioning purposes. Never say never on that, but I would at least, on a personal basis, say never for monetary policy reasons.

Q486 **Chair:** If you did need to, do you have the tools, the reserves and the authority you need to take action?

**Dr Carney:** Yes, we do.

Q487 **Chair:** That is very clear. Is today’s spending review going to have any impact on interest rates? Mr Haldane, perhaps I can bring you in.

**Andy Haldane:** We have not had very much time to digest the details just yet. We were reading it in the anteroom as we came in. Truth be told, we need, as a committee, to sit down and go through that in much finer detail than we have been able to so far. Some of what was announced today had already been in the public domain for a little time, but there is some new stuff as well. We need to go away and look through that in much greater detail, as a committee, run it through our models and reach a judgment. It is far too early for us to do that today.

Q488 **Chair:** The Committee, should there be a Parliament on Monday, is calling the OBR to give evidence, because the OBR has not been asked to do anything in relation to this spending review. Is that a good principle, Mr Haldane?

**Andy Haldane:** That the OBR should be tasked with looking at this?

**Chair:** That it has not been.

**Andy Haldane:** It has not been so far.

**Chair:** No. There is no OBR report with it, which has not happened before.

**Andy Haldane:** As a matter of principle, the OBR was put on earth to do this sort of thing. In that sense, I am sure it will, when its next reports, look at that question, maybe alongside what might be announced subsequently on the revenue and taxation side of things. This is a slightly unusual fiscal event, outside the normal timetable. I am sure, in the fullness of time, the OBR will come back to this question and provide its assessment.

Q489 **Chair:** Governor, would you share what might be—I do not know if it is—a Treasury Committee point of view that this should not be setting a

precedent for any Chancellor in the future, and there should always be an OBR report, as the appropriate principle?

**Dr Carney:** The operative principle, to answer that question, is separation between monetary and fiscal policy, and respecting the dividing line between the two.

Q490 **Chair:** Are you going to stay on, Governor, in the current circumstance?

**Dr Carney:** I will be here for as long as you need me today.

Q491 **Chair:** The way Parliament is going, I give you until 31 January. That coincides, I seem to recall, with when you are off to pastures new. Are you going to reconsider, if asked?

**Dr Carney:** As you know, I have extended twice in order to facilitate a smooth transition. There are two components of that transition. One is having a financial system ready for Brexit. The institution has put in place, I believe, all the most important measures for that. The second is to transition to a successor, who will be chosen by the Government of the day. The first is in place, and the second remains to be filled.

Q492 **Chair:** You would be leaving on what could well be the Brexit deadline day, at the same minute.

**Dr Carney:** At present, I am leaving months after the Brexit deadline day.

Q493 **Chair:** If that changes, what is the impact on the appointment of your successor and handover? It strikes me that there is a bit of an issue there. There is a scenario that we could have some kind of cliff edge on 31 January, and the role of the Governor and the whole operation would be very important. Is this something that, should Parliament wisely or unwisely change, you will need to consider?

**Dr Carney:** It is a decision for the Government, in terms of appointing a successor and the timing of that. I have every confidence that they will be able to do so. It is the job of the Bank to fulfil its functions, whatever Parliament decides, and we will do that, as an institution.

Q494 **Chair:** I can recall, Governor, when you first came in, young and full of enthusiasm. Has Brexit made the job unappealing to applicants wanting to be your successor? That is an unfair question of you, so let me ask the two externals. Do you think it is a more unappealing job for a potential Governor, Professor Haskel?

**Professor Haskel:** I do not, actually, no. It is all part of the landscape. It is part of what the Governor has to do, so I do not think it is more unappealing.

**Dr Vlieghe:** It is more challenging, but the kind of people who want to become Governor of the Bank of England, I think, would relish a challenge.

Q495 **Chair:** Does "more challenging" mean there needs to be someone there, as the next Governor, with full knowledge of the workings of the system? In other words, are we in a particularly unusual time, because of



Brexit, that means stability in terms of a knowledge base is more important than it might have been when Dr Carney was first appointed, and we were in somewhat more stable times?

**Dr Vlieghe:** I do not think so. Anybody who fills that role needs to understand all aspects of the system: the monetary side, the financial stability side and the interaction with the regulatory side. I do not see that that is different. If you enter the job in a period of stability, that is a different set of challenges than if you enter the job when the economy is potentially undergoing a significant structural change.

Q496 **Rushanara Ali:** Good afternoon. Governor, from everything you have said so far, you are confident that the UK leaving the EU without a deal will not result in instability in the banking system and exacerbate any downturn that the UK economy faces. Is that right?

**Dr Carney:** Yes, the core of the financial system is ready for Brexit.

Q497 **Rushanara Ali:** That includes a disorderly Brexit.

**Dr Carney:** It includes that. Consistent with the letter I sent to the Chair yesterday, to reinforce that point is to take our assessment of the economic impact of a disorderly Brexit, map that to the hit to our banks' capital positions, because they would make losses under that scenario, and demonstrate that we have been stressing those institutions to more severe domestic and global scenarios.

Q498 **Rushanara Ali:** That letter sets out that, although there is a slight improvement, it is still not great, with unemployment still expected in the worst-case scenario to be about 6%. You mentioned earlier that the scenario for growth would still be 6% down. Can you put all of this in the context of a potential global recession and what it would mean for a disorderly Brexit?

**Dr Carney:** Well, the first thing I want to reemphasise—I know the Committee knows this, but I want to read it into the record—is that these scenarios are worst-case scenarios. They are not the most likely scenarios. The reason we use worst-case scenarios, particularly as the Financial Policy Committee, is that the system needs to be ready for the worst that can be thrown at it. This goes directly to your question, because, when we think about the system's readiness, it is about not just readiness for Brexit, but readiness for the possibility that things could go wrong abroad and have quite substantial implications for markets and financial institutions, which are all very global.

We have looked at a severe recession in China and the knock-on effects of that through the global economy. It is not exactly the case, but in some respects that is a worst-case trade war scenario, so we have stressed the system to that and made sure it is adequately capitalised and has adequate liquidity for it. I should say that, speaking personally, from my perspective, the reacceleration of the global economy that we had expected by this point in the year has not transpired. We think the most likely reason for that—at least, I think it is the most likely reason—is the fact that so-called trade tensions have shifted into an actual trade war between the two largest economies in the world. The scale of tariffs

is now considerable, but also there is beginning to be a marked impact on business confidence, not just in those economies, the US and China, but more broadly, given the interlinkages with the rest of the world. That is starting to impact, very importantly, the manufacturing sector. It is safe to say we are close to a manufacturing recession across the advanced, and important bits of the emerging, world. That has had knock-on effects, not surprisingly, on trade.

We need to put all of that in context, the context being that, when this trade war started, the global economy was growing well above trend. It was quite a healthy recovery, in terms of business investment and growth in trade. That has shifted, but it has not shifted to a point that portends, at least in my judgment, a global recession. The bar for a global recession is actually quite high, and there is some way to go.

Q499 **Rushanara Ali:** How so?

**Dr Carney:** The reason for saying that is that the fundamentals in the major economies—I am going to give you the glass half full, and then the caveat—are still quite strong. There are pockets of risks in the major economies, but you are not seeing excessive credit growth, whether on the household side or on the corporate side. Inflation is under control; in some respects it is too low, in some economies, which gets to a point I will make in a moment. China is the exception here. There are quite significant imbalances in China, which are a cause of concern. The interaction between the trade war and developments in China could move us towards the type of situation we looked at as a stress.

To caveat, there are two important issues. First, there is challenge to the nature of the trading system in its broadest sense. This is an unusual circumstance in the last several decades. Secondly, there is relatively limited policy space for most of the central banks and, to some extent, the major Governments. It is the risk that we move to much slower growth and there is a limited ability to offset that.

I would end with this. We still have considerable policy space in the UK. The nature of the Bank of England means there is not just policy space in terms of conventional monetary policy, also unconventional, but there is also policy space in terms of macro-prudential policy if needed.

Q500 **Rushanara Ali:** To cut to the chase, you are saying that at the moment we have some way to go, if we head towards a global recession, but you are not ruling that out. Things have changed quite dramatically. A year ago, trade wars will not necessarily have been mentioned in the equivalent sessions we had with you. Within the space of a year, we have moved to a different place. If you can, set your mind on the prospect of a disorderly Brexit, at either the end of October or the end of January, and try to explain to us, by January, what we should expect in relation to the global economic scene and a disorderly Brexit. What does that mean for the UK? Are you saying that the Bank of England is prepared for those eventualities? People will want to know, whenever that comes, whether it comes around the same time, soon after or even a year after, if we are insulated. Do we have the apparatus to cope with a global recession, and what does it mean for the British people? Can you try to explain that?

**Dr Carney:** Let me pick up a few of those points. First, I would characterise the global environment as having become more difficult. It is less supportive for UK growth. That is absolutely clear. The global economy faces some unique challenges, which are principally but not exclusively related to the ongoing trade war—it is a trade war—which has some possibility of spreading to other jurisdictions, including Europe and, by extension, the United Kingdom. This is a less supportive backdrop than we have experienced at any other point in the last five years, a less supportive backdrop than we have experienced since I have been here as Governor. Let us put it that way.

Secondly, the UK, as one of the most open economies in the world, cannot be insulated from developments internationally. We can help offset some of these effects, but we cannot insulate and fully protect the economy. In fact, there are various ways to model a trade war, but say there is a deepening of the tariff actions and the persistence of those, and there is this effect on business confidence outside the United Kingdom, and therefore business investment. The UK is one of the least affected major economies, because we are not directly in the sights of this trade war, but we would probably have an impact of the order of one percentage point or a bit more than one percentage point.

**Rushanara Ali:** More than one percentage point.

**Dr Carney:** It could be 1.25 or 1.5 percentage points.

Q501 **Rushanara Ali:** That is significant.

**Dr Carney:** It is significant but, to put it into context, the impact on the United States will be more than three percentage points, if this persists. That is our modelling.

Q502 **Rushanara Ali:** Does that factor in a no-deal Brexit?

**Dr Carney:** That does not factor in a no-deal Brexit, so it is independent of that.

Q503 **Rushanara Ali:** What is the combined impact?

**Dr Carney:** We do not have a forecast for no-deal Brexit. We only have the worst-case scenario, which is not what we think is most likely to happen in a no-deal Brexit. I would not want to mislead by adding the scenario to the trade war, because the probability of that trade war effect is probably greater than the worst-case scenario of Brexit.

Q504 **Rushanara Ali:** So it could be half of the 1%.

**Dr Carney:** I am not going to be pinned down on a specific number. To get to the core of your question, is the financial system ready to withstand both? In our judgment, it is, because that is exactly what we have been stressing it to. Of course, we have left a fair margin, an additional buffer of capital and liquidity. I would remind you that major UK banks now have £1 trillion of liquidity on their balance sheets, plus access to us. But there would be serious economic implications if both were to occur at the same time.

**Rushanara Ali:** Did anyone else want to add to that?

**Andy Haldane:** On the world, it is easier right now to see risks to the downside. They plainly exist, not least from trade. Let us also put into context how much of an easing of monetary policy has already happened during the course of this year. To go back to the tail end of last year, most central banks around the world were planning, and financial markets were pricing, a further tightening in policy. Fast-forward to today: we have already seen global yield curves, in the UK, the US and the euro area, fall by a whole percentage point over that period. That provides extra stimulus to the system. That is the reason, in our forecasts in August, that we saw growth next year in the world bouncing back a little, not at a stellar rate, but from around 3% this year up to the middle three per cents next year and the year after.

That is not all one side. The balance of risks, for me, would be to the downside, for the reasons the Governor gives. Equally, there is stimulus in the pipeline, the effects of which would expect to be registering around now and through the remainder of this year.

Q505 **Rushanara Ali:** Going back to Brexit preparation, is there anything else the Bank still has to do before 31 October that it has not done? Is there anything the Government need to do, as per legislation, that is still outstanding? I am thinking particularly in relation to the derivatives market and uncleared derivatives, if there are any recent developments you want to share with us, and data sharing.

**Dr Carney:** First, between now and 31 October, we are engaged on daily contingency planning for Brexit, daily supervisory interactions with major financial institutions, so we are tracking things. Because we are tracking on a daily basis, there will be issues that come up, maybe with individual institutions, from time to time, which we will be on top of and address. We are not just sitting back and waiting for the date.

Secondly, as you mentioned, there are some unresolved cross-border issues. Uncleared derivatives is an example. It is really in the hands of the European authorities, and specific national authorities both in France and Germany, to address those.

Q506 **Rushanara Ali:** What are the amounts you are talking about?

**Dr Carney:** On a notional, there are around £23 trillion of uncleared contracts that are affected. I can write back and give you a precise number.

Q507 **Rushanara Ali:** How confident are you that there will be agreement?

**Dr Carney:** It is within the responsibilities of those national authorities. There is legislation in place in both jurisdictions that has to be applied. Then there are other ways to address it, including changing the counterparties and moving the arrangements, but in our judgment there is not sufficient time to do all of that. That gets to the third thing, which is moving clients from the UK to the European entities, and there is various progress on that.

I will just say a couple of words on legislation, as you raised it. Can I commend the Committee's role in this? Parliament has passed over 50 statutory instruments that are relevant to the financial sector, so has put in place the necessary framework. One consequence of that is that we have authorised more than 400 entities to make sure they can continue to serve UK and global clients out of the United Kingdom. That is all the good news.

I should flag a couple of issues that are still outstanding. First, you will be well familiar with the so-called in-flight files Bill. I will get the precise name for it in a second. It is the Financial Services (Implementation of Legislation) Bill. This is for things that have changed since the *acquis* was onshored. It is not urgent but it is important, because, over time, it will undermine some of the coherence of the legislation. In my understanding, when you shift parliamentary sessions, that will need to be reintroduced. That is the first thing I wanted to mention.

Secondly, the SI with respect to state aid has some potential relevance for some liquidity provision that the Bank might provide in extremely rare but extraordinary circumstances, although we are in extraordinary circumstances. All things being equal, a laying of that SI when appropriate would be preferred. I should, though, take the opportunity to reinforce that we have £300 billion of facilities up and running that are not affected by this. Plus we have just received a capital injection by the Treasury this year, so we also have balance sheet capacity above and beyond that £300 billion.

**Q508 Rushanara Ali:** On data sharing, there is a report about the disruption to the UK's role as a £174 billion global data hub. Did you want to add anything?

**Dr Carney:** The UK, as you know, has recognised the data framework of the EU 27. That has not yet been reciprocated, so companies, importantly including financial services institutions, are having to rely on so-called model clauses, temporary legal fixes, to this, recognising that under GDPR, which still applies in the European Union, if those fixes are not in place or not robust through time, there are quite severe potential penalties. Of course, there are enormous costs to separating pools of data. I take the opportunity to say it is in the interests of both sides to have this resolved in an enduring way.

**Q509 Rushanara Ali:** Is it likely to get resolved before 31 October?

**Dr Carney:** It is a question for the Government, but I have nothing that suggests it will be resolved.

**Q510 Rushanara Ali:** So we could see massive disruption on data if we leave the European Union and have a disorderly no-deal Brexit by the end of October, and in relation to the uncleared derivatives of £23 trillion.

**Dr Carney:** On the derivatives side, the issues develop after we leave. We think it is in the interests of the European Union first and foremost, but of both sides, that an enduring fix is put in place there. With respect to data, I will say that the major financial institutions have been addressing these issues with the second-best

solution, which is to put in place model clauses, these legal fixes, around data sharing. In that regard, there should not be disruption. It is an issue that could potentially come later—

Q511 **Rushanara Ali:** But there will be with data, if there is not an agreement by the end of October.

**Dr Carney:** There is unlikely to be an agreement. The first-best solution is an agreement. The second-best solution is that firms take some legal risk and have these model clauses, which allow them to continue operating effectively as before.

Q512 **Rushanara Ali:** But on data they have not.

**Dr Carney:** On data they have been doing that on an individual firm basis. The largest, most sophisticated institutions are in that position.

Q513 **Rushanara Ali:** But others are not.

**Dr Carney:** Not everyone will be. To give you a sentence on it, it is less a cliff-edge issue at the core of the financial system, but it is not a sustainable set of fixes to what is a fundamental issue to the functioning of this economy.

**Rushanara Ali:** To society, yes.

**Dr Carney:** Yes.

Q514 **Alison Thewliss:** Just to ask something before I move on to the questions I had, I was on a lot of the statutory instrument committees previously. There was one before the summer where the Government had to come back to correct a statutory instrument because there had been some error in it. I was wondering if, from your own point of view, you are assessing the adequacy of the statutory instruments as they reach you, to make sure that what was intended is actually what is there before you.

**Dr Carney:** There is nothing that I am aware of. Our understanding is that the ones that have been made that pertain to the financial sector are effective. I will just refer to my earlier comments on state aid, which is the one that is outstanding. It is principally about other things, but has some potential ramifications for us.

Q515 **Alison Thewliss:** I was speaking for our party on the in-flight Bill as well. How important do you feel it is to have that in place? If it is not in place and we have a no-deal Brexit, what impact would that have?

**Dr Carney:** For our responsibilities it will not have an immediate impact. We have the authorities we need. It potentially has some ramifications—I will defer to the FCA to speak to that—in terms of MiFIR and other instruments. With time, it will become more important. Of course, with time, our whole system could change but, if it has not, the coherence needs to be there. One area, for example, is around the sustainable finance programme, green taxonomies and other things. Consistent with the Government's and Parliament's strategy, it is desirable to have that in place, but it is not a short-term financial stability issue.

Q516 **Alison Thewliss:** Can you tell us whether any of the impacts of leaving the EU are likely to be made worse if the UK leaves shortly before or after a general election?

**Dr Carney:** Pass. How is that for an honest response?

Q517 **Alison Thewliss:** In the *Inflation Report* press conference, you had said the preparations by Government and businesses for no deal “cannot eliminate the fundamental economic adjustments to a new trading relationship that a no-deal Brexit would entail”. Can you explain to us a wee bit more why fiscal and monetary policy, along with preparations carried out by businesses, is unlikely to mitigate all the negative impacts of no deal and what more can be done around that?

**Dr Carney:** This is a fundamental question and an important one. The change in the trading relationship affects the supply side of the economy. Earlier, Dr Vlieghe was rightly speaking about the impact on confidence of households and business, and demand and activity. Are they spending? Are they investing? Are they hiring? There is another impact of Brexit, which is unusual in our professional lifetimes. There is a very large—there is no other way to put it—supply shock that happens at the point of Brexit. Of course, if it is a no-deal, no-transition Brexit, it is an immediate shock, where the economic relationships change and certain activities are no longer profitable. They are no longer economic, and that affects plant and equipment, and the uses of that plant and equipment, and it affects people, people who are trained up and working in those sectors.

Even though this economy is one of the most flexible economies in the world, it will take some time to adjust, reallocate the capital that is there and retrain the people who are also there into new roles. Monetary policy does not have an impact on that. It can affect the demand. It can affect the financing conditions for businesses that need to invest, but it will not change the fact that a factory that is solely there for the purpose of producing a car part for a European auto maker is no longer economic. In the short term, it also will not change the capacity at Dover. It does not matter what level interest rates are at or the degree of quantitative easing that is in place. It will not increase the proportion of throughput through Dover.

Other steps have to be taken. I think Professor Haskel referenced before that we have the disruption element of Brexit; think throughput at ports. That is potentially relatively short term, although it will be difficult during that period. We also have this impact on supply, and, to some extent, if you want another “D”, you have disruption and you have destruction. You have destruction of some of the supply of the economy. We cannot impact either of those. We can impact the third “D”, which is demand. In that judgment, when we say the shorthand of the impact on supply, demand and the exchange rate, we are judging to what extent demand has adjusted more than the supply side, and whether we can support the demand and are appropriately supporting demand so the economy comes back to its new balance. Everything that I talked about on the supply side is that fundamental adjustment, which we cannot affect.

**Alison Thewliss:** Professor Haskel, do you want to pick up on any of that?

**Professor Haskel:** To echo that, as I mentioned earlier on, I and other members of the committee go and talk to firms all the time. If a car company says to you, "Do you know, I am really worried about financing conditions. Banks are dysfunctional and I cannot get money to invest" and all that kind of thing, the Bank can potentially do something about that. As the Governor has just been saying, if that car company says, "Unfortunately, because of the inability to strike deals and this, that and the other, our just-in-time flow of production, that business model, is just gone. All the capital stock we have invested, which gives you flexible production, just-in-time production and all that kind of thing, is just useless", I hope we are very sympathetic, as a panel, but there is nothing the committee can do about that. I am sorry; I am furiously echoing the Governor's words, just to add a bit of colour to that.

Q518 **Alison Thewliss:** Yes, that is fine. The Bank's analysis from last November indicated that GDP would fall between 5% and 8% in your no-deal scenarios, compared to the November 2018 forecasts. Can you give us a bit more on your update on those figures and why you feel those have changed?

**Dr Carney:** Sure. There are several improvements that account for the difference, and in fact they are detailed in the letter. First, issues around port capacity and customs capacity have a material impact. Our expectation back in November was broadly consistent with the Government's expectations, in terms of their analysis that there could be up to—and remember that this is a worst-case scenario, not the most likely—a three-quarters reduction in the throughput through the major ports if there had been a no-deal Brexit at that point in November. Now we think that reduction is less than half, and that is quite a substantial shift. As a kind of rule of thumb, every five percentage points of capacity that comes through our major ports—think Dover and others—probably gives you back about a quarter of a percentage point of GDP, so moving between those two numbers is material. That is a direct result of hard work in the UK but also some investments, particularly in Calais and France, to put in place additional capacity, because it is obviously all linked. That is one of the most important.

Ms Ali was asking earlier about derivatives and she was asking rightly about uncleared derivatives, which is not fully solved. There is also a bigger pile of cleared derivatives. Subsequent to November, there was an arrangement between us, the ECB and the European authorities that has addressed issues around cleared derivatives. That means there would be less disruption in the financial markets, to bring it to the doorstep, lower mortgage costs and lower financing costs for households and businesses in the United Kingdom.

We have taken things that have improved the degree of trade that would happen, also these improvements on the financial side, and then made some judgments that those should have positive knock-on effects in financial markets. The cost of borrowing will not rise as much. The risk premia, to say it in another way, will not go up as much on UK assets.



Also, the degree of uncertainty that is affecting business and household decisions will not go up by as much. Those are obviously judgments, but when you add them up those are the principal components that have improved the analysis.

To go back to the earlier question, the more difficult global environment and European environment, because the European economy has been hit quite directly by these global trade issues, has taken back some of the benefits. As we slow, there is the knock-on effect to Europe, and then that spills back to us. Again, in a worst-case scenario, that is, in our judgment, material. There is real progress on the ground, real progress in terms of the financial system, and that has some positive knock-on effect on confidence and on financial markets as a whole. All of that adds up to around 2.5 to three percentage points of GDP that we would not lose, which is the good news. I will just repeat my caveat, which will be ignored, that this is all a worst-case scenario, not the most likely forecast.

**Q519 Alison Thewliss:** Thank you for that. If we end up leaving the EU without a deal on 31 October, is your more pessimistic, disorderly scenario more likely to become the reality? If we end up in that scenario, what do you think the impact would be on output rather than the smooth transition that had been modelled?

**Dr Carney:** Whatever form Brexit takes, there will be a material adjustment to the existing relationships. We have said from day one that, given the scale of the adjustment, even with quite a comprehensive deal, it is absolutely in the interests of UK businesses and the UK economy as a whole, UK citizens, to have a time of transition to adjust. Every single trade deal signed in the last 40 years has at least an 18-month transition, normally an average between a two and four-year transition to the trade deal. This is a trade deal in reverse, which in many respects is harder, because you are not building new relationships. You are taking apart some of the relationships. It is clearly undesirable to have that adjustment happen overnight. It may transpire that that is what happens, given other constraints that are in place, but, in terms of the economic impact, a smooth transition or a period of time for businesses to adjust to the new realities would improve economic outcomes.

You rightly refer back to November. The Committee had asked us in November to look at a transition to WTO. From recollection, the smooth transition scenario—scenario not a forecast—is something in the order of 2.5 percentage points decline in GDP, so somewhere between that and the 5.5 or six percentages points we are talking about now is considerable. It is jobs, income and welfare in between the two.

**Q520 Catherine McKinnell:** I wanted to go back briefly to a question that the Chair already asked you, Governor. Earlier this year, the GMB trade union published figures suggesting that the average family shopping bill would increase by £800 a year, or 17%, in the event of a no-deal Brexit. Academics at Warwick and Bristol universities forecast that food prices would also increase as a result of a fall in the pound as a result of a no-deal Brexit, suggesting the average grocery shop would increase by about

£670 per year, so £58 to £71 a week. I know you have already given an indication of where you think that likelihood lies at the minute, but do you think those figures are in the right sort of ball park? In real terms, what does a no-deal Brexit mean for people's food bills?

**Dr Carney:** In terms of the second part of your question, it is likely that food bills will rise in the event of a no-deal Brexit. As I said to the Chair's earlier questions, that is almost exclusively, overwhelmingly, because of the exchange rate impact. We find, and have found consistently, that movements in the exchange rate are quickly translated on to the shop shelf. What also tends to happen is that domestic food prices rise. Imperfect substitutes also rise alongside, so there is a bit of a knock-on effect there. That impact has lessened since November because of the new tariff regime the Government have put in place.

Q521 **Catherine McKinnell:** Would that impact be the inflationary impact or the impact on the pound, the tariffs?

**Dr Carney:** Now the tariff impact on inflation is relatively modest. Speaking personally, I would be more likely to look through the tariff impact. The tariffs tend to be passed through one time, so there is not much one can do about that, because monetary policy acts with a lag, whereas with movements in the exchange rate the pass-through tends to happen to prices over the course of several years, faster for food, longer for other elements. It happens over that horizon and therefore monetary policy has to take it into account.

The point I was working up to on food prices is that, since the referendum was called, the exchange rate has moved about 25% in total, so we are seeing some of those impacts in terms of food prices already. It is possible, and certainly market positioning indicates, that the exchange rate would likely move further in the event of no deal, and that would show up in the shops. To your specific question, I would not mind writing in quickly on the household impact of that, the numbers, rather than trying to do it in my head.

Q522 **Catherine McKinnell:** That would be really helpful. Thank you. Is there anything you have seen, in terms of the no-deal Brexit preparations, that would mitigate those increases that we are expecting to see to food prices and to other household items?

**Dr Carney:** The fact that, since November, our sense of the traffic that can go through our major ports has gone up quite significantly will help mitigate it. It will certainly help mitigate any potential shortages of items of food. If further progress is made in that regard on both sides of the channel, that would be welcome. In our calculations of the food price impact we have done something that is more mechanical, which is to say how much the tariff adds in for the basket as a whole, 0.3, and how much the exchange rate could move. That adds another five to six percentage points. You add those two together. It does not do a micro calculation: "What if there are shortages of certain foodstuffs and then you have higher price increases as a consequence of that?" As a direct answer to your question, the improvements in the functioning of trade have improved the circumstances, yes.

Q523 **Catherine McKinnell:** To summarise, regardless of any mitigation there may be in terms of tariff increases, that is not going to take away the increases people are going to see as a result of the exchange rate and the pound fluctuating, as a result of a no-deal Brexit.

**Dr Carney:** That is correct, yes.

Q524 **Catherine McKinnell:** It would be helpful if you could give us the figures. Thank you. I wanted to ask as well about the UK's output data and it contracting by 0.2% in the second quarter. On the same day the Office for National Statistics released the information, the Chancellor described the economy as fundamentally strong, citing high employment, high wage growth and national debt falling as a percentage of GDP. Would you agree with his assessment that the economy is fundamentally strong?

**Dr Carney:** There are a few things on that. Maybe I will refer back to my comments to the Chair earlier about the underlying pace of growth. The first quarter was unnaturally strong, 0.5%, or appeared stronger than the underlying pace was, and that was because of stock-building on both sides of the channel and a few other things, autos as well. The second quarter was stronger than it looked, or less weak than it looked—that may be a better way to put it—because of the give-back of those factors. We get some knock-on effect in the third quarter, but overall at least my assessment would be that the underlying pace is weak, maybe slightly positive but close to zero in terms of performance.

Stepping back, in terms of the fundamentals, certainly the labour market has been very tight: record employment, as you note, record low unemployment, wage growth as high as it has been since the crisis, just under 4%, very high levels of vacancies, so companies are finding it difficult to find the workers they need, which is a sign of a tight labour market. On top of that, another fundamental I would point to in terms of the resilience of the economy is that the underlying financial positions, particularly of households, are very much improved. UK households have worked hard over the last decade to pay down debt, to improve their financial situation. It has not been easy, I recognise, and they have done it in an environment where it is only recently that real wages have started to properly grow. It means they are in a better position than they would otherwise have been if there is going to be a period of relative weakness in the economy.

Q525 **Catherine McKinnell:** Okay, so it does not sound fundamentally strong. The Bank's August forecast for the UK GDP was flat in the second quarter. Did the size of the decline come as a surprise to the Bank?

**Andy Haldane:** A little bit. It was largely a stocks thing, though.

**Dr Carney:** That is right. We had more of the stocks drawn down than we would have expected. Our logic, plus some of the intelligence, was that, with perishables, food and veg, you had to move the stocks out. For others, carrying them forward through to October might have seemed more likely, but that is not what happened. Speaking personally, looking

through all those ups and downs and that noise, the economy is softer than I would have expected a few months ago, yes, as is the world.

- Q526 **Catherine McKinnell:** Presumably, you will be downgrading your forecast for the October deadline, or it will not come as such a surprise, in terms of the stockpiling for the October deadline and the reaction, whatever comes in terms of the outcome on 31 October. Presumably, you are taking that into consideration or will be, having learnt from the unexpected size of the decline that came about from the last deadline. Are you making any adjustments?

**Dr Carney:** We will have to make lots of adjustments. The next forecast will be challenging, yes.

**Andy Haldane:** On the stocks point in particular, one reason that any potential build-up in stocks ahead of the end-October deadline might be a little different than the build-up in stocks in the run-up to the end-March deadline is that you are getting nearer to Christmas. The capacity to warehouse stocks for Brexit-related reasons is somewhat constrained in the run-up to Christmas, given that Christmas is also a reason to be running up. We may see a less large build-up, because of simple factors such as warehouse capacity, in Q3 than we saw in Q1. Of course, as the Governor mentioned, some companies have held on to the stocks they built up to end March. Some have run them off but a number have held the line and about a third plan holding more, coming up to the yearend.

**Dr Carney:** Just to drone on about stocks for a second, the last consideration is that the stocks of European companies are relevant as well. Many of the stocks people will want to put in place are imported anyway, so there is not a net add to GDP, but there are also exports to European companies. Surprise, surprise, we do not have any agents in Europe, so we have less visibility on what the European companies are doing.

- Q527 **Catherine McKinnell:** Speaking of your network of agents, I also wanted to ask about the regional agent survey and whether you have detected any differences in terms of businesses being ready and preparing, what expectations they have of Brexit, for in particular a no-deal Brexit, and whether you are detecting any differences in terms of different regions and the potential impact.

**Dr Vlieghe:** We think about it primarily in terms of the sectors that are more or less exposed to Brexit. Of course, different regions across the UK have different concentrations in different sectors. Some have a bigger concentration in agriculture. Some have a bigger concentration in manufacturing. The headline list of vulnerable areas is food and agriculture, chemicals and pharma, and transport and car-related things. In areas where you have a lot of that, you have people who are more worried than average. In areas where you have less of that, you have people who are less worried than average.

- Q528 **Catherine McKinnell:** Would it be helpful, rather than just focusing on sectors, to have the ability to summarise business conditions and the impact on a regional basis as well as a sectoral basis?

**Dr Vlieghe:** We have data on that. Whenever our agents report on their area, we have numbers on regional GDP, regional income, so we have those things to hand. It is important to emphasise the fact that our mandate is for inflation in the country as a whole. The regional analysis would be useful if it helped us understand the country as a whole.

Q529 **Catherine McKinnell:** I guess, fundamentally, that is my question. Would it help you understand the country better as a whole if we were to get a better use of data on a regional basis as well as a sectoral basis? As you know, the Treasury Committee has launched an inquiry into regional imbalances. In July we discussed this. You said that the north-east, the north-west, Northern Ireland and the West Midlands are the regions that will be most affected by Brexit, while London and the south-east will be least affected. I guess the concern is what we are doing and whether we are doing enough to make sure that we are not only preparing ourselves for Brexit nationally, but making sure that each region and the challenges it will pose are being properly addressed. Are we going to see an increase in regional disparities?

**Andy Haldane:** To that, the reason we mentioned the regions back then was based on having done a sectoral analysis and looking at which sectors would be affected most. You are talking cars and transport. You are talking chemicals and pharma. You are talking food and agriculture. You can then map from that sectoral picture to which regions of the country that would affect most. We can do that and that was the basis for what we said back then.

There is one more general point. My strong sense, and I think it is probably echoed across this side of the table, is that our regional network of intelligence has been an absolute goldmine during the course of all matters Brexit. I cannot think how we would have got our heads around the extent of preparedness by companies across the UK had we not had that 10,000-strong network to draw upon and to ask some very specific questions about their state of readiness and about which aspect of their state of readiness was more or less advanced. Most of that data is already available in the public domain. We are always looking for ways in which that data could be made even more useful. Regional cuts are one dimension of that that we can take away and think about a little more. Certainly from my perspective, that cut of the data can be very helpful, and has been over the past few months, in getting a window even on economy-wide development.

**Professor Haskel:** That is right. One thing about many of these business surveys is that they are often on a rather small number of observations. To add to the agents that Andy Haldane was just talking about, we are co-operating with the University of Nottingham, Stanford University, on the Decision Maker Panel dataset, which asks 8,000 firms every month for information. It is a different sort of texture of information to the agents you were just talking about, Andy, but nonetheless it asks them about when they expect Brexit uncertainty to be resolved, a similar set of associated questions.

Because that is a large dataset, one can then cut it up into the different regions in a way that one could not in any of these smaller datasets. We are making a number of steps, along with academic researchers, to try to bring us to a position where we have datasets so we can make these regional cuts that before we might not have been able to do.

**Q530 Catherine McKinnell:** Would the production of regional inflation rates help the MPC with this work?

**Andy Haldane:** It would help, and I know the ONS is on the case on doing just that. It is a longstanding gap in our statistical armoury that we do not have the deflators at a regional level. We tend to take a national deflator to them as things stand. That would certainly help not just us but the City and analysts to get a picture of what is going on. Yes, I think the MPC would be a consumer of that data as and when it became available.

**Q531 Catherine McKinnell:** What could you realistically do with the information, given monetary policy is generally a national lever?

**Dr Carney:** First, it is exclusively a national lever, at least as per the remit Parliament gives us. If it changed the remit, we would have to change. I am not sure exactly how we would implement it on a regional basis, but it is exclusively a national objective. Depending on the richness of the data, including labour market data, sometimes housing market data, and because of the differences at different points of the cycle in different regions, in part because different sectors dominate in those regions and there are different cycles for the sectors, it can help inform understandings about things like the relationship between tightness of the labour market and wage development. It depends. There is a high hurdle for this, but at least it can help inform in trying to construct regional Phillips curves and see where the pressures could be, housing price dynamics and other aspects for financial stability purposes.

To the spirit of your questions and to colleagues' responses, it is also about understanding the nature of businesses, business decisions, interconnections between supply chains on a national level, as well as the degree of flexibility and movement between regions, so where you have tightness and perhaps less so. That builds a richer understanding of the economy. That is only to the good, even though monetary policy is ultimately for national purposes. Can I reinforce something Mr Haldane said? Under his leadership, we have developed these additional tools to expose the analysis, but also tried to make the datasets available, so that other researchers, observers can use them. Whether it is the Decision Maker Panel, which is, in my view, quite innovative, or the regional datasets, that is very much the direction of travel, so the greater interest of the TSC and other researchers can be satisfied in that way.

**Q532 Catherine McKinnell:** Okay, great. To that end, I have one final question. Should or could the Bank have a role in reducing regional inequality? Will you be submitting evidence to our inquiry?

**Dr Carney:** The best contribution the Monetary Policy Committee can make to reduce inequality is to achieve low, stable, predictable inflation. High and variable inflation affects those least well off the most. Others

have an ability to protect themselves against that. As the Bank as a whole, we can do our part to promote a financial system that reaches all aspects of the economy. I would draw attention to the *Future of Finance* report and particularly the Bank of England's response to the van Steenis report, the *Future of Finance* report, which has a number of initiatives that address issues that quite often have a regional dimension to them, and I will stop on this, particularly SME financing.

Small and medium-sized enterprises across the country face a financing gap, in our estimation, of more than £20 billion per year. These are companies that are creditworthy. They could finance, could expand, but they cannot get financing from conventional means, from the banking system. There are now ways to potentially provide considerable competition in that sector and additional finance to them. In our judgment—I think we probably need to scrub it a bit more—that would likely have bigger impacts in those otherwise underserved regions than in London and the south-east.

**Q533 Catherine McKinnell:** But that would be a by-product of that policy decision, rather than the aim.

**Dr Carney:** I am not sure it is a by-product in the sense that within the secondary remit of the Financial Policy Committee is to support the development of productive finance. We do not have the principal responsibility for that and we do not have all the tools to do it either, but we can develop an approach there and do what we can to influence it. I can go through the plumbing of what we would do to support a new financing system for SMEs another time if you want. That is kind of the purpose of it, as opposed to something that just happens.

**Q534 Catherine McKinnell:** No, but you are suggesting that rebalancing the economy in terms of regional disparities is hopefully a by-product of that approach, rather than the aim of it. The aim is to increase the productivity of SMEs.

**Dr Carney:** We do not have a distributional remit.

**Q535 Catherine McKinnell:** The question is whether you should or could have that role.

**Dr Carney:** My personal view is that the core responsibilities of the Bank, which are considerable, monetary and financial stability, are foundational to improving inequality outcomes and reducing regional disparities. The bigger levers are the responsibility of Government and Parliament, ultimately Parliament.

**Andy Haldane:** On that point, as the Governor was saying, I do not think we have the policy tools ourselves to effect change to those disparities regionally. We have some of the analytical tools that can help make sense of them. Indeed, we have deployed some of those tools, not least in assessing the impact that our own policy actions are having at different points in the distribution income-wise or regionally. Analytical tools, yes. Policy tools, no, and we are happy to deploy our analytical tools to help make sense of these things.

Q536 **Chair:** Mr Haldane, it would be useful to get a very brief note to the Committee on regional inflation rates, what that would look like and how that could come about. That would inform our inquiry, so if that is possible it would be helpful.

**Andy Haldane:** I will happily take that one away, Chair.

Q537 **Alison McGovern:** It is a very interesting discussion on the regional issues. Hopefully we will take that further as part of our inquiry. I want to ask about shocks. Some of the questions we are asking relate to the potential for a large shock to the British economy, particularly if the UK leaves the European Union without a deal. As a precursor to my question, for the benefit of the many people who, I am sure, are watching this session, fascinated, given all that is going on in politics today, when we say “a shock”, we do not mean a surprise, do we?

**Dr Carney:** It could be a surprise but, no, we mean a large change. It could be anticipated or unanticipated.

Q538 **Alison McGovern:** Will there be a difference if by “shock” we mean large change and unanticipated, or large change but anticipated?

**Dr Carney:** Anticipation of a shock, depending on how farsighted businesses and households are, can allow preparation. By the way, to be confusing, as central bankers, when we talk about shocks we talk about positive and negative shocks. If something really good happens, that is a shock. It is just if something happens that is not the base-case expectation.

**Mr Baker:** That is why economics is so much fun.

**Dr Carney:** Yes. They call it the dismal science for a reason.

**Alison McGovern:** None of us call it that, right?

**Dr Carney:** No.

**Professor Haskel:** We have positive shocks and negative shocks.

Q539 **Alison McGovern:** No, I know. To be absolutely clear for everybody's benefit, we anticipate the specific shock of the United Kingdom leaving the European Union without a deal being a negative shock.

**Dr Carney:** It is in the short term. In the policy horizon of the MPC, which is two to three years, we anticipate it would be a negative shock for output and employment, so in other words employment and output would be lower than otherwise, but a positive shock for inflation. In other words, inflation would be higher than otherwise, in large part because of the exchange rate effect.

Q540 **Alison McGovern:** Can you give us a sense of the magnitude of the shock?

**Dr Carney:** That is the £10,000 question. As the MPC, we do not have a forecast of a no-deal, no-transition Brexit. Up until our last forecast, that has not been the policy of the Government and it has not been the most likely scenario. We will have to take stock in November for the November



forecast of where we stand as a country and adjust our forecast accordingly.

We have looked at scenarios. We have provided this Committee with our scenarios. One of those scenarios, the worst-case no-deal outcome, disorderly outcome, we had already prepared for the purposes of the Financial Policy Committee. You asked for it; therefore we gave it to you. There were two other scenarios that you asked for explicitly. One was a transition to a WTO relationship, so a shock that is anticipated, to use the language you have been using, so there is a transition for a known end state. We, as the Bank, not the MPC, formulated that and provided it to this Committee.

Q541 **Alison McGovern:** You mentioned earlier, Governor, the difference in state of the markets now and their treatment of Brexit than at the time of the referendum. Could you give us a sense of how much you think the possibility of no deal is already priced in?

**Dr Carney:** That is an important point. In the run-up to the referendum, just to recap, markets as a whole were expecting that the vote would result in the UK remaining in the European Union. In fact, as it got closer to the vote, that expectation hardened so markets were positioned very much that the UK was likely to remain. Not everybody in the market but most people in the market were positioned and the weight of positions was in that direction, so there was a shock for the markets, in that the vote went to leave. There were some very quick adjustments and markets did their job. They functioned in an orderly fashion and repriced a variety of assets, most notably sterling.

Where we sit today is that markets have increasingly since the spring been pricing in the probability of no deal. It is tough to get a direct read on that. There are various ways to estimate them. The crudest way is to look at the betting markets, which got the referendum quite wrong, I would note, but have been at least directionally consistent with the way the markets have been moving. That is a relatively thin market, so, in other words, the probabilities can move around fairly substantially. In fact, they have moved quite substantially in the last 24 hours and could obviously change again very quickly. In essence, in broad strokes—and I will reference external commentators, so economists from investment banks and investment houses that give their own assessment of these probabilities—the probability of no deal happening, for external commentators, external betting markets, financial market asset prices, if you average those, in the spring was somewhere around 15% or 20%, rising up to around 40% as of yesterday. That probability has gone down somewhat in the last 24 hours, but, as I say, can move around very quickly.

Q542 **Alison McGovern:** Okay, but would you say that we need to be aware of the change in the fundamental situation in the British economy, rather than problems created by unexpected events?

**Dr Carney:** We need to do two things. First, we need to prepare the financial system. One of the Bank's responsibilities, the FPC's responsibilities, is exactly that, is to prepare the system for unexpected

events. We construct various bad scenarios—it could be a recession in China, a trade war, a deflationary scenario—to see how they would affect the financial sector, but we are pretty confident that what hits the financial sector will not be one of those. It will be something else. The system needs to be antifragile, to use Taleb's description. It needs to be able to absorb shocks that are unanticipated. By stressing the system to a variety of different things, it makes it more likely that it will be robust and resilient to the thing that actually happens.

In the case of Brexit, it is a different issue. It is an anticipated event. The way we have addressed that, as the Financial Policy Committee, is to say, "Let us not worry about what is most likely to happen. Let us just think about the worst that could happen and prepare for that". If I can bring it back to the MPC and how we conduct monetary policy, what matters for us is not what we think is going to happen, so we do not spend time on thinking up what we think is going to happen, but how businesses, households and financial markets are behaving. That is influenced by what they think is going to happen and the implications of that.

In the cases of businesses, it has been absolutely clear for some time that they are deeply uncertain about what is going to happen. This is borne out by the surveys we have been talking about previously. In the event of no-deal Brexit, they see quite a sharp reduction in their output and employment, and a rise in overall prices. That is what they think. One of the consequences of that is that investment has been stagnating over the course of the last few years, which has been one of the biggest influences on economic performance.

**Q543 Alison McGovern:** To turn to the specifics of inflation, you said that the committee's interest rate decision in response to no deal would need to balance upward pressure on inflation from a likely fall in sterling and any supply shock with the downward pressure from any reduction in demand. Does the recent increase in the inflation rate to 2.1% in June make monetary loosening in response to no deal less likely?

**Dr Carney:** We certainly take into account the most recent figures. Nor would we want to put too much weight on one month's inflation reading. I would note that inflation came in at 2.1%, as you know, and headline core inflation at 1.9%. Most of the upside surprise in inflation, if I can change the terminology, came from the most volatile components of the CPI, so recreation—think video games: it was a good month for video games, except for the prices if you were trying to buy one—transportation, and clothing and footwear. Those three components really accounted for all of the upward boost on inflation.

That said, consistent with the discussion with Ms McKinnell earlier, there are elements of the economy, particularly in the labour market, that are pretty tight, and unit wage cost growth is very high, relative to past performance, so domestically generated inflation is pretty firm right now. There are reasons to expect that may come off if the economy continues to perform as it has been recently, but we certainly take it into account, and that brings to the fore a point I want to make. The conditions going into 31 October are different than the conditions going into 23 June 2016,

by which I mean inflation is at target, or just slightly above target; core inflation is around target; the economy is around full capacity, maybe slightly below, but around full capacity. In June 2016, inflation was very low and there was substantial slack in the economy. That meant there was a lot more room for the committee to act and act as it did.

All that said, as I have said in the past, my personal opinion is that, on balance, it is more likely that I would vote to ease policy in the event of a no-deal Brexit than not, but it is not assured. It is not pre-committed and there are limits to our ability to provide that support.

Q544 **Alison McGovern:** Does anyone disagree?

**Dr Carney:** I am sure they do.

**Andy Haldane:** On the bottom line, absolutely not, but I would underscore the points Mark makes about the here and now being rather different in terms of underlying cost pressures than it was back in 2016. We had a more than one percentage point output gap then. We had wage growth at two and a little bit. It is now almost at 4%. We had unemployment close to 5%. It is now sub 4%. That was a rather different cost environment than the one we are experiencing right now. At the same time as the world has suffered prospective lowflation problems and inflation expectations in financial markets have headed south, ours have been pretty steady and a gap has opened up between us and the rest of the world. Given our remit—we have an inflation target—we cannot overlook cost developments like that, and they would have to weigh in the pot if we came to a no-deal, no-transition Brexit.

**Dr Vlieghe:** I agree with all that. The circumstances are importantly different. There is one other set of circumstances that is different. When we were talking about the prospects for the economy after the vote, we were talking about things that were entirely about expectations of changes that would happen some way into the future. Now we are talking about things that might potentially happen the next day. There was never any prospect of immediate supply disruptions on 24 June because no laws or regulations were changing. Now, we are talking about potential immediate impact, so it is a very different consideration, how people will react to something that may or may not happen quite far into the future to something that is right here, right now.

Q545 **Alison McGovern:** Talk me through the “and therefore what”. How would that impinge on your—

**Dr Vlieghe:** This brings us back to the discussion we had on one of the opening questions from the Chair. We will be monitoring very carefully the scale of the disruption, which is, of course, important in and of itself, but also important because the scale of disruption is likely to have an impact on people’s confidence, people’s demand. We want to judge that secondary reaction too, aside from how far the exchange rate is falling, what we think that is going to do to inflation. All these things will go into the mix but there is this important new element of the immediate supply impact that was absent the last time. Last time it was only about

expectations of a future supply change. Now it is about it actually happening right now.

Q546 **Alison McGovern:** As a last question, Professor Haskel, if I may, you said about earnings growth that 3.6% growth within the quarter to May 2019 should exert upward pressure on inflation, but it may not necessarily happen. Talk us through what you think the other considerations are and what might be there to counteract that.

**Professor Haskel:** As the Governor and Andrew Haldane have been saying, wage growth is very robust at the moment. That is one of the features of the economy that is putting upward pressure on prices. Other things being equal, given we have the inflation target we were just talking about, that would cause us to act to bring that under control.

Of course, what really matters is wages, not only in relation to prices but, for our policies, wages in relation to productivity, in other words unit labour costs. You will see lots of stuff in the *Inflation Report* all about unit labour costs and so forth. The trouble is that we do not have a brilliant fix on productivity at the moment. It has been extremely low, so at the moment our guess is that these are quite high increases in unit labour costs as well, which, again, would push you towards being inflationary, but that picture can always change. The productivity issues are always quite volatile.

That is the first set of things, and I will end on this second set of things. On unit labour costs and wage costs, just because there has been a reasonable amount of wage pressure in the past, just because that has been going on in the past, it does not mean it is necessarily going to go on in the future. You would have seen in the *Inflation Report* that firms have been extremely pessimistic. They have stopped investing. They are generally pessimistic about output growth. If that feeds through to the labour market, and there are some signs of that, I might expect those labour costs to come down a little bit, which would ease the type of pressure that there has been on inflation.

Q547 **Alison Thewliss:** To pick up from that point, the Bank's agent survey showed that even companies that considered themselves ready for no deal thought that, as you are saying, output, employment, investment would be substantially lower over the next year than otherwise, relative to a scenario where there is a deal. Did your agent survey find businesses from any sector that were optimistic about the opportunities of leaving the EU?

**Professor Haskel:** Businesses from any sector that were optimistic?

Q548 **Alison Thewliss:** About the prospect of leaving the EU without a deal.

**Professor Haskel:** I will give you the honest answer: I do not know. I have the graph in front of me that you are referring to, which talks about all the different sectors. Can we get back to you on that?

**Dr Carney:** Yes, we will get back. We should be clear that the question they are asked is in terms of the near-term horizon, so the near-term effects. It would not be a judgment of the longer-term opportunities.

**Chair:** I would be happy to have that information.

Q549 **Alison Thewliss:** Yes, that would be useful. I was curious as well because I got a report from the CBI through the post about what comes next. It is this report here, the business analysis of no-deal preparations. Its headline is that no one is ready for no deal. I was wondering if perhaps some of your agents are listening to more optimistic people or perhaps speaking to different people. The CBI's analysis would seem to be that nobody is ready and nobody is prepared for no deal.

**Andy Haldane:** I have not compared samples. We have about a fifth of companies that feel they are fully ready and about three-quarters that feel they are as ready as they can be, meaning they have done what they can but they recognise there will still be some bumps, and about 90% that have enacted their contingency plans. That would be slightly more optimistic than what you have said there.

I would make one more point about this, though. It is a good thing of course that more firms have got themselves prepared, in various shapes and forms. We have been tracking that on a pretty much monthly basis for the last 12 months through our agents. Understandably, that has not been without cost, because it chews up a lot of managerial bandwidth if you are a small business, if you are doing this stuff. The Decision Maker Panel work that Jonathan mentioned earlier on has looked into this and asked where the costs of that have shown up. The obvious place those costs have shown up is in lower reported levels of productivity by those companies. The sorts of numbers we are talking about are a bit of something like between 2% and 5%, by dint of companies having to put in this prep and contingency planning. That is a good news story for how big the cost might be looking forward, but of course that has dragged forward some of the costs to ahead of the point of leaving.

**Dr Carney:** As has been mentioned, we are continually talking to firms. Mr Haldane's figures are detailed in the report. On the "as ready as can be" figure, which is the bulk, the three-quarters, I remind you that the view is that their output and employment will go down et cetera. That is the first point.

Secondly, in the last several weeks there has been some shift in the "I am ready or as ready as I can be" to "I am not ready", as we have been talking to firms. Part of that may well be that more and more information is coming out to firms of what they need to do. This is positive, because now they have a better sense of what they need to do and, it would appear, are discovering in some cases that more is required than an EORI number, for example, in order to export. It is good to have and you have to have one, but that is one of many things that are required in order to pull it off.

**Professor Haskel:** One of the interpretations of firms that are ready or as ready as they can be is that they might still be terribly uncertain. They have done everything they can, but they are terribly uncertain. As you will have seen in the report, on most of the metrics we have, firms report being more uncertain about the outcome and the outlook as well.

Q550 **Alison Thewliss:** Are we not all? The *Inflation Report* picked up on the EORI numbers and said that most of the 240,000 UK businesses that trade solely with the EU did not have the registration required. Does this low level of applications indicate that a significant proportion of those businesses that believed they were as ready as possible just were not? Does that indicate a wider sense of complacency or a sense that people have not been told all the things they need to do?

**Dr Carney:** I have a couple of comments on that. First, there are the 240,000 exporters. There is a long tail of smaller firms and, not surprisingly, smaller firms are less informed about what is required. Secondly, as you know, the Government are automatically registering all VAT firms, which should bring the number up to something like 150,000 or so out of that 240,000. Maybe it is slightly higher. That is very positive. The next component, though, is that you need a duty deferment account. There is a series of other things that are required. The key is not just to get firms registered, which is the necessary first step, but to ensure they know what else is necessary in order to continue to, as seamlessly as possible, act as exporters.

The bigger the firm, the more sophisticated, the more likely it is to be ready or to have truly done everything it can do. Then it is fundamentally a question of port capacity, if I can simplify, trade disruption and the underlying economics of the shift, both of which might be considerable. To put a fine point on it, the most sophisticated auto manufacturers in the world are ready but entirely reliant on factors outside their control, whereas some of the smaller firms might think they are ready but just do not know what they do not know.

Q551 **Alison Thewliss:** Would it have been perhaps helpful for the Government, if they had this information in the first place, to automatically register firms in the beginning, rather than waiting until such a late stage?

**Dr Carney:** The only attitude has to be that we are where we are and to improve things from where they are. We would say that we have seen progress since November on a variety of factors. There has been further progress in recent weeks.

Q552 **Alison Thewliss:** Do you believe there is sufficient time to get the firms that are still outstanding registered, from the agent reports you are having?

**Dr Carney:** I honestly do not know.

Q553 **Wes Streeting:** Good afternoon and apologies for arriving slightly late. I am not sure it was worth being in the Chamber for the statement, but there we are. That is where I was. I do not expect your view on that either. Turning to the Bank's latest survey, it is suggesting that household expectations of their own financial situation have held up even though expectations of the general economic situation have deteriorated. I would like your views on three things. First, why do you think households are still confident about their own financial situation, despite having lower expectations of the general economic situation? Secondly,

does this present an inflationary risk? Thirdly, to what extent does households' confidence about their own financial situation explain why consumption has been so resilient?

**Dr Carney:** I will give you the headlines and colleagues can provide the substance. I believe the confidence about this dichotomy is because of the strength of the labour market. As we have gone over, it is not just low unemployment, very high employment, but a very high level of vacancies as well. You are seeing now that job churn has gone back to historic levels. People not only are confident that they have a job and that job is not about to go away, but they could also move to another job. We had been waiting for particularly that job churn to start to happen, because we had expected that once that started to happen wages would begin to firm, and that is exactly what has transpired in the labour market. There is that positive.

Obviously, people are affected by news about the general economic circumstance and the uncertainty around it, and, one would expect, also picking up what is happening in terms of the businesses themselves in aggregate that are not investing. They are hiring but not investing, so that provides some sort of generalised uncertainty. That first bit is linked to the third bit, which is what is driving consumption. Growth in real incomes is driving consumption. There are jobs and wages are picking up. More people have been in work. This is not a debt-fuelled consumption boom. This is people consuming out of income and not beyond.

Does it provide inflationary risk? One of the upward pressures on inflation is the firming of the labour market. We discussed unit wage costs earlier, so wages are increasing much faster than productivity is increasing, and that is providing support to inflation.

**Wes Streeting:** Are there any other contributions?

**Andy Haldane:** It is just a point of detail, but the metrics you mentioned, Mr Streeting, are one of our better indicators of retail spend. Consumer confidence is towards the top of our hit list of what best anticipates future spending. Within that, the category that asks people about their own financial position does a far better job of explaining their spend than their views on the general economy do. What is happening to your own pay packet matters much more than your extent of doominess and gloominess about what is happening in the wider world. That would be consistent with the patterns of spending we have seen through the course of this year, which have held up pretty well, and to some extent have held up rather better than we were expecting.

**Dr Vlieghe:** We have learned quite a bit over the last few years about the distinction between people saying they are uncertain, and therefore generally unhappy about that uncertainty, and it actually affecting spending decisions. Right now, what seems to happen in households is that they have good reasons to be positive about their own finances. As my colleague said, unemployment is low, real wage growth is high and that is underpinning consumption. They do not like what they

read in the newspaper, political uncertainty, economic uncertainty, but it does not seem to be influencing their spending.

There is a complete counterexample of that. We also know that firms are very uncertain about the political environment, their future trading environment, but we have very strong evidence that it is influencing their spending. Even though the effect came through a little later than we thought, it was every bit as large as we thought. We have learned that there are types of circumstance where uncertainty has a big effect on spending and types of circumstances where it does not seem to. The households that have this dichotomy between being uncertain and still spending is one example where it has not or has not yet come through.

- Q554 **Wes Streeting:** When we say they are still spending, is it affecting patterns of spending and spending behaviour? For example, I was talking to a car dealer recently and one of his anxieties was about the number of people buying new cars versus people buying second-hand cars. The trend, as he put it, is that people are buying second-hand cars because they are cheaper. People do not want to go for the stretch of buying a more expensive car, taking out finance to a greater extent than they would on a second-hand car. Are we seeing those sorts of changes in behaviour as a small example?

**Dr Vlieghe:** We are to some extent. Relative to overall consumption, we have seen durables consumption being weaker, so cars and houses have not done as well as overall spending. In the case of cars, some might be related to future income uncertainty, but there is also tremendous regulatory uncertainty. People do not know what sorts of cars will be taxed at what rate. The regulations are changing in quite material ways, changing the cost of ownership of these cars. That added uncertainty is no doubt also having a depressing effect on car demand.

If you go to the housing market, house price growth has been slowing to nearly zero. Activity has been flat, so that certainly has not looked like the kind of market you would expect when you look at aggregate consumption growth, which has been relatively better. Yes, we are seeing some distinct patterns.

**Dr Carney:** The only supplement is to note that, in parallel to these developments, the costs of mortgages and mortgage terms have continued to improve for the borrower. Mortgage conditions are exceptionally loose. Despite that, and despite the confidence about their personal financial situation, the housing market has been relatively soft. This is where investment by a household, the biggest investment they are going to make, the biggest purchase decision, buying a flat or a house, parallels what is happening on the business side, where people are holding off.

- Q555 **Wes Streeting:** Dr Vlieghe, last year you said the UK's low savings rate made you concerned about the vulnerability of households to a downside surprise in income or employment. Does this mean you believe consumption will deteriorate if the UK leaves the EU without a deal and growth is hit as a result?



**Dr Vlieghe:** You need to put a few more conditions on it than just leaving. What it means is exactly what I said, which is that, if there is a shock to income, either directly through real income or via employment, there is an asymmetry. People might respond more strongly to the negative side, by cutting spending, than they would respond to the positive side by increasing spending because the savings rate is already so low. If you want to tie that to a no-deal Brexit, the question becomes by how much income is going to fall and by how much the unemployment rate is going to go up.

There can be scenarios where that is quite severe, in which case, yes, I would expect these asymmetries to be quite material and to affect our analysis. You can think of scenarios where people are relatively better prepared; it is a downside surprise but it is not that big, and therefore it may just be that we see consumption following income in relation to past relationships, and there is not this extra asymmetry from the fact that the savings rate is already low.

**Q556 Wes Streeting:** Playing devil's advocate and being a good Committee member, rather than a partisan one, what would you say to the Prime Minister's note of optimism? There are lots of people out there who voted for Brexit. They still support Brexit. Could we place some hope in the fact that they will be very excited and optimistic? Steve will be out there, spending like crazy. He has got his Brexit. Will Steve and all those other Brexit-voting consumers out there help to boost consumption?

**Dr Vlieghe:** I do not know. That is something we have looked into, the difference of behaviour for people in areas that were predominantly leave and predominantly remain voters. You see a little bit of this overall dichotomy that we see in the confidence data, which is that people who are in leave areas are more optimistic about the future than people who are in remain areas, but they do not particularly spend more. There is exactly that dichotomy that you see in the aggregate confidence data.

**Q557 Wes Streeting:** We could spend hours debating that. I wanted to conclude with one final question on this and then a tangential question if I have time. At this Committee, we have debated endlessly the relationship between productivity and wage growth. Thinking about how things may pan out, do you see a short to medium-term scenario where, because of the labour market conditions you describe, we start to see wage growth increases and that might then have a record on productivity growth? Firms cannot simply rely on cheap labour rather than investing in their own productivity. Is that something we might see?

**Dr Carney:** It would be a conventional dynamic, in this case with wages leading productivity. The conditions for investment are there. Firms are near full capacity. They have relatively clean balance sheets. Financial conditions are very accommodative. The world economy is not as good as it was, but it is still growing and the price of labour is going up considerably. There has been a pretty long period with relatively little investment, so all the conditions are there.

**Q558 Wes Streeting:** But we will see.

**Dr Carney:** But we will see.

**Wes Streeting:** Dr Vlieghe, do you want to come in on that?

**Dr Vlieghe:** Abstract from the whole Brexit discussion for a moment, we have come out of a recovery that has been unusually investment weak and employment strong compared to previous recoveries. That has left us with a number of years of underinvestment, which means just mechanically that there are not as many machines for the workers who are there, and therefore they are relatively less productive. It stands to reason that, as you use up all the slack in the labour market and you start to see an increase in the cost of the additional worker, firms will have an incentive to switch to investing more so they can become more productive and, if you will, the productivity increase can pay for their wage increases, but you absolutely need the sort of economic circumstances that are conducive to make that investment, not just the higher labour costs. You need adequate long-run visibility so that firms are keen to make these investments. At the moment, they are not at all.

Investment intentions, on our own agent surveys, are at nine-year lows. Investment has been contracting in five out of the last six quarters. This kind of environment is extremely rare to see outside of a recession. So we are not there, but, if you think about the next 10 years as opposed to maybe the next one or two years, there is absolutely a reason to think that we can reverse this and have at some point a recovery, which will be investment-rich and employment-poor, because the labour markets are really close to full employment.

**Wes Streeting:** Conscious of time, I will leave it there.

**Mr Baker:** I refer to my registered interest in Glint Pay, which is relevant to monetary policy. Can I first of all put on record my thanks to the Chairman of Court, Bradley Fried, who came, as he offered, to John Hampden School in Wickham? He was absolutely inspirational. He even inspired me on the subject of central banking, so I was very grateful to him.

**Wes Streeting:** I would like to second that. He came to my constituency too, and I had exactly the same experience.

**Mr Baker:** He was absolutely brilliant.

**Rushanara Ali:** Can I third that? Let me thank the Governor for visiting my constituency before the Summer Recess. It was inspirational for the teachers and the kids. One teacher wanted to know what was going to happen to her mortgage.

Q559 **Mr Baker:** I am afraid at the moment that the UK has become rather short term and inward-looking. I want us to be a bit more longterm and expansive. Governor, I would like to ask you about this excellent speech, which I think is one of the most important subjects, as you have known for a long time. This is the speech you made at the Jackson Hole symposium on 23 August, which has not had anything like enough coverage. I just note in passing that in chart 1 trade war is the top tail risk affecting global investors. I cannot help noticing that Brexit happens

to be at the bottom of the chart. There is something in here for everyone, Dr Haldane, including a bond market bubble, I cannot help noticing.

**Dr Carney:** Andy put it on there.

**Mr Baker:** Governor, you gave a brilliant speech, but it is 16 pages of dense argument. I wonder, for the benefit of the public and possibly this Committee member, whether you might just give us the gist of the argument you are making about the growing challenges for monetary policy in the current international monetary and financial system.

**Dr Carney:** Thank you for reading it all the way through to the appendix. The challenge is that we have a fundamental asymmetry in the global economy. Most trade is priced in US dollars: more than 60% of trade is priced in US dollars. A lot of trade in the UK that does not come from the US is priced in US dollars. That is true around the world, so 60% of trade is priced in US dollars.

Almost three-quarters of the reserves of countries are in US dollars; financial instruments are largely in US dollars. Yet the United States is a diminishing share of the global economy. It is now about 15% of the global economy. It is important; it is still the largest economy in the world, but it is not the 40% of the global economy it was after the Second World War when this system began to develop.

This does not matter in the circumstances where everybody is growing at the same rate or the US is weak and the rest of the world is relatively strong, but it starts to really matter when the US is relatively strong compared to the rest of the world and US policy is necessarily tightened, so monetary policy is tighter. That means conditions in most other economies are much tighter than they otherwise would be or should be for their own domestic reasons.

This challenge at the heart of the global monetary system has been increasing with time and is only going to get larger, and furthermore it is amplified by some of the otherwise positive developments in the financial system. Banks are less important and markets are more important, but some of the core elements of markets are, to use a term that is maybe not an everyday term, UCITS, unit trusts and mutual funds. Those are effectively different words for the same thing. They give us as investors—not me, because I am not allowed to invest in them—daily liquidity. We can put our money in and take it out, but they increasingly invest in illiquid assets such as emerging market debt and other things.

That structure of the system makes it more fragile in these circumstances where conditions are tighter in the US than in the rest of the world. There is this asymmetry at the heart of the international monetary system, and it is a fundamental and growing problem that is adding to the challenge we talked about before you came in, which is that there is relatively little monetary policy space for most central banks. The Bank of England still has monetary policy space, but there is relatively limited monetary policy space because that lowers the equilibrium rate of interest. It makes countries save excess money and have greater reserves, and it also makes the system as a whole riskier.

In a perfect world, we would change the system and make it less reliant on the US dollar and more reliant on a basket of currencies. We are far from a perfect world. The last time we had a change in the monetary system was the move from sterling to the dollar, effectively, via the Bretton Woods system. That was quite a bumpy transition for a variety of reasons. There is every reason to think that the transition, if it came, down the road, from the dollar to the renminbi would have similar challenges. In any event, we would just end up with a system that has a single currency at its core, a hegemon, if you will.

Therefore, what would be better? The speech goes through a variety of things about how we should function in this system in the short and medium term, because this is not going to change overnight. It then ends by putting on the table the fact that, in history, what drives changes in the monetary system is how we transact, domestically and cross-border, and what we pay for goods. Since we increasingly pay for goods and services virtually, online, if we change the unit of account that we use online—there are ways we potentially could do that—we could rebalance the system.

I very much appreciate your raising it, because the purpose of the speech is to take a step back and to draw attention to the elephant in the room that nobody talks about, which is this asymmetry. In fairness, you talk about it, but few people do. You are so upbeat that it gets missed. It is the elephant in the room that few people talk about. The purpose of the speech was to start a debate about how we could potentially rebalance the system. It does not pretend that there is a simple answer.

**Q560 Mr Baker:** I am slightly conscious that—it is only a tail risk—this could potentially be my last session, so I am very pleased indeed that you have made this important speech about these issues. You do briefly set out the mainstream view in the speech. You say that the mainstream current consensus in monetary thinking is increasingly untenable, and you go on to say that it is increasingly anachronistic. Given the things you have said here, is it possible to avoid a long-term fundamental structural change in the monetary regime?

**Dr Carney:** There will be a change, measured over decades. It is very hard to predict. That which is unsustainable tends to go on for longer than you think and then happen more quickly than you expect, to paraphrase Rudi Dornbusch, but these structural flaws, in the end, in the system will ultimately result in a change. The relative rise of China will also result in a change. You will have these two forces.

This is the question I am trying to raise: do we get ahead of that change, and do we help manage that change and effect some sort of rebalancing of the system? To be absolutely clear, when I say “we” I am talking about central banks and the public side, as opposed to the private side coming up with an entirely different decentralised system. We may part company at that point on the solution.

**Mr Baker:** I am all in favour of choice.

**Dr Carney:** Yes, exactly. I am in favour of choice, but I just wanted to be clear.

Q561 **Mr Baker:** Thank you. Can I ask the other members of the panel if they share the Governor's analysis in this speech? I feel confident you have probably read it. If you have not, do so. I would not want to unfairly grill you on something you have not read. Dr Haldane, do you broadly share the Governor's views?

**Andy Haldane:** I have read it twice, actually. I do, yes. Interestingly, I doubt there is very much strong pushback on the diagnosis. This asymmetry has been here for quite some while, at least since the breakdown of Bretton Woods. I agree with the Governor that those tensions have become more acute of late as many economies have become in some ways more dollarised, at least in terms of the debt they issue. There is no question that one solution—the Governor floated one in his speech—is a synthetic hegemonic currency.

**Dr Carney:** It just trips off the tongue, does it not?

**Andy Haldane:** It is definitely towards the ambitious end of the spectrum, but now is the time for ambition on these big issues. Broadly speaking, I very much share the diagnosis.

**Mr Baker:** May I ask the other two panellists to come in, please?

**Professor Haskel:** I am very supportive of what has been said. It is a hard nut to crack because, as the Governor says in his speech, these network effects are very strong. When everybody is using one currency, there is an incentive for everybody else to use the same currency. That is a hard nut to crack, but I share Andy Haldane's view that now is the time to be ambitious.

Q562 **Mr Baker:** I would agree with that. For 10 years I have been banging on about the international financial system, and it is going to change. But here we are: we are making progress. Dr Vlieghe, what would you like to add on the Governor's speech?

**Dr Vlieghe:** I made the same point about the impact on the global economy of an asymmetric tightening in the US when the rest of the world is not doing as well. At the beginning of the year I noted that as a key source of the tensions we have seen just in the most recent slowdown, adding on top of the trade war. I do not have anything to add on the long-term solution to this, but it is one of the things we take into account when we evaluate the strength of the global economy.

**Mr Baker:** The Governor wants to come back, and then I will work to wrap up.

**Dr Carney:** I will make a quick point, if I may. I want to link this back, because you rightly started off by taking a step back and looking at the medium and longer term. One of the things we have tried to do as a bank is to step back and think about where the financial system is going. We talked earlier about SMEs, but we have also been thinking about the payment system itself and how that can be improved.

There is a variety of ways in which it is being improved. There are others, but one of the issues, which links back to the speech, is whether there are going to be central bank digital currencies in order for there to be instantaneous costless payments domestically and potentially cross-border, which would be to the benefit of citizens and businesses, particularly small and medium-sized businesses but all businesses.

The question is whether that could happen. The answer is that, yes, it could happen. In fact, Mr Haldane is helping to lead our efforts in thinking about the various ways. There is more than one way you could do it and there are various avenues to do it. But the question is, if you do have that happen, whether it makes sense to do it in a co-ordinated fashion with some of the core central banks. That brings benefits in and of itself from a cross-border perspective but happens to be a component of a more seamless rebalancing of how transactions are priced.

I will finish with this. It is not just about the financial spillovers, although those are incredibly important and they are one of the reasons that the equilibrium interest rate is so low. Dr Vlieghe, in another speech, pointed out why the left-hand tail risk is higher. It is the fact that a disproportionate amount of real transactions, purchases of goods and services, are priced in US dollars even when the two countries have nothing to do with the US and they do not touch the US.

As more and more activity moves online, what is the currency of choice online? Could the currency of choice online be better balanced between a basket of central bank digital currencies, which is not a new currency but is a back-to-back of those? That is the question on the table.

**Q563 Mr Baker:** If I were to pick up what to me is the highlight of what we have heard, you have explained that in the long term—I should emphasise to those watching that this is in the long term—we have a system that is unsustainable and cannot go on. It will go on longer than anyone expects and then will change faster than anyone expects.

In such a moment of change globally, it feels like we will need leadership from a global institution, Dr Haldane, will we not? What kind of institution might provide such global leadership on monetary reform in such circumstances? Where should we look for leadership to move this conversation forward for the whole world?

**Andy Haldane:** There are a number of international financial institutions that are charged with thinking about just these questions, and you know their names. Some of them are also three-letter acronyms. Mark has very much been at the forefront of our efforts as an institution to put ideas on the table for reforming all these things. London and the UK is still home to one of the world's biggest global financial centres, if not the biggest.

Over the years, we have, as an institution, given huge amounts of thought to the redesign of the international monetary system. I hope we can continue very much in that vein. We, I hope, would be among others in—

Q564 **Mr Baker:** I hope so. Can I save you? I am very confident you will be among those, but I am also confident that the IMF will be among them. I promise I will not press you too far on this, but the journalists watching will know where I am coming from. They will have looked at my Twitter feed, I feel confident, and will now. Should the IMF be led by a politician or should it be led by somebody who really understands these issues in detail and can articulate what should be done in order to address these kinds of root causes?

**Andy Haldane:** Is that a question to me, Mr Baker?

**Mr Baker:** I think I have made my point for those watching, but I wish you well.

**Chair:** The country has probably had enough of politicians grabbing posts and meddling with them for quite a lifetime to come. Can I thank you for coming? Just before we finish, it is Mr Baker's last session; it may end up being my last session. I do not know if I will re-stand for this Committee, after this brief interregnum where I am chairing it.

I would make two points, if I may abuse the position of Chair. First, over the years I have been on this Committee, my observation is that with the Bank the biggest weakness still remains an understanding of regional economic behaviour, not company behaviour, but consumer aspiration and economic behaviour. There is not one economy in the country, and we see that in political behaviour as well.

I still think we have not developed the tools, despite the brilliant agent network that I have witnessed many times. It is brilliant and needs commending. We still have not created the analytical tools for breaking that down, and that is a weakness in our economy. We suffer in relation to one or two other economies that, for whatever reason, not necessarily analytic analysis, have managed to develop their regional economies more effectively than we have. I will leave you with that thought.

Secondly, I am sure I speak on behalf of all the Committee here, but politicians have created extra workload and hassle for your good selves. This is going to continue, doubtless, but they have done it for three years. Throughout this time—I know it will continue—the openness, honesty and integrity of the responses we have been given, the approach of external members of the MPC, the core of the staff, the senior representatives and you as Governor, Dr Carney, and the willingness to come in front of us and be straightforward with us, has been without exception and continuously exemplary. It is a model to every other organisation in this country and across the world. That ought to be put on the record. If you would, take our thanks to your other colleagues, in particular the staff of the Bank, for the hard and industrious work they have had to put in, a little bit beyond the call of duty over recent years.

As the Treasury Committee, we—I am lucky that I am speaking as "we", not just "I", but also as "I"—deeply appreciate that. Please take that message back. Whether it is this Committee or another Committee, if we are back here in the same Parliament after proroguing or whatever, the Committee looks forward to seeing you again. Thank you very much.