



Treasury Committee

Oral evidence: [Bank of England December 2014 Financial Stability Report](#), HC 912 Wednesday 14 January 2015

Ordered by the House of Commons to be published on 15 January 2015

[Watch the meeting](#)

Members present: Mr Andrew Tyrie (Chair); Rushanara Ali, Steve Baker, Mike Kane, Mr Andrew Love, Jesse Norman, John Thurso

Questions 136 - 216

Witnesses: **Dr Mark Carney**, Governor, Bank of England, **Sir Jon Cunliffe**, Deputy Governor, Financial Stability, Bank of England, **Dame Clara Furse**, External member, Financial Policy Committee, and **Martin Taylor**, External member, Financial Policy Committee, gave evidence.

Q136 Chair: We will begin because there may well be a vote at 4.00 pm, so we will try to get our business done by then.

First of all, thank you very much, all four of you, for coming to give evidence to us this afternoon. Of course we have had the inflation figures out, which we will want to discuss with you on another occasion—I think you are coming on 24 February—because those figures raise some important questions for forward guidance and whether interest rate rises are now further off than before and what the implications are of senior politicians welcoming an outcome that you are going to be writing a letter about, among others. We will be looking at those matters in due course.

For today, I would like to begin with a question to anybody except the Governor, so I think I might start with Sir Jon Cunliffe—only because he is out there as a wingman. I note that in the remit letter for the FPC, the Chancellor requires, “That communication by individual members regarding FPC decisions needs to be co-ordinated and consistent where decisions are reached by consensus”. Consensus is generally formed as a consequence of a spectrum of views. Where you are at one end of that spectrum, are you going to tell us, or are you going to just stick to the consensus?

Sir Jon Cunliffe: Was that MPC decisions or FPC?

Chair: FPC.

Sir Jon Cunliffe: FPC decisions.

Q137 Chair: That is an interesting question in itself, bearing in mind this is quite an important piece of guidance that has come from the Chancellor on this subject.

Sir Jon Cunliffe: I am clearly within the consensus because we have taken decisions on the FPC and we have recorded them on that. I set out some of my views on some of the issues that the FPC has opined on—on housing, on leverage, on ‘too big to fail’ and capital—in a number of speeches over the last year, and I can go through the individual positions in detail. They are all within the consensus.

Q138 Chair: I am asking you about a case where, as will inevitably occur, you do not fully agree with the consensus but a consensus has been formed, because there can, by definition, only be one consensus and you are being asked to operate by consensus, and whether you are going to express an inconsistent view publicly about it, or whether we are always going to get a united front from the FPC, whatever we ask?

Sir Jon Cunliffe: My understanding of the remit under which the FPC operates is that we are enjoined to try to operate by consensus but we have the ability to vote if necessary.

Q139 Chair: So you are only going to give us a sense of the discussion that takes place prior to the formation of the consensus if a vote has taken place

Sir Jon Cunliffe: I think the record gives quite a good description. The record of FPC meetings gives quite a good description of the discussion that takes place and the various views. Individual FPC members put out their views, as MPC members do, in speeches. The point at which one would come out and say, “I hold a view that is contrary to”—well, it cannot be contrary to the consensus because there isn’t a consensus if you hold a view contrary to it—but, “I hold a view that is contrary to where others are in this,” the following vote will be different.

Q140 Chair: So you can give us an assurance that, as far as you are aware, the FPC record will not reflect just the balance of arguments but will set out individual views prior to that balance, that consensus, being formed.

Sir Jon Cunliffe: The FPC record will set out the views formed but it will not set out, I think, as a matter of course, or ascribe the views to individual committee members.

Q141 Chair: Martin Taylor, do you have anything you want to add to that? You appeared to be thinking very hard as you were listening to those exchanges.

Martin Taylor: I am better at appearing to think than thinking, Mr Chairman.

I have been considering this matter because over the last few days I have been filling in the questionnaire that was sent to me by your Clerk for my reappointment hearing in a couple of weeks, and this I think is question 15 of the questionnaire—all about the consensus and how it is formed. It is a tricky question because the code of conduct of the FPC specifically forbids FPC members to express views or to give detail of the discussion in the meeting that are not in the record. So it follows that only a view strong enough to—

Chair: Trigger a vote.

Martin Taylor: —to trigger a vote, or where a member would say, “I would like a minority view to be recorded,” would fall into this category. Personally, I can say that I have had no difficulty in the last couple of years in remaining in touch with the consensus, by which I mean that my differences from where the committee has got to have been, if not trivial, at least not important enough to—

Q142 Chair: My questions relate to a hypothetical situation—trying to prepare for that situation before it arises.

Martin Taylor: I think that if a member or members seriously disagreed with the consensus they would say so. I think that is well provided for. It would have to be a quite a serious disagreement. The bar on disagreement has been set higher by Parliament for the FPC than for the MPC, it seems to me.

Q143 Chair: And by the Chancellor in that letter, yes.

Martin Taylor: By the Chancellor in that letter, yes.

Q144 Chair: I think it is by the Chancellor in his letter more than by Parliament and maybe that is something we might return to on another occasion.

Before I move on is there anything you want to add, Dame Clara?

Dame Clara Furse: Yes. I would say that we do go through a consensus-building process. We have a number of meetings before we get to the policy meeting where we have very live discussions on the issues. I would say that I certainly bring a different perspective to some of those discussions—on leverage, for example-...

Q145 Chair: If you could just keep to the point that I am really asking: not have you been performing in an independent way, but how is it that we can have confidence about the exchanges that might need to take place but that we might not ever hear about, given the restraints that have been placed on you by the Chancellor’s letter?

Dame Clara Furse: I think the record does indicate that there is discussion and that different views are expressed, which then clearly suggests that a consensus-building process has taken place that has taken the decision in a different direction.

Q146 Chair: Okay. Governor, can you give us an assurance that these minutes are going to be written and continue to be written in a form that is going to fully reflect that wider set of views prior to the consensus being formed?

Dr Carney: I can give you the assurance and I would put the emphasis on the words you used—“continue to be written”—because they are an accurate representation.

Q147 Chair: Is there anything I have just asked you to do there that you are not going to be able to give me an assurance about?

Dr Carney: Not going to continue to do, which is what you asked. The record is an accurate description of the discussions, the decisions formed and the issues that are weighed by the committee at the policy meeting. All the meetings up to the policy meeting are to develop those discussions, the analysis around it, and to help form that consensus, but it is a consensus that is formed around issues and—

Q148 Chair: I think we are going to need to return to this subject. I expect it is going to be a source of further exchanges between us on behalf of Parliament and the Bank, but I don't think we need to pursue it further now.

Governor, do you think that it is possible for regulators to be able to spot turns in the business cycle any better than anybody else?

Dr Carney: I would say not necessarily any better than anyone else. I think we have a responsibility particularly as macro-prudential authorities to have a sense—to develop our sense, and importantly to develop institutions' and markets' senses—of the implications of turns of the cycle and particularly not so much turns in the cycle but tails within turns.

Q149 Chair: Tails are a very different matter. It is the turning of the cycle—spotting the cycle.

Dr Carney: If I may, Chairman, I don't think the proper conduct of macro-prudential policy or macro-prudential management, should be dependent on market or cycle timing. If one is reliant on making very fine distinctions and very timely distinctions, then the policy framework is wanting.

Q150 Chair: I think that is an important point. I don't think that is a point of difference. It is just important. Although we have great respect for the Bank, the Bank does not bring any superior wisdom to the piece on the shape of the business cycle. You have answered that question with a no: you agree with me that you do not.

Dr Carney: The Bank, operating to the fullness of its abilities, its policy scope, can potentially bring better information or broader information and a broader perspective to those judgments, but I would not overrepresent that.

Q151 Chair: On the stress tests, you are only producing one stress test really, or one set of outcomes that join together to form a stress test. Do you think you need more than one stress test or one scenario on the basis of which those should be formed?

Dr Carney: I think several things, if I may take a moment on this.

Chair: Not too long, if that is all right, unless you want to put it in writing, because there are so many colleagues who want to get in.

Dr Carney: All right. I think it is important to recognise that to run a proper stress test, certainly from the FPC's perspective—from a macro-prudential perspective—the stress test should be coherent. In other words, it should not be an individual set of shocks to institutions, but it should represent a broader macro scenario. You use the term a turn in the cycle. What we actually looked at here were two major shocks, one emanating out of Europe that came from the EBA stress test—and we can go into further detail—which had various consequences for spreads and curves steepening and other factors; and one that addressed what in our judgment was the largest domestic risk: a shock to housing. But we did not just shock housing—we did not just change the price of housing. We used a coherent macro scenario that involved a balance of payments crisis.

Q152 Chair: You, like the EBA and the PRA, are using just one scenario for your stress test. The question is this. Do you think there is merit in considering using more than one?

Dr Carney: Two points. First, the stress test that we undertook had multiple stresses embedded in there—multiple stresses, multiple major stresses—so it slightly mischaracterises it to say that is as if we just looked at one factor. Secondly it is part of a stress test programme. There will be another stress test this year, which will look at a different scenario that is complementary. We run supervisory stress on individual institutions through the PRA; that is informed. We also do stress surveys—for example, the stress surveys of hedge fund snapback risk, which we conducted at the FPC's initiative over the course of the last few years. So, yes, you have to look at multiple things, but in order to do a proper stress test that has potentially capital consequences for the institutions, it should be integrated, it should be thorough, it should be coherent and if it is all of those things then it has multiple implications and multiple stresses for each institution in ways that are consistent.

Q153 Chair: I understand. That is an interesting and full answer. Do you think regulators—I am not pointing the finger particularly at the Bank—have an incentive to design stress test scenarios that are concerning enough to look credible but not so concerning that they dent confidence? In other words, isn't there moral hazard in stress test design?

Dr Carney: No, I would not say that—I certainly would not say that. I would disagree. We objectively develop these stress tests, but one could easily mount the contrary argument that in order to have a quiet life one designs a stress test that will have consequences and further gold-plates, if you will, the capital of the institutions.

Q154 Chair: Will the Bank always publish stress test results even if they mean that they reveal a large capital shortfall?

Dr Carney: Yes. I would say—obviously I speak under control of colleagues—the disclosure that we gave in this stress test would be the minimum disclosure in future stress tests. If I may add, these stress tests had capital consequences for three of the institutions.

Q155 Chair: They did, yes. Do you think over time there might be a case for a stress test on the stress tests? After all, we are relying on them very heavily. For example, might it be useful to ask a group of outside experts—for you to commission a group of outside experts—to assess the credibility of those scenarios and to the extent it is possible also take a look at the modelling that you are using?

Dr Carney: I think there is every merit in that and I will make two comments. First, we have the IMF's FSAP this year. That is a group of outside experts that would be qualified to provide some perspective on this, and there is merit in co-ordinating the stress test with that process. The IMF would do their own stress test but we can co-ordinate with them and if Parliament wishes they can provide an independent perspective to the broader public and the Bank. It is certainly in our interests to learn as well. That is the first point.

The second point in terms of stress and stress tests is a methodological one. There is utility in conducting effectively reverse stress tests from time to time, so going to institutions or the system as a whole and answering the different question, which is: what would it take in order for minimum capital standards to be breached across the system? So, yes.

Chair: These are interesting areas and no doubt we will come back to that again as well.

Q156 Jesse Norman: Welcome, gentlemen. Following up on that, Governor, you said you do not think regulators have an incentive to cook stress tests, but you seem to disagree on that point with the EBA, because the EBA has a French national running the stress test on Deutsche Bank, a Spanish national running the stress test on BNP Paribas and so on. They obviously are worried about the possibility of regulatory capture by these institutions. What is different about their situation and yours?

Dr Carney: I don't think it is for me to comment on the EBA. I would say that we have a robust approach to stress testing at the Bank of England. It is absolutely core to our macro-prudential management. We take advantage to the fullest extent of our abilities at this point—we are trying to learn—and of the institutional structure that Parliament has given us in that we do both bottom up, micro-prudential using the PRA, and top down, macro-prudential with the FPC, approaches to stress testing, which provides multiple checks.

If I may make one macro point: one of the things we can do as the Bank of England, and it is our responsibility as the MPC to do, is to cross-check in effect what is coming from the institutions themselves. So they have their model—I know Mr Baker is a big fan of them—and micro-prudential supervisors review the results of those. They run their own models, their own tests, on a micro level, but then we as a committee look from

a macro perspective—“Given the changes in unemployment, given various changes in the path of GDP, interest rates, exchange rates and so on, are these plausible results?”—and adjust those results from a macro perspective. It is something that we can do at the Bank in a co-ordinated way with individual accountability of the committees that is not readily done in other jurisdictions.

Q157 Jesse Norman: Okay. That is helpful. Thanks. How accountable do you think regulators ought to be?

Dr Carney: How accountable? We should be fully accountable, I would say.

Q158 Jesse Norman: Okay. You have done a very good thing by publishing the court document last week; I think we can congratulate you for that. To the Chairman’s previous question, you said you planned to publish the results of individual stress tests and that what you have done so far is just a beginning. Could this principle be extended? Would you be prepared to publish, after the event, the way in which individual people voted, or other decisions that have been taken within the Bank, after the event, when they can no longer, as it were, do reputational damage within the market at the particular moment, just so that those around the Bank can check that processes were adequate and that you are operating on a full deck of cards?

Dr Carney: As you are aware, no doubt, with respect to the MPC, the votes are published. We have changed the framework so that the Committee, the British public and the markets will know when we announce the decision what exactly the votes were and that is coming in. Then we will be publishing the transcripts of those meetings subsequently.

With respect to the FPC, we will publish votes if there is a vote—to go back to the earlier exchange and I won’t repeat it—including the arguments around it. There has not been a vote in my time as chair. The Warsh report, which recommended the changes to the MPC process, which we fully accepted and are implementing, also looked at similar questions for the FPC. Given, first, the complexity of it and the disparate nature of macro-prudential decisions, and given the relative newness of this process, it recommended that we do not at this stage record and publish transcripts in the future, but it is something that we will revisit no doubt.

Q159 Jesse Norman: But your general principle would be, would it not, that in line with transparency and accountability, broadly speaking, decisions taken by the Bank, at an individual level as well as collectively, and the information on them should be capable of being published after a period of time long enough to neutralise their effect on market sentiment at a particular moment?

Dr Carney: If I may, Mr Norman: the principle should be—

Jesse Norman: You could say yes, Governor.

Dr Carney: I think it is important because I could say yes to that for the purposes of the FPC and then not publish anything because there are not votes.

Jesse Norman: Sure.

Dr Carney: Let's take the example of Scotland and the contingency planning we undertook as the FPC for Scotland, which is within the past year. There were not votes in that case but a tremendous amount of work was undertaken. What we did to be accountable is that, as soon as it was appropriate, we published an FPC record of those discussions, which very clearly in our view—and we are happy to answer any questions about them—illustrated the types of steps we had taken and we would have implemented in the event of a different outcome in the Scottish referendum. So that is way that the FPC is accountable in real time.

Q160 Jesse Norman: But, for example, you would publish calculations you have made about reserve requirements over time, would you? Would that be a part of the disclosure you are talking about?

Dr Carney: There are two points here. One is—I think asking a separate but related question—information with respect to individual firms. Since we have a macro-prudential orientation, we do not—

Q161 Jesse Norman: Yes, sure. But were there a future Central Bank of Scotland, what reserve requirements—

Dr Carney: Oh, I see, in terms of their foreign exchange reserves. Yes, I am certainly happy to answer your questions on that.

Q162 Jesse Norman: But you will publish that at some point, will you, Governor?

Dr Carney: What I would say is that consideration can be given to in the fullness of time publishing relevant papers—papers that were relevant to the policy decisions of the FPC—consistent with the spirit of the Warsh recommendations to the MPC, but that is a separate decision that we have not taken.

Jesse Norman: That is a very “Yes, Minister” answer, if I may say so: *inter alia*, *ceteris paribus*, subject to the usual caveats.

Dr Carney: What that answer was intended to say—let me strip it down—was that you have raised an interesting point and perspective and we will consider it to ensure that we have adequate accountability. I am sorry, I am going to lean on the example of Scotland because I think that if anyone reads that record of that series of meetings, it is very clear the work we did and the steps we would have taken, which is relevant for understanding both how the FPC operates and the potential macro-prudential risks of a scenario like that.

Q163 Jesse Norman: That is very kind of you. I was going to come on to Scotland. What is your judgment of the effect of the decline in the oil price on the Scottish economy?

Dr Carney: The effect of the decline—

Jesse Norman: There are things out there in the market suggesting it is a £6 billion hole in the GDP of Scotland.

Dr Carney: The change in the oil price is net positive for the United Kingdom economy. It is a negative shock to the Scottish economy, but it is a negative shock to the Scottish economy that is substantially mitigated by the fiscal arrangements that exist in the United Kingdom—the automatic stabilisers that exist: less revenue taken out of Scotland, more spending into Scotland—and by the nature of the economic and financial union that exists in the United Kingdom and continues to exist.

Q164 Jesse Norman: What is Bank's estimate of the hit to GDP from the oil price decline in Scotland?

Dr Carney: As you know, the estimates and the forecasts that we make for the economy are for the United Kingdom as a whole. We do not make regional estimates.

Q165 Jesse Norman: Not even internally, ones that you could not publish?

Dr Carney: We make monetary policy for the economy of the United Kingdom as a whole and we conduct macro-prudential policy for the United Kingdom as a whole.

Chair: We are going to come back to oil prices.

Jesse Norman: That is very kind. Thank you.

Dr Carney: I would reiterate that our view—let me make it my personal view—is that the net impact of the decline in the oil price at this stage is net positive for growth in the United Kingdom, but the precise numbers and estimates around that will come with the next MPC.

Q166 Jesse Norman: I just wanted to pick up on one of the points about Scotland you were raising.

Mr Taylor, do you think regulators in general have a good record of identifying the sources of risk to financial stability?

Martin Taylor: I don't think regulators have a better chance of doing that than anybody else. I don't think that regulators in general have a forecasting advantage. On risks to financial stability, there are those that are in full view and there are those that are not. I think that it behoves regulators to make sure that the core of the system is resilient, so that when risks that were not foreseen materialise, the system can cope with them.

Q167 Jesse Norman: Do you worry, as I do—I will just conclude—that stress testing needs to focus certainly on the European dimension, on issues of deflation, rather than issues of financial shock?

Martin Taylor: May I just revert to what you started off by asking the Governor and that picked up on the Chairman's remarks? I was surprised that anybody should

imagine that the scenario we designed for the 2014 stress test was not a very severe one. It did not seem to me that there was any holding back, either out of regulatory timidity, which I do not see in the Bank, or out of fear of scaring the public, because if the public were going to be scared by a stress test I think they would have been scared by this one, frankly.

I think we have to be careful how much—

Q168 Jesse Norman: My worry is not about severity. It is about direction.

Martin Taylor: Right. It is always going to be the case, I think, at least for the foreseeable future, that there is quite a long lapse of time between the invention of a stress test and the publication of results. It will be a year, give or take, because if you think about it we are now designing the scenario for the stress test for 2015 and we are basing it of course on the risks that we see at the moment, which are the risks that were set out in the December FSR, extended by what has happened in the intervening weeks. When we publish the scenario, which will probably be in April, something like that, the banks will then work it through and we will get the results in the autumn. Now the chances are that by the time we get to the autumn, the world will be worrying about other things as well as the things that we put into the stress test. So you are always going to have this possibility of saying—

Jesse Norman: Trailing edge problem.

Martin Taylor: —why did you design the stress test you did? That is just the way these things work at the moment. It is important to understand first of all that we are not relying on the stress tests alone for the capital resilience of the banking system. If we were, this would be a serious weakness. As we are not and the stress tests are merely a help, I do not think that matters terribly.

I was not present, but I saw the transcript of the press conference that the Governor and colleagues gave when the stress test was published. One journalist said, “Why haven’t you got the problems of Russia following the falling oil price into the stress test?” The answer is that: this was baked eight months ago. Now that is going to be the situation and we need to understand that. It is a fundamental issue of stress test design.

Q169 Steve Baker: Good afternoon. The IMF wrote in their global financial stability report that “accommodative monetary policies have...facilitated greater financial risk taking”. In other words, as usual, easy money has led to excess speculation. We have below target inflation and a Bank equipped and willing to put inflation back on target. Do you think the objectives of the FPC and the MPC are now coming into sharper conflict? Perhaps, Dame Clara, I could ask you.

Dame Clara Furse: We are certainly planning to have more meetings with the MPC in future. I think four meetings are scheduled for this year. So it is pretty clear that we have, let’s say, an alignment of interests and a need to work together and certainly not in conflict.

It was something that we discussed in about the middle of last year—the potential for the FPC and the MPC to go in different directions—and we are certainly alert to that possibility. Having said that, I think it is too easy to jump to conclusions about the impact of QE on markets, and in fact one of the Deputy Governors, Ben Broadbent, recently gave a very interesting lecture on this—I think in October of last year—that looks at the relationship between interest rates and asset pricing. What he concludes is that there is a natural decline in the level of interest rates and it is possible that QE may have accelerated that, but the relationship between bonds and equities for instance has been changing for at least 15 years—equities have been underperforming relative to bonds for 15 years. So I think it is an interesting question. It is right to be asking questions about the impact of liquidity on market behaviour and on asset pricing but the story is much more complex than it seems.

Q170 Steve Baker: Do you accept that the current bank rate is still extraordinary if not emergency? Notwithstanding the idea that the natural rate of interest is becoming lower, do you accept that the current rate is still extraordinary if not emergency?

Dame Clara Furse: I would not use that word. I think it is appropriate. Extraordinary, yes, relative to the last five years, 15 years and relative to the last 20 years, but I would say it is appropriate.

Q171 Steve Baker: Sir Jon, are those two committees' objectives now coming into conflict?

Sir Jon Cunliffe: Let me answer that on a number of levels. First of all, the relationship between economic stability and financial stability is not one way or the other, so you could do a thought experiment and ask what happens to the economy if monetary policy is not able, if you like, to smooth the path. So, for example, you mention accommodative monetary policy, quantitative easing, which did push people out on the credit spectrum, in order to encourage lending to corporates. You could think about what might happen to financial stability if that is not done and you get a period of economic instability; that could also have impacts. So I do not think it is a straightforward one in conflict with the other.

The important thing to bear in mind is that the FPC and its financial stability objectives and tools provides the first line of defence—and maybe the second and third lines of defence—for financial stability and enables monetary stability to deal with its job of smoothing the path of the economy, without having to divert monetary policy to deal with specific sectoral problems, which it can do but which carries a high collateral cost for the rest of the economy. So I see the two not so much as objectives in conflict. I see financial policy and the FPC as able to provide some lines of defence that allow monetary policy to concentrate on its core task. However, when the MPC was operating under the first forward guidance, it made it clear that it looked to the FPC to tell it if there were financial stability issues arising as a result of the forward guidance. I would not say that is in conflict. I think that is the two committees operating in a co-ordinated way.

Q172 Steve Baker: If the two committees are going to be co-ordinated like this, why have two committees? Why not just have a single committee that looks at all the risks?

Sir Jon Cunliffe: I have heard people make the case for that. There is a case and set of arguments you can make for that. I would say a number of things. Financial stability is connected to monetary stability; it is also connected to micro-prudential regulation. If you think about the stress test that we have just done and the extent to which we have co-ordinated macro-prudential and micro-prudential in the PRA and the FPC, I think taking all those issues into the MPC would make quite an unwieldy and difficult range of issues to deal with. The second thing I would say is that financial stability overlaps with monetary policy, it goes to many of the same issues, but it does come at it from a different perspective with different objectives, and while one cannot be absolute about this, trying to keep one instrument as much focused on one objective is a sensible way forward.

Q173 Steve Baker: Martin Taylor, are you relaxed about this issue the IMF has identified of accommodative monetary policy facilitating greater financial risk taking? Is that something you are relaxed about?

Martin Taylor: In the FPC context, I do not see a conflict so much, as my colleagues have said, as the possibility for one committee to offset the work of the other. Just as we are used to the idea that fiscal and monetary policy might pull in different directions, I think you could have monetary policy and macro-prudential policy pulling in different directions.

Q174 Steve Baker: Governor, you said earlier that the minutes are accurate, but the minutes of 8 December and 15 December do not contain any indication that you considered this particular problem. Are they an accurate record or did you just not consider this interplay between monetary policy and risk taking?

Dr Carney: You have no doubt read the Financial Stability Report that came out alongside those meetings, written and approved by the FPC. One of the main risks discussed in there and one of the focuses of our analytic work and our discussions have been conditions of liquidity in financial markets, illusion of liquidity, potential excessive risk taking. There are multiple potential causes of that or contributors to that; one of those identified and discussed is the stance of monetary policy and the consequences of being at zero lower bound and having, in effect, asymmetric interest rate risk, despite the realities of some central banks marginally being able to marginally lower interest rates to below zero. That does contribute, so it is within that context.

In the interests of time, let me just fully associate myself with the responses of my colleagues. There are huge complementaries here and it is important that these committees work together but that is not the same as having a monolithic committee with multiple objectives. The risk would be that a monolithic committee that extended from micro-prudential to monetary policy with macro in the middle would be forced itself to choose on which of those two objectives to concentrate, as opposed to, in the end, after we have joint discussions, we go back into our individual committees and recognise our primary responsibilities and act in order to fulfil those. As Sir Jon just said, if it is the case that the FPC judges that there are risks to financial stability caused by the stance of monetary policy or caused by the stance of some aspect of micro-prudential supervision or

regulation, and we cannot mitigate those with our other tools, it is our responsibility to stand up and either give recommendations or directions, publicly, to the MPC. That is not the judgment of the FPC.

Q175 Steve Baker: The committee advised me that the treatment of this issue is rather more detailed from the Bank for International Settlements, the IMF and the US Office of Financial Research. Are you satisfied that the Bank of England's analysis of this issue compares well to those institutions, or should you be publishing an analysis in more detail?

Dr Carney: If you could be more precise, when you say "those issues", the issue being?

Steve Baker: The issue of monetary policy encouraging greater financial risk taking specifically.

Dr Carney: Let's just take that sentence. The issue in virtually every advanced economy is the need for monetary stimulus in order to achieve the objectives of a given institution objective, in our case given to us by Parliament. In order to achieve that there is a need for monetary policy to encourage risk taking, by definition—that is the objective. That is so patently obvious I am not sure it needs deep analysis. The question becomes: is it excessive? Does it bring into peril financial stability and does it bring into concern the secondary objectives of both the FPC and the MPC, which are shared, to support the Government's economic policy, and more specifically strong, sustainable and balanced growth?

In that regard the FPC has taken a number of steps to fulfil its mandate in order to promote that, to promote its primary and, by consequence, its secondary objective ranging from issues in housing to stress testing and building resilience in banks, and to work more behind the scenes but that we talk about at our meetings and publish, to develop changes to the functioning of repo markets, for example, to smooth some of these cycles. There is a very substantial series of policy actions we have taken to mitigate these risks.

Q176 Steve Baker: As ever, a very helpful answer. We have just agreed that monetary policy is deliberately increasing risk. I think that is what you have said. We know from our previous exchanges that the models are not as perfect as they might be at representing risks out there in the financial system. That then leaves us that we are reliant on the committee's judgments to ensure that the risks promoted by one committee are still consistent with the objectives of the other committee. Is that the position we have reached? I think it is, if I have understood what you have said to me.

Dr Carney: Nothing is ever perfect and your summing up is a somewhat imperfect representation of the exchange. The monetary policy is leaning against a predisposition in financial markets in the real economy to take less risk, and less risk to the extent—to some extent an understandable extent—that means that in the judgment of the MPC the economy is operating below potential and, as is patently obvious, that inflation is below target, so it does in that environment make sense.

Dame Clara Furse: May I just add that it is about excessive risk taking, is it not, because some risk taking is a good thing? I was trying to point out earlier that there is not much evidence of that. You would normally expect an environment that sees excessive risk taking to see an outperformance of equities over bonds and the opposite has been true.

Q177 Steve Baker: With all this conversation in mind, is there anything to be learned for our financial stability from the taper tantrum that occurred in the US in 2013?

Dr Carney: Yes, I think so, and part of it is reflected in the discussions of the FPC, the analysis we have done, and in the December and previous Financial Stability Reports. May I have two minutes on this, on liquidity conditions in markets? The taper tantrum and the events of 15 October as well in the US Treasury market, which is, after all, one of the most liquid markets if not the most liquid market in the world, demonstrated a bimodal aspect to market liquidity at present.

In our judgment, I would characterise it as there are three aspects of liquidity in markets and transitions of liquidity in markets that are potentially underway. The first goes directly to monetary policy, which is that the stance of monetary policy in the major economies has had a consequence of lowering volatility and giving a greater sense of liquidity that is sometimes temporary in markets. There is a benign, if you will, transition of liquidity and volatility that we would expect to come as interest rates increase. The timing of that is uncertain but as interest rates increase you expect an increase in volatility in markets, just because of that very fact, moving away from zero lower bound.

The second thing is we would expect higher liquidity premia in markets—we go into some detail in the report on this—because of design, in effect. We have moved liquidity risk increasingly into the private sector for moral hazard reasons, for better risk management reasons, and that is not fully reflected—in fact, until very recently it has not been reflected—in asset pricing. You look at on/off-the-run Treasuries: the liquidity premia there are a fifth of what they used to be. It is just one example. We give other model-based examples in here.

The third reason why there may be increases in volatility and sharp jumps in liquidity, given the first two, is, if I can keep the mnemonic, malign reasons—shocks, things happen. They can be geopolitical; they can be economic or financial events.

All those factors can operate, so in general the lessons we draw as a committee, first, is that it reinforces a view that we have had for some time that we are not going to be better than anybody else in calling the timing of when volatility and liquidity increases, but we have had a fairly strong view on the direction and the consequences of the direction. What does that mean for building the resilience of the core of the system? It is part of the reason why we stressed interest rate shocks and curve steepening as part of this stress test. Is there adequate capital? Is there adequate risk management as part of the supervisory focus of the PRA? It is why we are looking at market infrastructure and market norms, including haircuts in repo and other markets, to prepare for this new equilibrium, a higher volatility environment. I would stress that does not mean we can insulate market participants from this, but our judgment is to reinforce the core of the system against this risk.

Q178 Steve Baker: I am going to have to stop, but one thing you did not mention was expectations, and the Bank has said that assets have had their prices raised by QE. Surely as interest rates rise, market participants' expectations will change and as a result asset prices will shift because of expectations?

Dr Carney: Yes, expectations are a huge element, as you know, of any asset price. The question is why interest rates rise. If they rise in a growth scenario and normalisation, a true normalisation balanced growth scenario, it can be asset price supportive. Fundamentals can grow into asset price levels. But equally, and I am sorry to bring it back to the stress tests, if interest rates rise in an adverse scenario, which is what we stressed against—to put it simply, a balance of payments crisis—then you have quite a different response of asset prices, in this case the housing market, with very different consequences for financial stability.

Q179 Chair: While we are on the subject of liquidity, looking at it from a different angle, quite a number of the market participants are complaining that the pre-trade transparency that is being pressed by MiFID 2 will reduce the price that somebody can get a trade and therefore discourage liquidity, and therefore there is a trade-off between transparency and liquidity. Has the Bank looked at this and, in particular, have they found any markets where this might have been taking place?

Dr Carney: As you know, Chairman, maybe others are not following as closely, but MiFID 2 is just out for consultation on exactly this issue of pre and post-trade transparency, so it is something we are starting to look at. One economic point first: there is some experience that by improving transparency, both pre and post-trade in markets, more participants are drawn into the market, in part because there is less opacity in the market. That can, if the balance is struck appropriately, improve liquidity in markets.

The second point I would make before giving an example or two is that it depends on the nature of the underlying markets. There are different structural characteristics of certain markets. In fact, we go through that in a box in the FSR, so there are different thresholds there. There is some experience in North America around futures exchanges; there is some experience in Japan, I believe. We would be happy to revert to the Committee with some views if that is of interest.

Q180 Chair: It is of interest and we need to form a view on whether there is any substance to the concerns that are being expressed. If there is, we have a problem because we are going to be reducing liquidity when we increase transparency—a paradoxical effect one might think. Is it the Bank's position at the moment, though, just to be clear, that in general pre and post-trade transparency is going to be good for liquidity and reduce margins and increase fairness in markets, as one might suppose?

Dr Carney: There are reasons to make those statements—

Chair: You are hesitating.

Dr Carney: I am hesitating for a good reason, which is this is one of the things that the Fair and Effective Markets Review is looking at and so I think we would all benefit—

Q181 Chair: You are looking at this as part of the review.

Dr Carney: Absolutely, and if I may, Chairman, as you know, the FCA has an interest in this and they are part of that as well.

Q182 Chair: Are you also looking in that review at the issue about the creation of dark pools, fragmentation of platforms, on the grounds of competition, which may have had again deleterious effects to liquidity?

Dr Carney: Just for absolute clarity, the Fair and Effective Markets Review is looking at fixed income currency commodity markets, so it is not looking at those issues with respect to equity markets, which has been a hot topic, including on this Committee, and is the responsibility of the FCA—and they are taking those responsibilities, to be clear. But these questions of algorithm trading—

Q183 Chair: They are heavily involved in the Fair and Effective Markets Review.

Dr Carney: They are heavily involved but these issues around algorithmic trading, electronic trading platforms, they are emergent issues in fixed income markets. If we go back to Mr Baker's questions, maybe a little less so on the taper tantrum but more recent events in the Treasury market, there is some evidence that they may have contributed to some of the volatility jumps there, so it is a matter of interest.

Q184 Mr Love: Governor, can I turn to the eurozone? How serious are the deflationary pressures in the eurozone?

Dr Carney: The eurozone has experienced persistently low inflation as opposed to deflation. I obviously defer entirely to the judgment of the governing council of the ECB, but the best way to analyse that is to look at the path of core inflation in the eurozone in the last several years, because there was a number of distortions from indirect taxes. That has been consistently lower than 2%, which of course is the target for total CPI, so persistent low inflation, which causes some challenges, given the ongoing leverage of both the public and private sector in a number of those constituent members. I would just draw attention and agree with the orientation of the governing council of the ECB that additional stimulus would be consistent with achieving their inflation mandate.

Q185 Mr Love: I will come to that just in a second, but there has been a lot of discussion in the UK context about good deflation and bad deflation, with bad deflation being defined as where it has an impact on consumer expenditure and business investment. Do you think we are anywhere near bad deflation in the eurozone context?

Dr Carney: I would draw a distinction between the inflation performance in the eurozone and the United Kingdom—

Mr Love: I was not trying—

Dr Carney: I know, but just for the avoidance of doubt. I would characterise the situation in the eurozone as being one of persistently low inflation and low inflation inconsistent with their mandate. So, as President Draghi and others have repeatedly drawn attention to, that necessitates stimulative policy and, in their judgment, additional stimulus and they will take those decisions as appropriate.

Q186 Mr Love: You mentioned policy prescription. Do you think fiscal expansion in the eurozone, particularly public investment, is necessary as well as quantitative easing in order to get the eurozone back on track in terms of inflation?

Dr Carney: I think the ECB has the tools and the clarity of mandate to achieve their price stability objective—their slightly less than 2% objective. It is a separate question—a broader economic question, a broader economic performance question—whether adjustments to fiscal policy would be appropriate for superior economic outcomes in the eurozone, but I do not see fiscal policy as a necessary instrument of monetary policy, if that makes sense.

Q187 Mr Love: Mario Draghi said some time ago now that he would do whatever it takes. He has not done it yet. Do you think he is running out of time? Does he need to be taking action at the next meeting of the ECB?

Dr Carney: It is not for me to say in any respect. I would say that the intention of the ECB, of President Draghi and his colleagues to fulfil their mandate is clear. It is in the interests of the United Kingdom that they do fulfil that mandate. It is in our interests without question that they have stable and predictable inflation consistent with their mandate, and we have every reason to expect them to take the measures necessary to do so.

Q188 Mr Love: Can I come to the financial stability implications? To what extent does eurozone deflation increase the risks attached to UK banks' eurozone exposures?

Dr Carney: The first thing I should do is to provide some context, which is embedded in our report. The exposure of UK banks to the eurozone has steadily declined. The exposure of UK banks to eurozone banks specifically has come down and is quite modest. Of course, in an adverse scenario, which we are not predicting but in an adverse, true sustained deflationary scenario, challenges would come most quickly through the financial sector. There has been a reduction in direct exposure of UK banks to UK financial institutions. There is quite modest exposure of UK banks to more at risk eurozone sovereigns and it is detailed in the report. There has been a steady reduction to eurozone corporate and retail exposure, although, not surprisingly, given it is our largest trading partner, still notable. That is the first point that the context has moved on just in terms of absolute exposures.

Then, of course, as well, because of capital raising, because of improvements in liquidity and risk management, the resilience of UK institutions has increased quite

significantly. But all that said, this is a major economy; if it were to be in a position, which we are not predicting, of sustained deflation, given the debt positions in both public and private sectors in the eurozone, it would be adverse to the financial stability of the UK.

Q189 Mr Love: In that context can I ask you, there will be Greek elections later this month, the possibility that the Syriza Party will come to power. There is some concern about that. What do you think the impact would be of a Syriza Government, recognising that the Greek economy has moved on significantly from the last time there were elections?

Dr Carney: Let me say a couple of things. The first is in terms of context again. There is very low single digit¹ exposure of the UK banking system to Greece as a whole, so just in context, very small direct exposure to Greece. The second thing is a very important point of context: I am not going to make a judgment on the outcome obviously of any election or necessarily the policies that follow from that election, but on the overall small-p political but very important context, the point I would make is that we have seen repeatedly over the course of the last several years the determination of European authorities, European Governments, both in the so-called core and the so-called periphery, to take all the necessary steps to reinforce monetary union and in fact to build institutions around monetary union, including when there are times of difficulty. I would reinforce those two realities: relatively modest direct exposure and the track record of European authorities. I would add the increased clarity in terms of the tool kit of the ECB, which is consistent with the expressed intent of the European Central Bank. I would provide all of those points of context.

Q190 Mr Love: Sir Jon, *The Financial Times* noticed recently that markets were remarkably sanguine about the risks of peripheral eurozone sovereign debt. Do you agree with that assessment?

Sir Jon Cunliffe: I do not know whether I would use the word “sanguine” but I certainly agree that the market pricing in peripheral eurozone debt is not showing anything like the levels of distress that it showed during the crisis. In Greece the spreads on Greek debt clearly went down and I think they are about 9% now, but Portugal issued yesterday at below 3%, so the market has been much more relaxed and much more differentiated this time around. I think the conditions are very different and, as the Governor has said, the Syriza election, if it happens, and all that might bring—and I would not comment on that—just happens within a different political context to a couple of years back.

Q191 Mr Love: Let me ask you further to that, is the reason why they are remarkably sanguine because of high demand for high-yielding assets, or is it because they are rather taking an optimistic view of the economies concerned?

Sir Jon Cunliffe: I think a lot of the distress one saw in those markets some years back or a couple of years ago was around fear of redenomination risk, and the markets are now taking a view in the current circumstances that that risk has greatly receded for those economies. I do not know whether it is an optimistic view. I would say one thing, and this

¹ This refers to a percentage figure

goes back to the questions earlier on, about low inflation that if we are looking at the eurozone for a period, if it had a period of persistently low inflation and if that continues for a while, then in that context you would of course expect market interest rates for those countries to be low. I notice German Government bond yields are at less than 0.5% at the moment and that is reflecting economic prospects and it is reflecting the possibility of continued low inflation. Where I see low bond yields, it does not always mean that is a huge sign of optimism. That may be bond yields, market yields, reflecting that they think there is going to be a period of relatively low inflation and possibly low growth.

Dr Carney: If I may for one moment link back to the discussion we had earlier about scenarios and stress testing. There is one scenario that we ran that had both a steepening of the yield curve and a sharp increase in interest rates as we described. This scenario is, if you will, a bear flattening of the yield curve—a fall in the long end of the yield curve because of concerns about very low nominal growth, real growth and low inflation, which presents its own challenge. It presents different challenges to the financial sector aside from just the difficulties in the real economy and can be associated with higher defaults on debt, on private debt most specifically, because there is not the nominal growth there in wages or profits. But also, just in terms of the basic business of banking, having a flat yield curve makes it more difficult to make carried profit and that has consequences over time. These are some of the things that we would naturally look at in this economic conjuncture, yes.

Q192 Chair: Sir Jon, one of the reasons for this instability in the eurozone, I am sure you would agree, is that a good deal of the risk has ended up on the Bundesbank balance sheet via the ECB. It might not be popular in Germany or might not even be fully recognised, but that is the case. One consequence of that is that what was formerly considered unthinkable might not be quite so unthinkable, which is Greek exit from the eurozone. You are extremely well placed to think this through because of the years you did working in another capacity out in Brussels and you are now on the FPC. I am giving you a moment to compose your thoughts, Jon—

Sir Jon Cunliffe: I am reflecting, Chair.

Mr Love: He has given two moments to the Governor.

Chair: —but I think it might be helpful for you to say something about this.

Sir Jon Cunliffe: This is about the possibility of a Greek exit from the eurozone?

Chair: Yes.

Sir Jon Cunliffe: I think the first point I would make, and it echoes what the Governor says, is that, although the process has not always been pretty and easy, the track record has been that there is very strong political will among the euro members to keep the current euro together and not to allow exit. Those are the statements that have come out of a number of eurozone Governments.

Q193 Chair: I am sorry to interrupt, but of course the gravamen of the question from Andy Love about domestic politics in Greece was that it might not be the strong pressure of wanting to keep it together from above but to release them from below that might generate this.

Sir Jon Cunliffe: My understanding of Syriza is that they have said that they want to stay in the eurozone. I am making a more general point that recent history suggests that political will is there. I think Greece has difficult economic problems, particularly to do with its current stock of debt and decisions that are coming up on that debt and its economic performance. Whether Syriza is elected or not, there are difficult economic questions the eurozone Governments are going to have to find a way through, but to me the majority chance is clearly that they do find a way through that.

On this question of Greek exit and the financial stability risks and the like, it is a different situation to some years ago and there are different tools in the eurozone toolbox around the ESM and the ECB than there were then, but clearly, if there were to be a break-up or exit from the currency union, that is an event that would be a very major disturbance.

Q194 Chair: But it is your view that Greece can recover at current exchange rates by reforming itself structurally?

Sir Jon Cunliffe: It is my view that, with a combination of structural reform and policy action in Greece and the right response from the eurozone, yes, Greece can recover. I do not think it is a quick path out of recovery. The debt stock is extremely high.

Chair: A very serious overhang.

Sir Jon Cunliffe: And were there to be deflation, and even in low inflation, that complicates and makes the task more difficult.

Q195 Rushanara Ali: Picking up on Jesse Norman's questions about oil price and starting off with all the panellists except Dr Carney, do you agree with the Governor that low oil prices are unambiguously a net positive for the UK? Perhaps Dame Clara could start.

Dame Clara Furse: Yes, I do agree that it is a net positive. I think it is wrong to jump to extreme concerns around deflation. People are very quick to associate the concept of deflation with what happened in Japan, but what happened in Japan was a result of a complex mix of issues and quite a slow response to issues with new policy. Yes, I think it is a net positive. People worry about deflation, but they should remember that deflation is something that is persistent, which tends to go on for years; it tends to be generalised and it tends to be expected by economic agents—in other words economic agents then reduce aggregate demand—and none of those features are present or likely in the UK.

Rushanara Ali: Do the others share that view?

Martin Taylor: I do share that view, yes.

Sir Jon Cunliffe: Yes.

Q196 Rushanara Ali: Governor, earlier on, Scotland was mentioned and reference was made to geopolitical risks, but I was interested in your views on what the implications are. Specifically, what are the implications for oil exporting countries, particularly in the Middle East?

Dr Carney: Well, the low oil price might be clearly a net positive for the UK as a whole, recognising that there are certain geographic areas and sectors. One obviously thinks to the North Sea where it is causing difficulties and will cause challenges for some time. That is not true of all economies, as per your question, and there are a number of major economies, largely emerging markets, for whom these lower oil prices and persistently low oil prices will present real challenges. Certainly it has increased the prospect of default of some emerging market sovereigns, for whom the vast majority of their exports are oil.

Q197 Rushanara Ali: Which countries are they?

Dr Carney: I'd rather not. One can look at market prices and ratings and figure out fairly quickly who those are, but I have to sit around the table with these people, so I do not necessarily want to put the knife in. There are challenges obviously for oil exporters, although, if one looks at the GCC countries, they have substantial reserves: first, they have substantial foreign exchange reserves and other sovereign wealth reserves; and secondly, in terms of their marginal cost of production, it remains quite a bit below current levels, so while there are immediate fiscal issues in terms of running deficits, there is a capacity to manage those even if there were difficulties in local markets, and there is no sign of that.

Q198 Rushanara Ali: How long would that capacity last for?

Dr Carney: It is considerable. There are a variety of reasons why the oil market has moved, and people are a lot more confident in hindsight than they were in advance. Partly it is around increases in supply in a variety of jurisdictions, but that can't explain it all. Partly it is a reduction in demand, particularly out of Asia and potentially more broadly as a weak global economy. The general view, and we would subscribe to this given what we know thus far, is that this is more a supply story—I will come to an important caveat—than a demand story at this stage. The caveat is that part of what has changed is the perceived reaction function of the major oil producers in the Middle East—the reaction function of OPEC, including, most importantly, Saudi Arabia—who are looking to maintain market share and have the staying power to do that for some time, to change the dynamics of supply in the market. That is part of the reason, I would suggest, why there have been sharp moves in markets, and the volatility around this is that it has become a different equation, the supply and demand equation.

To bring it back to financial stability more broadly and try to let in the UK, one of the issues we discussed back in December, in the earlier days of this and referenced in this report, is that even though we do not have direct exposure to these emerging market sovereigns—UK institutions had very modest direct exposure to any of the affected sovereigns—and not large direct exposure at all to the pockets of the US high-yield market that have been importantly affected—so the shale oil producers who are under pressure and whose bonds are under great pressure now in the US high-yield markets—one of the things we have to be and are conscious of is that there could be contagion from those

events. A series of defaults in those areas could cause sharper declines in market liquidity, a sharper move in asset prices and a generalised change in risk metrics, and that could have knock-on indirect effects. We look at this through that lens. We do not look at it and just say, “Okay, there is limited direct exposure and, therefore, it is fine. There is no story here.”

Q199 Rushanara Ali: Thank you. I want to turn to the subject of climate change. I was very pleased to hear your comments in the World Bank seminar in October about your engagement with this issue of the limiting of emissions to 2 degrees Celsius and the point about the vast majority of oil and gas reserves being unburnable. How far does market valuation of energy companies reflect the risk that energy companies might not be able to use their reserves, in your view?

Dr Carney: Well, not being a climate scientist, I will not be drawn, if you don’t mind, on the exact mapping from carbon production to degrees Celsius and try to predict the outcome of Paris negotiations later this year and beyond. I made three points in that seminar. The first is that for the horizon of financial stability, for the horizon of the work of this Committee, issues related to climate, while potentially significant and severe, are beyond the policy horizon of the FPC. The crystallisation of these risks will tend to be further out—beyond a decade horizon and beyond. That is the first point to give perspective on it. Part of the reason I made that point is sometimes it is discussed that there is a way that, by taking measures in the interests of financial stability, we—the collective “we”—can address issues that are properly addressed by Governments in terms of their broader responsibility. So there is not a back door to address climate issues. That is a tragedy of horizons. There are issues coming but it is not within our horizon or mandate or remit. That is the first point.

Secondly, there are specific issues, though, that do come to our mandate. Some relate to the insurance sector obviously—the general property, casualty, reinsurance sector. The PRA has conducted a survey of these exposures and is in the field right now analysing this. Depending on the scale of that, that could potentially rise to our level.

The third point is that the policy environment around this—not the financial policy but the broader policy environment around this—is fluid; it could change. In fact, the very fact of lower energy prices could present a greater opportunity to change the policy environment around this. We have seen this in a number of emerging markets where they have removed fuel subsidies, for example—Indonesia being a very prime example of this. The energy price environment creates an opportunity. I will leave it to others to decide whether they take it.

What is important from a financial stability perspective is that there is sufficient information for investors to form judgments about both the probability of those policy changes being negotiated, whether through the COP process or at a national level, and the implications of any changes on relevant institutions, be they big energy companies or banks that have exposure to energy companies, so consideration is given to enhanced disclosure around these types of issues.

Just to recap, these issues tend to be beyond our policy horizon. There are specific institutions—insurance is a classic example—looking at it through the PRA. And then

there are questions around disclosure and greater reporting, to be more specific, that go to the heart of how markets can update their assessment of these risks and catalyse action in some cases.

Q200 Rushanara Ali: But do you think it should be within your policy horizon? This example and some of the reported numbers in terms of projections of unburnable assets are very powerful and potentially have huge implications for financial stability, if not sooner then later. There is a real risk that it falls between stools.

Dr Carney: I will say a couple of things. First is that disclosure of reserves by energy companies, particularly oil companies, is quite sophisticated and refined and the distinction between proven and probable and other classes of reserves is given. That is the first point. About that specific issue, investors are informed.

Secondly, there is a climate calculation around what is burnable and what is not in terms of the mapping of burning, whether it is oil, coal or other hydrocarbons, and in what order and the impact on degrees Celsius. That is the calculation to make.

Then the big question from a financial stability standpoint and both the equity valuation and the broader enterprise valuation of these firms is: what is the policy implication of that? Those are questions for Governments and unless policy changes—and it is the timeliness of policy change and it is the phasing in of policy change—that is what crystallises the risk.

A last point, if I may, is that in a bit of revealed preference in terms of where we are spending the time as a committee, we have not spent, as a committee, time on this relative to the other risks that have been discussed. Part of the reason for that, I would suggest, is that the horizon over which the policies come together and the agreements come together internationally, if at all—and they are phased in, which will be over a period of time, to crystallise this risk—tends to extend beyond the horizon of the exposure of the core of the financial system to these institutions. It is a judgment about not just scale of risk—it is a risk—but probability of that risk being crystallised. Since that probability is determined by actions of Governments, we can see well into the future it has to be part of the political debate, it has to be put into action and it has to be negotiated internationally.

Rushanara Ali: But an agreement has been made. In this case there is some agreement around emissions, so the policy has—

Dr Carney: It is not for me to say. There are agreements on targets, but there are not necessarily all the instruments put in place that will fulfil those targets. It remains to be seen how it is allocated.

Q201 Rushanara Ali: Thank you, Governor. I just have one final question for other panellists, which is whether you agree with the Governor's point about unburnable oil reserves and if you have any comments on that.

Sir Jon Cunliffe: I agree. There is a consensus, which is a worry.

Martin Taylor: An issue that strikes me is that I do not believe we have or could acquire any knowledge that the markets do not have. The reserves are visible. The extent of intergovernmental agreement is, if not entirely clear, at least in the public domain. I do not see what we could do at the moment. We would have to believe for some reason that there was a massive mispricing because markets were blind to something that everyone can see, and I think that would be a very unusual state of affairs for a committee like ours.

Q202 Chair: The key point on the exchanges we have had on oil is that the consensus, if I may call it that, of the FPC is that oil price falls are good for economic activity and that they reduce input, especially transport and energy, costs and therefore they are going to be good news, not bad news, overall.

Dr Carney: Yes, in terms of economic activity, but I would say that even in the early phase of this we discussed what the potential adverse channels are to financial stability, which include, as I referenced, through specific asset classes in financial markets having broader contagion—those emerging market sovereigns, those high-yield bonds—reinforcing low inflation risks or deflation risks in our major trading partners, which then would have adverse feedback. We have spent time on—

Q203 Chair: Yes, but their problems are not caused by the oil prices. Their problems are caused by the deflation risks that are laid in monetary policy.

Dr Carney: If I may, Chairman, the risk—and we are expected to look at the—

Chair: In economic terms, oil prices are a relative price effect. What you are looking at, as policemen on the FPC, is financial stability risk.

Dr Carney: I would assert, and am confident of this, that in the United Kingdom, given inflation expectations, the conduct of monetary policy, the track record and the clear armoury of the MPC in the United Kingdom, yes, a one-off fall in the oil prices is a relative price effect; it is good news for consumers as it works its way through. In an economy where there has been persistently low inflation, where there have been some questions about the toolkit and where inflation expectations have been moving down, potentially that one-off price effect comes at an awkward time. This is something that the ECB is alert to, but we, as the FPC, have to be alert as well and vigilant about the potential feedback that could come from that dynamic.

Chair: I note the very diplomatic phrase there, “some concerns about the eurozone’s toolkit”. We will not unpack that toolkit any more. I am sure you will be very happy to keep it well boxed.

Q204 Mike Kane: Joy cometh in the morning, Mr Chairman—I certainly hope so with all the geopolitical risks we face and geopolitical risks of what have been recently identified by the Bank in its systemic risk survey as the key risks. Governor, we have touched on some of them, but do you want to expand on what you think the top three or four are?

Dr Carney: Two things. First, I know you know this but just so we are on the same page: the systemic risk survey—this is not the opinion of the Bank of England but of risk

takers and risk officers. Their judgment is that geopolitical risks have risen up, and risen up quite dramatically, as you have seen in the results that we published. Our sense in those conversations and others has been, first and foremost, the risks around Russia and Ukraine and, for a variety of reasons, a change in the potential security framework in the heart of Europe; and secondly, the economic and financial implications for Russia. These are concerns that have only been reinforced by movements in oil, but they existed prior to that. Given the relative size of Russia, this has moved up. It was an unpredicted event—it was not an event that people had expected and, not surprisingly, there has been an increase there.

I should say, since I have raised it now, that is viewed as a risk, but the direct exposure of the core of the UK banking system to Russia is again low single digits—4% of common equity is the direct exposure of the core of our system to Russia. Now, because it is a geopolitical risk, because it is Russia, there could be broader indirect channels through financial markets and potentially through confidence, and we do see an indirect channel potentially through activity in Germany, a major trading partner. I would put that at the top.

There are broader ongoing issues in the Middle East—I would not isolate specific actual or potential conflicts, but just a feeling that the level of stability in the broader Middle East, extending to North Africa, has gone down and the potential consequences of that. Then on top of that, one has the risks that arise from sharp changes in commodity prices, which have only been intensified, and the economic consequences—this goes to Ms Ali's questions—bring themselves greater potential for conflict. Just a generic statement, geopolitical events are more likely to happen in times of relative weakness as opposed to relative strength. When events happen and change the power balance, there can be a tendency for more activity and more uncertainty and that seems to be expressed in our survey.

Q205 Mike Kane: Can I push you a little bit more about Russia, just for the next couple of minutes? I recently came back from an exchange in Warsaw in Poland and clearly their number one risk now is security. I think with the *Charlie Hebdo* events of the weekend, what we failed to see is that the Polish are now thinking of airlifting their citizens out of Donetsk in the Ukraine, which is very worrying indeed. You described the risk from Russia as modest recently. Do you still support that?

Dr Carney: It may have been taken out of context. I make a distinction which is that the direct exposure to Russia of the core of the UK financial system is modest—the 4% of common equity—as the FPC look at it, but the potential amplification through financial markets and confidence channels of an adverse outcome in Russia/Ukraine, both geopolitically and economically, are more significant for confidence and, potentially, financial markets.

It is an obvious comment, but how risky an event or a series of events is depends on the context, so in an environment where participants in markets are nervous for other reasons—there are other unrelated shocks. Again certain things can pass unnoticed in calm market environments when individually and collectively people are confident about the growth outlook and the strength of institutions, but as their confidence is shaken, triggers

can come from a variety of sources and the geopolitical environment, in the judgment of risk professionals, is difficult and we have to take that seriously.

Q206 Mike Kane: I will come to the rest of the panel in a second, but George Soros was saying last week, it is not just the risk of military action or military incursion, but the way the sanctions combined with the falling oil prices may mean we get a more aggressive nationalism. Where do you see the thrust of the risk?

Dr Carney: Where we are best placed to see the channel of the risk is through confidence and financial markets. We do our core work, as you would expect us to, in terms of the direct exposure to the affected countries and then make judgments about how events could amplify. There is a risk at the heart of this, which is questions of national sovereignty and bringing national sovereignty into question in the heart of Europe is a risk. That being realised as a risk changes the risk equation for neighbouring countries, which has knock-on effects. Just to speak about this in cold financial stability terms, that is part of the reason why events this last year have caused such concern.

Q207 Mike Kane: Can I ask the rest of the panel: is it just about exposure, in your opinion? I cited my real-life example of Poland, it being our tenth biggest export market and us being their second. Is it just about exposure to the risk to the banks or is it wider, in your opinion?

Sir Jon Cunliffe: It is potentially wider, but it depends entirely on what happens. I do not think we are well placed to make an assessment of conditions and how the situation can play out. There are different possibilities, but it is clear that certain assumptions about the state of security and politics in Eastern Europe have changed, and if you talk to Eastern European colleagues, for them that is a major shift. If you look at what is happening in Germany, German sentiment and investment in Germany, it has clearly had a big impact not just on Eastern European countries but on other European countries that have much closer and more developed economic links with Eastern Europe than we do.

There is the possibility through a variety of channels: a general shift in market sentiment, economic confidence in countries neighbouring and countries more closely connected with Eastern Europe than we are, and then there is the financial channels. They are all possible risk channels that we look at, that we have recorded in the FSR, and I think that is what one is picking up from the risk officer surveys. They picked this up as well, particularly at a time, as the Governor says, when market confidence is generally pretty volatile and there are other things in the world that look threatening.

There are a variety of channels where this could hit us. The point is the direct exposure to Russia, just looking at that piece, is relatively small for the UK, but these geopolitical risks are there. It is very hard for the FPC to take a view on what is likely to happen in that region or to have any view that in any way better than the view of experts who look at this sort of thing. What we can look at is the risk channels and the risk environment, which is what we have done.

Mike Kane: Did you want to come in, Martin?

Martin Taylor: I was going to say that the second order effects are indeed important. I am sure the Committee is right to start with the direct exposure. There was a Russian default in 1998, which I remember very well. The British banks lost a lot of money and there was a financial panic, frankly, for several weeks. The fact that our gross and net exposures are much, much less now than they were then is good news for us. The effect on Germany of lower exports to Russia pushing and weakening a core country in the eurozone at a time when the zone as a whole is in trouble; the fact that it is going to be harder to support Ukraine—we talked about George Soros, who wants a \$50 billion fund for Ukraine, when it is much harder to raise such money at times like this—all these things begin to interact in a not very helpful way.

Dr Carney: May I just complement one point Martin just made, which is the difference between 1998 and now? Part of the reason to draw attention to the direct exposure is that in 1998 there was bigger direct exposure as a proportion of assets, not just of UK banks but of G7 banks, but also there was an assumption that was disabused: the assumption that, effectively, the IMF and the G7 would be there for Russia under any circumstance. When that was taken away, you had a classic panic that comes from when one of your “certainties” is found to be wanting. What has changed in this circumstance is not a financial assumption, necessarily, but a geostrategic assumption, which is harder to assess.

Q208 Mike Kane: In my last couple of questions, can I move you on to more delicate political ground, where I know bankers like to be?

Dr Carney: More delicate.

Mike Kane: Governor, you suggested the top three geopolitical risks were Russia, the Middle East and climate change, which Rushanara was asking you about. Thomas Huertas identified a potential exit from the European Union as a key risk. Is this being discussed by the FPC?

Dr Carney: The FPC is not a member of the European Monetary Union, so we have not discussed our exit. We have had continuing discussions about the economic outlook in the eurozone—extensive discussions about the state of the financial system, the institutional changes that have been put in place to support the financial system and to reinforce monetary union, and that is part of the commitment of European authorities that Sir Jon and I spoke to earlier. We have had extensive discussions, and I suspect we will have continuing discussions, on the potential implications of persistently low nominal growth in the eurozone, both directly and indirectly, for the United Kingdom. In recent meetings we have not had specific discussions about exit from the eurozone, but I would put into context in the longer life of the interim FPC—and others were there before me, and maybe Martin can speak to this—through to what we have been doing to reinforce the core of the banking system, which has been informed by that at least possibility and scenario analysis, but I would really defer to Martin.

Martin Taylor: I was not there, but I have read records.

Dr Carney: Oh, I am sorry.

Q209 Mike Kane: We talked about Scotland earlier and contingency, and how you managed that. Is it a similar process for this, or do you just hang on until after 7 May?

Dr Carney: There are a couple of things about contingency that are consistent with the Scottish experience and, I am afraid, will be consistent with how we discuss contingencies for any extremely sensitive risk, which is that it is reasonable for the Committee to expect that we do work to put contingency plans in place. I think it is also reasonable that you would expect us not to discuss those in detail, because the prospect of that lessens the effectiveness in many cases and increases the prospect that those contingencies have to be used. When those conditions go away, we, as we did in the case of Scotland, reveal those contingencies, but let me make one final point about two generic contingencies that this Committee has helped support and put in place, so contingencies that are relevant for virtually any external shock that could hit the UK, whether it is geopolitical or—let us leave it under the broad geopolitical rubric.

The first is what we have been focused on, which is shoring up the resilience at the core of the system, the resilience of the banks and, in parallel to that, shoring up our collective ability to resolve an institution if it is disproportionately exposed to one of these risks, so that we can do that in a way that it does not cause broader contagion.

The second thing is to have in place, which we now do have in place, a much more effective, nimble and substantial, transparent, liquidity framework to provide to core institutions, which we have extended to broker-dealers and to central counterparties, and that is the new sterling market framework, with regular auctions, auctions that can be flexed in size and against a broad range of collateral. This is a direct result—I will stop here—of learnings of the last crisis, and the Winters report is a consequence of that. These are broad measures that have been taken, which help convert the core of the UK system from being an amplifier of external stress, which, quite frankly, it was in the last crisis, to a buffer against that stress, but we have to be realistic that there are some stresses that could cause serious dislocation even here.

Chair: Andy Love has further questions in a related field.

Q210 Mr Love: On the issue of “too big to fail”, following the G20 in Brisbane, Governor, you made what was characterised as an upbeat statement on “too big to fail”, but Janet Yellen, speaking before, when asked in a Senate committee hearing what she thought about “too big to fail”, said it had to be tested in some way. How do you respond to those who say that we can never be confident that we have conquered “too big to fail” until it has been tested?

Dr Carney: I entirely agree with Chair Yellen, and in fact that is one of the reasons why she, I and the Chancellor, Secretary of the Treasury, Sir Jon, Andrew Bailey and associated colleagues from the United States have participated in table top exercises—war games, effectively, in the absence of tipping one of our institutions over, but in lieu of doing that, actually testing how we would resolve a globally systemic UK bank and a globally systemic American bank if they were to get into conditions to fail.

I would say that one of the things we had reinforced through that exercise was the importance of some of the reforms that were agreed at an international level in Brisbane,

specifically the importance of having bail-in-able debt, or so-called total loss-absorbing capacity. Let me be clear what we mean by “we have taken substantial steps to ending ‘too big to fail’,” that we have made this progress. We are creating conditions, we are creating capital structure, we are changing the nature of derivative markets, we are changing the operating structure of these institutions and the legal structure in a way that if a major global bank were to find themselves in a condition where they had extreme exposure to one of these risks, for example, they could be resolved without taking down the rest of the system, without collateral damage.

That is different from a situation—we have been very clear about this, on the record; there have been a number of speeches and interviews on this—where there is a global shock that hits all institutions at the same time. In that circumstance, what we have are many more tools to ensure that shareholders and bondholders and management bear the consequence of that situation before there is public money at risk, and that changes the equation. Those realities in and of themselves make it less likely that a firm is going to find itself in a situation where it is individually exposed.

Chair Yellen is absolutely right, I subscribe. Proof of the pudding will be in the eating, but what is clear is that we are making progress—I think it is absolutely clear we are making progress—in increasing the resolvability of these institutions. We are making progress at a global level, and that is important because it reduces—it does not eliminate, but it reduces—the possibility that this economy will be sideswiped because of mistakes at a big American bank or a continental bank or an Asian bank that are so interconnected with our institutions that they suffer loss and we have consequences, quite frankly, directly to your constituents in Edmonton.

Q211 Mr Love: Let me press you on a couple of issues. The last time round when the credit crunch happened, it was a contest between international agreements, mainly memoranda, and domestic stability concerns. Domestic stability concerns won out, universally. How do we know that that will not happen again?

Dr Carney: Yes, the bank is universal in life and national in death—that point, which is fair. Part of it is recognising that in the design of these mechanisms. For example, the way that TLAC, this total loss-absorbing capacity, is designed, is one element. It is crucial, but—

Mr Love: I want to come on and ask you two questions about that.

Dr Carney: Yes, but part of that is it is not just held at the top level of the institution; it is also held in the major jurisdiction. We are the most important host jurisdiction in the world; all major banks operate in the United Kingdom and any systemic bank has major operations in the United Kingdom. You would expect over time that they would have this bail-in-able debt, this TLAC, at the level of their UK operations, which gives us degrees of freedom which we do not currently have. We would exercise those. Our intent would be to exercise those in concert with American authorities, European authorities and Asian authorities as appropriate, and that is why we do the pre-planning and these war games and these other things. That is best practice, but it gives us more flexibility so that if it becomes all national, if it reverts to type, à la the last crisis, then we are not on our own.

Q212 Mr Love: Let me press you. Total loss-absorbing capacity is a major step forward, but there are some concerns that have been raised about it. The specific example that has been given is: a pension funds buys up a lot of this debt and then gets bailed in, and that becomes politically unacceptable. How do you respond to that concept?

Dr Carney: I welcome your question in this discussion. Any pension fund out there that is thinking of buying TLAC debt should recognise that there could be scenarios where that debt becomes equity and you become an equity-holder. Since that is a possibility, do not buy the debt, put it in a drawer and forget about it. Exercise some oversight as a market participant, as a debtholder, as a stakeholder in this institution—

Q213 Mr Love: But they are looking for yield.

Dr Carney: They are looking for yield and they are getting yield on the debt, but if their concern is that there is the prospect of becoming an equity holder, then it makes sense to either exercise supervision as a stakeholder—not supervision in our sense, but supervision and engagement with management—or to sell that debt, and that is another form of discipline. You sell that debt on, the debt price moves, management notices, they recognise that they either have to de-risk what they are doing or raise additional equity so that they can continue to sell this debt, because they have to have this debt under the agreement. That dynamic, to the extent to which there are concerns that supervisors, regulators, FPC, PRA board are not all-knowing and in possession of all information, this is something that reinforces, from a market perspective, systemic stability, and that is the answer to the value of having a pension fund as one of those owners.

Q214 Mr Love: Let me ask you one final question. Total loss-absorbing capacity will be issued by financial institutions. Most of it will be bought up by other financial institutions. Is there a concern about a contagion here, and are you monitoring this?

Dr Carney: It is a great question, and this is something that is at the heart of the agreement, which is to prohibit banks from owning each other's TLAC, so that you do not have that direct contagion because it would prevent the bail-in, and that is directly in the agreement. One could think potentially of a carve-out for market-making purposes—a very small one—but that is at the core. You have other financial institutions that have the ability to become equity holders, the time horizon to become equity holders, and ideally also the inclination to, as owners of this debt, exercise at least some additional oversight over these institutions.

Q215 Chair: Before we leave this subject, I would like to ask Martin Taylor if he has something to add, bearing in mind he has spent a great deal of time thinking about it and, indeed, designing some of the rules and particularly the ring-fence, which is the structural framework within which it is now going to operate. Do you have any observations to make? Do not feel obliged if you haven't.

Martin Taylor: On the subject of TLAC I would simply like to reinforce what the Governor said. I think that one of the things that was wrong before the crisis was that,

apart from the supervisors, there was nobody particularly interested in controlling the **B**ank's' risk taking appetites. The management were, on the whole, increasing the appetite for risk; many of the equity holders were too. When you have bondholders who may be bailed in if things go wrong, they have a considerable incentive to keep an eye on this stuff. I hope that over time this will become a normal part of the oversight. It could be enormously important and very helpful to us.

Q216 Chair: Thank you very much. Governor, I have been asked to draw to your attention a scare story that is running in Scotland as a result of some decision you are alleged to have taken. Overseas banks have been told that they should not accept Scottish banknotes. Are you aware of this scare story knocking around?

Dr Carney: Yes.

Chair: The Bank issued a denial, but perhaps you can repeat it here, since it seems to be popping up on websites and in some newspapers.

Dr Carney: I will, happily. No, we certainly have not issued anything to that extent. Something to that extent to have any force would have been brought to the attention of, at a minimum, the Deputy Governor, Monetary Policy, but certainly the Governor, and it has not and there is no reason why we would have said that. Scottish banknotes have the full backing of the Bank of England.

Chair: I cannot think of one either. I began this hearing on behalf of the Committee trying to establish how much transparency we were going to get about the way the FPC operates, and I think we are going to keep coming back to that subject and working out exactly what consensus really means, but I am not going to pursue that now.

I thought I would end just by saying those exchanges have taken place in the context of a very welcome progress on transparency by the Bank of England. The MPC increased transparency, the decision for the longer term to keep verbatim transcripts and then publish them with a longer lag, and also the greater transparency of the court, all add up to a transformation of the way this somewhat opaque and certainly historically rather secretive institution has been operating. It is greatly to be welcomed, and it is certainly welcomed by this Committee, and thank you very much, Governor, and thank you to the Bank of England for those steps.

Dr Carney: Thank you, Chair.

Chair: With that thought in mind, I will call the Committee to order and we will adjourn. On 24 February, we will see you again.

Dr Carney: Excellent. Thank you very much, Chairman.

