



Economic Affairs Committee

Corrected oral evidence: UK energy supply and investment

Tuesday 17 May 2022

3 pm

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Members present: Lord Bridges of Headley (The Chair); Viscount Chandos; Lord Fox; Lord Griffiths of Fforestfach; Lord King of Lothbury; Baroness Kramer; Lord Monks; Baroness Noakes; Lord Rooker; Lord Skidelsky; Lord Stern of Brentford.

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Questions 231 - 238

Witness

I: Sarah Breeden, Executive Director, Financial Stability Strategy and Risk, Bank of England.

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Examination of witness

Sarah Breeden.

Q231 **The Chair:** Good afternoon and welcome to this meeting of the Economic Affairs Committee. Before we start, I declare an interest as an adviser to Banco Santander.

This afternoon we are very grateful that Sarah Breeden has joined us from the Bank of England. Sarah, would you like briefly to introduce yourself?

Sarah Breeden: Thank you for inviting me, Chair. I am executive director of financial stability, strategy and risk at the Bank of England, and I am the executive sponsor for our work on climate change.

The Chair: I will kick off with a broad question. How do you see your role in supporting the Government's net zero policy? What lies behind that question is to what extent you see yourself as an active player, or do you see the role as one of a conduit for data and disclosure? Another reason I ask it is that we were sent an interesting brief by an organisation called Positive Money, which highlighted that British banks had facilitated the expansion of £275 billion of credit into fossil fuels since 2016, £35 billion in 2020-21 alone. Some would say that you should be more active; others might say the alternative. Could you paint a picture for us, to start off with?

Sarah Breeden: Certainly, Chair. I am happy to do that. Our work on climate change is grounded in our statutory objectives for the safety and soundness of the firms we regulate and the stability of the financial system as a whole, but it is also supported by the remit letters that each of our three policy committees has, which, since March 2021, have asked us to have regard to the economic policy of the Government and their strategy to get to net zero as we go about doing our jobs.

The work is grounded in our objectives because climate change creates financial risks that matter for individual firms and, depending on the speed at which they might materialise, the stability of the system as a whole. As we have been doing our work, we have been focused on the resilience of the financial system to the risks from climate change and to ensure that it is supportive of the transition to net zero.

It might help if I highlight three things we have done, to illustrate the work we do. First, we have introduced supervisory expectations for the banks and insurers we regulate so that they manage the financial risks that climate change poses. Secondly, we are very close to completing a climate scenario analysis exercise designed to give us a sense of what those risks look like at the level of the system as a whole. The third thing we have done is to support the financial system in its management of the risks by, as you were saying, working with government to ensure that there is disclosure and data available on the real economy companies that are emitting carbon, and working with them so we can share best

practice on how to go about managing those risks, because no one has a "how to do it" manual.

The Chair: Forgive me for jumping in. We have quite a lot to get through.

Do you see your role, therefore, as shaping capital flows, because behind the critique of Positive Money and others is that capital is still flowing into what are, in their minds, damaging fossil fuel investments, and the Bank should be playing a much more active role? What is your message to them?

Sarah Breeden: Our role is to ensure that the system and individual banks are resilient to the risks posed by climate change. If there are greater risks as a result of the choices they are making, it is our job to ensure that they have greater financial resource available to absorb those risks. I would, however, emphasise that we do not have a good view of those risks at this moment. I cannot give you a number as to what they are, and it is important to remember that, although people focus on the risks associated with fossil fuel production, all of us use energy, and exposure to the risks associated with climate change is as much for users of energy, whether that is industry, households, or agriculture and its carbon emissions, as it is for fossil fuel producers. Our exercise is designed to highlight, economy-wide, where those risks arise and how they should best be managed.

The Chair: We will come on to a number of issues that you have begun to unpack. I turn to Lord Stern next.

Q232 **Lord Stern of Brentford:** I declare that I offer advice on climate to NatWest and to City, and I have had many long and enjoyable conversations with Sarah about these issues over quite a long period of time.

My question is about another of the letters that have come from the Treasury. Recently, the Chancellor wrote to the FPC to ask it to have regard to energy security, including "the need" for investment in transitional hydrocarbons. Could you guide us on what practical steps the Bank could be taking in response? Could you take into account the way in which Europe has responded to this challenge, because obviously we are integrated in that economy and the energy side of it? They have set harder and faster rules for fossil fuels, energy efficiency, more storage and better integration of the grids for power and gas.

Sarah Breeden: The letter arrived only a month ago, so, as you would expect, we are giving it careful consideration. We will respond, as we do with all such letters, by applying the relevant statutory processes as part of our annual review. So as to how we respond to it, it is early days.

These "have regards" are not necessarily designed to drive specific actions; they are communicating the factors that we should take into account as we go about doing our job. As we go about doing our job to ensure the resilience of the system, in addition to having regard to the

strategy to get to net zero, we should have regard to energy security as well.

It does speak to some of the issues that have come up as we have undertaken our financial stability analysis so far. One of the things that the climate BES—the climate scenario exercise—is aiming to understand is how all of the individual decisions financial institutions are making add up to at the level of the system. Is the path of investment in energy consistent with the Government’s climate policy strategy? We have been very clear that it is for the Government to determine climate policy. We complement and amplify, and we can catalyse action, but it is for the Government to determine that policy.

What we are trying to do with the climate exercise is to see whether there is a difference between the outcome of the system and the outcome of government policy. As we take it from there, we will make sure that the energy security strategy is part of that work. As we think about the risks that the financial system is exposed to, how do the transition to net zero and the energy security strategy affect judgments on those risks, individually and at the level of the system?

The Chair: Up until now, how has energy security been factored into your deliberations and thinking?

Sarah Breeden: What we have sought to do in our work so far is have regard to the transition to net zero and the economic strategy broadly, as articulated in the previous remit letter. With effect from April this year, we will have an eye on energy security too.

The Chair: Does that mean you have not been looking at it per se? It has just been bundled up.

Sarah Breeden: It has been a part of climate policy rather than energy security per se.

The Chair: Hindsight being a lovely thing, do you think that in retrospect you should have been paying more attention to it up until now, or not really?

Sarah Breeden: I think that issue (of what the sum of the individual decisions taken by financial institutions is delivering in terms of climate and energy outcomes) has been implicit anyway. What the remit letter does is make it explicit.

Lord Fox: We heard evidence from a previous witness—I think it was Mark Carney—that the possible or probable need for transitional hydrocarbons will inevitably lead to stranded assets. Those stranded assets introduce financial risk, so it would seem to me that from the Bank’s perspective that must be one of your key concerns. I would be very interested to know how you are modelling or tackling that risk issue on the basis that assets that would have served for 30 years will perhaps serve for only 15.

Sarah Breeden: It is hard to identify a stranded asset absent climate policy from the Government. What you need for an early retirement of an asset is the climate policy pathway that the Government have set out. It is often applied to fossil fuels, but it applies as much to buildings, industry and agriculture. What we have been trying to do as part of being aware of the risks of climate change is understand how climate policy is creating financial risks, but the transition pathway to net zero is uncertain. We know the destination and some of the sectoral pathways along the way, but some aspects of getting to net zero are as yet—

The Chair: If we are getting on to stranded assets, Lord King will be coming in on that in a moment. Lord Stern, do you want to come in on this point, conscious that we will come back to stranded assets?

Lord Stern of Brentford: Yes. In those words “having regard”, there is a distinction between encouraging policy that could make the economy more energy secure, which is why I referred to Europe’s very clear and well thought-through plan, in my view, and the consequences of energy insecurity for inflation, which is obviously the prime responsibility. Many of us would regard what happened in the 1970s in large measure, perhaps not totally, as inflation that emerged from the Yom Kippur war and the Iranian revolution. There are two different parts of it and both are relevant. Could you comment on that?

Sarah Breeden: I would not want to comment on inflation. I sit on the FPC rather than the MPC, but as we undertake our analysis of the macroeconomy, financial stability risks and risks to safety and soundness, having to think about supply-side shocks that might come from energy insecurity is a fair point.

Q233 **Viscount Chandos:** In what ways might the Bank of England use green stress tests to create policy? In your answer to the Chair’s question you have already referred to the likelihood of the Bank requiring greater financial resources if you identified greater risk from a bank’s assets. Does that imply that you would formally introduce additional capital requirements for assets that you regarded as risky?

Sarah Breeden: We are close to concluding our first climate stress test. It is an exploratory exercise looking to assess the resilience of the large banks and insurers to the risks from climate change. Do they have enough financial resources now to be able to absorb the risks under three different scenarios? One is an orderly transition to net zero; one is a disorderly one; and one is where no further action is taken. It is quite a complicated exercise. It is the first time that we and the firms have done it. I very much emphasise that it is a learning exercise. On the back of that, we have been clear that we would not look to set additional capital requirements on the basis of our first go at sizing those risks.

However, what we are doing through the exercise—you will hear about it soon—is to be able to understand how well firms are doing in managing the risks. We have sought to understand what their likely responses are, what investments they will make and what investments and lending they

will choose not to make. We will also have some estimates of the size of the risk. That will help us drive the next steps on the important question of whether additional capital is required for the risks that are there.

I want to emphasise that this is a first go. We are learning. The next time we do it, it will be better. These are stylised scenarios, not forecasts of what will happen. They are exploratory and designed to think about the range of risks we might face. As there is more certainty about the pathway to net zero, we will be able to make those scenarios more precise and less exploratory and so be better able to make a policy decision on the back of it.

Viscount Chandos: In describing it as exploratory, does that imply that the stress testing for climate change is fundamentally different from any previous stress testing that the Bank has conducted?

Sarah Breeden: We regularly do an exploratory exercise. ~~We~~ do not set capital on the back of that exercise. This is the first climate exercise we have done. It is different from our annual exercise where we stress the banks for a macroeconomic shock and assess capital adequacy on the back of that.

Lord Griffiths of Fforestfach: First, I declare an interest. When Sarah Breeden was regulating international investment banks I was chairman of the audit committee of Goldman Sachs International, so we talked frequently.

Sarah Breeden: It is lovely to see you, Lord Griffiths.

Lord Griffiths of Fforestfach: It is a great pleasure to see you again.

To explore Viscount Chandos's question one step further, it seems to me that, although the present exercise is purely exploratory, on the other hand the very clear logic in my mind is that you might impose capital requirements.

Sarah Breeden: What we need to do is size the risks on the back of this. Is this a threat to the solvency of the financial system or a threat to profitability? The answer as to whether more capital is required will vary depending on the answer to that question. We do not yet have that answer. A number of other central banks have undertaken exercises of this kind. I think that the Banque de France summarised the risks as moderate on the back of its exercise.

The other thing we need to think about is where the capital regime already accounts for these risks, to make sure that we are not simply ratcheting it up. We put out a paper last year where we set out our initial thinking as to where the regime currently captured it and where there might be gaps, and we have asked for some research to be done on the back of that. We are hosting a conference at the end of this year to engage with our international peers on the topic. I agree with you, Lord Griffiths, that that is the logical step, but there is some hard work to do before we jump to a logical step.

Comment [DR]: 15.19.15

I think its clear that she corrects herself on this point, though first time she did say 'usually'.

The Chair: Can I put this to you? Frank Elderson at the ECB said, referring to climate stress tests: "This will ultimately influence banks' minimum capital requirements". In my view, the key word there is "ultimately". Is it also the position of the Bank that the climate stress test will ultimately influence capital requirements?

Sarah Breeden: It will have an influence on them. What I cannot tell you is whether it is already captured yet. We have some work to do. To the extent that it is introducing new risks above and beyond, that we think are not well captured by the existing regime, we might get there, but I do not want to imply that there is an answer to that question yet, because we have not done the work.

Baroness Noakes: I understand the reason for using the exploratory scenario under the biennial system, but do you believe that the Bank will then shift to incorporating climate risks in the conventional annual stress testing round? Would that be the logical outcome if you saw that as a key part of the view that you needed to determine resilience on a regular basis?

Sarah Breeden: We will be setting out the next steps as part of the publication next week. Considering how to incorporate it in future stress testing will be an important part of that. I want to emphasise that it depends upon the size of the risks. There is always choice as to what to stress test, and there are many other things on the list that we could stress test for as well. I want to make sure that we do the work to establish where in the capital framework this risk already exists.

Perhaps the final thing worth emphasising is that these risks arise in the real economy; they come from the businesses and the households that will be exposed to either the physical or the transition risks from climate change. As I am sure you have heard many times from others sitting in this seat as part of the inquiry, the data and disclosures we have currently to make the judgment about how exposed the real economy is to these risks are inadequate. It makes sense to time our further work in the light of getting better data. We are working hard with government and financial institutions to push that along, domestically and internationally.

The Chair: Lord Fox has a question on disclosures.

Lord Fox: I want to backtrack because I have confused myself. At the beginning, in the answer to the first question, you said that we do not have a good view of risks. What you have just described seems to be taking a view on a lot of risks. Are you using this to teach yourself? Were you referring to other risks, or what?

Sarah Breeden: I have had sight of the information that is going to come out when we publish the results of our climate BES next week, so I am using that to inform the comments I am making today and also using the information from the ECB's stress test, the Bank of Canada's stress

test and HKMA's stress test. A common theme is that there are risks, but they are perhaps—

Lord Fox: How much more work do you think you need to do so that you will not have to say, "We don't have a good view of risks"?

Sarah Breeden: I think we will have the best view of risks when we have good data from the real economy on the most significant emitters and carbon-intensive users. It does not have to be the entire economy, but it has to be the big players.

Q234 **Lord Fox:** That cleverly segues into the question I was supposed to be asking. What particular areas of data are missing or faulty, what are the challenges in shoring them up, and who is responsible for doing that?

Sarah Breeden: Data is a very broad term.

Lord Fox: That is why I am asking you to narrow it.

Sarah Breeden: Exactly. It covers many different things. I will illustrate it in part by virtue of our own experience, not only in our work with the financial system, but also as a corporate and financial institution with a balance sheet where we have undertaken public disclosures and which has required us to understand the risks of the bonds we hold on our balance sheet. For physical risk, we need to understand where assets are; we need to understand supply chains; we need to understand how those physical assets may be impacted by physical weather events; and we need to understand the resilience of those assets in terms of their adaptive capacity. Are they resilient to physical risk?

We need a different set of data to assess transition risk—scope 1, scope 2 and scope 3 emissions—because we have to understand not just the direct and the indirect but exposure through the value chain. Someone told me this wonderful line: it can be a green train, but if it is carrying coal it is exposed. This is tricky because it is very granular and detailed.

The second tricky thing is that we need to look not just at where firms are but where they are going. If we are to transition to net zero, we need not only to invest and lend to green companies; we need to invest and lend to those that are greening, and we need to be able to differentiate those that have a plan and those that do not.

How do we get all of that data? There are two things. First, there is more data than people think. There are quite a lot of third-party providers that can provide that data. That was the data we used when we undertook our own disclosures. Secondly, the Government, through their sustainability disclosures road map and, internationally, the International Sustainability Standards Board, are setting standards that will provide the data. Together, those initiatives should provide the data we need to properly get our arms round these forward-looking risks.

Lord Fox: Your practice or demonstration stress test is, in essence, being used with fairly inadequate data.

Sarah Breeden: Correct.

Lord Fox: And with what could be described as a burgeoning understanding of risk. How accurate or helpful do you expect it to be?

Sarah Breeden: I think it will give us a good read on the shape of where the risks will materialise. As we get more data and develop more methodologies, we will get a richer and fuller understanding, but the broad contours of where the risks arise will be clear. The scale of the risk from the lowest to the highest estimate could be quite different.

Lord Griffiths of Fforestfach: Whoever mentioned the concept of a green train carrying coal hit on a wonderful image in my mind, because whether the train is carrying coal, oil or LNG, it is something that has been stigmatised. As a result, it could affect energy affordability and the process of the transition itself. What do you feel are the main issues, especially if you were a government Minister, or Prime Minister, for the coming two winters rather than five to 10 years out?

Sarah Breeden: That is a great question. We have had a rude reminder in our recent experience of how imbalances in supply and demand for energy can have macroeconomic and distributional consequences that matter. To my mind, that underlines the point I tried to make earlier that we need the financial system to support green and greening companies if we are to avoid unintended consequences in economic and distributional outcomes. I gave a speech on this recently, and I expect it to be a theme in the results of the climate BES as well, where we will be able to add up what the banks and insurers are doing and how that compares with the energy needs of the economy.

Stigmatising fossil fuel such that finance is the limiting factor on the supply of energy has the potential to be a problem. There is a balancing act to be done, whereby we wind down the supply of old dirty assets as we build up supply of finance for sustainable investments, and as we improve energy efficiency. With our macroprudential hats on, we are cognisant that withdrawal of credit could have wider consequences, and we are looking to try to judge that through the CBES and our future work.

The Chair: Forgive me if I am misinterpreting what you are saying. The signal you are sending on capital requirements is, "In time, if you are a brown lender, we will potentially increase your capital requirement", but at the same time you are saying, "You need to make the transition orderly and make sure that there is energy security". In your mind there must be quite a delicate trade-off and balancing act. I am just trying to see what signal you are trying to send to folk down in the City as we sit here. Are you saying to them, "Hold off from investing in a company that is brown at the moment but trying to go green"? What is it? To be honest, I am a little bit confused.

Sarah Breeden: I would describe it as balancing on the net-zero tightrope, which was the title of my speech. What I think we collectively

need to do is be able to identify the energy that the economy needs and ensure that the companies that are delivering that energy in the real economy have transition plans to get them to net zero. It is responsible retirement over time of carbon-intensive assets. We do not need to pull the plug out tomorrow to be able to do that, but it is a very fine balancing act and a nuanced message. We must not just wildly continue to invest because that is building a different type of risk.

The Chair: Understood.

Lord Stern of Brentford: I would suggest that there is a fairly visible difference between an energy firm that is making a big effort to change, and has clearly planned to change, and one that does not, and the former is less risky than the latter.

Sarah Breeden: I agree with that 100%. The Government's proposals on transition plans are a great way of seeking to formalise that. What we absolutely need are transition plans that are credible, have assurances around them and are not just statements, so that financial firms and we as the micro and macroprudential regulator are able credibly to distinguish between those that have a plan and those that do not.

Q235 **Lord King of Lothbury:** Sarah, it is very nice to see you again. Welcome. I have no interest to declare, Chair, other than to say that Sarah made an extremely important contribution to the design of schemes to deal with the financial crisis back in the good old days.

Can I ask about stranded assets? I have two questions. First, when Mark Carney gave evidence, he said that the transition to net zero set out by the IEA would probably have to be revised in the light of recent events, and in a very uncertain world between now and 2050 a lot of other unexpected events will occur. Can you tell us something about how your definition of stranded assets and the calculations about them can be made sufficiently flexible to take into account those unexpected events?

Secondly, stranded assets is a phrase used in connection with climate change, but it is not unique to climate change. During the pandemic, fleets of aeroplanes parked in deserts were a perfect example of a stranded asset. Can you say something about how other examples of stranded assets outside climate change integrate with your overall approach?

Sarah Breeden: That is a great question about stranded assets. It is somewhere between hard and impossible to identify a stranded asset without having a climate policy from which to hang its stranding off. A stranded asset arises when its economic life is unexpectedly shortened courtesy of climate policy and the transition to net zero, so you need a transition pathway to be able to identify the stranded asset. As we have seen with energy security policy, as events change, transition pathways have to change. You have to hang it off the sectoral climate pathways determined by government and you have to be prepared to adjust them as the transitions adjust.

Something that builds a bit on Lord Stern's point is that, while there is uncertainty about the future transition pathway, you can identify companies that are more resilient to the uncertainty around those transition pathways. If one company has a way of managing itself that means it is low risk in three states of the world, whereas one is high risk in three states of the world, I think you can capture it in that way. To underline, I think you can credibly identify stranded assets only by reference to climate policy. To give two examples of that in the climate space, in addition to the energy security pathway. In the Government's policy on electric vehicles, they have been very clear about what the pathway is to get from where we are to having electrified vehicular transport. Similarly, on rental properties it has been clear what the plan is. Where there are clear climate policies, you can identify stranded assets on the back of that.

Your point about stranded assets arising in a variety of circumstances is well made. It is not something to which we have given as much thought as we have in the context of the climate BES, but any shock to the economy that creates a different pathway for demand, or a different pathway for supply, and is able to create empty buildings on high streets is another such example, is it not? What makes climate unique is that it is the actions we take today that help determine the future risks we face, because if we start transition earlier it is more orderly and smoother than if we start transitioning later. That is why there has been a particular focus on stranded assets in a climate context.

The Chair: Given that Governments across Europe are saying we need to wean ourselves off Russian energy, oil and gas, and that may mean further investment or new investment in, say, gas plants, you now have the message from the Chancellor that we have to pay more attention to energy security. Meanwhile, you are also doing all of this work on climate stress tests. What is the message that you want to send to financial institutions? Is it, "We see this investment in energy security as a good thing so long as it is predicated on transition plans that are credible", or is it, "Don't touch it"? Try to set that out if you can.

Sarah Breeden: With my macroprudential hat on, what I want is a balance across energy supply and demand because, as we have seen, when you do not have that there are macroeconomic and macrofinancial consequences. In that context, if the economy needs some transition fuel, that should be invested in, but we still need to get to net zero. My phrase would be that it might get worse before it gets better. The important thing is to think about the responsible retirement over time of assets that are not consistent with a net-zero pathway, the key thing being retirement over time, not necessarily immediately.

Lord Fox: This is labelling a point, but I think we have a real-life example where the Government are asking the hydrocarbon industry to invest in what will be transition assets. Without knowing for certain the framework, we know full well that assets that would normally last for 30 years will only be productive for 15 or 20 years as a maximum. That

begs the question: where does the risk lie? Does the risk lie solely with the oil and gas developer? Does it lie with the banking industry, which is being asked to invest in an asset that will not go to its full life, with full knowledge of that at the beginning, or does it lie with the Government? What position does the Bank of England take with regard to the regulation of banks that may or may not be deciding to lend money to oil and gas companies on that basis?

Sarah Breeden: Where the risk lies depends on the terms of the transaction. Is it being funded as if it has a 15-year life or a 30-year life?

Lord Fox: That is what I am asking. Does the Bank have a view on that?

Sarah Breeden: I think the right thing to do is to ensure that energy supply and energy demand are matched. That is what I want with my macroprudential hat on. I also want to have regard to getting to net zero, because we care about the financial risk that that creates as well. That says to me that what you need is a transition plan that allows for the responsible retirement over time of that asset, rather than an expectation that it lives its full economic life; but it must hang off a government climate policy.

Lord Fox: Is it the exploration and production companies that should have that plan?

Sarah Breeden: Yes—the transition plans. If I were investing, and speaking as somebody that has set supervisory expectations for the banks and insurers that we regulate, we would want them to have a forward-looking view of the risks, informed by potential future scenarios, climate policy and the transition plans of the corporate, thinking about those things in the round to price and manage the risks accordingly.

Lord Stern of Brentford: I do not think we should become overexcited by the possibility of a little more investment in the very short term because of the example I gave right at the beginning. Europe looked at it very carefully and has drawn the conclusion that many, including Kwasi Kwarteng, have drawn, that we have to move harder and faster away from fossil fuels and on to efficiency, storage, better grids and so on. These events would surely mean—you need to take that into account in your risk analysis—that, looking out over the next three, four or 10 years, we will be going faster and there be will more strandedness of existing assets as a result.

Sarah Breeden: Further out, yes.

The Chair: Sorry, was that a question?

Lord Stern of Brentford: The answer was yes.

Sarah Breeden: To emphasise, that is building on government climate policy. I think that what you described, Lord Stern, was government climate policy; we need a bit more investment now and then we will have to move more sharply later and that is how we get both energy security

Comment [DR]: 14.43.48
This is my interpretation of her meaning: though she didn't actually say the words 'and speaking as' but I do think its what she meant and without it the transcript is a bit ambiguous.

and a pathway to net zero. As I said to Lord King, I would judge stranded assets on the back of the Government's climate pathways.

Lord Rooker: I want to ask a supplementary on your answer to Lord King. You emphasised the need for clarity of government policy. You cited electric vehicles and the rental sector. Would you, therefore, rule out boilers?

Sarah Breeden: I am trying to remember where we are on the policy for boilers.

Lord Rooker: That is my point.

Sarah Breeden: As soon as government climate policy is clear, we take that into account in our scenario analysis and judgment of risk. I am sorry to say, Lord Rooker, that I am not quite sure what the situation is for boilers, but I know that in the climate BES we did we looked at the green building strategy. We incorporated that as well as electric vehicles.

The Chair: Sarah, I think you said that you want more clarity from the Government. I do not expect you to sit there criticising Ministers, but at the same time let me try to think of a delicate way to put this. How important is it for you to get clarity, especially on aspects of customer and consumer behaviour, to unleash financial investment in those fields, such as heat pumps and other things?

Sarah Breeden: The more clarity there is, the more it is obvious to the financial system where innovation in financing needs to take place. While there is a gap between policy ambition and policy as articulated sector by sector, which is net zero by 2050, and the individual policies that make that up, the financial system is guessing where that needs to be and is unlikely to guess the right answer.

The Chair: If you had a magic wand, which gaps would you like to fill as quickly as possible?

Sarah Breeden: Golly. Can I come back to you on that? I do not want to give you a quick answer.

The Chair: Perhaps you could write to us. We would be very interested in that.

Sarah Breeden: The important thing to do is to reflect on that. It is a fair question.

Q236 **Lord Rooker:** I am glad I asked about boilers. What should be done in response to the trend that shows that finance for carbon-intensive industries is migrating outside the regulated banking system? In your speech last month, you pointed out that there was a risk of less transparency because of that. If assets are moving away from companies with environmental commitments, what are you able to do about that? The evidence is clear that there will be a major problem because of these asset transfers.

Sarah Breeden: It is a great question. As you highlighted, it was one that I put in a recent speech about a potential unintended consequence. If risks migrate outside the banking system, it means three things: the incentive to transition could be reduced because it is in the shadows; it could be deprived of access to finance and yet it is an asset that really needs to transition; and it could just mean that we lose sight of, or have poor judgment on, how much transition risk there is. I worry about chasing emissions into the shadows.

I think there are three mitigants we can do. First, the policy that is designed to drive transition could be applied to the real economy, not to the financial system, so that it is the Government as regulators of the real economy, rather than regulators of the financial system, who are incentivising the transition.

The second thing we can do is to have any financial policies that apply to the financial system apply to public and private—things in the shadows as much as things in the foreground. The Government have done that with their proposal for the TCFD rollout. The sustainability disclosures road map has disclosure applied to assets that are privately held as much as to assets that are publicly held.

The third thing we can do, as we build our green market infrastructure, is to try to make sure that we are incentivising the transition, as opposed to stigmatising fossil fuels, as per our previous discussion. If we are supportive of the greening of the future economy, as well as investing in the currently green, there will perhaps be less incentive to push currently dirty business into the shadows.

Lord Rooker: This is new to me. Does the Bank have the powers to do the things that you have indicated might want doing?

Sarah Breeden: Government is regulator of the real economy, not the Bank of England. The disclosure road map is a joint initiative across the FCA, government and a variety of departments in government: BEIS, DWP, the Treasury, and us. Collectively, we have the powers to do that. Incentivising the economywide transition, so that people will support it and do not feel the need to chase into the shadows, is about transition plans, and about us as regulators not stigmatising fossil fuels in our regulation of banks and insurers. We are aiming to do that through the climate BES, which does not take as a given where banks and insurers are but where they are going and how they will respond. There is a mixture of people with hands on the levers, which is indicative of the climate challenge more broadly. It requires lots of us to co-ordinate to get the job done.

Lord Rooker: Thank you.

Q237 **Baroness Kramer:** This is a very slight shift in focus. John Glen in his February speech, echoed elsewhere in government, outlined plans to “slash bureaucracy and relax regulation in a move that will unlock growth and unleash investment in UK infrastructure”. In the energy climate

change arena, this is assumed to be a change to the risk margin. Is the risk margin in the wrong place, or are we merely talking about leaving risk uncovered? The concern of the industry is that if risk is simply being left uncovered there will be a countereffect by adjustments to the matching adjustment. In effect, it looks like you have suddenly made financing a whole lot cheaper, but you have not.

Sarah Breeden: The judgment of the PRA is that there is an opportunity to incentivise investment in more productive investments through changing the risk margin and the matching adjustment, as you described. We have been working with the Treasury on proposals that aim to rebalance incentives so that there is greater flexibility for insurers to invest in long-term productive assets, including those that will get us to net zero.

As you rightly say, the reforms will change the capital requirements as well. What I think that means is that if firms use that released capital to write more business and support additional investment in productive assets, we could unleash some investment for sure, but as the Treasury noted in its own publication, it is also possible that insurers might give that capital back to shareholders rather than put it to work. That is not under our control. And there is a risk that we reduce capital requirements so much that we put the resilience of the insurance sector at risk.

There is a balance to be struck. Our aim is for a Goldilocks solution whereby we unleash the investment possibilities through our rule changes, and insurers choose to take those opportunities and we have not reduced resilience too much, but it is a consultation, so it is work in progress. I think there is the potential to achieve a Goldilocks solution.

Baroness Kramer: I am curious. Do you have any way of being able to put conditionality around relaxation of the risk margin, so that the capital is directed into the investment goals you have in mind, or would that be outside the remit of the Bank of England and fall elsewhere?

Sarah Breeden: I think that would be outside the remit of the Bank of England. This review is being led by the Treasury. The Treasury is the rule-writer on Solvency II and we are working together with it on that, so the question would best be addressed to the Treasury. The consultation is about trying to understand it. I would find it surprising if we could attach conditionality: "We can only release this capital if you promise to use it". That would be my best guess.

Baroness Kramer: This is almost a curiosity question. We all know that, if you look back not too far in history, the insurance industry managed to get itself entangled in very serious risk exposure and came pretty close to collapsing the economy at one point in time. How do you manage the concerns around an issue like risk margin when the change is being driven by a policy target rather than by a risk assessment? How does that work?

Sarah Breeden: We have been very public in our analysis of the issue. At the same time as the Treasury put out its consultation, the PRA put out its consultation. We showed our working for everyone to see. We have yet to see where that will land, but I think disclosure is the best way of addressing it.

Q238 **Baroness Noakes:** The finishing line is in sight. I want to shift to green consumer financing. First, what is the view of the Bank on the extent to which the financial sector has been forthcoming in producing the kind of products that would underpin consumers in their transition? Secondly, could you describe the role of the Bank in this area?

Sarah Breeden: That is an important question. To start with, there is no common definition of what green consumer finance is. It could represent two quite different things. On the one hand, it might be a lower-cost mortgage afforded to a currently green building because it is less exposed to future energy price rises. Alternatively, it could be greening finance to retrofit one of the 30 million houses that we need to retrofit for net zero.

We have seen some innovation so far, and it is absolutely vital that that continues and is scaled up because the challenge we face is enormous. We have the oldest housing stock in Europe, with an average EPC rating of D. I think the estimates for emissions from residential housing stock are up to 20%. A number of estimates have been made of the costs of the retrofit. BEIS estimated £30 billion to £50 billion; the Committee on Climate Change is around the same level, so we need to point tens of billions at this challenge.

It is important that we see more innovation here. The thing that will unleash that innovation, to use that phrase, is greater clarity on when the changes will take place. It goes to the boilers question and the point about which bits of the economy you want a transition path for, because once you have a timeline, there is a timeline both for the financial sector to innovate and develop the financial products and for the real economy suppliers that need to retrofit the buildings to get ready.

Your final question was about the role of the Bank of England. Our role is to understand, and we will be exploring through the CBES, what the Government's pathway is and the timeline for that, and to understand whether firms are getting ready to provide those tens of billions of finance and, if not, whether risks are building in a way that we need to take into account.

Baroness Noakes: If not, what would you do?

Sarah Breeden: It comes back to the financial resilience question that we were talking about in other contexts. If there is a pathway that the Government have set out that the financial system is not financing because it has not innovated the products, it means that risks are building. We would expect to be able to take that into account and incentivise the development of such products.

The Chair: What do you mean by incentivise? That is very interesting. Perhaps you could explore that.

Sarah Breeden: What it means is that, when something is going to become a stranded asset, we can look forward to that because the property will become unsaleable at some future point. As soon as there is clarity on what climate policy is, we can reflect that in our judgment of financial resilience. What is really important is for us not to guess what climate policy is and substitute the prudential regulator's judgment for that of the climate policymaker.

Baroness Noakes: I still do not understand how you can incentivise banks to do what they are not doing voluntarily.

Sarah Breeden: We could say that it is a property of EPC grade F that will become unsellable at some future point. That means it is greater risk because you cannot realise its value and, therefore, the financial resources you need to hold against it are higher than for one that is being retrofitted or is currently at EPC grade A. It is a variant of the conversation we were having about fossil fuels applied to a different sector of the economy.

Baroness Noakes: But it is indirect, is it not?

Sarah Breeden: That is completely correct; that is absolutely fair. It would be remiss of me to imply that we could solve it, so you are right to challenge that.

Baroness Kramer: In a whole series of questions, you have talked about the need to have government policy in place so that you know at what point an asset will become stranded, for example, but you do at least know that the answer is that it will not be 100% of assets, but it will also not be zero. Is there something you have to do in the meantime to begin to position yourself, or do you see no option but to wait until you get the precision that comes from government?

Sarah Breeden: It is very difficult if the central bank and prudential regulator is determining where the costs of transition should fall. That involves difficult political, economic and social choices that in my view are rightly the job of elected Governments. We have been really clear that it is important for us to stay in our swim lane thinking about the resilience of the system and supporting the transition, not substituting for government climate policy.

Baroness Kramer: In a sense, you are saying that it is zero until you act.

Sarah Breeden: That depends on what happens. If risks are building generically, there are tools in our tool cupboard we can use, but what we would not be doing is identifying a particular asset and saying that is bad. What we can say is that the risks to the financial system are building and, therefore, more capital generically is required. That was one of the potential issues we outlined in our capital paper. Where there is specific

climate policy, we can reflect that precisely; where there is an absence of climate action, we have to reflect it in a more generic systemwide way.

The Chair: Viscount Chandos has a really quick question.

Viscount Chandos: Can some of that risk be picked up by loan to value?

Sarah Breeden: Value has to be a forward-looking thing. If one's current estimate of the market value of a property precisely reflected its future unsaleability, it would get captured in that way.

The Chair: To go back to the big question I was trying to get at, is this the area—that is, consumer finance of the green transition—where you need to see a lot more policy detail?

Sarah Breeden: It is certainly one of the areas. It was not something I thought about before coming in, so I do not want to rush to answer that.

The Chair: Maybe you would like to answer in writing.

Sarah Breeden: In the context of five things where greater sectoral policy clarity would help, it could well be one of those I would like to reflect on. It is 20% of emissions and £50 billion, so it sounds important, but let me reflect on that.

The Chair: Lord Rooker has caught my eye, but then that is it. I promise you.

Lord Rooker: In one of your answers you mentioned the fact that we have the oldest housing stock in Europe. I think the average house has to last 1,000 years in this country. In Sweden, 40% of houses are built in factories. Therefore, at what point do you reach the analysis that it is not worth retrofitting millions of homes in this country that are far too old, and knock them down and replace them with modern homes?

Sarah Breeden: That is outside my area of competence.

The Chair: On that note, behind you we have folk from the Infrastructure Bank.

Sarah, thank you very much indeed for answering our questions so fully. We are incredibly grateful. We would very much like to hear from you in writing on those points and anything else, when you have published the document next week. If you would like to flesh out any of your answers, that would be great as well. We are really grateful. Thank you very much.