



Economic Affairs Committee

Corrected oral evidence: UK energy supply and investment

Tuesday 29 March 2022

3 pm

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

Evidence Session No. 11

Hybrid Proceeding

Questions 146 - 153

Witnesses

I Mike Zehetmayr, Financial Services Sustainable Finance Data and Technology Leader, EY; Sonja Gibbs, Managing Director and Head of Sustainable Finance, Institute of International Finance.

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Examination of witnesses

Mike Zehetmayr and Sonja Gibbs.

Q146 **The Chair:** Welcome to this meeting of the Economic Affairs Committee. We are grateful to our two witnesses this afternoon, who are joining us virtually, one from the States. Would you like to introduce yourselves?

Sonja Gibbs: I am the managing director and head of sustainable finance at the Institute of International Finance—the IIF. We are Washington DC based but very global in our membership. We have 450 members across private and public sectors, including development banks, around the world, and about half of those are from emerging markets. We have a broad perspective to bring today. Thank you for having us.

The Chair: Thank you for joining us. Mike.

Mike Zehetmayr: Thank you for the opportunity to join you this afternoon. I am a partner at EY here in the UK. I lead EY's technology and data response to sustainable finance in financial services. I am also a fellow of the Royal Geographical Society. In a previous life I was a glaciologist and I have had a continued active interest in climate change for the last 30 years.

Q147 **The Chair:** I will remind everyone of my interest. I am an adviser to Banco Santander, and we are talking a lot about financial regulation.

I will start by asking a broad, scene-setting question. Could you try to summarise your answer in the simplest and briefest possible terms? Should regulators and central banks treat climate change differently from systemic risks? Some have argued that we have been through a systemic shock like a pandemic and we do not have pandemic stress tests and things like that. Should we treat climate differently and, if so, how should that be done?

Sonja Gibbs: A brief answer is that, arguably, they are already doing this in many jurisdictions, given the existential threat of climate change. It is widely accepted that climate related-risk poses significant challenges for the global economy and, in turn, for financial stability. That is a key concern for regulators and, of course, private markets. The financial services industry could be significantly impacted under different climate scenarios, but at the same time it is important to remember that we have the capacity to manage exposure to and help mitigate these risks, not only for our own firms but for our clients around the world and our supply chains. That is an important point to bear in mind.

In the longer term, climate change could emerge as a real systemic risk for financial stability. It is the hot topic for central banks and supervisors around the world, as well as groups such as the IMF and the network for greening the financial system, the NGFS, and, importantly, via supervisory climate scenario analysis exercises that are being conducted around the world. We count at least 27 different supervisors that have conducted or will conduct such exercises. That is a good example of how climate risk is being treated differently.

At the same time, supervisors and regulators are also looking at their existing rulebooks—for example, the Basel framework standards under the Basel Committee on Banking Supervision—to see to what extent climate risk can be captured within them, and whether modifications will be needed.

The other side of the coin is the massive socioeconomic implications of climate change. Supervisors and regulators want to treat this differently, to ensure that financial firms can account for and disclose those risks; and that they manage their exposure and take actions to reduce those risks, where possible. We know from our global membership that this is a top priority. It is No. 1 on the list in all the surveys.

On the opportunities side, financial firms will need to finance the transition that is required. The task of steering transition finance and investment has a lot of stakeholders. The UN has been active here for years. Lots of NGOs and environmental groups, and regulators in some jurisdictions, including notably the EU, are taking an interest in the question of steering finance, whether that is by capital requirements, taxonomies or other tools, to channel finance, where there is the political appetite to do so.

To wrap up quickly, financial stability risks from climate change look moderate and manageable in the short term but in the long term could be systemic, so it is important to note the comfort provided by prudential measures already in train today. Disclosure, risk management and scenario analysis can help move the dial as regards risk management.

The Chair: Mike, do you have anything that you want to add to that?

Mike Zehetmayr: I would echo what Sonja has said, particularly on the recognition that financial services and the Financial Stability Board have already been treating climate change as systemic risk.

I would add one thing to Sonja's point. To understand the risk and actively manage the transition required to move to a lower-carbon society requires data. One of the key lessons that we have learned from the first implementation of disclosures for the European green taxonomy is that the data does not exist. Where it does it is poor quality, and in many cases it is qualitative rather than quantitative.

As a technologist and someone who works in data, access to data that is sufficiently trustworthy, transparent and assured to support decision-making, whether it is credit decisioning, capital allocation or investment, is a material gap that we still have to address, not only within financial services but more broadly within the broader economy. We need that data from different economic segments and industries to see how financial services can support that transition by the allocation of capital and investment.

The Chair: I hear all you are saying. Is there a risk, though, that central banks' focus on climate change, which, as Mike says, is a very new

terrain with lots of difficulties within it, could conflict with what you could argue is the core remit of central banks on financial stability and management of inflation? Is the balance difficult to achieve there and, if so, have we been getting it right?

Sonja Gibbs: It is difficult to achieve. There are two components to this. One is what central banks do with their own balance sheets and their own assets as regards investments, and the second is the focus on climate change in the context of financial stability. Arguably, the feedback loops between the real economy and the financial sector are such that the focus on climate change is entirely warranted within the context of the goal of maintaining financial stability, and, indeed, it comes into play in monetary policy discussions as well.

Lord Livingston of Parkhead: Do you see that as something the regulators should be doing because of the prudential risks or as a tool of government policy? One of the questions that we are trying to establish—and we can absolutely understand and see the prudential risk—is whether it is right to use financial prudential regulators to do things that you could argue government should be doing in deciding on the externalities, et cetera. I do not know where you sit on that particular continuum, if you understand my question.

Sonja Gibbs: This is a fundamental and central question, picking up on what Mike said about the data questions. Because the data and toolkit are so underdeveloped and nascent, using the prudential framework to address these risks is a very blunt hammer. Climate-related risks differ from other systemic risks, in that a lot depends on policies and actions being taken outside the financial system—in other words, government policies, incentives and policies on carbon tax.

The financial sector plays a key role, but it is contingent on many other factors. There is a lot of support, clearly, for the net-zero transition. Just look at the Glasgow Financial Alliance for Net Zero and so on, but the financial services industry alone cannot solve this challenge. We need policy action from the public sector. The use of the prudential framework is a very controversial area, and policies differ across jurisdictions as well. Do you need a green-supporting factor? Do you need a brown-penalising factor? Should we be looking at the Basel framework more holistically?

The Chair: I am sorry to jump in, but we are going to come on to that.

Q148 **Baroness Noakes:** The Ukrainian crisis is changing global politics and is certainly accelerating the cost-of-living crisis, which is, in turn, impacting on national politics. On the one hand, we have organisations such as the IPPC telling us that we have a climate change emergency, but, on the other hand, we have security of supply and affordability clearly rising up political agendas, certainly in the UK. Do you think financial regulators ought to carry on doing what they have been to date, or should they pause and take a look at whether they are doing the right things overall?

Mike Zehetmayr: As the Financial Stability Board identified, post the credit crisis in 2012 we are facing a number of geopolitical risks. Climate change is one of those. The pandemic was a second. We just happened to see the pandemic materialise much faster in modern consciousness than we realised.

The challenge we face is that climate change has been a fact for many decades but we in temperate regions have not felt the impact of that. If you look at the scale of climate-driven migration in areas of the world that are sensitive to climate change, that has been happening for 20 or 30 years. The challenge we face is that the transition is a multi-decade transition. We cannot look at any individual geopolitical risk in isolation. We need to understand that we have to navigate a path through a series of events, some of which have already taken place, and we need central bank support and policy—to Sonja’s point—that will help to navigate and provide that clarity and certainty to enable us to make financial decisions certainly for financial services to support that transition over a multi-decade period. We need to recognise that we require that certainty in order to be able to allocate capital finance.

Going back to my earlier point, we need the data to support that decision-making, not just now but over an investment period where we will have to invest in infrastructure or assets that may have a return over a 20 or 30-year period and that may be impacted by climate change and other environmental impacts associated with climate change. In my view, that is what we need to navigate. It is not just one geopolitical risk but a number of geopolitical risks, some of which have already started to impact us.

Baroness Noakes: To be clear, you are saying that there should be no change to current policies in financial regulation because of the current crisis that we are facing, particularly the cost of living and security of supply.

Mike Zehetmayr: As somebody who worked in the Arctic 30 years ago, 30 years ago it was very obvious what was going to happen. We still did nothing or very little. We have to act now as outlined by the IPCC in their 6th assessment report. I think the Financial Stability Board and the G20 have recognised that this is an existential risk not just to financial services but to broader society. If we do not act now and we do not have certainty about how we act—and financial services has a role to play here—we will continue to see impacts associated with climate change on broader society.

Baroness Noakes: Ms Gibbs, do you have anything to add to that?

Sonja Gibbs: I would echo much of what Mike said, but perhaps say that one of the changes that needs to be incorporated is how you cope with the significant distraction from all policy priorities. If you are a regulator or policymaker, you have a great deal of concern about operational and legal risk, and about market disruption stemming from this crisis, but we hear consistently that this climate change threat is only accelerating, and

we have to continue to focus, even with this huge uncertainty about the extent of economic and financial dislocation.

The other big risk is potential derailment to international co-ordination. The disruption related to war is inherently political, and politics, whether we like it or not, affects the ability of global policymakers to do their job in international co-ordination, even on big issues such as climate change.

The Chair: Do you feel that the financial regulators have the balance right when addressing climate risks, in marrying up the move to renewables and the need for energy security?

Sonja Gibbs: There are the energy security types of approaches. The biggest question here is whether the prospect of sustained higher oil and energy prices and the disruption coming from conflict accelerate the push to renewables. Arguably, you are seeing in early indications from regulatory and policy discussions that it does. It increases the focus on a shift to renewables, but the real challenge will be the siphoning off of resources. It takes huge financial resources to execute transition, as you all know very well. To the extent that these need to be spent on repairing economic damage and on paying higher prices for energy and food, arguably you then have a waste of resources that could be better put to use in lowering the cost of green technologies and supporting the shift to renewables.

Q149 **Lord Livingston of Parkhead:** For a number of years, coal has been treated as such a dirty fuel that many financial institutions, governmental and non-governmental, have divested coal assets or certainly not funded anything new. Looking at not just banks but fund managers, do you think they should be doing the same with oil, gas and LNG? Should they be saying, "No more or we divest", or something else?

Mike Zehetmayr: Transition is a multi-decade activity and, as with any form of risk management, we need to diversify that risk. That is both a technology risk and an energy security risk. When we talk about hydrocarbons, we tend to focus on energy production. Hydrocarbons are also important for other activities—chemicals, paints, pharmaceuticals. Whatever happens, we do not have replacements for those in modern society today, so we still need a hydrocarbon business and we still need to be able to invest in that. We also need to manage the associated risks, as we have talked about—the geopolitical risks.

The view is that we need to transition over a period. We will have an energy mix over that period. We will need to balance energy production for electricity, and that will shift over time, certainly for the UK. There are assumptions also that the technology challenges we face with some of the alternative energy production will replace some of that hydrocarbon generation.

We also should not forget that that is only one side of the equation. We also need to consider the consumption side of the equation and development of replacement of hydrocarbon based technologies. For

example green steel produced using green hydrogen, which are being tested now and will develop over time, will change the consumption profile.

In residential and business properties, we also need to think about what we need to change on that consumption. In the UK, a third of the current energy consumption is in building stock. That is not unique to the UK. It is true in many other countries with aged or old housing stock. We need to address that as well. Do not just focus on generation; also think about the consumption and how that energy is being used.

Sonja Gibbs: This comes back to the steering question. What is the role of Governments in steering the financial sector to fund this and not fund that? A key consideration that we hear is that, if financial firms fully divest, just turn out the lights or turn off the funding sources for coal and other fuels, there is obviously the risk that oil, gas or coal companies could turn to non-transparent private funding sources—and there are plenty of those available. Then financial regulators would have minimal oversight and ability to hold other private sources of funding to the same standards to which listed public companies are held.

One of the biggest themes we hear is that financial firms need to finance the transition, meaning that they need to work with their clients to support and encourage transition across the supply chain. You will see a lot of interesting talk and discussion about this at the upcoming COP 27 and COP 28, both of which are in the Middle East, where countries are looking to revolutionise their economies, but they need this funding to adapt business models. Financial firms can also provide really valuable advice, help and technical assistance in helping to do this.

For asset managers it is all about stewardship and engagement. They have a tremendously important role to play via engagement with the companies they invest in. Rather than divestment, it is all about engagement. Transition investment is a phrase we will be hearing a lot about.

Some firms have made the decision not to fund any new fossil fuel projects and instead focus on greening their existing clients. At the end of the day, it is not the mandate or responsibility of banks to set climate policy—again, this goes back to policy decisions—that will ultimately reduce the demand for, and hence the supply of, carbon-intensive industries and activities and services and products.

Lord Livingston of Parkhead: Do you think current financial regulation is subtle enough and nuanced enough to be able to pick up the difference between funding the transition and funding a continuation of carbon emissions, whether it is funding companies like many of the oil majors that are working to reduce their emissions and create a greener portfolio? Many investors are saying, “I’m going to sell stock in them”, and perhaps the funding is just moving to less transparent areas, as you describe it, Sonja, or it is being done in countries that have lower environmental standards than we do. Are we missing a nuance in all this?

Sonja Gibbs: I think what you are describing is a bit of a holy grail. The war rooms of every central bank and supervisor around the world are all seeking to find the balance and nuance that you describe. It is very different in different places. If you look at what the EU is doing with its taxonomy, it is quite granular. It tries to be very clear: "This is green. This is not green. This is brown. This is dark brown". That is certainly one approach. You can try to use that to find the nuance.

In other jurisdictions such as my home jurisdiction, you will find a much more cautious approach to the question of exactly how central banks ought to be engaged in this type of finance channelling. It really differs. Then you have a number of emerging economies, as you know, that are in an entirely different position, which have to face the balance between survival and mitigating climate change. Out of one window there are protesters, "Please don't close down our jobs in this vital industry", or, "Don't make our energy sources more expensive", and there are climate protestors out of the other window. It is different in different areas, but they are all seeking to strike that balance.

Lord Livingston of Parkhead: Mike, do you have any last comments on that?

Mike Zehetmayr: Clearly, we are focused on the regulation and disclosures. A core fact is that financial services firms will look at the associated financial risk as well as the return of the deals they are doing. I am starting to see a recognition of the interconnectivity within the supply chain. If, for example, you do not invest and you limit liquidity into the maintenance and development of existing hydrocarbon businesses, they will degrade or fail faster impacting our ability to transition in an orderly way. There is both a question to be addressed for specific parts of supply chain and the end to end supply chain impact associated with the investment and protecting the transition across the value chain. In that network thinking across the supply chain, I am definitely starting to see from a risk management perspective that firms are beginning to understand that. What has supported that is the stress testing that, for example, the PRA and the ECB have done recently.

The Chair: May I pick up quickly on one point, Sonja Gibbs? There are different scenarios that banks and many financial institutions use. The International Energy Agency gave evidence and we were very interested in its scenario, which, as you know, a lot of financial institutions are following, which says that there should be no new oil and gas fields approved for development. I also think it is saying that there is no need for further LNG plant, although I might be misquoting it here.

Picking up on what Baroness Noakes said, and the subtlety point that Lord Livingston asked about, do you think that it is a bit too much of a blunt instrument, given the current geopolitical climate and situation we are in, to follow something that does not necessarily have this leeway for geopolitics, and the financial stability and economic risks of the situation regarding energy right now?

Sonja Gibbs: That is the type of discussion you would hear. It is also a sequencing question and somewhat aspirational. In the long run, or at a certain point in time, there need to be no further fossil fuel investment, LNG plants and so on. However, there has to be a period of transition, and we have to find a way to get there without massive economic damage. Those are very much the types of questions that are being discussed.

Viscount Chandos: Before I ask my principal question, can I follow up further on that? If the EU is to reduce its purchase of Russian oil and gas by two-thirds in the next 12 months, that poses a huge challenge for energy management and security. Surely we should look very carefully at energy consumption—the burning of hydrocarbons—and say, “If purchases from Russia are reduced by X, that justifies the purchase from elsewhere of the same amount”. We heard from one of our witnesses in the last couple of weeks that Russia would find it very difficult to sell oil and gas, but particularly gas, other than to Europe, which implies, if those cuts are actually going to happen, that that gas would remain in the ground for some considerable period. Do you think it is reasonable to say that the exploitation of existing reserves elsewhere should be maximised if it substitutes for hydrocarbons that would otherwise have come from Russia?

Sonja Gibbs: It is a determinist challenge. On policies to do with energy consumption, again, we go back to the appropriate role of the financial sector and government policy in these issues. You go back to the straws analogy: do you tell the financial firms not to finance firms that make plastic straws, or do you outlaw plastic straws? Leaving aside the specific role of the financial sector, clearly Russia would find it difficult to sell oil and gas to Europe.

What it comes down to here is how quickly the cost of alternatives can be brought down. To really make the most of cutting off Russia’s ability to sell its energy supplies, you need to think about what the alternatives are and whether that is simply importing the same types of fossil fuels from elsewhere, or whether it is an accelerated shift to renewables. That is the dilemma that policymakers are working out, including the implications of a faster shift to renewables, and whether that might trigger greenflation, as they refer to it. There are some very challenging questions.

Viscount Chandos: If you look at a timescale of, say, two years, and you talked earlier about avoiding economic damage, it seems to me that the next two years could see enormous economic damage, or political damage, if the replacement of Russia as a source of oil and gas is not successfully managed. You can debate how quickly you can accelerate the use of renewables, but it is not going to be a material difference in the next two years. Is it fair to say that there has to be a substitution like for like over a two or three-year period for anything that is not taken from Russia to be oil and gas from other sources?

Sonja Gibbs: It is somewhat outside my immediate field of expertise. Generally speaking, there is the impression that there will have to be a

significant degree of like-for-like substitution, because we simply do not have the ability to access renewables at scale, at an effective cost, to make a much faster transition. That was already the case prior to the crisis and the crisis does not really change that. What it does is focus the minds on being able to manage this shift, but you are quite right that there has to be an element of like for like, at least in the near term.

The Chair: Should financial regulators allow for that, or at least should they give a signal that it is permissible so long as, overall, we remain on track for net zero?

Sonja Gibbs: It is a really interesting question, and, clearly, those discussions are ongoing as we speak. If you look at the way financial regulation is set up, it is not set up to bend with the wind and adapt very quickly to the current conjuncture. Rather, it is focused on a longer-term work plan. I have no doubt that they are considering exactly these questions, and whether, for example, sequencing should be changed, or timeframes within which certain rules should become applicable should be modified to some extent to allow for those circumstances. I am sure these discussions are ongoing.

Q150 **Viscount Chandos:** Perhaps I can move on to my other question and, Mike Zehetmayr, if you have anything you would like to add to the previous question that would be great.

You mentioned data and the importance of it in your response to the Chair's first question. Would it be right to say that you attach a lot of importance to climate-related financial disclosure by companies and entities in all industries and sectors? Would that importance lead to better pricing of risk and a better ability to encourage investment in renewables and a reduction of investment in fossil fuels?

Mike Zehetmayr: I think you have answered my question for me. The answer is yes. To link your previous question to Sonja with the response, transparency and access to data within the supply chain, which is what we need for climate change and more broadly for other ESG characteristics, is one of the base criteria for us to be able to make informed decisions on whether the activities we undertake are sustainable. Also, it is not just at the point in time that we allocate capital and provide investment; it is over the life of that asset.

One key thing I am seeing, and I think we need to do this more broadly in financial services and in the economy, is a focus not just on what we ask people to disclose but on how. As a technologist, a challenge I face is that I see clients now having to go and source large volumes of data, not only within the perimeter of their organisation but having to go out to suppliers, distributors and to their clients asking for information. It is information and data relating to, "What are the climate risks you are facing? How are you adapting? How are you going to transition?"

We saw this recently as part of the work we did for a number of financial services firms as part of the PRA's climate stress test. When we went out to in excess of 600 corporates globally, in many cases they did not

understand why they were being asked for this information. Not only did they not understand, but nobody owned this data in that organisation. So they needed multiple parties to that organisation to bring that information together and submit it so that the financial institutions could undertake the stress tests for the PRA.

The focus only on financial services is missing part of the point, which is that we need to educate more broadly society as to the level of data, and provide the structures in which that data can be disclosed and verified. I see that currently as a gap on both the policy and regulatory side, to support the mechanisms for disclosure of information.

One lesson we learned from the credit crisis was that we were unable to resolve where the credit risk lay and with which legal entity. As part of our response post the credit crisis, FSB created an organisation called the Global Legal Entity Identifier Foundation. This created a mechanism to share legal entity information that was globally recognised for any organisation that wanted to register. That has been established now for nearly a decade and is working very successfully.

There are lessons we need to learn from that to be able to look at how we support the actual disclosure of information in such a way that we do not have multiple organisations asking for the same information, in different ways, multiple times, which is where we are heading at the moment.

Viscount Chandos: If companies are not currently well set up to draw that information together, how confident are you of the quality of the disclosure that we are going to see? Your colleagues on the auditing side of your firm and their counterparts have demonstrated fairly regularly the challenges of ensuring the accuracy and the quality of financial disclosure. What makes you confident that the climate-related disclosure will be better than that?

Mike Zehetmayr: I would look at what the EU is doing on CSRD. The European Union is also looking at financial disclosures. One interesting thing EU is doing is to make them machine readable, moving away from a purely qualitative description with financial information in a document to being able to provide the underlying information from which it is consolidated and aggregated. We need to look at that and learn lessons from it and, as I said, we need to look at the lessons learned from the creation of LEIs globally, because that is now internationally accepted across, I think, 88 different jurisdictions. We have interoperability and information that corporates are able to disclose and verify, and there is a mechanism to test the quality of it.

Q151 **Lord Fox:** Central banks are already conducting climate stress tests on financial institutions. What impact do you see of these stress tests on the institutions' decisions and strategy, and on the pricing of financial risk?

Sonja Gibbs: Certainly in the strategy, the approach to climate stress-testing and scenario analysis—these related but distinct tools—is a key

topic throughout financial firms. You see that each and every one of our members is looking to organise themselves internally to be most efficient in the way they address the implications of these stress tests and exercises. They are a vital tool. You need to be able to assess the impact that both physical and transition risk can have. As mentioned earlier, close to 30 different jurisdictions are doing this.

There are insights already about the impact of climate risk on the economy and what this means for financial firms. As Mike mentioned, you still have these data gaps and methodology challenges around these exercises. A lot of good information, including what these data gaps are and how we might overcome them, and the methodological constraints, is the No. 1 priority. We developed a whole new working group at the IIF to deal with exactly these questions. It really helps firms identify potential sources of risk and contributes to internal knowledge, which in turn feeds into pricing decisions.

One issue organisationally that many firms are seeking to address—and you might think about this in the context of the role of the chief sustainability officer in uniting different parts of the firm—is overcoming siloing in these questions. You have your risk and your compliance people who look specifically at these stress tests, at compliance, at interpreting and responding. Then you have business lines that do not necessarily have that day-to-day direct connection. That is changing very rapidly, and it will continue to be a priority of firms.

One argument we would make is that there are many more financial firms setting these climate targets and making these net-zero commitments.

Lord Fox: To be specific, what sorts of decisions is all this information and interesting stuff causing these institutions to make? What actual practical changes are happening as a result of all this stuff?

Sonja Gibbs: It all feeds into financing and strategy decisions. At board level, in terms of corporate governance, it increases the focus and need to ensure that board members and top management are fully aware and incorporate this information into business strategy. Ultimately, as I say, it is making the link between the regulatory and compliance side of the business and the business minds themselves, which is feeding into pricing specifically.

Lord Fox: Mike Zehetmayr, in answer to Baroness Noakes's question, I think you sort of said that, regardless of the war, we have to carry on with this anyway. I am going to turn the question round the other way and say that this is happening. How does the process of climate stress-testing also take into consideration the needs that have been thrown up by the war? In other words, what reaction is happening or should happen to those stress tests to take into consideration the changed situation in which we now find ourselves?

Mike Zehetmayr: That is a really important question, because the stress tests are largely exploratory in nature. They were never intended to look at capital and pricing. Part of the stress test is to enable the organisation to pose a set of questions about historical-looking risks that exist within their current portfolio.

One key thing, and we certainly saw that with the ECB stress test, is a forward-looking aspect that should include not just climate change scenarios but other impacts that exist in that. That could be geopolitical risk, as you have identified, but there are also questions about replacement technologies. We have talked about renewables and alternative consumption. Those stress tests will evolve over time to be able to start bringing those other dimensions into the understanding of where those risks lie.

They are only one element of the regulatory framework that supports organisations to start adapting their business models and their risk frameworks. Here in the UK from the beginning of this year, as in the European Union, climate risk became a risk type that needed to be embedded within the risk framework. That is not just a definition of whether it is a risk. Is it something that is a principal risk, to be treated similarly to market credit risk, or is it a cross-cutting risk, similar to operational, legal or reputational risk?

By mandating climate risk is embedded into the risk framework and management practices, we see organisations now working through, "How do I treat, how do I respond to, how do I assess climate risk as one risk type within my risk framework?" There are plenty of others that need to be considered, but certainly within the industry it is not seen as the only and pre-eminent one. It is a new risk type that, through the regulatory framework, the stress testing, and the disclosures here in the UK from next year and in the European Union from this year, is starting to evolve the way that financial organisations assess that risk.

Lord Fox: Is that spectrum of risk expressed through the central banks' stress-testing process, or are they, in a sense, communicating one or a couple of risks rather than communicating the need to factor in that spectrum to which you have just alluded?

Mike Zehetmayr: It depends on the nature of the way the stress test has been constructed. In the European Union, they use a dynamic balance sheet: how does that balance sheet change over time? The primary risk they were looking at was the impact around climate change, but, as they said, it is only one mechanism.

Lord Fox: In the UK, how is that done?

Mike Zehetmayr: In the UK, there was no dynamic balance sheet. The PRA is now coming back and looking at a reassessment or a review of how financial services organisations are responding to climate change but, again, within the broader risk framework that those organisations have defined. It is a new risk type that organisations are working through

as to how that impacts the other risk types that they have within their organisation.

Sonja Gibbs: It is important, I think, to realise that firms are also looking at whether these risks might in some way be double counted in their areas of risk assessment. In other words, climate risk has a certain set of impacts that might also be captured in other areas—for example, the pricing of credit risk.

The Chair: May I jump in and ask a basic point? I was reading one of the submissions from an organisation called Positive Money, which makes the point that we need to see low-carbon investment through public and private sources in the UK rise from £10 billion a year in 2020 to £50 billion a year by 2030. Meanwhile, it says, the five largest UK banks have poured—this is its words—£227 billion into fossil fuels between 2016 and 2020.

I then read that Frank Elderson at the ECB and others are saying that there should be capital add-ons to reflect fossil fuel exposures from banks. Is that the right approach? Should there be a brown-penalising factor, as some people have said, or should there be a green-supporting factor, as other people have said, or should there be neither?

Sonja Gibbs: This goes back to the steering question and the appropriate role of capital—or not—in steering these decisions. If you had a capital add-on structure of brown penalising and green supporting and so on, what we talked about earlier was the need for active engagement, stewardship and steering, and working with clients to help them transition. If you put those very blunt tools, which the capital framework represents, into these decisions, it makes it very difficult to effect that transition and mobilise the kind of capital that is needed to make transition happen.

Mike Zehetmayr: I just want to build on something Sonja said. A key thing that came out of the PRA stress test was that it clearly stated that it expected UK financial institutions to engage with either the investor or the counterparty to which it is lending. That is to the point of building up an understanding of what those transition and financing needs are, and building up an awareness and understanding within the bankers' relationship managers and investment officers as to what those needs are. Ultimately, at the core of this, if you understand that, a financial organisation will seek the return and the opportunity to be able to support that.

The other interesting thing I would flag here is that we are not seeing a lack of appetite within financial services to invest in green, or in sustainability, or in renewable energy. In consultation with my other Partners as part of the preparation for this, they are not seeing anybody saying, "I can't get access to the funds", and, in many cases, they do not feel there is a need to go for a green bond because financial institutions are prepared to provide the funding to support a traditional fixed-income instrument.

There is definitely a willingness and an appetite from financial services firms to support the investments required, and to share in the risk in some of the emerging technologies that need to be proven, such as carbon capture, but it requires investment for financial services to be able to support that.

The Chair: Just to paraphrase, would you say that going down the route of capital add-ons or green-supporting factors is ill advised? We should be looking instead at using the results in climate stress tests and disclosures rather than going down that route. Is that what both of you are saying?

Sonja Gibbs: That is a fair paraphrasing. There may come a time when we have the data and the tools to be able to do that effectively, but we are nowhere near there yet.

Mike Zehetmayr: I also see financial institutions voluntarily looking at how we set limits on what we are prepared to finance from climate-driving gases, which supports the collection of data to be able to make the assessment of where the risk should be. I think financial institutions are actively participating in the transition.

Sonja Gibbs: Commitment frameworks such as GFANZ will really help there as well.

Lord Griffiths of Fforestfach: I have two questions. I would like to come back to something you said earlier. In listening to the answers today, and it started with Mike, there has been a huge emphasis on the collection of data. I will put the question first to Sonja. You mentioned the issue of compliance and risk. I chaired for a major international US investment bank both the audit committee and the risk committee of its international business. What I found was that this quest for more data led to a huge amount of regulation and a huge bureaucracy. If Lord King was here today, and he has written about it, he would actually agree with that proposition. Do you feel in the quest for finer data and more regulation, which will inevitably come from it, that we are in danger of the same sort of overweighting that we have seen in the banking sector?

Sonja Gibbs: The data question is obviously fundamental. The wish to have better and more perfect data will not go away. I paraphrase Frank Elderson of the NGFS and ECB, who said something along the lines of patchy data is better than no data; we have to start somewhere. I think there is a growing realisation that the starting has to go on. It cannot be a barrier to progress. I would also highlight, and Mike may want to say more about this, the huge array of data and service providers that are putting their heads together about ways to overcome these data gaps, including through some very sophisticated financial technologies.

Mike Zehetmayr: To build on that point, over the last two years I have had a team who have been monitoring the third party ratings and data market. Some 18 months ago, we were probably tracking about 40 providers. We are now tracking in excess of 110. There is a recognition in the market that there are gaps in the data, and there are traditional data

providers that are using their extensive capabilities to outsource that data.

We also see alternative data providers coming into the market. Fintechs are using machine learning and artificial intelligence to extract information from unstructured data sources, to attempt to give greater insight. There are issues with that. There is no question about that, and IOSCO and the FCA have both flagged that reliance solely on external data without engaging with your clients carries risk.

If you look at the different taxonomies that are being developed—and this is where the International Sustainability Standards Board plays a critical role—we see, the last time I counted, 27 or 28 taxonomies being developed. There is an overlap but they are not comparable. They will create a structured framework against which organisations will disclose information. We have seen the first set of those disclosures in the European Union this year, this quarter. We also have a number of jurisdictions mandating in the SEC last week, which announced their intention around Scope 1, 2 and 3, in line with the TCFD. Those sets of disclosures, which will in many cases need to be assured and attested to, will be reported on within financial terms. That set of information, as it starts coming to market, will become incredibly valuable, but there is a transitional period we are in, where there will be issues and gaps in the quality and scope of that data.

Q152 Lord Griffiths of Fforestfach: The question I meant to ask was a question about green technologies and how useful the taxonomies are, which you have just started on. How practically useful are these 28 taxonomies that you are talking about? As a layman in the area, the EU is talking about nuclear and gas, and the UK is talking about carbon capture and about gas without carbon capture. Perhaps 28 answers my question, but I would be interested in your response.

Mike Zehetmayr: I look at it in a slightly different way. If I have a standardised catalogue that defines the criteria, I can systematise that within a database and within technology systems. I recognise that currently those different taxonomies will not map one to one. There will be an overlap. As a technologist, my job is to be able to understand how I map those. That is a recognised challenge that was addressed in COP 26 with the creation of the ISSB. The IFRS Foundation working as part of the ISSB, and my colleagues not only in EY but the four other big four and other accounting firms, recognise that we have a role to play in that and are actively participating in how we create a framework to allow us to be able to disclose this information with a level of consistency. It will never be perfect, but that is partly where people like me have a role to play to be able to deal with that uncertainty.

Sonja Gibbs: Ten seconds here on taxonomy, just to note that it is such a political construct. Different countries have different national priorities. Singapore is more concerned about flood risk perhaps. Nuclear and coal are treated differently. It comes down to interoperability and finding a way forward. They are always going to be different, but we need

taxonomy and standardisation, otherwise we risk greenwashing. The G20 Sustainable Finance Working Group has been doing a lot of important work here on trying to develop interoperability.

Lord Griffiths of Fforestfach: How different is the US in its approach from the EU?

Sonja Gibbs: Very. It is a philosophical difference.

Lord Griffiths of Fforestfach: Could you expand on that for one minute?

Sonja Gibbs: The EU considers that there needs to be a fully-fledged and highly developed and granular taxonomy, and that helps in steering capital discussions. The US is far more laissez-faire in its approach. The idea that there could be a fully-fledged US taxonomy is a bit far-fetched at present. It is just not the way the US authorities will address this. I think disclosure will be a more valuable tool from that perspective.

The Chair: May I try to summarise? Given that we are trying to work out how we can accelerate investment to ensure we get affordable and reliable renewable energy, out of everything we have talked about this afternoon, it strikes me—and I will turn to Baroness Kramer in a moment—with regard to data disclosure leading to and helping to underpin taxonomies that are standardised, putting words into your mouth or thoughts into your head, that that is what you would tell regulators and Governments they should look at to accelerate the investment that we need, or is there something else that we have not yet touched on?

Sonja Gibbs: Data disclosure is absolutely fundamental to investment decision-making. Without that, there will be no progress at all.

On the standardised taxonomies, because it will be impossible to come to one, or even two or three international taxonomies that everybody accepts, again, I come back to the real importance of making these interoperable across jurisdictions.

The Chair: Mike, would you say that that is the most important thing to look at?

Mike Zehetmayr: Yes. This goes back to an earlier point. We are talking about a transition that is multi-decade. Not only is it about understanding where we are today, so being able to measure where we are today, but we need to be able to measure along a pathway to where we want to get to. It will not be a straight line—it never is. Part of the challenge we need to address is to have a target of where we think we need to go. That will be different for different geographies because the risks and the vulnerabilities are different, but we need to have the underlying data that is being disclosed to be able to evidence that we are moving in that direction, and, where necessary, both regulators and policymakers can trim the sail, so to speak. We need certainty over where we are heading because that is how financial services and other organisations that are

using that capital investment will invest in the technologies that will help us transition.

Q153 **Baroness Kramer:** Officially we are out of time, so I will try to make this rather fast. I have been asked to focus on the green bond market and pick up on the issue of trying to provide a huge amount of financing globally, to achieve this kind of transition. Ms Gibbs, you spoke somewhat scathingly about taxonomies as a useful structure to try to help create a framework for the European bond market. I think earlier, Mr Zehetmayr, you said that it did not need to be a green bond. Provided the spirit and culture of the company is correct, any bond will do.

Can you help us find some clarity in all this? I talked with an issuer just last week and, frankly, it is not a green company. It is called a green bond because that suits both their reputational goals and the reputational goals of the potential investors. I cannot see anything particularly green about the bond either. How do we do this without essentially the whole concept becoming rather abused and regarded with great cynicism by the general public?

Sonja Gibbs: That is the trade-off, is it not—scale over integrity? You see that also in carbon markets, which is a wholly separate discussion. Can you have scale and integrity? Without dating myself, I have been in these markets for 25 or 30 years, and they can co-exist. For green bonds, and for ESG bonds more broadly, the problem is that you will not be able to finance transition without massive growth, so it is a question of how you do it with the most possible integrity.

Cumulative issuance in green bond markets is now close to \$1.5 trillion. It has been growing exponentially. That is great, but it is just a tiny fraction of global bond markets, which are more of the order of \$120 trillion to \$130 trillion, so only a 1% to 2% range is green yet. To get there, you need, as you say, more depth, more liquidity, and that calls for standardisation. There are a lot of market-led initiatives. ICMA has the green bond principles. All this is very helpful. It will be a big area for policy and regulatory oversight as well. As these net-zero commitments multiply, you will need the instruments to be able to reach these targets, whether that is on the use of carbon credits, or on the kinds of instruments that scale up the financing you need for the transition.

Lastly, the green bond and the ESG bond markets have the potential to be absolutely transformative for finance for emerging markets. This is a problematic area. It is very difficult to channel resources at scale to climate finance for emerging markets that so desperately need it. Part of the problem is a lack of transparency and a lack of clarity on how Governments adhere to ESG principles. You need to know that to determine the impact of the money you are investing in these markets. There is huge potential here, and the next few decades will be really transformative, I think, as we see these markets take off.

Baroness Kramer: That is really interesting. Mr Zehetmayr, perhaps you could further address the issue of what Governments or regulators should

be doing to accelerate or enhance this process, if you think it is the right one.

Mike Zehetmayr: There are two things. One is that the liquidity is there. Whether it is a green bond or a standard instrument, financial institutions have made commitments, as were made at the back end of COP 26.

The second is to point to compliance with different sustainable products. With the implementation of climate risk and sustainability within risk frameworks, organisations definitely now question much harder the link to a sustainable product or a sustainable activity for the financing they provide. It is not just at the point of sale or transaction; it is over the life of the product as well, because they have to make assurances to the buyer of the coupon or the investee in that product that the outcomes or the impact of that will be delivered. That is one of the key shifts that we are seeing within the regulatory environment, and proactively within the organisations, because it is not just the investor; it is the investor in the organisation and other stakeholders and policymakers raising these questions and challenging financial services. So there is definitely a shift happening in that.

The final thing is voluntary carbon markets. There are green bonds available for investment purposes, but we need a mechanism to be able to offset transition that will generate carbon. There is no question about it. We need a mechanism to enabling organisations to make that transition and make that investment. That is not just capital. It is also manufacturing and investment in the building and manufacturing of products. That needs to be offset. We need to be able to balance the generation with sequestration. Whether that is through sustainable farming here in the UK, or it is through carbon capture, that offset needs to happen because we need to make change.

Sonja Gibbs: Could I mention very briefly the Integrity Council for the Voluntary Carbon Market? It gets to exactly this point and why the core carbon principles about what is a good offset, what is a good carbon credit and what is the standard for it will be so important. We look forward to unveiling that a little later this year.

The Chair: Excellent. We have covered an immense amount in a relatively short space of time. Thank you both very much for joining us from the States and in the UK. We are very grateful indeed.