

Environmental Audit Committee

[Oral evidence: Green Finance, HC 617](#)

Tuesday 16 January 2018

Ordered by the House of Commons to be published on 16 January 2018.

[Listen to the meeting](#)

Members present: Mary Creagh (Chair); Colin Clark; Zac Goldsmith; Caroline Lucas; Kerry McCarthy; Anna McMorrin; John McNally; Dr Matthew Offord; Joan Ryan.

Questions 1-90

Witnesses

I: Alex White, Senior Policy Officer, Aldersgate Group; Diletta Giuliani, Climate Bonds Initiative; Dustin Benton, Policy Director, Green Alliance; and Sini Matikainen, Research Fellow, Grantham Institute on Climate Change and the Environment.

II: Angus McCrone, Chief Editor, Bloomberg New Energy Finance; Steve Waygood, Chief Responsible Investment Officer, Aviva; and Rhian-Mari Thomas, Chair Green Banking Council, Barclays.

Written evidence from witnesses:

- [Aldersgate Group](#)
- [Green Alliance](#)
- [Grantham Research Institute on Climate Change and the Environment](#)
- [Aviva](#)
- [Barclays](#)

Examination of witnesses

Witnesses: Alex White, Diletta Giuliani, Dustin Benton and Sini Matikainen.

Q1 **Chair:** Good morning everyone. Can I ask our guests to introduce themselves for the record, please?

Alex White: I am Alex White, Senior Policy Officer at the Aldersgate Group.

Diletta Giuliani: I am Diletta Giuliani, Senior Policy Analyst at Climate Bonds Initiative.

Dustin Benton: I am Dustin Benton, Policy Director at Green Alliance.

Sini Matikainen: I am Sini Matikainen, Policy Analyst at the Grantham Institute.

Q2 **Chair:** You are very welcome with us this morning and welcome to our second panel, who I can see are weaving in behind, as well. Ms Matikainen, can I begin with you? Given the new international focus of the Green Investment Group and the possible loss of our European Investment Bank funding, are we facing a green investment gap in the UK?

Sini Matikainen: I think that is something that is a potential issue. One of the things that we highlighted in our consultation response is the concern that with the Green Investment Bank now being privatised it will fulfil a different role than it did before. The special share arrangement should be helping to guarantee that the focus is the same as it was before, but in a sense it is going to be a private sector actor competing with other private sector actors for similar types of projects, as opposed to a Government entity that is perhaps taking on higher risk projects or projects that private sector actors would be unwilling to fund, so it might be changing its focus. We did highlight that concern but I think at this stage it is difficult to say definitively, given the privatisation is still quite new, so we have only a few months' information to draw from.

Q3 **Chair:** Do other witnesses have any comments on whether we are facing a green investment gap?

Dustin Benton: I think it is important that the European Investment Bank invested more than twice the amount the Green Investment Bank did. It put a lot of money into interconnection, which is an increasingly important part of the UK's energy story and will be in the next decade or so.

Q4 **Chair:** Where has that money gone? You say interconnection: where?

Dustin Benton: Between the UK and the Continent, so electricity interconnection mostly. It was worth about £12 billion between 2011 and 2015. If the Committee wants to ensure that the Green Investment Group, now private, is able to continue to lend finance, I would suggest



HOUSE OF COMMONS

there are five things it might want to do. The first is to effectively act as a watchdog, put together a public scorecard to make sure the Green Investment Group keeps to its commitments. Some of those are taking development risk, which is something that the Green Investment Bank did not do as much as it could have done and now that it is a private sector actor it ought to. I know there is some interest within the bank in doing that.

Another is being mission driven. In our work with the Green Investment Bank, as was, we saw it was enormously important that the bank sought out markets to provide their finance into, LEDs for example. I know that the staff in the Green Investment Bank had to run around the country trying to find someone to take up LEDs even though they are an obvious investment and finance was very cheap and available. The Green Investment Bank did a push that helped to bring some of these projects over the line.

Chair: LEDs?

Dustin Benton: LEDs, yes. LEDs in street lighting, for example.

Chair: Right. Not in homes?

Dustin Benton: Not in homes, no, in public buildings and street lights. The third thing I would suggest is the Green Investment Group's green investment principles. It is quite a useful document; they seem to reasonably robust. They are a good bit of guidance for other green banks and they thread the needle between greenwash and reasonableness pretty well. The final thing is the Green Investment Group committed to £3 billion in public investment. I would want to make sure that that is £3 billion of the Green Investment Group's money not £3 billion levered in. Just for comparison, the Green Investment Bank spent £3.4 billion and had £12 billion levered in.

Q5 **Chair:** Thank you. Do other colleagues have anything to add?

Alex White: I agree that it is a bit early to see where we are with the Green Investment Group now. That said, I think they have made quite a lot of indications that they are still very much interested in investing in the UK policy space. They have committed to annual reporting to an annual stakeholder day. They are part of the Green Finance Taskforce. It is not a guarantee, of course, but it is quite a lot of resource for them to use if they are not interested in continuing to invest. I think that is something for key stakeholders to keep an eye on. I know the Green Purposes Company is interested in that.

The other thing that is worth mentioning is that it is a private company. If we want the Green Investment Group to continue investing in UK green infrastructure, that is partly down to the policy environment and the policy framework in the UK to make it an attractive place for investment.

Q6 **Caroline Lucas:** I want to pick up on that point. In terms of how much



HOUSE OF COMMONS

reassurance we have that the Green Investment Group will keep to the same kinds of principles, wouldn't you say that where they have been investing right now does not give us all that much reassurance? If they are supposed to be looking at market failures when it comes to bringing on new technologies where private finance on its own wouldn't do the job, looking at things like smart meters or more wind is not really where those gaps are, is it?

Alex White: Certainly that is the case. I expect there is a bit of a settling-in process as they go from the Green Investment Bank to the Green Investment Group, so it will be interesting to see how that goes. The question to ask is: if they do not start investing more in the areas that we would expect them to invest in, is that because they don't have the appetite to do so because they are more interested in investing elsewhere or is it because they can't find the projects to invest in in the UK, which is something we have heard a lot from various private investors?

Q7 **Chair:** Can I go back to Ms Matikainen? What options are there for a future relationship with the European Investment Bank with the UK outside of the EU?

Sini Matikainen: This is one of the issues that is still very much being discussed under Brexit negotiations. It is very difficult to say at this stage. There has been some indication from the EIB president who said last year that he was open to finding a way for the UK to continue participating in the EIB. The EIB does fund countries that are outside of the EU. There is the possibility of finding a way for the UK to continue participating but it is going to be part of the ongoing Brexit negotiations, so it is difficult to say at this stage.

Q8 **Chair:** We don't really know, is the short answer. Your evidence says, "There is a dearth of planned renewable energy projects in the national infrastructure and construction pipeline, equivalent to a 95% drop in investment in 2021 compared with 2017". That is a huge drop, isn't it?

Sini Matikainen: It is, and I feel fortunate that the person whose number I am referring to is sitting beside me, so he might have more insight into this.

Dustin Benton: This was from last year's infrastructure pipeline. I think it reflects the fact that Government have not allocated contracts for difference. There is a real kind of "what is going to happen" in the early 2020s picture. I think for offshore wind, specifically fixed offshore wind, you might have some confidence; there is about £500 million in the pot. There is a promise to build options. Essentially every other renewable technology has no forward visibility about the market that it is able to play into. There is an interesting asymmetry between fossil fuel generators, who have forward visibility on the capacity market that gives them contracts, versus low carbon power plants that have no forward visibility. I think that reflects the lack of investment. We have looked at



HOUSE OF COMMONS

the latest version of the pipeline, which came out at the very end of December, and there is a very large single line item in there worth £53 billion, which is unspecified new energy infrastructure. We are digging to find out whether or not that is high carbon or low carbon energy infrastructure.

Chair: £53 billion?

Dustin Benton: £53 billion. That is from memory. I can check it.

Q9 **Chair:** I am sure we will be able to check that. Thank you. We heard in our round table last week that the UK is on track to miss its fifth carbon budget. Would you agree? Is that your analysis at this point?

Dustin Benton: Yes, very quickly. There is a gap. The Government have run their numbers again and come up with a slightly smaller gap but it is quite a substantial gap.

Q10 **Chair:** What is the percentage gap?

Dustin Benton: It was 9.7%. From memory, I think it is down to 6.3%. That is for the fifth carbon budget period.

Q11 **Chair:** What does that mean in volumes of carbon? How can you translate it into real world numbers? Do you see what I mean? I am trying to get it to be tangible rather than abstract.

Dustin Benton: We have run some preliminary analysis, which we will be publishing shortly. That suggests that the gap could be filled with a combination of bringing forward the 2040 petrol and diesel ban to 2030 and achieving the EPC band C by 2035 commitment that the Clean Growth Strategy makes. We think the gap would disappear if we achieved both of those things, so that gives you some tangibility on this.

Q12 **Zac Goldsmith:** Sorry, I missed the second point. Bringing the target forward by 10 years; what was the second point?

Dustin Benton: The second point is putting in place a policy that would achieve the EPC band C commitments. That is quite a mix of measures but it is basically sufficiency.

Q13 **Chair:** What is EPC band C, for the uninitiated?

Dustin Benton: That is a minimum standard on the energy efficiency of primarily homes: how well insulated, what their energy profile looks like, all of that kind of stuff.

Q14 **Zac Goldsmith:** Briefly, how did they manage to reduce the gap on paper from 9% to 6%? What calculation was done that made that happen?

Dustin Benton: I would encourage the Committee to ask the Government that. My observation is that it is unclear how that gap is closed. There is something about lower energy demand and we don't understand why that lower energy demand has been projected. There is



HOUSE OF COMMONS

higher fossil prices and we don't understand why the fossil fuel prices have been projected as higher.

Chair: That is for us to follow up. Thank you very much.

Q15 **Anna McMorris:** What does the panel think of the Government's Clean Growth Strategy, in particular its proposals on green finance? In your evidence some of you have criticised the lack of policy detail on, for example, energy efficiency and the market for renewables and the aspirational targets. Can you tell us a little bit about what you think about that?

Alex White: We think there is a great deal of progress in the Clean Growth Strategy in that it sets a very positive forward vision, which is very helpful for investors and project developers alike, coming at this from an investment perspective. It sets great ambition and the narrative should not be underplayed in how important that is for investors, particularly international investors looking to invest in the UK. On top of that, it does seem to have good cross-Whitehall buy-in. A lot of different Departments seem to have been involved and that gives greater confidence that there will be stability going forward.

As we have said, we would look for greater detail in some of the policies. For example, they have said there is an aspiration for all homes to be EPC band C by 2035. We would say that that should, first of all, be a target and, secondly, what levers are you going to use to get there? They have set that end goal with no explanation of how they see that happening. We know there has been a series of consultations coming out of the Clean Growth Strategy so we hope that the Government will promptly publish their responses to that with a bit more detail, some milestones for how they intend to meet their targets.

Diletta Giuliani: We have similar views in the sense that we very much welcome some of the green finance elements, the establishment of the Green Finance Taskforce and looking into the establishment of some sustainable finance management standards and green mortgage. Some of the elements are there but it is not very clear what their goals are. If we look, for example, at the Green Finance Taskforce, the mandate can be made a lot more specific and especially some more commitment from the Government that they will take up some of the recommendations that come out of there. We would like to see some more detail about how these things will be implemented in some of the Government policies.

Dustin Benton: We should not forget that the Government have made quite a big symbolic push on the Clean Growth Strategy and that kind of symbolism and rhetoric is valuable. When investors look at whether or not it is worth putting money into the UK, knowing that the Prime Minister and the whole Government are behind a big Clean Growth Strategy and they want to achieve their targets is really helpful. That is a change in tone. This said, if you are going to invest you need some numbers and that is where the Clean Growth Strategy needs to be



worked out through the consultations that have been mentioned. We have some sense of what the numbers look like and what the investment need is and also some sense or not that that needs to be public or private. For example, in electric vehicles, which I have mentioned before, we reckon the vast majority of the electricity infrastructure for charging would be privately financed. This is not really a question of Government needing to pony up a bunch of money. There is some need for Government to set regulatory standards to ensure that the stuff that gets built is consistent and interoperable. There may be a need for some tax incentives to start things off, but this is principally a private sector investment thing. I can elaborate but I don't want to go on too long.

Sini Matikainen: We agree with the other panellists that it is a positive step to outline these projections for the future, but the problem is the lack of clarity on specific policy proposals. It is particularly concerning that according to the Clean Growth Strategy itself, in the technical appendix, they are projected to miss the fourth and fifth carbon budgets, the fourth by 116 million tonnes of CO₂ equivalent and the fifth by 167 million tonnes of CO₂ equivalent. It is quite concerning at the outset to already identify that the strategy is not going to meet the carbon budgets.

The second point is that we want to get into more detail about the green mortgage proposal under green finance. Some of the proposals under green finance take it as a given that green mortgages offer a lower default rate, which contradicts some of the Government's other evidence on what they set out in the strategy on consultation for energy efficiency considerations. There is some discrepancy between Government documents on the same topic, but I don't know if that is something I should go into at this stage.

Chair: No, we are going to ask about that later.

Q16 **Anna McMorris:** What do you think is the most significant measure on green finance announced in it?

Diletta Giuliani: To add something to that, a measure that is lacking when we look at the sector is not only the public commitment but some clarity about how much public money will be spent and what is envisaged for the private capital that should be mobilised for some sectors. For some sectors we have specific public budget numbers, for some we have overall figures. It is unclear where they are coming from. A breakdown of public commitment but also how much they expect private capital to invest so that the targets are met will be very important.

On the green finance side, there is not enough detail on measurements and some of the green finance angle, from looking at what other European countries are doing, could be a lot more ambitious and a lot more precise in their commitments. We see European countries that are issuing green bonds establishing green bond guidelines that are including disclosure measures for environmental, social and governance. We have



HOUSE OF COMMONS

seen this in France. Those precise policies are not really there yet and they could be because that is where a lot of other countries are already going.

Q17 Anna McMorris: Does anyone else want to comment on the most significant proposal on green finance you have seen?

Alex White: I would applaud the Government setting up the Green Finance Taskforce. In full closure, we are on the Green Finance Taskforce so I am not entirely neutral on this topic, but I think it is a very positive move for them to make, not least because it involves the industry. It involves many players across the finance industry and there is a very powerful role in using that to ensure that the industry knows that Government are interested in green finance and are looking to take it forward. That early industry buy-in is probably the most powerful thing they have put in there.

Q18 Dr Matthew Offord: It is very much the Government's strategy to focus on the climate change agenda. Do you think that is the most appropriate or should the Government be looking at more social and economic governance agendas?

Alex White: Our organisation does not look at the social part so much, so I can't speak to that, but I think what is very important is that a lot of what they are looking at in climate change is the mitigation side. There is a very important role for greater resilience, for example reducing surface water to reduce flood risk or planting more trees for better wellbeing. In looking at green finance, the Government should focus not only on the low carbon energy, energy efficiency side but also take a wider view and make sure that there is money going into resilience. Those are the services that traditionally you can't receive returns from. It is trying to build up a business case to get more investment into natural capital.

Diletta Giuliani: We take a similar view. We are a climate-focused organisation but investments that are used for some of the green bonds are also going into resilience, water infrastructure for mitigating flooding risk, housing. Energy efficiency in housing can also be a social measure if it is going into social housing, for example. I think you are right in the sense that maybe some of the language is missing but the Clean Growth Strategy can include those elements if the resilience angle is brought in.

Alex White: The 25-year plan for the environment was published last week and there are some very useful indicators in that. We appreciate the Government are not solely looking at that but we would say there should be more cross-departmental work on it.

Dustin Benton: The clue is in the name of the organisation, but we don't think that there is a conflict with addressing climate change or addressing wider environmental challenges and economic and social challenges. The numbers are now pretty clear and there will be £17.5 trillion worth of low carbon investment in emerging economies between now and 2030. That



is a big business opportunity for the UK to get its teeth into. Local carbon environment goods and services will more than quadruple over that same time period. These are the sort of things that if you are thinking in an entrepreneurial way are opportunities for the UK.

We should not think that just because we have been good at something in the past that necessarily means we will continue to be good at it. One of the numbers that we calculated, which is pretty striking, is the UK's performance in the automotive sector. If you look at just exports in total amount of money, the UK is quite a big exporter, but if you break it down to gross value added, the UK loses £5 billion per year on the existing petrol and diesel vehicle market. What this says is that the UK is not a big winner in gross value added terms out of this industry and we should be seeking to be the big winner of the next revolution, which will be the electric car and automated car revolution. I think the Government have got on to this. There is a good bit of money in the National Productivity Investment Fund and there is quite a lot of research money going in. I would think about addressing the environmental and economic challenges together, because it is clear there is an opportunity to do so.

Sini Matikainen: We agree with the other panellists that resilience is often overlooked. It is important to keep that in mind, not just focus on mitigation but also focus on climate resilience and adaptation, and not forget the cobenefits of reducing emissions. For example, in air pollution a lot of measures that try to shift towards electric vehicles will have cobenefits in reducing deaths from air pollution. One point that might be worth considering in more detail is the impact that the low carbon transition might have on labour markets, for example. There are elements of low carbon transition that are worth considering in more detail and holistically. Looking at climate change impacts from environmental, social, all aspects, is welcome.

Q19 **Zac Goldsmith:** A general question to the panel as a whole: do you think the taskforce has been asked to ask the right questions? I am going to ask Alex White to start because I think you have been—critical is probably too strong a word but you have questioned the request to develop 10 easily implementable solutions and you have expressed concern that that might be too limited. Is that correct?

Alex White: I am quite positive about the decision to come up with 10 easily implementable solutions. Well, not easily implementable but pragmatic solutions. If our criticism of the Clean Growth Strategy is that there is not enough detail, surely it is best to start with some very tangible recommendations that can be taken forward and make some immediate progress. I think that is one of the real strengths of the Green Finance Taskforce. There are lots of different workstreams on the taskforce and they are coming up with a huge number of recommendations and only a small number of those will be taken through. Some of those wider ideas are very good ideas that need a bit more momentum. They can't happen in the next six months. I would



HOUSE OF COMMONS

suggest that Government should commit to taking forward those positive ideas. There needs to be a longer-term commitment. If we want to green the financial industry, that is a systemic change and there needs to be a much longer-term commitment to doing that.

Q20 Zac Goldsmith: Where do you think the principal focus or the principal emphasis of the taskforce should? What should be it be looking at as a priority among the priorities that have been set out?

Alex White: I think that because of its express purpose it should focus on the best ways of financing what is in the Clean Growth Strategy. It is currently well positioned to do that but there should be an ongoing workstream, a cross-departmental workstream that exists.

Q21 Zac Goldsmith: Apologies if this has been asked and stop me if it has. Is it within your remit to look at perverse subsidies, direct or indirect subsidies that are working against this agenda? Is that part of the remit of this taskforce or not?

Alex White: It is not, no.

Q22 Zac Goldsmith: Should it be, though? Do you think that is an issue?

Alex White: Very potentially, yes. I think that is something that should be looked at. I don't know if it should be what this taskforce is looking at because it is mainly made up finance professionals and they are looking at what the industry can do to increase green finance. I think that is more of a policy matter. The Green Finance Taskforce is primarily looking for recommendations that do not involve subsidy and there are some solutions that may require subsidy or removing perverse subsidies and that is something that should be looked at by Government.

Q23 Zac Goldsmith: Does anyone want to add to that?

Dustin Benton: I will add an interesting statistic. The four top UK banks have collectively lent nearly £33 billion to finance fossil fuels in the last three years. We need to reduce that in order to make sure banks' balance sheets are not at risk from climate change. I am sure you will be getting on to a question of how we manage climate risk. It feels like you can't just get into green finance and continue going big on traditional finance. You need to withdraw from one and invest in the other, and that is the strategy. I take your point that if the Government are not looking at both sides of the ledgers we are potentially at risk of not being as effective as we could be.

Q24 Zac Goldsmith: Is that the issue that the taskforce will be looking at, shift the investment away from fossil fuels towards the alternatives?

Dustin Benton: I am not on the taskforce so I don't know, sorry.

Zac Goldsmith: No, but you have seen the remit, you have seen the brief.

Dustin Benton: I think it is something that they could definitely look at.



HOUSE OF COMMONS

Zac Goldsmith: There is nothing preventing them from doing that?

Dustin Benton: No.

Alex White: They are looking quite closely at how to implement TCFDs, the Financial Stability Board's Task Force on Climate-related Financial Disclosures in the UK. The aim of that is to move traditional finance towards green investments rather than how it currently is.

If I could add another thing on the focus of the Green Finance Taskforce and the Government's view on green finance in general, while it is positive, there are two things here. There is green finance as an industry in and of itself as a professional service that can be exported and we want to be a world leader in that and that is very positive. There is a second part of it, which is using green finance to fund our international and domestic commitments at the lowest possible cost in the most cost effective way. If we focus solely on green finance as an industry in and of itself we risk that expertise being exported abroad and not capturing the many advantages of the UK low carbon transition.

Q25 **Chair:** Ms Matikainen, did you get a chance to answer on that question?

Sini Matikainen: My understanding of the current status is that in a way it is similar to the EU High-Level Expert Group on Sustainable Finance where this is an initial stage. Green finance as a whole is such a broad area and there are so many ways of looking at it that it seems the way the remit is set up is the sensible way to start. Hopefully, this is a beginning point that will get more precise and specific as things proceed.

Q26 **Chair:** Ms Giuliani, do you have anything to add?

Diletta Giuliani: It is a good start that the industry has been asked to come in and the risk that some proposals will not be ambitious enough because the balance sheets are still heavily weighed on fossil fuels. There is the risk of the banks pushing themselves too much and maybe the other risk is there. Perhaps clearer objectives from the Government would be helpful or some sort of prioritisation. Hopefully, this will happen when the recommendations come out. As Ms Matikainen mentioned, we have seen this in the High-Level Expert Group in the European Union where the topics were decided by the group and then there was a narrowing down in conversation with the European Commission. Perhaps this conversation with the Government should always be present while the taskforce proceeds so that the recommendations can be more precise and ambitious enough to make sure that some of these targets are met.

Q27 **Colin Clark:** The Government have endorsed the proposals of the Task Force on Climate-related Financial Disclosures on climate-related financial disclosures and wish to encourage their take-up. How should they encourage companies to implement the recommendations? The question is to Alex White.



Alex White: If I could take a step back quickly, I would point at the success so far of mandatory carbon reporting in the UK, which our corporate members have universally told us has been an incredibly useful tool for raising awareness of climate-related issues at the board level and incentivising investment in things like energy efficiency that might not otherwise pass the test. With that in mind, and considering that currently only 1,000 companies in the UK are subject to mandatory carbon reporting, there is the first step of broadening out the pool of companies that have to report. The Government recently had a consultation on streamlined energy and carbon reporting, so we would encourage them to use that opportunity to broaden out the current reporting framework.

Building on top of that is where the TCFDs come in. The important thing is that for them to be as effective as possible they need to provide comparable information across companies within the same sector and to do that there needs to be wide take-up. All companies need to report to it, essentially. I think the best way to do so would be to make it mandatory. However, in the conversations we have had so far with corporates who are looking at implementing TCFDs in their own company practice, there is still a lot of uncertainty as to how that will look for them. One of the very positive recommendations in the TCFDs is the forward-looking scenario analysis. Where carbon footprinting looks backwards, this looks at the forward risks, which is very useful to both the company and the investor, but at the moment lots of companies are saying, "What scenarios do we choose? You say a 2-degrees scenario but what does that look like? What does that world look like? What timeline should we be working with? How do we do this?" I think there needs to be a great deal of guidance from Government, there needs to be an awareness raising effort and it needs to be seen as a journey, a transitional approach.

Q28 **Colin Clark:** You have said in your submission that some of your members have real concerns about implementing the TCFDs and you have listed some of them in the submission, but tell us what their concerns are. You have mentioned there should be a phased implementation and there is commercial sensitivity. What are the concerns?

Alex White: We had a round table last week, which was to ask them exactly what their concerns were, and I would be happy to share the writeup of that with the Committee after this session. As I said, the main ones were they did not know where to start with the scenario analysis in particular. There is lots of different choices to be made when picking which scenario you use and they want to make sure that they are meaningful but they do not know which parameters to choose to make that information meaningful.

We know that a lot of our corporate members have some concern about it being an additional burden on top of current reporting, which is why we would suggest that it should be streamlined. TCFDs should not be on top



HOUSE OF COMMONS

of current mandatory carbon reporting. They should be one and the same.

Q29 **Colin Clark:** To the rest of the panel, how should the Government approach implementation?

Sini Matikainen: I think we broadly agree. I can see that there are issues with immediate implementation and it would be useful to have a voluntary interim period. Our institute has approached it in part as data users, as part of one of our projects called the Transition Pathway Initiative. Looking at large global companies and how well their strategies and past emissions are aligned with the 2-degree world has highlighted that there is a lot of variation in what companies are reporting and that voluntary industry guidelines are not necessarily enough to make sure that you are going to have consistent reporting. For example, in the cement industry we found that only 10 out of the 19 largest cement producers follow their own voluntary guidelines. In steel there are also considerable differences in how they compute the carbon intensity. They use different metrics for the revenues, which makes it difficult to compare across companies for investors. Useful information for investors needs to be comparable and consistent across companies. To begin with there is a lot of issues that need to be resolved in scenario analysis, but as an end point having some kind of standardised disclosure will probably be necessary for investors to usefully use that information.

Dustin Benton: I would endorse that. The lesson in the UK from the 2012 or 2013 introduction of mandatory carbon reporting shows you will get to a certain level with voluntary and then investors will say, "Hang on a second, this isn't comparable, it is kind of patchwork, the information is not consistent". If you want investors to be able to take intelligent decisions about the types of risks that they are willing to bear you need a level of information that is consistent across companies.

Diletta Giuliani: One of the big challenges, as has been mentioned, has been the risk that with the voluntary approach there is very inconsistent information and very different levels of reporting, depending on the company. We have seen this, for example, in the fund management information in France where there is a voluntary reporting requirement. That is important to get the industry looking at it and wondering what measures to use, so it is very important as a first step but in the second phase there will be the need to harmonise. The European High-Level Expert Group on Sustainable Finance, which includes UK experts, will come out with some recommendations on how to implement this at the EU level in February and hopefully those will be taken up by the Commission in March. I would encourage to look at these developments and see if the UK Government can implement similar measures, because it will be helpful to have this streamlined at the European level.

Q30 **Colin Clark:** You spoke about regulation on top of regulation. How easy would it be for the UK's existing framework of financial regulation to implement the TCFD recommendations?



Alex White: I am not sure I can speak to that.

Sini Matikainen: One point that has come up is to a certain extent the question of materiality. If the climate risks are material that is easy enough to incorporate into the existing disclosure framework. One concern is the way that financial disclosure is currently handled on a yearly basis is somewhat inconsistent with the way that climate risks might materialise. That is a larger discussion about how you take a longer-term perspective that Governor Carney has called the tragedy of the horizon, that financial markets have a short-term horizon. I think this is one example of the annual reporting guidelines being in contradiction with how climate risk might materialise.

Q31 **Colin Clark:** It could be over the short term?

Sini Matikainen: Yes, and this is something that needs to be addressed. To a certain extent, if there are material climate risks showing up next year that could fit easily within the existing reporting framework, but if it is something that is happening quite a way in the future it is more difficult to assess how you incorporate that.

Q32 **Caroline Lucas:** I want to ask Diletta Giuliani about what role green bonds play in meeting the UK's climate change targets. How important are they in that role?

Diletta Giuliani: We have found that green bonds are a great way to start a whole green finance strategy. When we look at green bonds, it immediately calls for green labelling, a definition of what is green, which is the first step in implementing any green finance strategy. Bonds are a great way to get institutional investment in some of the priority areas that are highlighted in the Clean Growth Strategy. For Government they are a very useful tool to get some private capital into these areas.

What we have seen strikingly is that the UK market to date has been very small, so very few bonds have been issued compared, for example, to France or Germany. Just to give some figures, total issuance in the UK until now has been 4 billion. We have seen a couple of banks have issued green bonds. There have been some corporate issuances, from SSE, Renewable Energy and Anglian Water. There has been only one public sector bond from Transport for London. This was a total of 4 billion bonds issued. In France, it is about 42 billion bonds issued since more or less 2013 and Germany it is about US\$25 billion. In Germany, half of the issuance comes from the national development bank, KfW, and mostly for renewable energy and energy efficiency. In the French market there has been great leadership from the Government. There has been a huge 10 billion sovereign green bond issued and some of the local governments have issued also.

We find that the green bonds can have multiple purposes. First of all, for the Government they can help to show the public commitment to some of the policies. They help to start these markets. It is very important once



the private sector starts looking into these bonds because they start thinking about how to allocate their funds to green investment in order to tap into these markets. Tapping into these markets is very beneficial because the demand is very high. There is an increasing number of investors that are looking to buy these bonds. What we hear from issuers is that they get a lot of new investors when they tap into these markets. Barclays issued a big bond a few months ago and this has been in line with Barclays publishing a whole green product framework. The bank is now looking to giving out green loans to repackage it to these green bonds and this means that internally they will shift some of their capital allocations to greener products. If you shift capital to the green mortgages, it should help achieve some of the targets for energy efficiency and building.

Q33 Caroline Lucas: Is the lesson from France and Germany that there needs to be far more involvement from Government?

Diletta Giuliani: This is the main difference we see from now. London has been a leader in financial services. The London Stock Exchange is one of the major green hubs in Europe, together with Luxembourg. They have listed a lot of international green bonds in seven currencies, from China and India, but we have not seen so much leadership in the domestic sector.

Q34 Caroline Lucas: Practically, what would you be calling on the Government to do?

Diletta Giuliani: The main differences we see is, for example, commitments on coming up with green bond guidelines, which can be harmonised with the other countries, and also commitments to issuing some green bonds, because this gives a strong signal to other players in the market. This is the main difference that we have seen.

Q35 Caroline Lucas: In 2016, WWF was expressing concern about a lack of consistent standards in the accreditation of green bonds. Has there been progress made on that aspect since then?

Diletta Giuliani: Absolutely. At the European level, one of the tasks of the European High-Level Expert Group on Sustainable Finance has been to deliver a European sustainability taxonomy. Here we have some objectives that are a bit wider than just climate change, as we were discussing before. There is also some social element in there. The expert group will propose this taxonomy to the European Commission in February. One of the remits of the group was to define a European green bond standard, again a voluntary approach but that can be adopted by all member states and also the UK. There are many UK members on the taskforce at present.

Q36 Caroline Lucas: You said earlier that France and Germany are doing a lot more in this area than we are. In fact, we are not even in the top 10 when it come to climate bonds. A question to anybody on the panel, and maybe specifically Alex, is: what needs to be done to ensure the City of



HOUSE OF COMMONS

London does become the leading financial centre for green finance? It feels like we are getting a bit complacent and meanwhile we are being overtaken by other countries on this.

Alex White: London does have a great pedigree for innovation in finance. For example, the FTSE and Legal & General Investment Management created a new fund called the Future World Fund, which HSBC has put their pension into. It is basically a passive pension fund, so where usual passive funds track where the economy is going generally, this up weights green and social investments and down weights negative, as we call them, investments. London has historically been good at innovative financial products, so I think what we need to do is focus in on that, because this is sort of a race. Lots of countries are interested in this, they are all working on it together, so it is not necessarily catching up with them and trying to be better at it than them but seeing where our points of difference could be.

Dustin Benton: I think the Committee is right to be concerned that the UK might accidentally slip behind. This is deeply material for the UK. I gave you a figure about our net deficit in car exports. On the same GVA terms, the UK makes £35 billion a year in finance. It is the largest single source of export earnings, but three out of the five banks that are rated most highly on the quality of response to climate risk are French and only one of them is British. There is this risk that other financial centres are on this, they see it as an opportunity. If you look at the way the Government are talking about the opportunity of clean growth, it would be really smart to make sure that UK's financial sector is part of that clean growth.

Q37 **John McNally:** If I could move on to green mortgages, particularly to you, Sini. The Grantham Institute noted that the Green Deal failed to persuade consumers to take up offers of financing for energy efficiency and they noted there were three particular areas: lack of awareness, administrative complexity and interest rates offered were not sufficiently attractive. Now the Government's Clean Growth Strategy says that they will work with lenders to develop green mortgages. What evidence is there that the Government's pledge to develop green mortgages for energy efficiency would be any more successful than the Green Deal? What has changed, if anything, in that pledge that reassures that these mortgages will be taken up by consumers?

Sini Matikainen: I think it is the fact that the Government are soliciting feedback on what has gone wrong with the Green Deal framework. There was a consultation that recently closed about the Green Deal framework and about creating an overall market for energy efficiency. There is a good indication that there is a backward look in trying to identify previous problems and solicit opinions from a wide variety of stakeholders in order to identify the numerous issues that plagued it before.

One thing we highlighted in our consultation response is that the way the Clean Growth Strategy specifically focused on green mortgages and the lower interest rate, the lower mortgage default rate associated with it,



especially siloed away from other energy efficiency considerations, is somewhat concerning. It would be better to think that lower interest rates might be part of an overall push towards energy efficiency but in some instances it might not be sufficient. The rental market is an interesting point. There is a large buy-to-let market in the UK, so the person who is paying the mortgage is not the one paying the energy bills. In that sense it might not have a lower credit default rate. The evidence for that is based on one study from the US, which is insufficient.

But I think it is a good sign that the Government are soliciting feedback on this and the document on the consultation for energy efficiency does go at some length into the need for gathering additional information and identifying all the areas. Hopefully, taking all of that into account and designing an overall coherent strategy that goes into more detail than the Clean Growth Strategy did will make it work better in the future.

Q38 John McNally: But that is a short-termism, in my opinion. We need a nudge to move people on to taking up these products. Without a doubt there is a willingness within my own constituents, and the constituents of everybody else here, now more than ever to take up green mortgages. I have no doubt about that whatsoever. Can you be specific about any other financial products that are available to people that we should be looking at that banks and buildings could develop? How do we make people more aware and get rid of this short-termism?

Sini Matikainen: On the side of the consumers, the question of lack of awareness has been highlighted. In a sense, creating green mortgages as a product in order to make people aware of it, trying to encourage private banks to develop that product and market it, could be beneficial. I saw that one of the projects that the Government have supported is a lenders' project that is gathering data on how energy efficiency is related to mortgage defaults. The way they have approached it is instead of saying a binary "this is green or not green", they look at energy efficiency bands and encourage the lenders to incorporate that into their affordability calculations.

I think that this could be another way of approaching it, instead of saying green or not. Green can be a useful way of marketing these products but also it could be incorporating it more generally into affordability calculations when deciding to take out a loan so that people who are applying for a loan are aware of the fact that energy efficiency is one of the factors that could enable them to get better terms on the loan and in that sense trying to encourage consumers to demand energy efficiency.

Q39 John McNally: I am chair of the APPG on flood prevention in this Parliament and I want to go back to what you were talking about earlier about the flood measures. There is a huge problem in England with the lack of consultation on plans allowing people to build on flood sites and there are countless exemptions that allow planners and developers to build on these. Surely to goodness one of the first things, if you want to encourage people to take out a mortgage, is that there is an area that is



HOUSE OF COMMONS

guaranteed to be protected from flooding as much as we possibly can. Should that not be inbuilt into the whole planning regulation, in your opinion?

Alex White: Absolutely. I know the Green Finance Taskforce has also set up a resilience workstream to look at how loans can help with resilience issues. There is a role to look at the planning system as it stands. One we particularly looked at is environmental net gain in the 25-year plan, how you can change planning systems to make sure that new developments do not have a negative impact on the environment and have a net positive on the environment. It is a no-brainer, essentially, to make sure that any new developments are as protected as possible, as resilient as possible to flood risk.

Dustin Benton: There is a finance link to the specific issue of flood risk and that is that Flood Re effectively subsidises insurance in places where your building is likely to flood. That is a really perverse incentive. Also, I believe that Flood Re is prevented from investing in natural flood management, which is cost effective and green, not just in carbon terms but also in natural environment terms. There is perverse incentive here on the flooding story.

On the point about insulation and how we use finance there, finance will only take you so far. The big challenge with energy efficiency is that most of the time you buy energy efficiency from your local builder and he or she needs to be able to sell you a convincing package of energy efficiency measures that you are comfortable with. The finance question is then does this stack up economically. It is that first stage that is missing. If Government wanted to really solve this problem they could learn from their own excellent work on offshore wind where they said, "How do we cut the cost of doing this and how do we do it in a systematic, programmatic way?" They challenged the industry to reduce costs along a set pathway and said, "We will definitely buy this, we will commit to this amount of offshore wind if you can cut your costs in a certain way". Similarly the Government could pursue that strategy with energy efficiency upgrades and say, "If the industry can show that each house it upgrades is cheaper, we will guarantee a certain amount". That will allow companies to invest, for example, in the prefabrication facilities that are required to dramatically cut these costs. Combine that with green mortgages and you have the prospect of a market actually developing.

Q40 **Anna McMorris:** A quick follow-up on what you are saying. What about the Government changing the building regulations to impose that on construction?

Dustin Benton: It is certainly an option. On the new build front there is just no reason why we should not be building zero carbon homes now. We took a very pessimistic look at the numbers and we found that the payback period would be less than six years. We know that today in Wales there are a couple of developments that have been built at zero carbon homes standard for the same price as a conventional build. Given



HOUSE OF COMMONS

that that will cut at least £400 off your energy bills, I can't see why that it is not something that Government could set in place through building regulations. The big challenge is retrofit. When we looked at some analysis that had been done of this, you would need to spend between £6 billion and £10 billion per year in order to get to EPC band C by 2035. That is big money. About half of that would be private investment induced by some form of regulatory mechanism.

- Q41 **Chair:** Can I come back on your Flood Re comment? My understanding is that it does not apply to houses that were built after I think it is 2008, 2009. You can't build a new house on a floodplain and then say, "Don't worry, Flood Re will cover it", so the Government did try to engineer out that first incentive. It does count on new build homes I think up until 2009, but we will fact check that as well.

Sini Matikainen: I wanted to add to that point. Talking about green mortgages, we usually focus on energy efficiency but one point is maybe it should include considerations of climate resilience. Whether insurance will cover it is not necessarily an effective way of incentivising climate resilient development, and that is not just flood risk. It could be coastal areas. Perhaps something to consider when we are getting into the definitions of what a green mortgage is, what green homes are is to include adaptation and resilience in that.

- Q42 **Chair:** Can I finish with a question to Mr Benton? Your Green Alliance says the big four banks were given a grade D in 2016 for their lack in climate investment policies and exposure to fossil fuels. Are any of them going to get a C as a result of all their work, or is that to be revealed?

Dustin Benton: To be revealed. I certainly hope so.

Chair: Good. Thank you all very much indeed. We are closing the first panel.

Examination of witnesses

Witnesses: Angus McCrone, Steve Waygood and Rhian-Mari Thomas.

- Q43 **Chair:** Can I ask our guests to introduce themselves for the record, please?

Angus McCrone: Good morning. I am Angus McCrone. I am Chief Editor of Bloomberg New Energy Finance. We have more than 200 people around the world researching all aspects of what we call the transition in energy and transport, so everything from wind, solar, gas, electrical vehicles, intelligent mobility and so.

Steve Waygood: Good morning. I am Steve Waygood. I am the Chief Responsible Investment Officer at Aviva Investors. It is a pleasure to be here.

Rhian-Mari Thomas: Good morning. I am Rhian-Mari Thomas. I chair Barclays' Green Banking Council, tasked with driving our commercial



HOUSE OF COMMONS

strategy towards supporting our clients as we transition to a lower carbon economy, primarily through developing products and services that support our client base.

Q44 **Chair:** Thank you all. You are all very welcome here this morning. I will kick off. Do you think awareness and willingness to act on climate change risk and low carbon opportunities have changed since the Paris agreement?

Steve Waygood: Yes.

Q45 **Chair:** What evidence is there to support your view?

Steve Waygood: The willingness I would point to is in the corporate and investment space. I do not see a huge willingness from end retail investors. That is a really important point and I know, Chair, that you spoke very passionately at the launch of your SDG report last year about the need to engage with the people whose money it is. We have 32 million customers at Aviva. I have not yet seen much demand from them but I have seen willingness to act from many of the companies that we own. We have about 350 billion under management and I have seen more of them doing more on Paris—not enough but more. I have also seen unprecedented levels of demand from some institutional investors to do interesting things with their money, particularly in France, which I guess you would expect given that it is the Paris agreement but it also relates to the French policy article 173, which I imagine is something that you will want to come back to.

Q46 **Chair:** We will indeed. Ms Thomas?

Rhian-Mari Thomas: From a banking perspective, we could always point to the green bond market that prior to 2015 was in the single and low double digits of global issuance. Since 2015 we saw \$42 billion of global issuance and that doubled the following year to nearly \$90 billion and last year we saw \$150 billion of global issuance with a very strong pipeline going into 2018. From the banking perspective, if we look at the poster child of green products, we can see a very clear step change after the Paris agreement.

Q47 **Chair:** Last year you raised your €500 million green bond and it was nearly four times oversubscribed. What will that mean for people taking out a mortgage with you? How is it all going to pan out?

Q48 **Rhian-Mari Thomas:** The bond was the first green bond from a British bank that was backed solely by UK assets and so, in order for us to get into a position to build that green bond framework and issue that bond, we needed to do the analysis on our mortgage book to identify which mortgages were being made to the most energy efficient homes. We were able to do that last year because the Government made the EPC data available to the market in bulk downloadable format and we took that opportunity to do that analysis.

Q49 **Chair:** That was a direct result of the Government's own data that you



HOUSE OF COMMONS

were able to map that across to the names and addresses of your mortgage holders?

Rhian-Mari Thomas: Correct. On the back of that, we were able to identify a pool of assets and then issue our green bond.

A further point I would like to make, and it is picking up on the earlier witnesses, is the oft-cited report in the US about the lower default rates from more energy efficient home. Clearly, in order for us to be in a position to do that analysis at Barclays, and while the details are commercially sensitive, I am able to say that we too have seen a correlation between loan performance and energy categorisation. We are going to need to define that analysis and look more closely at the causality and the precise reasons, but I felt that that was an important piece of information to add.

Q50 **Chair:** Your products and green loans, and the different things that you are going to be offering those people, what level certificate do they have to be at for you to offer them?

Rhian-Mari Thomas: We are currently developing our proposition in that space and, therefore, it would not be appropriate for me to talk about commercially sensitive information. However, on the Green Finance Taskforce this has been a debate. There are many ways that we can define a green mortgage. Possibly one of the simplest is to say that a green mortgage is a mortgage that is made available to houses that are most energy efficient, so that would be A or B under the current EPC guidelines, and that it is characterised by a lower interest rate versus a non-green or a higher loan to value versus a non-green.

Again, picking up on some of the themes I heard earlier, a green mortgage of itself is unlikely to be the panacea. It needs to be part of a broader group of products, for example, green consumer loans, to support energy efficiency retrofits, such that people can then apply for a green mortgage almost as an aspiration. I could certainly touch on some of the ideas supporting those.

Q51 **Chair:** Mr McCrone, the City of London is still pretty heavily invested in fossil fuels. Do you think our lunch is being eaten by Paris on this?

Angus McCrone: Not to any important extent at the moment. I was going to say in answer to your first question that Paris has probably made some impact on the psychology of investors and companies worldwide, as my colleagues have said. Another thing that has made a very big impact is what has happened on the relative costs of different technologies, and the penny has really dropped a lot more in the last two years coincident with the post-Paris period: that wind and solar have become enormously much cheaper than they were relative to fossil fuels, that electric vehicles are going down a very steep cost reduction curve and at some point in the 2020s are going to cross over with conventional vehicles. Also, the risk associated with investing in fossil fuels I think has become more apparent. Are you going to get stranded with those investments? Are



HOUSE OF COMMONS

they going to become uneconomic pretty quickly? That has probably been a more important influence than Paris itself.

Q52 **Chair:** Thank you. That has set it out very clearly. I just want to come back to Steve and talk about the Green Finance Taskforce. Do you think it has the right balance between mobilising green investment in the UK and then embedding financial stability in financial governance more generally?

Steve Waygood: I should declare an interest. I am on the taskforce. I am also on the European Commission High-Level Expert Group and on the FSB Task Force on Climate-related Financial Disclosure.

One observation I would make is a purely practical one. The FSB task force was given just over a year and a half. The EC High-Level Expert Group was given about a year. The Green Finance Taskforce has been given nearly six months. If we are thinking that short-termism is a problem, there is an issue here that we also need to think about. To argue for a broader brief for such a short duration is difficult because this brief—green finance, as we have heard here and in the previous session—is enormous in itself but we do need to think about sustainable development in the round, as you have done with the sustainable development goals. Therefore, while this is a very, very timely review with so much going on in the policy space at the UN, at the EC, FSB, and elsewhere, it is an incredibly exciting opportunity, as someone who has worked in this space for two decades, to see this conversation come about.

The Green Finance Taskforce will only be a start. I think somebody has already mentioned the need for an ongoing review that could also be broadened, and certain I would support that, so that it was about sustainability in the round not just green. I would also flag: my personal perspective on this isn't that we need to be financing green kit, although that is clearly part of it. It is that we need to look at the capital market structure, the full £300 trillion, and ensure that it is in totality invested in a sustainable way. It is not enough to just look at how we finance green technology, while so much of finance is working against that, so looking at the system and the systemic problems as well as the financial stability issues, at the same time as how you finance the Clean Growth Strategy, is incredibly important. We have flagged that with the Ministers and we have been given a clear direction that systemic recommendations are also in scope. It was not so clear in the original terms of reference.

Q53 **Chair:** What is the risk if the £300 trillion is not invested sustainably?

Steve Waygood: I will use the maths for: the green bonds debate is less than 0.1% of the overall bond market per annum. We need to be looking at the £19 trillion in the bond market as well as the equity market and elsewhere, not just the 0.1% of that market, of the £100 billion, roughly, that is the green bonds.



HOUSE OF COMMONS

In putting it specifically, as Aviva we believe that the world's biggest market failure at the moment is a lack of sustainability in the markets. If you look at the trajectory, even now post the Paris agreement, we are talking about 2.7 degrees of change is plausible. Many scientists are saying that 4, 5, 6 degrees is at least a risk that we need to be considering. At 4 degrees the insurance business model fails to exist. We could not underwrite to the price that the economy can afford. At 6 degrees the present value of getting to 2100 and seeing a 6 degree change, according to an economist intelligence unit study that we sponsored, the present value of risk from 6 degrees change is £42 trillion. Of course, these are models but, in terms of the hazards that we would experience, we are talking about economic meltdown.

Chair: Sobering stuff. Thanks.

- Q54 **Joan Ryan:** We have covered part of that on the fact that they are so invested in most polluting fossil fuels. I was going to ask, but I think you have answered it, what needs to be done and by whom to bring climate change and sustainability from being a subsection of finance to being a standard part of everyday investment decisions. If there is more to say on that, fine, but I thought I would come to Rhian-Mari Thomas about specifics then in relation to that. We understand the Barclays Bank UK Retirement Fund is a signatory to the UN Principles for Responsible Investment. Could you talk about how your work on the new Green Banking Council at Barclays influenced the investment objectives of the pension fund's trustees?

Rhian-Mari Thomas: Thank you for that question. The Green Banking Council was established only 12 months ago and we have made some significant strides in developing some of the products that Ms Creagh mentioned earlier, so a complete set of green products from Corporate Bank, the green bond that we issued. We have also been leaning to a green bond origination for our clients, and we go into 2018 with a very healthy pipeline of green product development.

We have also started speaking to our representatives of our pensions and our pension trustees. They have very much welcomed the fact that, because we have taken a very commercial approach in developing products for our clients, this, along with things like being a signatory to the TCFD, has really elevated the dialogue around green at Barclays and will hopefully make it easier as we go into 2018 for us to address some of our investments in our pension fund, for example.

- Q55 **Joan Ryan:** It is a deliberate effort to mainstream investment decisions, consider the climate change impact?

Rhian-Mari Thomas: The pension fund and the commercial work of the council are two separate considerations within the organisation, but we are speaking to one another and we are hoping, by creating a narrative around the importance of green to Barclays generally, that we will be



able to make progress on both but I certainly do not speak on behalf of the pension trustees.

Q56 **Chair:** How else have you mainstreamed green finance into the bank?

Rhian-Mari Thomas: We have started training I think over 60 of our sales force, providing them with green materials to enable them to have those conversations with clients. A key part of the mainstreaming will obviously be as a signatory to the TCFD, where our approach at Barclays has been to request PwC to do a gap analysis for us—we are working closely with their sustainable and climate change team—and then we have set up a senior forum of business leaders and risk professionals who are looking at how we will implement those recommendations as part of a climate strategy.

I would like to take the opportunity to say that—I don't know if we will come back to the TCFD—as a signatory, we would like to add Barclays' voice to the chorus calling for the Government to make the TCFD mandatory.

Q57 **Chair:** You want it mandated?

Rhian-Mari Thomas: Yes.

Q58 **Chair:** Steve, are you in agreement?

Steve Waygood: I could not agree more strongly. As Aviva, we are already producing our own TCFD report in our last report and accounts. It would be fair, though, to make sure that for those smaller companies that there is some kind of phase-in. I think others have—

Q59 **Chair:** Over what time period?

Steve Waygood: Two to three years perhaps.

Q60 **Chair:** Do you think that is reasonable?

Steve Waygood: I think so. If you think about the current state of governance of many, many companies across the UK on climate risk, it is unfair to expect most of the boards, who have no real expertise in climate change, to suddenly get it over night and to have substantive conversations about exactly how they should govern that risk and avoid the pitfalls of transition risk, physical risk and litigation risk, which the TCFD focuses on.

They need to build their capacity and competence. There is an advisory environment out there, and I think the sheer scale of resources within the climate change conversation at the moment, there just simply are not enough climate change consultants that can advise all the boards of all the companies that are listed at the moment in the UK in one year and expect to get anything good out of it. I would recommend, though, there is a review underway of the Corporate Governance Code, and there is one soon from the FLC on the stewardship code. The most elegant way of the UK implementing the TCFD will be to put it into the Corporate



Governance Code and, therefore, it will become a “comply or explain” requirement, which will effectively enable a phased approach. Mandatory should be the end goal and I think it is only that that is going to get us real broad disclosure that is deep too. We have done all sorts of studies that have analysed various exchanges around the world. It is only when this stuff is mandated that you really get it.

To be honest, the TCFD is such a huge task that expecting them to all do it next year is too much. A phased in where it gets to be specific, to be absolutely clear, we believe it should be in the Corporate Governance Code now on a “comply or explain” basis. Three years later a review should be conducted to see the quality, breadth and depth of the disclosure. If it is, say, 80% uptake, then I think we are heading in the right direction. If it isn’t, then at that point it should be a mandatory mechanism perhaps under the Mandatory Carbon Reporting Act.

Q61 Chair: Thank you. What are the risks if that does not happen? What if it is just: if you feel like it, voluntary?

Steve Waygood: The PRA itself talks about the financial stability risks. I have referred to the study that we have already commissioned from the Economist Intelligence Unit. UK citizens, their pensions, savings and investments, are not currently invested in a way that is compliant with the Paris agreement. They will be exposed to transition risk at scale. A study from one of Rhian-Mari’s colleagues, Mark Lewis, who is also on the TCFD, looks at what happens to the fossil fuels sector’s revenues if you were to implement the Paris agreement 2 degrees target overnight. He found that £34 trillion would get wiped off the revenues of the oil and gas sector. That is a huge figure. That is not the valuation. That is their forward revenues. Nevertheless, UK citizens’ pensions, savings and investments are exposed to that. If we do not encourage a managed transition towards a low carbon economy, all of the issues that you are already well aware of, in terms of what happens to the economy from climate change, will manifest. Encouraging companies to think about what their risk exposure is, and govern how their business moves towards the transition, is the opportunity that we have. We would be making the UK’s economy more resilient in getting the UK listed businesses—and others too—to think about how these issues affect their companies’ own sustainability over coming decades.

Chair: Thanks. We will be having a panel with the regulators.

Q62 Joan Ryan: It sounds like awareness, both in companies and among the public, as we have heard earlier, is a real issue here. Alongside what you are saying about governance and a regulatory environment, if we had a consistent and enforceable definition of green, do you think that that would make a big difference? Otherwise, it could be seen as just a marketing exercise. You developed your own sort of thing, didn’t you?

Rhian-Mari Thomas: We did, exactly, and that was for precisely those reasons, otherwise there could be accusations of greenwash. We came up



HOUSE OF COMMONS

with our own green product framework, working with a very credible third party.

I was going to make a point from a banking perspective about the value of having standardised green definitions. One of the areas where it would be very helpful is in the area of green loans, because the ability to have a standardised green loan could enable us to move to a securitisation market, so the ability to bundle up green loans that meet a standard and then issue securities on the back of it that would enable institutional investors to invest, therefore, taking loans from the bank's balance sheet, freeing up banks' balance sheets and deploying some of their institutional investment money, which Steve has been mentioning that are keen to get into more green. That would be a particular value for coming up with a green standard or green label.

Steve Waygood: To add to what Rhian-Mari has said, the European Commission High-Level Expert Group will be recommending—in two weeks from now when it comes out—a green taxonomy is built. There will be the definition but a definition at the high level is not enough. You need a taxonomy saying, "This specific bit of infrastructure is or isn't green. It qualifies". We then need to create a set of standards based on that taxonomy for different types of investment. For example, a formal green bond standard, which does not yet exist. I think there is a lot of confusion in the green bonds market and there are some risks there that we could come back to explore.

One of the things that I would like to just applaud in the Clean Growth Strategy is the reference to the British Standards Institute creating a set of standards for sustainable finance, so that the end investor can see whether their financial investments are sustainable. Think of it as a fair trade for finance. We have seen what happened to the copy sector and chocolate and others, where a standard is created it actually gives voice to a mechanism for the latent demand that we know to be out there. It gives them a quick and easy way of seeing whether the claims that people are making here—and there are a huge number of claims by financial institutions for being sustainable—the standard enables the end consumer to know whether it is true or not.

Q63 **Joan Ryan:** Given what you have said about the risk to pension funds in transition, surely the sooner this happens the better to try to remove some of that risk.

Steve Waygood: Absolutely. One thing I encourage you to do conceptually is—Zac asked the question earlier about the real economy, in terms of subsidies and tax. We are obviously investing in companies that are exposed to the real economy. The Government shapes the market that they are in. We then invest according to the market that you shape. The real economy, the fiscal measures the market schemes, the regulation, that is all something that we have to invest around. With this work, though, the Green Finance Taskforce is looking at the financial services market. It is look at the supply chain of capital and it is looking



at the financial ecosystem, specifically not the real economy but the financial economy and looking at how the two relate to each other. We still need to change the real economy so that there is, for example, a material cost of carbon. What we have been looking at, at the Green Finance Taskforce, is a different subset. It is: how do you prepare for the financial services sector and the financial supply chain of capital for that day when there is a material price of carbon? What else do we need to do to the financial sector to make sure that the end investor, whose money it is, is aware of where their money is and how it shapes the future they retire into.

At the moment, the vast majority of citizens across the UK have absolutely no idea how their pension savings and investments shape the world they are in today or the one they bequeath to their children. That is wrong, and that is the single biggest reason why there is very little demand from the end consumer, in our case the end investor, for financial services that are green or sustainable. It is only once you equip these people—our consumers, our citizens—with a mechanism for demanding good products that you will see that demand then flow. Otherwise, all that is being asked for is Barclays, us and others, to supply more products into a dearth of demand.

Angus McCrone: Can I add a little bit of good news generally? We had an event about four or five years ago that was basically about the UK is going to need billions and billions and billions to build out the offshore wind sector and other parts of the renewable energy economy. Institutional investors do not seem to have the message. That was the view back then: what can we do about it? There has been a big change in the last few years of institutional investors seeing renewable energy projects as a good investment with stable, long-term yields. On our figures, the amount of money going from institutional investors into renewable energy projects in Europe has multiplied about nine-fold since 2010, so I think progress has been made and the level of understanding has gone up on the part of people like pension funds, insurance companies and wealth managers.

Q64 **Anna McMorris:** We have heard that the UK's attractiveness as a destination for renewable energy reached an all time low in October 2016, according to Ernst & Young. Bloomberg New Energy Finance provided a chart showing that investment in renewable energy fell in 2016. In your view, why has there been this dip in investment since 2015? What part do you think policy changes have played in that and do you think Brexit has played a part, for example?

Angus McCrone: I don't think Brexit is a big factor, although it does not help general investor confidence with the level of uncertainty there is. We are actually publishing our 2017 numbers in about an hour's time, so I cannot tell you exactly what they are but they are going to be dramatically lower than the 2016 number. This is investment in renewable energy capacity in the UK, based on final investment



HOUSE OF COMMONS

decisions. It is kind of a forward looking measure. It is not based on investment figures that were taken years ago and only now being implemented. There has been a big fall between 2016 and 2017 and a somewhat smaller one previously between 2015 and 2016, so some of this is the lumpiness of when big offshore wind projects get financed in one year and not in another.

I think the changes in policy have had a big impact. Particularly, after the 2015 election, there was a period when the Government turned rather hostile towards renewable energy in the UK. Probably in the last year it has changed again and become a bit friendlier, certainly in tone, and it did have a second contracts for difference round for offshore wind that produced some amazing results in terms of the costs of those projects, and some big projects are going to go ahead, so there are good things happening on the horizon.

Historically, the UK has achieved quite a lot in terms of greening its electricity generation. We are now up to 29% renewables in the first three quarters of 2017, from about 6% in 2008-09. Emissions are massively down compared to 1990 probably by about two-thirds, although the official numbers are not out yet. There have been good things over a period of years, but it has certainly been the case that the sudden drop off in the support for onshore wind and solar did have a big impact on confidence and the number of projects going ahead in those sectors in 2016 onwards.

Q65 Anna McMorris: Thank you. In our previous hearing, we heard Green Alliance argue that aspirational targets in the Clean Growth Strategy were not a sufficient drive for investment. What is your view on that? Can you comment on that?

Rhian-Mari Thomas: Obviously, we highly commend the Clean Growth Strategy for its ambition and for the long-term commitments that it makes, which provide a strong signal both to industry and to providers of finance. However, we would concur that it does fall short of being a roadmap for investors to support the UK's environmental strategy, and would suggest a second iteration could emphasise more the investment opportunity for private investors but also for private and public blended finance, an area that is worth investigating.

Q66 Anna McMorris: What policy drivers do you see coming forward then to enable that to happen?

Rhian-Mari Thomas: Particularly when it comes to blended finance, there are opportunities over and above traditional grants and loans for the Government to provide guarantees, to provide securitisation or aggregation platforms, to provide things like political risk insurance, and so on, where appropriate and, therefore, helping to basically provide credit enhancement so that banks and other finance providers can crowd more investment into those areas.



Q67 **Anna McMorris:** Does anyone else want to comment on that question?

Steve Waygood: The Business & Sustainable Development Commission, which comes to an end in Davos in a few weeks, has inspired the creation of a Blended Finance Taskforce working with the World Bank and the IFC. A guy called Jeremy Oppenheim, based in the UK, is leading that. It is chaired by Lord Malloch-Brown, and the Blended Finance Taskforce has a number of very specific recommendations. I will make sure that you have them at your fingertips as you come to conclude. I can do no better than refer to that group. It is the international leaders working on blended finance and I only wish Jeremy were alongside me right now.

Chair: We might get him in later, you never know. John, you had a supplementary.

Q68 **John McNally:** Yes, I did. It is for Mr McCrone. Has the different investment been uniform across the UK's nations and have the decisions—and particularly in Scotland obviously—made by the devolved Administrations had any impact on investment decisions?

Angus McCrone: When it comes to solar and onshore wind, the drop in investment has been pretty uniform across the regions. The problem with offshore wind is that you have projects both in English waters and in Scottish waters and they are very, very big, so you might have one financed in one year and another in another year. It is difficult to draw any lessons from that. The perception is the Scottish Government have been more supportive in terms of their rhetoric towards renewable energy, but there has been a limited amount that they can actually do, given the framework that comes down from Westminster.

John McNally: Thank you for that.

Steve Waygood: Something has just occurred to me on the early question around policy drivers. The massive opportunity that sits here in the UK at the moment follows on. You will recall that Big Society Capital was created from the dormant assets in the banks, about £3.5 billion. You may be familiar with the fact—and we mentioned it briefly in our written evidence—that there is roughly £2 billion of dormant assets sitting in the UK fund management sector and the insurance sector—£2 billion. That is people who have either not understood what they did when they invested or perhaps have emigrated and died and we cannot find their estate, their estate cannot find us. Obviously a huge amount of focus needs to be given to finding the people whose money it is but, for those people where it simply cannot happen, at the moment £2 billion is sitting there being managed for no one.

Q69 **Chair:** For cash. Is it managed on a cash basis?

Steve Waygood: No. It will be invested in various products. Fund managers like us will be charging a fee. This is why it is such an issue.

Q70 **Joan Ryan:** Accountable to nobody?



Steve Waygood: There is no client that can be identified. There is £2 billion. This is exactly the problem that it sat with banks. £3.5 billion was found for Big Society Capital. We believe that money can be put to work for the UK to lead on sustainable finance in a sustainable way—we need UK citizens to understand it, trust it and know what to demand—to take that £2 billion and some of it could be used for blended finance. We could set up a fund, which co-invested with various development banks, pension funds, and insurance companies and so on, in direct solutions to sustainability challenges, and the revenues from the fund could be allocated to teaching UK citizens how the system works. I have brought a little diagram with me. Hardly anybody would recognise this, unless you have worked inside the market. It is not an A level degree. You can do an MBA and not know the various institutions that are pension schemes, insurance companies, investment consultants, stock exchanges, sale side brokers. It is not intuitive. We are not taught. At the moment people are nudged into a pension and it is the first time they have ever started to think about this. It is not enough to nudge them and also enrol them. You then need to help them understand what it is that is being done with their money on their behalf.

I mentioned earlier we have 33 million customers. We invest and we vote in over 5,000 company meetings every year on behalf of 33 million people, 50,000 or so resolutions each year. We only get about three dozen questions about how people's money has been voted on their behalf. Imagine if democracy worked that way. You worry about your democratic deficit. What about the one in the AGMs of UK PLC?

Chair: It obviously would be rather marvellous but anyway—

Q71 **Joan Ryan:** I think awareness is a huge issue and, given everything we have seen with people's pensions and how important they are but how little information or knowledge people have when they are making these decisions, they cannot hold you to account because they don't know any of this or what is going on.

Steve Waygood: Precisely.

Joan Ryan: The greening opportunity married to raising awareness and enabling proper self responsibility is huge. Do you think that money that you are talking about, it seems to me, from everything you have said, there is like a gap with Government withdrawing subsidies from renewables and not investing in the green bond market in the way that France and Germany are, do you think that money affords an opportunity to close that gap a little bit but not with Government money?

Steve Waygood: It affords an opportunity to do that and to teach people, on a sustainable basis, how the capital markets work. If you took that £2 billion, put it to work in the way I described, take the revenues that are around each year and equip teachers, open university courses and so on, at scale, with the right kind of information that they can then use to teach the way the system works, you would then generate, on an



ongoing basis, sustainable demand for sustainable investment. Not just a one-off hit and then £2 billion is wasted but: how can we create an institution that itself teaches UK citizens?

I have a hope that the UN General Assembly Sustainable Finance Summit, which António Guterres has already said will happen in September—that hopefully Theresa May will go and she will stand up and use that opportunity, the Sustainable Finance Summit, to say that the way we are going to ensure the UK continues to lead is by taking this £2 billion of dormant assets that sits in the financial services system at the moment in the UK. To use it to both invest in the sustainable economy, in a blended way, so we are multiplying the actual amount many times over, but also to take some of it and teach UK citizens how the system itself works so that, having been nudged into it, they can engage properly with it. This could be incredibly exciting.

Incidentally, the same problem exists in most of the other member states of the UN. It is not just the UK but it could be the UK leading the UN at that summit.

Rhian-Mari Thomas: To build on Steve's enthusiasm around the dormant funds, which I share, and about the awareness and education piece, you have mentioned repeatedly the importance of it being blended finance and I just want to reiterate the importance of any fund of this nature not crowding out private finance but being used to crowd in. There is a linkage to be made to the work of the European Investment Bank, which has been instrumental in crowding in finance into green investment in the UK over the past few years. If I may give a very specific example of how we have worked within Barclays, which illustrates the point. They have enabled us—through providing a 50% guarantee on loans that we make to small, green, high growth SMEs—to make loans of over £75 million to those companies at rates that are preferential to the loan rates that we would otherwise make, and also have increased our credit appetite to those types of clients. Without their support, and without the support of that guarantee, if we are unable to find an alternative some of those clients in that sector would find that their loan interest rate would have to increase or in some cases we would not have appetite to lend. That is a very practical example of how crowding in finance from the EIB has helped to support that part of the UK economy.

Q72 **Chair:** We are just about to come on to that. You are saying it had an educative process. It increased your risk appetite towards those types of loan investments.

Rhian-Mari Thomas: It provided a guarantee against the loan which, in practice, means, one, we do not have to hold as much risk capital against that loan. Therefore, we are able to pass that on as a pricing benefit to the client. Also, if half the loan is guaranteed that changes the dynamic of the risk that we are taking as a bank and, therefore, enables us to look at slightly more risky business models.

Q73 **Chair:** If we lose access to EIB funding after Brexit what happens?



HOUSE OF COMMONS

Rhian-Mari Thomas: We would need to find an alternate provider to provide such a guarantee in this one instance.

Q74 **Chair:** Do you have any ideas about who that would be, what that would be?

Rhian-Mari Thomas: We are currently continuing on negotiations with the EIB. Perhaps Steve's fund could step in. If not, the knock-on effect would be either that our green innovation loans would need to be made at higher interest rates.

Chair: Higher cost, yes.

Rhian-Mari Thomas: We would struggle to have credit appetite for some of the business models.

Q75 **Chair:** Very interesting. Does anyone else want to comment on the privatisation of the Green Investment Bank and the uncertainty over EIB? Mr McCrone.

Angus McCrone: Yes. On the GIB, the jury would have to be out at the moment about what the impact is going to be of the Macquarie acquisition. Macquarie is a very big investor in clean energy infrastructure, so I don't think there is any danger that nothing will happen. There is also no danger that it will suddenly all be diverted into building coal-fired power stations, but we will have to wait and see what the impact is.

The concern, with both the GIB change and what could happen with EIB, is that these two institutions have been important at financing technologies that have been on the cusp between commercial bank financeability and non-financeability. The EIB was an early and very big investor in some of the offshore wind projects when that was quite an immature technology, and the same with GIB. EIB was an important investor in waste-to-energy plants when they were maybe on the edge of financeability by commercial banks, and the GIB for biomass projects and also big energy efficiency schemes, things like hospital energy efficiency and public lighting. The question mark is: what happens with those two organisations and the flow of capital? It would be very disadvantageous for the UK if those disappeared. I am not saying they are going to but it is certainly something to watch.

Q76 **Dr Matthew Offord:** What steps can the Government take to accelerate the work in the area of green finance? I know that Barclays has taken a lead on that.

Rhian-Mari Thomas: Unfortunately, there is not a green bullet, a silver bullet. As has previously been mentioned, green finance is a very broad category touching all areas of finance all the way from capital markets through to consumer lending.

The Green Finance Taskforce, the recommendations will be made hopefully at the end of Q1. As a member of that taskforce, I personally



HOUSE OF COMMONS

very much hope that the Government implements some of those bolder recommendations at the same pace and with the same pragmatism that they have approached the taskforce itself.

I would not want to prejudge what the recommendation are going to be, but certainly the debate at the moment is pretty bold, all the way through from green mortgages and green consumer lending through to capital markets recommendations.

Steve Waygood: If I may, I would like to bring your attention to this little diagram because I think, for the specific policy recommendations to be effective it needs to be systemic, otherwise you will simply move the problem from one to another.

I have talked about the need for financial literacy. If you imagine yourself as a consumer on the left-hand side, an individual, your money might go through a pension scheme or an insurance company, which might use an investment consultant that would choose a fund manager buying and selling companies on a stock exchange brought to the market by an investment bank. Working backwards, investment banks, we did a study recently: 500 people working in investment banks responded. 90% of them highlighted that they were commercially conflicted and would be more cautious when publishing a note from the company that they were covering. On average, they can only spend 12% of their time looking at issues more than 12 months out. These are the primary analysts of listed companies working in investment banks. For those of us that care about long-term issues of sustainability, if that is the amount of time the primary analysts can spend looking at long-term issues, we have a problem. Hardly anyone has focused on the investment banking culture incentive structure, both at the corporate level as well as at the individual level, to look at how sustainability should be integrated. Personally, I think they should be required to publish a view on how sustainable the business is and how well it is run, every time they do a buy, sell or hold note.

Stock exchanges: they used to be regulators. They used to be owned by Governments. They then became full profit businesses. They then listed on their stock exchange. They then made their executives focus on earnings per share or total shareholder return. That means that they are looking at increasing the number of times that stocks are exchanged. That is partly how they make money. That is a machine now for short-termism that used to be a regulator. There is policy conversation that needs to happen there about how we would reform incentives.

Investment consultants: they are also rewarded for moving you, as a pensioner, between fund managers more often than perhaps is optimal for you. For example, if you are a consultant you might be paid, say, £10,000 to be advising the scheme on an ongoing basis, but every time you look for a new fund manager you might get 10 times that figure to do the search. Therefore, they look for new fund managers every time a



scheme starts to underperform. Now I would say that because I am a fund manager and I want longer term clients, so you need to acknowledge I am conflicted when saying that. Nevertheless, there is an issue here and the investment consultant industry advises on 10s of trillions of assets under management and they are not regulated. As an institution, it is assumed that their clients, because they are supposedly expert investors, do not need to be protected. Investment consultants do not have a fiduciary duty to raise proactively issues of sustainability when advising clients, and I believe they should have that.

The Law Commission has started to look at fiduciary duty, and that brings me back nearer to you as an individual and I absolutely agree with the Law Commission's recommendation that it should be mandatory to look at material environmental, social and governance issues when you are investing. I also believe it should be a requirement on us, as an industry, to ask clients whether they have any concerns that they wish to have factored into the way that their money is run. What is called "Know your client" in my world. We need to analyse their incentive. We need to analyse what you as individuals wish to invest in from a risk and return perspective. Part of that should include sustainability and ethics. In other words: are you personally comfortable investing in tobacco? That should be a question that you are asked at point of sale and, at the moment, it isn't raised unless the client brings it up. You brought up earlier nudge. I think a big nudge would be asking clients what they want their money to be invested in or not.

There are a few policy areas within that. There is more to be said, but this comes from the European Political Strategy Centre and it is a public domain note. Those ideas are embedded in it and, of course, will be in the High-Level Expert Group in two weeks from now.

Q77 Dr Matthew Offord: As an investment fund manager, what are your incentives for investing in green bonds?

Steve Waygood: The client needs to come to us and say, "Here is a mandate. We would like you to be investing in green bonds". If it comes out as what is called *pari passu*, so all other things equal to the actual investment, we would make it anyway. Often, though, it comes out with a slight premium. I believe green bonds are also a distraction to some extent. We need to bear in mind that they are refinancing mechanisms almost all the time, so the infrastructure already exists. It is important that they can refinance and lower their cost of capital, but people look at the £100 billion green bond market and assume that £100 billion has gone into green infrastructure that year. It is not the case.

In terms of our incentives to invest in green bonds, we want to green the entire bond market not just invest in green bond. That means: how do we address the credit rating agencies, of which the top three cover 96% of the global market? S&P is 76% of the market. How do you change the way they look at sustainability across all bonds they rate, so that it is an



automatic part of any credit rating? For me, that is a much more important question than how do we support green bonds.

Q78 Dr Matthew Offord: One of the issues is do you think the Government should actually change tax arrangements around green bonds making them financially attractive? Concomitantly, you need to balance that against the fact that they are already oversubscribed as well.

Steve Waygood: Most bonds are oversubscribed, the fact that they come into the market. The debt market people are looking for a lot of investments. The fact they are oversubscribed isn't just because they are green.

Rhian-Mari Thomas: That is correct. Typically, corporate bonds are three to four times oversubscribed, and that is also the case for green bonds too.

To your question around taxation, yes, we would certainly recommend any kind of fiscal incentive that would help more issuers issue green bonds or issue any kind of climate aligned bond. The one thing we would caution about is some of the conversations that are happening around capital incentives, so the green risk supporting factor-type discussions where they are not linked to risk. Unless these types of supporting factors are linked to risk there is a potential for financial instability. In extremis you could have a green lender that is insufficiently capitalised, so fiscal incentives or incentives such as repurposing the old funding for lending scheme where, for example, the Bank of England provided four-year monies to the banks, the main banks, at close to base rate. Then there was a penal ratchet. Each of us had to publish our lending stats, and every time our lending stats declined by a percentage point that base rate went up 25 BPS. I think it was up to a cap of 125 basis points, which obviously provides a competitive landscape. Repurposing something like that for green lending or green mortgages could also be a way of spurring more lending into that space.

One final point on the green bonds, if I may: we were talking earlier about the importance of labelling and the importance of some sort of standardisation in the green bond market. We certainly see there are advantages of that. We would also like to explore the possibility of things like energy transition bonds, so, by setting such a high standard for what is included as green, we may be inadvertently be excluding some of the very people that we actually need to engage on this topic because they cannot meet that purity threshold. Taking steps on the journey to become lower carbon emitters or lower carbon businesses is a really important point. At the moment it is difficult for them to access the green bond market. That would be something that lenders could show some leadership on in the bonds market.

Steve Waygood: On your fiscal point around green bonds, as long as the bond met a good standard—and I like the Climate Bonds Initiative who has already spoken—that kind of standard then I could see there



HOUSE OF COMMONS

being a good consequence of there being fiscal action taken. Bear in mind, as I mentioned earlier, it is not new capital, so you should be looking at equity as well and private equity venture capital where you have new capital going in, and also infrastructure. These are other asset classes if you are not familiar with them.

The other point I would make—so this is not now green bond specific but then we brought in the green supporting factor conversation, which is now about capital adequacy and solvency regulation, which obviously has come in significantly and has been increased post the financial crisis: *Basel III* for banks, Solvency II for the insurance sector. Neither *Basel III* nor Solvency II was written looking at any of these issues. They looked at the credit crunch and the financial crisis, and looked at the risks of default and used credit ratings ubiquitously to then say, “Which sectors should we be investing in and what are the risks? What capital do we have to keep in reserve to be able to invest in them?”

Solvency II is the one I know best. It is equivalent to the green supporting factor conversation, which we believe needs to take place and incentivise the insurance sector not to invest in the fossil fuel sector, which actually undermines our business model, but, from a financial stability perspective, being encouraged to capitalise fossil fuel firms through Solvency II is not a clever outcome. We should be encouraged to capitalise, and we want to capitalise, renewable energy businesses.

While I agree with what Rhian-Mari was saying about the green supporting factor is controversial, it is more controversial, from an insurance perspective, encouraging us to invest in brown. The bit that I want to make happen to Solvency II is that we need to look at the financial stability risks from the transition, so all green does not have equal risk. Organic farming, marine aquaculture, sustainable forestry, is very, very different in risk profile from a climate change perspective than energy fossil fuel investing, or energy when you are energy investing. Solvency II makes no allowance for the transition risk in the fossil fuel sector, or the transition opportunity in the renewable energy sector, even though it is supposed to be risk based. We need to have a climate lens overlapping the risk lens focusing on Solvency II and Basel III. There is a capital requirements directive conversation currently underway. Post-Brexit, perhaps there is an opportunity for the UK to show leadership there. We are talking about trillions of assets under management that gets encumbered by Solvency II, not supported from a climate change perspective. It is a really, really important area.

Rhian-Mari Thomas: We would certainly support the call for any kind of investigation or risk differentials. Just in very simple terms, banks should hold capital in line with economic risk, that such policies could encourage market distortion.

As we mentioned earlier, some of the work looking at energy efficient mortgages and how there may be some evidence to show that those



homes are less likely to default, looking for those types of correlations across green lending, taking the point that you have made, Steve, that it is very different for different sectors. We would certainly advocate an investigation of that nature.

Q79 Dr Matthew Offord: The green bond market in this country is still relatively small compared to other countries, France and Germany, for example. How did those countries get ahead of the game? How did they get ahead of the United Kingdom? What more does the Government need to do to increase our attractiveness and expand our green bond market.

Angus McCrone: Can I come in with a sort of contrarian view, I suppose. I am not convinced that it matters all that much to be honest because, like Steve, I think that green bonds are a very useful instrument for spreading the word to institutional investors, getting them comfortable with bonds in clean energy projects, also spreading the word to companies and forcing a dialogue within companies. But because they are not generally financing new capacity, they are not something that themselves going to transform the picture. Some of the green bond issuance that has been done around the place has been done for public relations purposes, quite understandable and so on, and if the UK has not done as much of that then it does not matter so much.

One area where the UK has done better is in equity. For instance, there is a whole raft of quoted project funds in renewable energy that were launched in London. I cannot remember what they amount to in terms of capitalisation, but it is probably of the order of £10 billion or so. That is something that has happened here that has not happened in many other European countries. I think there is one equivalent fund in Germany and one in Spain, and there are some in America, so that is one area where the UK has done more. I am not terribly bothered about the UK being behind on green bonds at the moment but my colleagues may have a different view.

Rhian-Mari Thomas: I may have a slightly different view, just from the point of view of establishing London or the UK as an international hub for green finance. While we may be slightly dismissive of things that may have happened elsewhere, for more PR purposes, if we look at Paris, for example, and their Finance for Tomorrow initiative that they set up last summer. They have been very explicit that the guidelines for that particular initiative are not just research and innovation into green finance, but also looking at standards and dialogue with public authorities. They have set as one of their guidelines very clearly the promotion and visibility of Paris as a green finance centre. Looking at the business advantages or fiscal advantages of doing a green bond, such as the French Government did, raising €7 billion last year, that investigation would need to be done and done thoroughly if the UK were to follow that route. It can certainly act as a very demonstrable PR exercise or a demonstrable statement of green intent. Other than that, I would agree with your points but just on that particular one.



HOUSE OF COMMONS

Steve Waygood: A positive note. We advertised a job in my team about six months ago. We had over 1,000 applications, which is an absolutely unprecedented figure for Aviva Investors, full stop, not just my team. The vast majority of them were overseas applications because London is seen internationally as still a global hub for sustainable finance. Now the green bonds debate is a subset of that. I am very proud to work in London.

The reform to the Pensions Act in 1998 has meant that at least there is a statement of investment principles for pensioners that should say whether or not social, ethical or environmental issues are considered. That generated some demand. It was the first in the world. It has been copied elsewhere. We are also the host for the UN Principles for Responsible Investment. They are based in London. We are the host for the Institutional Investors Group on Climate Change and for the Integrated Reporting Council. FTSE themselves with FTSE4Good did an enormous amount of good. It has been replicated elsewhere. I am not so down on London right now, to be honest, and I completely agree with what Angus said.

Rhian-Mari Thomas: London does have a proud track record of innovation around green crowd funding; for example, the green pensions that you mentioned, green loans first developed here, the LSE. I am sure a number of witnesses have pointed out the number of green bonds that they have listed, including the first Chinese and first Indian rupee and so on that were done, the first Masala Bond, for example. Yes, we have a proud track record. It is just one that we should not be complacent about.

Angus McCrone: It is also possible that the people who are responsible for the issues of green bonds may well be in London. The banks employ large staffs there and there are specialists to some extent in London rather than in other places. Even if the bond is being issued, say, by a European corporate, the advising and so on may be happening in London, so it is not a direct link between who the sponsor is and where the financial service involved is taking place.

Q80 **Joan Ryan:** Bearing all that in mind, and especially Barclays being the first UK bank to issue a green bond, are they not that important? What exactly are the benefits that they bring then to the green economy? I am not clear now whether we should be more critical of Government for not being as involved as Germany and France, not progressing that as much, or not. It clearly must bring some benefits or you would not do it, would you?

Rhian-Mari Thomas: No. It certainly brought benefits to Barclays. As was previously mentioned, it was an oversubscribed issue which, therefore, meant that—

Joan Ryan: You said all bonds are.



HOUSE OF COMMONS

Rhian-Mari Thomas: Yes, they are but this one, in particular, was oversubscribed to such an extent that we were able to price it more tightly than all our comparable non-green bonds. That is a genuine cost saving that we made as an organisation. We were also able to diversify our investor base, so different people came and invested in Barclays' bond. I think speaking personally, given the remit that I have within the organisation, the positive media reaction and the positive investor reaction, the positive reaction from Ministers of Government too, sent very helpful and positive messages across our organisation about the importance of this agenda. There is some research showing that when organisations do bring out a green bond it does elevate the dialogue of their green strategies within their organisations. Certainly I think that has been the case at the organisation that I work for.

Q81 **Joan Ryan:** Does anybody know how the public sector bond, TfL, does?

Rhian-Mari Thomas: We can certainly come back to you with more detail about that one, but I was privy to a conversation where the TfL was asked why they did not come and do a second green bond, because once you have set up your framework you should be able to come back to the market repeatedly. That was an example of them getting cheaper financing from a public body. I cannot remember but it might have been the EIB. That is an example I was giving earlier of how we do not want to crowd out institutional investors and institutional money.

Q82 **Joan Ryan:** They are a good thing, but they are only part of the story.

Steve Waygood: Yes, I think that is what we are saying. If you imagine a 100-piece jigsaw, it is one of the pieces. Seriously.

Q83 **Chair:** Isn't it a tenth of one of the pieces, 0.1%?

Steve Waygood: Yes. The reason why it is bigger is what Angus was saying, though, about the conversation.

Chair: If it is a 1,000-piece jigsaw, it is one piece.

Steve Waygood: They have not generated much capital; they have generated a lot of noise. Some of that noise has led to a lot of confusion, particularly in the policy space, because people assume it is a step towards the IEA 1 trillion a year that we apparently need, and it is not. It really is not.

Angus McCrone: At the same time, it does get investors talking and thinking, and it does get the companies talking and thinking at a high level as well. It goes to the board. Whether it is going to be a green bond or a non-green bond forces them to address those issues.

Steve Waygood: It is way more important looking at market structure, fiduciary duty, capital adequacy and demand from the end investor so that they are informed about this. I personally believe those are orders of magnitude more important than the green bond market.



Q84 John McNally: Am I right in saying that you have all agreed and have stated that a comply-or-explain basis is required by Government to better align their approach to financial regulation with their climate change and sustainable development goals? Is that what you are telling us? Yes, they agreed with that. Okay.

Can I move you back to this part? I like the nudge idea. I particularly liked what you were talking about, I think maybe the default position wherein people—and I think one of the chapters of Thaler and Sunstein is devoted to professors in universities who have never ever changed their pension rates; they just let it go and go and go. Are you suggesting that is something we should be doing as a Government here to get people to sign up to a default position on where their pension goes when they become dormant, these dormant pension funds? Although you say they are a wee part of the jigsaw puzzle, it is quite a lot of money. Would you agree with that?

Steve Waygood: The dormant asset book being a lot of money?

John McNally: Yes.

Steve Waygood: Absolutely. You could do an enormous amount of good with the £2 billion. I absolutely agree.

Q85 John McNally: I think so as well. They mention quite a lot that people need to have a default position, and I think it is worth noting for us, Mary, that we should be doing something like that in the recommendations. I know we are struggling for time here, but I wanted to go on. You are the co-founder of the Social Stock Exchange, I believe. How do you see sustainability-led finance expanding in the future and how would you attract and grow this small beer into a bigger financial impact? I would love to see you expand on that. You mentioned earlier on at one time there were four stock exchanges in Scotland; there are now zero.

Steve Waygood: I will happily answer the question that you raise around how we mobilise money at a scale, how we encourage beyond the nudge and how we encourage people to engage with their money. No one has really talked about financial technology yet or what the digital opportunity provides us. I would love to think that the UK would be the first to create some kind of app, maybe, that enables people to see today what they own. Whatever the pension scheme: what do you own, where is it invested, and how is it performing financially? There are unintended consequences. You do not want people looking at that too often to create short-termism, but you want people to know what they own. You also want to know how your investments are performing on sustainability issues, and then perhaps how your vote was used at the AGMs of the companies that you own.

Why shouldn't that be something that you can see relatively quickly by clicking an app and in the same way as you can go online and see your



bank account statement, see a statement that says what you own, how they score on the SDGs and how your vote was used?

Q86 **John McNally:** What is preventing people doing that at the moment?

Steve Waygood: It is not straightforward. I need to thank this Committee for your support for the creation of the World Benchmarking Alliance that appeared in the SDG report that you did last year. Subsequent to your support, the UK Government, the Danish and the Dutch have all supported financially a global consultation on whether that should come to pass. I am hoping so far all the consultations that have happened have been very positive. That will provide public league tables ranking the largest companies in the world on the sustainable development goals. One of the most important things that is missing is free, transparent analyses of corporate performance in this space, so you can see how well we stack up against Prudential or Axa or Allianz.

Q87 **John McNally:** Aviva is a model company, isn't it?

Steve Waygood: I would absolutely agree with you, and I am sure Rhian-Mari would say the same thing about Barclays.

Q88 **John McNally:** Are you aware that they are trying to get a social stock exchange opened in Edinburgh?

Steve Waygood: I have been aware of the social stock exchange discussion. Mark Campanale has been leading it, again from the UK, for over a decade. I do not think we need more exchanges; I think we need more capital. It is different. There are also costs of listing, so if you are a genuinely sustainable business why would you pay to list twice? I do not quite follow that, but I can certainly see why we need more funds.

John McNally: Maybe it would be clearer.

Steve Waygood: We are back into fiscal action. If it was subsidised I could see why companies would do it.

Q89 **Chair:** Thank you. It has been absolutely fascinating, so I want to thank you. I want to close by asking: the Government said they are going to encourage listed companies to implement the TCFD recommendations on climate risk reporting. You have just told us about the Benchmarking Alliance. Thanks for telling us something we did not know, because we were unaware. We have had so many victories on this Committee we are losing track of ourselves, but it is good to know, so thank you for that. You talk about a proliferation of different things. How should those companies implement the TCFD disclosure in the framework of the Benchmarking Alliance? Any ideas?

Steve Waygood: Yes. Goal 13 within the sustainable development goals is about climate action. There are lots of other goals; there are 17. Goal 13 is all about climate action. Climate action for a listed company means governing it, the risks, setting out what your risk approach is, your strategy, your key performance indicators and how you have performed,



as well as your scenario. Those are the TCFD requirements. That is not then how you take action. There is something called the Transition Pathway Initiative that is setting out what kinds of action should be taken. That was mentioned in the earlier session.

The World Benchmarking Alliance is already working with the Carbon Disclosure Project and the Carbon Disclosure Standards Board. We are talking to the Transition Pathway Initiative, and we are seeking to create a methodology that will be public and broadly consulted on before it gets finalised that will build on the TCFD recommendations around disclosure and then set out what sector-by-sector good action looks like that is consistent with the Paris agreement, create the methodology and then you start ranking the companies publicly.

It is a non-trivial task, but if we were to secure the dormant asset book and use some of that money to finance these three public league tables that is how you create the race to the top, and not just in goal 13. You could do it on gender, goal 5; you could do it on renewable energy, goal 7; you could do it on life above land, goal 15; and so on. You can create these public league tables that motivate the race to the top. We know it works; we have done it on human rights using the Ruggie framework on business and human rights, and we have ranked three sectors.

The conversation has absolutely transformed. We are getting chairs coming back to us and saying, "Thank you for highlighting the gap. We have done a gap analysis. Next time you do this we can guarantee we will have performed better". The league tables are how you motivate, to some extent, better action. You then need to equip the end investor with a quick way of seeing what they own. That is how they work.

Q90 **Chair:** Thank you. Mr McCrone, any thoughts?

Angus McCrone: I do not really have anything to add on that, no.

Rhian-Mari Thomas: The only thing I would like to add is that we see the benchmarking as potentially a world-leading initiative. It sits alongside the Government's Clean Growth Strategy intentions around creating standards and the endorsement of the TCFD. It is another arm of this disclosure and transparency, and I would like to commend Aviva for the leadership that they have shown on this particular initiative.

Steve Waygood: Thank you. That is very kind.

Chair: We are hurtling towards lunchtime and the EU Withdrawal Bill comes back again like a zombie nightmare for those of us who have amendments there. I want to conclude by thanking all of you very much for some very rich evidence to us here today. Thank you.