House of Commons

Environmental Audit Committee

Oral evidence: The financial sector and the UK's net zero transition, HC 308

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Watch the meeting

Members present: Philip Dunne (Chair); Duncan Baker; Barry Gardiner; James Gray; Helen Hayes; Clive Lewis; Caroline Lucas; Jerome Mayhew; Anna McMorrin; John Mc Nally; Claudia Webbe.

Questions 1-63

Witness

I: Mark Carney, UN Special Envoy for Climate Action and Finance, and Co-Chair, Glasgow Financial Alliance for Net Zero (GFANZ)

Written evidence from witnesses:

Glasgow Financial Alliance for Net Zero (GFANZ)

Examination of witness

Witness: Mark Carney.

Q1 **Chair:** Good afternoon, and welcome to the Environmental Audit Committee. We start a new inquiry today, looking at the Glasgow Financial Alliance for Net Zero. We are delighted to have with us as our first witness for the inquiry Mark Carney, who needs little introduction to the Committee. He is the former Governor of the Bank of Canada and of the Bank of England, and is now a UN special envoy. Mark, thank you for joining us. Will you start by describing your role for the UN, and say how you have seen it progressing since COP26 and in the advent of COP27?

Mark Carney: Thank you, Chair, for this timely inquiry. I greatly appreciate the focus on these critical issues at this important time.

On my role for the UN, I am the special envoy for climate action and finance. That role was twinned with a role providing climate finance advice to the Prime Minister in the run-up to COP26—and beyond, as the case has been. As I am sure you will find, we have not reached the end of the road of climate finance reform. I spend the bulk of my time on this role. The principal activity for it now is in my role as the co-chair of the Glasgow Financial Alliance for Net Zero, which has several offshoots or implications, but I am sure we will get into some of those as we go through the questions.

Q2 **Chair:** Is it bounded by time? Have you committed to a certain period?

Mark Carney: I serve at the pleasure of the Secretary-General of the United Nations. Suffice it to say that there is a lot of work still to be done, but yes.

Q3 **Chair:** Let's narrow things down to the UK and our work. We have had more than one Prime Minister since you were appointed, and we are just about to get another. How do you see the UK's commitment to achieving net zero impacting on the UK as a financial centre of excellence?

Mark Carney: The first thing to acknowledge—I will not go on at length, because this Committee is more expert—is that on climate policy and architecture, the UK has been among the leaders, if it is not the leader: it has a legislated net zero commitment, the Climate Change Committee, and a series of policy and regulatory initiatives on climate policy. That shows up on the track record. Obviously, as you know well—again, better than me—there is still a gap between ambition and the policies in place. The question is how to close that gap. That is the first point.

The second point, at the core of your question, is on the financial system. To have an economy that is moving to net zero, we need a financial system that is oriented towards net zero. Speaking candidly, two years ago, that was not the case. There was a general orientation in many regards towards sustainability. There were variances—there always is—in performance, commitment and expertise. Climate was more of a risk-management issue, for those who thought about it, as opposed to a capital allocation and opportunity question. Where does the UK stand? I think it stands near the forefront, if not at the forefront—it is always good to have a bit of humility here. Let me back that up.

First, there is the commitment that the then Chancellor, the incoming Prime Minister, made at COP 26 to having a net zero financial system in the UK—the world's first net zero financial system. The building blocks of that are mandatory climate disclosure. As the Committee will know, in the 18 months running up to COP—I might not get the timeline quite right—the UK committed to mandatory climate disclosure based on the TCFD. Other jurisdictions are moving in that direction, Europe through something called the CSRD, the US through SCC initiatives, and others in the G7 through slightly less stringent "comply or explain"-type approaches. There is a common framework of TCFD climate disclosure moving forward here, appropriately phased.

The second issue is absolutely critical, and is under development. If I could stress one point in today's session, it is the importance of a mandatory comprehensive framework for net zero transition planning. These things, if they are mandatory, should phase in over time, from the largest and most sophisticated to mid-size and smaller. They should be proportionate, both for financial institutions, which is the focus here, and, in parallel, large companies. After all, the majority of FTSE companies, including 80% of the FTSE 100, have net zero objectives, and most of the UK's major financial institutions have net zero objectives and are also part of GFANZ.

As part of the GFANZ process, we have developed a framework, which will be released for the Egyptian COP, for net zero transition planning for financial institutions—a comprehensive approach. I underscore that GFANZ is a voluntary initiative. In terms of coverage and breadth, there is a difference between voluntary and mandatory requirements. At COP, the then Chancellor launched an initiative, the transition planning taskforce, which is developing a UK version of this approach. GFANZ is supporting that. Obviously the decisions of the transition taskforce and the authorities here will be final.

The last point I would make by way of introduction—a third leg to this, if you will—is on deciding and building, if appropriate, the architecture for a voluntary carbon market. That is less relevant for the UK, but it is relevant in the context of global natural capital, global emissions reductions, and particularly transitions in developing and emerging economies. There is only one way that this market will develop properly, and the reason why it is not very big at the moment is that it has to be of the highest integrity, both in terms of the standards of the carbon credits or offsets, as they are sometimes called, and in terms of who is allowed to buy those. The majority of the work that is being done on this—voluntarily, again—is resident in civil society in a variety of initiatives here in the United Kingdom.

Q4 **Chair:** You raise many issues. We will pick up on a lot of them through questions from colleagues. You referred to the difference between mandatory and voluntary; you are trying to change the architecture of the global financial system to accommodate the carbon targets. You said that the disclosure needs to be mandatory, but the adoption of carbon pricing and models needs initially to be voluntary, and you also said it does not apply so much to the UK. I am a little confused about how these things come together without imposing particular burdens on one jurisdiction, such as the UK, if they are not applied in others. If we were to go mandatory, but everybody else was voluntary, would we not be doing ourselves a disservice?

Mark Carney: I think it comes down to UK leadership. In many aspects of financial regulation, and certainly with respect to the climate and climate transition, the UK has consistently been out in front—either at the absolute forefront or near the front of the peloton, if you will—in developing the key building blocks. Seven years ago, the TCFD—which is the basis for climate disclosure—developed the first draft of its framework, and a substantial proportion of the firms that voluntarily started to apply it were UK-based. As a consequence, the framework was improved with application. By last year at COP, it had got to a point where the UK Chancellor, and authorities in the European Union, the US and other countries, had confidence that it could be translated into a mandatory approach.

In terms of relative position and who will follow behind—because you are not leading unless someone is following—a body called the IFRS governs the counting rules, or disclosure standards, which is a better way to put it, in about 130 countries. Something called the IASB sets the rules for the UK, Canada and a number of other places—basically everybody but the US. At COP26 in Glasgow, we had an agreement to launch something called the International Sustainability Standards Board. All the major emitters supported that on the stage at COP; it has now been developed. It is based on the common framework of the TCFD and so we have the prospect of it being applied much more broadly—I don't want to say globally because there are 195 countries—and certainly in all the markets of consequence in terms of emissions. But the UK has the prospect of being a bit ahead in that.

On the next point, quickly, I think we can all agree that one of the critical issues in the transition to net zero is that it is desirable that solar, wind, clean energy and zero emission solutions be funded, and they need to be ramped up significantly. It is very difficult; there are two big challenges in transition. One is that in higher-emitting industries—steel or manufacturing—who should we back, and how can we have discipline about which companies and which initiatives are backed, such that they are transitioning, and reducing emissions rapidly and consistently with the required transition pathways? The other very challenging issue is assets that will be stranded. In other words, they won't exist to the end of their useful life.

To bring that together, we—the global "we"—need an approach to transition planning that embodies those strategies. We need an approach that is comprehensive, clear, grounded in science, has guard rails and is consistent across the financial sector. I will simplify: right now, the UK—and, in fairness, the European Union, to some extent—is working on developing that approach. GFANZ—the private sector voluntarily, guided by the UN—is developing a broader approach to this, and will release it within a week. To draw together those two points on climate disclosure and transition planning, the playbook on climate disclosure was voluntary. It was applied by major institutions, then picked up by climate leaders such as the UK and made mandatory. We are in effect doing the same thing with transition planning, because firms have just started to do this with GFANZ. The question is: how long will it be before it gets picked up and made mandatory, with comprehensive coverage?

The last point is that given the initiative by the incoming Prime Minister, or former Chancellor, in Glasgow on the transition plan task force, the UK is already working on this for the largest companies and financial institutions in the country. There is a chance that the peloton—it's a bit late, but I will try to keep the analogy—will follow and reshape it in a way. Given that it is the leading international financial centre, it is probably appropriate that the UK plays that leading role in shaping this approach.

Q5 **Chair:** This all sounds very encouraging; things are moving at pace since COP26. Are there are any jurisdictions that are moving faster than we are? Are some areas—maybe Singapore; I do not have an example—and other competing financial institutions recognising that they can move quicker than us and can try to take the lead?

Mark Carney: The European Union has been moving in a similar vein, though it has taken a slightly different approach. You are familiar with its ultimately quasi-legislative, or actually legislative, process, which complicates things. In Asia, Singapore is moving as well. As for North America, specifically the US and Canada, when it comes to transition planning, it is not as advanced, even though most of the major institutions are in GFANZ. In North America, Climate disclosure is the issue of the moment, as opposed to transition planning.

Q6 **Chair:** The issue is particularly acute here, with the energy crisis—well, not just here, but in all the countries that are dependent on imported energy but have energy resources. In another inquiry, we are looking at whether continuing to exploit North sea oil and gas reserves is compatible with maintaining our Paris commitments. In order to achieve the transition that you talk about, financial institutions will be compelled to accelerate their disinvestment in energy assets that are otherwise vital to the economy. Do you see a role for that?

Mark Carney: There are a few points. First—and we make a point of this—for the energy transition, the first requirement is ramping up clean energy. Let me put some numbers around that. Look at the various climate scenarios. We did research, which we can furnish to the Committee, if it is of interest, looking at the various IPCC scenarios, the IA scenarios, and others. If you triangulate across and average them, on average right now the investment in conventional energy infrastructure—

for that, read fossil fuels—and clean energy infrastructure, energy efficiency and renewables is about 1:1. There are roughly similar orders of magnitude across the various scenarios.

A key point, though, is that the ratio of clean to conventional needs to rise to an average of 4:1 by the end of this decade, so it needs to ramp up very rapidly, and it is more about the numerator than the denominator. There are issues, as you can appreciate from your broader inquiries and broader roles as MPs, in terms of the denominator, which is conventional energy. For example, there are energy security concerns. I will state the obvious, but it is good to read it into the record. Once the infrastructure is built, clean energy is secure energy. It is domestic energy; nobody owns the wind and the sun, and hydrogen is everywhere.

That said—this is a personal observation, not a GFANZ observation—the geopolitical situation likely means that the world will have to strand more assets of conventional energy. It would be justice if those stranded assets were in Russia. That is stating the obvious. On discipline, whether we are talking about that 1:1 ratio going to 4:1, or conventional energy security, if we are going to be consistent with 1.5°, the investment needs to be consistent with a pathway to 1.5°. In other words, the timeline of any new field development, or alternative field development, cannot be measured in 30 or 40 years, as would be the case for a conventional LNG facility; it has to be consistent with needs going forward.

Chair: Thank you. I will broaden this out. Jerome Mayhew.

Q7 **Jerome Mayhew:** Mr Carney, at a hearing of the Treasury Committee in 2021, which I am sure you will not remember but I do, you and I discussed whether it makes sense to set a global price for carbon.

Mark Carney: I remember.

Jerome Mayhew: To set the scene, can we step back into teacher mode? I would be very grateful if you set out what contribution setting a global price for carbon could make to global progress on reaching net zero by 2050.

Mark Carney: First point: there is no one solution to addressing the climate; it is very much a world of "and" in terms of policy levers. Whether it is domestically having an ETS, plus having contracts for differences, plus having various support schemes, regulatory clarity—all of those are important and, in many respects, complementary. From a global perspective—I'm going to average and not do justice to this—if there were a price for carbon globally, that price for carbon should reach about $75 to $90 a tonne by the end of this decade.

The next point is that one of the lessons—I will say this from a Canadian perspective, where there is a legislative price for carbon. It is currently $50 a tonne—Canadian—and it is legislated to rise to $170 a tonne by the end of this decade, so it steps up. What is relevant for investment in Canada is the $170, not the $50. If you have a credible price of carbon and a credible pathway, in many respects—as you can appreciate, Mr

Mayhew—that level and that credibility means that by the time that we get to 2030, the economy has adjusted and there is much less that is actually priced, in the Canadian example, at $170 a tonne, because carbon is expensive and people have adjusted.

It is highly desirable. There are more complicated ways of doing it that have an element of global carbon justice, if I can say that. Again, I can provide— rather than speak out your time—work by Professor Raghu Rajan at the University of Chicago, who has proposed a global average price. In effect, if a country produces below the per capita level, it gets the rebate, but others would pay above. I am giving that for completeness.

I will make two other points. I don't think that a global carbon price is in prospect. I would be pleased if it were, but I don't think that it is in prospect, so what becomes the important point—I will stop here—potentially in trade policy is: what is the effective carbon price that countries have when you combine all the policies that countries have?

Q8 **Jerome Mayhew:** The ETS and the rest of it.

Mark Carney: Exactly, but also regulatory—in the language of economics, the shadow carbon price, effectively.

Q9 **Jerome Mayhew:** You have already answered my question. There seem to be a lot of barriers to stop us achieving what most people would consider to be a good outcome, which is a global price for carbon. What are the key ones? What is stopping us?

Mark Carney: The biggest issue in climate is that it is an externality and free riding and lagging—that is the first thing. The second is the carbon price design and the political economy of the carbon price. Again, I am going to use an example from Canada, where the carbon price is rebated to individuals, so about 70% of Canadians come out ahead, because their carbon footprint is lower than— The median is above the mean in terms of carbon, so they come out ahead. It is not clear—I have not seen the exact polling of this—that everybody recognises that that is the case, because while they see a price at the pump and get a cheque over here from the Government, they don't necessarily add the two across. So one of the things is the political economy. Your constituents are paying a carbon price. Multiply that by 190 countries that have that issue.

Q10 **Jerome Mayhew:** Motherhood and apple pie is not going to be adopted around the world. I absolutely recognise and agree that it is "everything and" in our approach to this, but is progress being made on an intergovernmental level? For example, you have within the European Union—I know I am stepping on a little bit, but on 4 July last year, they published a draft Bill on carbon border adjustment mechanisms. There is also the US-EU green steel deal of a few months ago. You can see that being the sort of intergovernmental agreement that might be able to blossom into something a bit more. Do see that as a credible plan?

Mark Carney: I agree with the line of your questioning. On the CBAM—carbon border adjustment mechanism—you will have testimony and expertise better than mine in terms of trade law, or WTO rules. But if it is carbon price to carbon price, it is pretty clear that you can do it. If you are comparing apples and oranges, and trying to adjust it, it is much less clear. Exactly as you say, the solution of limiting embedded carbon in specific products—green steel, for example—to the highest emitting traded products, and developing that trade architecture, is the most likely way forward in the second-best world. The first best is that everyone has a carbon price, but I would suggest that, given the differential efforts in general—although the US is catching up now—that is the most likely solution.

Q11 **Jerome Mayhew:** We have what is happening in the European Union and, as you say, the US is catching up a bit on this. Where do you see the UK fitting into that triumvirate of negotiations?

Mark Carney: It's not perfect. Again, this Committee knows far better than I, but there is a breadth of climate policy here, and a general orientation towards openness. Properly, this is a G7 conversation first, and the UK should, and I think is—

Q12 **Jerome Mayhew:** And it's happening in the G7.

Mark Carney: It is effectively happening now. It is a bit like mercury: there is a thing called a carbon club, which the German G7 presidency had, and when you try to pin down exactly what that means, different people will tell you different things. But in essence, there are three pillars that make sense, when you bring it together. The first is financial regulation, which is what we are talking about. The second is something around carbon border adjustment mechanisms, which is your line of inquiry. The third, which is even more difficult than the second, is scale financing for the emerging and developing world, and how to use the balance sheets of the World Bank and others.

Q13 **Jerome Mayhew:** I'm going to move on to COP27 now. Is there progress on intergovernmental negotiations? Are we getting further down this line as part of COP27, or do you see this as a wholly separate line of negotiation?

Mark Carney: What you have just been asking me about is not, to my knowledge, central to the COP negotiations, nor was it central to the COP26 negotiations. To the extent to which it is within the G7, and for the G7 first, I do not think it is problematic. It becomes so if there is not full engagement with major emerging economies, though.

Q14 **Jerome Mayhew:** Perhaps it is better in the forum of something such as the United Nations. The United Nations has been asked to undertake work to agree a common formula for carbon pricing. Is that something you are familiar with?

Mark Carney: With no disrespect to the UNFCCC or other UN bodies, I think the broader UN body that is probably most expert in this, and has done work and is worth consulting, is the IMF. The IMF has done a fair bit of work on a global carbon price. There is the local—if I can put it that way—reality of a UK household paying a carbon price, whether they get money back and how that works, but there are also real macroeconomic considerations. The IMF has done work on the design of the carbon price, but also on the phasing in, and how that would interact with monetary and fiscal policy. I would point to the IMF.

Q15 **Jerome Mayhew:** Your compatriot Catherine McKenna has a committee under the UN, which I am sure you are familiar with.

Mark Carney: Yes, the high-level expert group.

Q16 **Jerome Mayhew:** Exactly. What contribution can that committee make to establishing effective common standards for the climate commitments of non-state actors?

Mark Carney: As you say, that's exactly the remit: to look at non-state actors, which would include companies, the financial sector, and regional and local governments to the extent that they have climate commitments. I should let the chair, Catherine McKenna, speak to this in the report, which will be released at COP on schedule. One of the contributions will be to draw out part of what we have been discussing—the appropriate role of voluntary commitments and its limits—and asking, "Where is the line?", "Where is the time?", or "What is the need for supporting architecture and or mandatory requirements?" From a UN perspective—as her committee is reporting to the Secretary-General—it is comprehensive; it has a global perspective, as opposed to a national perspective.

Q17 **John Mc Nally:** Mr Carney, congratulations on using your financial skills to drive all of this forward; it is highly recommended and recognised by so many people throughout Parliament and other places. My question is on regulations and incentives. One of the key differences of opinion in the written evidence received by this Committee was on the need for regulation to drive divestment versus allowing financial institutions to have the opportunity to self-regulate. For example, abrdn plc said, "We set clear milestones for our engagements and expect to see evidence of action. If we find that there is limited progress in response to our engagement, our investment teams will carefully consider the consequences"—that is, reducing their positions or completely selling out their holdings in fossil fuel-related companies. Is there a role for the Government to use the regulation to guide investment decisions and allow financial institutions to self-regulate through the use of dialogue?

Mark Carney: Thank you, Mr Mc Nally. I will start at the end. There is a role for financial institutions, such as abrdn plc and others that are active managers of people's savings, to have dialogue and engagement with companies, and basically determine if these companies have credible plans to get their emissions down in a way that is viable and competitive for the company—so, "Should they back those plans and do so?" That is what they are trying to judge. Engagement is a big part of how any financial institution—whether it is a bank or an asset manager like abrdn—can make a difference with respect to climate. That is the first thing.

If you will allow me a minute, the second thing informs the question of regulation and what happens with voluntary commitments, in effect, and what is happening with GFANZ. The financial institutions that joined now number 550; we were at 450 financial institutions at Glasgow. They have made a commitment, consistent with the UK's commitment to 1.5°, to manage the emissions of not just of themselves, which is a trivial amount in the bigger scheme of things, but their investments, the people they lend to, their clients and the assets they own. Those will be managed towards and then consistent with 1.5°. That is a high-level ambition and a high-level commitment. They then set interim metrics and targets, so you can start to judge how well they are doing. They then have transition plans, which we have talked about and are formalising an approach to; that will come out at this COP and be applied. Importantly, we are setting up the net zero data public utility—lots of words there—which will be up and running by this time next year. It will have all of the emissions of abrdn; by that, I mean the people it invests in, or Royal Bank of Scotland, NatWest, etc. I will not call out Clydesdale bank; I am not sure if it is in. It will have the financed emissions of various institutions, what their targets are and, over time, their performance relative to the targets of individual institutions.

This comes back to a point for you, as parliamentarians, and the broader public. Over time, we will see how financial institutions perform against those targets. Some will miss, some might hit and others might outperform. The question will be: is their performance because they are not very good at managing this and do not take it seriously? Or, to be more positive, are they very good at it? Or do the challenges reflect some hole in climate policy, or lack of ambition in climate policy more broadly, just as the Climate Change Committee shows elsewhere?

I go through all that because it is a mechanism that disciplines the financial institution itself over time, because everyone will have this information—common open source data—from this time next year. Also, it would inform, most importantly, parliamentarians and the broader public and authorities about whether there are things holding us back in terms of transition.

The incentives of the financial institutions, given they have made commitments, is first to try to live up to those commitments—these are voluntary commitments that they have made, but are sincerely made. The second incentive they have is that in a world that is transitioning towards 1.5°—I do not want to say this caveat but I will—even if it is not on schedule and does not fully get there, an increasing determinant of value in companies and assets will be whether they are low-emitting and managed in a way that is consistent with the objective. That is being revealed by disclosure and it will be disciplined by this transition. That gives an extra incentive for abrdn in your example, because they are determining who they think will succeed; if they succeed, the value will change. We see that in European equities' performance, where there is greater disclosure.

Given the dynamic and that it reinforces what the Government and the country are trying to do in terms of the transition; and it would also help to inform the Government and others of who is doing well, who is not and where there are holes, there is an important argument for a mandatory approach in regulation, once there is confidence that we have got it right in the transition plans.

The last point, which I made at the start, is that the transition plan taskforce, which has already been assigned the task of looking at transition planning, is part of that.

Q18 **John Mc Nally:** I think you have answered the next question, which was based on getting to net zero by 2050 without mandatory regulation. Are you telling us, for the purposes of clarity, that you have these things in place now to make that happen if required?

Mark Carney: I agree with the way you said it. Not to be overly suggestive, and certainly not prescriptive, it would make sense to look at one or two rounds of transition planning and get a sense of what is working and where the holes are before the approach were locked in. In my experience of new regulation, and in other countries' legislation, now is the time to be working towards that, because it tends to take a couple of years anyway. By that point, we will have had that experience.

Q19 **John Mc Nally:** My last question follows on from what you have said about some sectors finding it extremely difficult to reduce emissions. Smith School of Enterprise and the Environment mentioned that net zero also means dealing with the hard to reach—20% of emissions, in agriculture, plastic, cement and waste. How much consideration do you think has to be given to sectors for which net zero will be a huge task?

Mark Carney: It is a much different equation in power generation now—in part because of what the UK and others have caused, with the competitiveness of offshore wind, for example. It is a much different equation there than in agriculture or cement, where the very process produces carbon, aside from the energy used.

It goes in part to phasing: what do we deal with first that gets the emissions down as rapidly as possible? In part, it is the nature of financing and incentives for sectors where there still needs to be research and development, and if not, a point of moving down the cost curve—in green steel, for example. I commend again the UK orientation towards developing, and accelerating the development of, a competitive commercial hydrogen sector, which is crucial to a number of these applications.

Q20 **Duncan Baker:** If we acknowledge that there are industries that will always find it difficult to decarbonise faster than others—we have probably just done that with shipping and aviation, and construction certainly—what do you do regarding a specific concern with, say, the defence sector? Already defence contractors have expressed concern that they are unable to get investment to back their projects. If you take the defence sector specifically, can a net zero objective ever be compatible with, for instance, national security problems?

Mark Carney: There are several layers to national security and net zero. The first is that any country, this country included, if it is reliant on foreign suppliers of energy has a hole in national security. We are having that demonstrated in real time in various ways. As you know well, it is not just exposure to interruptions and price volatility; it is also how it can enter into broader geopolitical relations with those suppliers of energies, and compromises or trade-offs that are made as a consequence of that, so there are very real energy security consequences of not having a sustainable energy system. In essence, it is only in the building of that sustainable energy system—in the moment of the supply chain to build it—where there are some security concerns, just in terms of access and reliance. That is the first point.

The second point is that within the defence sector—I will use that example, as you did—obviously there are activities such as air transport and other components of transport, which are farther out in time in terms of the abatement curve, if I can use that language, or that approach. They will come later, but they are not off the charts in terms of abatement. In my judgment, sustainable aviation fuel will come with time, and we see where EV technology is going very rapidly. I am going to throw myself on the mercy of the Chair in terms of talking about ordnance and other things. I do not have a solution for the climate consequences of that, I'm afraid.

Q21 **Barry Gardiner:** In your discussion with my colleague Jerome Mayhew, you said that the first requirement for achieving net zero was to ramp up clean energy, so give us, please, your assessment of the current UK Government incentives. Are they sufficient to ramp up clean energy by the factor that you suggested was the minimum, which was 4:1?

Mark Carney: Certainly the objectives, as you know, Mr Gardiner, are consistent with that ramp. In fact, for offshore wind—I am doing this from memory; you would know the figures to hand—I believe that the objective is to go from something like 17 GW at present to 50 GW by the end of the decade. The economics of those investments are pretty compelling, quite candidly. Obviously, all energy policy is related, and if there is any adjustment to energy policy as a consequence of recent events, that will be very relevant in ensuring that the incentives remain in place.

I guess the way I would frame it is that one of the challenges—this is common—is to have permitting consistent with the speed of the ramp-up that is required. That is not unique to the UK, but it is certainly an issue in the UK, as you know. The European Union's stated commitment to have permitting for clean energy within a year of new energy projects is yet to be tested, although it will be tested within the next 365 days. I would point to that as one of the biggest issues.

Q22 **Barry Gardiner:** Were you as surprised as I and a number of other people were that the investment allowance for oil and gas production, which is 91p in the pound, is not also being facilitated for renewables production? Even though the Government have now moved to put this new regime in place for renewables that are producing electricity, so that it is no longer tied to the wholesale gas price, you would have thought that when putting that windfall tax—if I can phrase it loosely like that—on renewables, they might also have given renewables that investment allowance.

Mark Carney: A direct answer to that is that I have been otherwise occupied and I haven't followed that specific issue.

Q23 **Barry Gardiner:** Understanding that that now is the case, would you be as surprised as I was?

Mark Carney: Well, it's not exactly the same thing, is it? What I am unsighted on is the rationale for the investment allowance for oil and gas.

Q24 **Barry Gardiner:** There I would entirely agree with you. I think the investment allowance for oil and gas at 91p in the pound is inexcusable, but given that it exists for oil and gas, why isn't there a similar investment allowance to incentivise renewable investment?

Mark Carney: I can't speak for the Government—I underscore that. I only observe that the attractiveness of renewables investment in the UK continues. It is an attractive environment for renewables investment, and the UK has built up that reputation consistently over the years. The only other point I would make is that it is highly valuable to the UK's competitiveness and energy security. I recognise that, as in many countries, energy policy is being examined, and in play, for valid reasons, is what households are going through. It will be important not to lose that reputation, and if possible it should be reinforced.

Chair: Barry, if I may, Mr Carney is here as a UN special envoy. We can obviously touch on UK policies, but we better not get into the specifics.

Q25 **Barry Gardiner:** I am not trying to land you in it, Mr Carney. Let's move on. Can you give us some good examples from elsewhere in the world of where regulation and incentives have been effectively used to roll out new renewables?

Mark Carney: The first thing I will say—this may not be what you want—is that the UK framework—

Barry Gardiner: It is the leader.

Mark Carney: Absolute leadership—full stop. Many emulate that.

The other approach—this is slightly simplistic, but it is effective, and it is also being followed here—is to date certain moratoria on activities that are far enough in the future that you can do something about them, but are close enough that you have to do something about them. There is a 2030 moratorium on internal combustion vehicles here, and a similar thing in Canada—2035, for what it is worth—and that is close enough that there has to be activity. That is a very effective approach. You need an engaged Government with that as well, which again allows for or supports the adjustment to the supply chain for the auto manufacturing sector, for charging infrastructure and for other elements that should be there, so you get the full benefit. That approach, which has just been implemented here, has been effective.

To link back to finance, when you have a financial sector that is thinking increasingly about net zero and you are clarifying what net zero actually means, it amplifies the effectiveness of what you are doing. That is a core point. Not to overrun you with materials, but Secretary Yellen and I did some research on this. There is a paper that draws out this linkage between the net zero financial sector being forward looking and these types of regulatory measures, and how that means the cost and—this is an odd way to put it—the severity of the regulatory measures is ultimately lessened if you have the kind of credibility that, not to overplay it, broadly exists here.

Q26 **Barry Gardiner:** So you need clarity and stability, certainty of target and making it close enough in time as to ramp up production, but realistic enough to deliver.

Mark Carney: Again, because this is not the case in most jurisdictions, having the Climate Change Committee, which acts as an anchor and is objective, helps to reinforce that.

Q27 **Barry Gardiner:** Thank you. I want to pursue the issue of data because a large amount of the evidence received by the Committee for this inquiry has called for an improvement in data. How important is it that the companies that have committed to net zero goals publish data that is comparable, so that one can set out their positions with clarity and know that you are measuring like for like?

Mark Carney: Very important. In effect, that is one of the reasons why for GFANZ we have data requirements under GHG protocols or PCAF standards. They are slightly related, but there are common standards for that data. That is the first thing.

Secondly, let me make a point on data. I can understand why you would be inundated with submissions saying, "One of the issues is data. We need better data. It is a challenge. What about scope 3?" and so on, but let's put this in some context. At the start of 2021, not a single bank in the world had committed to net zero across all its scopes—in other words, including its financed emissions. Now, 119 banks are in the Net-Zero Banking Alliance. The first ones that started in April 2021 will report their targets and emissions at this COP, so there are 43 that should report. We already have 53, and there will probably be several more above that. Anyway, my point is that things are moving quite rapidly.

What happens with each of these institutions is that they go out to all their clients—people they lend to, effectively—looking for data, so the clients have to go get the data and then they have to get it from their supply chains. We are in a period of time where this data development—measuring my own emissions and then trying to determine the emissions of my suppliers and others—is happening. Yes, it is difficult, but ultimately, if I am your supplier, my scope 1 emissions are your scope 3 emissions, so it all comes together.

Last, I will just reference again that this data public utility is going to be very important. Forgive me, Mr Gardiner, but just for the record: all the major data providers are supporting this, so Refinitiv, Bloomberg and the London Stock Exchange, which is Refinitiv, MSCI, Morningstar, SMP, Moody's —I am going to offend somebody by not mentioning them. It is also supported by the OECD, IMF, UN, IOSCO, European Commission, UK Government, French presidency, US and so on. We have organised and catalysed this with them. I give full credit to the French President, who was the initiator of this. We worked with them. This will be up and running by this time next year, when we will start to get out that data for those early adopters and move this process forward. We just have to work through the issue.

Q28 **Barry Gardiner:** What I am hearing from you is that this is a process. We received a submission from Carbon Tracker that said that GFANZ should implement a more systematic tracking and reporting system—

Mark Carney: We just did.

Barry Gardiner: —that encompasses all the subsector alliances. I think what you're saying is that this is coming, these questions are being asked and gradually we'll get that data.

Mark Carney: It's not so much that. Carbon Tracker is an important partner of GFANZ on our advisory board; it has done remarkable work. In fact, a lot of what we are talking about is gaps between targets and performance. In many respects, Carbon Tracker pioneered analysis around that, so it is hugely valuable.

If we are to have data, we need to have it collected in one place in a consistent way that is available to everybody. It has to be available to regulators, Government, the general public, civil society and so on. That is what we are building. It is an absolutely enormous initiative, which is why all these people are involved, from the OECD through to Refinitiv and Bloomberg. It is not cheap, but it is being developed and it is being developed for exactly those reasons.

Q29 **Barry Gardiner:** Are there any other ways of facilitating that sort of effective scrutiny and trust or transparency apart from data? Are there groups working in that field that you would add, such as the TPI, or something like that?

Mark Carney: There is a large number of groups doing exceptionally good work. What is lacking—it is no one's fault; it is because of the scale of it—is comprehensive data. It is often partial or estimated. This is a way to have comprehensive data. Done properly, it is going to be heavily interrogated, used, sliced, diced and compared.

The last point to read into the record is that we should be in a position to compare bank to bank, or bank to all the banking peers, and if one is lagging behind the others, to ask why that is the case; or, if the banking sector as a whole is not moving as rapidly as one expects in the UK or globally, to ask why that is the case. Is it because there is not a carbon price? It forces the question on individual institutions and then more generally.

Q30 **Barry Gardiner:** Briefly, can you turn what you just said into a recommendation that this Committee could make in its report to Government?

Mark Carney: Yes, but not off the top of my head in a way that is written properly. When I write back with the references of the various reports, I will humbly suggest something.

Q31 **Chair:** Before I bring in Clive Lewis, let me say it would be very helpful if you could write to the Committee, Mark, with the status of this standard setting. I think you said a moment ago that there is due to be a publication within a week or two—

Mark Carney: Yes.

Chair: —and that you could provide us with a copy of it or access to it. Did I hear you say that there will effectively be a global standard for data across the financial services sector that will be recognised by all the bodies you've mentioned?

Mark Carney: Not quite. It will not be a global standard, in that there is no global requirement for this data to be collected; collection is a voluntary effort. However, there will be a global repository of this data that will be available. To ensure data integrity, the relevant multilateral bodies are using this, from the securities regulators, which is IOSCO, to the OECD, IMF and others. We are having them involved from the start and their support. They are not actually building it—well, the OECD is helping to build it a bit, but the others are more ensuring that it is fit for purpose.

Q32 **Clive Lewis:** Hi Mark. You seem quite confident about the ability of the financial sector to help navigate us away from or stay below 1.5°. Would that be a fair statement?

Mark Carney: No, not necessarily. We should remember that two-and-a-bit years ago very few institutions and none of the banks had formal commitments, but I would say that the scale of these commitments—so the balance sheets committed—to be managed towards net zero is more than sufficient to finance the transition, as those balance sheets get turned over and are invested in the way that Mr Mc Nally was referencing. That is a positive. Secondly, the tools are being built so that they can do that, and tools are being built so that you can monitor how well it is going.

In the end, however—this is why my short answer was no—finance is an enabler and can finance things that people want to do, but it cannot make things happen. The way we sometimes frame it is that it is a catalyst, but catalysts need underlying components, such as what we have talked about here: public policy, regulatory clarity and, of course, businesses and entrepreneurs. It is obviously all connected as part of the system. I would certainly not say that finance can guarantee that we get to 1.5°, but it creates the possibility of achieving something that, as the Committee knows well, is going to be exceptionally difficult for everyone to achieve. We have left this issue very, very late, and it is a very narrow path to get to where the world needs to be.

Q33 **Clive Lewis:** I suppose it is seven years since Paris 2015, when the target was first agreed to. After seven years you would have thought we would be further along, given the scale of the crisis and that it is an existential threat. I guess there are lots of people out there—my constituents and others—who are probably quite concerned at how long it has taken to get to where we are now.

When you were talking to Barry about the Government's 91% tax allowance for fossil fuels, you said that one of the reasons—I will not go down this policy route again—is that there is quite a lot of confidence in the renewables sector in the UK. However, we know that the Climate Change Committee investment target of £50 billion a year between 2030 and 2050 still is not being reached, and yet we have that tax allowance. We also know that the financed emissions of the City of London make its emissions larger than those of Germany or Canada. Thinking about the scale of those investments, we know that the five biggest banks in the UK, including those who have committed to net zero, are still investing £275 billion a year into fossil fuel production.

Have you ever heard of the quote from the feminist Audre Lorde that goes, "the master's tools will never dismantle the master's house"? My question is: why should I or anyone else expect the City and the financial institutions to be able to deliver what at present they are not?

Mark Carney: The first thing is that you shouldn't expect it in isolation, without question. I refer to my previous answer. If the strategy is that the financial sector on its own is going to deliver 1.5°, we are not going to get to 1.5°, full stop. Governments cannot walk away from their responsibility; nor can regulators. Those responsibilities in the UK are informed by bodies such as Carbon Tracker and more broadly the Climate Change Committee, who do assessments of where the gaps are. Even those gaps are relative to policies, and policies have to be implemented and executed effectively. There are always other factors.

The second point is that today in the world, three quarters—it is actually closer to 80%—of final direct demand for energy is ultimately from fossil fuels. That is where it is produced; that is financed. So, we have a system that was oriented to that, in part because that is what was growing up and what policy has developed. It has to shift from that—from stock versus what I have financed, what I own, what is in the system, what is in the ground and what is out there—to a flow basis: where the flow of investment, and investment in lending, is going. There is a difference in terms of banks that tend not to invest but to lend, and in the roll-over of the lending there is a different horizon from if I am actually building something. That is why we have done the analysis, and the IEA and others are on their next level of analysis about where the flow goes and how quickly it ramps from where it is today, and what you will have is not just the commitments of those institutions, but what progress they are or are not making. You will have it on a level playing field of disclosure targets and performance against targets.

As others have done, I will go back and reinforce that finance on its own will not deliver this.

Q34 **Clive Lewis:** With more regulation, the G7 could democratically mandate financial institutions to do more. You were talking about this issue before with my colleague Mr Mc Nally, and you seemed quite reluctant. I think you felt there was more benefit from them coming here themselves than there being—

Mark Carney: No, I have been consistent. Go back and look at everything I have said from day one: it has been about voluntary to mandatory. Ultimately, these major components—whether it is disclosure, transition plans or the architecture of carbon markets, if there are carbon markets—need to have the standards comprehensively applied, full stop. I have always said that. I am happy to hear it repeated back to me as if it is a new idea, but to my ears—or in my experience—it is not.

Let me make another, broader point about energy. To take a step back, if we do not ramp up, it is exceptionally difficult to shut off. If the idea is to say, "Stop financing today, including working capital and any exposure to the energy sector and the auto sector," with the emphasis on the ramp and on the investment incentives that Mr Gardiner mentioned, or on the permitting—you are the ones on the political frontline, but that gives you the ability to shut off without ramping up and without a replacement; you can make your own judgment.

Q35 **Clive Lewis:** I think you would find that even Just Stop Oil probably agree with that, in the sense that they are talking about new fossil fuel extraction. That just transition, or a transition in places, is clearly essential. I know that you are vice-chair of Brookfield Asset Management, which has investments in the Rosebank oilfield for which it has not yet been given permission by the UK Government.

Mark Carney: That is not correct. It has a minority investment in what is effectively a shuttle tanker business. It does not have an investment in the oilfield.

Q36 **Clive Lewis:** It is the storage facility. If the UK Government give their permission to go ahead—having listened to the Minister last week, that could well happen—it would be a financial resource that the company you work for is putting into yet more oil coming out of the ground. You can see why I, sitting here as a legislator, would take that with a pinch of salt.

Mark Carney: I would expect you, as a legislator and as someone who is numerate, to be able to understand the ratios of investment in conventional energy and renewable energy, which are 1:1 at present, according to the IEA and the IPCC. Not 1:0, but 1:1, and ramping up to 4:1. If you look not at Brookfield's flow but at its investments as a whole—what I just said was a flow: what happens each year and where it goes—it was one of the largest renewable builders and owners in the world, with 23 GW of clean energy at present in the ground, which is more than the City of London.

We will ramp that up. That is in our submission, which is now out of date because it was 21 GW in 2021, at the time we did our submission in August. We are now at 23 GW in operation, and at 103 GW in our development pipeline. The world is 6:1, in terms of the ratio of fossil fuels to renewables at present, in the ground. You are talking about a shuttle tanker—one ship in the North sea; that's your point. You are talking about something that may have an existing field that gets extended, relative to a renewable platform that could power everything here and avoid all the emissions here, and a pipeline that is bigger than Sweden's—you should be able to do the math on this.

Q37 **Clive Lewis:** I can do the math, but I can also see the way that that will look to the public.

Mark Carney: I disagree. That is the reason to have comprehensive data; if you frame it that way, as one little anecdote—one ship, that is your point—

Q38 **Clive Lewis:** It is a large ship. It has got a large capacity. It is the principle of it, as well—

Mark Carney: Do you know how big 103 GW is? Do you have a sense of how much that costs? Do you have a sense of anyone else who builds that?

Q39 **Clive Lewis:** I am sure that it costs a great deal of money, but that is the point: the investment that is going in to bringing more oil out of the ground.

Mark Carney: That isn't the point. I am not going to accept that—I am sorry.

Clive Lewis: That's okay.

Mark Carney: That is not what I said. That is not the point. The point is the scale of the ramp of the renewable power. So if you are looking at Brookfield, look at the scale of the ramp of the renewable. Those are the orders of magnitude that are required from others. You choose to focus on an anecdote.

Clive Lewis: The road to—

Chair: I think we've had enough on that. You have had a good go. It is Anna McMorrin's time, and we are running out of time.

Q40 **Anna McMorrin:** I want to move on to reports that companies in the US are being discouraged from participation. We have heard wide reports of that in the Glasgow Financial Alliance; JP Morgan, Morgan Stanley and Bank of America are all reportedly concerned with the legal risks of stringent decarbonisation commitments. Also, they have mentioned the fact that China, Russia and India are not members, so there is a lack of scrutiny there. How do you square that with talking about voluntary effort? How can we ensure that all financial institutions play an active role?

Mark Carney: The first thing is that all the institutions that you mentioned are members of the Glasgow alliance.

Q41 **Anna McMorrin:** They did not leave?

Mark Carney: They have not left, and they have not indicated to me any intention to do so. I put more weight on conversations that I have with CEOs of institutions than unsourced things I read in the press that then get repeated by others. I have found that, as a supervisor and regulator, interaction is a more productive way to move forward.

Secondly, the scale of the alliance since Glasgow has grown net by 100 firms. I should not say this, but it is one of the few figures in finance that has grown over the course of the last year. The balance sheets have gone from $130 trillion to $150 trillion over that period. In addition, we are building out our regional networks in Asia and Africa to address some of the issues there.

My third thing is about the general point you are making: in a voluntary alliance, somebody could leave. If somebody leaves, because they view the commitments as too stringent or they do not want the public scrutiny that comes with things like we have been talking about in terms of the data, then they are answerable for that.

Q42 **Anna McMorrin:** Did you have to rewrite the wording to make sure that they didn't leave?

Mark Carney: No, but we had to make sure that—you referenced legal risk, so I will expand on that. One of the implications, which I am sure you can appreciate as a legislator, is if you have a large number of firms in an industry, and in some geographies a dominant position in those industries. There is an important difference between them developing strategies to achieve an objective and them having a requirement for common strategies that—I am not the anti-trust lawyer, but whether it is in the UK, the US, Europe or wherever, that certainly raises important anti-trust concerns. That aspect of certain guidance—it was stronger than guidance—that was given by one of the associated partners of GFANZ had to be adjusted, yes. But that is a different issue. It is a related issue—it is a tension, obviously—but it needed to be reconciled.

Q43 **Anna McMorrin:** How would you square that with ensuring that there is proper scrutiny and transparency? You talked a little while ago about the global repository, for example. This is a voluntary effort, globally and with the alliance. How does that square in terms of ensuring that we all have transparency—that regulators have transparency, that people have transparency—and scrutiny over what is being done?

Mark Carney: I am not quite sure of the logic of your question, but a data repository that is available to everybody gives regulators, the general public and civil society an ability to scrutinise—

Q44 **Anna McMorrin:** I don't think you described how it was going to give that transparency. That is what I am asking.

Mark Carney: Any member of the Glasgow Financial Alliance has a responsibility not just to disclose their own emissions—the emissions from their activities, such as buildings or flying around in a plane. Those are very small, as you can appreciate, relative to the financed emissions—the companies they invest in or lend to. They are in the process—some are already there—of collecting that information. That will be publicly disclosed. They disclose it at present, those who have it, in their annual reports, and so on, and on the timelines needed. But that will be brought together in a single data repository, along with the targets that those institutions have and, as time rolls forward, their performance against those targets.

That is the scrutiny. That provides a common source of information—the most important information about financed emissions, performance over time, targets—and then, of course, it gives an ability to compare their performance to other institutions in their industry, in their geographies and so on.

Is a voluntary system—if this is your question—better than no system? Yes, it is better than no system. Consistent with what I have said over the years, and consistent with the questioning and discussion today, are there certain of those activities that would be better if they were mandatory? Yes. But that is not—

Q45 **Anna McMorrin:** May I briefly ask you about global deforestation? We are just about to start an inquiry into that, and many of the financiers in the Glasgow Financial Alliance provide significant funding to, and contribute to, global deforestation. I am sure that you would absolutely agree that that is a massive contributor and something that needs to be stopped before the end of this decade if we are going to have any chance of meeting 1.5°. Do you include deforestation in this process? Do you have any other comments about the financiers acting on this?

Mark Carney: Two things. First, I can furnish to the Committee the statement made by me and Mike Bloomberg, as the co-chairs of Glasgow Financial Alliance—with Mary Schapiro, who is the vice-chair—three weeks or a month ago on exactly this issue, calling on the members of the alliance to have deforestation policies and to act consistent with the commitments on deforestation made in Glasgow by, I believe, 140 Governments. That is the first point. The second point is that in the transition plans framework, which will come out for COP27, it is reasonable to expect that expectations around certain policies, including deforestation, would be established there.

I absolutely agree and I know the numbers, as you would, on the contribution of deforestation. It is bigger than the cement industry, for example. We do not need to read the contribution into the record, because it is enormous. Apart from the broader issues around biodiversity, communities and so forth, we will not get to net zero unless that 2030 date is respected—or at least not consistent with 1.5°. I think we are just in agreement on this issue, and I can provide the evidence for that.

Q46 **Chair:** Thank you. Before I bring in Caroline Lucas with the closing set of questions, some of us are meeting tomorrow with the President of COP26, as Alok Sharma is appearing before the BEIS Committee. Is there any question that you would put to him, from the UK's perspective, on what he could do to help make that as effective as possible?

Mark Carney: A question to the President on COP27? I would ask him what we are doing with our shareholding in the major multilateral development banks and our influence, which exceeds the scale of our shareholding, in ensuring that those institutions are crowding in many more dollars—I will use dollars, because they count in dollars—of financing for climate in the emerging and developing world. You would know this, Chair, but strictly speaking, we need an extra $1 trillion a year. The world needs an extra $1 trillion a year for the emerging and developing world for mitigation alone—that is without adaptation, resilience and the other issues, such as biodiversity. In our judgment—we in GFANZ have been very clear on this—there is no way we are going to get anywhere near there unless we use the balance sheets much more effectively. From my experience, and I will speak as a Canadian here, the UK has traditionally led on these types of issues in terms of not just thought leadership but deploying its financial resources consistently.

Q47 **Caroline Lucas:** By way of preface, I just wanted to say that it feels like there are two different measurements that you can use to see how much progress we are making. On the one hand, one can look at what has happened over the past five years, see the progress that has been made, and feel that it is going in the right direction, that we can be quite ambitious and that there is a positive story to tell.

But the other measurement is about what needs to be done and the urgency of it. I want to focus on that for a moment, because there is a real concern that the high-level net zero commitments made by large financial institutions are not necessarily reflected in the day-to-day investment decisions that they make, and we have examples. Only 60 out of the 240 largest GFANZ members have any policy excluding support for companies developing new coal projects. Of those 60, just 11 have adopted robust policies to end financial services for all companies building new coal mines, plants and related infrastructure. Of the 74 largest members of GFANZ, only five have policies with any mention of restricting some support for oil and gas supply expanders, and the 44 largest members of the Net-Zero Banking Alliance provided $143 billion in lending and underwriting for the 75 countries doing the most to expand oil and gas. Coming back to the issue of the gap between what needs to be done and what is currently being done, what else can GFANZ do to start to close that gap?

Mark Carney: First, Ms Lucas, I agree with your characterisation. Things have moved very rapidly. I'll put it this way: I have worked on public policy issues, financial reform after the global financial crisis and a variety of things, and on any other major issue if we had made as much progress as we—the collective we—have made in the last few years, I would be fully satisfied. I would know that the job was not quite done, but basically the back of it was broken. You know better than I, but I agree with the basic point that even though we have made progress, both in UK climate policy and financial sector moves, the path to 1.5° is exceptionally narrow. Events of this year have made it rockier and more treacherous. The carbon budget is brutal. I agree with that characterisation.

I will get to the specifics on finance in a second, but I would just re-emphasise that it is part of a system and it integrates with the scale and ramped up ambition of the system as a whole, not just of the UK, but other countries. If I may, I would separate your examples into two types. One is the question of whether financial institutions have specific policies around certain activities, such as deforestation, which we just discussed, coal and oil and gas. The other is whether they should have those as part of their transition plans or overall strategies. On coal and deforestation, I am on the record along with the co-chair of Bloomberg saying that, yes, they should. That also goes for oil and gas. We have been developing this transition plan framework, and it will not be too long until that comes out. Then there will be a response to that.

On the specifics of financing conventional energy, you quoted $143 billion or some figure like that, but that doesn't mean that every one of those loans or investments is right or consistent with the transition. I am not saying that. I will point out, though, that from the IEA and IPCC's various scenarios—1.5°, low, or no overshoot—the financing flow this year in conventional energy, oil and gas, is, depending on the scenario, somewhere between $600 billion and $800 billion. You quoted $143 billion, but that is what it takes to keep the lights on and heat homes in the existing energy system we have.

Q48 **Caroline Lucas:** But the IEA itself is saying there should be no new exploration in oil and gas. We are talking here about money that is going to expand new fields. It is not about existing oil and gas.

Mark Carney: I would look at what the IEA says when its next report comes out and how specific it is about that point. Remember that the IEA puts forward a transitioned scenario, and there is huge value in that, but—

Q49 **Caroline Lucas:** But within that it talks about existing oil and gas, doesn't it? It says, "Yes, there will be more, but nothing new".

Mark Carney: You have a field, you have the North sea. There are decline rates and additional investment consistent with those decline rates. Is that consistent with the overall 1.5° trajectory? It gets down to the fact we need much more granularity about it, but this is the system we have. It would be great to flip the green switch overnight and have us move from where we are today. This is an important point: I would go as far as to say that within the numbers you quote, I am sure there are investments or lending that are inconsistent, either because they have not thought about the time horizon or they are not replacing decline rates somewhere and so on—and they are not because of energy security issues that have come up with the war. It is also not the case that all that $600 billion to $800 billion of financing is in and of itself. It is an important point, because we can simplify it to "just say no", but that will not lead to that transition.

Q50 **Caroline Lucas:** Let us agree that there are a number out there—I don't know how many there are, either, but you have acknowledged this—who don't have the defence of being about energy security or anything else and who are financing oil and gas in a way that you and I would both think is pretty irresponsible. What can GFANZ do about those, and how soon? You talk about turning off a switch overnight. I wish! We are so far away from being able to turn a switch off overnight. You also talked earlier about progress on voluntary to mandatory and the timeline and so forth, but what can GFANZ do to speed that up and to put a spotlight on those members whose very membership of GFANZ right now is giving the impression that they are in the right space? There is greenwashing going on, so what can you do?

Mark Carney: There are a couple of things. As you know, when the UK assumed the presidency of COP26, on various estimates the world was headed towards 3.25° to 3.5° global warming. We had an energy system consistent with that, and economies around the world and a limited level of climate ambition that were consistent with that. Those are the estimates. That system is being turned, first, in terms of ambition, which is the easy bit: countries have changed their ambition. Policy is lagging by at least a degree relative to the overall objective—and that is if policy is actually implemented effectively, so it is a bigger lag than that, as the system moves in that direction. What do we do to put a spotlight on it? No. 1 is that we are having the same objectives as other countries, which was not done two years ago. We are measuring the financed emissions—

Q51 **Caroline Lucas:** I said that there is good stuff happening and bad stuff happening, and you are repeating the good stuff, but what I want to know is what GFANZ can do about those things?

Mark Carney: Every institution in GFANZ has to justify what they are doing. What is the flow of their activities? Where is their—not marginal, because these are big numbers—investment and their lending going? Is that consistent with a 1.5° pathway? And what proportion of their assets is consistent with solving the issue, and are they growing it? What you have today with those who joined long enough ago that their submissions are in the net zero asset managers—abrdn is an example—is that you know the percentage of those assets that they expect to be on that 1.5° pathway. It is 40% today. So, one thing you know right there is the proportion of your assets, and you can drill down—it's in the public domain—*[Interruption.]* I am answering your question.

Q52 **Caroline Lucas:** It's just that I can hear the Chair breathing—he is going to stop us any minute.

Chair: I am conscious that Mr Carney has to leave us shortly.

Mark Carney: Yes, I have to honour a pioneer in climate finance, which is important. For the proportion, you can scrutinise that which abrdn—though I don't want to pick on abrdn—says it thinks is going to be managed that way, and then interrogate: what about the other 60%, on average? How quickly are you moving that up? How well does that perform? Why is that the case? For the other 60%, is it because you have 20% of your assets in India, and India is not moving fast enough, or is it because you have chosen to be in other sectors? Or are you, quite candidly, going through a process?

I will give an example. Mr Lewis and I had an exchange on the flow of Brookfield investments, and the point was made about ramping up renewables. But what we are doing as well, which takes some time, is going through every asset and company we have that—

Q53 **Caroline Lucas:** I don't want you to give a good example. You will present that example as a good example because it is one that you are involved in, and you are making the case for why, going through each of the investments.

Mark Carney: But that is what you have to do in order to make the change.

Q54 **Caroline Lucas:** But what I am asking you about is those companies that are undoubtedly within the GFANZ network but that do not have the same good faith as the one that you are citing. I am asking what accountability there is and how they will be held to account.

Mark Carney: There are a couple of things. First, GFANZ was launched last year. The first returns of the institutions are due now. We are just getting the first, "Here are my emissions, and here are my targets." Next year, we will get more of those, but we will also get the people who did the first returns saying, "Here's my performance against my targets." And we will start to see, I hope, institutions at least meeting or outperforming their targets, but we will also see, undoubtedly, if you have 500-plus institutions, people lagging over time. If people persistently lag—

Q55 **Caroline Lucas:** What do you do with them? That is my question. That is all I want to know.

Mark Carney: Ultimately, you have to meet your alliance commitment, which is to manage your assets in that direction. I have no doubt that a very large range of stakeholders—including the employees of those institutions but also, more broadly, parliamentarians and others—will be scrutinising the performance.

Caroline Lucas: Do I have time to ask a quick question?

Q56 **Chair:** You do, but I am just going to ask a follow-up question. Can you conceive of any other transition that is remotely comparable to the ambition that you have described, and the process that GFANZ is going through, within the financial sector in your professional lifetime?

Mark Carney: No. As you may know, I oversaw, with Mario Draghi, all the global financial reforms through the Financial Stability Board, and this is orders of magnitude bigger, easily, and in a much more compressed timetable.

Q57 **Caroline Lucas:** I want to come on to a just transition and ask how GFANZ promotes investment policies that are designed to make sure that, in the transition away from a fossil fuel economy, those who are likely to be adversely affected by the transition, not least the workers in those companies—what can GFANZ do to support them?

Mark Carney: We are working on developing exactly that issue, and this is one area where there is a tension. In many respects, the easiest thing for an institution to do if they have exposure in an emerging economy to coal or something like that—we have a number of emerging economy institutions in GFANZ—is to sell and to walk away, because then it does not show up in some of the figures that you just quoted. What we are looking to do—we would like to be backed on this, as opposed to attacked on it—is to have the responsibility for the institution for a managed phase-out, which is one component of a just transition. In other words, don't just walk away from the coal asset, the oil and gas asset or the steel mill and let it affect a community, but be part of a process that winds it down, starting soon, so that people can get other skills, other jobs and so on. But it necessitates having exposure to that.

If I could put one other point on the record, there is a false comfort of portfolio decarbonisation. The easiest thing is to do a sell, and there is a lot of pressure to sell. It's how I get out of this conversation as an institution. As an individual institution, it is absolutely rational; for the system, it doesn't work. That starts with the information you are asking for, Ms Lucas, but then builds up from that in terms of: how is that oil and gas or fossil fuel exposure moving? What is the timeline? Is there a just transition strategy?

Q58 **Caroline Lucas:** And is there a role for Governments to ensure that stranded assets are not disposed of in an irresponsible way? I completely take your point.

Mark Carney: Yes. It will be difficult. It's very difficult to have a just transition without active engagement and support of Governments.

Q59 **Chair:** Who are the buyers of last resort of stranded assets?

Mark Carney: We have spent a lot of time talking about the activities of 40% of the private financial system, but 60% is on the other side. Part of the question is about those who are not making these commitments, who are rightly not part of the scrutiny process. This is partly why one thinks about mandatory as well, because of the comprehensive coverage. But there are people outside, and there are quite considerable assets that are outside. I am not saying everybody is outside—that is not what I am saying—but once you have 60% outside, it's more than $150 trillion of balance sheets that potentially could buy an asset that should be stranded, or that needs to be stranded consistent with the transition, and run it for much longer.

Q60 **Chair:** I want to be crystal clear about the 40/60 split. The 40% are the participants in GFANZ.

Mark Carney: Yes.

Q61 **Anna McMorrin:** To follow that up, is the 60% from certain areas or countries?

Mark Carney: I will answer it this way: representation in GFANZ is much higher in the UK and Europe than it is in other advanced economies. It is quite considerable in the US, Japan and elsewhere, and lower in terms of the emerging economies.

Q62 **Anna McMorrin:** China, for example? Is China buying those stranded assets?

Mark Carney: China is financing new assets that will need to be stranded if we are going to meet 1.5 degrees. New coal build in Asia is at a point, as the Committee knows, that is inconsistent with that, unless it is going to be wound down by 2040. I would say that it is more that, at this stage, than buying advanced economy stranded assets, if that makes sense.

Chair: I invite Claudia Webbe, who has been very patient, to ask a very short question.

Q63 **Claudia Webbe:** This is going to have to be a short question. When we talk about those stranded assets being located in what you call emerging and developing countries, and about companies that have gone into those emerging and developing countries—global south countries is what I call them—who pays, and what happens to those countries? Obviously, we can see what happened to places like Pakistan, Bangladesh and all of that. Why should those countries pay?

Mark Carney: That is an incredibly important question. I cannot fully do it justice but let me give a bit of a sense of the way forward on that. One of the things that GFANZ is working on, and its members, including some leading UK institutions, are working on, is something called just energy transition partnerships. One of the big issues that we have come to is the scale of coal generation in emerging economies, and the need for those to be shut down before the end of their useful economic life. They are therefore stranded assets, thereby raising these issues.

You need a comprehensive approach in order to do that. You need, as we discussed earlier, to ramp up, and you need to have renewable or other generation in order to shut down, but even with that you have issues in terms of vulnerable communities that are in the areas where the activities are, who are reliant on coalmining or other activities, so you need to have a strategy for that. Plus, you have plants that in many cases have been built in the last five years, with contracts consistent with that. Somebody has to balance that cost.

Two points quickly. First, that is part of the best role for multilateral development funding, because the shutting down of that plant unlocks the clean energy and the transition over here on this side, so partly that is a role of aid and development. Secondly, we talked at the very start about the importance potentially of carbon offset markets, and I referenced, Chair, that this is more important in the emerging world, although it could be a UK-based market, than it is here. We do not have time to talk about nature, but if I shut down coal and build up renewables I create, at least in concept, a series of carbon offsets. In other words, I am literally shutting the coal because I have created the renewable and those emissions are not happening.

On the other side, there are companies in advanced economies that are looking to purchase offsets, and the question is how we discipline the purchases of those offsets that are created. I am not quite doing the issue justice—I apologise. I am skipping a bunch of steps, but that is a potential source of financing for this, and your question is a critical point because these countries are not going to shut down the coal—and we need them to shut down the coal—unless we have a broader, more comprehensive approach. I will give you yet another question for the COP President, because he is very well versed and has helped leading this, including with Vietnam, for example: JETP—just energy transition partnerships—which go to exactly this issue.

Chair: Thank you very much indeed, Mark Carney, the UN special envoy. We are very grateful to you for joining us today. I thank the Committee for being well attended, and you for staying with us a bit longer than we had invited you to do so. I am very grateful to you. Thank you to Chris Watson, our Clerk, who prepared our brief. This is his farewell appearance before the Committee, I regret to say. Thank you.