



Select Committee on the European Union

Sub-Committee on Energy and Environment

Corrected oral evidence: EU Green Deal

Wednesday 4 March 2020

11.30 am

Watch the meeting

Members present: Lord Teverson (The Chair); Baroness Bryan of Partick; Baroness Byford; Lord Cameron of Dillington; Lord Kerr of Kinlochard; Lord Baroness McIntosh of Pickering; The Earl of Stair; Lord Young of Norwood Green.

Evidence Session No. 1

Heard in Public

Questions 1 - 13

Witnesses

[I](#): Michael Mehling, Professor, University of Strathclyde Law School; Professor Carolyn Fischer, Professor of Environmental Economics, Vrije Universiteit; Misato Sato, Assistant Professorial Research Fellow, London School of Economics and Political Science.

Examination of witnesses

Michael Mehling, Professor Carolyn Fischer and Misato Sato.

Q1 **The Chair:** Today is the first of our evidence sessions in our inquiry into the EU Green Deal. We will be looking at the carbon border adjustment mechanism, which is a key and possibly quite contentious part of the Green Deal. Can I remind Members, as this is a completely different subject from the one we talked about before, to declare any interests when they first speak? I am a trustee of Regen SW, which is a not-for-financial-gain issue.

May I welcome Michael Mehling, professor at the University of Strathclyde Law School. You are joining us by video from Brussels. We will be taking a transcript of this session. We will send you a copy and, if there is anything that seems not to concur with what you have said, please let us know. If you have any further research or evidence that you wish to send that we did not go through and you think would be useful to the inquiry, could you please send that to our clerk? That would be very welcome. Thank you. Would you like to introduce and say a little about yourself for those joining us from the public?

Michael Mehling: I am a professor of practice at the University of Strathclyde Law School in Glasgow and a member of the Strathclyde Centre for Environmental Law & Governance. I also work in the United States at the Massachusetts Institute of Technology, where I am deputy director of the Center for Energy and Environmental Policy Research. I have worked on issues of climate policy as a lawyer by training for about two decades. The carbon border adjustment proposals have come up many times in the last 20 years, so it is not the first time that we have had the doubtful pleasure of discussing them.

The Chair: No, indeed, but I think this is the first time perhaps that we are getting somewhere close to a possible attempt at implementation. President Macron has been a great advocate of this in the past. Perhaps I can start off, Professor, and ask you, because we are looking at this from a UK point of view into Europe, should the UK welcome or be worried that the European Union as part of its Green Deal is considering introducing this border adjustment mechanism? As you say, it has been discussed and debated but now might happen.

Michael Mehling: Correct. It is a good question. There are many balls in the air and many things happening at the same time. Brexit is one factor that complicates things. Having given it some thought, on balance I would say that it is probably something that the UK can look towards without being concerned about being impacted negatively. Whether it should welcome it is perhaps going a little too far. The history, trajectory and ambition of UK climate policy so far suggests that the UK has nothing to worry about in terms of being deemed to have climate policy that is much less ambitious than a new kind of policy going forward. If that is the case, any border adjustment would not lead to an incremental additional burden for UK exports, for instance.

If anything, the UK will share the challenge of trying to achieve very ambitious carbon neutrality targets in a relatively short timeframe with very ambitious mid and short-term targets. The challenge of emissions leakage is one that we both share. So asking questions about how to deal with that and exploring policy options is important for the UK. Politically, of course this will be very contentious, and having a large trading bloc, such as the EU, exploring this policy and rolling it out first may be tactically advantageous for the UK to see and observe whatever lessons can be learned from this mechanism—if it indeed rolls it out—what the reactions are from trading partners around the world and whether it is something that the UK wants to participate in or not.

Q2 The Chair: Thank you, that is a very useful answer. Can I go almost one step backward? In many ways, I seem to remember reports in the past in the UK on decarbonisation of the economy which said that carbon leakage is not as big an issue as some people think it is in terms of relocation. Do you believe that this is a real issue and therefore a tool of policy that is important in terms of decarbonisation and protecting economies? Or is it something that sounds as though it ought to happen but does not add a lot of value to the process?

Michael Mehling: What you have said is absolutely correct. The empirical studies that have tried to quantify actual emissions leakage from the EU in the past have been relatively conclusive that it is a limited problem so far. Very few sectors have had relatively modest, if any, leakage. Going forward, the issue is that we are looking at a huge step change in the ambition of climate policies. If we look backward, under the EU ETS laws, UK manufacturers and industries and continental European industries had very generous safeguards to prevent an economic impact from being part of this kind of policy: free allocation, and compensation of indirect costs through electricity cost increases. All these things proved to be very effective, but we cannot think of moving towards large-scale decarbonisation of our economies all the way to carbon neutrality within a limited time span without starting to think very seriously about leakage.

I would go even one step further. Leakage is one way of looking at it, but if you look at countries such as Switzerland or Sweden, we are already seeing that even though domestic emissions in these countries are very low and they have managed to go very far in their decarbonisation process, they import more emissions from the supergoods that are consumed than they emit themselves. That is an issue that any country or jurisdiction that has embarked on a full decarbonisation pathway has to contend with: “What if we manage to eliminate all emissions in our territory but are importing products that are carbon intensive from other countries?” It becomes an accounting tool. “We do not have to account for those emissions because they are not territorial emissions from our country and jurisdiction”. Under the UNFCCC they are not counted but, of course, they are outsourced. That is partly the challenge and why we are thinking more seriously about these instruments now.

The Chair: That is a very useful comment. Certainly, as we have heard, the UK’s performance on carbon consumption is far less impressive than

its carbon footprint. I take the point about the step change that zero carbon means. That is very useful.

Q3 Lord Young of Norwood Green: How do you expect the EU to implement a carbon border adjustment mechanism and what will be the key challenges for the EU? We have had some indication that it will be dealt with on a sectoral basis, with possibly cement and steel being targeted initially and subsequently. I will leave you to deal with that question first and then move on to some other associated questions.

Michael Mehling: Absolutely. In answer to the first question on how the EU will implement it, there are a number of different design options that the EU will have to consider. There are different ways to break down carbon border adjustment mechanisms to about 10 to 12 different design and implementation steps. There are various options for each of these. It could include only imports. It could include only exports. It could include imports and exports, with adjustments. Different sectors and geographies will affect all trading partners. These decisions have to be made. The first procedural step in the EU would be to have a thorough analysis of these options and an assessment of the economic and environmental benefits and whether the trade-offs are different in different options.

There are a number of technical challenges to be dealt with. The biggest challenges for the EU going forward will be the political ones. I am sure that you will revisit the question of how many other countries react to this, but it is safe to say that this is not a popular move for many countries in the rest of the world.

In terms of the sectors, we have very limited reliable published information from the EU on what it is planning to do. One thing that has been repeatedly stated, starting with the political guidelines under the new Commission President Ursula von der Leyen, all the way through to the mission letters to different commissioners and in the latest communiqué between the EU and UK, is that it will start with limited sectors and gradually expand. That is exactly what you mentioned. Steel may not be in the first round of products or sectors included, because it is a very liquid global commodity and there are many trade partners who would be affected.

A good example that France launched a few years ago was starting with cement. That has many arguments in favour of it because there are very few countries in the neighbourhood of the EU that import and export cement into the EU. So you can test this instrument and how effective it is and how it can be implemented without aggravating more than a small number of countries, and certainly not countries of the size and political stature of China or the United States. Electricity might be another one that comes early because the EU does import increasing amounts of coal-fired electricity from Ukraine and from Russia, so there is that interconnection. That is a growing problem. Again, only limited partners would be affected. That would be my guess as to what we might see in terms of some form of progression.

Lord Young of Norwood Green: That is interesting. You anticipated a supplementary question I was going to ask in relation to interconnection. Do you see that as a possible sector that might be included?

Michael Mehling: Absolutely. I have been to Brussels many times in the last few months and have repeatedly heard, for instance, Eurelectric, the trade association of electrical utilities in Europe, express very significant concerns about electricity imports in certain countries on the European border. Spain, for instance, is very concerned about this and Spanish utilities, such as Iberdrola.

Lord Young of Norwood Green: Will it be possible for the EU to design a WTO-compliant mechanism?

Michael Mehling: This is a question that trade lawyers have been grappling with for as long as these proposals have been discussed, which is almost 20 years, at least in the climate context. There is no conclusive case law, so we are speculating. If one takes the General Agreement on Tariffs and Trade, which is the main and most relevant trade agreement in this context, and dissects the provisions, it is hard to imagine an effective border carbon adjustment that does not in some way or another violate or impinge on the non-discrimination clauses in Articles I and III of the GATT, which cover the national treatment rule and the most-favoured nation principle. But, importantly, there is a provision in the GATT, in Article XX, which creates an exemption for countries to take measures which may be at odds with the non-discrimination principle yet are justified on the grounds of protecting the environment and human health or preserving natural resources, for instance.

There are different opinions, but my hunch is that that will be the critical part of trade law to make such a measure compliant with the WTO. But there is always going to be some legal uncertainty if and until we have case law from the World Trade Organization.

Lord Young of Norwood Green: It does not sound as though it will be particularly easy, but if it was linked to conservation and climate change you think that might be the path forward.

Michael Mehling: Absolutely.

Lord Young of Norwood Green: How do you expect the EU's major trading partners to react? You have already indicated that it is not the most popular proposal.

Michael Mehling: Yes, indeed. That is the main reason why past attempts to get a discussion going on this type of instrument usually tanked. That was primarily due to resistance from Member States such as Germany that are very reliant on exports and good trade relationships and simply did not want to have this discussion moving forward roughly 10 years ago when it was first discussed more earnestly. There were many comments, especially from the developing world, that this would be a new protectionism, with unfair trading practices to protect European industry to the disadvantage

of developing countries. In fairness, those are serious concerns that have to be taken into account.

Ever since the EU has been discussing this as a cornerstone of the European Green Deal, we have had some initial statements. Wilbur Ross, the US Secretary of Commerce, at the World Economic Forum, warned the EU against taking any such measures, otherwise it would face US retaliation. A Chinese official or adviser at one point said that this would poison the atmosphere and poison the process of ongoing climate negotiations. So there have been hints here and there, in Russia and in other countries, that this is causing concern.

A good bellwether of potential reactions was when the EU tried to include international aviation—flights coming into the EU and leaving from the EU—into non-EU countries. As you may recall, that sparked a huge political and diplomatic backlash, which ultimately led the EU to abandon it, or at least to stop the clock temporarily. That will be the biggest challenge for the EU. How much resistance will come? Might it find allies in other parts of the world? Ironically, in the US every credible major climate policy proposed has included border carbon adjustments. Should we ever see significant US climate policy at a federal level, it will almost certainly have a similar provision. Two such large trading partners doing it together might make it a lot more feasible politically than if it was the EU going it alone.

Lord Young of Norwood Green: It sounds as though this is going to be a pretty challenging problem to implement. It may be part of the Green Deal, but how big a part? What is your realistic estimation of how much progress can be made?

Michael Mehling: That is a question that we are discussing in Brussels right now. The draft on the European climate law has just come out in the last day or so. In some ways, I suspect that the prospect of having something to protect European manufacturers against competitive disadvantages will be discussed a lot over the course of this year and at some point proposed next year. It is a key ingredient to enable important assurance among those who will be affected by these very ambitious proposals that are coming out now. So in a way it is already achieving something, in that it gives European industry, for instance, an assurance that the EU has not forgotten about the significant leakage and competitiveness issues that are flowing from these very ambitious targets, such as increasing the 2030 target of the EU. Of course, it also backloads some problems. What happens when the border carbon adjustment proposal is written and communicated to trade partners? We do not know how serious the backlash will be.

Some have even argued that the main purpose is just to signal this to trade partners, to send a warning shot, and hopefully it will never actually have to be implemented. So there is much uncertainty. We are already seeing effects now from the proposal that this should be part of the European Green Deal.

The Chair: We have concentrated on the WTO side, which is obviously

important, but the EU has a large number of free trade agreements with Canada, South Korea—Japan is about to start—and many others. Is the EU expecting to apply them to those countries with which it already has a trade agreement? Is that rather difficult?

Michael Mehling: With the countries you have mentioned, the EU has begun including climate and other environmental considerations in its newly negotiated trade partnerships. Whether or not a border carbon adjustment will find its way into the chapters of such agreements, such as regional border or bilateral agreements, is an open question and will depend on the political repercussions from proposing it in the next 24 to 36 months. Of course, the countries that you mentioned all tend to have relatively advanced climate policies, but those that remain a cause for concern with regards to a competitive bounce or a level playing field for EU manufacturers may not necessarily see that as a priority. The good thing is that because those countries are mostly embarking on ambitious climate policies, they may have an interest in participating in such efforts to ensure that continued decarbonisation does not [Inaudible]. So there could be blocs or jurisdictions emerging that include this type of policy, partly with modifications, which is what William Nordhaus at Yale University proposed some years back.

Q4 **Baroness McIntosh of Pickering:** I am honorary president of National Energy Action, which I do not think relates to this but I will put it on the table. Is it true that Commissioner Phil Hogan is fairly lukewarm on this idea?

Michael Mehling: I have not heard him speak on this topic. I have read some media reports. I would not be surprised. His portfolio is trade and he knows that it will not be easy to continue preserving and, hopefully, improving trade relations with major trading partners. As you know, currently trade relations with a very important trading partner are as bad as they have been for many decades, and this will not make it easy to try to repair the rift across the Atlantic. So I sympathise with Commissioner Hogan's hesitation.

Q5 **Baroness McIntosh of Pickering:** If the UK and EU agreed to link emissions trading systems, how might the EU's carbon border adjustment mechanism apply to the UK?

Michael Mehling: Again, there are multiple simultaneous processes that raise their own sets of uncertainties. Yesterday, I met an official at the Department for Business, Energy and Industrial Strategy who confirmed that linking was of interest. Having a UK ETS in the terms of the EU ETS is something which will be explored and will be desirable. But as we have seen with Switzerland, it is a long process. It started negotiations a decade ago and only this year has it been effected. It is not without its complications, but what we have seen in the relationships between jurisdictions that have carbon trading systems that link them to each other is that they negotiate an agreement that sets out certain basic procedural and substantive requirements to ensure that the systems are aligned and

do not start to become less aligned over time as each system modifies certain parameters.

I imagine that if the border carbon adjustment mechanism in the EU is implemented through an amendment of the European Union's emissions trading system, then a linked trading system such as the UK's would have to have something to echo or mirror that. I imagine that the border carbon adjustment component of the European carbon market would become part of these negotiations on how the two systems link and there would be certain conditions and procedural requirements for both sides. But it would be something that is mutually negotiated and not simply imposed by the EU on its partner.

Baroness McIntosh of Pickering: Do you think an adjustment should be applied to goods from the rest of the world that enter the UK in those circumstances, and whose decision would that be?

Michael Mehling: It will depend on the ultimate trade relationship between the UK and EU. If it is a free trade relationship, it would be hard to imagine there would not be some sort of safeguard on the UK border: otherwise, there would be the risk of avoidance tactics where foreign producers simply ship the products to the UK, import into the UK and from the UK to the EU. If there is no border carbon adjustment in the UK but there is one in the EU, these things could be sorted out technically, but it would not be easy. There would have to be some sort of agreement on how to deal with that and be able to ultimately trace where products come from and where a reshuffling of resources might happen to avoid the European border carbon limits.

Baroness McIntosh of Pickering: Is this not fiendishly complicated? Is there not a simpler way of achieving what the European Commission is trying to achieve?

Michael Mehling: Those discussions will be held in the next few months. There are alternative proposals being discussed, such as consumption charges, having consumers pay a charge relating to the carbon intensity of goods. I also think that the technical and administrative complexity will force this mechanism to be limited to certain basic materials—you catch a lot of emissions from industry, yet you will avoid some of the most complicated calculations that would be necessary with secondary manufacture and highly complex manufactured goods. It remains complicated.

Q6 **The Earl of Stair:** If the UK and EU end up linking their emission trading systems, one outcome could be that the UK comes within the carbon border adjustment mechanism. What are likely to be the advantages and disadvantages of the UK being within the carbon border adjustment mechanism?

Michael Mehling: Going back to what I said initially, one of the advantages is that we can benefit from the environmental and economic reasons that supported carbon adjustment being explored in the first place:

levelling the playing field, avoiding emissions leakage and ensuring that UK industry is not disadvantaged compared to the rest of the world's manufacturers. It can do so without being as exposed politically as the EU will be. It will be participating in a club. It would help justify complete free access to the European market, if the EU were to implement this, if the UK has it as well. It will not be as exposed politically as the EU will be much more visibly when it starts rolling this out. The UK can watch and learn. These linking negotiations will take time as well. The UK will not be looking at this as soon as the EU will, so this gives the UK time to sit back and reflect and see what the reactions and outcomes are.

I imagine that the UK might want to have a clause in a linking arrangement, for instance, that allows it to withdraw from the border carbon adjustment with notification, if it perceives that the benefits are outweighed by political or legal risks, et cetera. So it is a sort of package deal. By being the smaller actor doing this alongside the larger, the UK could benefit without suffering risks and political repercussions.

The Earl of Stair: So a stand-back arrangement would help. How else could we mitigate any other negative impacts?

Michael Mehling: A potential staged entry is important—for the UK to negotiate an arrangement where it might have time before it joins, to see how this works. A clause that allows it to exit and what conditions would apply should be included early on. If it is evident that the EU expects the UK to be part of this carbon border adjustment mechanism, the UK should insist on having transparent rules that state under what conditions the UK can withdraw if it finds that this instrument does not work for its purposes. Other than that, I think we know too little about how this will operate to be able to pinpoint specific technical and other elements where I could say that this is something we could try to pre-empt or mitigate and this is something we can offer. It is too early to be more specific.

The Earl of Stair: It is an interesting idea. You said we could go in and possibly have the option to come out, but we would have to align with other EU policies and rules while we were engaged, would we not?

Michael Mehling: If you look at the current practice of linking between carbon markets, whether in North America, California or Quebec, for instance, or in Europe with the EU and Switzerland, there are a number of provisions that require continued harmonisation and alignment of the policies. It is not that they have to be identical, but certain key features have to be at least within a range of similarity to allow the link to function. I imagine that the border carbon adjustment would become one of those elements that have to be part of such a negotiated arrangement. But it would be a negotiation between two partners and each partner could veto certain elements they were not comfortable with. That is important.

The Chair: Professor Mehling, thank you very much indeed. We appreciate your time. Thank you very much for your evidence. If there is anything else you would like to add, please submit that to our clerk, Jennifer Mills. We thank you very much for having joined us from Brussels.

Michael Mehling: It was a pleasure.

Q7 **The Chair:** Professors, welcome. Thank you very much for coming to our inquiry. Could I ask you to introduce yourselves and then we will move into the questions? Also, the acoustics in these rooms are not good, so if you could speak up, that would be very useful.

Professor Carolyn Fischer: I am a professor of environmental economics at the Free University of Amsterdam. I also have a joint appointment as a Canada 150 chair of climate economics, innovation and policy at the University of Ottawa. Previously, I was a senior fellow at Resources for the Future in Washington DC for 20 years—so I get to play in a lot of different countries and learn about their climate policies.

The Chair: That sounds exactly the experience we need today.

Misato Sato: I am assistant professor at the Grantham Research Institute at London School of Economics, and also a deputy director of the Centre for Climate Change Economics and Policy there.

Q8 **The Chair:** You saw most of the evidence given just now. Do either or both of you want to add any supplementary comments to those questions we went through? We would certainly welcome those.

Professor Carolyn Fischer: One point to highlight is that Michael raised the issue that a lot of legal scholars seem convinced that a WTO-compatible border carbon adjustment is likely to hinge on the Article 20 exemption. This means that the policy will have to demonstrate that it is necessary to protect the environment and that all the aspects are geared towards preventing carbon leakage and not for protectionist purposes. It is difficult because a lot of these are the industries where we see protectionist positioning, such as steel and aluminium. It is a tricky area.

Misato Sato: What is the purpose of the current border carbon discussions and the problem that we are trying to address? If it reflects a recognition to strengthen carbon pricing in the industry sectors and avoid carbon leakage risk, trying to help industries in their transition to lower-carbon technology processes, it is definitely a welcome proposition. We all know that in carbon pricing, free allocation and competitiveness leakage is an area that we still need to tackle going forward. It is very easy to get distracted and for the protectionist arguments to come in. So it is quite key to remind ourselves what the problem is that we are trying to solve.

The Chair: As the Professor said on the video, I remember very well the reaction of other countries to carbon on external flights, which was very abrupt. We perhaps have a lesson there.

Q9 **Lord Cameron of Dillington:** I would like to probe the question of alignment. If our Government implement a domestic carbon tax, would you expect the EU to apply the border adjustment mechanism to the UK?

Professor Carolyn Fischer: This is a question that is going to have to be wrestled with in general, not just the UK. How do you account for carbon prices paid in the exporting country? This is one of the important design

features that Michael was alluding to, because you want to avoid double taxation. The border carbon adjustment is demonstrating that producers inside the EU are having to pay this price on their carbon emissions for the products that they are producing. It expects similar treatment for products coming in that are being consumed. So it is likely to reflect carbon prices paid in other countries.

Whether it could be designed to reflect other efforts is uncertain. A lot of people, particularly economists, would argue against that, because you are trying to reflect whether or not producers are having to pay comparable carbon prices.

Misato Sato: I would agree with that. As has become apparent in these discussions already, there is no unified agreement on what a border carbon adjustment or the UK carbon price would look like. The specific details of these measures make a difference. In the short to medium term, if the UK goes down the carbon tax route, it is still unlikely that it would deviate drastically from the carbon pricing policies already implemented here. The tax would likely involve similar compensation or free allocation exemptions to industry. These are likely to be quite closely aligned to the EU ETS rules going forward. In the meantime, it is unlikely that the deviation will be large enough that the EU will apply the mechanism explicitly to the UK.

Lord Cameron of Dillington: It sounds as though it is going to be immensely complicated to put the border adjustment mechanism in place. It is going to vary not only from country to country, because of the various carbon taxing emission trading schemes, but from commodity to commodity. It is going to be a complete nightmare to apply at a border, is it not?

Professor Carolyn Fischer: There are already a lot of tariffs that differ product by product. As Professor Mehling said, this is one of the important reasons why they are likely to start small and scale up and prove the concept before going forward to more complex and heavily traded industries. There are a lot of design decisions that have to be made. One is: do you discriminate on the basis of country or do you apply the same benchmark emissions to everyone? Do you allow producers to prove that they are less emissions intensive than the benchmark and get an adjustment? There is a whole host of questions.

The other question is: do you allow for export rebates? If the EU could choose to move to something more like a carbon-added tax and adjust for imports and exports, presumably the expectation might be that foreign countries do the same and adjust for exports instead of giving an adjustment to imports of products that have already paid for their carbon emissions. It is hard to speculate, because there are a lot of very specific decisions that would have an influence.

Misato Sato: It is also important to compare alternative ways to address carbon leakage. At the moment, we have a free allocation mechanism which you could argue is very complicated in the way we decide the amount of free allocation to each installation, how it is updated over time and who

is entitled to it. Any attempt to seriously address leakage for key industrial sectors is going to be quite complex and it is relative. Within all these measures there are varying degrees of complexity, depending on the design. Especially for carbon-intensive key materials such as steel, cement, chemicals, pulp paper and aluminium, we need these for the low-carbon transition. We want to retain some industrial capacity in these sectors in order to drive technology progress and accelerate the transition to the low-carbon economy.

The challenge is how we get there. We have been doing free allocation for the last 15 years. It is not a perfect solution. How can we make leakage protection more robust so that low-carbon investments can deliver the breakthrough technologies that we need in these sectors?

The Chair: One of the things that occurs to me is people come to see me because I speak on energy issues and they complain to me that UK wholesale energy prices are the most expensive in Europe, so some of these energy-intensive industries find it very difficult here. Is a border tax adjustment going to be so large that it is larger than the differences within energy costs within the European Union anyway? Energy costs vary quite a bit within individual EU countries. Is this tax going to be large enough that it makes a difference relative to the differences there already are? Do you see what I am trying to say?

Professor Carolyn Fischer: You should also think beyond UK-EU trade because the EU and the UK are trading with other countries. I asked some trade economist colleagues I work with to check on some of the numbers and it turns out that the UK energy-intensive and trade-exposed industries, ED sectors, that are most likely to be covered by a border carbon adjustment are actually relatively clean; cleaner than their EU counterparts, which are cleaner than most other regions of the world.

If the EU were able to successfully implement a border carbon adjustment that differentiated based on carbon content among all its trading partners, the UK, being clean, could have a competitive advantage in these industries in its trade with the EU.

Q10 **Baroness Bryan of Partick:** We explored with Professor Mehling earlier the implications of the UK aligning with the EU's mechanism. What if it chose not to and to develop its own mechanism or not to do it at all? What would you see as the advantages or disadvantages of those positions?

Professor Carolyn Fischer: There are several different potential positions. If the UK chose to do nothing at all or to reduce its ambitions, that could create serious problems within the trading relationship which requires a certain amount of environmental alignment for preferential trading treatment. As Professor Mehling noted, that is also being incorporated into agreements with Canada and other countries. That would be problematic. Being fully outside the system more likely would mean facing some of the border adjustment issues, should they go ahead with them.

Between an ETS system linked with the EU versus an ETS system of comparable ambition versus a carbon tax with comparable ambition, I do not see that as economically creating that much of a difference. The key factor will be the ambition and the price and the coverage of these key sectors.

Misato Sato: In terms of alignment, if the EU Green Deal proposals are a way forward to strengthen the carbon pricing framework, this is an opportunity for the UK to revisit its support for industry in the low-carbon transition. The advantage is that we could use the opportunity to revisit and strengthen our existing policies. The other side is that we do not know what the EU proposal will be exactly: its environmental effectiveness or international law compatibility are still to be determined. If the compromise that is reached in the EU lacks environmental ambition, the UK may have an opportunity to try to avoid those problems by deviating.

Baroness Bryan of Partick: Are you able to assess the proportion of the relevant carbon-intensive products that the UK trades in with the EU compared with the rest of the world?

Professor Carolyn Fischer: Yes. My colleagues Alan Fox and Chris Boehringer kindly furnished me with some of the trade data, which I was frankly surprised at. Aggregating to these key emissions-intensive trade-exposed sectors, they are less than a tenth of UK GDP, maybe 7%, but they have an outsized impact on trade. The trade intensity of these sectors, exports plus imports divided by the value of production plus imports—the standard trade-intensity measure—is close to 60%. This is for the aggregate, which means that some of the subsectors are going to be even more trade intensive. The threshold in the EU ETS for carbon leakage designation is 10% trade intensity—that is EU-wide.

A lot of this arises because the UK trades so heavily with the EU. Two-thirds of its ED trade is with the EU. As a share of the UK's total trade, one-quarter of UK trade with the EU falls into the broad energy-intensive trade-exposed sectors, and almost a third of exports to non-EU countries. These are important sectors for trade in the UK. A lot of this may be back and forth trade. There is a lot of intra-industry trade in these sectors. The UK has developed very close ties with the EU and, apparently, a competitive advantage in a lot of these ED sectors while at the same time being, as I said, relatively clean. So this will be an important issue to think about in terms of UK climate policy and interactions with the EU ETS on trade.

Q11 **The Chair:** Could I go back and ask for further context? We know the reason part of this is on the agenda is that Ursula von der Leyen wanted to be Commission President and the only way she could persuade the European Parliament to endorse that was to have a pretty strong Green Deal, so she has now told the Commission it has to do this. You may not be able to answer this, but is the Commission enthusiastic about it? Is it going to drag its feet? Is this going to happen or is it going to be kicked into the long grass? Is the European Parliament going to assert itself and make sure it does happen? What sort of timescale are we talking about? Is it really likely to happen? That is what I am trying to get a view of in terms

of how the UK then reacts to this.

Professor Carolyn Fischer: As Professor Mehling noted, there has been foot dragging on this for a long time because of the controversial nature of resorting to trade interventions as a way of dealing with carbon leakage. At the same time, as the EU wants to be more ambitious, the old standby of free allocation, which is pretty much what everybody uses, is not going to work any more. If you have a benchmark of zero—carbon neutrality—your free allocation is zero. It is that ambition that will drive a much closer look at border carbon adjustments. I imagine that it will take a while to go through with the process. A good comparison is thinking about the process of benchmarking exercises for free allocation. That was a multiyear process to figure it out.

A lot of the same things need to be done. You need to identify which sectors are most subject to carbon leakage. You need to understand their emissions intensity and come up with a benchmark and roll out allocations. That was complicated and took a while. This is similarly if not more complicated because you have to think about how we apply benchmarks to foreign goods where we do not have access to the data to verify and how to design a policy to account for that and for a wide variety of different carbon-pricing policies.

The Chair: Do you think it is all going to happen, Professor Sato?

Misato Sato: There is definitely recognition from both the policy and the industry sides that to get these sectors to zero carbon by 2030, 2040, 2050, we are going to have to face this challenge and have more robust leakage measures, with the carbon price signal flowing throughout the value chain in order to drive the supply and consumption changes we need to switch entirely to new materials or zero-carbon materials. We know that free allocation has been a temporary leakage measure. It has worked and we have not had much carbon leakage so far. Also, carbon prices have been low in the first three phases of the EU ETS. Now they are already up to 20-30 euros per tonne.

The cap is coming down and the benchmarks are becoming more stringent. We are facing a puzzle that needs to be solved. Carbon pricing and leakage measures are not the only policies that will be needed to deliver this kind of transition. We will also need additional technology and demonstration, that side of support is also needed. There has to be a recognition that we need to wake up. We cannot keep giving out free allowances.

The Chair: What you are saying is that in some ways this was not an issue while the EU ETS was a waste of time, but now it has a price that is more than nothing it will become more and more of an issue.

Q12 **Baroness McIntosh of Pickering:** The Government have stated what their negotiating position is going to be and there was no mention of energy or carbon pricing. Within the Government's ambition for a future relationship with the EU, including for trade in goods or energy, do you think one way of interacting with the carbon border adjustment mechanism

is more or less likely to happen?

Misato Sato: I am not very clear on the position.

Baroness McIntosh of Pickering: President Macron has said that we are trying to level the playing field, which seems a good starting point. We have heard a lot of evidence about those of us who are meeting the Paris carbon pricing criteria and those who do not. Would there be an argument for Britain signing up to this even if we left the European Union? Is it something that the UK Government would wish to sign up to?

Professor Carolyn Fischer: I assume you would be signing up for the whole package for a linked emissions trading system. There are advantages to that in terms of facilitating easy cross-border trade with the EU, knowing that you do not have to deal with the border carbon adjustment part and everyone is playing on the same playing field. That is probably the path of least resistance. It is not that you could not demonstrate a level playing field taking on an alternative policy—say, a carbon tax with a comparable price. It would be hard for the EU to say that you are not playing on a level field then.

There are additional complications. Does the UK border adjust the tax in the same way that the EU border adjusts the emissions trading system? In a lot of ways, border carbon adjustment could be easier if it is complementing a carbon tax rather than an emissions allowance or compliance requirement. The prices are a lot more certain and, legally, it may be easier to do aspects of rebating for exports with a carbon tax.

Misato Sato: Other ways could be envisioned of alignment with European energy climates and levelling the playing field without signing up to the entire package. Internationally, an advantage could be to demonstrate a working co-operative structure between the UK and EU on energy and climate. The border carbon adjustment is one technical issue on which we could focus some of those co-ordination efforts and think about how that co-operation could be expanded to a wider coalition.

Q13 **The Chair:** In terms of the short and medium term, what should the UK Government do to plan for these possibilities? What do they need to think about now? Is there something they should think about in terms of their negotiation with the EU for the next phase beyond the transition period? I am still trying to get an idea of when you think this might actually happen in practice on the first industry, whether it is cement or whatever. What is the timescale that we should keep in our minds for this mechanism?

Professor Carolyn Fischer: I am a lot more familiar with the economics of these mechanisms than the politics of these mechanisms. I would not be surprised to see at least a starter package. In a sense, we have already seen that with airline emissions incorporated into the ETS. The EU then switched its focus towards negotiating with the international association to work out a broader agreement on airline emissions.

The Chair: So this will definitely be part of something larger.

Professor Carolyn Fischer: We may see more of that. If the EU wants to go forward, not just throwing it out there but having broader discussions with trading partners to get them on board and mitigate concerns will make it more likely that this will happen. A lot of other countries are watching because they want to become more ambitious. If they think there are large trading partners who do not seek that same level of ambition, particularly with carbon pricing, they are going to want to turn to that. Certainly that is the case in the US, in quarters that are still debating policies. Professor Mehling was right that pretty much all the proposals still being passed around incorporate border carbon adjustment. It depends on the administration you have.

EU trading partners have twin issues. They may not like it in the short term, but it is also in their own interests to retain that option to use border carbon adjustment with their own carbon pricing policies if they want. On the other hand, if we see really big increases in global decarbonisation, they will not need to resort to it. But it is more likely than not that we will see some form of border carbon adjustment—but it will probably take a couple of years to figure it out.

Misato Sato: I am also not in the business of political speculation.

The Chair: It was an unreasonable question. That is fair enough. I guess that is a question you should be asking us as politicians.

Misato Sato: It is an opportunity now that the UK faces decisions about carbon pricing in these sectors post Brexit. We know that the EU is thinking about moving forward and strengthening leakage protection. That gives us a chance to set the UK agenda in light of these intense trade supply chains with Europe, as well as the clear need to transform the technologies in these sectors to meet our UK climate targets for 2050. It is good to start thinking about these various issues of collaboration. The solutions might be at a sector level. We might want to continue collaborations with the EU, not through policy but through sector agreements or technology co-operations, exploring these channels to tackle the industrial decarbonisation challenge in the UK and how we move forward.

The Chair: Thank you very much. If there is one lesson learned from issues such as trying to tax the big IT companies, or the American ones worldwide, it is that trying to deal with it in one go, as the OECD tried, never gets there. I guess someone has to be a first mover in this area and maybe the UK can follow on once the wrath of the United States and China has been shown. Who knows? Thank you very much for coming and giving evidence. If there is anything else you would like to add, please send that to our clerk, Jennifer Mills.