Conference Transcript
The macroeconomic implications of climate action

In conversation with Andrew Steer (Bezos Earth Fund)
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Adam Posen: Hello everyone, and welcome back to the evening portion DC time of our conference on the macroeconomic implications of climate action. We are very proud here at the Peterson Institute for International Economics to have gathered this stellar group of scholars, policymakers, climate advocates, economics advocates. And tonight, we're trying to bring them together in a different way as Jean Pisani-Ferry, who led the conference, and I tried to say at the start, uhm we think that there has been insufficient integration of perspectives from the macroeconomists, and again, stretching that term a bit from the international economists on the one side and the people focused on climate on the other.

Even though, as we heard from a number of distinguished scholars today, they think they've been doing that the whole time, and they had the charts and papers to prove it. So, but in continuing in at least this spirit, we are very fortunate tonight to have with us for an on-the-record conversation, Andrew Steer, who is president and CEO of the Bezos Earth Fund. And let me tell you a little bit about Andrew and then you'll understand why we're fortunate to have him and we're going to have him, I hope, push us for what economists should be doing.

Andrew joined the Bezos Earth Fund from the World Resources Institute where he had been president and CEO for over eight years. In a slightly self-congratulatory bit of flattery, he and I have had a number of common friends who basically said, oh, you're the Peterson Institute of Climate. Oh, you're the World Resources Institute of Economics. We were the serious nerdy people pushing for international progress and cooperation, but doing so relatively honestly.

I know Andrew was a great leader at WRI. Prior to that, he served as the World Bank's special envoy for climate change from 2010 to 2012 and before that, from 2007 to 2010 as Director General of the UK Department of International Development. Those were obviously very formative years in discussions around climate, around aid, and Andrew played a leading role.

Before coming into that role at the UK, he spent 10 years in East Asia as head of the World Bank in Vietnam and Indonesia. So, he has been on the ground dealing with the real issues as well. Currently, he is a global agenda trustee for the World Economic Forum, a commissioner of the Energy Transitions Commission, a member of the China Council of the International -- for International Cooperation on Environment and Development -- and no, I'm not going to say the acronym -- co-chair of Greening the Belt and Road Coalition and member of the advisory committees of the Asian Development Bank and Bank of America.

He started his professional life with a PhD in International Economics and Finance, so he may not seem like it, but he's one of us. But ideally he's enough now, not one of us, to challenge our thinking and stretch us. So, with that in mind, I'd like to invite Andrew up to the podium and grab a seat and we'll start. Again, thank you, Andrew for working us into your busy schedule.

You told me and some others that you actually did listen into our conference today, or at least parts of it, let's – microphone. Thank you. I can stop filling time. Let's start with your new role at the Bezos Earth Fund. Is this a sign of the fight going well, that Bezos is going in and he thinks his money, which is big by normal human standards but not colossal, can energize the difference? Is this a sign things are scary that Bezos has decided he has to go in because governments and the rest of us aren't getting it done? So, sort of two-level question what are you and your boss trying to achieve and how hopeful are you that we're at a point where you can achieve it?

Andrew Steer: Great. Well, look. Thank you, Adam. I feel totally unworthy as I look out over this audience. I was deeply impressed today by what you're trying to do. And I would say thank you. Because we desperately need the biggest brains in economics to take on this issue and here we have some of them, all of you, tonight. So, thank you very much. It is interesting, isn't it? That the wealthiest people who have been most successful in this country at the moment are choosing, as they give back, they're choosing this issue.

The question is why? Partly because it's a massive threat and that came out hugely today. Also, it's a massive opportunity which didn't come out quite as much today. And if you work for a Jeff Bezos or a Bill Gates or any of these people, they're deeply, deeply analytical, as you can imagine. And they are very, very keen to figure out how do we actually get things to happen at scale. And they are deep believers, which we weren't really today, of the notion of positive tipping points as well.

They actually do believe that history has a certain momentum and the job of philanthropy can be to assess the kinds of transitions that are required and inject money and influence at just the right time to get us towards those sort of tipping points beyond which change becomes irresistible and unstoppable. And I think this is a really big challenge for those of us who are economists, because that's not the way we think about things.

Adam Posen: You sort of wrongfooted me there because that's where I'm going next. So beyond, sort of, cheerleading, which I'm in favor of for a good cause, what do you think macro economists, trade economists should be paying attention to if they want to help in the climate situation?

Andrew Steer: Well, I think if the smart climate community were here tonight, they would say two things. One, thank you to the economics community for demonstrating what's a good policy and what's a bad policy. And I think, we've done a very good job at that through our various modeling, through all the tools that we talked about today. I think we've done a very good job at clarifying what's a bad policy and what's a good policy.

Second, they would say, please, please help us understand what will actually happen to the economy as a result of bold, smart climate action.

So, I think the general view of the smart, PhD climate community would say that the economic modeling that we do, the models that exist in every finance ministry and planning ministry around the world, still today, underestimate the costs of climate change, and they overestimate the costs of smart climate action. And it seems to me that's the challenge that we need to face.

And I suspect that all of us in this room understand the problems of the existing computable general equilibrium models and the integrated assessment models, which have done a good job in certain areas. We understand their weaknesses when it comes to understanding the disequilibrium, disruptive changes that we need to go through.

Adam Posen: There are so many places to go. And of course, your remit and your worldview is very broad. Let me pick one of them. Stepping back, because as the kind of disruptive change you're trying to make and Mr. Bezos is trying to make and others like you and Gates and Recharge and other such things, as you mentioned. Does it matter what a scribblers do?

I mean, is the market alone or the market plus smart philanthropy enough, or do we have to change mindsets and change policymakers and analysis as well? I mean, we obviously think what we do is really important, but in all honesty, I mean is this a sideshow or is there still really an intellectual aspect to this that has to be tackled?

Andrew Steer: Well, that's the fascinating question. It's huge. People listen to the economics profession and the economics profession therefore, we, need to demonstrate that we are truly relevant. So, no, it's not just an academic pursuit. Ibu Sri Mulyani Indrawati, Finance Minister of Indonesia, she says, tell me if you want me to do what you're saying I should do on the forests and what you want me to do in energy. Tell me what it'll do to my economy. We are not telling her.

President Lula has a plan to stop deforestation in the Amazon. Do the governors of those Amazonian states know an alternative growth path for them? No, they don't, because we haven't given them. When Boris Johnson, don't get me going on Boris Johnson -- but when he announced bravely that after the year 2030, there would be no internal combustion engine sold for small vehicles in the United Kingdom. And all of the economic models ran that, what did they conclude? It'd be negative for the economy.

And that is dead wrong. Dead wrong because the economic models we are using fail to understand the dynamics of a disruptive disequilibrium world. So, when Boris Johnson, President Biden or the governor of California announces no new -- actually all kinds of things happen. It's not just a relative price shift. No. It remakes expectations, by the way is Suman Bery here tonight?

Adam Posen: Yeah, he was here all day, but I think --

Andrew Steer: Oh he’s here.

Adam Posen: -- he ducked out on dinner. Where is he?

Andrew Steer: You know, when, when Prime Minister Modi became prime minister of India and everybody assumed that his predecessor government that had said we're going to - we have currently less than one gigawatt of solar, we're going to go to 20 gigawatts of solar, and everyone assumed he'd abolish that. He said, let's go to 100 gigawatts. And everyone said, that's crazy. I mean, this is not a man that's a member of the Sierra Club to go from 1 to 100 gigawatt of solar energy.

Why did he do it? Because he understands what economic models do not understand, which is there is a dynamic that goes on that radically changes expectations and expectations of business people. And they say, my goodness me, this is not business as usual. This is not incremental change.

This is new, new institutes of technology. It's brand new major manufacturing centers. There's something in it for us. And that's what our models don't capture today. And until we capture them, we, the economics community, whilst helping to design the optimal policies, will actually be a negative drag on climate action.

Jeanne Whalen: So picking up on that a bit, in your experience at the World Bank, including in Indonesia and Vietnam? And, one of the issues -- and I wish Suman was here, others can speak as well. One of the issues has been how much this climate transition accrues to the developed world? How much of this manufacturing is kept at home in the developed world versus in Indonesia or Vietnam? How much the going to things that our colleagues Kim Clausing and Catherine Wolfram are talking about? How much the trade barriers and subsidies wars we're already seeing.

I mean, from a developing country perspective is how do you see the positive dynamic you're talking about occur? I mean, Modi's doing it in the sense you mean and we had -- sorry, I'll shut up in a second -- but we had the Indian finance minister last month or six weeks ago sitting where you're sitting. And I asked her about this and other issues and she's like, I have a poster of Katherine Tai in my office. And tariffs are the way to go and we're going to have tariffs and we're going to take down the Europeans CBAM.

No, you can watch the video. You can watch the video. She didn't quite say a poster, but she said she said, Katherine Tai is my hero. And she said, you know, we in India are going to make it so that all the manufacturers have to be done here and maybe India can do that. I don't know if Indonesia and Vietnam can do that. So, from your experience working with developing economies, are they going to be able to get into this dynamic? This kind of positive dynamic? What do we need in terms of international agreements or restraints on the rich countries to let them get into this dynamic?

Andrew Steer: Wow. Well, there are a lot of strands to your question.

Adam Posen: It’s a big question.

Andrew Steer: Let me start with the simplest one. Isn't it interesting that the, the notion of incremental cost, which used to drive everything, you know. Some of us are old enough to have been at the Rio Earth Summit and involved in the creation of the GEF. Incremental cost drove everything, so it's much more expensive to go to the mitigation route. Therefore, we have to subsidize it.

Actually, incremental cost sort of, almost died as Bill Gates tried to resuscitate it in what he called the green premium, but actually take Vietnam. So, Vietnam, I was there two months ago. Uhm Vietnam currently builds a, a huge amount of its electricity hugely successfully with coal. It actually would be cheaper over the long run or -- not over the long -- the life of an investment to do it with renewable. And that's why they had a massive expansion in renewable.

So, there's actually no extra cost. The reason that Vietnam still is tempted to keep investing in coal is inertia. It's inertia. And our economic models are not very good at that. So, it's actually not smart for countries to invest in coal, but they will invest in coal because they have Vinacoal and they have EVN. Those are the institutions and EVN has been working with Vinacoal for the last 50 years. And they've seen an amazing growth of their economy, the most successful economy in the history of the world.

Why should we stop working with each other? And the answer is because it no longer makes economic sense and we need to understand that. That was, sort of, one of those thrusts of what you said is, what's the relevance for developing countries? The relevance is actually -- now, it's more complicated than I say. Why? Because it does take more investment to start with. So, investment goes up. I mean, costs go up. Investment actually pays for itself.

And it's one of the things John and I were just talking about is that -- he is a great hero of mine. Anyone who creates [inaudible 0:18:55] and makes it what it is and what you've done, I love what you do. And I was talking to him about a paper that he wrote in 2021 for the Peterson Institute. It's a brilliant paper. It's called Climate Economics is Macroeconomics, and I loved that.

But there was one thing in that, that I wasn't so sure about. It was a big heading that said, going to net zero will imply a big negative supply shock. And John, you rightly pointed out to me that actually the reason you said that is because there was a lot of glib talking in Europe about, oh, it's the new growth strategy. So you wanted to bring them down to earth. We now need the economic profession to actually tell us what is actually happening.

The plain fact of the matter is, if we follow bad climate policies to get to net zero, we will hurt the economy, we follow good policies. And the economics profession is not telling us that. The current models aren't delivering that and we need a new set of -- and it was so great to hear from Jim Stock today. Who was he disagreeing with? Somebody. He was disagreeing with somebody who said we don't have the tools and he said we do have the tools. He was disagreeing with him. And he said we do have the tools.

Okay, let's apply those tools. Those tools are not being applied if they exist, and let's assume they do. So, for example, what do we do? How do we capture? How do we capture not only the fact that technology is induced in a pretty amazing way and I don't know if Philippe is still here, Philippe Aghion, but obviously we all read the stuff he wrote. Not only is that, how do we capture the mindset of a disruptive investor when Boris Johnson says, no new [inaudible 0:20:45].

You know my, I have a boss. His name is Jeff Bezos. And so he was he was CEO of Amazon while it was a public company for 27 years, I believe. So, there are 27 annual letters to shareholders. And of those 27, 20 of them end with the same sentence. It's a stand-alone paragraph, one sentence and it says, “it's still day one”. And what does he mean by that? It doesn't make any sense, does it? It's still day one.

What he means by that is we need to keep the spirit of day one, because if we stop disrupting, we will stop becoming the premier trillion-dollar company that we will become and they did become sort of thing. And until we understand that mentality of disruption, we will not be able to contribute as macro economists adequately. I mean, we are already contributing, but we won't be able to contribute adequately. I think you asked several other questions.

Adam Posen: No, no it's fine. It's always your prerogative to ignore my questions. That's par for the course and you gave a substantive answer, which is wonderful. Of the 17 questions I tried to ask badly, I want to repeat one of them, which is, how in your current role not speaking for the fund, although you can, but just in your current thinking, how do you think about the international aspects of division between developing lower-middle income economies and high-income economies or between historic emitters and those who are just starting to emit, which are obviously overlapping groups? Is that a non-issue?

Andrew Steer: Well, I mean, it's a very important question. I mean, Paris was an amazing achievement because it got us beyond what was then called Annex I and Non-Annex I countries all right. I mean, what a ridiculous sort of UN type way of thinking about things. And everybody said we're all part of the solution.

And back to the point about incremental cost is that, it's smart. There are 600 million people in Africa who don't have electricity. And I was on a panel last week in Harvard or the week before with the UN High Representative for Africa. And she said there are 600 million people who don't have access to electricity. And she implied, it’s because rich countries are telling them they can't use gas and coal.

That's not the reason. The 600 million people -- it's actually very, very few African countries should be, should be using coal. Some of them should use gas and they should use gas. Your point is absolutely right, the sort of the tone of your point is the worst thing we should do is preach at anybody.

Jeanne Whalen: Right.

Andrew Steer: We should say operate in your own interest. Operate in your own interest. China is operating in its own interest and it's cornering the market. India says, I want a piece of that. I'll operate in mine. And Vietnam is saying, actually, I want 10% of the investment going to China. I want to be a piece of that. Indonesia is saying, actually, given the health impacts of the coal and everything, it's smart and even our owners of coal plants, actually, they would like to get out of coal in the next 20 years. So, let's see if we could do a deal.

So in other words, we absolutely should not be putting pressure on [inaudible 0:24:48]. And that's why the, the several people in this room have advanced the science of border adjustments so well. And it's a fascinating political economy issue. And if you talk to Senator Whitehouse and then and then you talk to John Kerry, you'll probably get different views because the Senator Whitehouse has been preaching for so long. He says, the Europeans are getting it right. We need a border adjustment tax like that.

And he's got a lot of logic on his side. Then maybe the State Department would say, yeah, you've got a lot of logic on your side, but actually we need diplomacy. And if you start taxing these countries, it will be harder for it to do diplomacy. That's the kind of reason why I love what you're doing Adam and I love the, sort of, the tone of this meeting. We actually need a multidisciplinary analysis of this because it's not just the perfect textbook solution. It's actually a lot of psychology and politics and so on that we really need to think through in some detail.

Adam Posen: This is fantastic inspiration and very gently put, constructive guidance, which I'm grateful for on behalf of all our colleagues. Let me ask one more question, then we'll open it up to the audience here or anybody who wants to. Jessica will be coming back in with a roving mic in a moment.

Turning around, you've mentioned a lot of things about economists, particularly macro economists, missing the, the dynamics of the potential tipping points and so on. But you also just mentioned political economy. So, we have in the US now, thanks to the Biden administration, passed the IRA. It is the biggest step on climate, the US Federal Government has done to date.

So, from a political economy point of view, do you see that as a great first step? Do you see that as that's as good as we're going to get and let's work from there? Do you see that as something that if, God forbid, a climate denier becomes president in 2024, might get rolled back? I'm not asking you so much to comment on US politics, but just from your perspective, from a political economy perspective, how should we think about the US doing IRA, which is not a carbon price like in Europe, which is not something like --

Andrew Steer: Well, I guess one would say several things. One, well done, Biden administration and bipartisan. Well, no, it wasn't bipartisan. But there's the other side. Sorry.

Jeanne Whalen: Yeah. It's a common mistake.

Andrew Steer: Well done for doing it. Number two, sort of annoying because no one in this room would have designed it like that. It's sort of annoying it’s working so well in the sort of a funny kind of way. And my goodness me, and there are a lot of Europeans in this room and you'll disagree with this, but my word, this made Europe and I say this as a European sit up and take notice.

It was absolutely fascinating at Davos this year, hearing CEOs of European countries say finally, finally, somebody is giving us carrots rather than sticks. And all we get in Europe is sticks. And sure enough, Europe has following. Europe is following. Now, is it the best design policy? No. Is it those of us that did PhDs in trade, do we think this is a really cool idea of basically a protectionist policy? No, it's not. Is it working? Yes.

Jeanne Whalen: Compared to baseline.

Andrew Steer: Yeah. It's so far it's working. And so, I take my hat off to it. I think it's great. I mean, we are heavily involved in watching it work and trying to pull in resources to investments that would be transformational. And the great thing Adam, and you sort of implied this, is that we don't need to keep subsidizing this forever. The great thing is the -- take green hydrogen, it’s is so expensive.

You look at green hydrogen, where's it going? Is it rising? It's just drabbling along the bottom. Nothing happening on green hydrogen. So, it'll take a thousand years to get green hydrogen? Well, no, actually, the price of green hydrogen depends on the price of an electrolyzer. The last 10 years, an electrolyzer has fallen by 70% of what it needs to fall by, before it becomes the preferred fuel.

So, five years from now, suddenly you'll see this tipping point. And what we, as economists need to understand is what in this country they call hockey sticks. Europeans don't use that phrase, but it's an American phrase. A hockey stick is something that sort of goes like that and then suddenly shoots up. That's what this is all about. It is hockey sticks. That is what the economics profession needs to understand.

Absent that, we will fail to, to stay below 1.5. And the real tragedy is right now, as I'm sure you know, is that -- so we have COP 28 coming along, the United Arab Emirates is leading it. They're hugely competent, but unfortunately, they've got bogged down by the president, who also happens to run the national oil and gas company. And so consequently, they're rather sort of occupied by that. And there is a genuine risk that what, what the secretary general of the United Nations, Guterres has referred to as COP 28 being the obituary of the 1.5 degree target.

And if that were to happen, if we were to give up on 1.5, we who have fought so hard for this, will have failed miserably and the economic profession would have to look in the mirror and say, we have not given them a vision of what their economy could look like in the 2020s, 2030s, and 2040s. There are virtually no country in the world where economists have given a vision of what the economy could look like in the 2030s, and it could be brilliant. But we failed to analyze that, and we failed to communicate that.

Adam Posen: So let me now open it up to all of you. Here comes the roving mic. Yeah. The lady in the gray outfit. Yes. You. That's fine. You're allowed to say your name, too.

Jeanne Whalen: Jeanne Whalen with The Washington Post. When you say the IRA is working, what do you mean? And how do you measure that? Did you, did you catch that?

Andrew Steer: Oh yeah.

Jeanne Whalen: Okay.

Andrew Steer: And by the way, I don't want to answer this question. There's much more wisdom in this room, so I hope.

Adam Posen: No, no. But we get to talk to each other all the time. You're the scarce commodity, so we're asking you. Anyway-

Andrew Steer: Oh, I think investment, investment is coming into this country. I think it's coming in and being here. I mean, we talk to investors all the time and they say this is a potential game changer. I'm not going to judge its macroeconomic fundamentals. I'm not going to judge its trade and distortionary effects. But in terms of getting investment, so far, in our judgment, it is being successful.

Adam Posen: Great. Anyone else? Yeah. Sarah or Jessica? The gentleman in the blue shirt, which I realize is 20 people but anyway, that one.

Mauricio Cardenas: Hi, I am Mauricio Cardenas. So, great talk Andrew. You went to Colombia a few months ago with Jeff Bezos and we tend to talk about industrial policy here, electric vehicles, renewable energy but deforestation plays such an important role and it's one of those areas that is challenging for economists because getting the right signals to end deforestation is hard. People make their living by just basically changing the use of land and, and the price of land doesn't give the right signal. So, I saw you gave some money to Gabon. In a very comprehensive strategy. I, I, I wonder what your thinking is about how to stop deforestation?

Andrew Steer: Well, this is actually an extremely interesting question in a community of macro economists, because where micro ends and macro starts is obviously always a little confusing. You cannot be a good macro economist in Colombia unless you really understand land use issues. The average cow in Colombia has more than two hectares of land. You can actually get four cattle on one hectare. And there are a whole range of issues that everyone in this room would resonate with immediately relating to land tenure, relating to the ability of institutions to honor that land tenure.

There are all kinds of techniques to ensure that you actually don't behave the way you're behaving. If you take a flight, as we do from, from Bogota to Chiribiquete, which is the most beautiful place on the planet, you will just see the sort of frontier where you see a cow here and a cow there. They chop down the trees and they bring in cattle in order to give them some kind of authority. Cattle makes no sense economically for them.

There is a way forward. And the way forward would be and I think actually John Kerry at the State Department and others are working on this. What we ought to do is sort of have a compact. We ought to have a compact where a government like Colombia to say, look, we're all willing to come in and we're not willing to import beef that is destroying the Amazon. But what we are willing to do and we're part of that, we're willing to put serious resources in to protect the land.

There are perfectly legitimate ways to do it. And one of the wonderful things about that part of the world and I know you know this, but I mean, it was incredible at COP 26 to see the presidents of Colombia, Ecuador, Costa Rica, and Panama together, announcing the biggest transnational marine-protected area in the world. And the interesting thing here, back to economics, is that the most difficult thing, if you want to protect oceans, is to get your fishing industry on board.

It turns out that actually, if you protect 30% of your ocean, you will have more fishing because you give the fish the chance to grow up. Then you catch them when they're bigger. It's an amazing intellectual revolution, this. So that's just a small example of how good policies will lead to short-term economic benefits. So, I think it would take a much longer, much longer discussion to talk about the bigger issues you're talking about. But I do think that we as macro economists tend to focus almost exclusively on energy and electrification, which is obviously profoundly important. And we don't pay enough attention to the reform of the food system and the reform of the rural areas, which actually account for one third of the problem.

Adam Posen: Thank you. Next. Back there. Yes. Oh, the one who just looked behind you. You're the person. Please. I know you all spoke earlier, but for the video, if you could identify yourself, please.

John Corrigan: Hi, this is John Corrigan with The Wall Street Journal. Can I ask you a little bit about your relationship with Jeff Bezos and maybe you can tell for us what's that like? How do you interact? What are his expectations of you? What kind of things do you tell him?

Adam Posen: But just the disclaimer, this is not the kind of question we usually have at the Peterson Institute.

Andrew Steer: So, I mean, look, we have a terrific, terrific conversation once a month at least, and for an hour and a half. And then we, we meet regularly and have very substantive conversations. And I don't know what more I could say. I mean, we come up with all kinds of ideas. We discuss them in detail. And it is inspiring. I mean, I originally came from Europe and quite frankly, rich people there, they've paid so much taxes that they actually then don't feel any particular need, although that is changing, by the way, in a good way.

But in this country, it's actually really inspiring. And I mean, obviously Jeff has got more money than most people, so he's given more but there's others as well that are really putting very serious -- it's a new era for philanthropy. And I think it's deeply encouraging and what's really nice is that philanthropy is professionalizing. I mean, we've been able to put together a team that is second to none, really, just first class.

Adam Posen: Cool. Here at the front table.

Heather Boushey: Heather Boushey, Council of Economic Advisers. So, tell us a little bit more. I mean, a lot of your comments were about how economists need to understand the opportunities. We need to be able to present to these different governments the positive case. How are you thinking about the work -- how are you integrating these ideas into the work that you are doing and where do you think some of the most exciting work is happening and what advice do you have maybe for graduate students who are listening online tonight for how to think about the kind of modeling that we should be undertaking?

Andrew Steer: Well, I'm humbled to answer that because, Heather, you could answer it a thousand times better than me because of who you are. So, I would urge graduate students doing their PhDs and anyone else to look for the ring where we thought we lost it rather than where the light is. The fact that we have very clever techniques of, of modeling equilibrium and shocks to the equilibrium, returning to equilibrium, using all kinds of tricks to solve our multiple, sort of, simultaneous equation models, actually well done.

But why don't we really try to understand how investors think and how they might respond and ask the question, why is it that every single year for the last 20 years the IEA has underestimated the trajectory? Why is that? It's because they used conventional models. Why do we assume that everything is incremental and smooth curves? And why do we assume that we're in equilibrium to start with? And why do we assume that we will return to equilibrium quickly?

We're not going to be in equilibrium for the next two decades or three decades. Wouldn't it be good if there was a disequilibrium school of economics? Now, obviously, I'm talking to professionals that have -- you've got a million reasons why. But, I mean, as a graduate student doing my PhD, I remember somebody -- this was too long ago for me to tell you when it was, but it was a time when there was massive unemployment and the entire assumption was a full employment.

And I remember one very shyly saying, why do we assume full employment? And the answer was, because we can solve if we make that assumption. And the answer is, wouldn't it be better to be, you know, roughly right than precisely wrong? And at the moment, unfortunately, a lot of our analysis is precisely wrong. And so, we need actually, we I mean -- I'm not criticizing anybody. We need a new generation of people who are in this room, by the way, that can open a new a new way of thinking, I think. Yeah.

I mean, we are in uncharted times, aren't we? And the fact that we don't know how to solve doesn't mean we shouldn't try. We shouldn't stay in our comfort zones. And by the way, today I thought there was a great deal of – by the way nothing of what I'm saying today is critical. I mean, I thought there was a fantastic spirit today and Adam, I'd give you a lot of credit for that.

Adam Posen: I give our participants a lot of credit.

Andrew Steer: And John.

Adam Posen: And John, thank you. So, John Lewis, I think, our next --

Audience Question: Thank you, John. That was so kind. Uhm so I wanted to ask you about, about your priorities in the way you see the world from your perch. So basically, where is the low-hanging fruit in climate change? What are the points of maximum leverage? You talked about this non-linear type of effects where you can basically push the system over. What are, in your view, the places where you can make a difference? And what's your view of those of those places and how that difference can happen?

Andrew Steer: Wow. That's a great question. What we do is we monitor uhm using something that we created called the System Change Lab, which we run together with WRI. We look at the 50 transitions that need to happen this decade and the next. And it sounds like a lot, but actually, if you think about it, there's the big, big transitions, energy, and cities, and food and so on. But actually, if you start -- one of them is getting rid of the internal combustion engine. Another one is the other extreme reducing food loss and waste by half this decade, which has a huge impact.

All kinds of issues relating to forestry, decarbonizing airlines, decarbonizing steel. There are about 50 of these. And what we do is we try and track them towards their tipping point. Some are already tipped, so they don't need any help from us. Wind energy in Texas doesn't need any help from us or you. It's doing fine. So, some of them are already there. Some of them, surprisingly, should be there, but they're stuck in the mud.

Energy efficiency in buildings, it's a no brainer, but it's not going anywhere. It's sort of stuck. I mean, there's a thousand green building associations. It's moving just slowly nut the number of buildings being built is far greater than the improvement in the energy efficiency. So, then what we do, what we do is we say, okay, so of these 50, we can't do all 50. What are we going to identify is those that we think with removing certain barriers, we could get them towards that tipping point. So that's what we do.

So, for example on green hydrogen, it's not just an issue of green hydrogen, it's putting the jigs -- and by the way, the Biden administration is doing some really great work on this through the IRA. It's not just getting green hydrogen. It's getting the cement companies and the steel companies, and the ocean shippers and the financiers and the governor of Texas because Houston is one center [inaudible 0:46:18], LA is another center. So, what we're doing is we're financing Houston and LA basically for the jigsaw we've got Chad Holliday who used to be head of Bank of America, chair of Bank of America, and then Bank of Shell -- chair of Shell. He's sort of leading that exercise.

And the trick would be how do you get, given it costs, say $2 billion to do a green hydrogen plant needs to be green hydrogen that means you need solar energy. That means you need the right financing for solar energy. That means you need to then bring the cement plant. So, we're going to use that, the steel plants, you've got to put them all together and then you've got to get the federal government, the state government, the city. You've got to sort of put that group together.

And one of the, one of the sort of real insights that I think we all probably have is that almost every problem we're trying to solve is a multisectoral, multi-stakeholder problem. There are no silver bullets. And so, one of the reasons we're not solving problems is because of the frictional costs of the different actors not being able to figure it out together. And we tend to assume that the private sector will be able to figure it all out.

They could if they had enough time. But actually, they sometimes need a little bit of help. So for example, buyers associations, the Biden administration has put together the what's it called, I can't remember, with the World Economic Forum, the First Movers Coalition, which is getting groups of airlines to commit to buy a certain amount of green fuel. That then helps you get across that first order tipping point.

Audience Question 2: Okay. John?

Audience Question 3: You've been very optimistic. Which is good. Which is a bit what we need. The reason why you're optimistic is obviously you have trust in technology, but also because the Paris Agreement has been sort of a miracle. And I remember very well when it was agreed upon, the economists had a very negative reaction saying this, it's not going to work.

And it worked because it, sort of, changed the perspective for the industrialists, for the innovators. The question, my question is, how far are we from the fragility. I mean, can we can we go backwards? What can happen? What can go wrong? What can happen that, in fact reduces the probability of, of as you said, reaching the tipping point in terms of climate action.

Andrew Steer: Yeah. So, I think this is the this is the most important question. I think the Paris deal was I mean, you’re French. So, I'll give you the credit because you deserve it. I mean, it was a genius narrative you created with the United States, with the rest of Europe and even with China. And it was the polar opposite of what all the textbooks would have suggested, which was what the Copenhagen would have been.

I mean, we all know what the dream solution would be. How much carbon can you put up there? Let's decide what the limit is. Let's allocate who can do it. And if you don't limit to what we said you could limit, we'll put you in prison kind of thing. I mean, some kind of deal with teeth, international treaties and none of the key non-European countries would accept that.

And so, what the Americans used to call pledge and review is what actually happened. Brilliant, because it was much more sophisticated than that. It basically said you have to put in your own voluntary deals. We know that the first round will be nowhere near enough. But because each five years, the cost of finding solutions will have fallen because of technology, the cost of not finding solutions will have risen, and because citizens will demand action, because they're seeing hurricanes and so on, that each five years will ramp it up and ratchet it up.

It was an entirely new way of doing global governance, actually. Now, will it work? I have no idea. We have no idea. Is it doing well? I guess it gets a B+. I think COP 26 sort of gave us confidence, the whole race to zero were amazing. Private sector, Mark Carney, $130 trillion of assets under management. But now the knives are out. The opposition is there. And you saw last week. the insurance companies are peeling off.

Several banks have peeled off from the GFANZ thing. So, it's a very, very worrying time. And all the more reason we need the economics profession to give us a narrative that inspires us, a narrative that inspires us. The way that we had in the 1930s and the economics profession, we, the economics profession, need to do that. At the moment, we're so well, you know, it's going to be, actually it's going to be quite costly.

Yeah. So, we don't want to lie. We've got to tell the truth. But what we ought to be able to say is look, with smart, bold policies where we stop behaving like we have in the past, where both Democrats and Republicans have not paid really any attention to retraining in West Virginia. But now it's going to be different. We're going to do it differently. Then, we could tell a narrative that - don't you think, John? Are you on board?

Audience question 3: We're not very good at giving narratives. That's not what you should be asking from economists.

Adam Posen: On that note. So, sorry, Reinhilde, do you have, we do have enough time. You get the last question.

Reinhilde Veugelers: I'll try to be short. So what do you think?-

Adam Posen: That’s Reinhilde Veugelers non-resident senior fellow at the Peterson Institute.

Reinhilde Veugelers: Yup. So what do you think is the pivotal role of philanthropy here? Is it to substitute or to complement government policy choices here? So, should your role be to pick the companies that would be non-picked winners here? So correct government failures or should it be to leverage the government choices here? So, what's your major strength here?

Adam Posen: And the you are here refers to philanthropy. What, what do you see as philanthropy's role in this process?

Reinhilde Veugelers: Yes.

Andrew Steer: So should we be should we be attacking the, the failures or should we be supporting the successes? Is that sort of the point?

Reinhilde Veugelers: Yeah, yeah.

Andrew Steer: Yeah, both, obviously. I mean, look, I think we're the biggest financier of the what you could say the corporate accountability, the edifice. So, there's something called the greenhouse gas protocol. You're a company, you've got to measure greenhouse gas protocol is that. We're the biggest financier of that because it desperately needs it. Then you have to report, that's called CDP, that also is desperately underfunded.

Then you have to set targets. That's called SBTI, the science based targets. Then you have to decide how do you actually trade in the carbon market? That's something called ICVCM. So, it's a total spaghetti of -- so we believe very, very strongly that unless we get -- and you too -- unless we get the corporate accountability story right, we're going to hurt the front runners because they're not going to be rewarded and we're going to reward the back runners because they're not going to be penalized.

So we absolutely need to get that right. So I don't know whether that's a carrot or a stick, but certainly, we want to work with countries that are willing to -- Gabon is a very good example. Gabon still has -- its forest, still has 82% standing, wants to do the right thing. We're all in but also we're very keen to work with those that have very difficult environments.

So, we work with DRC now with, say, Brazil, which is the biggest sort of fish of all. We want to be as helpful as we can. You've got a new government that says we want to do the right thing, but there's huge challenges for them to do it. So, we need to be, we need to sort of really look, look carefully around as, as governments do and all people of goodwill need to do.

Adam Posen: Great. Well, please join me in thanking Andrew Steer.

Andrew Steer: Thank you Adam.

Jeanne Whalen: A prodigal economist turned profit, which is just what we needed here tonight. Also, of course, president CEO of the Bezos Climate Fund. We'll look forward to seeing all of you tomorrow, I hope. For the second day of our conference on the Macroeconomics of Climate Action, whereas I said, we include the international aspects in particular. And with that, tonight's meeting is adjourned. Thank you.

Andrew Steer: Thank you, Adam. And thank you all. This is great. That was fabulous. Thank you.

[audio gap 0:56:32 - 0:56:56]

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