Sguardi sul Futuro

Economia dell'ambiente

Sergio Vergalli
intervista
Robert Stavins

Sergio Vergalli
What I said to Professor Robyn Savings of University of Harvard, that we are here today for our second interview about these types of this series with these results in the future. Today, we will like to speak to one of the books which was written by Professor Stevens is The Economics of the Environment among a very long list of these papers and the books.

And there I started to make of this question. The first one is the vs one, which might be the main obstacles preventing the achievement of a net zero emission target by 2050. What kind of obstacles do you consider predominant, for example, technological, behavioral sciences, political or governmental barriers?

Robert Stavins
Well, ultimately, the challenges to addressing climate change, including those 2050 targets, are political because that's ultimately where decision making takes place. Now, the politics is driven to some degree by the science, technology and the economics, but it's ultimately politics.

Sergio Vergalli
Okay. So my second one is, do you have any solution to suggest for overcoming the abovementioned obstacles? If you are concerned about the severe obstacle categories, which you would you address first and how.

Robert Stavins
So in terms of the international dimensions of the problem, the way to overcome what is a global commons problem and a free rider incentive is through international cooperation. And that's what the United Nations Framework Convention on Climate Change, including the Paris Agreement, is all about. So ultimately at the International level, that's the best approach in terms of at the national level, where much decision making takes place or in the case of Europe and the region, a level with the European Union that overcoming the politics is different in every jurisdiction.

You know, so I could speak to it in the United States, but it's different in other parts of the world.

Sergio Vergalli
Okay. Thank you for your answer. The third is, which is using other climate change. Would you prioritize it for our future? For example, inequalities, the least developed countries, the space economies, the bioethics.

Robert Stavins
The problem that I'm most concerned about other than climate change and indeed even including climate change, the problem that I'm most concerned about is the rise of authoritarianism and the retrenchment of democracy in so many parts of the world. You know, we came very close and France to replacing a liberal democracy with a right wing populist movement, which is authority variant in nature.

In the United States, we moved in that direction with former President Trump and may go back in that direction again. It's happened in Brazil with Bolsonaro in Hungary. And

obviously, authoritarianism is an ongoing reality in China. For me, that's the major concern I have when I think about my children and the next generation.

Sergio Vergalli
Thank you very much. So now the media is to move more in-depth into these questions. So I repeat this question in order to take into account, which could be your idea on this, which might be the main obstacle preventing the achievement of the net zero emission target by 2050. What kind of obstacles do you consider predominance, for example, technological, behavioral, science, political or government barriers?

Robert Stavins
Well, what we have to start with is the reality that there are two scientific phenomenon. One spatial, one inter temporal that leads from the science to the economics to the politics in geopolitics. The spatial, scientific reality is that greenhouse gases mix in the atmosphere. It doesn't matter whether one ton of carbon dioxide comes from Boston or from Beijing, it has the same effects.

It doesn't mean the impacts are the same everywhere on the globe, but those impacts, both the total magnitude of impacts and the location of impacts, are completely independent from the location of emissions. And that means then that for any individual jurisdiction taking action, a very small one, such as a city or even one as large as the European Union, that the costs of taking action, that is the costs of switching from coal to petroleum and natural gas and renewable energy, possibly nuclear power, the costs of greater energy efficiency, those abatement costs will be incurred by that given jurisdiction taking action.

But the benefits that is reduced, climate change are going to be spread globally. And if you think about the basic arithmetic of that geography, it means that for any jurisdiction taking action, the direct climate benefits it receives are going to be less than the costs that it can that it incurs. And what that tells us then is that it's not in the economic interest for individual jurisdictions to take action, but rather to free ride on the actions of others.

That's the nature of a global commons problem, and climate change is certainly a global commons problem. And it's for that reason that the highest levels of government jurisdictions need to be involved in most parts of the world. Those are national governments, as opposed to states or provinces or cities. And it's why international cooperation is essential. That is, through the United Nations.

Now, as I said, there's also another scientific reality, which is Inter Tempora, which again takes us from science to economics and then to politics. And that is that particular greenhouse gas is indeed the most important one. Carbon dioxide has a lag time in the atmosphere, a half life of over 100 years. And what that tells us then is that climate change is a long term phenomenon, and that even if we were to reduce greenhouse gas emissions to zero tomorrow morning, climate change will nevertheless take place.

So we have the combination of, on the one hand, the benefits of reducing emissions are in the long term because they're going to be benefits that are received every year for more than 100 years as a result of reducing emissions and concentrations. On the other hand, the cost of abating are upfront. So we have a situation of upfront cost and delayed benefits.

That is a tremendous challenge in a representative democracy where the incentive for elected officials is to give benefits to today's voters and to place costs on future generations. Climate change is asking politicians to do precisely the opposite. To put costs on today's generation in order to provide benefits which will continue over decades, indeed, for a century. That is a massive challenge in representative democracies.

So if you combine the global commons nature of the problem, this spatial reality with the inter temporal asymmetry of upfront costs and delayed benefits, it tells us why this is a massive political challenge. And rather than condemning politicians for not having taken significant action globally, we have to think about ways that given the scientific, economic and political realities, solutions can be identified.

Sergio Vergalli
So we say we have some obstacles for our reaching the net zero emission. So also we have some possible solutions summit then can overcome with the mention of all the mentioned obstacles and for Visa, which would you address first about which could be the most important solution, which could be the possibility in order to change the visa or the rule out of these obstacles for the future.

Robert Stavins
Well, for the global commons nature of the problem, this spatial reality, surely international cooperation is required, not necessarily global cooperation. Given that approximately 20 countries and regions count in the EU is one account for about 90% of global emissions. So there's no reason to place any burden on the poor countries of sub-Saharan Africa, for example, that are mired in poverty.

But instead, if you look at the countries, the rich countries of the world of the OECD, plus the large emerging economies where the real growth in emissions is taking place China, India, Brazil, Korea, South Africa, Mexico and Indonesia. Then that's where cooperation is required. Now, one way for that to happen is under the United Nations Framework Convention on Climate Change, which goes back to 1992 and under the Paris Agreement.

Approximately 195 countries have committed to take action through their own domestic actions, as spelled out in their nationally determined contributions or indices. Now, the initial set of INDCs is not sufficient in to achieve those 2050 targets of net neutrality, but they're moving in the right direction. And so at this point, the Paris climate agreement is the best hope, I would say, for achieving those kind of targets.

Now, there is an alternative approach which to some degree could be a substitute. Or to some degree could be a complement. And that would be for a limited set of those parties. So not the 195, but the most important emitters to put in place domestic policies that benefit themselves as well as the global commons. And this could be done through a so-called climate club, which might be a club, as Bill Nordhaus has proposed, of domestic carbon taxes or as Nat Keohane and David Victor and others have proposed.

Of domestic cap and trade systems. But in order to make such a club effective, there has to be a barrier to entry. But it can't be a club that is open. There has to be a price for entry and

the way in which Nordhaus is, for example, is structured in his proposal is through trade barriers and that would be done through a carbon border adjustment, which would be much more than that.

So not the EU carbon border adjustment, the C ban, which is simply on the carbon intensity of a limited set of highly carbon intensive products. Nordhaus is is a general tariff on all goods and services, and that's what would be numerically, quantitatively necessary in order to achieve the 2050 targets and to provide sufficient incentives for others to join, according to Nordhaus esque simulations.

But doing that, putting that in place, would go to the heart of the WTO and free international trade, which sadly, some countries of the world, in particular the United States, seem to already be moving away from. We have a period of environmental protectionism and manufacturing protectionism emerging as part of the populist agenda. So I don't see the climate Club.

I'm less optimistic than some of my colleagues in the economics community are of that being able to serve as a substitute for the international climate negotiations in the short term. Then in terms of domestic policy, what's necessary is probably a portfolio of approaches. I think the European Union is an excellent model here. There is not only the European Union emissions trading system, the EU ETS, but also a set of renewable policies, energy efficiency policies, a set of others.

The problem you have to watch out for are perverse interactions among those policies. Most of these policies have their own constituencies. In the case of the EU, in separate directorates in the European Commission, and they have separate constituencies in private industry. So everyone wants their own policies, but they don't function independently, despite the fact that as economists, we frequently analyze them as if they were independent.

So under the reality of the EU ETS, a policy such as a renewable energy policy or even an energy efficiency policy can interact in perverse ways in which, rather than emissions being reduced, they're simply relocated. So if we put in place a more stringency performance standard affecting a specific sector, well, that means that sector needs fewer emissions allowances under the EU ETS, so they get sold to other sectors.

So you may reduce CO2 emissions in that sector, but there's a 100% leakage to other sectors. And because now all sectors are no longer at the same marginal abatement costs, total costs have increased, i.e. it's no longer cost effective and the allowance price is suppressed, which is one of the things that's happened over past years in the EU ETS.

So incentives for technological change are reduced. So I offer this just as a warning that although a portfolio of policy instruments will be required and virtually all countries have put in place portfolios, including northern European countries that have carbon taxes, including British Columbia and Canada, that has a carbon tax, including California and European Union. If cap and trade systems Korea with its cap and trade system.

There's always a portfolio that includes other policies, but we have to be very careful that they don't interact perversely.

Sergio Vergalli
Okay. Thank you very much. Where we sit with the certainties we choose, the other being climate change. Will you prioritize it for our future? For example, inequalities of least developing countries, space economies, bioethics?

Robert Stavins
Well, you know, I'm frequently asked in various venues, you know, what do I most worry about in terms of my children or grandchildren when I have them and climate change is actually not the one that I worry most about, although it is where I dedicate my time. You know, I will say that I think a lot of us make the mistake that the area of our interests and our expertize, we wind up convincing ourselves because we study it so much that it's the world's most important problem.

And it isn't necessarily. I have, you know, many colleagues at the Harvard Kennedy School who work on other issues. Most people tend to think the issue that they work on is the most pressing one. I don't think environment is I don't think climate change is. And that's because although it will be highly costly as a result of the delays, I think climate change will be addressed when the evidence becomes even greater of current impacts.

That's unfortunate because it's going to be at a point in which it's more costly to address it than it would be now. But I think it will happen. But there are other issues that I worry about more, and the one that I'm most concerned about now is the rise of authoritarian right wing regimes in the world and the retrenchment from democracy.

You know, as as you well know, you know, the rise of terrible fascism in Europe in the 1930s came from a regime, the National Socialist regime in Germany, otherwise known as the Nazi Party, which was popularly elected, the same as happened in Latin America. We could also look at the history of Italy in the 1930s so frequently. What turned out to be right wing authoritarian dictatorships were initially popular, early elected.

And so I worry about that. I worry about it in France. Yes. My call was reelected, not Le Pen, but every time she and her father have run for election over the past two decades, the percentage of the vote they've gotten has increased. And this time it was over 40%. I don't know what it'll be five years from now.

Bolsonaro was popularly elected in Brazil, but is clearly a right wing authoritarian. Trump was popularly elected in the United States, and God forbid, he may be reelected in 2024. Yeah, so we see these trends around the world. In Hungary and Poland, the government, which was again popularly elected, is not just right wing, but is authoritarian, anti-democratic. It is moved to reduce the authority of the judiciary and has centralized power.

So those are my concerns. I'm not saying that what happened in the 1930s is about to be repeated just in the world. But one of the things I think about when we face a possibility for a wide variety of factors of moving into global economic recession, which is looking somewhat possible because of inflation and because of the measures by central banks that are being used to reasonably fight inflation, that global recession, that's one of the elements that then

presents very, very fertile ground for for populists, for demagogs, to receive support in democracies and then to work against the very fundamentals of a democratic system.

So that's what I'm most concerned about, and I'm sorry to provide such a negative, pessimistic commentary, but you asked what I'm most concerned about and and that's what it is.

Sergio Vergalli
Okay. Thank you. Thank you very much for overstating Seth for your very interesting answer. So I think it's a very interesting point of view. There are two open our minds and other different ideas. So this is a very, very important point so that you touched it. So we we finish now with the second there an interview, also a free fall from the future.

Thank you very much. Thank you, Robert.