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## HOW TO MANAGE GLOBAL CATASTROPHIC RISK

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#### PROCEEDINGS

MR. WEST: Good morning. I'm Darrell West, vice president of Governance Studies and director of the Center for Technology Innovation at The Brookings Institution. And I'd like to welcome you to our discussion of global catastrophic risk. You would think this might be a depressing topic. We've extraordinary interest, as demonstrated by the full crowd here. We also have hundreds of people who've signed up to watch our live webcast, so we'd like to welcome them, as well. We will be archiving the video, so anyone who wishes to view this after today will have an opportunity to do so through the Brookings website at brookings.edu.

We also welcome any comments that would like to make. We've set up a Twitter feed at #GlobalRisk. That's #GlobalRisk, so if you wish to post comments or questions during the forum, please do so.

So the world faces many catastrophic risks that threaten the environment, economic well-being, and political stability. For example, the effects of climate change could cause between 50 million and 200 million people to leave their homes and become refugees by the year 2050. A recent Oxfam report concluded that the richest eight people in the world combined are wealthier than the poorest half of the world's population in total. Powerful nations hold nuclear stockpiles, and then we face the risks of pandemics, especially in less affluent nations.

There are a variety of geopolitical challenges from rising authoritarianism to big power conflict. And although the World Bank and IMF have helped to lower extreme poverty in recent years, some doubt whether these international organizations, as well as the United Nations, are up to the current challenges that we face.

So to help us think both about global risks on the one hand and ways to manage them, we have four distinguished experts in the global governance field, and they will offer their views on both challenges and possible remedies.

So our panelists include Mats Andersson, who's the vice chair of the Global Challenges Foundation. Previously he served as CEO of the Fourth Swedish National Pension Fund, where he was actively involved in global environmental concerns, including working with the United Nations. During his time at the Pension Fund, he led the organization's effort to reduce exposure to large carbon footprints.

And as vice chair of the Global Challenges Foundation he works to raise awareness of global catastrophic risks and promote the development of global governance bodies that minimize that risk. The Global Challenges Foundation is doing very important work in this field and they also produce an annual assessment report on global risks with Oxford University. And they also provided financial support for our forum today and we are grateful for that.

Kemal Derviş is my colleague here at Brookings. He's the vice president of the Global Economy and Development Program here at Brookings. And his resumé includes former positions as the head of the U.N. Development Program, the minister of economic affairs of Turkey, as well as a past member of the Turkish Parliament. And just on a personal note, whenever I go to Turkey, I find that Kemal still is a rock star. People there remember the great job he did as minister of economic affairs and they still speak very highly of him. He also has taught at Princeton and Columbia. He's held top positions at the World Bank, including serving as vice president for poverty reduction and economic management. He's the author of a collection of his essays entitled "Reflections on Progress: Essays on the Global Political Economy," which I highly recommend to all of you.

Maria Ivanova is a professor at the University of Massachusetts in Boston. She serves as an associate professor in the Department of Conflict Resolution, Human Security, and Global Governance in the university's McCormack Graduate School of Policy and Global Studies. She directs the Center for Governance and Sustainability, as well as the Global Environmental Governance Project. She is the coordinating lead author of the Global Environmental Outlook, which is a flagship U.N. environmental assessment. And she also serves on the editorial board of the Global Environmental Politics Journal.

Stewart Patrick is the James H. Binger senior fellow in the Global Governance

Development Program and the director of the International Institutions and Global Governance Program at the Council on Foreign Relations. Before serving in his current position at CFR, he was a research fellow at the Center for Global Development, where he directed research on security and development. He also served on the policy planning staff of the secretary of state during the Bush administration. And he is the author of "Weak Links: Fragile States, Global Threats, and International Security." And he also writes for the blog The Internationalist.

So I want to start with Mats. The Global Challenges Foundation has launched a new global initiative designed to identify new models of cooperation on global risk. So can you tell us about this initiative?

MR. ANDERSSON: Thank you and thanks for giving me the opportunity to come here and speak. The price that has been launched is the price where we're looking for new governance models that can actually tackle today's global threats we have. And I'm talking about climate change, I'm talking about weapons of mass destruction, I'm talking about epidemics, et cetera.

The problem today is that the challenges we have are global and I think that the threats are dangerous and global and that we've actually run out of systems to control them. So we need to find new ways. We're trying today to fix the problems of today with the toolbox from yesterday. We need to find a new toolbox that can actually work to mitigate the risks that we have.

We set aside \$5 million for anyone coming up with a solution. We're looking for models rather than specific solutions to specific threats. And we're looking for models that can be implemented within 10 to 15 years. I'm happy to say since the launch late last year, we have about 4,000 entrants from 150 different countries. So it's a global reach and, hopefully, we will come up with some good ideas and stimulate the debate meanwhile on governance. It's needed.

MR. WEST: OK. Thank you very much. So, Kemal, you've given a lot of thought to global governance and you've actually worked in some of these multilateral organizations and you've looked at new ways to manage problems. So what is your sense of how we should rethink governance?

MR. DERVIŞ: Well, first, great to be here. And I agree with Mats, that the toolbox largely that we have today is largely coming from the catastrophe of World War II. Not entirely, you know, WTO was a little bit later and so on, but it was a catastrophe, which our generation in this room didn't live. But when you think about it, at least 30 million people died. And when you just, kind of, visualize – I mean, try to think of what -- how big a disaster it was, you do worry more about since this happened, you know, similar things may happen, not necessarily in the form of war.

Now, very, just quickly some principles that I would advocate, OK? And then hopefully in the next round we can go into more details. One is subsidiarity. In other words, try to get government and governance decisions as closely as efficient and feasible to the people themselves. I think the

distance between decisions made somewhere and the citizen has for many reasons seemed to grow or has grown. And I think having as a basic rule that if you can fix something at the local level, you should fix it there largely. Then there's the metropolitan level, the state level in the U.S., or the lender or region level in Europe, the national level remains, of course, crucially important, but there's also the global level. And the global level for things such as climate, security, the fight against disease is absolutely crucial.

So subsidiarity has to be taken seriously. I think in Europe it is used often, but Europe wasn't built faithful to that principle and I think it's suffering from it.

Second, it derives from that. When we say "governance," we have to think of multilevel. I leave it at that, but, you know, public policy, also. You know, public policy by whom? The nation state, the state of Maryland, or the region in Germany of Bavaria? I mean, one has to specify what one really means by public policy, and it is very linked to the first principle.

The third principle, which is somewhat less discussed and is trickier, is that it's multichannel in today's world. In other words, it's no longer just public, but it also is private sector, NGOs, churches even. You know, there are many channels through which governance evolves.

Now, there is still a basic, strong difference, of course, between the public level in theory, which has democratic legitimacy according to a constitution, and an election, so the people in the public sphere represent that election, that democratic election, although the democratic elections are often not democratic elections. But nonetheless, there is a certain legitimacy that attaches to the public sphere, which is not attached to the other spheres, and one has to remember that.

Two final principles. Weighting better than veto. In other words, the U.N. Security

Council, as you know, has these veto powers. It seems very illegitimate, particularly not so much the U.S. veto power because a weighting might lead to de facto veto power, but the veto power of smaller countries, as victorious in the Second World War, and then no veto for a country like India, for example.

Instead of having simple votes and vote powers, I would think a system of generalized weighted voting.

And, of course, there's a lot of debate to be had about the weighting. It's more useful to approach a form of governance and would lead to situations where de facto certain large powers may have veto -- effective veto power or so close that they can always find a few allies to block a decision.

But I think that's more legitimate than universal than having by constitution, by a constitutional body, the

veto right.

And finally, I would favor thinking about two overarching bodies that are separate, not the same. One for military and security issues, where one has to do the weighting as a function of existing military capacity. Not just strength to scare, but also strength to implement certain things or to prevent certain things. Again, of course, a lot of discussion there. And then another one which would be an overarching council for economic, social, and environmental affairs, where the weighting could be very different from the military and security weighting.

If you bring the two things into one body it will be very hard to find a reasonable weighting. In the second body you would be able to make space, for example, for countries not only that are economically important, but militarily not so important. But also for countries who are economically and developmentally and globally active who contribute a lot, but who happen to be medium-sized or fairly small. And I think the separation would be very helpful in terms of thinking how ideally one would reset the global system. I don't think one can reset it from scratch, that's you know, unless there's the catastrophe we want to avoid. But these are some of the principles I would build it on.

MR. WEST: OK, thank you. So, Maria, you work on governance and sustainability questions. So how should we be thinking about improving our activities in those areas?

MS. IVANOVA: Thank you. Thank you very much for the invitation to be here today and have this important conversation.

I would like to suggest that governance and sustainability are our baseline. In today's world we need a baseline. There's just so much that is happening all the time, but we need to know:

What is the minimum? What is that baseline that we can come back to? And to me, these are, indeed, the concepts of governance and sustainability.

Governance is the design and execution of policy. And as Kemal Derviş said, it is at these multiple levels that governance happens and by multiple actors. The design of policy can happen by governments, but also by others, but the execution really happens by a multitude of actors in these multiple levels.

The sustainability part is our ultimate baseline. Sustainability really is our ability to sustain ourselves over time. It is our ability to support long-term ecological balance. We had often

thought about environment in the context of sustainable development as these three pillars. This used to be the narrative, the three pillars, but they're not three pillars. And we often talked about the integration of the three pillars. I don't know how you integrate pillars. I've never seen pillars being integrated. (Laughter)

What we need to talk about is that environment is the foundation of sustainability. It is the foundation of our society, and within that the economy is embedded. It's not that we have environment, society, and economy. We have a foundation in which we all live. We just look around, this is --we inhabit this planet that does face global risks. And we need to design the kinds of institutions that would allow our society to manage that risk and create the kind of economy, the kind of social structures that we would like to live in and thrive in. So that's, to me, the baseline.

The question is, then, how do we move forward? And to me, there are two key elements.

We often talk about one and not so often about the other: institutions and individuals.

When we talk about governance, we discuss institutions. How should the institutions at these various levels work? And that's really important as -- again, to circle back to where the conversation started -- our institutions are, indeed, the result of what governments agreed to 70 years ago. They created the United Nations at the San Francisco Conference in this country. After two months of deliberation, by the way, they created the institution that we see as the global institution and that many of us criticize as well as praise.

And when we think about how institutions function there are two elements that I'd like to put forth that were articulated very compellingly by a colleague in international relations, Martha Finnemore, who said that for institutions to be effective, they need to be in authority and an authority. "In authority" means that they need to have the legal mandate to do something, and usually governments give them that legal mandate. So your WHO is in authority in the health area. The U.N. Environment Program is the institution in authority in the environment field, and so forth. So you have a legal mandate, legal functions.

"An authority" is the more tricky one. And we often use that in everyday parlance when we say, "Who's the authority in..." fill in the blank. To be an authority, to be the authority, you need to have the expertise. You need to have built up a certain reputation. And often, some institutions might

have the mandate to do that, but are they the authority in that area? And that's where we have multiple other actors often competing for that authority, competing for attention, competing for a piece of that work.

And that's where we get into this whole discussion of fragmentation. The system is fragmented. And we have to step back and look -- is it that there are multiple actors, is it multiplicity, or is it fragmentation? And that requires us to really look into these institutions, to look into the various levels of governance, see how they function, and remember what is the goal. Where do we want to get? And ultimately, I think we will have functioning institutions and functioning governments when we have the right people in the right places.

And that brings us to individuals. We do not theorize about individuals in academia, the world that I inhabit. We talk about individuals a lot in our everyday life. We blame them or we praise them. We put everything on the shoulders of a certain person, but they are important. Individuals in institutions, that combination has not really be theorized, has not really been explained. And I think that with people like Kemal Derviş, who has led an organization, who has led an institution, and to reflect with you and your colleagues about: What is the role of an individual in an institution? What does it mean to actually make that institution functional? What kind of individuals do you need there and these various levels of governance? And I would say they have to be committed, they have to be able, and they have to be inspired.

And when we talk about global catastrophic risks, it's difficult to inspire people. But yet, we've seen that happen with the climate debate, that it changed from a narrative of sacrifice to a narrative of opportunity. And that's when Paris Agreement came about, when people could see that, "I could be part of a different economy. I can contribute to a different outcome in the world." And that's when people become engaged and when individuals become active and productive elements in institutions.

MR. WEST: OK, thank you. So, Stewart, there's a question about the boundedness of catastrophic risk, so how do you see the risk? And what are the contingencies that you worry the most about?

MR. PATRICK: There are a number of ways where you could bound this problem in terms of what criteria would make the threshold for a catastrophic risk, and these are very subjective. I would say that I would put one boundary at: Is this a problem that could conceivably cause the deaths of

tens, even hundreds of millions of people? Now, a lot of these things would be rapid onset situations, but they could, however, be related to, sort of, broader developmental trends or demographic trends or other types of secular trends that would have laid the groundwork for this.

My own list would have three different contingencies. The first is nuclear use, which would be either interstate or by non-state actors. The second is a dramatic acceleration of climate change that would undermine and have devastating effects on ecosystem services upon which human beings depend for their lives and their livelihoods. And the third would be a global pandemic on a massive scale. It would probably be something along the lines of a new pandemic influenza that was highly virulent, highly transmissible, highly fatal, and which would, in addition to causing huge amounts of fatality, would actually bring the global economic system to the breaking point.

Now, there are other types of threats that one could conceivably imagine. One that would be a high-impact, pun intended, issue would be a collision with a near-Earth object. That obviously is something that international institutions and national governments are not quite as -- except in science fiction -- are not quite as adept at dealing with.

Another which could conceivably rise to this level, depending on whether or not it had huge effects for political instability and violence, would be a meltdown of the global economic or global financial system. I would leave that to Kemal's expertise as to whether or not he would put that in there.

I'm interested that the Global Challenges Foundation does lump in global poverty because it could -- and dire poverty, which influences 10 percent of the population. I'm not sure that -- I think as an important background condition as that is, I wouldn't necessarily put it in this list.

With respect to nuclear weapons, the biggest is accidental or intended nuclear exchange by nuclear powers, whether one thinks of India-Pakistan or obviously United States and Russia or China. And I think that's the most immediate existential threat to human survival. And that could occur, obviously, through diplomatic miscalculation over something arising, say, in the South China Sea or Ukraine, or it could also arise through imperfect command and control over nuclear weapons that are still, in many cases, remain on hair-trigger alert. So despite the end of the Cold War and the reduction in major nuclear arsenals, particularly on the part of the United States and Russia, we remain very much under I wouldn't call it a nuclear umbrella, but under a nuclear cloud.

Climate change, a dramatic acceleration in warming and its impacts, could result in the collapse not least of the world's oceans, which provide sustenance to about 1 billion people in terms of they depend on fish as their primary source of livelihood. Oceans also serve as a carbon sink and they also serve as a heat sink. And both of those sinks are getting stressed like never before, and ocean acidification is a major, major problem. Other things, circulation of the ocean currents, dramatic ice melts, et cetera, widespread spikes in famine and drought.

In terms of global pandemic, obviously the world dodged a bullet with respect to the Ebola crisis, but Ebola is not -- although dangerous in an awful and just horrifying disease, it's not really the thing that the United States or other countries need to worry about as much as, frankly, a pandemic influenza, which has the opportunity to spread quickly and to kill vast, vast numbers of people, as we saw in the Spanish influenza epidemic. So that is a huge, huge issue.

Now, in all of these, you know, how prepared are the global governance mechanisms? I'm not going to get into this because I think we'll probably get into it as we go on, but I'll just say, you know, the question is: Are they designed right? Are they adequately supported? Are they suitably resilient and sufficiently flexible to prevent, mitigate, reverse, or adapt to these risks? I would say that the answer right now is no.

Just a couple of other background things that I think we should consider. One broad observation, as has been stated and Kemal made the point that we've inherited a lot of institutions that, frankly, we're trying to retrofit to new circumstances or to new threats. Now, obviously, there have been a number of subsidiary bodies, et cetera, U.N. agencies created over the years, regional organizations, et cetera. But they're notoriously resistant to change and there's a number of reasons why. We could talk about why they're so resistant to change.

In the absence of crisis, change tends to be incremental at best. Think of it as sort of natural selection as opposed to punctuated equilibrium in the evolutionary field. You know, the irony is that institutions are really bad at either predicting, anticipating, and preparing themselves for catastrophic risks, but what happens, ironically, is that catastrophes are actually one of the only things that actually creates some institutions, as you mentioned: Dumbarton Oaks, San Francisco Conference, and Bretton Woods, as well.

So if there's good news or a slight bit of good news it's, again, picking up on some of the things that both Kemal and Irena (sic) mentioned, which was that this is not your mother's multilateralism, I guess is the way I would describe it. Alongside traditional intergovernmental negotiations and international institutions we have this amazing collage of different institutional responses that are -- they're mini-lateral often rather than fully universal. They're voluntary rather than necessarily legally-binding, as we saw in the Paris Agreement, at least according to the United States. They're disaggregated as opposed to just comprehensive. They're regional. For instance, we now have an African CDC, African Union CDC, in the wake of the Ebola crisis. So, maybe, even if the WHO flails, the African Union can play a role on that continent. And again, multilevel and multi-stakeholders.

So I would say that we should bound the problem. I wouldn't want to get all of global challenges in there. If we're really talking about catastrophic risk, we should probably think about particular issues that really are -- you know, they might even be black swans, but they're ones in which a large number of people could die. Thank you.

MR. WEST: Thank you. So I want to follow up on some of these issues Stewart just raised and a point Maria made, as well. And this is question for everyone, so each of you can jump in.

So Maria was noting the role of institutions in the path forward, so we have lots of existing institutions: the World Bank, IMF, United Nations, WHO, WTO. The question is: Are the current institutions up to the task? Is it a matter of just reforming them or do we need new institutions? Kemal mentioned a new model: public-private partnerships. So where do you think we are now and what do we need to do as we think about, kind of, the institutional level of global governance? Any of you want to jump in?

MR. DERVIŞ: Let me just share a story. I was on a U.N. Reform Committee many hours, many weeks, many months, and one of the major aims was to reduce the number of U.N. institutions, which are 38. And at the end of all these deliberations we created one new institution. (Laughter) So just a little story.

MR. WEST: That's a great story. Other thoughts?

MS. IVANOVA: Which one was that?

MR. DERVIŞ: The gender organization.

MS. IVANOVA: U.N. Women.

MR. DERVIŞ: Yeah, U.N. Women. And that everybody agreed, but then nobody could agree which one should be cut. (Laughter)

MR. WEST: Because every organization has a constituency somewhere. Mats.

MR. ANDERSSON: I can share with you a bit of a background on what's an institution. From my horizon it's about the Pension Fund, it's about the long-term capital that has not been engaged really in trying to solve and trying to mitigate the risks we have.

Some five years ago, I was educated by Laszlo, the founder of this foundation, that climate risk is for real. Secondly, if you're a long-term investor, you need to mitigate that risk. I had the opportunity to meet some bright people at Columbia University a year later and I also met with Al Gore. So I came to the conclusion at AP4, the public Pension Fund in Sweden, that climate change is a risk; I need to mitigate it.

So I went out to see 10 of the world's 20 largest pension funds and I asked them about risk, and they gave me all the normal answers about volatility. And I asked them: "What's your exposure to climate change?" Total silence. They didn't have a clue. This is five years ago.

So I went back to Stockholm and I asked some clever guys in the office and the equity team to try to find a way to mitigate or decarbonize our equity portfolio. We managed to find a way to do that by low-carbon indices and we then lowered the carbon footprint by some 30 percent.

At the Climate Meeting 2014 in New York, we were encouraged to form a coalition,

Portfolio Decarbonization Coalition. It was founded by AP4, the French asset manager Amundi, by UNEP

FI, and CDP. And we promised in the General Assembly to deliver \$100 billion U.S. of pension fund

capital that will be put into some kind of decarbonized strategies by the Climate Meeting 2015 in Paris. It

was a hard time, but at the meeting in Paris we were able to deliver a coalition of 25 members controlling

\$3.2 trillion U.S., out of \$600 billion were earmarked for low-carbon investments.

What I'm trying to say is that what seemed to be totally impossible five years ago, unrealistic five years ago, today it's mainstream. Today I promise you, all of the 20 pension funds, the biggest one on the globe, knows about climate change. They have an idea what their exposure is and most of them are actually trying to mitigate this risk.

So I think that if you have the right information, if you know as a decision-maker what you have to deal with; secondly, have an incentive to do something -- and in this case, we're actually mitigating a risk and, at the same time, actually enhancing your returns -- I think you will make institutions function better. But, again, you need to have the right governance.

And Maria, I think it starts with governance because governance is the toolbox. If you have the toolbox, then you can do and you can attack sustainability as a whole. But it starts with governance. That's why governance is so important and that's why it's so needed to have a new model or actually dealing with the big global catastrophic risks we have today.

MS. IVANOVA: I'll jump in and talk about the institutions. We often analyze them as, "Oh, they're too many; there is this fragmentation. And let's reduce the number of institutions rather than thinking of: How do we make them work better? How do we make them function better? How do we make them deliver on their mandates?"

And an interesting setting within this was the whole movement in the U.N. about setting the Sustainable Development Goals. We now have 17 Sustainable Development Goals. And a lot of analysts, callers, policymakers say, "there are too many. Too many, we can't focus." And then if we look at them and say, "OK, which one will you take out? Which one is not necessary? Which one can you live without? Climate change or clean water or health or maternity health or poverty or partnerships? Which one of these is extraneous?"

And it's the same discussion with the institutions. If we say we have too many -- OK, 38 in the U.N -- which one of these is completely irrelevant? Is it human rights? Is it refugees? Is it environment? Which one of those is not necessary?

As you mentioned, no, we're actually missing one. And so to me, the question is: How do we make the institutions effective? And sometimes the answer will be: OK, you have to scrap a few or you have to merge some of them. There's been a lot of discussion of: Do we need to bring together the U.N. Development Program and the U.N. Environment Program? Should they work together in a much more integrated way? And it's these discussions that we need to have.

And so far, they have been happening, but within the U.N. and among governments. And I think what is now possible and feasible with the Global Challenges Prize, with the New Shape Prize, is

that these conversations are now open to a much larger audience, to a much, much larger group of people that can say, "OK, let us think about these institutions in a totally different way." And so governments can then have different inputs and different ideas that they can consider.

So I think your questions, Darrell, should be posed through the Global Challenges Prize and say, "OK, what is that new shape? Are you going to leave some of these pillars? Are you going to flip some of them to be foundations? Or are you going to merge some of them? What are the ideas that people have? What is the justification? And how do we get from here to there?"

And as Mats mentioned, sometimes it takes only five years from absolutely zero recognition of a problem to complete investment in its solution. So I'm actually counting on the Global Challenges Foundation and the Global Prize for people to jump on this and articulate: "Here's the problem, here is a new shape of a solution, and here is why I/we think it could work."

MR. WEST: Stewart, your thoughts?

MR. PATRICK: Sure. Yes, thanks. I'd like to pick up on Maria's thoughts. Earlier I referred to her as Irina because I was thinking of another very celebrated Bulgarian.

MS. IVANOVA: Yes. Irina Bokova, yes. (Laughter)

MR. PATRICK: Exactly. So consider it a compliment.

MS. IVANOVA: Oh, absolutely.

MR. PATRICK: Yeah, I really think that you are very much onto something. There's been a proliferation of institutional experiments and, as we mentioned, there are different levels there. You know, the C40 coalition when it comes to climate change, which was started by Michael Bloomberg and some of his contemporaries around the world to try to bring cities, which are really at the epicenter of a lot of global emissions and what's going on potentially in terms of mitigation and adaptation, bring them together.

At the same time, you have, you know, the reducing deforestation and degradation from forestry practices in an effort to try to increase forests as carbon sinks, et cetera. You have different voluntary arrangements on carbon capture and storage amongst a number of different countries, as well.

So I think, you know, there's a negative way of looking at this, which is: Wow, nobody's in charge and there might be a lot of duplication and redundancy. And I think to some degree that has to be

weeded out. But there's also this sort of Louis Brandeis, I believe, comment of, you know, "Each of the 50 states is a laboratory of democracy." Right? So perhaps in some ways it allows some fertile experimentation about how one actually goes about dealing with some of these issues.

And I think actually, frankly, what we've seen with X prizes and now this prize, the Challenges Prize, is that if you can incentivize the private sector or private actors, as well, to come up with interesting ideas, there's no telling where you might see things. So you have this, sort of, what I would describe as a paradox in a sense of, sort of, stasis and glacial change and sclerotic responses from often the intergovernmental aspect of things. And then you have all this ferment bubbling up from below, and often it is more bottom-up.

Just with respect to how we're doing, I'll just mention -- I have ideas about nuclear weapons and climate change, but let me just talk on the pandemic front. You know, there's no question that the crisis of Ebola has sponsored or generated some reaction within the global health community, which is, in a sense, not just a public health regime, but in a sense a global regime complex, which is the way that we wonky academics and policy experts sometimes talk about these things.

You know, the WHO is nominally at the head of international responses in this area, but, of course, it collaborates as part of a Health 8 group that includes, you know, other groups like UNICEF, for instance; or the Global Fund for AIDS, Tuberculosis, and Malaria; and GAVI, the Global Alliance for Vaccines and Immunizations; et cetera. So you have this complex.

In the aftermath of that, the World Health Assembly did try to generate some new innovations in terms of a, you know, emergency response force that could be deployed to crisis areas when epidemics came out or erupt, and to try to help governments contain them. They also came up with a little bit of money for that.

But the problems of institutional reform were also revealed. There is a, really, pathological relationship between -- or dysfunctional relationship, I should say, between Geneva and the office there of the Director-General and the very independent regional offices and bureaus in WHO. There's also been, despite these international legal regimes, the international health regulations, most countries or many countries, particularly in developing countries, continue to be unable or unwilling to actually meet those obligations fully to be able to create surveillance and response mechanisms. And

there's not really any penalty for them doing so.

And then when the crisis erupted, a number of more developed countries, you know, did impose things, like draconian travel and other bans, and so they're not following the rules either. And the difficulty is: How do you get countries, in a sense, to actually live up to their obligations?

Another thing that I should mention that it showed was that -- Darrell earlier referred to a book that I had written called "Weak Links." And I think that The Global Health Regime is a good example of the notion that international public health is, in a sense, only as strong as its weakest link. Now, those weak links aren't simply the most dysfunctional countries in the world sometimes, but they're countries where the leaders and the regimes, frankly, are not being responsive to their own governance needs and their own country's and to what their obligations are going forward.

And I think as we plan for global governance, effective global governance, more effective international mechanisms, networks, et cetera, that can help deal with some of these problems, we have to bear in mind that the bottom line is that each of the individual members can, frankly, undermine some of the progress we'd like to see.

MR. WEST: So Kemal, you wanted to add a comment on this, as well.

MR. DERVIŞ: Which is not a joke. No, I think from economics one can take the example of the central bank institution as a (sic) emergency response institution. I think very few of us economists, although you can find some, believe that central banks can actually, on their own, make a country develop, grow, and so on and so forth. But I think most economists will say that central banks can prevent an immediate meltdown, and I think they did in 2007/2008.

So in a sense, in some of these other issues, on some of these other threats, one also needs, kind of, an emergency mechanism. And what comes most to mind, of course, is actually pandemics, and I think there have been movements after the Ebola crisis. But what often happens is, when the crisis hits, everybody agrees there is need for money and there is need for people to fight it, but you have to assemble it. And days are sometimes crucial, could be crucial in an international pandemic.

So rather than wait for it to happen, I think it is important to have an intervention fund ready. It doesn't have to be necessarily assembled. It could be commitments by countries of certain amounts that would be immediately, within 24 hours, made ready for action. And also people who can

deal with the situation on the ground. And I think one can think of this in other aspects, also.

The final point -- two more points I want to make. I really would like to insist that the institution of weighted voting gets academic, civil society, and political attention. Too many governments' failures are due to the nonexistence of weighted voting. And I think those institutions that have survived better have had an amount of weighted voting working for them. So I think that's one point.

The final point is nobody mentioned cyber catastrophe. I was a little bit surprised, but I think there is potential there for a major, really major catastrophe. I don't think anybody fully understands; I mean, maybe two, three years down the line. But I can visualize a cyber attack like a nuclear attack almost, paralyzing certain systems -- hospital systems, planes, airport systems, and so on -- that could lead to really major catastrophes. So I would want to add that one as one area close to the -- I mean, it may not kill hundreds of millions of people, but it could kill millions of people. And I think we should add that to the -- and also think of a rapid response capacity of the international community in that case.

MR. WEST: I think that's a great point on Kemal's part. Just as we are moving more and more of our critical infrastructure into the digital world -- energy management, transportation, and so on -- kind of, the risk of a major cyberattack has gone up.

I want to ask one more question, then I want to get some questions from the audience, and this concerns the U.S. role in all of this. Because traditionally, the United States has played a leadership role, we've been very engaged. We kind of helped to lead the globalization effort. Now, of course, we're seeing an anti-globalization backlash, questions about the U.S. role. Is the U.S. going to abdicate some of its responsibilities? And just how all of this is going to affect global governance. So I'd like to get the thoughts of each of our panelists just on the current situation in the United States and how it may affect our capacity to handle catastrophic risks in the future.

Stewart, I know you've thought about this.

MR. PATRICK: Yeah. Thank you. I think that -- I'm glad you raised it because I think otherwise it could have conceivably been the elephant in the room. Because, well obviously, early days yet, but a lot of tumult, to say the least, and uncertainty around the world about whether or not the United States will continue to play its largely positive managerial role as sort of custodian of world order, if you consider it that way. And as one of the driving forces behind the institutional architecture that was

created not simply in 1944 and 1945, but obviously the World Trade Organization, NATO, many other international institutions that we've come to inherit.

Now, needless to say, the United States has often preferred to have other countries be bound by international rules and obligations, and to be rather more ambivalent and selective in domestic political terms to the degree to which it wishes to be bound by those, partly out of the prerogatives that it believes it needs or deserves as the largest country in the world and of its custodial role, but also from aspects of American sovereignty.

What's interesting now, though, is that you have a United States administration that appears to be adopting much less of an enlightened self-interest view of the world, but at least in some of its early statements and certainly statements of the current president when he was running for office that hinted at a much more transactional nationalistic policy. And nary a word, in a sense, about any sort of normative goals, much less an aspiration or an ambition to try to preserve, in a sense, the sinews of world order. So that is a significant problem.

I think that this nationalist, populist, inward-looking approach and sentiment that we saw, obviously, bubble up during the election is, obviously, not unique to the United States. It seems to be spreading still. I think the wave has yet to crest, including in much of the OECD world. But it's particularly problematic because it's happening at a time when there seems to be normative divergence over some of the basic rules of world order with respect to the Russians and the Chinese in particular.

So the question is, are we -- as some of the fundamental underlying assumptions about just how everyday diplomacy and everyday economic transactions and everyday security relationships are dealt with -- are we in a position at all to handle, sort of, even more creative responses to global threats? I think that it remains to be seen, but it's not promising.

MR. WEST: Any other thoughts from other people on that?

MR. ANDERSSON: Coming from Sweden, it's probably easier to talk about the elephant. (Laughter)

Sorry. I think that it's another serious example on the weaknesses in the current governance systems we have. If the outcome in one election in one country can jeopardize an agreement between more than 190 countries, it sort of sends a signal: This is not functioning. So it's

serious, absolutely, what's happening here.

It's the richest country on the globe. And it's hard to see any good coming out of this, short term. Maybe long term, more people will understand, again, that the global governance systems we have today are not functioning. They cannot deal with the global catastrophic risks. Therefore, we need a new toolbox and the sooner, the better.

MS. IVANOVA: I'd like to jump in and echo what Stewart was saying. That -- the United States created the international institutions in its own enlightened self-interest that, actually, was in the interest of a lot of countries around the world, as well, to have a functioning world order, meaning to have some order in the world, some predictability.

What we are losing today is indeed that predictability of action, and the United States has been an important player, an important actor in all of these regime complexes around the various issues that we mentioned because it did create the anchor institutions within each one of these and it does fund them. And so there is, here, a dual issue. One is whether the United States will pull out of many of these institutions. But even if it doesn't, what happens when the United States stops funding these institutions?

So the United States is responsible for 22 percent of the budget of the United Nations. This is often seen as a burden by many of the critics. They say, "Why one country would pay 22 percent of the budget?" Well, because this was an idea that came out of this country. It was created as the pillar of a global order that supported the normative vision that this country had. And also because the United States is the biggest economy.

The second biggest economy in the world is the European Union. We often hear the European Union talked about as one entity. And if we look at the European Union's contributions to the U.N., they're actually at 30 percent. The EU as a totality contributes 30 percent of the U.N.'s budget. So, but then the U.S. often compares itself, "Oh, we're contributing more than the U.K. or Germany or other countries," but you have to look at the totality in terms of comparability.

And so the other issue is if the United States pulls out of some of the regime complexes, for example, in development, the United States has been critical in development of many countries around the world and development in a certain way because financing comes with particular conditionalities. And a lot of countries have had to comply with those conditionalities because of that type

of funding. If the United States stops doing that, there will be a vacuum that will have, by laws of nature, will have to be filled.

China is an important player in the world, is developing its industries in renewable energy, in various technologies, and has become an important player in the development arena and in a very different than the United States and the European Union. You go to Africa and you see China's investments in infrastructure, in railroads, in roads, with a very different structure than those investments by the United States or the European Union. And so if the U.S. decides to withdraw from this multilateralism, then that vacuum will be filled by other actors.

MR. WEST: Thank you. Kemal?

MR. DERVIŞ: A few telegraphic points. First is the U.S. is drawing a lot of leverage, is getting a lot of leverage for its resources from the economic and social institutions, not from the military institutions, not from NATO. And it's a good example of why the two spheres are often very different.

Think of the Ukraine crisis. I can't remember the exact figure, I think it was 28 billion that was needed to stabilize the Ukraine during the crisis and help the Ukrainian government not implode.

Now, 28 billion, nobody has 28 billion ready to give, you know. But the IMF stepped in, on prodding by the U.S. and also by Germany and other European countries, but particularly by the U.S., intervened.

Now, you know, how efficient it was, what happened, the Ukraine is still far from solved, but it didn't implode. And this cost the American taxpayer very, very little. So I think there is a -- I don't want to go into details, we don't have time, maybe through questions. It actually costs very, very little, okay, the way that the IMF works, and other interventions cost very little.

So I think one has to remember and maybe remind the U.S. public that there's actually a very efficient way of deploying resources through the capital markets' supported World Bank and through the corporate, that's the IMF. That's the first point.

The second point: Again, it's a difference in the military and in the civilian sphere. In the military sphere, maybe short of the period right after World War II, I think the U.S. has not in any way declined. If anything, it has increased its power, its relative power, I would argue, in a purely military sphere.

On the economic side, however, it had 45 percent of GDP worldwide. It went down to

something like now 19 percent of GDP, depending on which exchange rates you use. So you can see a huge change. On the economic and social sphere I would -- jumping ahead a few years and assuming nothing dramatic will happen in China in terms of, you know, China imploding and so on, there really are two economic superpowers now: China and the U.S. And in purchasing power parity, China is actually a bigger economy now than the U.S. economy. So when we think about the system, it has changed quite dramatically in that sense from one superpower, in terms of GDP, to actually two superpowers. OK? But that's on the economic sphere.

On the military sphere, it will take decades, if ever, for China to catch up with the U.S. That's why I think that, you know, that separation is very, very important when you think of governance. And then, of course, in the nuclear area, being very powerful is one thing, but a much less powerful country can challenge you and can inflict huge damage if it's willing to take a lot of damage. Russia is very still amazingly, we've come to realize, quite powerful despite an economy that's basically in shambles, except for oil. So one has to, I think, look at all these various things.

I have never seen, in my career, something happen in the international institutions without tacit or explicit U.S. support. Something big, not -- a small loan to a country for building roads is one thing, but without the U.S., things just don't go ahead. And I think the U.S. has to be mindful of that.

That does not mean that whatever the U.S. wants, happens. It's a very different statement. OK? But you cannot do some big things without U.S. support. You could not and I think you still cannot, and that's a reality. Whether you, you know, love it or you don't like it, it's a reality. It may soon be the same is true for China. That it will be very difficult to do something without the Chinese at least tacitly supporting it, but not yet. We're not quite yet there.

But on the other hand, the U.S. alone cannot make things happen either. So the need for friends, the need for coalitions is crucial despite my first statement that the U.S. is indispensable. So I think one has to keep these variables in mind when one thinks of the American role.

In many ways I'll always remember John F. Kennedy's inauguration speech where he actually very explicitly talked to the world. It was a, kind of, world leadership speech, which many of us wanted the kinds of things he was speaking of -- global development, end of poverty, the race issue, and so on -- received very positively. So I think when the U.S. threatens and when the U.S. tries to use scare

tactics, it may be effective in a sense, but certainly it is not popular. Whereas when the U.S. deploys soft power, I think it has huge potential because despite all kinds of weaknesses it might find, the United States is still something many, many people across the world, kind of, aspire to. So when it uses the soft power of the U.S., you have -- when President Obama got elected, I mean, the viewership of the inauguration, the hope that was unleashed for a world that would be more peaceful, less poor, and so on, despite the fact that it was in the middle of the financial crisis, was tremendous. So I would very much stress that the U.S. still has, by far, also, the highest potential for soft power.

MR. WEST: I don't know, I think we should stay away from inauguration viewership things. That's a really contentious topic in D.C. (Laughter)

Let's take some questions from the audience. We have a question right here. There's a microphone coming up behind you. If you can give us your name and organization. Right there.

MR. ACCASCINA: Thank you. My name is Gabriel Accascina. I'm the former director of the Knowledge Management Group at the U.N. Development Program.

My question is very basic. How do we recognize and manage signs and symptoms of a potential catastrophic risk? And this -- I think understanding and using the technology that today we have developed would play very well in Mats' new toolbox and would deal with what Kemal says in terms of trying to get government decisions in sync.

How do we inform? How do we detect signs and symptoms of a potential risk? And how do we use that to inform decisionmakers? What are the tools that we have today? How can we improve them? Thank you.

MR. WEST: OK, great question. Signs and symptoms, what should we be watching for?

Mats.

MR. ANDERSSON: A short one. The foundation I'm representing has, as I said, two missions. One is to inform and to support research on catastrophic risks. And catastrophic risks have been defined as something that could hit 10 percent of the world's population. And I think it's a moving target. We don't know what the catastrophic risk will be five years from now.

And I was at a meeting some four months ago where the former MI6 boss said that "Within 10 years, I'm sure we'll have a cyber 9/11." And somebody asked, "What do you mean by that?"

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And he said, "Coming into a bank one morning and it's absolutely nothing there. It's wiped out. You don't know what it is or what it was."

So, again, I think that you need to support science because -- and you need to use science in a way so you can inform, well, everyone about the risks we have. But the problem today, I mean, if you're talking about climate change, I mean, you can't see the change from one day to another. But if everybody understood the risks we're dealing with in that term, I think they would actually immediately say, "Carbon tax is fine." But, again, information and using and supporting science is one way.

MR. DERVIŞ: There is a political obstacle, though, in this area.

MR. ANDERSSON: Only one?

MR. DERVIŞ: Huh?

MR. ANDERSSON: Only one? (Laughter)

MR. DERVIŞ: No, many political obstacles. No, politic in the sense of how citizens perceive it often. In the climate case it actually has played out rather positively, but positively in the sense that -- not by those who actually have had to make an immediate sacrifice, you know, coal workers and things like that.

But when I was elected to represent the beautiful city of Istanbul in the Turkish Parliament, I kind of, you know, this was very new and I kind of was thinking, "Well, what is the most important thing that people ought to think about, you know?" And I had just read some scientific material on earthquake risk. Istanbul is in a zone with high earthquake risk and you can do -- I mean, you can't prevent the earthquake, but even if you get three, four minutes advance notice, you can put in place systems that will save tens of thousands, if not hundreds of thousands, of lives. OK?

And I said to myself, "Well, there can't be anything more important than working on that." And I went on TV, radio, and so on, and I sensed a terrible negative reaction. Nobody wanted to think of this earthquake. People were much more worried, you know, about the garbage being collected rapidly, terrible traffic problems, things of that sort. They almost resented me when I brought up the chance of an earthquake.

So there is this funny, you know, human thing that things that can wipe you out, you kind

of are afraid of, you try to do something about it. But unless you make it quite concrete and people feel that there is really a way, people also turn off and find it much easier to think of other things.

MR. WEST: Maria?

MS. IVANOVA: I think that the role of science here is absolutely critical and I'm glad you raised this question because this is the question at the core of what we now have come to call the science-policy interface. It used to be this understanding: the scientists do their research and then it comes to the attention of the policymakers and then they do something about it. However, that's not how the world works. Whether for the reasons that Kemal just articulated or for other institutional reasons, the scientists don't speak the same languages as the policymakers, they can't communicate those same risks, or that policymakers just have their attention on different issues. But what now the science-policy interface has come to mean is the co-design, co-production, and co-delivery of knowledge. And that is a much stronger link between science and policy.

Scientists tend to think that we are immune from the political pressures, that we need to be outside of the political sphere because science has to be pure, in a sense. And in a certain way it does have to be that way. But without really integrating into those policy issues, political issues, it's very difficult to do so.

And just one example. The United Nations has never had a scientific advisory board. Governments have science advisors or scientific advisory boards at various levels. The president of every country has a scientific advisory body. And the former Secretary-General, Ban Ki-moon, was the first one who actually created a Scientific Advisory Board at the United Nations. Irina Bokova was the chair of that board. I had the privilege to serve on that board.

MR. PATRICK: Excellent.

MS. IVANOVA: And this was the, kind of, the impetus of the United Nations to start working on exactly the issues that you're talking about. However, we now have a new secretary-general. We don't know what will happen with the Scientific Advisory Board. And so this is the trick between science and policy is that, ultimately, things are political decisions. And so whether we bring forth the signs and symptoms of potential risks, ultimately the decision to do something about it is a political decision, whether it's in Istanbul, whether it's in the United Nations, or in the United States.

MR. PATRICK: Just to underline the importance of baseline data, and baseline data visualization I think is also -- big data visualization can be very important. In a number of these areas there should probably be more scenarios modeling.

In the health field, one can imagine a much more souped-up global outbreak and response network, a GOARN, within the WHO framework. Actually in climate there's been some good news in this regard with a real proliferation of Earth observation systems and people actually being able to see immediately, and also the public being able to see immediately, what some of these impacts are and how much we're engineering our planet in ways that might be irreversible.

But one of the difficulties with international organizations is that there sometimes is a state, a member-state resistance to creating independent analytical and intelligence-gathering capabilities which might intrude on sovereign prerogatives as far as the members are concerned. So that remains a big deal.

But in terms of good data, it's interesting that the data for the -- country level data for the SDGs appears that it will be better in a lot of ways than the country level coverage for some of the Millennium Development Goals. Obviously, there are a lot more goals to look at, but I think that as we get more and more access to good data through our technological abilities and communication abilities, there's a lot to be hopeful for.

MR. WEST: All right. Other questions? Right there's a person with a question.

MR. MEYERCORD: Yeah, Ken Meyercord, WORLDDOCS. Is continuous economic growth compatible with sustainability?

MR. DERVIŞ: Yes. (Laughter) It's compatible, in my view, with sustainability provided that the regulatory policy framework makes it compatible. I think, for example, a high carbon price that is optimally even variable according to the index to the price of crude oil, for example, would be a huge tool with which to manage the climate change problem. It has to be high enough. But I think technology will then adjust.

I mean, if you look at how solar has developed over the last 10 years in terms of costs, there's tremendous potential, and solar is almost an unlimited source. So I think -- now, you know, we could debate this for the whole afternoon, I guess, but I think there's no inherent -- growth is also, you

know, growth of services, it's not growth just of materials -- it's increasing the growth of services that are, materially, very economical.

So in the foreseeable, let's say, you know, I mean, I'm not saying, who knows, 500 years or something, but let's say for the next century I don't think there is any hard constraint on growth, on increasing prosperity within reasonable numbers. I mean, you know, 50 percent a year probably would get us into big trouble. But growth rates that are of the order of 2 or 3 percent in the advanced countries and 5 or 6 percent in the developing countries I don't think face natural constraint.

What they do face, of course, very much so, is a conflict constraint, a governance constraint, a macro-policy coordination constraint. But technology has reached the point where -- I'm not a technologist at all, but I've looked into some of these fields as a growth theorist, where if the prices and the incentives are correct, the technologies will be forthcoming to economize on the binding constraint sufficiently to allow growth.

What is crucial here, because you said just growth, world growth, what is crucial here -- and I don't want to go on because that's, in a way, another question -- is the distribution of income within that growth. Some of these technologies will be very expensive. And if only the rich can afford them, they will grow and the poor won't. So there is a real income distribution problem that is very relevant -- and that maybe even in some ways you had behind your mind when you asked the question -- that is very serious and very hard to deal with.

MR. WEST: Great. Other questions? Right there is a lady with her hand up.

MS. IVANOVA: My answer to this question would have been no, but I would have given a similar answer to you afterwards. (Laughter)

MR. WEST: OK, right there is a question.

MR. DERVIŞ: That's a political lesson.

MR. ANDERSSON: My advice maybe. (Laughter)

MR. WEST: Here we go.

SPEAKER: Thank you.

MR. WEST: No, yes, and maybe.

MS. GRIESGRABER: Jo Marie Griesgraber, New Rules for Global Finance. I wanted to

ask about an inclusion process.

Excluded right now are the poorest countries who don't have such a positive image of the United States and the very poor. Also, there's a huge angry group of people in the United States who don't believe any of what we're talking about. How do we do the communication work and the listening that will make your proposals and ideas more credible, palatable?

MR. WEST: Anyone on the panel?

MS. IVANOVA: I want to say that this, the Global Challenges Prize, in a sense is that listening mechanism. When this is open to anybody, anywhere: individuals, firms, alliances, I don't know, governments. Are governments allowed?

MR. ANDERSSON: Anyone, no restrictions.

MS. IVANOVA: So to me that is a listening tool. A communications tool is much more difficult to create. Are we able to articulate the message that then people will respond to, that they will hear and they respond to? And that, I think, is a much harder challenge. But maybe we start with the listening and see: What signs are we getting from that to address these issues, to change our own narratives?

And what I find now in the U.S., because I am in an academic institution and what we do for a living is talk and listen, and the narratives have changed. Our students are much more vocal. They're much more expressive about what they think, what they think needs to be done, what they think could be done, should be done, and what they will do about it. I haven't seen this kind of ferment in society for a long time. So I think we've elevated the conversation to a different level.

But are those of us who are compelled by global governance issues able to communicate those to a large public? I don't think we're there yet. And honestly, we will need every possible assistance in the hope to be able to do that. But I do see the Global Challenges Foundation as one tool.

MR. WEST: Right over here in the front row. There's a microphone coming over to you right here.

MR. CHECCO: Thank you very much. Larry Checco. Very interesting discussion.

There's been a lot of mention of institutions this morning and I'm a very strong advocate of strong institutions, but I also understand as I've traveled around that lots of governments have

institutionalized corruption. And does that factor into your calculus when you talk about global risks and how corruption is a real deterrent?

MR. PATRICK: If I might respond to that, Larry. I think that's a really -- you've hit the nail on the head of one of the, again, Achilles' heels of any efforts to try to manage global challenges in general, catastrophic or otherwise -- is that whether the issue is protecting endangered species or ensuring that natural materials, natural resources are extracted in a way which doesn't simply line the pockets of others or that countries are living up to their responsibilities in terms of anti-money laundering, or all sorts of other international efforts. The Achilles' heel is that it's not simply that there's corruption in these countries and that they rank low on Transparency International and other indices. It's that frequently we're talking about grand corruption in which the actual leadership of those countries has become -- in a Mafia state or, you know, a fully functioning kleptocracy. And we see that in a lot of different parts of the world. We see accusations of the wealth of Vladimir Putin, for instance, or others; or members of Afghanistan; connected members of the oligarchy that's ruling China, as well.

So it is a major issue and it's not only a major issue in the places like Somalia around the world as to whether or not they're actually going to follow through on their commitments to these things and the degree to which they even prioritize them. In some cases there may be some -- you know, we often talk about the capacity of countries to actually live up to their commitments. Many times, if they're onerous or they require certain resource outlays, but in many times, as we see in Pakistan, for instance, in a variety of areas it's at least as much a question of will in terms of doing certain things. And I'm thinking of terrorism in that case, not to name three different countries.

MR. WEST: OK. Right here on the aisle is a gentleman with a question. There's a microphone coming over to you.

MR. BONPAUL: Hunter BonPaul, independent consultant. Question mainly for Kemal Derviş, but anybody else, and it relates – it starts with the assumption that problems that manifest themselves at the global level eventually start with unaddressed problems at the sub-national level because of poor governance. So it's a question more of state craft and the role of multilateral agencies, the nuance and subtlety and state craft, if you will, what it would take, best practices, for a multilateral agency to engage with a national government to prod them to take early intervention left of the takeoff

stage inside their own country, without creating one of two negative effects.

One is: It's none of your business, it's sovereignty, stay out. The other is the opposite problem: since you are so interested and you have so much money and time, why don't you handle it? How to avoid those two and yet get to the right solution?

MR. WEST: Kemal?

MR. DERVIŞ: Well, that's a very good question, difficult to answer, and it applies particularly to the multilateral development banks and UNDP development institutions. But maybe a few points.

First of all, and I think UNDP in that sense is great, have a lot of local employees, experts, and have them located in the country with interaction with the center I think is a very good model for most things. But you need some global experts, of course. But a lot of the implementation, a lot of the interaction with civil society, with governments is best handled from the field.

It's, again, one of those applications of the subsidiarity principle. You know, put the staff in the field unless there are really good reasons to have them at the center. And for some staff, there is reason to have them at the center.

The other thing is, you know, in today's geography, except for a group of very poor countries, but a lot of the countries we call developing countries have parts of themselves which are developed. Think of Brazil, think of India, think of China, think of Mexico. And so I think, increasingly, these institutions, these multilateral development banks, should become really even more global.

In other words, taking the example of the World Bank, and we had a discussion on that some weeks ago. I would see the World Bank investing in U.S. infrastructure, you know. The capital that is drawn could be partly reinvested in the U.S. infrastructure and it would actually satisfy even some of the poverty criteria in certain parts of the U.S. OK?

It has the additional advantage that when a U.S. citizen looks at the World Bank, she can say, "Well, this bank also invests in us." And I think this would be a major reform step, for example, for the World Bank, and because it would then change the perception of us and them. And I think it would be quite justified on economic terms, would be profitable for the World Bank to do, and would be -- would change fundamentally the relationship, I think, between the World Bank and the U.S., as an example.

But, maybe, let me make a third point, which is a little bit -- I'm biased, obviously. But there is a big difference between global governance and international cooperation. And in Europe you see that in particular as the difference between European institutions versus intergovernmental, interstate agreements. Both are necessary, obviously, and the majority of the world will be driven still by intergovernmental agreements.

But if we ever want to get to a world, which already exists in civil society to some degree, in business I'm not so sure -- Dani Rodrik has written a rather scathing article on that last week -- but you need a space where people can think of themselves as both citizens of their own country, but also global citizens and have a global reaction to problems. And that isn't necessarily fostered in national bureaucracies. National bureaucracies naturally and understandably and legitimately look at their country and what's good for their country, and they may be very cooperative with other countries depending on their ideology and politics. But their first reaction is not, "What does this mean for the globe?" Whereas good international specialists in global institutions, when they stay, develop, in my view, a kind of first reaction that is global and then it's constrained by many other things. That first global reaction is needed for something that goes beyond the nation state.

And, you know, the whole debate about the election of the head of the European Commission in Europe, for example, of how to elect and all that. It's only the beginning, how do you say, pains of the birth of something called global citizenship, which we won't see in our lifetimes. But not that there will be one government, but that there will be multiple identities where one identity among these multiple identities is actually to be a human being.

MR. WEST: Wow, that's an optimistic message. I like that. (Laughter) Maria, you wanted to jump in.

MS. IVANOVA: I just wanted to react to this because it made me think that our discussion has been of what can we do with the multilateral institutions, to the multilateral institutions. But what you articulated, Kemal, made me think of what can the multilateral institutions do for us as a society? And how they can change that us versus them narrative that we've had, which brings me back to that communications question. Because the new Sustainable Development Goals, for the first time, are actually universal goals.

MR. DERVIŞ: Yes, exactly.

MS. IVANOVA: Meaning that every country around the world has committed themselves to actually fulfilling those goals. The goals before that, the Millennium Development Goals, were only for developing countries. The development paradigm has always been let us help developing countries develop.

And what if we have the World Bank invest in infrastructure in the United States? What if that is part of the strategy for the United States to attain its Sustainable Development Goals? And perhaps that's a narrative that we can take to the people who have been marginalized and who have issues because all those 17 Sustainable Development Goals will be something that they will connect to, something that they would like to lobby the government and these international institutions. So maybe we have the international institutions come in and change that national governance narrative a little bit at least.

MR. WEST: OK. We are out of time, but I want to thank our panelists: Kemal, Mats,

Stewart, and Maria. Terrific job of highlighting both the risks and possible remedies, and I thank you very

much for coming out and doing this. (Applause)

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CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally

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