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BLENDING CLIMATE FINANCE FOR LOW-CARBON INFRASTRUCTURE

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P R O C E E D I N G S

MR. BHATTACHARYA: Welcome everyone. My name is Amar Bhattacharya, I'm Senior Fellow of Global Economy and Development. It's a privilege for me to open this session. I'm glad that so many of you were able to make it on a rainy Friday morning. But, that's better than a rainy Friday afternoon.

So, I wanted to begin by setting a little bit, the context, and then turn the proceedings over to my colleague Josh Meltzer, who's the main star of the show. I think it's fair to say that Paris was a landmark agreement at a time when such a landmark agreement was needed in terms of tackling perhaps, most the important challenge of our time which is climate change. And, I think it is -- it was indeed a time when all countries of the world where the private sector, the civil society came together with a sense of purpose, ambition. That really is one of those moments that I think we can feel proud about in a world that is quite fragmented and divisive at this -- in this day.

But, having said that, I think it's also clear that the ambitions of Paris are, in some sense, not going to be met if we stay with the present trajectories that we are on. You know, if you look at the goals of the one and a half degrees, and you look at the aggregate commitments that have been made to date, we are more in the two to three degree world, rather than the one and a half to two degree world. So, there's still a lot to be done in terms of ramping up ambition.

And, it's also fair to say that since Paris, the impact of climate change has become even more evident. You know, we now know that, you know, the top 20 hottest years that the planet has seen has been since 1995, and the top five has been since the 2000s -- in the 2000s. So, you know, there's clear evidence of climate change happening, and with it, severity of -- and extremities of climate including floods, and droughts, and the like.

Now, at the heart of this challenge, actually is what my colleague will talk about, which is sustainable infrastructure. Why? Because so much of emissions come from sustainable infrastructure, and because sustainable infrastructure sets a trajectory that lasts, not just for decades, but for the future because it's the way in which we set the future patterns of growth. But, it's not only about climate, it's of course the foundation of growth itself, and it's the foundation for sustainable development including the attainment of the sustainable development goals. So, in a sense, therefore, sustainable infrastructure, which is really the story of the new growth paradigm. It's actually not about costs of investing in climate, but the opportunities that now come from a very different kind of growth than we have had in the past.

But, in order to do that, we need to do two things. We need to scale up the investments in infrastructure, and we need for that infrastructure to be very different than it has been in the past. And, the term that we use is low carbon infrastructure, as a way to signify that this is actually a very different kind of infrastructure. And, the financing challenge for that is huge. We know that some 90 trillion or so will have to be invested in infrastructure in the next 15 years or so. And, we know that a very large proportion of that has to be low carbon infrastructure. But, how do we go about doing that? What is going to be the role of the private sector? And, what's going to be the role of multilateral development finance, and the role of concessional finance? That's the discussion that you are here for. And, to kick it off, I'm going to ask my colleague Josh Meltzer, who I've had the privilege to work with now closely on these topics for three or so years. He has prepared a paper, and on the basis of that paper, he will share the findings. And, I think it's particularly important that we recognize that we have had an architecture that has flaws, but also a lot of success. In particular, I want to commend the role that climate investment funds have played. But, unfortunately, and this is my

personal view, just at the point as it was beginning to fly, the international community decided, in its wisdom, to clip it's wings. So, I would like to also highlight that we still have a lot of work to be done in terms of a robust architecture, and that's a discussion I hope we will have when we have the panel. I will introduce the panel after Josh has made his presentation. Thank you. (Applause)

MR. MELTZER: Thanks Amar. Thanks for the introduction. And, it's great to be here, and thank you for everyone for making it out here today. The world core infrastructure, as Amar mentioned, we can think of as including our transport and energy systems, buildings, industries, and land related activities, produce approximately 60 percent of global greenhouse gas emissions. Yet, as we've heard, we've also got very significant infrastructure years, needs. Over the next 15 years or so, approximately $90 trillion in infrastructure needs to be built. And, meeting this infrastructure goal itself would require dabbling the global capital stock. Now, unless the infrastructure that we build is what we call low carbon climate resilient -- I'll refer to it as LCR infrastructure -- the world is going to lock itself into a high carbon pathway, and miss the Paris Agreement's goal of well below two degrees Celsius.

So, we think of LCR infrastructure primarily as being investments in things like renewable energy, low carbon transport systems, and energy efficacy measures. This diagram here shows the LCR infrastructure needs in business as usual. So, what we can see, that under business as usual, approximately between $53 and $70 trillion of infrastructure that is going to be built could be low carbon. And, we get this range because some of this infrastructure is very conditional in nature. For instance, building gas fire electricity could be consistent with a two degree goal if gas is a bridging fuel to a zero carbon electricity source. Similarly, when you think about transmission and distribution, it all depends on the electricity source running over that infrastructure. Yet,

to build the necessary amounts of LCR infrastructure that would be consistent with two degrees, requires approximately, an additional $13-1/2 trillion investment, primarily in renewable energy and energy efficiency which points to an annual finance gap of approximately $1 trillion per annum.

The diagram up here also shows that under a two degree (inaudible), there's going to be significant reallocations of investment. So, we're going to get less investment in fossil fuels. We're going to also require less investment due to more compact cities. And, this lays to approximately net increases in investment of around $4 trillion over that 15 year period. And, this doesn't take into account additional possible savings from lower operating costs from low carbon infrastructure, which has been estimated at around $5 trillion. And, it really underscores, I think, the point that Amar made in the introduction, that there is no inherent tradeoff necessarily, between building low carbon infrastructure and growth and development.

As noted, whether we build low carbon infrastructure is also going to be key in terms of meeting the sustainable development goals. So, around 60 percent of the LCR infrastructure needs are going to be in developing countries. And, the link between building the LCR infrastructure and the climate and development agendas are linked in multiple ways. So, for instance, you think about the impact of climate change which is being most acutely felt in the developing world, and the most vulnerable people. And, this link, in fact, between development and climate is reflected in the STGs themselves. Building LCR infrastructure also has a direct effect on development outcomes. So, for instance, building low carbon renewable energy, instead of coal fired power plants, can reduce air pollution and produce both outcomes, building more compact cities with access to mass transit effects access to other key infrastructure services, such as education and health.

But, a key challenge here is financing the needed low carbon infrastructure. We know that public finances are constrained. And so, private capital is going to be key to meeting these investment needs. And the estimates are that anywhere between a third and a half of the incremental investment needs are going to have to come from the private sector. Increased private sector investment in LCR efficient -- LCR infrastructure can also produce significant efficiency gains.

Fortunately, as this diagram underscores that there is no shortage of private capital globally. In particular, we can see here that institutional investors have assets under management of approximately $85 trillion, which is expected to grow to a $110 trillion by 2020. Yet, currently allocations to institutional investors into infrastructure are low, and summated around one percent of total asset allocations. There's also a shortage of other private capital for infrastructure, and particularly for LCR infrastructure in developing countries.

Now, this lack of investment in infrastructure, by institutional investors, as well as the private sector, more broadly, is due to a range of infrastructure risks, and other barriers. LCR infrastructure, as well, carries particular risks. So, for instance, limited investment track records for new climate technologies raises investment risk. Reliance on government support for LCR infrastructure, such as fading tariffs or subsidies, correct forms of political and policy risk.

LCR infrastructure risks are also even higher in developing countries when you think about political instability, poor investment climates, and currency risk. A lack of a carbon price in fossil fuel subsidies, also mean that the full social cost of investing in high carbon infrastructure is not properly reflected in investment decisions. We also know that LCR infrastructure risks vary over the project lifestyle. So, for instance, risks are particularly high at the project preparation stage due to challenges

related to developing often complex infrastructure plans, and obtaining things like permits. Then as project construction commences, risks grow even further due to macroeconomic risk, business uncertainties, potential construction delays, permit cancellations, and shifts in availability of finance. And, it's really not until the project is up and running, and generating a cash flow that risks decline, and there is a potential for return on investment. In addition, we have knowledge of viability gaps such as when projects fail to generate revenue streams to make debt servicing obligations, or lack of local capacity to structure private projects.

This diagram just underscores this notion that as a consequence of these LCR infrastructure risks, the cost of capital climbs, and finance becomes scarce. So, even where an LCR infrastructure project should proceed because of social rate of return when we take into account, the development of climate benefits are particularly high, the internal rate of return that the investors receive is below the cost of capital, and the project doesn't get funded. So, this in turn, stymies LCR infrastructure projects, and it also diverts investment into what is often lower cost, but higher carbon alternatives.

So, addressing these LCR infrastructure investment challenges requires aligning public and private finance in a manner that allows for the full range of risks to be born. Now, combining sources of public finance such as from the multilateral development banks and the multilateral climate funds is a form of blended finance that can reduce risk, lower the cost of capital, and crowd in private sector finance into LCR infrastructure. Now, the MD base in particular, have the knowledge and financial position to play a central role here, blending their own capital with climate finance to reduce risk and crowd in private sector capital. And, the MDBs, we know, are increasing their investments -- their climate investments, yet they also face constraints, in terms of the amount of finance that they can provide, and the risks that they can accept.

There are also a range of multilateral climate funds. In the paper that you've picked up when you came in here, we focus on the climate investment funds, the Global Environment Facility, and the Green Climate Fund, which cover approximately 90 percent of all multilateral climate finance. And, these multilateral climate funds are themselves, blended finance facilities, which are designed to co-finance with other public and private sources of capital. And, these funds can have the greatest impact by addressing the financing barriers to LCR infrastructure by providing small amounts of highly concessional finance alongside other public finance to reduce risk, and crowd in private sector capital into transformative, low carbon, climate resilient projects.

Now, the MDBs also provide concessional finance. About a third of MDB finance of their loans are concessional finance. But, often the multilateral climate funds are actually providing even higher concessional finance, particularly when it comes to lending to middle income countries, where the climate needs and the LCR infrastructure needs are most acute. And, while some World Bank finance is, for instance, on loans similar to the Harley Concessional, if we take the claimed Technology Fund finance, it is often directed and limited to low income countries.

This stylized figure here shows, basically, the risks and cash flows over a project (inaudible) and some of the scope for multilateral development bank, multilateral climate funds, and private finance to come in and blend. So, first, we need to underscore that we need to use MDB, and the climate funds to improve countries' enabling environment. This can reduce risk across the entire infrastructure project life cycle, and include for instance, strengthening investment environments and institutional capacity. And often, a lot of this is already being undertaken by the MDBs as part of their broader development mandate. The MDBs are also supporting more targeted efforts to build

infrastructure specific enabling environments, such as their engagement and support for the global infrastructure facility.

But, often here this work is focused on infrastructure and not necessarily, low carbon climate resilient infrastructure. And, this is where the multilateral climate funds can be used to link MDB support for enabling environment work with efforts boost country level capacity to assist low carbon resilient alternatives, and to help build a pipeline of LCR infrastructure projects. At the project preparation stage, financing is often very scarce, and the private sector risks are high, and they're often relying on short-term bank loans or sponsor equity. And, this is where there's a key role for both the MDBs and the multilateral climate funding, the three grants, and other forms of assistance to help overcome that, particularly in developing countries. Also, there's clearly a role here for developing the capacity to consider, for instance, use of best available climate technologies at the project preparation stage, or building in consideration of the Paris Agreement below two degree goal into the broader set of aims for that infrastructure project. And, once we move into the project construction phase, obviously, more and more finance is needed. And, it is this point that high costs of capital can really make projects infeasible, and where the blending of both MDB, and multilateral climate finance is key to reducing risk and bringing in private sector capital.

At the same time, we also see that the approaches to financing infrastructure are evolving rapidly. As the multilateral development banks in particular, ramp up their climate financing, and are guided by the cascade approach to finance, which emphasizes risk mitigation before direct loans, the multilateral climate funds should be prepared and able to address the remaining financing gaps.

Now, using scarce public finance to crowd in private sector capital into low carbon climate resilient infrastructure leads to a focus on rates of private sector co-

financing as one measure of success. So, for instance, the Clean Technology Fund has co-finding ratios of about one to nine and a half. The Global Environment Facility reports 1 to 13. And, the co-financing occurs both at the project level and at the fund or facility level. So, for instance, the multilateral climate funds invest directly into low carbon climate resilient projects, but they also invest into what I refer to as domestic financial entities, which then un-lend to further LCR infrastructure projects.

So, here a complementary measure of success picked up this diagram is this notion of leverage, which captures a larger financing envelope that includes additional resources committed either as a result of the infrastructure project, or due to other policy reforms. So, for instance, this could include the building of a renewable energy project as a result of public investment into transmission and distribution. The diagram here also, I think, underscores really, the importance of strengthening and enabling the environment for LCR infrastructure, the capacity to reduce risk across the infrastructure lifestyle, which should create opportunities for private sector capital to come in and to free up the multilateral climate finance, and then invest in even more high risk and transformative LCR infrastructure projects.

In the paper you've got, we then do quite an analysis of the importance, particularly, of the Clean Technology Fund, which is the largest provider, to date, of blended finance. And, it provides, I think, some important insights on the success and outcomes of the roles of blending in crowding in private sector capital for LCR infrastructure. And, the dotter in the paper encompasses 126 projects, with CT finance -- claim technology finance, one of the funds and the climate investment funds of about 5.25 billion. And, the following conclusions range, and they link allocations of finance and risk levels, is worth pointing out that some of this is tentative, particularly allocation of risk levels. It is often projected specific, and country specific, which limits the ability to

compare these across country levels. But, some of the key findings from the Dash, for instance, are that the majority of claim technology finance has been in the form of highly concessional, so called, soft loans, which also went towards investments with the highest risk, which we would expect to see. The Clean Technology Fund's share of total finance was highest for projects with the highest risks. And, at the same time we also see, though, that the CTF was most successful at mobilizing private capital into highest risk projects.

Now, the paper also distinguishes in there between direct investments, which I mentioned before, and investments into domestic financial entity to then un-lend. There's a whole -- I'm not bringing up all the different slides, you can sort of just go through them in the paper. But, essentially, as I said, investments in these domestic financial entities capture some of the impact of investing in capacity building to improve enabling environments. And, it also picks up one of the dimensions of this notion of leverage, about how an initial investment in the un-lending can then provide additional opportunities for investing in LCR infrastructure. Now, investments in domestic financial entities tend to be a lot smaller than direct investments into projects. There tends to be things like improving energy efficiency or distributed solar projects, which is in contrast to the direct investments which are in larger projects such as into concentrated solar, or wind energy. So, for instance, in terms of a domestic financial entity investment, there's one in Turkey, where the claim technology fund supported the development by financial intermediaries to lend for energy efficiency purposes.

Now, direct CTF investments into LCR projects have mobilized more private sector capital than they have through domestic financial entities. Yet, as noted through the domestic financial entities, and through their un-lending, they can then leverage additional sources of public and private capital. So, to take one example, which

involved the IFC and the JIF in the China Energy Efficiency Program, which then involved, basically, a grant to banks that lent to market participants such as utilities and businesses to implement energy efficiency measure. Now, the IFC estimates that that grant mobilized about 1.5 times private sector capital into the initial investment, but if you take into account the un-lending that then happened, that becomes three times the private sector investment.

So, the paper, I think, shows that the multilateral climate funds, and specifically, with a focus on the Clean Technology Fund, it produced real success in blending with MDB finance to mobilize private sector capital for low carbon infrastructure. It's also been very good at mainstreaming, more broadly, climate into the MDB work. One of the finds in this paper is that there may be a need, also, to improve the ability of multilateral climate funds to take on more risk when it comes to investing in LCR projects. Now, certainly, I think the CTF has a good track record in pushing the risk envelope. If you look, for instance, building out the concentrated solar market in Morocco, for instance. But the high levels of private sector mobilization at the higher risk level suggest that they may be scoped to move that further. And, this ultimately may also, I think, require donors to be prepared themselves, to accept more risk.

Another point worth making is that co-financing as a metric of success is important. And often, investing small amounts of public finance and mobilizing high levels of private sector capital is seen as a good risk management strategy. Yet, at the same time, I think we also need to avoid overreliance on co-financing levels for a couple of key points. One is that high private co-financing into a project can also signal a lack of risk taking by multilateral lenders, and could even signal some crowding out of the private sector. There's also not necessarily an inherent link between high private co-financing and climate outcomes. So, this suggests there may be projects with high risks, where

private sector (inaudible) will be limited, but the climate outcomes may be very significant. And, finally, the capacity for both the MDBs and the multilateral climate funds to mobilize private capital is going to depend crucially on the availability of a bankable projects. And yet, we know that lack of bankable projects remains a key barrier to increasing investments in LCR infrastructure.

So, this also suggests that there's a role for looking more closely at leverage ratios. Also, alongside co-financing to assist how the MDBs and the multilateral climate funds have been successful at mobilizing private sector capital. Certainly, such ratios are harder to measure than co-financing, but they're likely to be one of the key channels by which we move from billions to trillions, and we scale up the financing needed for low carbon climate resilient infrastructure. Thanks. I think I'll leave it at that. (Applause)

MR. BHATTACHARYA: Many thanks, Josh. If I could ask the panel to come up. Thank you. Can everybody hear me? Good. Okay, so on the basis of that really great presentation, Josh, I think I want to have a conversation now around a number of themes.

I want to begin with where I actually started which is the scale and urgency of the challenge. In the next 20 years, the world economy will double. In the next 40 years, the world's urban population will double. And, as a consequence of those trends in the next 15 years, as Josh pointed out, the stock of infrastructure will double. And, at the same time, during that period in the next 15 years, we know that carbon emissions must come down by some 25 percent. So, that's the context. And, the frame of action, of course, is Paris. And as, we started by discussing -- by saying Paris is great in ambition. It has set processes in place. And, one person who has been very closely associated with many of the -- with the follow up processes is John Roome.

And, I'd like to ask you, John, to begin the conversation, and then I'll turn to the other panelists. But, before I do that actually, I was remiss, I should introduce my panelists. So, let me begin, starting with the right. We have, actually, a great line up, Mathieu Pegon from the Inter-American Development -- I have to get the corporation now right (Laughter) -- the private sector of Inter-American Development Bank, working on Blended Finance. He is our first panelist. Sitting next to him on his left is John Roome. He is the Senior Director for Climate Change at the World Bank, and as I mentioned, he has really been at the epicenter for much of the discussions on the follow up to Paris. Last, but not least, Kruskaia Sierra-Escalanta from Manager of Blended Finance Unit in IFC. And, she also heads the MDB group on blended finance, so she has a great purview of the broader discussions on blended finance. And, of course, Josh Meltzer.

So, let me turn to you, John, if you could maybe set the context, and what do you think is needed now to raise ambitions? And, where -- we had this meeting in Brussels yesterday, and recognition that 2020 is going to be a key year. But, can you help set the context for this discussion?

MR. ROOME: Thank you. Good morning everyone. So, just a quick comment on the scale and the urgency to supplement what Amar said. It's not only we're going to have to double the amount of infrastructure that we've had, it's got to be low carbon resilient. If we get it wrong, and we can't address climate change, we're going to have 100 million more people in poverty by 2030. We're going to have up to 143 million more climate migrants in three regions, and we're going to -- we're already seeing losses due to adverse weather related, hazardous events of over $500 billion a year. That's if you get it wrong.

The flip side, IFC has calculated that the value of business opportunities in the largest NDCs is $23 trillion. We also know that if we take action that will address

climate change, we can reduce congestion in cities, we can increase economic productivity, we can reduce air pollution. So, you've got a balance here. In terms of urgency, to put the numbers in a very colloquial way, we've got to peak emissions by 2020. We've got to half those emissions 10 years after that, we've got to half emissions 10 years after that, and we've pretty much got to be carbon neutral by 2050. That is a huge challenge that we have available.

Now, lots of good things are going on. We've got technology on our side, prices are falling. And, as you look around the world, you can see a number of individual financial institutions saying, we want to put more money in. You have a few countries doing carbon budgeting, and putting the right policies in place. We're seeing carbon pricing edging up here and there, and we've got some very good projects. And, we from the World Bank, we committed to deliver -- World Bank Group -- 28 percent of our climate finance by 2020 to climate. Twenty-eight percent of our overall financing to climate by 2020. Twenty-eight percent. We're now at 32 percent at this point in time. So, that's good, but we had our meeting with our board and they said, you got to lift your game. Because as good as these things are that we're talking about, it's just simply not at the scale that we need it to happen.

So, what does it mean to lift ambition? One piece is, I think we need to go from nice projects, and good examples, to systemic change that actually allows investments to step up at scale. And so, we're trying to think very much about this within the World Bank Group in terms of how every project that we get involved in is not only for the benefit of that project, but how does it create a new industry? Like we did in neuron CSP. We didn't do that project and put that amount of financing in it, just to have the impact in one project. It's got to have the spillover effect. How do we create factory

markets? How do we create decentralized energy markets, et cetera, et cetera, et cetera? We've got to go from the individual project to the scale.

Having said that, we think it's very important over the next three to five years to actually show progress on the ground. Much of the stuff that Josh presented is pretty well known now. The storyline, I think, is pretty well accepted. The question is, putting it into practice. And so, finding cases where we can blend this financing, in an effective way, in ways that create new markets, that crowd in the private sector, that direct public finance, to bring the policy. We've got to prove it on the ground. And, there frankly, I think we have to work with proven mechanisms that we have, and that we'll come to that later. That's why I think mechanisms like the CTF are absolutely critical.

What would that systemic response look like? The way we think about it is in three blocks. What do you need? You have to build the demand sight. And, that means taking the MDCs, and everybody talks about translating the NDCs into investments. Yes, but into policies is probably more important. And, when people talk about lack of bankable projects, it doesn't necessarily mean that you don't have an engineering blueprint for some nice investment that you want to make, it's that it's not a bankable project, which means you don't have the risk mitigation mechanisms around it to allow you to take it to the bank. So, building on that demand site is absolutely critical.

On the other extreme, you need to look at the supply of financing. This financing comes from government financing, and from private sector, and from MDBs. There are reforms that can take place in each one of those areas that can systematically help the direction of that financing. MDBs, we need to be focusing much more on creating markets in the aggregate leverage. Not co-financing ratios (inaudible), I agree with you. But, how do we create this leveraging? Governments. There's a huge amount of public expenditure that's going in. How much of this is truly screened to be low

carbon? How many ministers of finance are really looking at this expenditure, and only allocating if it is driving us in this direction? It's got to happen systematically. And then, the private banks, all of this stuff that's moving on disclosure, on simplification of a number -- all of that is important.

And then, in the middle on intermediation, we've got to do a better job on systematically dealing with intermediaries. What do I mean by that? First of all, risk mitigation mechanisms, tiered financing, first loss provisions, guarantees. All of these mechanisms could be used much more systematically. And then, there are issues of what we would call standardization and aggregation. Basically, in aggregation, if you just simply have individual deals that are being put together, all of those trillion dollars from the private sector is never going to go in there, unless you can find a way of aggregating that up, and standardizing the product. Because, they're not going to get involved for a $20 million investment, where they have a project here that looks like this, and a project there that looks like that. So, to crowd this in, focusing on that intermediation pieces is the third, most important piece.

MR. BHATTACHARYA: Thank you John. We come to the role of the MDBs in the next round. I just wanted to stay with this context, and see if -- let's here from the Regional Development Bank perspective, and from Latin America as a case example right now. How do you see the challenge in the region? It's the region, actually, which has perhaps done the best in terms of removals because of its natural endowments. But, in some sense it's being very challenged right now, partly because of the impact of climate change. So, how do you see the investment agenda in the region, and what do you see as the contribution that needs to be made?

MR. PEGON: Thanks for having us today. The infrastructure agenda, in a way, is pretty straightforward as a 300 trillion funding gap for sustainable infrastructure

in Latin America, and that's twice of what's been financing right now. So, the volumes and the lack of financing are pretty significant. On the other end, it's hard to say that, if you're in a region like Latin America, and the Caribbean, and you talk with investors, you do see a shift from those investors. Where, for them, investing in no carbon, or investing in climate resilient infrastructure, is a sound business case. So, it's no longer something that is good to do because you look good, it's something that makes sense for them. So, for an insurance company having its long-term assets that are climate resilient is something that is extremely important for us -- for them, sorry.

Conversely, the risk of having their assets are insured and that becomes (inaudible) is also a big issue for them. So, you do have demand on the investor side to getting to those investments. So, the question is really, why are they doing it? I think it ties to what we were discussing previously. The role for institutions like ours, it's not so much to try to maximize co-financing in a given transaction, but really looking at addressing the market failures that are preventing those investors from getting into those projects.

From what we see, there's probably three big items that's we're seeing in that space. The first one is mispriced externality. Interestingly, not so much on climate mitigation because, I guess, right now you can make the case that this is a sound business proposition from a pure financial standpoint, but this is something that you see very much in the case of adaptation. I would argue that in most cases for climate adaptation, it makes sense from an economical standpoint to invest into climate adaptation, but we haven't' internalized yet, this economical added value.

The second on is information failure, and the textbook example for that is energy efficiency. And, everybody knows that energy efficiency makes sense. There's a

very short payback period. Nonetheless, we've been lagging beyond the term of investment for energy efficiency.

And, last but not least, what I would personally call the first (inaudible) advantage, is that there is a market inertia, especially when you try to go to institutional investors. You got to do it -- there needs to be someone to do it first in order for the other to come in. And, this is especially true if you get into complex structure, this is especially true if you want to tap capital markets. This is an extremely conservative active base -- sorry, investor base, and there's really a lot of added value in trying to pilot those new structures and support those new structures, so that eventually somebody will pick it up, and it's going to be financed on its own.

MR. BHATTACHARYA: So, maybe Kruskaia, I could ask you to build a little bit on that. I mean, one of the issues -- one of the failures -- so one failure is basically the lack of familiarity.

MS. SIERRA-ESCALANTE: Mm-hmm.

MR. BHATTACHARYA: Another is unproven technologies in this area more, as Josh said. A third aspect is really the cost of capital -- the underlying cost of capital in emerging markets is high, often for macroeconomic reasons, not micro reasons. And, that of course, then is an indigenous proposition in the sense it makes the investment less viable.

MS. SIERRA-ESCALANTE: Mm-hmm.

MR. BHATTACHARYA: And, a final aspect is that a lot of what we are trying to produce is a public good. And, you have to think about affordability of that good for the person who is going to consume it. So, when you combine these, there are -- there is a case for blending, but with different considerations. And, you have been

thinking about blending principles. So, from that perspective, how do you see that in the context of this specific challenge which is blending climate finance?

MS. SIERRA-ESCALANTE: Thank you very much, and thank you again for the invitation. I think, I will pick up exactly with your leaving me, which is on the affordability and walk my way through that. On the affordability case, I mean, what is clear is that the blended finance needs to be used to try and bring it to the ultimate consumer at an affordable price. For that, we could support a lower interest rate loan, but most of the time that's not the right instrument. So, in some of these cases, the best approach that we have toward affordability is when we start very early on -- upstream work. So, as Oregon Group, we have this solar initiative. And, that is when from the time that the government is thinking about auctioning a concession, we are integrating the offering that we can have. So, that if we have a piece of concessionality that we can offer, we can make it visible to the participants in the market. Then, those participants can internalize that blended finance, and be in a tariff that is affordable. So, it really depends what you want to tackle the instrument that you're going to use.

You mentioned the lack of familiarity. The lack of familiarity leans toward what Matthieu was saying. Some of it is the first mover disadvantage, because they are taking a lot of the heaviness of the process, the improvement policies, perhaps the technology that has not been (inaudible), and for that, a reduction in the interest rates so their cost of funding becomes affordable. So, along with a reduced interest makes sense. You are trying to really help them, incentivize them to go there.

Then, when you think about technology and new business models, you may need a new interest rate, you may need to also play in the upstream, but the reality is that you need to raise mitigation. And, raised mitigation can come in two forms effectively. One, which is your (inaudible) facility, in which, usually even if it is a market

that has a lot of liquidity, you can simply stay behind as an MDB and say, I'm going to provide you increased mitigation in the form of a guarantee if something bad happens.

On the other hand, there are other markets with liquidity as a big issue. And then, a subordinated law. So, you are bringing the funding. You are crowding in the senior lenders to come in, and at the same time you are saying, if there are events, I'm going to be here to basically delay my repayments. So, the climate investment funds has allowed us to do both. Although, a lot of the portfolio as it was mentioned is on senior loans with lower interest rates, we have a number of transactions that have been subordinated loans. And, if you target the subordination to actually, the market failure, it's a very powerful loan. It's a very powerful instrument because the other aspect that I don't think Joshua mentioned is that in some cases then you get to protect the capital of the public sector. So, the CTF has been very successful in being able to protect the principle, which means that then you can reuse it again.

And, that is stability, and I think you mentioned laborers differentials between the Global Environment Facility and the CTF. And, what you will see there is the Global Environment Facility has mostly used grant instruments, which means that once the money is put out, it's used. On the climate investment funds, a lot of what has been done is concessional finance, which means that there is the possibility of that money to come back and have the opportunity to put it back. I think with bilateral funds, you see that trend now going on to what is called the concept of returnable capital.

MR. BHATTACHARYA: So, if I -- Matthieu, if I could go back to you, and I'll come to John on correcting some of these elements. But, the Inter-American Development Bank, as a group, came out with the idea of NDC Invest, which tries to bring together many of these elements in terms of programming, in terms of the technology on the uncertainty side, and building the pipeline out and the policy. But, then

on the financing. How much -- what would you say are the lessons from that? Because I wanted that as a complement to some of the discussions we've had.

MR. PEGON: Thanks, Amar. That's a very good question. First, the value of NDC Invest is that it's a platform, and it's a platform that is recognizing that you can't address a given issue by just providing financing, or just by looking at improving the regulation, or just by looking at providing studies for accountability of the project. If you want to be successful, and if you want to be efficient in using a scarce of public resources, you need to think about that as a whole. And, that's really the key lesson learned, and one that we've tried to apply with one of our recent bilateral fund with the United Kingdom that is targeting sustainable infrastructure. Where we tried to put a strong emphasis from the get go in structuring this fund about having this sort of global approach to addressing those market failures. So, this is not only a blended finance facility. This is not only a public sector technical assistance facility. This is not only a technical assistance facility for a project. We can do three of those, and the idea is that by doing that we create a (inaudible) effect that is much more powerful than by looking at those different things separately.

MR. BHATTACHARYA: John, I want to open the discussion to the floor, and have some interaction. But, before I do that, I wanted to come back to you and take up the last spot of the discussion which is, as you said, a lot of the generalities are now known. The question is, how does one get traction at the country level? And in that, particularly, what is the role that the multilateral climate funds can play in enabling the larger beast which is the MDBs mobilizing the private sector? Because that -- you can think of that as leverage on leverage. So, the instrument for getting the private sector in your institutions. But, your institutions are constrained in dealing with some of the marker

failure and one of the things that is not well recognized is that actually providing risk guarantees eats up a lot of capital.

So, if the MDBs are going to do more, and particularly in the areas that we talked about, which is unproven financial structures, unproven technologies, and first loss guarantee type of stuff, either with liquidity et cetera. Then in some sense, the model that has been built up is actually a powerful one. How do you see, therefore, the future in this area, and what are the gaps that have to be addressed?

MR. ROOME: Okay. Thanks. So, what I'd like to just start with by saying the multilateral climate finance architecture, right now, is very complicated with a large number of funds that are trying to do different things. And, I think part of the difficulty comes from the fact that there are multiple objectives from different stakeholders. It's all very well to have one objective that says there's a climate justice. And countries need direct access for small amounts of money in order to lubricate the -- 10 million here, 50 million here -- to implement an adaptation product there as part of the overall financing. That's fine. But, I think we need to keep that very distinct from how we're going to use the climate finance architecture to transform structures of economies to create markets to mobilize the MDBs. As MDBS, we should not be in the business of financing a small project here a small project there. It's more -- we should not be using climate for that, that's a separate business niche. It's a completely different business model.

What we can bring, is we can bring scale, we can bring experience, we can bring presence on the ground, we can bring an ability to deliver high quality product across public and private sector, we can move the dialogue, and we can -- at least at the World Bank is -- we're at least a little better capitalized than we were a little while ago.

So, we have some capital that we can -- we can put $50 billion a year on the IBRD side, and significant amounts of money on the IFC and meager side.

The challenge is to find an efficient and effective way of using international concessional climate finance to leverage what we're doing. And so, part of that -- so, there is an effectiveness piece. And, I think it's important to be able to establish, across the community, what should you use that concessional finance for? And so, we've said, anything you're going to use, number one, it has to be aligned with the Paris objectives. Something that's interim and nice, but won't get you there in the long run, we should not be using it for it. Secondly, we should focus on the most difficult problems. And, third we should focus truly on transformation. And, that means that we should not just be allocating money based on an individual project here or there, but on what that contribution is to breaking open the market and doing something much more systematically. So, that's on the effectiveness side.

On the efficiency side, we've got to have a system where you have a significant amount of money that's available in predictable volumes, with a clear business model that aligns with what the MDBs can do to build off the comparative advantage of the MDBs, and is low transaction cost. And doesn't include various forms of second guessing and extraneous things that are put on the top. And, this is why I think the Clean Technology Fund has been very successful. It's a proven technology. Now, is it possible to create another fund, to build up another fund like the Green Climate Fund, so that it can do this? Yes, maybe. Maybe in 5 or 10 years' time, you're going to get to a situation where you can create another fund. But, why would we do that when we have an existing vehicle that can do this right now? So, finding ways of -- I think we've really got to stop trying to make the perfect enemy of the good. Where we've got mechanisms at work, let's scale them up, put the resource in it, and keep it moving.

MR. BHATTACHARYA: So, I want to stress a couple points that you've mentioned, and then get others to come in. I think, as you said, the key is systemic transformation. That's -- and the second is the primary comparative advantage for that in the international architecture rests with the multilateral development institutions because they operate all the way from the planning, to the policy, to the finance. And, they can bring about change. And, it's not about one project at a time. But, what you need as a counterpart also, is systemically concessional finance so you are able to do things much more programmatically. That's what I heard you say.

And, I think -- my personal view again, is that climate investment funds and the CTF in particular, established that track record in a very effective way because it was that very close partnership with the multilateral development banks that was the key to its success. Now, given that background, I mean, how, from your side do you see -- I turn now to you, Kruskaia, from the IFC side, how do you see the future? I mean, what do you see, therefore, is what's needed? And, the same question to you Matthieu.

MS. SIERRA-ESCALANTE: Thank you. I'll get it started with this (inaudible) the certainty and the availability of the funds that is key for the private sector. Because, although I am fully in agreement with John that we need to have the overall transformation, the private sector, at least the private sector that is creating the projects, see it as a project by project intervention. And, it is the MDBs that can do the translation and say, this project really can have the demonstration that makes it transformational. And then, also, we can do the translation with the sources of finance that are pure private sector, with the institutional capital, where we say, we are going to package these transactions for you, and let you invest on a large platform, which is basically what IFC has been doing in infrastructure through our managed co-lending portfolio platform. And, I think it is that translation that puts us in a very unique opportunity to do that. We cannot

do that translation if we do not have the sources of finance available for concessional finance.

Others have said here, it is important to understand that there is already a lot of sources there. And, at IFC, we have been able to prove that that complementarity of sources can work very well. We have been -- uses of the funds that we have had through the climate investment funds, about 50 percent of what we have done since FY 10, comes with the sources of the climate investment funds. Then, we know that we have been able to use very effective bilateral funds that we have with Canada, and more recently, with Finland. And, that we can use that as well. We are also an accredited identity of the Green Climate Fund. I'm hopeful to be able to put strong partnerships there as well, as we start moving this. And, I think the important thing is how do we leverage what is already there? So, that we can keep moving effectively to more scale up. I mean, neither on the instrument side, nor on the funding, which will be trying to reinvent the wheel.

MR. BHATTACHARYA: So, Matthieu, I mean, you at the IDB of course, have a similar partnership now with UK Base, which has a lot of positives. But, I'm a humble academic. I can say things that you guys can't. (Laughter) Does it make sense to have a lot of fragmented funds, or should we be multi-lateralizing some of this a little bit. And why, as John said, why not invest in something that's been working, and use that? Because in some sense it's a repeater gain, in partnership with other players. But, why not get a little bit more coherence and scale in the architecture?

MR. PEGON: It's a good point (inaudible), and let me give you some figures from the transactional perspective. We -- IDB Invest -- we invest approximately 800 million of concessional resources. Now, those resources come from six donors, whether they are multilateral or bilateral, they are divided into 17 pots of money. And,

each pot of money is going to have its own mandate, maybe its own country restriction, maybe its own focus. And, really a difficulty for teams like ours is, how do you balance the perspective of the donor which is going to be very supply driven from the perspective of our client, because we work with the private sector? That argument driven, and what's the right balance? And, it's something we're being able to do more and more with the CTF. And, the flexibility we've had in the CTF into going to -- if things are a little more exotic, for example, in terms of financial structuring, and allowing us also to experiment. It's something that is extremely important. You -- it's very difficult to scale, or to replicate something that you haven't tested before.

And, you do realize that much of the testing is actually opportunistic. It's a client that calls you that is a friend with another of your client and says, hey I have this great technology for an energy efficient street lighting, and I have a model that I believe is bankable, even to work with municipality, which is something we've done with the Canadian fund and the CTF in Mexico where we built an entire financing structure that was brand new. Where we felt that that financing structure allows us to divide the municipal risk that was otherwise preventing this project to move forward.

So, in that sense, fragmentation is obviously not that great, but at the same time, it's hard to say that what we've had with some of our bilateral donors is a little bit more flexibility, and less second guessing on what we do. And, to be fair, we did not necessarily include the CTF in that criticism. Now, the other thing that is worth mentioning if you think about MDBs, I mean, MDBs are not perfect, far from it. But, when you deal with concessional finance, I think you ought to realize that this a great instrument. It's extremely catalytic, but it has risks. I mean, you're in the business, for lack of a better word, of distorting markets.

MR. BHATTACHARYA: Mm-hmm.

MR. PEGON: Which is not necessarily something that you want to do. You're also in a situation where you have to deal with conflict of interest. You could be using those resources to get transactions from other MDBs because you're just offering a cheap loan.

MR. BHATTACHARYA: Mm-hmm.

MR. PEGON: And, in that sense, relying on the MDB infrastructure is something that is quite powerful. Those are institutions that are solid, that have processes, that have good governance, and that probably allow you to maximize the use of the concessional resources also by mitigating the underlying risks.

MR. BHATTACHARYA: Which is why we need these principles.

MR. PEGON: Absolutely.

MR. BHATTACHARYA: Yeah. And, I think G20 (inaudible) principles were important, and the blended finance principles are very, very important. I will turn to the floor, but before I do that, Josh, I was going to ask you if you wanted to react to anything that's been said so far.

MR. MELTZER: Sure. Just a couple of points. I'm just going -- a lot's -- what's already been said today. One is that, I don't think we can understate the importance of existing processes for being effective. And, this gets essentially the CIF and the CTF, in particular, in this space, where if you look at the evolution of the CIF since 2008, and it's capacity to deliver finance, and work with the MDBs in an increasingly seamless way, that's basically the key metrics of its effectiveness. So, in a sense, when we talk about climate architecture, and what do we do, and what we don't, I think, John, your point is start with what we've got. These constant perfect being the enemy of the borders, I think is a real issue here.

And, in many respects, because we're working in reality with short timelines, I mean it's really important to underscore that we have these goals out to 2050, and it seems like it goes on forever. But, at the end of the day -- Amar made this point at the introduction, I think, we make this point in the paper -- I think the infrastructure timeline for getting it right is really less than 15 years. And, to some extent, you build out the wrong infrastructure now, you're locking in a whole system which is basically going to deliver outcomes, which are going to be inconsistent with all these agendas.

The second point is, I think on the private sector side, a little bit. The other bit is that where the needs are particularly significant from both -- from really the climate perspective in particular, which is where the CTF is sort of focused, which is this group of middle income countries essentially. And, that is where also, domestic private capital markets are going to be key. I mean, in many respects, I think sometimes, this notion or idea that it's constantly funding coming from institutional investors and other private sector sources from the developed world. But, it's really domestic capital, whether it's domestic sort of institutional invested, or just domestic banks and the like, which have to be mobilized. And, in that respect, building out the domestic capital markets is really a key component of this. And, to some extent, this is where some of the CTF investments in building out domestic capacity in the banking system, I think, can deliver really long term gains in terms of making that available.

And, I think it also underscores the other point, which has come through, which is this distinction between projects and building out, enabling environments which can be sort of catalytic. A blur, in that respect. I mean, you clearly need both. You need projects, which are going to be project specific, but also can create markets. And, you need these underlying broader based structures at the same time. And, in that respect, we haven't spoken about all that much, the Caye policies which sort of work against

these outcomes which are clearly the absence of compressing and fossil fuel subsidies. So, we're constantly working against these lack of Caye policy drivers, which would channel investment in the right direction.

MR. BHATTACHARYA: Okay, I'm going to open the floor to questions. And, if you could identify yourselves, and please keep your intervention quite brief because we would like to have an interactive discussion. And, one of the things I would really, really press for is gender balance, so (Laughter) thank you.

MS. SIERRA-ESCALANTE: Like here, huh? (Laughter)

MR. BHATTACHARYA: Well, go ahead.

SPEAKER: Thanks. My name is Luigi, I work for a private bank here in Washington D.C., and my aim, unfortunately, is to bring our clients to the multilaterals seeking for risk mitigants and coach risk sharing. I say unfortunately, because I think Confucius once said that, "Those who move the mountains start by moving little rocks." So, I appreciate what John said, but you know, the multilaterals have to have the big picture, that the private sectors should leverage the capacity of the World Bank Group to have the big picture to have a broad picture of what's going on all over the world. But, the thing is that if you really want to make a systemic change, you have to start from approving and enhancing small projects. You have micro grids in Africa. There's no way you can build an overall great network all over the continent. So, you have to start from little things.

So, I want to share my frustration, because every time I approach MIGA for example, for a meeting, they say, no this country has a too low rating. We don't invest, or we don't protect below double (inaudible). So, what is MIGA doing? When I approach the IFC, I have the feeling I am talking to JP Morgan bankers who are there to try to make more money than I am trying to make, rather than a multilateral trying to

enhance investments where it is mostly needed. I think, if we want to be intellectually honest here, we have to admit that there is a wide gray area that we should really consider addressing. There is a big picture, and there are small projects, and we need to enhance the small projects, and we need to cover this gray area, I think. Thank you.

MR. BHATTACHARYA: Yeah, I think it is fair to say a lot of the -- particularly the space we are talking about, we are moving more and more into distributive projects, and that is -- so, John's point was about aggregation. I'll come back to that, but how do you deal with your specific concern? The lady -- you had a question. Yeah.

MS. DORNSIFE: Thank you. Cinnamon Dornsife, Johns Hopkins SAIS International Development. And, this may be a question for you, Josh, but anyone else could answer it as well. I'm wondering where do you see these actual investments that you're leveraging and crowding in? Where have you seen the greatest growth? And, I remember that you said that the CTF is very effective and we should scale that up because it's an existing vehicle that works. Where do you see the greatest promise, and why?

MR. BHATTACHARYA: From this side, I've seen some -- yes, there's a gentleman right here.

SPEAKER: Thank you for the paper, and the excellent presentations by the panel. When we do blended finance, how do we know we've got the right mix? Are there objective standards? I raise that because in the United States where we have blended finance programs, we require an affordability assessment. And, rating agencies look at affordability assessments and looking at risk. So, I guess, in the MDB principles, is there an assessment of risk? Is there a requirement for risk assessments in your assessment of -- evaluation of your blended programs?

MR. BHATTACHARYA: There's a hand, my friend in the back. Right there.

MR. MINTZER: Thank you. My name is Irving Mintzer. I teach in the Energy Resources and Environment Program at Johns Hopkins science. Josh, your paper points out that the need -- the investment gap on infrastructure from 2015 to 2030 is on the order of $50 plus trillion. Which dramatically outstrips both the available capital in the multilateral development banks, and probably what's going to be available from public capital sources all together in this period. The only actors who have access to that volume of capital are institutional investors. But, for the most part, they can't put money into the early stage investment in infrastructure projects that are -- whose risks exceed their risk tolerance. So, how do you see the multilateral development banks and the climate funds actually encouraging others in the financial services ecosystem to make those early stage investments that can later be refinanced by the institutional investors once the assets are used and useful, and they have a reliable revenue stream?

MR. BHATTACHARYA: So, I think we have a bunch of questions. I will maybe just go -- I think the one on the blended finance principles. And also, I would say not only risk, but the distortionary potential -- distortionary facts, I think both of you could cover. John, I thought you could take the questions that were asked in the first two. And, Mr. -- Professor Mintzer's question, I think Josh and I can also pick up on. But, why don't we just go maybe from left to right, and -- go ahead.

MR. PEGON: So, from right to left then.

MR. BHATTACHARYA: Oh, right.

MR. ROOME: It depends on which way you're looking. (Laughter) It's all a matter of perspective.

MR. BHATTACHARYA: My left to right. Go ahead.

MR. PEGON: Maybe, allow me just to react on the last question because I actually used to work in investment banking. And, I was structuring and setting project bonds in Latin America. So, to some extent, I can relate to what you are saying. And, there's no easy answer.

I think for us MDBs, first of all, and this is happening, but it's the cultural shift from a buy and hold sort of institution to an institution that is here to intermediate. To cover those initial risks, and eventually distribute those assets once they become interesting for private capital. And, in that sense, we do begin to see that in our region. So, in Uruguay, for example, most of the projects that we initially financed -- most of the renewable projects wind and solar that we initially financed under a balance sheet. Now I've started to operate it, and three of those who were financed through an AB bond structure that was sold to institutional investors. And, actually one of those bonds, because it was the first solar bond, we believe, in the region was also benefitting from some support from (inaudible) finance.

So, to some extent it's really a call for sophistications for NDBs, and really being able to -- a niche projects asserts that it's going to be different, but being able to think about -- you know, when you invest in a particular project, not so much, I'm going to hold that project for the entire life of the project, but rather, what sort of structure -- what sort of incentive structure am I building from the structuring phase of the project, so eventually this gets refinanced by an institutional investor. And, there's a couple of examples. You could be adding some provisions in your loan to that developer of a solar plant, that once it's operating, unless he's refinancing with somebody else, you're going to charge him 50 business points more. This is something that we start to see, and we start to do. And, that's very, very effective if there's an attractive market to refinance.

I think on the principle, and to some extent, I don't want to talk too much about the principles because Kruskaia is leading the MDB working group on that. Other than saying that when you look at the ecosystem of blended finance, what you do see today is still a lot of fragmentation in what people do, and how people use concessional finance. And, in that sense, the -- sorry, the work that MDBs have been doing in terms of creating a framework of principles, and also be a little bit more concrete. So, from those principle extractings -- guidelines going to concrete cases and providing guidance, not only amongst MDBs, but also to the market in general is something very important.

And, maybe just ending on one specific point. Looking at the long term commercial sustainability of a project when you do blended finance is paramount. So, we're not in the business of permanent subsidy. If we don't think that the project we're subsidizing is commercially viable in the long run, this is not a valuable proposition for blended finance (inaudible).

MR. BHATTACHARYA: John?

MR. ROOME: Okay. Good. So, I think your question on small projects and how a small project developer and financer can get support is a very good question. I think the dilemma is, from the point of view of a MDB. For us to get involved in a $5, $10, $15 million investment, even if it's in a small country, and it makes a lot, it's a very high transaction cost. Very expensive. The same applies to an institutional investor that's going to come behind it, and in fact, a national bank. They're got to understand your business, your technology, all of those kinds of things. All the information barriers, so it's very difficult to move forward. And, the question is, if we do it, is this going to get scaled up, is it going to go much further? So, that is why I think we need to be focusing on mechanisms and institutions that aggregate and simplify such projects, and give them access in a more scalable way.

So, for example, in India, there are a number of different schemes that are under way to try and facilitate rooftop solars, or distributed solar. So, for example, the one that I just talked about, there's other models. We're working with State Bank of India to increase their capability to invest in rooftop solar facilities with individual -- so, by doing that, by giving them some backstopping lines of credit and stuff, they can do their lending, they can go down the learning curve, now there's -- they've got predictable finance behind it. They can go down the learning curve, so they understand what this business is. They can work with their clients to develop a portfolio. So, what you end up at the end is the individual investments get the financing that they need, but you've already embedded the knowledge, and you're already bringing it to scale. And, these are the models that you can debate exactly how and -- but these are the directional models I think we need to move on.

Just a question on this last one, on what I call this take on financing. I think there's a huge opportunity out there, which you saw from the risk curve. There is no reason, honestly, why we as an MDB need to continue providing finance once a transmission line is up and running. Once a hydro powered dam is up and running. Our comparative advantage is in structuring the deal at the beginning, because it's not even the fact that we can take the risk, it's that we can manage the risk. We're in finance here, we don't have direct liability for the management, but we can influence the procurement arrangements, the financial structuring, the contractual viability, the social (inaudible). All of that stuff we can do.

Now, the trick is, this is not a new concept. We have talked about this for a million years. The issue is how do we put it into practice? Right? Now, on the bank side, we're in discussions in a number of countries in some of these areas, particularly around transmission to simply try and sell off the existing loan. Forget about new

projects. Let's just take our existing transmission debt, and sell it into the private sector. Sell it into the institution. Institutional investors have an appetite for this debt. When we talk to institutional investors, they say that's the profile that they love. Now, one of the difficulties is that right now, our lending rates are lower than where these are going to come in. So, the question is, how do you broker that deal? Either, can you find for the first two or three deals, some concessional finance that will lubricate it? Can you get an agreement between how much of that differential that you're going to have to fill in the financing, will come from the government? How much will come from the power transmission company? Who will share in this so that you can scale it up to the next level? I think once we can do a few deals like that, then I think we can get into the situation, as you said, we should be structuring a financing of hydro deals, and things like this in ways that it's clear that we're going to try to get out. You design it at the beginning, so we can get out. People can come in, all these issues -- I think this is absolutely critical.

We're trying to mimic this a little bit, for example, in the solar park that we're doing in India, where essentially what we're doing is, we help with the structuring of the bidding documents, but we also finance the basic land infrastructure. Think of it as, sort of an infrastructure zone for solar power. So, we finance the base infrastructure, we ensure that the transmission line comes in because that's where the risk is, on the land acquisition and the timeline. And so, when the bid is bid, they're only bidding to put solar panels on the existing infrastructure with an existing evacuation line, with an existing offtake guarantee. And so, they're financing -- it's part of the same concept. I think it's a question of how do we put -- its project management 101. How do you put the risks with the people that can manage it? Institutional investors cannot manage these risks. And so, we've really got to be -- go back to basics on some of these.

MR. BHATTACHARYA: Thank you John. Kruskaia, so if you could answer the questions around what principles are there so that MDBs are market creating, and at the same time using, in some sense, blended finance also most efficiently and effectively.

MS. SIERRA-ESCALANTE: Thank you. Before I get that, if I can just comment very briefly on what John was mentioning about the takeout. And yes, it's something that we have been trying to do forever. I think the other thing is trying to see if there are multiple ways we can do it up front. And, some of our co-lending platforms at this moment in time -- what it's trying to do is to convince those institutional investors, in this case, insurance companies, that the track record that we have for 60 years in developing markets is something that they can take. That we know how to do this. Exactly what John was saying, because our comparative advantage is to understand the assets. So, if we can convince them up front, based on our past record, what we were trying to see is if we can bring them alongside -- even if there needs to be a little cushion of a guarantee with a government, or something. Because that would basically -- would say, okay if IFC was wrong, and we have less returns than we expected, or our risk is higher than we expected, someone will come and cover us. But, that way you are bringing those institutional investors up front. So, that's one model.

And, then -- and it's more important with respect with how small you can go. I mean, there are opportunities to go small, but I think the issue there is that you are not being as impactful as you can be. As Matthieu mentioned, there will be some demonstration transactions, and thanks to the PPCR in the climate investment funds, we have been able to do that. Why? Because we have been looking at climate adaptation, and in some of them the view of (inaudible) look very small, you won't be able to do it. So, there we have even done a risk capital investment on 250,000 in hydro project. What

did we use that money for? To try to see how the study affront of that design could be climate resilient. Today, hydro plants are not being put together on a climate resilient mandate. That a small amount will help us to do the feasibility study. We are thinking now about the financing phase. There will be a need for blended finance as well. PPCR will come in, and then the other funds that we have, which again talks about the complementarity of creating some pipeline up front with small amounts of public funds so that you can come later on.

Then, I get to the point of the principles and how do we think about these in the blended finance group? I'll run you very quickly through the five principles so that you can get a sense. This is publicly available in our website. So, if you IFC blended finance, you will find what it is. But, basically, the first idea is what is the market failure? The economic rationale for blending. If the market can do it, if IFC or the other MDBs can do it on our own, we shouldn't be touching it with blended finance. And, when we are talking in this context about blended finance, it's blended concessional finance. That's finance that is not taking full price for that risk, and therefore, that's an embedded subsidy, and we are very frank about that.

The second principle that we utilize is this idea of minimal concessionality and crowding in. When public finance is done, concessional public finance, then there is usually specific instruments that is a long term loan that is more concessional, a shorter general loan that is less concessional. The beauty of the blended financing private sector operations is to be able to tailor that. There are some tradeoffs on that that they can make it more complicated, but what we are trying is to minimize the level of concessionality. If in a country that is a middle income country, that the technology is already prove, you just need then, a small amount of blending. That is

what you should give, not more than is needed. So, that's the second one -- and it's linked to this idea of crowding in the private sector.

The third one is the commercial sustainability that Matthieu was talking about, we really look at this project, or each group of projects that we are trying to finance, and say in five to seven years, can the private sector come in a more commercial solution? So that we don't need to have public finance over, and over, and over. And, then the fourth principle tends to deal with a lot of what we do as a public and private group of MDBs because it's about reinforcing markets.

So, with our -- some of you might be familiar with the IDA Fund. The fund that the World Bank Group has for the poorest countries. Last year, we received allocation of $2.5 billion there for IFC and MIGA to have a private sector window. And, what we are trying to do there is to ensure that we are reinforcing what the World Bank is already doing at the policy level. There are many, already interventions in lending that is being done to the National Development Banks. We should be seeing these as a continuum that is bringing the private sector along. So, that's the reinforcing market.

And, the last point has to do about governance, and about high standards and principles. What we can bring as MDBs is that ability of saying, we are going to use public funds in a way that is in the same level or standard that our funds are used. So, if environmental and social elements of a project are not good enough for our finance, they should not be good enough for the blended finance money to come in. Governance is as important. We are trying to mainstream gender considerations, so all those elements are part of it. In the case of IFC, we have a separate governance that ensures that every project goes to a separate, independent committee within IFC to look at how these principles are being met.

Other MDBs have different forms of working with those principles. Some of them have much more qualified principles in a document, where they will check with an economist how to do that. So, there is a range of ways to get these principles mainstreaming what we do. But, if I were blended finance, to give you an example from IFC in the early 2000, we had 40 million for blending. Right now, when you look across all the sectors, and including the private sector window, we have about 3.5 billion for blending. So, it's -- the amount of fund is there, and it needs to be done in a professional way. And, I think that's what we are trying to do with the MDBs. However, as MDBs, we can have really nice stories out there, wonderful principles, but it's really our donors, our stakeholders that need to hold us to that -- to those agreements. And, we have ourselves, been asking the new funders that are giving the broad amounts of money to ensure that they require us to have those principles in each of those transactions because otherwise, as Matthieu said, the risk is that, I will say, I love the project in Latin America, let me add a little bit of concessional finance so that I can compete with IDB Invest. And, that shouldn't be the purpose of it.

MR. MELTZER: I'll be quick. A bit of this has been answered. I guess, when you think about the intersection between where's the most effective deployment, from one perspective, and we think purely about this from the climate perspective. And we have been focused, it's worth noting on the mitigation side, and particularly because the CTF is mitigation focused, so this is not adaptation. You might make the argument, well look, we're reducing greenhouse gas emissions in any country is helpful because it's a global problem.

But it doesn't address the other side which is that you want to invest in countries, also where you can be transformative, and that requires scaling. So, in many respects, you start looking at the larger, essentially, emerging developing countries

where both individual projects, and also broader policy reforms can actually have a major transformational impact. And, in some respects, this cuts across, also some of the politics that it gets associated with the climate finance discussion around access to the finance and how it gets distributed, and the like. And, there's a bigger issue here around the UN context for having climate financing and where the (inaudible) have been focused.

And, I think one of the -- in terms of where we focus, I think one of the key things that we understand is that energy efficiency, particularly, is going to be a chunk of what actually is possible. There is an absence of that to some extent. It's the -- some equivalent of dollar bills lying around on the ground. And, the reason that this is happening is because getting at it is actually very complicated. It's often small scale investments that requires particular, micro reforms. But, in many respect, this is a big bucket, which can require concentrated focus, and where a lot of potential is there.

On the last question about scaling, we've heard a lot about it before. I think public finance needs a scale, nevertheless, more than is available. But, certainly, the private sector is going to be key to that. And, one of the points in the paper, I wanted to make clear is that one of the things we need to think about this in terms of particularly, the Clean Technology Funds, but the multilateral funds in particular is, what can they do that the MDBs are unable to do in terms of addressing risks? And, we see that the MDBs are moving rapidly to increase their capacity to invest in climate outcomes. The funding that is going to be available in these multilateral climate funds is always going to be tiny compared to needs.

So, the question is, how do we design those funds to be optimal? And, in some respects, I think the CTF has shown a way forward here where you've got concession finance that's even more concessional, that's flexible, that could be rapidly

deployed. And, that could be used most effectively in a blending environment, with the other available public resources to push an outcome into a project that might not otherwise be viable. And so, in many respects, it's recognizing the scarcity, but also the high concessionality of the climate funds as the key inputs into the broader blending finance, where we're going to see major impact.

MR. BHATTACHARYA: Thank you all, to my panelists. I just want to close by saying what we, perhaps didn't address as clearly because we used the word donors, but I would really use that there is a global governance issue. Which is this architecture fit for purpose? Will it give us what we need? And, I think part of that is about ensuring that we are getting the most out of all sources of finance, and that this is very much about effectiveness. But, in the end, it's also about adequacy of the overall architecture.

And, I think there is a question about whether we have, right now, the sums of finance in order to meet the challenge. Yes, we have to get all the upstream part right. Yes, we have to make sure that we are getting the most out of every dollar. But, we also have to make sure there are adequate dollars on the table. And, in terms of these multilateral climate funds, there's perhaps too much fragmentation. But, I think the point that John made, if we have a good mechanism such as the CTF in place, why is it that we are not able to mobilize the financing from the international community? And, that's something that all of us have to ask, in some sense, in order to ensure that the governments of the day are able to meet that challenge. So, I -- we didn't focus on that issue, but particularly here in this town, it's a very big issue. So, thank you very much for coming, and I thank my fellow panel. (Applause)

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