US-Japan Forum: Challenges for the Global Economy and a Better Globalization

A joint conference organized and hosted jointly by the Japan Economic Foundation and the Global Economy and Development Program at the Brookings Institution

Friday, May 25, 2018

Stein Room, The Brookings Institution, 1775 Massachusetts Ave, NW, Washington, DC

Summary of the Conference

Context for the Forum:

In recent years, a remarkable backlash against globalization has been observed in many parts of the world. Britain voted to leave the EU. The US administration has an 'America First' slogan. Recent elections in France, Germany, and Italy show the rise of public support for anti-globalization policies. At the same time, international cooperation to address global challenges has seen major milestones through the Addis Ababa Action Agenda, UN Sustainable Development Goals, and the Paris Agreement on Climate Change. Moving towards a better globalization must address three challenges. It must promote a revival of global growth and a recoupling of growth with broad-based social advancement. It must foster innovation and the development of technology while tackling any adverse effects on work and combating rising inequality. It must deliver on the energy and climate agenda before the window for limiting global warming to less than 2 degrees closes.

Welcome and Opening Remarks

Speakers:

- Homi Kharas, Interim Vice President & Director, Global Economy and Development, Brookings Institution
- Kazumasa Kusaka, Chairman and CEO, Japan Economic Foundation

Summary of remarks:

The world is facing rapid change and many urgent challenges. The stock of infrastructure will be more than double over the next fifteen years. Urban population is rapidly increasing. Employment growth has not yet been able to catch up a demographic boom in Africa. We are seeing a situation of very low productivity growth. Decoupling of growth from carbon emissions is another challenge. We need long-term solutions for energy and climate. Low inflation, low real interest rates and technological advances give us a window of opportunity, but it is rapidly closing.

Globalization was suggested as a way to invigorate productivity, but it creates its own problems. Growth is becoming uncoupled from social stability. The share of capital is growing in national income as well as inequality in wages. We only see a small number of local workers in factories. In his book, *A Better Globalization*, Kemal Derviş concluded that it is important to look at the politics of globalization together with the economic forces (Derviş, 2005). All of us have to pursue a better globalization, but the question is "better for whom?"

We need speedy change, but speed can cause anxiety. We are in a period where policymakers are trying to slow things down because they fear the backlash from too rapid change. The world has seen tremendous changes in the last three years with the rise of populism and anti-globalism. We are facing a new style of governance and international concerns over protectionism. We are perplexed as to what is the Trump phenomenon and whether a single leader can make a difference for better or worse.

Many potential solutions require more global cooperation. There is a need to mobilize various players both domestic and global in an inclusive manner, and not only economically, but also politically and socially as well. No government alone can deliver the climate goals and at the same time, no single president can stop the progress. In the history of the G7, the leaders with limited

political capital in a democratic system needed an international agreement for domestically unpopular measures for their angry domestic constituencies to pass the necessary policy package. We need like-minded players and the software to wisely utilize them.

However, global cooperation has become difficult as we are in a period of high dispersion of global economic power among many countries including emerging economies. Economic concentration will grow again towards a G2 or G3, but the new configuration—the US, China, and India—do not constitute a like-minded group. Therefore, they may not see eye-to-eye on solutions and may be tempted to view solutions in relative political power terms rather than in economic terms.

Session 1: A Better Globalization

Key questions:

- How do participants view the prospects for strong, sustainable, balanced and inclusive growth against a backdrop of decelerating productivity?
- What policy measures are needed to renew domestic social compacts and tackle rising inequality?
- How can we restore trust and confidence in multilateral cooperation and multilateral institutions to deliver on better globalization?

Moderator:

Homi Kharas, Interim Vice President & Director, Global Economy and Development, Brookings Institution

Lead speakers:

- **Yoichi Otabe,** Advisor, NEC Corporation, Former Vice Minister for Economic Affairs in Japanese Ministry of Foreign Affairs
- **Jonathan Ostry,** Deputy Director of the Research Department, International Monetary Fund
- **Martin Baily,** Bernard L. Schwartz Chair in Economic Policy Development, Brookings Institution
- **Marilou Uy**, Director, Intergovernmental Group of Twenty-Four on International Monetary Affairs and Development (G-24)

Summary of discussion:

There are momentous changes in prospect for the global economy. We will put in place more new infrastructure than the entire stock of infrastructure today in the next 10-15 years. We are entering into a period of peak urbanization. More people are moving to cities than ever before in history. This is the last big growth spurt of people largely in African continent. With all of these trends, we have a window that pushes us to get things right, which will close in more or less a 15-year time frame.

Given the urgency of the challenges, the answer is not to slow down the process of globalization but to steer it in a way that we can tap its benefits and manage its risks. This leads to some practical

questions on the forces of global changes such as productivity growth, rising inequality, the growing role of developing countries, and the challenges of debt sustainability.

Slowing productivity growth has been a concern due to its importance in driving economic growth. The slowdown has been associated with the global financial crisis, but there is some debate whether the slowdown in productivity growth occurred prior to the crisis. In the United States, the slowdown of productivity is attributable to the manufacturing sector, especially high-tech part of manufacturing. Manufacturing is no longer a big part of the economy but its contribution to productivity growth has still been very large. The high-tech part of manufacturing contributed disproportionately to growth in 1990s, but then slowed down, dampening overall productivity growth. It is much harder to make rapid transformation in the service industries than it is in the manufacturing industries. Importing technology and production methods is easier in manufacturing than in services. Another reason for the slowdown is the end of the surge in productivity growth in the wholesale and retail sectors from the rapid growth in 1990s. Online retailers such as Amazon did not produce big productivity gains because their disruptive effects have overwhelmed the positive contribution to productivity. Weak aggregate demand was also a contributing factor to slow productivity growth (Remes et al., 2018).

Against this backdrop, the US did not follow conducive macroeconomic policies to support growth. When the economy is at full employment, a big fiscal expansion is not necessary and could eventually lead to a debt crisis. History shows us that tax increases do not hinder economic growth. We need workforce policies because the workforce is changing and the future of work is different. We need policies to enhance the skills of lower skill workers. This is essential to have both more inclusive growth and faster growth.

Technology is expected to have an important but uncertain impact on productivity growth. There are contrasting views exist on the prospect of productivity growth related to technology. One view is that we have already collected the low hanging fruit; therefore, it is harder to come up with new ideas (Bloom et al., 2017). Given the way that productivity has decelerated in the last few years, this argument gets a lot of force. The other view is more optimistic: technology will continue to develop and change society (Mokyr, 2014). We may not get back to the golden era—the period after World War II, but it does not mean that we do not expect somewhat faster productivity growth going forward. We will have faster growth ahead because the impact of digital technologies will gradually spread through the economy. Technology is causing disruptions and the productivity payoff may eventually come.

Another key question is the impact of globalization and technology on inequality. Trade and technology have received much attention as the drivers of inequality, but financial globalization which has not drawn as much attention has also played an important role in driving growing inequality at the national and global levels. An economic analysis of both the aggregate and distributional effects of financial globalization shows that financial globalization's pie-enhancing effects are limited but the distributional effects are quite salient (Furceri et al., 2018). Going for growth and assuming that distributional inclusion will look after itself is quite a dangerous gamble.

Financial globalization needs to be a part of the discussion of the benefits and costs of globalization. It is necessary to look at the aggregate and distributional effects of all the policies we recommend at the same time. We need to consider policies where growth can be enhanced and the equity cost can

be reduced. A range of complementary policies to manage globalization including so-called trampoline policies such as job training and assistance with search need to be considered.

Developing countries face different impacts from global changes than advanced economies. For many developing countries, the key question is how to actually gain access to technology and how best to harness technology for growth. Many countries are experiencing worsening inequality, inadequate job creation and increased unemployment among the youth. The concerns about inequality are coupled with how to create more employment and how to protect those adversely affected by technological change. National policies will matter, but there is also the question about the role of the multilateral community in supporting much better technological diffusion and helping countries create the conditions to tap the opportunities from technological change.

For the financing of development, domestic resource mobilization in developing countries is crucial. In addition to domestic tax reform efforts there is a need for effective international tax cooperation. There is progress being made on international tax cooperation but more needs to be done to hear the voice and concerns of developing countries in setting rules and to build the system in a way that developing countries can collect their fair share of global tax revenues. Multilateral development banks should play a catalytic role in mobilizing financing not only in low-income countries but for the whole set of emerging market and developing countries.

The sustainability of debt is a key challenge for financing of development. Given their huge financing needs, developing countries need to necessarily rely on the use of debt. If debt is used properly and effectively, it will pay for itself, but the problem is that little is known whether it is being invested in the projects that would yield commensurate returns. The global community needs to assess better what is happening to debt, how debt sustainability can be achieved, what more could official sector and the creditor community can do to exercise more responsibility and put in place mechanisms that would promote more resilience in the debt structures of countries, and improve creditor coordination and responsibilities when lending to developing countries.

The trends and forces of global changes differ depending on the circumstances. Frontier firms face different problems from the rest of the firms. Manufacturing has different challenges from service industry. Developing countries face different circumstances than advanced economies. With all these kinds of differences, multilateral cooperation is not something that can be discussed in the aggregate and in the abstract. We need to make policy choices that push forward global cooperation recognizing the differences across the different parts of the system.

Luncheon Talk

Speaker:

Kemal Derviş, Senior Fellow, Global Economy and Development, Brookings Institution

Summary of talk:

We are in a very difficult phase and a very new phase. There are five elements that make the current world and globalization difficult.

First, there is fundamental structural change underway in terms of national weights of the world economy. Globalization started in 1990s when the Soviet Union and its satellites opened up to the global markets in a market-oriented way. The US became all powerful in many ways. It was also the period when the convergence process of developing countries with advanced economies really started. If we look at the world today, and compare it to the early 1990s, we truly have a multipolar world in several aspects.

China rivals the US as an economic power, and projections are that China will continue to grow much more rapidly. China will become preeminent in the next 10 to 20 years if there will be no major crisis in China. We still have Russia as a military power. If we take into account military power and military activity, Russia is definitely one of the big guys. The European Union is still larger economy than the US. It is an actor that sometimes is able to act in a united way, but sometimes not. The US remains the fourth pole but in a more multipolar world. When we think of global governance, we have a very different basic architecture in terms of nation states than we had before. When we discuss the IMF, the World Bank, G20, G7, and the WTO, we have to remember that this is against the background of a much more multipolar world.

Second, in terms of trade and regulation, most of the easy trade liberalization has been done. Tariffs have been reduced everywhere substantially. The whole topic of trade negotiation has to do much more with regulation and behind-the-border issues. This is fundamental difference from the trade negotiations we had before because it has to do with issues which nation states believe are their domain. The next step has to do with regulation than traditional trade policy, and it will be much more difficult. One issue is how much uniformity in regulation is needed in the global economy. There are valid and legitimate differences in preferences among countries regarding privacy, income distribution, and the role of the state. What will be needed is to take account of these preferences. However, it cannot go so far as to fragment the whole global economy into separate sub-economies that are regulated in different ways. We must find the right balance between trying to respect preferences while ensuring that the global market does not suffer from too much segmentation.

Third, there have been fundamental changes in the cost curves in important activities. Many of the tech giants tend to be natural monopolies as their cost curves or the fixed costs are very high but marginal cost is very low. To regulate this kind of cost structure is much more difficult than to regulate the firms which have more traditional cost curves with marginal costs that are not close to zero. There is no easy answer. This point is interlinked with the trade and regulation point. What kind of competition policy do you try to impose with these kinds of cost curves? Do we try to facilitate entry? What if the fixed costs are very high?

Fourth, consumer surplus is much larger than it used to be. When we look at the welfare of economy as opposed to GDP, we must look at consumer surplus. Consumer surplus today is extremely large in many of the new sectors. Many sectors are more differentiated and require a more tailored approach. It is not easy to find a way to regulate markets where consumer surplus plays a big role.

The fifth point is that the more open an economy wants to be, and the more competitive it wants to be internationally, the more social solidarity is needed nationally (Rodrik, 1998). Emmanuel Macron, who went all out for openness and for international cooperation, will have to link his liberalizing policy package with a policy package of social solidarity. The idea of a universal basic income is to have a system of national solidarity. This is an interesting approach because it combines the

protection of an individual with the ability of the individual to be very mobile, to go from one job to another, from one town to another.

These changes show how different will be the world that we are heading towards, and how difficult it will be to elaborate policies at the national level and at the international level. One does not have to internationally regulate unless there are spillover effects. However, the spillover effects are very important, and are becoming more important. New technology demands new insights in terms of spillover and interactions. We have to find a way to deal with data management and data privacy, which respects national preferences and is globally workable. International cooperation will be extremely important due to spillovers.

The next 10 years will be a period that humanity will try to find new institutions or adapt existing institutions to these new challenges. Japan and the US are still very important in this game. I am not very optimistic for the coming few years because of neo-nationalism in many places. Bringing big international issues in front of the local voters and hoping to get some mileage is extremely difficult. I hope it will not take a big bad event to wake up people to the need for stronger global cooperation. The most intriguing force is the new nature of production of cost curves and of consumer surplus, and how that will influence regulation, both nationally and internationally.

Session 2: Future of Work

Key questions:

- What are the implications of globalization, technological change, and demographic transition for employment, wages, and inequality?
- What are the implications for skills and life-time learning?
- How does the changing nature of work affect developing countries' development pathways?

Moderator:

Naoyuki Haraoka, Executive Managing Director, Japan Economic Foundation

Lead speakers:

- **Mayumi Fukuyama**, General Manager, CIO, Technology Management Center, Technology Strategy Office, Hitachi Ltd. Research & Development Group
- **Shahid Yusuf,** Chief Economist of The Growth Dialogue, George Washington University School of Business
- **Darrell West**, Vice President and Director, Governance Studies, Brookings Institution
- **Indhira Santos**, Senior Economist, Social Protection and Labor Global Practice, The World Bank

Summary of discussion:

There are two major trends underway with important implications for employment, wages, and inequality. The first trend is technological innovation. Robots, artificial intelligence, algorithms, and automation are changing work in many sectors. The second is a shift in business models. We are

observing a reliance on temporary workers, the introduction of lean management styles, and a management approach based on flattening organizations.

If we make the right economic and political reforms, we could end up in a great place by 2050. History shows that it is possible. The United States underwent a similar "revolution" when it moved from an agrarian to an industrial economy. A series of both economic and political reforms enabled it to end up in a better position after several decades of chaotic change. Economic reforms included the establishment of the social security system, unemployment insurance, expansion of the education system, and political reforms included expansion of the electorate and the constitutional amendment for the legalized income tax.

To deal with the current challenge, America has to move from individual responsibility to social responsibility, and to make sure that people are not left behind in the transition to the digital economy. We have several policy levers for this including worker retraining and lifetime learning. A more radical lever is a solidarity tax, a one percent wealth tax on the top one percent of Americans in terms of wealth (West, 2018). The current political system is not equipped for this, but a series of policy reforms would enable this change.

Digital transformation has become a feature of the industrial economy in many countries with the digitalization of industrial and social infrastructure accelerating throughout the world. The government of Japan has put forward a concept called Society 5.0, which is a new human-centered society while resolving social issues such as labor shortage and increasing social security cost. In last year, the reforms to achieve Society 5.0 were adopted by the cabinet. The five pillars of Society 5.0 are healthcare/medical/nursing care, mobility, production, infrastructure and urban development, and finance. Against this backdrop, the Hitachi Group developed a digitized system to improve workers' happiness based on the data. The test of the system confirmed that AI-based advice given to participants contributed to livelier workplace. This shows the positive side of digital technology.

Unlike Japan's optimistic view on technology, many other countries, especially developing countries, however, have not positioned themselves to take the full advantage of the opportunities that new technologies offer. It is doubtful whether "the great convergence" is likely to occur quickly (Baldwin, 2016). Baldwin suggests that the new globalization is driven by information technology, which has significantly reduced the cost of moving ideas across borders. However, some factors make us wonder whether this will happen. First, growth in trade, especially merchandise trade has slowed, and there is no anticipation of a substantial acceleration of trade. Second, new trade barriers are springing up and this will be an additional brake on the growth of trade. Third, there is a much greater likelihood of increased localization. Much more production will be concentrated in a few countries. Associated with that is the desire of greater customization of products. Automation will help in this regard. Lastly, advanced economies have the desire to try and safeguard manufacturing.

The benefits of new technologies are not going to developing countries. The share of manufacturing in GDP in Ethiopia, Kazakhstan, Pakistan, and South Africa has been flat or on the way down in recent years. What can these countries do to reverse this trend? Finding manufacturing niches is one approach but difficult to achieve in a fast-changing world. The use of digital technology in agriculture can provide opportunities for growth, but it will displace many people. Developing digital services may be possible but will require a substantial upgrading of certain kinds of skills. Under these circumstances, more efforts are needed to develop skills using distance learning as a way of trying to reach a broader mass of the population. One question is whether you could make a huge

difference in a short period of time given the limited supply of high quality teachers. The other area is R&D. Most developing countries are not investing much in R&D. Closing the infrastructure gap would also be a positive factor for these countries, but given the resources that are available, it is not likely to be closed quickly. In addition, the impact of financial technology and access to financial services that have been made available through the availability of telecommunication and digital technologies such as in East Africa is not yet evident on productivity or growth.

We tend to focus on advanced countries when it comes to the fear about technology, but in developing countries, the problem is how little technology is around. Even though the spread of technologies has been faster than the past, the adoption rates are very low, and the productive use of those technologies even lower. For example, only around 30 percent of the firms in the developing countries have data use technology. While polarization is an issue in advanced economies, developing countries have a mixed story. In many developing countries, we still see the increase in the share of employment for routine skills despite the introduction of machines. The question is whether the share of employment in developing countries will peak at a level where the demand of those skills will be lower than what it was in advanced countries.

The other question is skill provision. For example, literacy rates are very low in many African countries. Policymakers face a difficult question of tradeoffs between investing in current workers and investing in the future generation. The answer will depend on where you are. In some developing countries, current workers have a very low literacy rate, or start working at a very young age. The fear of inequality is another issue. Although inequality has not increased in recent years, people feel that inequality may increase in the future. The forthcoming World Development Report 2019 suggests how new domestic social contracts can be used to address this issue.

Policymaking to address changes in labor markets has some gaps. A meta-analysis shows that only about a third of the labor market programs are effective in terms of improving employment or the quality of employment. The approach to social insurance and assistance needs to be different in developing countries than that in advanced economies. In some countries, 80-90 percent of jobs are in the informal sector. A system that may look great on paper would not be effective in terms of protecting people in these countries. So, more work and debate is needed on how to set policies that can develop skills and protect employment in a changing world.

Session 3: Energy and Climate

Key questions:

- What are the prospects for and what actions are needed to keep the global climate goal on track?
- How can we accelerate the shift to low-carbon energy systems taking advantage of rapidly developing technologies?
- How can policy support and financing from international institutions help accelerate countries' implementation of NDCs?

Moderator:

Kazumasa Kusaka, Chairman and CEO, Japan Economic Foundation

Lead speakers:

- **Nathan Hultman**, Director of the Center for Global Sustainability and Associate Professor, University of Maryland School of Public Policy
- **Yoriko Kawaguchi**, Fellow, Musashino Institute for Global Affairs, Musashino University, Former Minister of Foreign Affairs of Japan
- **Amar Bhattacharya**, Senior Fellow, Global Economy and Development, Brookings Institution

Summary of discussion:

The Paris Agreement was a game changer. The Agreement changed the narrative of climate change from the "costs of action" to "investment and growth" building on the broader commitment to the sustainable development goals embodied in the 2030 development agenda and financing for development in Addis in July 2015. The goal of the Agreement is to hold the increase in global average temperatures to below 2 degrees and to achieve net zero emissions in the second half of this century. While action is happening there is still a large gap between current actions and what is required to reach the Paris temperature targets**;** the total emissions based on the current pledges coming out of the Paris Agreement, which is 55-60 $GTCO_2$ per annum, is better than the business usual, which is 60-68 $GTCO_2$ per annum, by 2030, but the total emissions needs to be around 40 $GTCO_2$ to reach the Paris temperature target by 2030.

The US announcement of its withdrawal from the Paris Agreement last year posed a big challenge. The withdrawal has not formally happened yet, but it is the intent of the Trump administration of not implementing new policies in the United States that would drive down emissions. The impact of this change is significant because the US was one of the leaders of the negotiation of the Paris Agreement, and played an important role in implementing the financial contributions for developing countries.

In shaping its commitments under the Paris Agreement, the previous US administration relied heavily on executive actions to implement laws that had already been passed but that had been interpreted and implemented in different ways with respect to greenhouse gas emissions. For example, the Clean Power Plan was a regulatory action based on an existing law called the Clean Air Act, which has been around since 1970. President Trump has said that because this was an executive action and that was promulgated out of an executive agency, he has the ability to not implement it or roll it back or to withdraw the regulatory action. The Clean Power Plan has been put on hold and will likely be rescinded. Another area where the US has reversed policy is on transportation emissions rules. There are a set of regulations that govern the fuel efficiency of vehicles in the US. The Environmental Protection Agency has announced its intent to relax the rules that had been set by the previous administration. The new administration is looking systematically at all of the various regulatory actions of the Obama administration with the intent of either rescinding or not implementing those regulatory actions. However, part of the complication of the US system is that all of these steps have a very complicated legal process. Therefore, they cannot just cancel it. There has to be a process and this could be a long and slow process.

It is a loss to not to have that federal leadership in the US, but non-federal level has become very active in climate actions. After the announcement last year that President Trump will pull out of the Paris Agreement, within 72 hours, a coalition called "We Are Still In" was launched. The "We Are Still In" now represents 2,700 cities, states, and businesses across the United States. The coalition represents 159 million people, over 50 percent of the US GDP and if you add it all up, accounts by

GDP the equivalent of the world's fourth largest economy. These actors together have a significant potential impact and they have some significant policy levers at the state level. The coalition will release a report in September that will convey the analysis of what the remaining federal action plus all of non-federal actions will actually add up to. This assessment will be interesting not only for the amount of reductions that we might see just from those pledges but some ramped up or more ambitious pledges that are likely to happen in conjunction with the California Climate Summit in September and the UN Secretary General's Summit next year. What we are seeing is that these sub-national actors are taking much greater responsibility for building the foundations of what could be a sustained longer-term effort to decarbonize the US economy.

The US needs to pay greater attention to the security aspects of climate change. China will play a huge role in energy policy and energy security. China is the largest producer of electric vehicles and of equipment for renewable energy. The strength of the US in energy policy is the build up of natural gas and the ability to protect sea lanes, which is important for oil transportation. With China having a huge role in renewables, this power base will shift.

Energy plays a key role to achieve the goal of the Paris Agreement because energy accounts for roughly 70 percent of total emissions. We face two major challenges in accelerating energy transitions. First, energy access has to be improved. Approximately 100 GJ of primary energy per capita per year has been required to achieve reasonable energy access, but if everyone consumes 100 GJ, we would not be able to deal with carbon footprint (Energy Transitions Commission, 2017). The second challenge is decarbonization. There is no doubt that coal will be completely phased out and it will be driven by market forces. Oil consumption will decline but at a lesser rate. Natural gas will continue to grow as a back-up source and this is in the interest of the US.

Policy plays a key role for a fundamental shift in energy. Carbon pricing is absolutely critical. The High-Level Commission on Carbon Prices concluded that we should have a carbon price in the range of 40-80 dollars in the short run and 50-100 dollars in the medium term (Carbon Pricing Leadership Coalition, 2017). Carbon pricing has to be complemented by regulations including fuel efficiency standards, subsidies for the poor people, and policies for adoption of better technologies. The other is fossil fuel subsidies. If you eliminate all fossil fuel subsidies, you would cut emissions by about 37 $GTCO_2$ (Gerasimchuk et al., 2017).

Technology is another driver of energy transition. There has been much stronger than anticipated development of renewable energy technologies with consequently rapid cost reduction. Since June 2017, there has been 9 GW of renewable energy installed in the US including 2.1GW in just January and February. Market forces are acting against coal. There are roughly 50,000 coal mining jobs in the US. The total amount of coal employment is only about 150,000 total even if you include coal-fired power plant and other extended economy. If you contrast that to solar and wind, each of those has roughly 150,000 employed and it is estimated that there are around three million clean energy jobs in the US which includes installed efficiency and other kinds of jobs. Coal has witnessed a tremendous slow down over the last decade and this trend has been accelerating in the last couple of years. The Bloomberg New Energy Finance estimated that half of all coal units are now running at a net loss over the last six years (Ryan, 2018). GE reports that demand for base gas-fired combined cycle turbines went down by 50 percent compared to what they thought a year ago and that's attributed primarily to the fact that many utilities have expanded renewable energy installation.

The last driver is finance. Green finance was launched just 11 years ago. It reached 11 billion dollars by 2013, and this year will be more than 150 billion dollars. Climate-related financial disclosure is also important to incentivize the shift towards low carbon and climate resilient investments. Two hundred and thirty major companies of the world have already signed up to this. The most important driver of finance of sustainable investments in developing countries potentially are the multilateral development banks (MDBs). The amount of money that we need in the energy sector between now and 2030 is in order of 25-30 trillion dollars. Given this size of required funds, most of the finance needs to come from the private sector, but that will require enhanced risk mitigation. MDBs are best placed to help countries unlock investments and reduce, manage and share risks to help leverage the trillions.

The role of G20 and G7 will be crucial. The G20 can help shape the decisions to accelerate change and push for implementation working with the international financial institutions. G20 should play a key role in raising the ambitions on climate action linked to sustainable growth strategies. It should also ensure that there is an adequate financing framework to deliver on investments for both climate mitigation and adaptation. This year, the G20 have three goals. The first is to draw up an action plan on resilience and adaptation. Second the G20 will continue to focus on long-term transitions but it is not clear what tangible goals can be agreed upon. The third is assessing the financing needed to deliver on the NDCs. In the G7, Canada aims to raise climate at the G7 Summit. There will also be a meeting of Environment Ministers in September that will seek to reach agreement on some specific areas including eliminating plastic waste from oceans and sustainable finance. The efficacy of the G7 and G20 will be circumscribed by US opposition to many parts of the climate agenda, so no major breakthroughs can be expected. It is important to continue to press forward within the COP framework including on reaching agreement on the rulebook of the Paris Agreement this year. It will be important to maintain and indeed widen the coalition for strong climate action.

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