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WEBINAR

U.S. AND EUROPEAN ECONOMIES AFTER COVID-19

A RAYMOND ARON LECTURE FEATURING LAURENCE BOONE AND JASON FURMAN

Washington, D.C.

Tuesday, September 29, 2020

Welcoming Remarks:

PHILIPPE ÉTIENNE Ambassador of France to the United States

SUZANNE MALONEY Vice President and Director, Foreign Policy The Brookings Institution

Featured Speaker:

LAURENCE BOONE Chief Economist and Head of the Economics Department Organisation for Economic Co-Operation and Development

Moderated Discussion and Audience Q&A:

DOUG REDIKER, Moderator Nonresident Senior Fellow, Global Economy and Development The Brookings Institution

LAURENCE BOONE Chief Economist and Head of the Economics Department Organisation for Economic Co-Operation and Development

JASON FURMAN

Professor of the Practice of Economic Policy, Harvard University Senior Fellow, Peterson Institute for International Economics

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PROCEEDINGS

MS. MALONEY: Good morning. My name is Suzanne Maloney, and I am vice president and director of Foreign Policy at the Brookings Institution. It is a pleasure to welcome you today, to the 15th Raymond Aron Lecture. This lecture series was launch in 2004, and it is named after Raymond Aron, a renowned 20th century French political scientist, philosopher, and great friend of the United States.

I'd first like to take a moment to thank our partners. We're very grateful to the Embassy of France, for their collaboration and support over the years, and I particularly want to recognize Ambassador Philippe Etienne, who is here with us virtually today, and who will offer remarks shortly.

I also want to thank the French Foreign Ministry, and in particular the Policy Planning Team, led by Manuel Lafont Rapnouil. In recent months, the necessity of Trans-Atlantic cooperation on urgent global issues, has become more clear than ever. To fight the Coronavirus pandemic, the United States and European countries have taken unprecedented measures to protect the lives of their citizens, including mandating stringent lockdowns and severely curtailing international travel. These measures have devastated American and European Economies, alike.

Today, it is our distinct pleasure to host Dr. Laurence Boone, a devoted advocate of international cooperation, to discuss how to rehabilitate our Trans-Atlantic economies, after COVID-19. Dr. Boone is the chief economist at the Organization for Economic Cooperation and Development. Before joining the OECD, Dr. Boone was Chief Economist at AXA, and prior to that, she served as an economic advisor to French President Hollande.

We are honored that she will offer her perspective on the challenges and opportunities generated by the current crisis. We're also honored to be joined, this morning, by Harvard University Professor Jason Furman, who will offer a response to Dr. Boone. Professor Furman served, for eight years, as the top economic advisor to President Obama, including as chairman of the Counsel of Economic Advisors. He's now a nonresident senior fellow at the Peterson Institute, in addition to teaching at Harvard.

And last, but not least, our own Doug Rediker, a nonresident senior fellow, here, at Brookings, will moderate the conversation. Doug is the founding partner of International Capital

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Strategies, LLC, and previously represented the United States on the Executive Board of The International Monetary Fund. In a few short moments, Laurence Boone will deliver her lecture from this year's virtual stage, but, first, I'd like to turn it over to French Ambassador Philippe Etienne, for brief remarks. Once again, thank you all for joining us this morning.

AMBASSADOR ETIENNE: Thank you. Thank you very much, Suzanne, and good morning, good afternoon, everybody. I am extremely honored to take part in such a high-quality event, and to say a few words before Laurence and Jason. The Raymond Aron Lecture has been the flagship events of the Embassy's long-standing partnership with Brookings, since it's launch in 2004.

The lecture series, as you said, Suzanne, is named in honor of a great Frenchman, Raymond Aron, a philosopher, a historian, a sociologist, also a journalist, and a committed Trans-Atlanticist. He was always a critic of anti-Americanism in France, and today he would, no doubt, highlight, as he did all his life, the importance of continued trans-Atlantic cooperation on the crisis our countries, our economies, our democracies are facing. Over the years, the Raymond Aron Lecture has become a prominent firm, bringing together French and American scholars, to speak about critical issues affecting the trans-Atlantic relationship.

Past speakers have included Pierre Snehr, Teres Del Pesch, and Justice Stephen Breyer. We will be discussing a crucial topic today. 2020 has been plagued by the COVID-19 pandemic, which is disrupting our lives, on every level. It has led officials, on both sides of the Atlantic, to take unprecedented measures to protect their populations and restart their economies.

This recovery of fault, which France has championed, also within the European Union, must also be trans-Atlantic in nature, and contribute to a new quality, in the long standing of ties between Europe and the United States. More than ever, while the pandemic is keeping us apart, France is committed to supporting institutions dedicated to the vigorous exchange of ideas, and Brookings is an exemplary place for intellectual debate.

We are honored, today, to be joined by two distinguished economists, Laurence Boone and Jason Furman. I am delighted to launch the first virtual edition of our lecture series today, and I looked forward to the conversation. Dr. Boone, the floor is yours.

MS. BOONE: Thank you, Suzanne, and thank you Philippe. It's a pleasure to be here

with you. Even so, it would be a lot better if that was taking place physically, in Washington, but I'm very honored, and very happy to discuss the -- this -- to discuss this lecture with Jason Furman, as well, and it's a very difficult time now. So, the focus of the lecture will really be about what's waiting ahead of us, and what challenges for our economies on both sides of the Atlantic, and I think none of us has a ready solution, but hopefully, the two of -- our two economies, and Jason and me today, can help think about these challenges.

So, let me share my screen, now, and get into the presentation. Okay. So, I will -- I will just start by quickly discuss -- referring you -- our projections, which were published last week, and then I will move into the next -- into what's ahead of us for the next 12 to 18 months, at a more a granular level.

What you can see, here, is our set of projections and what they reflect is, really, how uncertain the outlook is because we don't know the pace at which the virus will continue to spread, across various countries, or when a vaccine or treatment maybe available. What we do know is that it's unlikely that we have any widespread vaccine or treatment for the next 12 to 18 months, so that the period until 2021 will be one, where we will have to live with the virus.

So, that's the first thing. The second thing is this is long. It will change and affect our economies in a way that we haven't seen yet, and I will discuss some of the challenges that this is creating. What you can see, here, is that every single country of the world, except China, will be in a very, very deep recession, this year, and by the end of next year, because the virus is still with us, then not many of them will not have recovered the type of economic activity they had in 2019.

So, let me, now that I've rushed this very quickly, and just -- just a note on this, before moving to the next slide, which is this U.S. projection, include a fiscal stimulus that we were expecting, and the time, which was the projection, and which now looks very unlikely, so that the number you see, for 2021, is likely to be much below that four percent.

Now, one other thing before I dig into the specific of the presentation, on which I wanted to say, where this -- what is the mirror image of uncertainty is really the lack of confidence, and we may think that, after the first phase of the crisis, where there was some sort of simultaneous confinement across OECD countries, including in the U.S. and Europe, now that things are reopening, and we have seen the beginning of some sort of V-shape recovery for -- for the sectors that can function normally.

People would start living as they were before.

But what this chart reminds us, really, is the amazing lack of confidence that is affecting households across countries, and as you can see, from here, between 30 and 70 percent of people are still avoiding to go out in general, and that's still the case in mid-August, and it doesn't deepen so much, if you look at Korea on the right hand side, on how they were affected by the virus. And this lack of confidence for people, and the uncertainty that we have, we really mean that it's going to be -- that the effect of the virus on our behavior on -- on business behavior will be long lasting, and unperformed.

And the other thing, which I think is super important, is when we're faced with such uncertainty and lack of confidence, everything that policymakers can do to increase some confidence, to provide some certainty, would be helpful, and they cannot, obviously, eliminate the virus story, but what they can do is provide a framework, a clear and transparent framework for policy, how they think about it, and how they will have it evolve with the evolution of the virus, and also of the economic situation, and that, that institutional solidity and more business, will be very much key in the months to come.

So, what type of shocks are we facing? So, you have the impact effect of the confinement measure, which is the red line going down, and now we are at the beginning of the three blue arrows, also, obviously, we don't know which one will be the prevailing one. If the heavy situation is short lived, then we can recover quickly, then we may have the V-shape recovery, so it looks less and less likely, but the longer it lasts, and the more difficult the situation becomes, and I would argue the tougher the demand shock, the larger of the demand shock we're facing, and the slower will be the recovery, the tougher or the more important the scarring effect, and that is taking place, sorry, I should have put that here.

What you can see here is what we were saying about the scarring effect, and actually there's word on which I wanted to insist, which is reallocation, and I'll come back to this because we have here both a demand and a supply shock, and they need two policy treatments, on which I will spend a second, in a minute. So, before I move on policy, I would like also to put that into context, and we may have forgotten it because it looked -- it looks, now, softer with the benefit of insight, and once we've gone through COVID, but before this shock, all was not going very well.

We had trend growth going down because there was less technology diffusion, because

capital deepening was hampered by very high uncertainty, not only on the trade technology tensions, but there was also the high level of corporate debt. There was also some slowdown in the diffusion -- the reallocation of business, and within the diffusion of technology, which is what you can see on the righthand side chart, so much less job reallocation, that we used to see, very much lower entry rates for firms and exit rates, and that, Jason has discussed this extensively, it's partly due to reduced competition, due to the digital technology.

It may also be due to insolvency regimes, which are increasingly punishing failure and inhibiting corporate restructuring, and also easy money, so to speak, that was keeping some of very low productivity firms alive, all that to say that, when we will discuss reallocation, it was already slowing before the crisis, and we're having this shock now, which may make it even more of a challenge.

So, we have an aggregate shock, which is the compression in GDP growth, which is very big, and we're going to have a reallocation shock in this -- in this setup where reallocation is tough. Now, what do we do with that? I think, the first -- the first thing on -- on which I would really like to insist, is that just don't -- don't do no harm, and don't repeat the mistake of the past. What you can see, with these two charts, is the fiscal tightening that took place far too early in the wake of the financial crisis, on both sides of the Atlantic.

At least on this, we made similar mistakes. So, the blue bar are showing how fiscal policy is getting tighter, in 2010, 2011 and until 2013, both in Europe and in the U.S., and what you can see, conversely, is how the gap between observed growth and trend growth is widening, on the left-hand side, when austerity is setting up in the Eurozone and it's -- this growth is stalling on the right-hand side, when austerity is taking place, in the U.S., and the main difference between the two, at the time, was very generous monetary policy in the U.S., and a much less generous one, at this stage, and until the -- until the beginning of 2015, in Europe. So, what this is -- really shows that if we don't have the right macro policy, in terms of fiscal and monetary support, then we can do a lot of harm to the very fragile situation that we have now. So, I think, that the first thing to repeat and repeat is just to keep fiscal policy support going on.

Now, the second thing I would like to insist on, for the macro level end, which has to do with their supporting demand, is what we can fear, in terms of firms and jobs outlook, if we don't keep

some support going on. What these two charts show is in previous recessions, so in the early '90s and in the financial crisis, how bankruptcies and unemployment has evolved. And the main takeaway from this is that it takes a while, usually, before bankruptcy or unemployment rates shoot up, and then it takes a very long time for them to come down, and the longer, and the more scarring effects they are.

Here, on the left-hand side, it's the -- it's U.S. bankruptcies filing in the two previous recession, and you can see that it takes between one to two years, after the beginning of the recession, for them to -- to start going up. I think in this -- in this juncture, it may be different because there's been a lot of corporate support, but what that also tells us, if this support is withdrawn prematurely, or too largely, then we're going to see some wave of bankruptcies, and that that runs a big, big risk for not only the economy, but the also the jobs, which is represented on the right-hand side. And, I think, there are two interesting things on these charts. One is, you know, how reactive the U.S. economy is compared to Europe, where you can see unemployment going up very rapidly, and then coming down more forcefully, and I'm sure Jason will have a lot to say about this. Obviously, the situation, this time, is a bit different because we had a lot of support for unemployed people, from the trough of the recession.

So, as a kind of automatic stabilizer, even if it wasn't one, and in Europe, the same. It's usually slower to pick up, but then it takes longer to go down. So, the lesson from this, really, is we -- we thought the confinement containment phase was tough, but the most challenging period is ahead of us because, now, blanket support will be more difficult, be warranted, and if we withdraw this support, then we will see bankruptcies and job losses unfolding.

So, there's a big aggregate shock, which I was describing, sorry, my light is going on because I'm not moving, and there is a reallocation on which I would like to spend a minute, here. So, the left-hand side shows the big shock across sectors, and what the right-hand side have to show is which sector are actually being affected by COVID related measure, and you know those sectors, but the point I want to make, here, is that they represent between 13 and 20 percent of total employment in OECD country, which is very big, and we don't know whether these -- all of these sectors will be permanently smaller, but what we do know is that, for the next year, perhaps couple of years, they will operate at subpar dynamism and some of them will change, probably like transportation, whereas others, like food services or regulation, may remain very much the same. If we look at the U.S. more specifically,

then there's some analysis by Burrio and other authors, who show that they estimate that between 30 to 42 percent of some job loss, during the pandemic, may be permanently gone, but I think what is even more interesting is they estimate that the rate of reallocation is about the same size.

One other thing, which is -- runs the risk of affecting this reallocation, is, obviously, that not everybody or not every profession cover the capacity to take work. So, I think, we have this aggregate shock, we also have this reallocation shock, and that's a reallocation shock that's much bigger than anything we have seen. It's probably even bigger then what energy transition will require. So, faced -- faced with this, what most countries have done, as a first policy move, was support income, and I don't dwell very -- I won't dwell very much on the differences between Europe and the U.S. because, even if the mechanism is different, at the end of the day, the objective was very similar to support labor income.

So, in the first phase of the crisis, when there is containment, this I would say, the same care was being taken of people, on both sides of the Atlantic, but what is, perhaps, more interesting and more challenging is what will happen when we have go through the reallocation because the job retention scheme is met -- it's tying the worker with the firms, much more strongly, and then the follow scheme that we have seen in the U.S. So, in principle, if we have a temporary shock, then the job retention scheme will be super-efficient.

For example, we close everything down for three months, and we reopen in exactly the same way, and let's assume there's no stronger dementia, the economy recover, then the economy can resume it, as it was before. On the other hand, if we have a shock, and I think that's what we believe in, which will last one year, perhaps two, when there will be profound changes on the economy across sectors on the way people work, then this job retention scheme can actually become a hinderance to reallocation because it's much more difficult for a worker to actually move some secure position, being short, getting an income, and to go into another sector, taking the risk of, you know, having a probation period, that doesn't work with some, perhaps, difficulties and challenges in taking up this job, than staying into a job where you should have a pay from the government, and being protected for one or two years. But if we do believe that the economy will change, at the same time, those changes will take longer to materialize. They will have a dampening effect on trade wars, and they likely leave some workers behind, without the skills, without the retraining, or without the experience to actually change sector. And I would

like to give you an example of this, for a category of the population, which is actually the young people and the recently graduate -- graduating people.

What you see on the left-hand side, here, is how much people are lagging behind when they enter the job market into a recession. What this chart, on the left-hand side, shows is that it's usually -- not only it's more difficult to get a job, but it's less well paid, and it takes, on average, about 10 years for people who've graduated and entered the job market into a recession to catch up, compared to what they would have achieved if they had joined the labor market at a normal time. Partly, this reflect the fact that recession damage work, firm quality, and young people are more likely to join firms which are less productive, which is why we showed this chart on the right-hand side, but, partly, it's -- it's -- I'm sorry, and as people, you know, change jobs, then they renew with this, but it's much more difficult for them.

So, what can we do about this? In fact, I'd like us to have all the answers, but I don't think that's the case. I think, one -- one first thing to do is to, actually, gradually align the replacement rate of job retention schemes, or special schemes, as in the U.S., on unemployment benefits, so that there's no arbitrage between staying in job and looking for a job, but that would be a -- a bit tough, if we were sticking with that.

So, I think what's important, as well, and -- and we're currently discussing this at the OECD, and I'm sure Jason will have a lot to say about this, another thing is to try and link some of this job retention scheme, with a lot more flexibility than we usually have. So, allow people in these schemes to take part-time job elsewhere, to accumulate the income and experience, so that, at some stage, they can change job. Allow these schemes or link these schemes, make them compulsory on -- on training. Also - also, we must say that training, as it is, is usually badly designed and targeted. So, there's a real job to do here, if we want this to be efficient, and that that is also a way of inducing some reallocation without putting the income of people at risk.

And, I think, another one is to also make the firms pay a lot more for this job retention scheme. I fear I've talked too much already. So, let me just conclude with -- with this. I think, also, what's super important is to make sure that we remove some of the regulation that are actually hampering both job reallocation and also the firm dynamic. The left-hand side is showing, actually, the effect of the multiplicity of occupational licenses, that we have seen in the U.S., across states. Sometimes, for jobs,

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like selling flowers and obviously if you need a license in one state, where there's a lot of demand for that, then it's slowing down your impetus to go there.

And the other thing, and I think, again, I just want to mention competition, due to digital policy, and to digital technologies, sorry, on how it's been hampered, but I think Jason will have a lot more to say about this than I do. I don't want to -- to spoil his primer on this. So, sorry, Doug, for having been too long. Thank you, and I hope I didn't miss anything of this.

MR. REDIKER: Thank you, Laurence. That was fabulous. A great introduction. I'm going to introduce a man for whom there is no need for an introduction, even though Suzanne already gave him one. Jason, your counterpoints, perhaps, to Laurance, before we get into some discussion, and then some questions. Jason?

MR. FURMAN: Great, so honored to be here. What a wonderful reminder about how lucky the world is, that Laurance is the Chief Economist of the OECD. Just what a wonderfully suited person to that job, to the Trans-Atlantic Dialog, and insofar as there any problems in the world's economy, it's either because of COVID, or because people don't listen to every single thing, and do every single thing, that Laurance says. As she talked, I was listening, and I heard demand. I heard competition. I heard get rid of regulations that get in the way of competition. I heard about the preexisting challenges and problems with dynamism in our economies. I heard about the longer-term scarring effects that this has. I heard about the different paths that we could go on, depending on our policy. I agree with every one of those, and I think all of those are important points. I'm going to, you know, just give a brief set of comments on a few things, some of which are -- are related to -- hopefully all of which are related to -- to what Laurance was talking about.

I wanted to start with the unemployment rate changes. You hear this a lot, especially in the United States. The unemployment rate, in the United States, has risen a lot more than the unemployment rate in any of the other OECD countries. These data, at time like this, though, are very misleading. The issue is, if you're furloughed from your job, you're temporarily not working in the United States, you're classified as unemployed. If you were furloughed from your job in Europe, you are probably classified as employed.

The reason is, in the United States, you're getting a check from the government. In

Europe, the employer gets a check from the government, and then the employer writes you a check. If you take the furloughed people out of the U.S. data, you get a number more like this, pretty comparable to the types of numbers you see in other OECD countries. That shouldn't be a surprise because, as we saw in Laurence's projections, the declines and output are similar across countries, which means the decline in work is similar across countries. What differs is the form that decline takes and its classification.

So, that raises a really, what I think is, a most interesting Trans-Atlantic policy issue we're dealing with, right now, where you have very different models for dealing, at least very different superficially. We'll talk about how different -- there are models for dealing with the employment situation in Europe and in the United States. As we all know, and as Laurence said, in Europe -- in the United States, workers are furloughed, and they get a check from the government. Those checks used to be more than 100 percent. Now, they are about 50 percent.

Then, in Europe, if you're furloughed, you get a check from your business, sometimes less than 100 percent, and then the business is reimbursed by the government, again, sometimes less than 100 percent. In the U.S. papers, there have been articles saying that the United States is choosing mass unemployment, but this is choice, and that this was a huge policy mistake.

I think that argument was mistaken. The fact that the unemployment rate in the United States has come from 15 percent, down to eight percent, it's still incredible high, consistent with the large reduction and output, but it's not -- but we have seen people on temporary layoffs being recalled to their jobs. I think this actually, as Laurance said, a lot commonalities between these two systems. In both cases, if you're not working, you're compensated. In both cases, the employers shed the cost, which is important because you want the employers to make through this, be there at the other end, so they can reopen, and employee people.

In both systems, if an employer returns to economic viability, they can reactivate their employees. The job match in the United States is not severed by a furlough. The furlough means the person continues to be listed by the employer, they continue to be in the computer system, it's just that their hours are reduced to zero, their wages are reduced to zero, and they have to file with the government, but they can be reactivated, very easily. Conversely, in Europe, you can have all the job

retention schemes you want, but if, at the end of them, there's no viable employer, there's not going to be an employee.

There are some advantages and disadvantages of the two approaches. The U.S. approach can be a little bit lower cost for employers because they fully shed the obligation. The European approach is less disruptive to employees. In the Unites States, it's unnecessarily disruptive, given the administrative underfunding, and, in some states, the deliberate obstacles that were created over the years, to make it harder for people to get unemployment insurance.

The U.S., actually, gives employees a little bit more leverage to refuse to return to work. It's not complete leverage. If you refuse to return to work, your employer can effectively report you to the state, and you'll stop getting your unemployment insurance, but some employers are reluctant to do that, some states are reluctant to stop it. So, as an employee, if you feel your job is unsafe, and you don't want to go back to it, in the United States, you actually have more ability to say no, by going back to your job, than you do in Europe. In Europe, you're getting your check from your employer. They basically can make you go back, when they're ready to.

Finally, and this is probably perhaps the most important, there's a big debate about how much of what we're seeing is as what I call stop, start, shock, where business stops, and a business reopens, versus how much is reallocation. A restaurant goes out of business, people need to find a new restaurant, or people go to movie theaters less, and so, people who work in movie theaters need to find jobs in other areas. The U.S. approach, by being based at the individual level, is better at allocation. It's -- the European approach might be better at job attachment, I'm a little bit skeptical of that, but we'll see. The bottom line is I would give a slight edge to the U.S. approach, but I'm very curious to see how it turns out over time. You can't judge it from the headline unemployment rates. You have to ask the question, you know, something like next year. I think there will be a huge amount to be learned by these two differences, and I think the OECD and Laurence, will hopefully help us do the learning, and share the learning.

Now, let me switch to a -- oh, sorry. On reallocation, you know, we don't have great policies to deal with reallocation. You know, we can do search assistance, we can do job training, we can do dislocated worker programs. I'm all for those, I'd put more money into them, I just wouldn't count on

them. I wouldn't count on them being a large-scale change in employment, and, in fact, if we count on them too much, we won't do the one thing we know we can do, which is shift demand, and, in particular, that's especially fiscal policy, but there may be some additional scope for monetary policy. That's old fashioned, it's crude, it's not tailored at the current situation, but we know it works. All the fancier things, we're less sure about.

Let me now just do a quick, whirlwind thing. There is broad agreement that we can afford stimulus now. Janet Yellen thinks it, Greg Mankiw thinks it, and most importantly, Laurence Boone thinks it, as well.

The bigger debate is about the medium-term fiscal situation, and you cannot be a part of that debate if you haven't internalized this picture. This picture doesn't tell us the exact answer, but this picture is profoundly important. It shows that interest rates have fallen. They've fallen across a range of countries. They've fallen for a long time. This isn't caused by the financial crisis. This isn't caused by COVID. This isn't caused by some lunatic Central Banker. This is some underlying structural facts about the economy, that I think are very likely to be persistent.

Debt has gone up. We're going to have debt to GDP above 100 percent of GDP, in the United States, Italy, Japan, and France, this year. So, debt is increasing everywhere, but something really interesting is happening. Even as the debt goes up in the United States, each year it'll be higher than the last. Interest payments on the debt are going down each year. Each year, they're lower than the past in nominal terms. In fact, the better way to think about the fiscal capacity of the country isn't debt to GDP, which has all sorts of flaws as a measure, debt is a stock, you can pay it out over -- pay it back over time. GDP is the amount of income you have in one year. You don't need to use that year's income to pay your debt. You need -- you can use it over many, many years. And debt to GDP doesn't tell you that the level of debt is very different if you're paying a high interest rate than if you're paying a low interest rate. This is what government debt service looks like, as a share of the economy, and it's come down everywhere, over time, and is relatively low in a historical perspective, and so, that's why we have a lot of fiscal capacity right now. That's why I don't think we need to be worried in the medium term.

This slide is just here to intimidate and scare you. I don't have time to talk about it, but the bottom line of this slide is that there are different levels of deficits you can have in order to stabilize your debt. If you want to stabilize your debt at 75 percent of GDP, then France is already very close to

doing that, and the UK is already all the way there. If you want to stabilize your debt at 250 percent of GDP, the United States has a little bit of work to get to -- to get to a goal like that.

So, there's these different debt goals. Countries are in different places. Everywhere, I think, is roughly within range of one of these goals, or it needs to make a relatively modest adjustment to make it to one of these goals. The bigger question, though, is do you want to stabilize the debt at 75 percent of GDP, at 150 percent of GDP, at 250 percent of GDP, or another number?

And I'll conclude by giving you the definitive answer to that question. I don't know. I don't think any economists know. I've asked all of them. No one's given me a very good answer. Until somebody gives me an answer, I -- my answer for the United States is that it should be 150 percent. That would require a small fiscal adjustment to hit that target. My answer for Europe is some number that's higher than the 60 percent that was set in Maastricht, which was ages and ages ago, in a world of much, much higher interest rates, probably below the 150 percent that I'm comfortable with for the United States. Trying to figure that out is going to be really important over the medium term. The short term, we don't need to know the answer to that question to know that, as Laurence said, we need a lot more aggregate demand. Thanks so much.

MR. REDIKER: Jason, thank you, and Laurence. I think the world is a safer, better, healthier place, not only because of Laurence, but also because, Jason, you've spent your career in the public policy arena. Excellent presentation. You actually give me a great opportunity to pick up on some of the U.S./EU differences and similarities, and hopefully you and Laurence can kind of explore that. I am curious if that last visual is your avatar on your social media because I think that actually would be suitable to you, but that's different for those who are not social media junkies.

Let me just say, for the audience, we're going to spend about 15 or 20 minutes talking amongst ourselves. There are two means by which you can forward questions to us, that we'll hopefully be able to get to. One is through Twitter, with the #AronLecture, and the other is by email, to <u>events@brookings.edu</u>. So, if you've got any questions, please send them that way, and we'll try and get to them, but, Laurence and Jason, let me just start and pick up on your comparisons there, Jason.

So, assume Laurence is right, and I think that the theory that she posited is we won't have an effective, widely distributed vaccine in the immediate future, and we may be looking at 2021,

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where there is a continuation of the current ambiguous health response, at best, which of the two systems, the economic and social models of the EU and the U.S., is going to be more resilient, overall, if there's a second wave, and if there is no vaccine that is going to put this to bed immediately, just more broadly, which of the two social and economic systems is a more resilient system, moving forward in that scenario? Jason, do you want to start, and then Laurence?

MR. FURMAN: Yeah, so, I think both systems are capable of doing better, and both systems are capable of doing worse. In fact, the United States has managed to do both of those in the last six months. It was doing a good job in the economic response six months ago, with the CARES Act, which was really large, really fast. You know, it wasn't perfect, but it was impressive, and now we're doing an awful job, with no fiscal response at all.

And so, I think those dials within the systems are much more important than the differences between the systems. I think the European fiscal response started out a bit smaller than the United States, I think maybe a bit smaller than it should have been, but there's been, you know, more follow through.

MR. REDIKER: Yeah. Laurence?

MS. BOONE: Yeah, so, I don't want -- first, I want to thank Jason for a really nice and interesting presentation, and so, and I think I -- I'm sorry to say, but I think I have to agree with Jason, that I don't think you can talk about what's based on worst -- I -- if I had to say one additional thing, it's the European system is providing some kind of certainty, and in this world, where you don't really know where we're heading, knowing that there will be some support, and it's not totally erratic, and, you know, it's -- it gives you the -- it should help lower progression and resaving, and give people more confidence that it can change job. And I think, in either case, it's very important to keep the income support, throughout this episode.

And actually, not to -- to be a little more balanced, let me rebound on one of the things that Jason was eluding to, was mentioning, which is the debts. We may have more uncertainty on job retention scheme in Europe, compared to the U.S., so that, you know, you will be protected by the state, but there is always this threat in Europe that there will be a change in the European fiscal framework, with a risk of too early austerity, and I hope that Europe was quick, for once, to expand the rules of Maastricht,

and I hope they will take the time to think about any other rule, so as not to repeat the mistake that we had before. So, the uncertainty in Europe is more the magnitude of the fiscal support, and I guess, in the U.S., on the stop and go fiscal support.

MR. REDIKER: So, let me ask you more of a provocative question, here. What do you make of the argument that the U.S. economy is inherently more sustainable? Because there's a greater willingness to accept more negative social outcomes in the U.S., than would be tolerated in Europe. Even in your more hawkish, frugal countries, there is a basic acceptance, a basic expectation of social provisions from the government in Europe. In the U.S., that's just not a really widely accepted model. There is an argument, and I've heard that that makes the U.S. economy more commercially oriented, obviously less socially beneficial, but that makes the U.S. economy more long-term resilient. Do you buy that argument?

MS. BOONE: Me or Jason?

MR. REDIKER: We'll start with you, Laurence, and then Jason.

MS. BOONE: Okay. I don't think I surprise you very much if I say I don't fully agree with this argument. Actually, sustainability, for me, includes -- it includes something that's socially sustainable as well, and we have seen, over the past two decades, how widening inequality have actually undermining the foundation of sustainable works because it leads people to be against organize and globalization, it leads them to feel technical progress, and it leads them to, in fact, rebuke competition as well. So, everything that have slipped growth is put into question in that cases, and sometime rightly so, because, you know, technology has destroyed some jobs and displaced some people, and the same for globalization.

So, I think this, the social support that can be brought to buffer the shock of globalization and technology diffusion, even if, overall and aggregated, it has been good, is actually welcome, but I think where Europe has a lot more to do is the form of the social support cannot only be income or distribution. It has to be -- it has to give an equal access to opportunities, and on this I'm not sure two models differ so much, unfortunately.

MR. REDIKER: Jason, thoughts?

MR. FURMAN: Yeah, yeah, I agree. I think if you don't have good social support, it

makes it harder for people to take risks. It makes them -- locks them into their jobs. There is macro evidence, that economists Berg, Ostry, and Zettelmeyer, at the IMF, a decade ago, found that greater inequality led to greater economic instability. Some people, like Raghu Rajan, have tied the borrowing and the runup to the financial crisis being a symptom of inequality, and contributing to that crisis, and maybe more importantly to the difficulty of getting out of it. So, I think there's a lot of ways in which lack of inclusion actually hurt economic resilience.

What I think might be the case, Laurence, in the projections she showed, had a smaller GDP contraction in the United States than in most European countries, smaller in the United States than Germany, for example. I have a hypothesis about that. I don't know, at all, if it's true, or a speculation, speculation's a better word, which is that we've been a little bit more resistant to the virus, itself, not resistant health wise.

We get affected by it like anyone else, and we take fewer precautions, and thus more of -- more Americans are getting it, and the caseload is higher here, but that we shut down a little bit less, in response to it, and as a result, you know, the virus, everything else being equal is bad for your economy. The more virus you have, the worse your economy will be, but the more worried you are about the virus, the worse your economy will be, too, and so, the United States has a lot of virus, but it's sort of willing to have it, and thus has a surprising amount of economic activity, given the extent of the disease, whereas in a country, like Germany, economic activity is more constrained.

As I said, that's very speculative. It doesn't line up with the numbers Laurence showed us from the survey of confidence of people across countries, but I think that's an interesting question to explore, and it would also explain why states with a lot of virus have done, economically, no worse than states in the Northeast, that have been much more successful in containing the virus.

MR. REDIKER: Well, certainly, and not the subject of today's conversation, at least not right now, but the financial markets in the U.S. would certainly bear some of that out, given the divergence of some of the virus impact and the health of the U.S. equity markets, but let me move onto a different question, here. How do you see the COVID crisis response impacting gender inequality? Now, the U.S. already suffers from less generous childcare benefits and system than in Europe, which one could argue depresses female labor force participation. Will this crisis make things worse? Let's stick

with you, Jason, if you don't mind, then we'll go to Laurence.

MR. FURMAN: Yeah. I mean, this is a crisis, the first one that has affected women more than it's affected men in the labor market, and you see it in lots of different ways. You know, people have looked at economists writing papers, and, you know, the productivity of female economists has gone down more than the pro -- sorry, not productivity, the output of female economists has gone down more than the output of male economists, and it's because, presumably, they're spending more time on childcare and work at home, so, not their output per hour went down, the number of hours. And, yeah, not have -- you know, that this hit a country without a paid leave system and without mandatory sick days is just -- reveals a huge hole in our social safety net, and I hope filling it is a top priority, going forward.

MR. REDIKER: Laurence?

MS. BOONE: Yeah, I think I -- so, I hope it's not boring, but I have to agree with Jason, as well, on this question. One thing to add is also that a lot of essential workers are actually women and the one that are exposed to safety risks, you know, in supermarkets or in less skilled jobs, in a hospital, home, nurses, and elderly care activities. So, not only they need to be penalized at home because they have to take care of the kids, but they also are very much exposed to safety issues. So, yeah, that I think is also weighting on gender inequality, and if you look at the larger part of the world, given it's also more difficult for a merging market to cope with the virus, and given the large share of income or where -- that they have, it's usually conn -- you know, women are even more penalized in this area of the world.

MR. REDIKER: So, let me stick with the gender issue, but move down to the children. Childcare is one thing, but American kids have, I believe, been less likely to go back to school, in most instances, than have European children. If that trend continues, and the U.S., the population of U.S. school age kids is disproportionately impacted by not attending school full-time, in person, the way their European peers are, do you think that there's a longer term impact that American kids, American students, actually fall behind in a globally competitive landscape, that American kids just simply lose some fraction of a year of their education and they never get it back?

MS. BOONE: To me, there are two things, and I'm sure Jason will complete, but one of the thing is, effectively, that a share of the population that's usually less well off than others struggle more with homeschooling and their parents are less able to help them. They have usually not the IT equipment

to do it, and the OECD has published something, I think a couple of weeks ago, to actually measure the impact it may have on long-term growth, but, which you may a look, and it can be, if my memory's good, about 1.5 percent of GDP, which is a lot, but more -- more importantly, I think it's also something that, you know, may have profound effect in the sense that if you have a share of population that's less skilled than -- and still there will be a share of population very well educated, and super intelligent, and functioning.

Then, the technological description may even more important than what it would be otherwise. So, that wouldn't be in the comparison with U.S. and Europe because there is the social cost of work in Europe to take into account, but what I'm afraid is that the hollowing out of some workers that we've seen with technology diffusion may be accentuated with the fact that a generation of people or part of a generation of people may (audio skip) skills.

MR. REDIKER: Jason, let me throw it over to you, but let me also throw on an add-on question, which is do you think that the concept of automatic stabilizer, which is prevalent across Europe, but not so much here in the U.S., that this crisis has shifted that dynamic so that the longer term use of automatic stabilizers, in the U.S. economy, is something that is more likely to continue, or are we going to go back to, you know, ad hoc response to crises as they develop in the future?

MR. FURMAN: I hope the answer to your question is, no, we will not go back to ad hoc response, and we're in a better place than we've been, in my, you know, economic policy involved life, to have improved automatic stabilizers. Just in brief, if your country has higher taxes as a share of GDP, higher spending as a share of GDP, a more progressive fiscal system, then, when a shock hits, you're going to have a larger fiscal response, even with no law passed.

The United States has a smaller government and a less progressive government. As a result, it has very weak automatic stabilizers. We could make the government much bigger and more progressive. There are aspects of that I'd be in favor of, but there is a simpler, more technocratic wonky solution, which is you put in place formulas, things like when the unemployment rate is above eight percent, automatically, you know, you get more unemployment, or you get a check, or you get extra nutritional assistance, or you get a bigger tax cut, you know, whatever it is, you put that in, you put the triggers in.

Some of that was included in the Heroes Act, in -- that passed the House. Even more of

it was included in other legislation, supported by various members of the House and the Senate, and, you know, it's something that is not going to be on the menu for if something happens this month, and something happening this month, or early next month, is very unlikely, but I think it's much higher on the agenda in certain configurations, next year, than it has been for a while.

MR. REDIKER: Laurence, so, I asked Jason about the U.S. automatic stabilizer possibility of continuing in the future. Let me go back to Europe, and one of the major European responses has been the creation of the Recovery Fund, and all of the dynamics around a common European borrowing instrument, for the first time in any sort of meaningful size. What is your view on the Recovery Fund and the issues around it? Is it the precursors of a Hamiltonian moment, or is it actually, as some critics would suggest, a one off, it's not going to go anywhere, and let's move on? Do you think it's got legs?

MS. BOONE: I think it does got legs. I mean, it's fantastic, right? We've -- throughout the financial crisis, and I think since the creation of not only the Euro, but since the first time countries started discussing the European Union and community, and this issue of fiscal and common fiscal and monetary policy, Europe has been talking about this common budget, without even mana -- you know, ever managing to do it, even in the depth of the financial crisis, or the Euro-Sloven crisis with Greece, and threats on Spain, and Portugal, and Ireland, we forget that. So, the fact that, today, there is, for the first time, a significant budget relying on common debt issuance is just super important, and it's massive, from a political economic point of view.

Now, when it comes to what will be the actual support to economic activity, then it's probably less significant, in terms of the demand gap that we were discussing. Most of the money will not be available in 2021. It will be 2022 and 2023. So, hopefully, when we're trying to, you know, lift trend growth and do long-lasting investment that can help shape our economies, but it's the cliff of '20. The risk of 2021 will not be offset by this. It's from an economic standpoint, but I think, from a political economy, sorry, and from this signal that there is a common fiscal voicing, and the step is absolutely enormous and fabulous, and for the entire world stability. We should be happy.

MR. REDIKER: I tend to agree with you, but I'm not being asked for my opinion here, so. The last question for you, from --

MR. FURMAN: You had -- one thing to say, Doug and Laurence, I mean, I'm not a great predictor of the internal dynamics of European politics, but interest rates are likely to continue to be very low. Maybe the next crisis, they're at zero, and the crisis after that, they're at zero, and so, monetary policy is just so constrained. The need for fiscal policy is so much greater that I think that's going to just keep the pressure on this issue and towards greater fiscal integration in a Euro area level fiscal policy.

MR. REDIKER: So, all right, let me pick up on that. I'm going to shelve the question I was going to ask, and just ask, so, are there, in your view, both of you, collected strategic benefits to having what could be as high as 750 billion Euros of Euro denominated, presumably AAA cross-border guaranteed, sought Euro denominated sovereign issuance, so that suddenly there's a common instrument, outside of Italian bonds, that is liquid Euro denominated, AAA, and that plays a role in reserve portfolios? Does that actually start to chip away at the predominance of the U.S. dollar as the global reserve currency of choice, or is it simply one of those things we talk about every five or 10 years and nothing ever happens?

MR. FURMAN: I mean, not to be competitive, but 750 billion is nothing compared to the \$20 trillion of U.S. Treasuries that the world can buy if it wants to. So, I'm not worried about the dominance of the dollar as reserve currency, and I think there's -- might even be some benefits to reducing some of the pressure on the dollar that comes from that status. Sorry, Laurence.

MS. BOONE: No, but I can only agree with this, and I think what makes the strength of the dollar is what is to have a united country, right? We are not yet in a, yeah, Federal confederation for Europe, so, but it's good. Stability in Europe is good for the rest of the world. So, it's still super important.

MR. REDIKER: Great, all right. Well, so, I'm going to turn it over to my chat function, here, where we've got a series of questions that have come in. I'm going to read these off the screen. So, I apologize if some of them are cumbersome. It's not the way I've written them. So, first question, how can the Trans-Atlantic relationship support the competitiveness of companies and industries facing a rising China? Will Europe end up being a supplier for China, or can we level the playing field, in terms of trade? Laurence, the relationship of U.S., sorry, the EU and China, and presumably the U.S. and the EU, as they relate to one another, vis-a-vis.

MS. BOONE: Well, I'm pretty -- I am not as negative as what the question is sort of

suggesting. I think Europe is also -- you know, what we were saying about the dollar and what we were saying about fiscal policy is also super important for trade, and as you know, trade policy is one of the common policy of the EU. So, there is a EU Authority in charge of monetary policy, there's another one in charge of trade and competition policy, and I think this crisis has shown that, also, these two, in these two areas, pragmatism could be implemented and step forward made.

Let me give you two examples. Competition, the state aid rules have been lifted, so that European states who are able to support their companies to different extent, but I think it did make a difference, and here as well. We will have -- Europe will have to reconsider, if not reboot, the competition and investment policy, and it has been started as well. Some barriers were put to make sure the investment from foreign countries was, into Europe, was controlled, and in terms of trade, I don't think, if I can end this with a joke, I don't think we should be very scared of any trade agreement being concluded very quickly, given how long it takes to make a small step, you know, if you look at the Sitar, the one with Canada, and what's happening with Brexit, so, which I'm not worried about this.

MR. REDIKER: Jason, thoughts on China-Europe relationship?

MR. FURMAN: I would just say the United States isn't big enough to take on China all on its own, would love to see more Trans-Atlantic pressure on our shared interests, vis-à-vis China. To do that would require the United States, though, to change its goals. I don't think we could enlist Europe's help in pressuring China to buy more Boeing jets. We might get Europe's help in pressuring China to be more transparent about how it handles intellectual property.

MR. REDIKER: Fair enough. Let me ask a question here, from Tom Wright, my colleague at Brookings, but it dovetails with that cooperation aspect. Tom's asking how would you rate international economic cooperation now, both on fiscal and monetary policy, specifically as compared to the response in 2008-2009? Does it matter that the G20 is effectively not doing very much? Jason?

MR. FURMAN: I, you know, there's been a lot of correlated action, lots of countries doing similar things at similar times. Very little of it has been coordinated. I don't know that that's such a huge deal, the distinction between them. It's debt relief, and debt standstills, and the like, for emerging markets in developing countries, that I think has suffered from the lack of coordination. There's been some, but it's quite small. The debts service moratorium, so far, that's been a bit less consequential than I thought

six months ago, in that capital has started flowing back into emerging and developing countries after the terrifying rush out in the month of March, but if we go back to problems with emerging and developing countries, that's where you really do need coordination and the convergent action isn't enough. So, I'm worried about that tail risk, so far. We haven't been that hurt by it, I think.

MR. REDIKER: Laurence, before you answer, let me just pick up on Jason's point on the DSSI, the Debt Service Suspension Initiative, and that is the global low-income country G20 initiative to provide debt relief. There has been some press reporting that the private sector, and in particular China, have been reluctant to play as assertive a role in providing that debt relief, as had been hoped for. Do you see that as being reflective of the nature of the lack of international coordination posited by the question? And I've been asked to clarify, that question was not actually from Tom Wright. It was from the Head of French Policy Planning. But anyway, Laurence, what do you think about those two sort of cooperation at the G20 level, in terms of fiscal and monetary response, and taking it one step further, on debt relief?

MS. BOONE: So, on fiscal response, I agree with Jason, that it was, you know, correlated, not necessarily coordinated. I think the continent signal that is sent when there is some more coordination is actually powerful in lifting up people confidence, and that has some benefits, but the fact is that the important thing was people's government actually spend the money.

On the debt service relief, actually the G20 initiative, it means that China is part of it, so, and that's the first time. So, I think it's a big success, and we should actually be happy with that. Also, it's just a first step, as well. I mean, if the country -- if the situation continues and continues to deteriorate, more will probably be needed.

There are a couple of things I would like to add. On monetary, Central Banks have always worked cooperatively, and I think we saw it again in this crisis, with the -- all the swap line from advanced economies, Central Banks, to others. There are two areas, so, where we are crucially lacking cooperation. The -- one is all the trade barriers that were put in the manufacturing sector, and especially for medical protective equipment. Frankly, when you have a shortage of supply and huge demand, trying to refence its border is the best way to make sure that a sub-optimal stock is reaching its country.

So, I hope that when we have a vaccine, we don't do these type of things and we

coordinate to ensure the entire planet may be vaccine as quickly as possible because as long as the virus will be somewhere, we will not be able to fully function as before, and I think that that's the key thing ahead, is vaccine coordination, and trade cooperation for, at least, you know, medical protective equipment. That's super important.

MR. REDIKER: Great, thanks. Let me ask you, are we missing a global opportunity to transition to a greener, more digital, more inclusive global economy? Is this -- you know, Rahm Emanuel, the former White House Chief of Staff under President Obama, famously said never let a good crisis go to waste. Are there opportunities that we, collectively, are missing right now, including the one posed by this question about taking advantage of this crisis and reorienting some of our policies to favor digital greener economies, technologies? Laurence, you're up on my screen. So, I'm going to point at you.

MS. BOONE: Okay. Okay. So, yeah, a couple of things. I think the first phase, we were really in emergency, and that was fine, but it's true that, now, we -- governments are setting up their recovery plans, and as far as we've seen so far, it's very difficult to even account for what's green and sustainable to even account for, you know, prioritizing spending beyond the health necessity, focusing on education, or making -- thinking about inclusion. So, it might not be for this recovery plan, but I think even super important, but we -- this crisis is likely to be long, and that requires us to actually do the work, that we haven't done in the previous crisis, and learn the lessons from, for example, some investment that were made in renewable technology in not a very thoughtful way in the previous crisis.

So, all of these things we should be -- it should be the time to think a little more about granular policy, and how we want to reboot the world, and to make sure that, I'm going to quote a French writer, when asked what he thought the world post-COVID would be, this writer was famous in France, but I don't think elsewhere, said, well, it will be the same, but a little worse. So, I hope we don't do that, and we manage to change things for something a little better, at least.

MR. REDIKER: Jason, any comments? I'm just smiling at the same, but just a little worse.

MR. FURMAN: Yeah. I think the sooner we do something on climate change, the better, if it's in service of, and argued that it's helping this. I don't think it's, like, the number one priority in responding to COVID, but it could help a bit, and, you know, they could be linked, or they could be done

in parallel, just like we did the Affordable Care Act at the same time we were doing the financial crisis, but, either way, the sooner we deal with climate, the better.

MR. REDIKER: Laurence, let me pick up. Jason, during his remarks, mentioned a potential optimal debt to GDP level in the U.S. of 150 percent, and, you know, noted that the Maastricht Treaty has a 60 percent target in Europe. I don't want to put you on the spot, but I'm going to. What do you think of Jason's 150 for the U.S., and, more importantly, what's the right number for Europe, knowing full well that whatever an economist, even one as prominent as yourself, suggests is likely to run into some pretty hard walls within the political economy of Europe, but what's the right number? Ah, they are

MS. BOONE: I don't -- I don't think there is -- I don't think we can find the right number. I completely agree with Jason on this. I mean, one thing is sure, you know, that Europe was able to lift the rules of stability on growth fact in this crisis. Now, obviously, the discussion ahead of us is what do you do with this fiscal framework? How do you think about it? And what I particularly liked in Jason's presentation was the way he had to drag people to think about the flows to stock analysis and what that means, also, in terms of what Central Banks are going to do, and I think, you know, one of the top priority that we have, actually, for the Economic Department at the OECD is to -- what do -- is to think about how are we going to define debt sustainability in this new world? What's the definition? What are Central Banks move -- changing about it? How should we look at it? So, that's work ahead of us, and, frankly, I don't think any honest economist, today, has an answer to that question.

MR. FURMAN: Yeah.

MS. BOONE: That's a great web program.

MR. FURMAN: And just to put one number on it, you know, when Maastricht was agreed, the 10-year borrowing rate for Germany was eight percent. Now, it's minus half a percent. It may not stay at minus half a percent. It may go all the way back up to one, maybe it'll even go to two, but, you know, at a two percent interest rate, in some sense, you can afford four times more debt than you could afford at an eight percent interest rate, and on the difference in real interest rates, actually, it was proportionately even larger. So, you want to think about this very differently than the 60 percent target that was set, you know, an entire world ago, economically speaking.

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MR. REDIKER: One could make a very strong case that when drafting Maastricht, and coming up with the Euro, if someone had said, in the year 2020, you'll need a negative interest rate environment, that you would have been laughed out of the room. So, clearly, a rethink is probably appropriate. Jason and Laurence, it's time for final words. I'm going to ask Jason if you can give your final summing up, and then, Laurence, to you, and then we will conclude this year's Aron Lecture. Jason, a minute or two on your final thoughts.

MR. FURMAN: I just wanted to end by saying, you know, I -- there's been a lot of commonalities in the response, there have been a lot of differences, and I think there's a lot to be learned from what other countries are doing. Some of it we can learn in real-time, some of it will take more time, and that's why these types of discussions are so important, and people, you know, organizations, like the OECD, and people, like Laurence, they can go back and forth, are so important because too often we just look to, you know, other policy response in our own country, when there's so much more we could learn by looking outside.

MR. REDIKER: Laurence, the final words are yours. Please.

MS. BOONE: That's too much, but I would add that, you know, we -- I know that everybody has said we're living in an unprecedented uncertain world, but I think it's true, and what that requires is actually some -- a lot more humility and flexibility than we usually have and this type of dialogue, where we can exchange, at least, I -- that should be preserved and enhanced because the situation will be evolving day by day, and we've never gone through something like that. So, being a little more open, and pragmatic, and discussing, and we rely on you and look on the Brookings to actually organize more talks to that direction.

MR. REDIKER: Well, look, on behalf of Brookings, first of all, I'd like to thank Laurence and Jason, as well as Ambassador Etienne, and our own Suzanne Maloney, for your remarks today. This concludes the Aron Lecture. I think it was fascinating. I think it was useful. I think it was timely. Hopefully, we can do it again, either in this forum or in another one soon, and to all of you watching online, thank you for joining us.

MS. BOONE: Thank you.

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