## General Discussion: Fiscal Policy in the Age of COVID: Does it 'Get in all of the Cracks?'

Chair: Janice C. Eberly

Mr. Obstfeld: This is a really great paper. It's really impressive in its ambition and scope and the kinds of questions it can answer. I have a simple empirical question. One of the themes of the paper is that in a world of pervasive supply constraints, fiscal policy may have small output effects, but can have a big effect on employment. And if I just look at the recent U.S. data, what we see is that following the American Rescue Plan and other fiscal measures, the United States returned to its pre-pandemic level of output pretty quickly, but not employment. I'm not talking about the unemployment rate, but about total employment remaining far below pre-pandemic levels and even farther below the pre-pandemic trends. So, how do I want to think about this within the context of the model?

Ms. Chari: I echo Valerie (Ramey) in that the results are quite encyclopedic. I was also very interested in your results that shows that you do not think that the zombification risk is particularly high in the current scenario. But my question relates to the fiscal policy spillovers, which your results seem to suggest internationally these effects are small. And my question is, is this something specific to the pandemic or something we would see more generally? And can some of this be explained by the pandemic's impact on shutting down economic activity across the globe in a disparate manner and across

sectors as well as in timing? And would we expect higher spillovers when global supply chains and trade linkages are not disrupted as they have been during the pandemic? Or do your results suggest that the fiscal policy impacts in general are largely domestic?

Mr. Gourinchas: Let me just first thank Valerie. Fantastic discussion. I think we have very similar views on these questions and this idea that somehow very aggressive policy early on in the pandemic is something that can help preserve the linkages in the economy is, I think, a very important policy recommendation. Let me now get to Maury's (Obstfeld) question about the fact that we see output roaring back, but employment is lagging behind. How should we think about this? First, the rebound in output is easy to understand. We analyze this in our two-speed recovery scenario. Under that scenario, COVID constraints are lifted in advanced economies. We keep them on emerging markets. I didn't have time to show the results in detail, but what we find is that there is a large boom in output in advanced economies. And it's largely coming from the fact that all the supply restrictions are lifted while at the same time, there is an increase in desired spending for households in these countries. The combination of these two forces gets you a roaring economy. But it wouldn't give us an economy that necessarily lags behind in terms of employment. I think there are deeper forces that maybe are at play here in terms of labor force participation, maybe changes in work attitudes and things like that, that our model is not designed to capture. I think some of the other papers on the program today will talk about some of that. Now about Anusha (Chari), on the spillovers and whether they are specific to the pandemic. In some ways they are. One way to see this, and this is something we're still exploring with my co-authors, is again by looking at the two-speed recovery scenario. What happens when the supply frictions are lifted in advanced economies? As I have just said, advanced economies start to roar back to growth. We run a scenario where at the same time, advanced economies keep the fiscal pump going, perhaps because they don't get the timing right. And there, we start seeing much bigger adverse effects on emerging market economies. So, there is a sense in which in normal times, the spillovers might be different from COVID time. This is something we're looking at a little bit more carefully now. Again, if Sebnem

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(Kalemli-Özcan) or Veronika (Penciakova) and Nick (Sander) want to add anything, please go ahead.

*Ms. Kalemli-Özcan*: Just to add to what Pierre-Olivier (Gourinchas) said, to Anusha Chari's question, we also believe the global I-O metrics has a role here, Anusha, especially combined with the different nature of the COVID shock. Currently, we are exploring this further.

Mr. Syverson: I wanted to ask a question about the optimality of the targeting of fiscal support to firms. You mentioned that a very large share of it went to firms that didn't exit, 90%, I think. It seems to me that if there are irreversibilities, if capital's partly sunk or any sort of asymmetric adjustment costs, firms could be too small, even if they don't exit. So fiscal support that keeps them from shrinking more than optimally given the adjustment costs would still be useful support even if they don't exit in the counterfactual. If you wanted to evaluate the total efficacy of the support, you would have to not just evaluate who exited and who didn't, but how big they would optimally be in absence of the support. Am I thinking about that right? No doubt, there are probably larger discrete changes in that kind of stuff around exit. But I think even for those firms that didn't go out of business, this could still matter and help.

Mr. Krishnamurthy: This is an impressive and rich analysis. And I'm going to ask an unfair question. You are running spillovers right now through interest rates and the terms of trade. As you know, and you have both worked on this topic, an important channel of spillovers is through balance sheets, particularly the banking systems in advanced and emerging economies. Let me try to think through how bringing that factor back in may alter your conclusions. First, for your retrospective analysis, you conclude spillovers are small, which means if we didn't have advanced economy fiscal support as large as it has been, outcomes in emerging economies would have been the same. That conclusion strikes me as hinging on missing the balance sheet channel. That is, if there had been not sufficient advanced economy fiscal support, we would have seen higher defaults in advanced economies, picking up on Valerie's point about linkage breaks. This would have weakened global bank balance sheets

in advanced economies, and then could have had led to a credit supply reduction to emerging markets. Next let me consider your prospective analysis. I endorse your focus on the two-speed recovery, as that seems particularly pertinent to the world going forward. I am less clear on how bringing back a balance sheet channel might affect your conclusions. It is possible that past fiscal support has actually led us to a current situation where balance sheets are strong so that if advanced economics pull back fiscal support at this point, the spillover impact would be small going forward. I could also imagine that if the cumulative impact of the shock on emerging market balance sheets have substantially weakened these balance sheets, then a pullback now could trigger a sizeable impact on emerging market banks and corporates, and thus a large spillover. I look forward to your own thoughts on these balance sheet effects.

Mr. Gourinchas: Well, let me address Chad's (Syverson) question and then I will let Sebnem answer the question from Arvind (Krishnamurthy). On the irreversibilities and the fact that maybe some of the support would help preserve the option value for businesses going forward, I fully agree. This is not something that we are able to address in the relatively simple *framework* that we have. But I want to point out something that goes in the other direction and connects this presentation with the previous paper by Veronica and her co-authors, which is that there is an important assumption that we're making here. This assumption is that the sectoral reallocation shocks can be persistent, but they are transitory. Ultimately, the world of, maybe not tomorrow, but the week after tomorrow, or the year after tomorrow is going to be very similar to the world of yesterday. And that also has an impact in the way we might be thinking about some of these policies that support businesses and maybe help some of them survive. If the reallocation shocks were instead permanent, then we would have a different assessment. So, I think your argument would lead to a more positive assessment than we do. If reallocation shocks were more permanent, maybe the assessment would be more negative. We're sort of in between.

Ms. Kalemli-Özcan: Arvind, you're exactly right that the balance sheet effects are going to be extremely important for emerging

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markets. And in a sense, right now, our fiscal policy spillovers doesn't take that into account. So, it might be as Valerie and you mentioned, by keeping these links and preventing firms from defaulting, governments helped banks' balance sheets to stay safe. Monetary policy also has a role here as emerging market banks are connected to global U.S. banks. And in fact, what happened in 2020, why emerging markets' capital flows went back and balance sheet stayed strong is the ultra expansionary U.S. monetary policy. That has the first and foremost effect in terms of bank balance sheets and corporate defaults in emerging markets. And that's exactly why Pierre-Olivier said in the conclusion, moving forward, tapering the U.S. monetary policy is going to be the more important aspect in terms of the weakness in emerging market bank and corporate balance sheets. We believe that is going to have a bigger role. So maybe fiscal spillovers can also have a bigger role than what we estimated if it helped to keep firm-bank linkages in the economy as Valerie has mentioned, but we believe U.S. monetary policy helped more to emerging markets. And moving forward, that's where the vulnerable lies. It can go into the opposite direction, moving forward, when the Fed starts to taper.

Ms. Lucas: I want to echo others by saying it's a really impressive paper and a great discussion. But what I want to ask you about is, could you say more about the way that fiscal policy and particularly its cost and multiplier was measured for the pandemic loans? As you all show, government-supported pandemic loans were the largest component of fiscal support for many countries, at least when you measure that in terms of the amount of principal take-up. But I've been arguing now for many years that the fiscal effects of credit policy deserve more care in these sorts of policy analyses. There's work I'm currently doing with Gee Hee Hong at the IMF. It suggests that the fiscal costs and program incidence in terms of the size and riskiness of the recipients in the COVID case, varied enormously across countries and programs. And I wonder whether abstracting from those differences might affect your conclusions? I suspect they probably don't change the major conclusions, but I just want to point out that for example, in your table, it looks like the German programs were particularly large. But in fact, if you look at them closely, the fiscal cost or the subsidy element is actually relatively

small compared to other countries. And then by contrast, where in the table the percentage of GDP looks rather small for the U.K., there was this very generous bounce-back loan program for small businesses that had an enormously high take-up rate. And the U.K. Office of Budget Responsibility now is estimating that 40% of the program borrowers may default, which could lead to losses of 33.7 billion pounds. But that does suggest a high default rate among those SMEs and presumably higher business failures among them in the future. I wonder if you could just comment on some of those points.

Ms. Swonk: I'm not sure you can comment on these or not, but I'm thinking back to, as I was reading these papers and they're fabulous, last year, and our thoughts about dynamism and the U.S. economy and legacy effects of COVID. And when I'm looking at this, I'm thinking of the large companies that are driving wage gains now are those that are able to most rapidly adopt existing technologies and leverage those technologies and raising wages, even for low-wage workers. At the same time, we've seen this surge in new business formation, which initially looked like it was not very high-quality business formation, but more lately has seemed to be more high-quality business formation. And I'm not sure whether that's going to be the case or not, and these firms are going to last. But I wondered what your comments were and how you would, through the lens of what your work was, particularly in the U.S., in terms of what does this mean for dynamism in the U.S. economy?

Mr. Gourinchas: Debbie (Lucas), in the first part of the paper, where we're looking at business failures, we have a disbursement formula for pandemic loans that is basically borrowed from what many countries in the European Union have been doing. I should mention that that analysis does not include the U.S. We don't have high-quality data on small and medium enterprises for the U.S. so we're not looking at programs like the Paycheck Protection Program (PPP) for instance. We're not looking at the U.S. here. For many of the countries that we have, we are using a disbursement formula that's based on what many European countries have been doing. And then, we have some estimates of the funds actually disbursed so we can adjust, and to the overall data on the volume of funds that were disbursed. So, this is

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how we actually measure this. When we were doing the more macro part of the paper, we're looking at overall spending. Most of what we're using there is what the IMF calls above-the-line spending. This does not include funds disbursed under things like pandemic loans. The second part of the paper is really about direct fiscal spending to support businesses and households. And this may be why the U.K. numbers there might look smaller than if you were including these numbers. Now going to Diane's (Swonk) point, yes, it would be wonderful if we could somehow connect this to coming out of the pandemic or there's some structural changes in the way businesses are adapting, adopting technology that leads them to be able to make their workers more productive, maybe offer higher wages and how that varies across the distribution of firms between large and small, we're already trying to do maybe too much in that paper. We didn't try to push on that, but that's a fascinating question. I think it would be wonderful to look into this.