

General Discussion: An End to Pre-Pandemic Trends or Just a Temporary Interruption?

Chair: Peter Blair Henry

Mr. Ferguson: Great presentations, all. Jason (Furman), at the, I think, end of your presentation, you hinted at something that might be called opportunistic inflation retargeting going from 2 to 3 percent. I wonder if you'd comment on the possibility of getting rid of a numerical inflation target altogether, and going back to the concept that inflation should just be low and steady, and will move around as need be, given what the external circumstances are. Second question also to Jason. I agree with you on the disconnect between CEOs and economists on the productivity of work from home. What's your sense of a hybrid world in which we get the best of both worlds, and thereby maybe keep a little bit of a productivity surprise, having people do what they should do at home when that's the most productive place than otherwise be in an office? Thanks.

Mr. Frenkel: There's so much to say about all of what was said here, but I'll only focus on couple of points. Number one, the role of models. I'm not sure that the problem is lack of effort, but rather the inherent limitations of models. All the models predict the future on the basis of the past. And when the future is fundamentally different than the past, that's where they lose some of their usefulness. So I think we should recognize it. And the combination, of course, of oil, food, COVID, supply chain is a good excuse, so to speak, as to

why the models would not work so well, but also a note of caution that we should not rely on them overly. Which means also that when we spoke about forward guidance, it is made by bunch of people, all of them have at the end of the day, to look at the past to focus the future. And we should, occasionally they may be actually counter-productive because they represent to the market as if there is greater knowledge than what there is inherently in it.

Next point has to do with the zero interest rates. People were asking for long time, “Where is the inflation?” We are pumping so much liquidity into the system and we do not have inflation. So maybe we should really think again about our conceptual framework. But I think that one of the things that was missed, that we focused on the CPI (consumer price index), or on variations thereof, and inflation when zero interest rates exist is showing itself in the price of assets, in the price of housing, in the price of durables, in the price of those things that do not find their place directly in the index that we are measuring. And I think that’s one of the costs that we have heard of the zero interest rate period. It served as well in some other dimensions, but it also diverted the attention and the pressures to those markets that are not part of the CPI. And once interest rates started to rise, suddenly more conventional measures of inflation increased as things were shifted to the commodity markets, to the goods market. And so, I don’t think that we should have been so overly surprised in the manifestation of the inflationary pressures rather than in their existence.

And finally a remark about globalization: Many spoke about emerging markets, industrial economies, etc. The fact is that we do not have the global machinery to deal with many of the global issues. And also few who have attended the last G20 meeting will only testify to it. When we have lack of political consensus in the geopolitical field, we should not be surprised that we do not have the tools to deal with global issues. Thank you.

Ms. Moyo: Thank you. Actually I’m just picking up on Jacob (Frenkel)’s last point. I find it quite interesting that there hasn’t been much more emphasis placed on de-globalization. And in a sense, there are a lot of what are on your slides and in your comments, you could argue, are proxies for it, but I want to push you a little bit and make the

point that actually, if we're moving from a sort of win-win globalized world into a de-globalized, arguably zero-sum world, we can debate that, then actually there's a higher probability that asset allocators and capital allocators, corporations, sovereign wealth funds, other institutional investors will pivot towards more investment into the U.S. And that means that the U.S. actually becomes more of a net importer of inflation. And maybe to put it more poignantly, would you like to recalibrate your comments around inflation probability and rate trajectory, given de-globalization and that being a real powerful force, I would argue, in terms of driving inflation forward? Thanks.

Ms. Coronado: Well, just adding on to this. So this will be very thematic, is the whole idea of globalization, I think, is really at the center of both the inflation and the productivity. The idea that it didn't matter as much as we thought, I think, is debunked by the idea that if you look at goods versus services inflation in the three waves of inflation, starting in the late '60s through the '70s and culminating in the early '80s goods and services inflation in the U.S. moved in lock step together, point for point, everything was moving at the same rate at the same pace. And then what changed? Inflation target, credible central bankers, but also goods inflation dropped to zero or even negative for decades. And what spiked during COVID? Goods inflation. Services inflation, yes, higher, but more in line with our models and more cyclical. And it's really goods inflation, and that's the key to the productivity outlook. Are we in a world where we are de-globalizing, or re-globalizing? If we're re-globalizing to more friend-shoring, and redundancies, and resiliencies in supply chains, we could end up with a relative price shift, but inflation processes that go back down. Or we're in a world that's much more volatile and less productive and the trade-offs for central bankers are much worse. And to me, that's like the essence of the question

Ms. Kalemli-Ozcan: Okay. It is a great panel, my question is going to be on real-time data collection. In that sense, it is for Gita (Gopinath), because I believe IMF (International Monetary Fund) is the leading institution that can do this on a global scale. Let me explain where I'm coming from. Gita: In the first part of your presentation, without any structural shift, you mentioned the lessons learned and what type of models we need moving forward, incorporating those

lessons for monetary policy making. We actually have some of these models in academia and exactly as you said, they are not used by central bankers. For example, our model we use in our ECB (European Central Bank) Sintra paper incorporates all your three lessons: the massive stimulus, composition change in consumption spending from services to goods, and the speed and sector heterogeneity.

Our model is an extension of Baqaee and Farhi macro network model to an open economy, where we decomposed observed inflation in the U.S. and euro area into capacity constraints, aggregate stimulus, and all that, all the things you mentioned. Now, the big difficulty we face when taking this model to the data is the lack of real-time data at the sectoral basis. You can't do with proxies like mobility or teleworking. You need labor hours, you need consumption spending. You need all these at sector level for over 60 sectors. And in fact, our paper presented in June 2022 has to stop at the end of 2021 because of lack of data for 2022. So my question is on what IMF can do on this, in terms of real-time data collection for real-time policy making?

Mr. Henry: Okay, starting with Jason, we give each panelist two minutes to respond and then we'll do another round of questions.

Mr. Furman: Hybrid, best of both worlds. I wasn't sure whether to trust the economists or the CEOs, Roger (Ferguson), you're both. So whatever you think, I think we may find ourselves in a better place. I do think, though, it's more likely we'll find our way to compensating differential, and I am worried about work intensity on Fridays in a hybrid world where the sports events, as Raghu said, are live. I can't imagine getting rid of the inflation target or going back to a secret inflation target that we had before we had an inflation target. So I think it might be a range, and then a range turns into another target or something like that. I don't know exactly.

All the discussion of de-globalization and the like, I think that's really important for productivity growth. I think that's completely irrelevant for long-run inflation. It then in the medium run can matter. The productivity decline we saw over the last year meant nominal GDP went up, but we didn't get actual extra production, we got

extra prices. Thought of another way, wages were based on the old productivity and the productivity didn't end up justifying them and so we got prices. So the positive productivity surprise helped inflation in the late '90s. The negative productivity surprise hurt inflation over the last year, but those are transitory as wage setting and the like adjusts. And finally, on real-time data collection, I realize I advocated for daily productivity data, but I'll just refer you back to the, we have no idea if the U.S. economy was larger in Q2 of 2022 than it was in Q4 of 2021. And so, I think real-time data can be more confusing than it is illuminating, unfortunately.

Ms. Gopinath: Okay. So I'm just going to respond to the questions on globalization, and then Sebnem's (Kalemli-Ozcan) question on data. On the link between de-globalization and re-globalization and inflation, first, it's very hard to look at global trade data and make the point that the inflation that we are seeing now comes from de-globalization. Global trade recovered very fast from its drop during the pandemic. It is higher than it was pre-pandemic, so global trade has been strong, right? Now, this was a reflection of fact that trade is in goods and this big increase in demand for goods showed up in increase in trade. And so, when we look at the supply, the disruptions that happen in the supply chains and so on, or the increase in shipping costs, this went along with record-high quantity movements, including in terms of the number of ships on the water and everything.

So, this was not a supply shock, this was strong demand hitting. So, can you imagine what this pandemic would've looked like if we had work from home and we were in the world pre-1990, when global trade was much lower and we could not just buy our tables, and our computers, and everything at the prices that we did. So I think I just want to make that point that this—I'm not going to look at inflation today and say, "Well, this is telling us the de-globalization creates trouble."

Now, the question is looking ahead what the risks are to de-globalization. And I think the risks are real. People talked about the pandemic generating risks because people wanted to build resilience and so on. I think firms should absolutely build resilience and diver-

sify sources. I think the bigger risk has come after Russia's invasion of Ukraine and the fragmentation that's generating the blocs that are being created. And so those are risks. I think there is the question of what the private sector does on its own, and then there's a question of what policy makers decide in terms of signals. And that's the point that I did make, which is that in terms of regime shifts over the next five years, one of the risks I am worried about is that we will have very disorderly global trade disruptions, and then fragmentation. So I think that is an absolute risk to worry about.

Sebnem's questions on data, and I had a great answer, then Jason said something about real-time data is bad. So I was like, "Okay, well." I like to think that all data is good. The more data we have is better. And of course we figure out what works and what doesn't work. I don't know whether IMF is kind of well-placed to get that data, but I do think there's a lot. One of the things that we did pick up during these last couple of years was many other interesting sources of high-frequency data that we've been using, including the work that Raj Chetty has done, for instance, and others, right? So I think that's great. Jacob, just to your point, everything we say about the future is based on what we know about the past. So if it's model based, if it's empirically based, if it is your gut feeling, it's all based on some experience from the past. So I will agree with you that models alone are not going to do it and we need judgment and everything else plays a role.

Mr. Liu: First, I would like to give great thanks to all the speakers you have given very, very good speeches. And I have two questions for Gita. At first, you have talked about the three factors that have driven the inflation up, and do you think a global fiscal stimulus is the main factor that pushes the inflation up? And how do you think the effect of global expansionary monetary policy on the rising of inflation?

Mr. Bullard: This is connecting something Valerie (Ramey) said was something Jason Furman said. Valerie says we have a lot of debt in the U.S. and around the world, and in Europe, the U.S. can borrow at 10 years and around 3 percent. I attribute that to confidence in the central bank. Jason Furman says we should mess around with the inflation target. That sounds like we are going to introduce infla-

tion risk premium into those borrowing rates and make the problem Valerie identified that much worse.

Ms. Richardson: I wanted to go back to what Valerie said, the facade of cyclical trends. If that was a Netflix special, I would binge watch it tonight after dinner. I'd like to add one more and get some comment: housing. Housing is being couched as a cyclical response to higher mortgage rates, but it's actually been chronically undersupplied for a decade. So what is the proper view, in a monetary context, of the housing market? And are we taking the right view of housing in terms of the transmission of monetary policy to main street?

Mr. Kashkari: Gita, just gently, I want to push back on your conclusion that running the economy hot entails significant risks. Prior to the pandemic, a lot of us had these debates: benefits to workers, etc. This is not what we had in mind when we talked about running the economy hot. This is a raging inferno. And so I think a raging inferno entails significant risks, but my conclusion from this is not that we need to go back to the old way and imagine that inflation is around every corner and we need to get ahead of every one of those, what I used to call ghost stories. Thank you.

Mr. Sufi: Thank you. Great presentations, I really enjoyed them. Learned a lot. This is mostly a question for Gita, but I think Jason probably has thoughts as well. I was really intrigued by the idea that we don't have a good sense of why we got such strong inflation and that our models don't do a good job of telling us. And you had the left figure on one of your plots on just government fiscal support and that relationship with inflation. I wonder if you could have anything to say about the distributional aspects of that fiscal stimulus. I was just looking at the economic tracker data from Raj Chetty and company, and they have low-income ZIP codes spending since pre-pandemic is up 23 percent. Middle income is up 17 percent and high income is up just 11 percent. So we know that there's been this disproportionate growth in spending coming from lower income and middle income Americans. And it does say if you look at the Gabe Zucman real-time inequality paper, he assigns a lot of the income growth, especially in 2021, to the fiscal stimulus. So I'm just wondering if you think that's a plausible explanation, not just did we do fiscal stimulus, but it was

targeted toward people that we think maybe the demand effects are particularly large.

Mr. Knot: I have a question for you, Jason, on this higher inflation target. I mean, would you agree with me that essentially, this debate is about where the boundary lies between rational attentiveness and rational inattentiveness? And what makes you comfortable that if you moved up beyond that boundary, that we would not be effectively bringing back all these kinds of automatic indexation mechanisms, etc., the things we got so painstakingly rid of in the 1980s? And secondly, suppose there was agreement on this higher target nonetheless, what would then be the optimal timing to go there? Isn't this the most lousy timing to think about?

Mr. Rehn: My question goes especially to Gita. Both the Fed (Federal Reserve) and the ECB have recently revised their monetary policy strategies—the Fed emphasizing maximum employment, the ECB going for a symmetric inflation target over the medium term (so, in a way to Jason's direction). Now, in the euro area, at least, this has helped to avoid premature tightening during COVID. But of course we are now in a completely different context with Russia's war in Ukraine and the energy crisis speeding up the already excessively high inflation. So, I would be curious to hear, as you stopped short in your conclusions, whether you would advise us, e.g., in the euro system, to start a revision of our monetary policy strategy earlier than 2025, which is envisaged, or should we just do policy real time?

Mr. Furman: So, I probably spoke with more confidence about raising the 2 percent target, than I intended. If I'd had an extra 10 minutes, I would've done more caveats. I have in descending order of confidence, the most confidence that New Zealand should raise its target. The second most confidence that blue sky, doing it from scratch, no one knows anything about inflation or anything that we would do a number like three percent, possibly even four percent. And then, there's the much more complicated issue that I don't know the answer to, which is how we transition to it. If it looks like we just gave up, so we went to three percent, then we'll just give up again and go to four percent, then we'll just give up again and go to five percent

if you get the inflation risk premium and you get hurt by all of that. So I don't know.

What I think is having in the back of your head, that it would be a really good idea if it somehow could happen and then look for what the opportunistic inflation resetting is. So if you sort of know, it would be wonderful. It could happen. Maybe it can, maybe it can't. Let's see. So the next framework says two percent, but if we're away from it for a while, that's okay. And then the framework after that says two to three percent, and then the one after that says three percent. So this is all done by 2035. I don't know, maybe that's the way to do it.

Ms. Gopinath: There were two questions that were about, so what do we think were the big factors in generating the inflation, right? Was it fiscal stimulus, monetary stimulus, was it the distribution? "I don't have the answer." We know there are multiple factors and there will be a... good body of research that does the breakdown. Sebnem has done some very nice work on this, but I think it's too early for us to know the answer. I know there are people out there who feel very sure they know the answer too, I don't know where they get that confidence from.

Then on the questions about monetary policy by Neel (Kashkari). So there is a real chance that we go back to the world of low real interest rates, at the zero lower bound, secular stagnation, and so on. I don't think any of us can rule that out. And in that world, the idea of running the economy hot, a bit overshooting, worrying more about inflation de-anchoring on the downside, makes complete sense. And of course, there are countries where I think that is an issue even now. So at no point am I saying that is not relevant anymore. I think the point I was making was that especially what this episode has shown us is the gap between going from hot to being inferno, may be very small.

Ms. Ramey: So there were many good comments, but I don't have time to address them individually, so let me address the ones that are tied to a common theme. That theme picks up on something that Jacob Frenkel said, which was that there was a problem with our models. I would say the problem with our models is not that they

depend on past data, but rather that they don't include non-linearities or sectoral specifications. With respect to non-linearity, most of the models incorporate the Phillips curve but they log-linearize it. Thus, they don't take into account the possibility of a quick transition from a little bit of inflation to much higher inflation, the raging inferno that President Kashkari mentioned. And I always love Esther George's metaphors based on her growing up on a farm. I did not grow up on a farm, but I did do horseback riding when my daughter was growing up. I recall that sometimes you just can't get those horses to come out of the barn. This is kind of like central banks before COVID, who struggled to raise inflation to just 2 percent. But then suddenly something spooks the horses, and they gallop away leaving you behind in the dust. I think we need to put more non-linearities in our models to capture these sudden switches. And COVID has given us lots of data to do it in a smart way.

Mr. Henry: Thank you Valerie. I want to close with a thought and a question. The thought is that Valerie made a very important point: Pre-COVID, it has been a theme during these sessions that lawmakers the world over have frankly fallen down on the job in terms of passing legislation to promote good economic policy. The failure to address the deficiencies in K through 12 education in the U.S. is a great example of overly relying on central bankers to do the work for which lawmakers have responsibility and are elected to do. And related to that, I ask a question—it's a thought experiment: Global Financial Crisis vs. global pandemic. A lot of evidence suggests that in the Global Financial Crisis, in terms of risk management and the combination of monetary and fiscal policy, there was a vast under response. Would we want to have seen a similarly temperate response from a combined monetary and fiscal perspective during COVID?