

General Discussion: Scarring Body and Mind: The Long-Term Belief-Scarring Effects of COVID-19

Chair: Susan M. Collins

Ms. Collins: Let me start by saying that I'd be very interested to hear more about how belief scarring might interact with other factors that we believe are key in driving down interest rates. Of particular interest here is demographics, which we discussed quite a bit in the previous session. For example, would an aging population with smaller cohorts entering the labor force actually exacerbate what you are talking about?

Ms. Boushey: I wanted to tie this to Chair Powell's remarks earlier and ask a question about the policy implication. Laura (Veldkamp), what do you think that the findings mean for the weight of the capacity of the Federal Reserve versus Congress and the executive branch, in advancing an effective policy response to this crisis and fostering a strong recovery?

Mr. Bloom: To the extent to which there is belief scarring, is it a good or a bad thing? In terms of more realistic about what is going to happen in the future, and invest accordingly, and plan accordingly, should we be worried about it or is it helpful to avoid mistakes?

Mr. Krishnamurthy: I want to ask about the application of this idea to the COVID recession. Economic outcomes in COVID are the result of the fundamental shock of the pandemic as well as the national

health response to the shock. And I wonder if you can say more about which aspect of beliefs have changed in COVID. Is it the beliefs about the probability of occurrence of a fundamental pandemic shock or is it beliefs about the ability of the health-care system to deal with the shock? And I ask that question, in part, reflecting on the experiences in other countries. I am thinking of countries in Asia, such as South Korea and Taiwan, which have had these types of pandemic shocks before and which appear to have dealt much better with the COVID shock. Should we think about of the scarring in your analysis as coming from a change in beliefs over the U.S. health responsiveness?

Ms. Gopinath: Two short questions. One is in terms of the long-run effect. You have something lasting very long. The question is, of course, you have newer generations who haven't experienced this shock and they'll die away over time, as one might expect. Second, do rare events always have to be disasters? We are for the first time seeing progress on a vaccine in a way we have never seen before. If it turns out that there is going to be an effective vaccine that comes out in the very near future and it is effective, that can shift the beliefs again, and will that mean the impact of this crisis will not be as negative as you predict?

Ms. Collins: Do rare events always have to be catastrophic, or can we focus sometimes on rare events that are actually very positive? Really interesting point.

Mr. Blinder: This is related to what Gita (Gopinath) just asked you. Like many people, these horrible events have made me think about 1918, 1919, 1920. And when I think about that, I think that the Roaring Twenties, which included, among other things, the crazily soaring stock market, followed not so long after that—way before your graphs. So, I wonder if you or Ken (Rogoff) could comment on the aftermath of the devastating pandemic.

Mr. Hatzius: My question is also related to what Gita and Alan (Blinder) were asking, but specifically the parallel with the 9/11 terrorist attacks. After 9/11, I think many people thought that people would have a long-term fear of flying and that nobody would want to live in tall buildings for a long time. After all, the possibility the

terrorists might fly planes into buildings wasn't really in the pre-9/11 information set, but within a few years air travel was making new highs and high-rise condos were selling at record prices and that also makes me wonder whether this is going to be so long lasting. I say especially if we learn from our failure to protect against the pandemic, just as we learned at least in some areas, from our failure to stop the 9/11 attackers.

Ms. Swonk: Dovetailing on both what Jan (Hatzius) and a couple people said earlier, the scarring effects, are they good or bad for risk-taking when it comes to other investments? I am thinking in terms of climate change, which is ups the chance of a pandemic, and hedging against the risk of other pandemics. Does that siphon funds from other investments?

Ms. Veldkamp: Let me start by thanking Ken (Rogoff) for a very thoughtful and generous discussion. Measurement brings up really important issues. I think there are a few things we want to keep in mind when we are measuring tail risks. The first is tail events are skewness of what? Of what sorts of events and what maturity? Some of the measures people look at are looking at the risks of a 30-day disaster; other measures are looking at the risk of disasters in the infinite long run. These are very different measures and they behave differently. I don't think things are going to get appreciably worse in the next 30 days, but I might be worried about disasters happening in decades to come.

It also matters whether we are talking about aggregate or idiosyncratic disaster risk. A disaster could befall on one person in every year or we could be talking about the disaster of an aggregate economic event and sometimes these are getting mixed up in those measures. And of course, there is a question of if there's a variety of different data and we use a particular set of data, that reflects the idea that it is hard to learn about disasters from normal events. And some of the measures that were on the table were based on parametric models where every event affects estimates of the parameters of the distribution and therefore every event affects tail risk. We took the stance that that is not likely happening.

Susan (Collins), and Diane (Swonk) and Gita (Gopinath) all brought up the idea that there are other things affecting interest rates. Demographics, and there are other risks out there like climate. And I fully agree. Every model is wrong and every one incomplete. I think of this as one piece of the puzzle that is going on concurrently with other forces that may be pushing interest rates up or down. Our model does not reflect all of the forces in the economy. It says this one thing happened relative to whatever else you thought might have happened in the future is going to push interest rates down. Is this beliefs about the primitive or policy response? I think this is a really interesting question that Arvind (Krishnamurthy) posed. I do think it is mostly about the response. I don't think investors are deterred that much by getting sick as much as they are by losing money. I think this is all about rates of return, and rates of return have to do mostly with what we think the health response will be, the lock-down response will be, people's personal responsibility and their ability to shut this down collectively will be. And disasters can be bad events, and can be good events, and we'll learn from those. The economic effect may not be quite as hard. It's a lot easier to shut things down than it is to build them up very rapidly. But absolutely, we learn that if we get a vaccine in January, we'll learn that maybe this wasn't as bad as it could have been, but still is pretty rough.

And lastly, I'll take on the question of the investment boom and 9/11. There was an investment boom in the 1910s and there's actually an investment boom in our model. There are all kinds of new industries that are thriving in the new COVID economy, and we're going to want to invest more in them. The investment in the model reflects that. It's just that in the long run, that quick recovery isn't sustained and it returns to a longer-run trajectory that's low, the original level. As for returning to flying, we did do that, but notice we had an enormous amount of security theater going on. I call it security theater because a lot of it, I think, was somewhat designed to ensure that that couldn't happen again. But even more of it was designed to make us feel like it could never happen again. So, maybe we can stage effective pandemic theater in the same spirit that would prevent the adverse effects going forward. That's a possibility.

Ms. Collins: Ken, would you like to have the final word for this session?

Mr. Rogoff: Just a couple of points. Obviously there is the pandemic. We don't know what's going on yet, although I very much share Chair Powell's view that it is quite different than 2008. There is much more disaster relief going on here. But in terms of this paper, a big drop in the interest rates happened after 2008. A sharp and durable drop. Yes, there had been some gentle decline before then, but I think this paper's idea of looking at rare disasters needs to be taken into the mix, it is not just demographics, which are very well predicted over the long term. And then lastly, on the scarring and tail risk, I think the average person isn't just worrying about another pandemic, but as Diane Swonk said, they are starting to realize that stuff happens. Certainly some part of the population, maybe not the most risk-taking, has gotten a lot more nervous about big shocks like this.

