THE BROOKINGS INSTITUTION
WEBINAR

THE POWELL FED: LOOKING BACK AND LOOKING AHEAD

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Welcome:

DAVID WESSEL
Senior Fellow and Director, Hutchins Center on Fiscal and Monetary Policy
The Brookings Institution

Looking Back: Powell and the Pandemic

MODERATOR: VICTORIA GUIDA
Financial Services Reporter, Politico

NICK TIMIRAOS
Chief Economics Correspondent, The Wall Street Journal
Author, "Trillion Dollar Triage"

Looking Ahead: Monetary Policy Challenges

MODERATOR: LOUISE SHEINER
Robert S. Kerr Senior Fellow and Policy Director,
Hutchins Center on Fiscal and Monetary Policy, The Brookings Institution

HENRY CURR
Economics Editor, The Economist

JOSEPH E. GAGNON
Senior Fellow, Peterson Institute for International Economics

JON STEINSSON
Chancellor's Professor of Economics, University of California, Berkeley

Looking Ahead: Regulatory Challenges

MODERATOR: DONALD KOHN
Senior Fellow and Robert V. Roosa Chair In International Economics
The Brookings Institution

ISABELLE MATEOS y LAGO
Managing Director and Global Head, Official Institutions Group
BlackRock

HYUN SONG SHIN
Economic Adviser and Head of Research, Bank for International Settlements

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P R O C E E D I N G S

MR. WESSEL: Good afternoon. I'm David Wessel, director of the Hutchins Center on Fiscal and Monetary Policy at the Brookings Institution. We're here today at a very timely moment to talk about Fed Chair Jerome Powell's first term as chair of the Federal Reserve, which seemed pretty momentous and eventful. And as we look forward to a second term, it looks like it will be different but still momentous and eventful.

We have a terrific program today. We're going to start off with a conversation with my former Wall Street Journal colleague Nick Timiraos, who has just published this new book, came out yesterday, "Trillion Dollar Triage: How Jay Powell and the Fed Battled the President and the Pandemic and Prevented Economic Disaster." Victoria Guida, economics reporter of Politico is going to interview Nick.

And then we have a couple of panels, one focused on monetary policy and the other focused on things that are important to the Fed but not central to monetary policy.

We encourage your questions. You can send them on Twitter at hashtag FedPowell, on email to Events@Brookings.edu, or you can go to the Website SLI.DO# FedPowell and put them there. We have limited time so we probably won't get to all your questions but we'll get to as many as we can.

I want to appreciate in advance all my colleagues. Oh, I'm told it's PowellFed, #PowellFed, again for those questions, #PowellFed.

And I want to thank everybody in advance for participating. We have a very full program today but it's allowed us to cover, I hope, a lot of territory.

So with that I'm going to turn the screen over to Victoria Guida of Politico interviewing Nick Timiraos.

MS. GUIDA: Thanks, David. And, Nick, welcome, congratulations, big feat on finishing a book.

MR. TIMIRAOS: Thank you, Victoria, it's great to be here today. And

thanks to Brookings and David and the Hutchins Center for having us.

MS. GUIDA: Yeah. And I will say I really enjoyed the book, or I mostly enjoyed the book because it did give me some residual stress of what it was like to cover those days. But you really got a lot of detail, got a lot of new detail and really bit of accessible I thought too, which is not always easy with this stuff.

So one of the things that I was curious as I was reading it is how much of this did you actually remember? Because I feel like that time period was such a blur, and how is it sort of piecing together going back and putting everything back together?

MR. TIMIRAOS: You know, one of the things I found is that actually I remembered some of these things better than the people who were helping me reconstruct what they were doing because they were doing so many different things. I mean if you look at what the Treasury was doing the weeks of March 9th, March 16th, March 23rd at the Fed. So, you know, I had the benefit of having covered this stuff as it was happening and so this felt a little bit like the second draft of history, and also the benefit of their, you know, public calendars. But, yeah, it was, there was a little bit of PTSD involved in reliving those weeks of March 2020.

I think part of what was so challenging about that period was a lot was happening in the markets, right? A lot was happening in, you know, whether it was oil markets or corporate borrowers drawing on their lines of credit. But then there was also this uncertainty of, you know, how is Wall Street actually going to function remote. We had never done anything like that. And I know here, you know, we're going into the third year of the pandemic and we take that for granted that oh, of course we can do all of these sorts of things. They don't work great but, you know, they do work. But there was just none of that and I think that really added to the volatility, you know.

For example, March 15th, that emergency Fed meeting. I think if you told people like there's not going be an in-person Fed meeting for another two years, that just would have been unthinkable.

MS. GUIDA: Yeah. And speaking of taking things for granted, one of the things that actually really struck me on reading your book was, you know, we think now, we look back on how the Fed averted a financial crisis and it seems sort of like oh, yeah, you know, they threw everything at the wall and it worked. But it's really clear from your book that early on a lot of things didn't really work.

And so I'm curious whether you think that says more about the tools that the Fed had available to it or whether it was just sort of the size of the catastrophe at the moment.

MR. TIMIRAOS: Yeah, that's a great point. I think it's probably both, right? I mean this was the first real test of the post-2010. Dodd Frank financial regulatory architecture, but then there was just the scale of the crisis. I mean how do you design a financial system, a corporate finance market, where companies' revenues go to zero and you don't know how long they're going to be there.

I think in hindsight, you know, we now look back and say well, it was relatively brief, it was like a natural disaster, you know, the fire crews showed up and put out the fire. And that's perhaps part of why, you know, the initial shock was so short lived.

So actually the title of the book, which I came up with very early on before I even was sure I was going to do a book, "Trillion Dollar Triage," you know, now you might think of it as a commentary on the fiscal policy that we had over the last two years. But initially I was thinking about the end of the week of March 9th and exactly what you're talking about. The Fed begins to do basically unlimited repo, right? March 11th, March 12th, they were saying we'll do, you know, $500 billion lending operations multiple times a day. And you think wow, a trillion and a half of repo, and there was very little uptick.

So, you know, that's kind of the first sign that you see, all right, this isn't like the repo ruckus that we had in September 2019 where that was what the New York Fed did, they offered more repo, there wasn't take up, the money wasn't moving through the pipes, so triage, right? They go to the next thing. On March 13th they're buying, Powell basically

uses sort of, you know, what authorities he had under the existing FOMC directive to buy $37 billion of Treasury. We'll just go direct, buy it, that kind of gets them to the weekend, you know, the big Fed meeting on Sunday. You think that they're, you know, throwing the kitchen sink at the problem, and the first three days of that next week are just horrible days in the markets, it seems like none of it's working.

And so that's really kind of where this idea of triage originated. And so the Fed in a matter of days really ran through the Bernanke playbook, right? The commercial paper funding facility, all these things that seemed like real groundbreaking innovations that took a lot of time to put together in 2008, 2009, now they're just running these things out, and by the end of that week, you know, they've run through the Bernanke playbook and Powell's not having to add, you know, new pages of his own.

MS. GUIDA: Right, yeah. And I guess that's ultimately what was finally able to calm the markets was just sort of the announcement of these bold new measures which, you know, kind of makes you wonder whether that's just the solution, is just to roll out new, big, 13.3 facilities every time.

Which brings me to something else I wanted to talk to you about. Which is, you know, one of the big questions that you pose is, you know, do we want to do this going forward. And, you know, what is sort of your take on that from talking to people? Do you think that there's political appetite for having the Feds play the same role again? Do you think that they would necessarily need to play this same role again, or, you know, was this incident so unique because we were shutting down the economy that maybe future financial crises might not call for the same kind of response?

MR. TIMIRAOS: Yeah. I think we don't know yet. And, you know, there were some people who were very concerned before the pandemic about say the level of corporate debt, particularly, you know, near junk, triple B, the, you know, the so-called Fallen Angels. I mean Powell actually gave a speech in May of 2019 talking about this. And his conclusion was we don't think this is enough to trigger the next downturn but it could amplify

the next downturn. So I think some of the critics initially, and even still today, of the aggressive emergency lending facilities would say well, the Fed had to do this because of all this buildup in debt.

I think the verdict on that is, you know, it's to be determined. If there are reforms now, right, that, you know, you don't get upset with the fire department, I write in the book, when they put the fire out at your house but they get the furniture wet. But you have a right to get upset if things that need to happen, you know, after the crisis, the sprinkler system getting inspected, and the brush around the house getting cleared. If those things don't happen then I think the critics may be more resonant, you know.

So the Fed essentially bails up everything because they're the insurer of last resort in this crisis. And the next time something like this happens if the Fed has to rush to the rescue because there are still these high loads of debt and we haven't come up with a workable way to have, you know, a central bank that now stands over a primarily non-bank centric financial system, then I think the positive response you see today as to what the Fed did in 2020 could change a little bit. I think it could spoil that a little bit because it will have created these precedents and they may not be great precedents.

MS. GUIDA: Right, yeah. I mean one of the really fascinating things that I remember from your book is that there was another facility for money market mutual funds that was in the works that never ultimately ended up getting launched, so that kind of speaks to whether the regulators were able to institute rules now that are actually going to be able to fundamentally make sure that those same, you know, disruptions don't show on the money market side of things.

You know, you mentioned debt. One of the things that also struck me was, you know, we were talking about debt before all this happened, and then we added to the debt both at the government level and at the corporate level. So how worried should we be, I mean especially with interest rates going up now?

MR. TIMIRAOS: That's a great question. You know, again, I hate to sound

like a broken record saying we won't know. I think on, you know, on the household side things don't look as alarming, you know. I covered the house invest, you look at mortgage debt run in the first decade of this century rising, you know, it's not as high as it was before or during the 2008 financial crisis. So the questions, the concerns may be more on the corporate side than on the household side.

You know, the other kind of innovation in this crisis that maybe doesn't get a lot of attention because of the experience of 2008 and the housing downturn, there was very quick and aggressive action on the mortgage side. So you had 15 percent unemployment, you know, you could have been in a real difficult position with mortgages defaulting, and there's still problems in sort of the mortgage servicing arena that haven't been fixed. And yet Congress came in, forbearance for everybody who wanted it. It did create some dislocations initially in the mortgage market. But you look back and you say gee, that actually worked. A bunch of people who might have, you know, been forced into default on their loans just because they didn't have jobs, because they were telling everybody to stay at home, to avoid a virus, you know, that didn't happen.

So I think the book to some degree shows there were a number of dogs that didn't bark. You could say the Fed and Congress and Treasury got lucky. But you could also say that, you know, policymakers to some extent made their own luck here. And, you know, now obviously they're dealing with a very different problem.

One final point on corporate debt, you know, I think the most controversial part of the Cares Act, and you look at some of the people who were against it when it passed, was this idea that we were doing a massive corporate bailout, right? And I think one of the interesting perspectives now when people at the time were not thinking about 7 percent inflation at the end of 2021, you know, we were still starring at the fog of this virus. But if you had had whole industries that had gone under, think about what the inflation challenge would be right now, it might be even worse. You might have, you know, even more scarring on the supply side.

MS. GUIDA: Yeah, I know, that's a really great point. So I mean you know you talk a lot in the book essentially, I mean it seems like it's sort of a success story, right, with a lot of caveats of all the moral hazard things that you were talking about.

So what do you see as sort of the biggest mistakes that the Fed made, with the benefit of hindsight obviously?

MR. TIMIRAOS: Well, so, you know, I divide it into 2020 and 2021 because I think, you know, a lot of the people I've talked to for the book, a lot of people you talk to today, generally regard March and April 2020 as a success, right? The Fed, we didn't talk about the Fed buying massive amounts of Treasuries, right? The announcement effects helped in the corporate market but the Fed was still buying just huge sums of Treasury securities.

So the challenges, you know, or the mistakes, with the benefit of hindsight, I think you could look at four things from the second half of 2020 through 2021. The new framework created, you know, it may have been the right response to the problems of the last 20 years but it arguably created an incentive to demonstrate credibility that, you know, when we see inflation move above 2 percent we're just going to sit on our hands. I mean Powell says that in October 2020 to me in the book that, you know, how do we prove this new framework is credible when we see inflation go above 2 percent we're just going to kind of nod and say okay, isn't that interesting.

So, you know, the way the framework is operationalized in September of 2020 to say not just accommodate a policy until we get maximum unemployment, but zero interest rates until we get maximum unemployment. I'm not sure the Fed would do it again if they had that to do over. But, you know, hindsight again, it's 2020.

Then you put on top of that the fiscal stimulus, the Fed doesn't react to that in the March 2021 SEP. And, you know, Rich Clarida was asked about this at the Monetary Policy Forum a couple weeks ago and he said well look, every economist in the WSJ survey in April of 2021 also wasn't projecting inflation. Fair point.

Third, I think some of the macro forecasting challenges, you know, obviously we know what they are now, inflation wasn't just transitory, the interval wasn't obviously as short lived. And then perhaps a reticence around having another taper tantrum made the Fed very reluctant to accelerate things because of that signaling effective of QE and potentially withdrawing of sooner might have put them in a better place now. But, you know, there was a lot of concern.

I mean think back to this period one year ago when the Treasury market, you were seeing some disruptions, there was a moment in February of 2021 where you had a little bit of a hiccup in the bond market. So people were still, you know, not totally sure how this was going to play out. And then that's before we even get into, you know, the variance and the other kind of episodes of COVID that we just, you know, couldn't have known were going to hit.

MS. GUIDA: Yeah. And one of the interesting parts about writing a book as opposed to writing articles like you and I do all the time, is I mean obviously you've been working on this for a really long time. So were there any parts of the book that you sort of had to shift significantly given, I mean, you know, all the things that you're just talking about, things have been shifting so much in real time here.

MR. TIMIRAOS: Yeah, deadlines are totally different from the grind of daily journalism to the grind of book writing. So, you know, most of my work on this was in the first half of last year. And you change what you can up until the point at which they say you can't make any more changes. But there was a lot that, you know, when the manuscript was due in the middle of last year it was just hard to see. Delta, for example, I mean I think there was this view, I certainly had it, right, that once the vaccines arrived we'd go back to normal. And, you know, so here come the vaccines, and then no sooner than some of the more COVID cautious places like DC where I live, New York, were beginning to kind of, you know, get rid of the mask mandates and things like that, and here comes Delta.

So, you know, it's obvious been a really unpredictable time and it was sort

of a crazy time to write your first book.

MS. GUIDA: Yeah. Well and I guess I should also tease that for people who haven't read it yet, that your book does have details on the meeting between President Trump and Fed Chair Powell and Vice Chair Clarida and Treasury Secretary Mnuchin. What is sort of your takeaway too, because one of the themes of the book it seems is that while all of this craziness was happening, that you had sort of President Trump in the background doing his own thing that wasn't necessarily even that involved in the policy response. So, you know, what is sort of your takeaway as to the role that Trump played in Powell's first term?

MR. TIMIRAOS: Well I think the way Powell managed, you know, we kind of forget about it now because the pandemic was the defining kind of economic event of the last three years. But the way Powell managed the attacks from, you know, a relatively belligerent President, the guy who appoints you, quickly starts criticizing you when the going gets rough. There was speculation when the Fed was cutting rates about whether, before the crisis, that's what I'm talking about, during the trade war in 2019, you know, was he doing this because Trump wanted him to. And so Powell had a lot of political noise that Fed chairs maybe, you know, in the middle of the 20th Century had, but not in 25 years have we seen something like this.

You know, Powell turned it into an opportunity to get, you know, people inside the central bank to close ranks around him but also politically. He had these, you know, we couldn't see it at the time, he was not really a well-known figure when he became Chair, but he had these, I would call them retail political skills, that he used so Democrats liked him because, you know, Trump didn't like him and he sort of just didn't engage.

But as I write about in the book, Republications actually really liked him too. He had senators coming up to him when he would go up on the Hill, say you're doing a great job. Clearly talking about the elephant in the room, which was Trump attacking him. Keep doing what you're doing, don't engage. He was the one sort of Trump appointee who really

figured out a way to just navigate through all the attacks and, you know.

He says in the book at one point when there's some gossip on Wall Street about whether he would quit, whether he would go if Trump forced him to go. And he says, you know, "The only way I see myself leaving this job before my term is up is if I die." So, you know, he had positioned himself fairly well politically. There was a lot of institutional credibility and so that's why I think in a crisis you see Congress turn to the Fed. There isn't the creation of some new government corporation it's well, main street lending, we're just going to put all this with the Fed. Democrats didn't think it would be as politicized, and, you know, Republicans were comfortable with Powell so even though there was a lot of unhappiness over the bailouts that the Fed did in 2008, you know, there wasn't a lot of that this time around.

MS. GUIDA: All right. Well unfortunately that's all the time that we have. Nick's book, *Trillion Dollar Triage*, is now on sale.

And with that I will turn it over to Louise Sheiner, who is going to moderate a panel about monetary policy challenges.

MS. SHEINER: Thank you, Victoria, that was a fascinating conversation. And, Nick, I really look forward to reading your book.

Let me introduce myself, I'm Louise Sheiner, I'm the Policy Director of the Hutchins Center here at Brookings. And I'm pleased to introduce our first panel which will be focused on the monetary policy challenges now facing the Fed, looking forward, focusing both on the near term and the medium term. We have a wonderful group of experts that I'd like to introduce.

We have Jon Steinsson who's Chancellor's Professor of Economics at the University of California at Berkeley. Joe Gagnon, Senior Fellow at the Peterson Institute for International Economics. And Henry Curr, who is the Economics Editor of The Economist.

Before we begin let me just remind everybody that you can submit questions at www.Sli.do using the hashtag PowellFed, or also the same hashtag,

PowellFed, on Twitter.

Okay. So here's how we're going to do it. I'm going to, let's start by talking about the near term. In particular, with this said, given everything that they knew at the time last year, wait too long to pivot? And if so, why was that? Were they too concerned about markets, are they still?

And then like looking over the next, over this next year or two, what's the chance that they actually manage to get inflation down without major costs? And what's the chance that they actually fail to get inflation down for some time, or have to plunge the economy back into recession in order to do so?

So we're going to hear from each of our experts on that question. And let us start with Henry, and then Jon, and then Joe. So, Henry, the floor is yours, welcome.

MR. CURR: Thank you, Louise, and thanks to Brookings for having me. It's a great pleasure to be here today.

So I think that there has been a mistake by the Feds and that they are behind the curve. And the data I find most compelling on this is the late market data, and in particular wage growth, which is clearly inconsistent with 2 percent inflation in any reasonable estimate of trans productivity growth.

Whatever story you tell now, why price inflation is going to fade away, you also need a story for why wage inflation will. And it basically hinges on whether workers who left the labor force are going to come back.

But I don't think anyone actually properly understands that issue. And that's evidenced by the fact that many people thought that workers would have returned to the labor force by now, reintroducing society to the labor market and reducing, you know, wage probe. But they haven't.

And I find that particularly concerning given that one of the policy mistakes of the 1970s was a retronym (phonetic) about the natural rate of unemployment and about labor supply.

I also think it's quite concerning how far off Federal funds rate is from rates that are implied by basic policy rules. So if you take for instance the difference rule that was used by former Chair, Janet Yellan, and if you assume there were currently unemployment, by my calculations the poor PC inflation of 5.2 implied the Federal funds where it should be nearly 4 percentage points.

I'm not suggesting that we follow that advice, but a gulf between the rules and the practice, and rules of too not long ago, were stated the basis of monetary policy decisions to some extent. The gulf between the rules and practice there worried me.

Now why has the Fed got into this position? I mean clearly as Nick was discussing just now, there's a high degree of forecast uncertainty last year. It's been an extraordinarily difficult economy to forecast, no one's really understood what's going on with supply.

But I agree with what Nick said about the failure to react adequately to the fiscal stimulus. And I also think it's clear that the Fed doesn't want to move rates too quickly, there's an inertia in rates because the FRMC doesn't want to create a dislocation of financial markets.

But that inertia seems to me to create a danger that we end up with inflation rising in a world where we sort of forget about the Taylor Principle, the idea that to tighten monetary policy effectively you must raise rates by more than the gap between inflation and inflation targets. I think what the Fed needs to consider now is just how persistent would inflation need to be before that principle becomes relevant to policy. And I would suggest that simply getting back to rates that are around 2 percent isn't going to be enough.

Another thing I'd say is that I think part of the mistake to date has been attributable to a degree of confusion throughout the pandemic that what it is precisely that the Fed is trying to do. So when I was taught economics I was taught that the reason you have independent central banks is to avoid a situation where short sighted politicians exploit anchored inflation expectations to push as hard as they can on the employment side of their

mandates.

From my perspective a lot of what the Feds said last year was in effect, we're not that worried about inflation because inflation expectations are anchored so we therefore think inflation will be transitory, prioritizing the labor market, sorry, the mandate.

It's not all that clear to me how pushing as hard as you can on employment, while pointing to inflation expectations being anchored as the justification is all that different from the inflation bias scenario that the textbooks warn about. And I think Chase and Furnas talked about the risk of so-called employment dominance in monetary policy, and I agree with that being a danger. And it was somewhat reinforced by the average inflation talk regime promising to worry only about short falls in maximum employment and not positive outlook gaps.

At other times it seemed a bit like that is downplaying real life inflation instead of playing up inflation expectations. It almost seemed as if the Fed is targeting inflation expectations rather than inflation itself. And indeed some people I speak to in financial markets interpret the new framework in that manner.

Again, anchoring inflation expectations aren't supposed to be the result of central banks saying all the time that they're watching inflation expectations and would respond if they rose. Which is sort of what the Fed was saying for a lot of last year. Anchoring inflation expectations is supposed to be the result of the Feds promising credibly not to overheat the economy. And if you do wait for inflation expectations to rise before you worry about things, then in effect it's already too late because your higher inflation expectations is your worst tradeoff between the employment and the inflation side of your mandates.

So I do think that's now the world we have to worry about, and it could be particularly nasty if you've got an inflationary or price shock on top of that. But I'll stop there.

MS. SHEINER: Thank you. Jon, why don't you tell us how you think things are going to go and why the Fed is where they are right now.

MR. STEINSSON: Yeah. So I actually think that Fed policy last year, given what they knew at the time, was for the most part appropriate. I think that being patient throughout most of last year was the appropriate thing given the types of developments that were hitting the economy at the time, the supply shocks and the shift in demand from services to goods are both things that I think it makes sense to allow to at least temporarily raise inflation above the target.

However at the same time I think it is true that they waited too long to pivot. And in particular I would point to the November FOMC meeting as the meeting where they made a mistake. So if we rewind back to November of last year, markets were expecting only two rate hikes in 2022 at the time, and the .dot plot from the September meeting of the FOMC had most of the FOMC members saying there would be no rate hike at all in 2022. But by that time core inflation was up to 4.5 percent, it was rising, unemployment was at 4.5 percent, it was falling. Other labor market indicators were flashing red, and it seemed, you know, very inappropriate to have the policy rate close to zero for another 12 months.

Yet, at that meeting the Fed did not change its language about forward guidance about interest rates. And I think that was a mistake.

Now the Fed fairly quickly after that did start the pivot, even before the December meeting. But given concerns about upsetting financial markets and so on, I think by that time they were behind the curve and they remain behind the curve even today.

Now I don't think that the blame should go fully to the Fed on this. We do expect the Fed to lead on monetary policy, but we should also recognize that the Fed's job is made much easier if there are other influential voices that are helping doing the heavy lifting of changing market expectations about the path of policy when those market expectations get out of whack.

And so we had found ourselves in the fall of 2021 in a situation where I think market expectations were way out of whack relative to what was the appropriate path for policy in 2022, and there were just not that many influential voices that were challenging that

conventional wisdom at the time. And so, you know, given that circumstance, an appropriate pivot by the Fed would have seemed extreme and it would have been very valuable if more, you know, more outsiders had helped the Fed in trying to move markets or move the expectations of markets on this front.

Now, you know, a lot has happened since then and today markets are expecting something like a rate hike at every meeting this year. But at the same time inflation has risen quite substantially since November, now the core CPI inflationary rate is 6 percent, and it's still rising. And so I think the Fed is actually still behind the curve today.

My own view today is that appropriate policy for the Fed is four 50 basis point increases in a row. So that would bring the Federal funds right up to 2 percent by July. Some of you may think that I'm crazy saying that. Just like many people thought that I was crazy when I tweeted in December that the Feds should raise the Federal fund rate by 25 basis points at each meeting this year.

But, you know, before you conclude that I'm crazy, you should reflect on the notion that the core CPI inflationary to 6 percent, is it really so crazy to have a federal fund rate of 2 percent at that time, by July.

Now what the Feds should do after July I think is more uncertain, it depends on incoming data. But my baseline expectation, if they were to raise rates by 50 basis points four times by July would mean that they would shift to a 25-basis point increase for some time after that.

Now I think one thing that may be holding the Fed back or affecting the rate at which they raise interest rates at the moment is a perception that it's very costly to reverse course. Over the last several decades interest rate increases and decreases have been very persistent. But it's not a law of nature that when the Fed changes interest rates that's going to stick for many, many years. It's appropriate in some circumstances that that be the case but it's not always appropriate. And I think at the moment we may be at a moment where the appropriate policy is for the Fed to rapidly raise rates but make it very clear to

markets that those rates might be reversed. And so that's not relevant I think for the first four increases up to 2 percent but in particular if the Fed is raising rates above 2 percent then it may be appropriate if inflation comes down quickly to reverse those increases rapidly and perhaps the market is not expecting that and perhaps it's important for the Fed to explicitly signal that that may happen.

Now finally there's a question of whether the Fed is able to do all of this without a hard landing. And, you know, that's of course very hard to know. And I think it's a real concern that there's going to be a hard landing. I think if we look at history, history is not, you know, it's very hard looking at history to do the thing that the Fed has to do over the next 18 months without a hard landing.

Now it is possible that history is not a good guide for what's going on at the moment because if we look at the period from the 1970s to the 1990s the Fed was faced with a much more difficult problem because inflationary expectations were much less anchored, they were much more unanchored. And so it's much more difficult to land the economy when inflationary expectations are unanchored.

At the moment, still, inflationary expectations are relatively anchored. And so I think it is possible that, you know, history is not a good guide, and it's possible that the Fed will be able to land the economy without a hard landing. But, you know, if they lose control of inflationary expectations that's going to become much less likely to be the case. And even with anchored inflationary expectations I think we have to, you know, be realistic about the fact that maintaining credibility on monetary policy may actually be costly.

MS. SHEINER: Great. Now I'll turn it to Joe.

MR. GAGNON: Thanks, Lousie. Well sort of going back to how we got here, it seems to me the economy was hit by two big shocks last year. One that only a few people saw coming and one that nobody saw coming, as far as I can tell.

Now I and a few other people saw a big demand shock coming. This is because of the massive fiscal support package that we had in response to COVID, which

raised the Federal deficit to World War II levels. And it still is a puzzle to me why more people didn't see that this would boost aggregate demand a lot. But the Feds were in good company in missing that because the vast majority of private forecasters also didn't see that shock.

The other shock that nobody saw was the supply shock. Workers just were afraid to return to work, the workplaces were shut down, their schools were closed, they had to take care of children or ill family members, for a whole bunch of reasons the labor supply in the economy shrank.

At the same time there was a rotation of demand. Even holding the level of demand constant, even if there hadn't been an increase in demand, shifting away from in-person services to goods, which is what happened, can be inflationary if it pushes the goods sector way above its capacity to produce because inflation is very asymmetric. It tends to rise a lot when demand is excessive but it doesn't tend to fall much when demand is insufficient. And so the reduced inflationary pressure in the services couldn't possibly offset the higher inflationary pressure in the goods. So that, if you look at in aggregate demand over its supply framework, that's a supply shock.

So we had two big supply shocks and one big demand shock. And the net effect was, the demand shock would tend to push both prices and output up, the supply shock would tend to put prices up but output down. The output effects were offsetting so the real economy basically moved as expected but inflation was way higher than anyone expected, even those of us who warned about inflation.

So there's not much to be done about those supply shocks. It's sort of a multi-link problem that would take years to figure out how to deal with it and we have no time to do it.

Anyway it seems to be receding, they seem to be receding, you know. I think as Omicron, as we return to normal people will rotate that demand back and they'll be able to go back to work and I think that will help bring inflation down, in my view.

I think we are better off with the fiscal packages than without despite the inflation. I think people really are not thinking clearly about the fact that if we hadn't had this demand boost, yes, we would have less inflation at the cost of millions of unemployed people, more unemployed people. And I think that would not be a price worth paying.

The Fed indeed, as both Henry and Jon say, was behind the curve. In part that was, you know, intentionally designed from their new policy, their Flexible Average Inflation Policy said they had to wait until they saw inflation. And so that's what they did.

But I think they are moving fast. And, you know, I sort of agree with Jon about the timing but, you know, a month or two is just not a big deal in this. They have signaled clearly they are tightening, the market is placed in a lot more tightening. I think the Fed is close to being about where it should be. We should aim to get to something like a neutral policy rate this year, by the end of this year or January of next year. I think that would be good and I think that's what the Fed is aiming to do.

Let me just aside, the Ukraine energy shock, if the Ukraine invasion raises energy prices around the world this is a supply shock that has offsetting effects on Fed policy. It raises inflation even more, which makes it want to raise rates, but it also weakens demand, which makes it want to lower rates. We think the energy prices roughly speaking don't have the implications for monetary policy although they're not good and they're not, Fed won't be happy about it.

I think, my model for inflation and private forecast of inflation show it coming down significantly this year, especially as the supply shocks recede and also the demand shocks recede a little bit because we're not going to have these big fiscal adjustments anymore as Biden said last night.

So I think though it will not fall as much as the private forecasters are projecting or I think the Fed will project. I think they are both going to be too optimistic. But it will come down a lot. I think Powell, as he said, needs to stay nimble. But he has time, I don't think he needs to rush to get ahead even further but he does need to show he's on the

ball. And, you know, over the next 12 months either do the 50 basic point hikes which he said he was open to. If inflation doesn't come down as fast as they expect, which is actually what I expect, so then I think they will have to do more, and I hope they do. But it's also possible that some, you know, output may not grow as fast, and they should be cautious of that too. They have time, now to be nimble.

I don't think, it seems unlikely they're getting to neutral by the end of the year because of recession so I'm not worried about that. Household savings very high, they would support continued strong demand going forward. I do agree it is more likely that Fed will have to go a little bit above neutral than stop before it gets to neutral. So I agree with both panelists on that.

And as Jon said, it's tricky for them to tighten without causing recession. There are many instances in history where that happened. But there are instances where the Fed tightened and it didn't cause a recession. In particular I remember 1994 and '95 as one example where they tightened, bond market had a panic, brief panic, but the economy did just fine. And I think in the past when they had bad outcomes in recessions they either had a bad policy framework or they absolutely needed to cause a recession because things were so out of control. I don't think that is yet the case here. And so I think the odds of them having a soft landing now are higher than they would be based on pure historical episodes because they have a better framework and more credibility.

I think the real wild card of course is the Ukraine invasion and what might happen to the world, which is really hard to predict. I'll stop there.

MS. SHEINER: Great. Thank you. But before we move on let me just, I saw a little bit of tension, I was going to ask the same question of Jon that sort of Joe mentioned, which is like how much does it matter if there are a month or two late if they raise 25 in March but then say that they're open to raising 50 later, like, you know, have they done enough so far to sort of signal that they do care enough about inflation to sort of get the market sure that they will get there whatever it takes, or does the timing really matter? Do

they really risk if they don't move quickly enough somehow losing the inflation expectations anchoring?

MR. STEINSSON: I mean I of course agree that a month here or there is not crucial and it's really the path that, you know, expectations about the path that matter.

But, you know, this is kind of coming back to something Henry said. The gap between what is appropriate right now and where they are is very large. And, you know, we are all hoping inflation will come down. And if inflation comes down then yes, it's right, a month or two here or there is not going to matter.

But, you know, over the last three months we've all been surprised that inflation keeps rising. Now suppose inflation keeps rising for the next three months. You know, then a month here or there actually starts to matter. And then we're talking maybe about not 50 basis points increases but something even more.

And so I actually think that the Fed would be well served to act a bit more aggressively early in order to not have to do something even more aggressive later on. Which, you know, I think would raise the possibility of a hard landing.

MS. SHEINER: All right. Let's move on to thinking more about for the medium term. So what happens after we get through this episode and we get inflation back down and we look back and we see where we are and what have we learned.

So one thing I have, let me ask Henry, we haven't talked about quantitative easing at all. What should the Fed do with the balance sheet now, when you look back what will they think, you know, how the QE should be used going forward. Like what have we learned about QE and what should they do with the balance sheet?

MR. CURR: Well it's a great question and I think that it actually helps in form, think about where things went a bit wrong in 2021 as well. So at the risk of sounding a little parochial sitting here in London, it strikes me the contrast between the Bank of England, which managed to raise interest rates quite quickly when it became clear that was necessary, and the Fed which has taken the process of tapering before it could raise interest

rates because it had the implicit understanding with financial markets that that was how things worked, you taper them first and then you raise interest rates.

But I think there's a degree of confusion about the extent to which tapering was actually genuine monetary tightening. There was a little bit of talk earlier about the signaling effect. If you're a fan of portfolio balanced effects then tapering is just what you've seen the number of bonds you buy so it's still adding stimulus.

So that whole framework of saying you're going to take it out very slowly kind of gave the Fed a big turning circle when it came to raising interest rates. And I think that's a link to the fact that there's not a great degree of intellectual clarity out there about the extent to which QE is providing stimulus.

And I'd be interested to know what the other panelists' views are on how much the Feds balance sheet is currently holding down the 10-year bond yield because I'm not really sure the monetary policymakers know that. And the reaction function is very clear. And I think some of that lack of clarity has sort of bled over into interest rate policy because the two have been so tightly linked by a signaling and, you know, you don't have to run your balance sheet policy like that.

As I said, the Bank of England just has a stop target, a pit stop target, and then it was free to raise rates without any tapering. Indeed even now in discussion about QT, the Fed seems a little unclear about the extent to which QT is going to substitute for rate rises or not.

The Yellen effect seemed very attuned to the signaling risk on interest rates, and as a result of that was keen on this, you know, the balance sheet is any and operates in the background language, which has been used by the Powell Fed but at the same time he was hesitant in the last press conferences, sorry, the last press conference, about whether QT and rate rises were substitutes.

And there has been a suggestion by parties on the Committee that perhaps he should do a bit more on QT and a little less on rates. And that really confuses things

because if the main way in which the balance sheet operates is to signal of the path of rates, and then you're saying that substitutes in a hiking period, and if rates are what really matter to the outlook, then maybe the announcement of QT first was a suggestion that you should do that. It's like a double signal on rates. I'm not suggesting they're going to do that but the way in which that's being debated suggests to me the slight lack of clarity.

So I think the most helpful thing they could do for the next crisis, the next cycle, is introduce in advance a bit more clarity on how they can get out of QE, at a point of which they go in, and link that to their theories and beliefs about what it is precisely that QE is doing. Because I think during the past couple of years it's all been a bit vague.

MR. STEINSSON: May I add something?

MS. SHEINER: Yes.

MR. STEINSSON: Henry asked about what they think that the QE does in terms of bond yield and I've worked in that area. So my sense of what their estimates are, which are very close to my estimates, would say that the recent bout of QE may have lowered 10-year bond yields about a percentage point and that that's equivalent to 2.5 percentage points on a Fed funds rate.

But I absolutely think Henry is right, but they have really never communicated very clearly or consistently how they think about that or how they should think about that. I find it very frustrating.

But I think one thing I will leave you with is that a lot of the effect depends on what markets expect them to hold going forward. And when they're early in the process of rising the balance sheet and expect to hold on to it for a long time there's a big effect. Even before the purchases stopped, as people saw the end point and even began to price in a rapid runoff, the effect could unwind immediately, even before they stopped purchases because people have marked down a lot what they think they'll be holding in three or four years. And that matters. So there already has been, in my view, a QT of some note, and they could do more if they decide to let runoff faster than last time.

MR. GAGNON: Maybe I can also say a few things about QE.

MS. SHEINER: Yes.

MR. GAGNON: So I wanted to echo what Henry said on it being unfortunate that QE complicated the pivot. So it seemed to me that the announcements about QE were constraining what the Fed was saying about forward guidance. And that was very unfortunate, and that's partly based on a view that I don't hold very strongly but, you know, it's my baseline view that QE is less important than forward guidance and the rate path. And so to, you know, it seemed that QE was very much complicating the timing of announcements about forward guidance and that was unfortunate, and I hope that the Fed doesn't, you know, I hope the Fed going forward prioritizes communication about the rate path over communication about QE.

MS. SHEINER: Okay. Let's talk about what the interest rate environment will be after we get through this period of high inflation, however we get through it. Before the pandemic we were all worried about really low rates and secular stagnation and no room for monetary policy. Market still thinks that's why we're going back. Jon, do you think that whatever was causing rates to be low just still exists or did the pandemic somehow shift that and should we be looking towards a really different environment just a few years down the road?

MR. STEINSSON: I mean I think it's entirely possible that we're going to find ourselves back in that world where rates are very low and the Fed is persistently undershooting its target. There are certainly global forces that are very strong that are pushing in that direction, increased inequality, demographic change, high savings rates in certain parts of the world.

But actually I'm more worried about things in the opposite direction. So after the 1970s to 1990s episode for several decades all central banks in the world were completely obsessed with their reputation. You go to a central bank, you talk to them, they're always talking about their reputation, everything revolves around reputation. And this

went on for decades.

And I remember thinking this was a bit overblown. But, you know, it did pay a dividend. They did really build up a reputation for fighting inflation and they are benefitting from that at the moment.

Now when we fast forward to the beginning of this episode I remember very clearly whenever I talked to somebody, an economist about this they would always just waive away the concern of persistent inflation. Because of course the Fed is going to do whatever it takes and, you know, because of that, you know, we just don't have to worry about this, you know. But then at the same time these same people were believing we shouldn't raise rates until 2023.

Now, you know, since then those radically inconsistent notions have collided pretty strongly and even though we're not talking about it out loud, I worry that some of us are starting to worry a bit about whether it really is the case that the Fed is going to do whatever it takes. And the more Fed Powell, you know, chooses to go a route that is not very hawkish, like I interpret today's remarks to be, the more I think it is possible that some cracks in this, you know, formidable armor of reputation will start to appear.

And I think that is an important worry, that maybe if this episode doesn't turn out as great as we hope it is going to turn out, we might be in for another long period of rebuilding reputation.

Now I think that also another concern in that direction of high inflation and high interest rates and worrying about that set of things is fiscal dominance. You know, fiscal hawks are becoming an endangered species, especially in the ruling party. You know, so people can be fiscal hawks when they're not in government but, you know, when you're in government, when you're in the majority nobody's a fiscal hawk anymore. And, you know, that at some point is going to start knocking on the door of monetary policy. There's still is a pretty broad consensus for independent monetary policy, but at some point as deficits and debt levels are higher and higher and higher, the pressure will build for the Fed to

accommodate the fiscal authority's actions with monetary policy that is too easy, you know, given their goals of price stability.

And so, you know, that's of course, you know, maybe not the most likely outcome but I think that's something that is starting to be something I worry more and more about.

MS. SHEINER: Well, you know, so is this what Jon was talking about? Is there something media attributable to the new framework and something that as we talked about, or Nick talked about, no, Henry talked about made the employment sort of dominate and one sided, only worry about being deficient employment. So they're going to obviously reevaluate their framework in a few years. It was introduced during the pandemic but conceived before the pandemic.

When they look back how do you think that they will look at the framework, at how well it did, and like if you were giving them suggestions about where they should modify it, you know, what would you suggest?

MR. GAGNON: Well I'm delighted to answer that question. I think that the flexible average inflation targeting is unfortunately came out during the pandemic, which is most unfortunate. But I thought at the time it was a small step in the right direction. It did helpful counter the sort of zero bound asymmetry that forced them to have unemployment below target, to have inflation below target and employment a bit too high for too long. And it was a sort of countering of that tenancy to be asymmetric and sort of within a recovery.

Good thing, fine, small. What was really needed, and I said so at the time and I believe so even more strongly now. It's a higher inflation target, the target of 2 was never defended by anybody, research, we stumbled upon it, it seemed good and many advanced economists chose it. But emerging markets haven't actually gone there. And I don't think we should have.

And everything that's happened since we moved there, which is about 20 years ago, everything that we've learned since then argues in the other direction, to make it

higher. And so that's what was really needed. And it would really help us with the zero-bound problem, it would really keep unemployment lower in the long run.

Now I grant you that as Nick said in his talks, the Fed may currently be regretting that they announced their flexible targeting just before this massive increase in inflation because it said they really couldn't move until saw the inflation and so they had no ability to really anticipate it. But that wouldn't have made much difference in the end.

Personally, I think, I'm glad that they had the flexible target in place because I actually think we need to get to more inflation and this is the way to get us there.

Here's the thing. I think I worry that two years from now inflation will have come down a lot but it will not be 2. And it may be 3, for example, I don't have a tight forecast. But say it's 3 and it's leveling out at 3. And maybe long-term inflations have crept up to be consistent with that, slowly. So that's similar to what Jon is worrying about, well, yeah. That will happen slowly, in my opinion. As it did many, many years ago when it first happened in the '60s and '70s, it took many years. So maybe in two years we'll have a creep up to a 3 being consistent with neutral.

Then the Fed has a choice. Do we get back to 2 and basically slow the economy down or even cause a recession to get back to that 2 or do we do what we should have done years ago and change our target to 3? The biggest argument against changing the target is just the loss of credibility, as Jon said. They have put so much into the credibility of their 2 target everywhere, not just here but around the world, and people say if they raise it to 3 now when things look tough, what's to keep them from raising it to 4 later when things are tough again, or bringing it back to 2 if things look good. You know, why should people, you know, believe them. Well two points.

One, no target should ever have been thought of as permanent for all eternity. And as you said, Louise, they have said they're going to revisit this every five years, like Canada does every five years. That's the right framework, every five years we should rethink what's changed in the economy, what's changed in the way we think about

the economy, our models of the economy. And given all that, what's the best target now. And that should be a regular thing, that should be very transparent and very honest and fair.

The other thing I would say is it absolutely cannot be the right policy choice to choose a bad policy target because it's too hard to explain a better target. And, you know, credibility shouldn't drive good policy, it shouldn't drive that policy. It should be the other way around. They should do what's best for the economy and figure out how to sell it. Get some Madison Avenue types, whatever. Figure out how to explain to the American people that this is in their interest to get it right. I'll stop there.

MS. SHEINER: So do you see that, that it sort of seems like politically inflation now it's not at 3, I recognize is much higher but that it's real, people really hate inflation. Don Kohn keeps in telling me, people really hate inflation, and it really seems to be borne out now. You know, how would it, you know, let me ask Jon or Henry, how would it be viewed if the Fed said well 3 is just as good as 2 and we happen to be at 3 so let's stop here. What do you think about that idea, especially doing it opportunistically as like well we're not quite hitting 2 when it came from above?

MR. CURR: I certainly wouldn't like to see that anytime soon insofar as I think it does pose a risk to the Fed's credibility and central banks' credibility if they're faced with a big problem and then they change course in that manner. And I think it does pose those risks.

But I suppose what Joe was saying was that this is some point down the line where inflation has fallen significantly and passed at a moment when the Fed seems more in control. But nonetheless, inflation is heightened target, you do that.

That said, I don't really see why it's necessary. If you don't get inflation all the way down to 2 and then say we're going to shoot for 3 instead. I think if anything this crisis has shown that the idea that it's completely beyond the width of economic policy to boost inflation, is incorrect. So there's no need for you to do it, the sort of out-of-control moments. You could do it from a position of strength if you like, when the risks of looking

like you're just giving up are lower and it looks a bit more considered.

I do buy the theoretical arguments though. I do think we're going to be in a low-rate world, notwithstanding Jon's concerns on that. I buy the work of those who have taken the demographic projections and sort of projected forward savings rates based on what people will say today and how much aging there's going to be in the future. And the simple truth, the truth is, the pool of global saving is simply enormous.

But let's not forget that even in the late 2010s America wasn't exactly a zero low bound, it had space on the downsides. It's important we don't confuse being in a low natural rates of interest world with the impossibility of getting inflation up if you want to, if you want to raise the inflation target. Or indeed making a mistake on policy, as Jon's worried about, and having inflation spiral. You know, if your natural rate implies you should be at 2 and you keep below 2. You're going to get inflation but at low interest rate world. So I think you have to at some extent separate those two concepts.

MS. SHEINER: Jon, what do you think about stopping at 3?

MR. STEINSSON: Well I mean I've long been actually sympathetic to the notion that there's nothing special about 2 and certainly that theoretically a higher inflation rate makes a lot of sense. So, you know, if, you know, in the classroom I'm very sympathetic to 3 or 4, but, you know, I think we have to be humble about the fact that our models don't seem to really capture, you know, how much people dislike inflation. And so, you know, 2 or 3, I'm not sure, you know, I certainly think that's a reasonable debate to have.

But, you know, there's this old line that inflation should be low enough that people are not thinking about it. And, you know, I do think that is something that makes a lot of sense. And whether that's 2 or 3, I'm not quite sure about.

Now coming back to the flexible inflation targeting framework. So I've said a lot of hawkish things on this panel, but I'd like to balance that by saying that I actually was a big fan of the change towards flexible inflation target. I think that was an appropriate move

and I think that really is a better framework than the earlier framework. I never liked the bygones are bygones part of inflation targeting and so moving to average inflation targeting seems like a move in the right direction.

I also think that the move towards thinking about recessions as shortfalls as opposed to the kind of fluctuations around a means is the right direction for us to go in terms of how we think about monetary policy.

I don't think that what has happened since then is the fault of this framework. I don't really update very much about the framework. These shocks that have happened since then are extreme. I'm not sure how much we've learned about the framework in the few years that we've been operating under the framework.

Now one thing to think about is that if inflation is really high, the framework is supposed to be holding down inflationary expectations because, you know, if they overshoot they're supposed to undershoot. It's very hard to tell whether that's really working. I'm a little skeptical that that's going on. And so that would lend us to think that the Fed has not achieved any kind of credibility about the average inflation targeting. But, you know, I think they should just keep going and see how it goes for some time in terms of the flexible average inflation targeting.

MR. GAGNON: Wait, one quick point. My colleague, David Wilcox, says that the Fed, if you read carefully, the Fed in its discussion of this new framework was very careful not to say that there would have to be periods below target to balance periods above target. That it was always conveyed in an asymmetrical sense even if the word asymmetrical was not used. And that that was intentional.

MR. STEINSSON: That was totally lost on me and I'm not sure who would like to endorse that.

MR. GAGNON: Well we should all look carefully at what they said, but I believe they wrote it that way intentionally, even if they didn't use the word asymmetrical.

MR. CURR: That was my understanding as well, but I think, Jon, you're not

alone in failing to have absorbed that message. Lots of people I speak to haven't either. I think there is a bit of a question there as to whether that means you end up with inflation that's actually averaging above 2 percent over time. I think it depends on how often you hit zero low bound and run into a real problem.

MS. SHEINER: Great. Well this has been a fantastic conversation, I wish we could continue but we are out of time. I want to really thank our panelist, really I learned so much and it was a great conversation and thank you. And I will hand it back over to David Wessel.

MR. WESSEL: Thanks very much, Louise, that was a terrific conversation, and just to mention that, Jon, the Fed officials have since the framework came out, said specifically that it's asymmetric. But I sure as hell didn't hear that at the time when they were talking about the word "average." So.

So now we're going to move to something completely different, but not really all that different. Central banks, and particularly the Federal Reserve have very broad responsibilities and in fact some people think they're being asked to do too much. And so we now have three panelists, all of whom are particularly well qualified to talk about non-monetary policy aspects, although I suspect they'll be tempted to weigh into the monetary policy debate as well.

My colleague, Don Kohn, former vice chair at the Fed, former member of the Financial Policy Committee at the Bank of England, is going to talk about financial regulation issues.

Then we're going to talk to Hyun Shin who is the economic advisor and head of Research of the Bank for International Settlements, who is going to talk about the challenges posed by the growth of digital currencies.

And then finally we have Isabelle Mateos y Lago who has the incredible title of global head of the Official Institution Group at BlackRock, which we'll ask her to explain. But she's going to talk about climate, which the European Central Bank has been quite

aggressive on and the Federal Reserve has been criticized for not being aggressive enough on

So I'm going to ask each of them to speak briefly and then we'll have a conversation. Again, if you have question #PowellFed. So, Don, the floor is yours.

MR. KOHN: Thank you, David. And I appreciate being part of this event.

Let me pick up a bit really on some of the discussion that Victoria and Nick were having about making the home safer from future fires, I guess that was it, and what the Fed might be looking at over the next four years or doing over the next four years to make the financial system safer and more resilient to future shocks.

And I have one thing on banking, I got something on non-bank, and then something on lender of last resort.

So on banking, I'm not as confident as some that banks prove they are super safe and super resilient under all circumstances in March of 2020. I mean that involved extraordinary fiscal and monetary support for the economy and for the people who were borrowing from the banks. It required authorities to relax some rules that the banks were living under. So I think overall banks are certainly much safer than they were leading into the global financial crisis, but I do think there are some changes could be made.

And one that I want to highlight is I think bank capital regulation in the United States needs to become more countercyclical. I think we need to, the Federal Reserve and the other bank regulators, need to force the banks to build up capital in good times, enough so that it can be drawn down after a shock hits with banks still accessing funds and making loans.

This should be a byproduct that the bank stress tests, which have a countercyclical element to them, and those stress tests are now tied directly to bank capital in the U.S. But that doesn't seem to be the case based on a variety of evidence.

So my strong recommendation is the board should adopt the countercyclical capital buffer that is turned on in normal standard risk environments, unlike right now when

it's zero in a normal standard risk environment. It's raised from the 1 percent or whatever the level is for the normal in good boon times when there's a tendency to take on risks in the economy and financial markets have further to fall after an adverse event. And then lowered after the shock hits. Lowering it in bad times may seem counter intuitive, lowering capital recurrence in bad times may seem counter intuitive, but it's not provided that the capital requirements are high enough to begin with.

So lowering it in bad times frees up capital space for banks to lend while maintaining access to funding and bank dividends. So I think the Fed ought to get on board with what most other, many other regulatory authorities have done on bank capital, and adopt that and use the countercyclical capital buffer.

On non-bank finance there's a lot of unfinished business after the global financial crisis 2008/2009. And that business has gotten much more attention after the events of March 2020 in which markets froze up, required massive intervention by central banks, not only purchasing Treasury debt and other debt, but in broad lending programs.

Now for a lot of non-bank finance, the Fed needs to work with other agencies like the SEC and the CDC to make changes. I think the Fed can be useful even there, pushing agendas, supporting constructive proposals, supplying intellectual capital. But the Fed has direct input into actions that could strengthen the most important non-bank market, the U.S. Treasury Securities market.

Treasury market dysfunction in March of 2020 was only the latest in a series of incidents that indicated that the demand for liquidity in Treasury markets have outpaced the supply coming from the dealers.

There's a broad consensus on what needs to be done, and the Fed has started but it needs to finish the job. The first fix would be to fix the supplemental leverage ratio. That's a leverage ratio, that's a capital requirement that's insensitive to risk. It's just based on the total balance sheet of the banks. And because it's insensitive to risk it discourages, when it looks like it may be binding, it discourages banks from acquiring and

making markets in the low or risk-free assets like Treasury debt.

The Feds QE has stock bank balance sheets with deposits at the Fed, the ultimate risk-free asset, but it's made the leverage ratio more of a constraint than intended. So the leverage ratio needs to go back to backstop mode. There are a number of ways to do this. My favorite was to take reserves out of the denominator but implement that countercyclical capital buffer I was talking about before. Randy Quarles had another suggestion as he was exiting, but they need to do it.

They issued a statement in March of 2021, I guess, that took back some of the changes they'd made in March of 2020 and said they would be fixing this soon. So I think it's soon enough that they should get this thing fixed because that will help the Treasury market.

They should explore, as they are, central clearing of Treasuries and Treasury repo that has the potential to save dealer capital, enhance risk management, facilitate trading and provision of market liquidity away from the dealers. They need to increase data collection and transparency in Treasury security and repo markets. Treasury in office financial research needs to be doing a lot of this. That would be a tool for regulators to assess and address emerging stability risks and market participants to take steps to spot and protect themselves against such risks.

And they need to provide a liquidity backstop for the Treasury market in the form of a repo facility, a window for lending against Treasury collateral at a modest penalty rate and open to a broad array of holders of Treasuries.

So what happened in March of 2020 is people were getting rid of their Treasury securities because it was a flight to cash, the so-called dash for cash. And that sent the price of the safest asset in the wrong direction. It reduced the price of Treasuries, raised interest rates at exactly the wrong time. So if you had a way of borrowing against the Treasuries you wouldn't need to sell them. So they need to do that.

Now they've taken some important steps in that direction. They have a

facility to liquefy the Treasuries of foreign, to make loans against the Treasuries of foreign official holders, and another standing facility to lend the primary dealers and some banks against Treasury securities, sustaining repo facilities.

But the new facility they announced is not widely open. In fact it's open to primary dealers and banks but only a few banks and those that are affiliated with the big dealers have signed up. Among the impediments are cost and stigma, including the attitude of the supervisors who persist in seeing borrowing from the Fed as a sign of weakness.

And I listed this last not because it's the least important, I think it may be the most important, but because it leads me into my last item on Jay Powell's to-do list in here. Which is to make the Fed a more effective lender of last resort for repo to backstop the Treasury market and for banks.

If you could do this, if you could get rid of that stigma, it would fulfill the purpose of the Federal Reserve Act of 1913 to use the Fed's lending discount window authority to forestall or limit financial panics by lending to solvent institutions against good collateral when confidence in financial institutions is challenged.

We need to reduce that stigma now, we need to make it a more regular part of bank and Treasury liquidity with borrowing from the Fed. That's going to require educating the public and its elected representatives, lending against Treasuries and other good collateral is not a bail-out, borrowing by solvent institutions against collateral has been haircutted, it's largely why the Fed was created, as I noted.

They need to educate their own so there needs to be a public discussion about why this is okay and necessary and in the public interest. And they need to educate their own supervisors. Borrowing from the Feds should be treated as an acceptable element in liquidity risk management. And I think making the discount window an effective liquidity backstop over the next two years would be a major contribution towards preserving financial stability in the future.

Thanks, David.

MR. WESSEL: It's an ambitious list for a guy who's got to deal with 7 and a half percent inflation.

So, Hyun Shin, there's been an incredible amount of conversation about digital currencies. Some of it about speculation in bitcoin and similar currency, some of it about whether the Central Bank of the United States should issue its own central bank issue currencies and so on. And I know this is a subject about which you've given a great deal of thought and you always speak very clear about it. So I invited you to do so now.

MR. SHIN: Well, thanks, David, it's a great pleasure to join you and the others on this panel.

So let me say a couple of words on central bank digital currency that maybe we can broaden it out later. Given the theme of this event itself, maybe I can, you know, put this in the brew of the context of the central bank's role in the monetary system itself.

And I think a good place to start is the central bank that issues the U.S. account. So trust in the currency ultimately rests on the trust in the central bank itself. And with central bank digital currencies the debate is really about the central bank providing this public good. And one step further is providing some kind of, if you like, a public good but also public infrastructure of the monetary system.

But I want to bring the debate back and a little bit closer to home in that, you know, we think of CBDC, Central Bank digital currency, as lying on a continuum with retail plus payment systems as very much part of the picture. So in the U.S. it's called FedNow and it's due to be rolled out next year. The instant payment system where, you know, your money disappears from your account and appears in the account of the person that you pay the money to. And if you think about what actually makes that possible, the bank infrastructure, the kind of technical specification, they look very much like CBDC and there's a very great family resemblance to that.

First of all you need a digital ID system for the whole, you know, payment system itself. So what you'll be doing in a retail plus payment system is draw the customer

details into, you know, into a database. You know, that can be very much a digital ID platform. And then you need the daily governance frameworks that ensures, you know, privacy. So, you know, unlike crypto where all the transactions have been on a public block chain and everyone can see what's going on, when you use real names, you know, there is a need to ensure privacy.

And in the payment system what you do is use these programs, application programing interface, so APIs, and you use cryptography to actually, you know, mask those individual transactions. And what you need for this kind of system is to have that governance framework that gives control of data to users and I think most importantly of all it actually makes the payment system interoperable whereby, you know, one payment set is provided, you know, will be interlinked with others.

And I think this is actually a very important feature in that, you know, if you have something worthy like this and, you know, many developing countries have, you know, rolled out very impressive in the retail fast payment systems plus payment systems. India is one, Brazil is another one, maybe if I have some time I can show you a couple of slides later where, you know, you can really bring down costs and ensure primary inclusion and, you know, bring a great deal of, you know, competitive innovation to the system.

I think there's in a general point, you know, more of that kind of an attitude to this problem. Where I think there's a very strong argument for having a policy which is formulated by anticipating developments rather than simply reacting to them. So it should be future oriented.

And the question that we should be addressing is what is the right form of public money for the digital age. And this is so even if you believe that the current system is adequate. So even if you believe that the current system is adequate, it doesn't follow that it will always remain so. And so, you know, there's this I think a kind of, you know, approach, which views the current system, if you like, the evolutionary inclement of the shock, you know, if I were just saying the shock hasn't changed for tens of thousands of years because

it's just perfect for what it does.

I don't believe that that's actually the, you know, what the current system, you know, is inevitably like. And I think there's room for, you know, further development there. And that's especially the case with the advent of other forms of digital currencies that are out there.

So let me pause there, maybe I can come back, David, and --

MR. WESSEL: Wait, let me, can I just ask two quick questions before we turn to Isabelle? One, two things. One is the Fed is talking about a digital currency if it does it, that I can't get an account of the Fed, it would all be intermediated by the banking system. A, is that a good idea?

And B, if you don't do that, I thought the argument was you just create the ingredients for a run on the banking system, the world gets bad and everybody takes money out of Citibank and JP Morgan and Bank of America and deposits it at the Federal Reserve. Is that not something I should worry about?

MR. SHIN: Well I think, you know, what the Fed has proposed in the paper, rather, you know, the way that they have actually laid out the problem, is to propose a two tier system where the tokens that are being transacted are actually direct claims on the central bank but the customer placing activity are done by an intermediate, you know, the banking system.

Now that's a start, I think is the way that we laid out last year as being probably the most important, the most desirable way, of implementing this idea of implementing this idea of having a claim on the central bank and therefore having a sort of direct link, you know, with the, you know, a mark of trust in central bank money. But in a way where you reduce the burdens, the operational burdens on the central bank and where you allow the private sector to, you know, use its ingenuity and creativity to serve customers better.

And, you know, the arguments about disintermediation, I think we have to

distinguish between disintermediation during normal times. So if you like slow, incremental structural changes. Versus the argument that says well during crises there will be a run to the CBDC. So I think during normal times, you know, we can always expect small incremental changes and, you know, some of that will be entirely desirable because it's going to lead to better purposes.

I think the crux of the argument is about what happens during crisis times. You know, will there be a generalized run away from the banking sector as a whole. And if you think about that and in fact, you know, since we've been talking about March 2020, you know, think back to what happened in March 2020. That was a very stressful time. What happened to commercial bank deposits at that time? Well actually deposits increased dramatically because there was a dash for cash and the dash for cash was manifested in the increased deposits because of the drawdown of credit lines.

And that's typically what you see during stress times where in fact, you know, rather that there being a generalized block away from the banking sector, you would see an increase in the deposits, you know. Now of course among the banks there could be weaker ones. And so typically what you'd see directly is, you know, there was a flow away from the weak banks to the stronger bank. But the sense that there is actually a generalized, you know, flow out of the banking sector. But I think it's theoretically possible but I think it's not, you know, the most likely scenario.

And in any case, even if that were the case, you know, if it's a short run and there is always the circular flow where the central bank can recycle the funds back to the banking sector.

MR. WESSEL: Thank you, thank you. Isabelle, you've been very patient. So Jay Powell, almost every time he testifies on the Hill somebody says why aren't you doing more about climate change? So what are the challenges that particularly the Fed faces in dealing with this rather severe challenge to human life?

MS. LAGO: Good afternoon to all. Thank you for having me as part of this

event and for the opportunity to talk about this topic.

So I think it's fair to say that along with central bank digital currencies, climate change is a topic where the Fed has chosen to not be amongst the leaders in its peer group. By the time the Feds decided to join the network of central banks that consider, you know, climate relative to their mandate, the NGFS in December 2020, the NGFS already had 76 members. So, you know, this is neither good nor bad but clearly the Fed is looking at what others are doing rather than taking the lead.

And for the reason for this, I think you've alluded to, David, is that unlike CBDCs, this issue is very politically charged in the U.S. And I think for every comment that, as you alluded to, asking Fed Chair Powell why isn't the Fed doing more, you will find just as many that are asking why are they doing as much as they're doing already.

And so I thought I would try to lay out what really are the Feds options here and what can we learn, if anything, from what other central banks have been doing in that area.

And so the Feds options actually are the same as the options of every other economic agent facing that issue. And in our view the only two choices are you can just navigate climate change and the transition to net zero or you can choose to go further and drive the transition to net zero. But ignoring it just isn't an option.

You know, there's all sorts of estimates about the impact of climate change, but one we like to cite is the damage from climate change in a business-as-usual scenario would equate 25 percent of global GDP by 2040. So we're not talking, you know, second half of this century when we're all dead. We're talking next 20 years. For the U.S. that figure is 8 percent, it's very material.

You know if you think of the increase in carbon prices that most people believe needs to be achieved to get to net zero over the next 10 years, given the carbon intensity of U.S. production, we're talking about 4 percent additional price increase over the next 10 years. You might say if you spread it out that's not a big deal but if, you know, delay

and delay and have to swallow it all up in a short amount of time that's complicated.

IMF estimates 2 percent of the workforce will need to change the sector that it's working in between now and 2050. So these are big macro issues and this is what I think Ray Leonard alluded to when he said climate change could have a prolonged effect on the level, on the trend growth, and on the variability of economic activity. And I think most of us here probably on this panel and beyond would agree that these issues are some that are directly relevant for central bank. So ignoring it is not an option.

So what then should the Fed do? So Chair Powell has said repeatedly, he has a good line on this topic, he said our role is a limited but important one. And I think it's a brilliant line because frankly every central bank I've been speaking to on that topic, and there's quite a lot, I'm sure all of them would agree. No central bank in the world is calling for expanding their mandate for it to include saving the planet. No central bank is calling for filling a void left by other policymakers. Having said that, they do have different conceptions of what does fall under this umbrella of a limited but important role.

And the way I like to think about it is, you know, an overarching goal for central banks is to keep the maximum overlap between what their mandate requires and what their social license to operate requires. And candidly, both of them are moving objects and both of them are going to differ on a country-by-country basis. So there is no, you know, single right answer here.

And, you know, for many decades both the mandate and the social license to operate would guide you to say climate is not an issue for central banks, and actually central banks were not talking about climate at all. But that has changed. And it's not the only issue. You know the Fed has already done this journey, this kind of readjustment when it redefined maximum employment or clarified its definition of maximum employment as being broad and inclusive.

Why did it do this? Well, because it felt it made sense within the mandate but because it felt its social license to operate required it. And so my sense is given how

divisive this issue is right now in the U.S., the Fed probably wants to err on the side of, you know, sticking with the basic of what the mandate requires. And that's navigating. And where this issue of navigating I think finds the broadest consensus, and Chair Powell himself has said this is how he envisions the role of the Fed as far as climate goes, is by making sure that the institutions, notably the banks that the Fed supervisors understand and manage the risks linked to climate change. And that has led to various exercises of climate scenarios.

And that's really important because this stuff is complicated, most institutions don't have the data understanding how the scenarios can be built so that they make sense, all that takes time. And so there's a lot of learning by doing that needs to happen so it makes sense for the Fed to do this.

But let's be clear, this does not include green lending incentives or brown lending penalties. I think that would be in the drive camp. Some central bank feel their population, their public opinion wants them to do that, they've been doing it. Probably in the case of the Fed that's not relevant.

Then the second area where I think the mandate requires it, I've already alluded to this, is monetary policy. I mean given the predicted macroeconomic impact I think it would be completely odd frankly, for central banks not to incorporate it as best they can in their macro modeling to, you know, not think about how are they going to handle inflation. We were talking earlier about should it be 2 percent, 3 percent, etcetera, you know. We're facing a massive reallocation of resources across the entire economy over the next 10 years. But you want to do that with a 2 percent inflation target or a 4 percent inflation target? You know, probably having a slightly higher one might help. Anyway this is a debate that I think is part of the basic requirement.

If the Fed wanted to go further, you know, there's the further question of what do you do with asset purchases. And that's a debate that has been happening in other central banks, maybe fortunately it's not so on irrelevant for the Fed because it's got out of

all its corporate bond holdings. But that's certainly been an issue for central banks in Europe, including the UK, that did buy a lot of corporate bonds as part of their QE programs during the pandemic and now need to think should we do something to green them. But admittedly that's not relevant for the Fed.

There is a debate around collateral policy, you know, should the Fed think of incorporating climate risk considerations in its risk framework as it applies to what it accepts and doesn't accept as collateral? Again, that's a debate that's happening in other parts of the world. Seems to be pretty core but admittedly maybe not the first urgency.

And then there are things, but again, other central banks have been doing. I suspect the Fed could undertake to do them if they feel that it's not considered an explosive politically. And I would put that under the heading of lead by example. For example producing reporting of their climate footprint in line with the TCFD requirements, incorporating climate considerations in any own investments that they have. Again, that's probably a bigger issue for other central banks than for Fed since the Fed doesn't sit on the large treasure trove of effects reserve.

But so in conclusion, I think what's perhaps most important to take away from what I've said is this is a moving target, what's the right scope of the Fed's climate policy. I think really key to not overreach, obviously, and not become hostage to political debates that would hinder it from focusing on what it needs to do. But equally there are basic elements that are fully in the scope of the Fed's core mandate of financial stability and monetary stability, and not talking about climate change just because it's polarizing probably wouldn't be a good idea either.

MR. WESSEL: Thanks. Don Kohn, do you agree with what Isabelle said? Do you think the Fed is being asked to do too much on climate change, or do you think that they've got the balance right in that wonderful metaphor of navigation that Isabelle talked about?

MR. KOHN: Yes. So I'm given to the navigation part. I think I love

Isabelle's phrase about a social license. And I think in the U.S. and thinking about an agency with an arms-length relationship to the political process with a degree of independence.

I would hesitate to move from navigation to drive. I think that's what the elected representatives need to do, and so I think the Fed has embarked on a risk assessment and how to manage that risk, it's very hard, very complicated. I would say that's first on the list and that's what they're doing. And they should do that.

In terms I was struck by her inflation target thing. So I think that's part of the resistance in the U.S. to addressing climate change is fear of higher prices for gasoline, heating, etcetera. And it may be that in the end if the U.S. ever gets really moving on this and raises the price of carbon, the Fed would have to take account of that as an inflation target. But I think right now it's too soon for that to happen. The U.S. seems to be moving more by subsidizing renewables than penalizing others. But that was an interesting point on that.

MR. WESSEL: Hyun, I'm going to give you a choice. One is what do you think of Don's list of things that remain undone on financial stability, countercyclical for capital for fixing the Treasury market, finding a way to improve the lender of last resort. That's option one

Option two, is the Fed too reluctant to get its feet wet in the climate change? Or you can do them both as long as you don't spend too much time on either one.

MR. SHIN: Well let's see, let me start with one because I think, and Don and I have discussed this before. You know, I agree with most of what Don said. But let me just, you know, give one slightly nuanced view of what he said about the idea that having access to the Fed, you know, it should be part of the normal course of events, you know, of normal daily business.

I think, you know, it's certainly true that if you have, you know, that comfort of having access, you know, as a matter of course, that does actually mean that the tail risk,

you know, will be diminished. It will be cut, you know, however little, you know, it will be cut. And I think when I sort of think about what kinds of investment decision, what kind of policy decisions, how policy decisions may actually, you know, be modified in the knowledge that, you know, at least, you know, part of that risk in the tail has been cut.

Now if you think that cutting off that tail will mean that, you know, there will be more participating, you know, leverage goes up, you know, that there's a migration towards slightly less liquid securities, you know, riskier securities, credit risks, then I think, you know, what you may end up as a possibility is that, you know, you were of course, you know, have that backstop. But then through the endogenous adjustment of the, you know, of the market participants themselves that will have, you know, perhaps undone from that.

So to what extent, you know, that will happen, to what extent, you know, we should be concerned about having this type of modification of behavior, I think it's, you know, very much debatable. But I think we should probably recognize that that is at least a theoretical possibility and we should try and factor that in, you know, insofar as discussion.

I mean I love what Isabelle said about the, you know, about the whole agenda. Yeah. So there's nothing much to add to what she said. You know, there's the physical risk and then there's a transition risk with the, you know, with the changes in the prices and the structure. I think what we're seeing is the, you know, and the link between, you know, the objectives of the green agenda and the price stability objectives, you know, especially through the impact of inflation I think is really proof that's, you know, right to the heart of the debate. So point well taken.

MR. WESSEL: Yeah. Thanks. Isabelle, I don't want to blindside you, but do you have views on the central bank's dual currency question?

MS. LAGO: I mean I think it's one where central banks are, I completely subscribe to the framing that Hyun offered, namely, you know, currency has been seen as a public good historically. If it looks like the public is now demanding something digital, you know, and central banks are going to be somehow out of business of providing traditional

currency because that's no longer what the public wants, then I think it's a serious question. I'm not sure what is the right answer, I'm not sure that it's been yet proven conclusively that central banks need to issue digital currencies. But certainly seems to be entirely right to not presume that they are like sharks and they'll need to evolve.

MR. WESSEL: Thanks. So I think we've come to the end of our time. I want to thank Hyun, Isabelle, and Don for this part, and Jon, Henry, and Joe for the earlier conversation that Lousie moderated. And of course I want to thank my colleague at Brookings, Stephanie Cencula and Megan Waring for helping to organize this event.

I think we've covered a lot of ground. It's always dangerous to try and do so much in a short period of time. I actually think we did pretty well, hit all the high points. And this will all be achieved so you can watch it again and again and again in case you missed something.

So with that thank you all, and have a good day, what's left of it in Europe and what's left of it here in the states.

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