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WEBINAR

FORMER FED CHAIR BEN BERNANKE WEIGHS IN ON THE ECONOMIC RESPONSE TO COVID-19

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PROCEEDINGS

MR. HUTCHINS: Okay, good morning or good afternoon, this is Glenn Hutchins here. Welcome, everybody, to what I hope will prove to be a fascinating and insightful session with Ben Bernanke and David Wessel.

When the financial crisis hit in 2008 and Ben Bernanke was Fed chair, there was no playbook, so he had to create one from scratch. Few of us expected that his successors would need to refer to it so soon, but fortunately for all of us, he left a copy of it for Jay Powell to consult. I would recommend for people on this call, if they're interested, there's a very good book called "Firefighting" which is a summary of the crisis, and one called "First Responders," which gets in deep into the individual programs. I recommend everyone have a look at it over the next couple of weeks.

Ben, among other things, is a distinguished economic historian, very well suited to put this horrible event that we're experiencing now in context for us. He'll give us a sense today of what will determine how deep this recession will be, perhaps how long it will last, how effective the fiscal and monetary policy response has been, and perhaps what's likely to come, and whether the Covid-19 recession will leave long-lasting scars on the U.S. and the global economy.

So I'll turn this over right now to Ben for his remarks, after which David Wessel will pose some questions, and then after that I think there will be some instructions on how the audience members can ask their own questions.

So, Ben, over to you, and thank you for doing this.

MR. BERNANKE: Thank you, Glenn. Thank you, everyone, for joining us this afternoon. Seems like a long time ago now, but in January and February we had a very strong economy with a 3.5 percent unemployment rate. We're hopeful at least that the strength of that economy will provide a little bit of momentum, a little bit of financial reserve to help us get through this very tough period

Of course, what has happened is that the world has been hit by the Covid-19 virus, the virus itself is doing great damage, but from an economic perspective, the fact that unessential businesses are being shut down globally is having an enormous effect on economic activity, people are not shopping,

people are not working, people are not going to school. And we are going to see the effects of that in the data very soon.

You need to keep the data in perspective. If GDP in the second quarter is say 10 percent lower than in the first quarter -- remember we report on an annual basis, so multiply it by 4 -- very possible we'll see GDP numbers for the second quarter on the order of magnitude of -30 percent or greater. Likewise, unemployment is hard to measure in the short-term. People who are furloughed from a company, are they unemployed, will they be coming back. In the near-term we'll see some dramatic numbers, but I think we won't know for a while how serious and how deep this phenomenon is going to be.

Clearly people have made comparisons to the Great Depression. It's not a very good comparison. The depression was 12 years long, it came from financial crisis, it came from man-made, human-made errors and decisions. This is more like a natural disaster and the response is more like emergency relief than it is a typical stimulus or anti-recessionary response.

Now, having said that, the critical factor in terms of how bad this is going to be, how much imprint it will leave on the U.S. economy, is its duration -- how long will it last. The longer it lasts the more existing businesses will fail financially, will close their doors. The longer it lasts, the more people will lose their jobs and lose their association with their former employers. The longer it lasts, the more destruction there will be and the harder it will be to come back. So the duration is going to be critical. The most important determinant of the duration is the public health response.

We are currently in shut down because we are trying to "bend the curve". That means we want to get the rate of new cases low enough that people can feel confident that the system can handle the cases. We want to add palliatives and medicines and treatments, we want to test and trace. We ultimately want to be able to feel that people can go back to work safely. And that is going to depend, more than anything else, on the public health response. And I think that's still a great deal of question about how that's going to go.

One scenario is that we partially open up the economy over the summer and that

perhaps in the fall there's more infection and we shut down parts of the economy again. So overall it could be a very bad year for the U.S. economy. But, again, the public health response and our ability to make sure that the hospitals have the equipment they need and that the scientific establishment is putting all its resources into addressing this disease will be the most important determinant of how long and how deep this downturn is.

Now, having said all that, there are other components to the response, and which I am more expert. Let me talk about briefly the fiscal response and then spend most of my time on how the Federal Reserve is responding to this crisis.

Now, fiscally, again, we're not really talking here about a stimulus package because people can't really go out and shop, what we're talking about here is emergency relief. What we need to primarily in the fiscal package is make sure that people can survive this period with very low income, that businesses that are losing revenue can pay their bills, pay the rent, pay the utilities so that when the all clear is sounded, or at least a partially clear is sounded, they can open again and we can restore economic activity. That is a big, big part. Besides the part of the fiscal program that addresses health needs, the biggest part of the CARES Act, the $2.2 trillion fiscal program, is trying just to provide life support for an economy that is going to be shut down for a while until we have a better grip on the disease.

So the money is going into direct payments to individuals to help them get through this period. I think the main issues there are logistical, are we getting the money to people fast enough, is it enough. There will probably be more coming later. But it's the right idea to try to help period get through this period.

The other part is to help businesses survive this period. And that involves both some grants, large amounts of money for the airline industry, for example, but also credit to help firms pay their bills and remain solvent so that they can open up again when the health situation is better.

So I think overall the fiscal policy response -- which, again, you should think of as an emergency relief package or disaster relief -- has been pretty good. There are some logistical issues in

terms of say getting the money out, but it has the right shape. I do suspect there will be more coming later as we help the economy get back to full employment. And I would also add that this will probably be almost entirely debt financed, which in the circumstances I think is probably appropriate. This is why we have the capacity to borrow to deal with these kinds of crises.

Now, let me talk with the remaining few minutes about the Federal Reserve, which has been extraordinarily active. And I want to comment Jay Powell and his colleagues for being very proactive in trying to address concerns in the economy. The Fed has done basically three types of things, and each of which has an important role in supporting our financial system and our economy.

The first is supporting market functioning and providing liquidity. This is what central banks were created for, this is what the Fed was set up for in 1913. As you may know, those listening may know that the Fed has been dealing with some liquidity issues going back into last year when the repo markets were somewhat destabilized. So the Fed was putting liquidity in the system as early as last fall. But since then, with the pressures on financial markets coming from the uncertainty associated with this crisis, there's been a lot of destabilization. The Fed has responded in a big way. It has been, for example, buying large amounts of treasuries and mortgage-backed securities to help restore good functioning in those critical markets. It continues to put cash into the system to try to make the repo markets and the money markets work better. It has opened up its discount window so that banks can borrow at 1/4 of 1 percent interest as they need liquidity to make loans. Very importantly, the Fed has also been providing liquidity in the international system.

So back in 2008, in the financial crisis, one of the problems around the world was that so many financial transactions take place in dollars and of course the only course of dollars is the Federal Reserve, so in order to stabilize money markets around the world, the Fed conducted what's called "swap operations" with 14 other central banks, meaning that we found ways to provide them with dollars that they could then use in their economies to help stabilize their financial systems. And that in turn affected U.S. financial markets. The Fed in this instance has also set up swap agreements with 14 -- the same 14 central banks. So once again the Fed will be acting as a lender of last resort in dollars, not just to U.S.

banks and financial institutions, but essentially to the rest of the world.

It has also set up a facility whereby other countries besides the 14 can pledge the treasuries they hold, get dollars, get cash, and again provide the liquidity as needed within their own economies.

So the Fed is acting very aggressively to make sure that there's enough cash, enough liquidity in the system. That's the first line.

Secondly, the Fed has been aggressive on monetary policy. They lowered interest rates. As you know, over the summer last year they cut rates three times as insurance and that seemed to be what the doctor ordered, so to speak. And the risk recession risk at the time fell and it looked like the Fed had achieved a soft landing. Now we have a much different situation. The Fed has cut rates down to the minimal 0 to 25 basis points that we saw in the years after the financial crisis. It has issued forward guidance, saying basically that we're going to keep rates at zero until the economy is clearly back on track and inflation is moving back to 2 percent. I suspect that will be quite a while. And the assets purchases it's been delaying -- at least $500 million of treasuries and $200 billion of MBS -- mortgage backed securities -- have already been undertaken. That will transmogrify into quantitative easing, again helping to keep rates low and monetary conditions easing after the health crisis has begun to ameliorate.

So, again, this is really kind of a two-stage process. At the moment, easier financial conditions are helping the system, making it easier, for example, for corporations to borrow so that they can continue to survive, but it's not really time yet to stimulate spending and get people to go out and buy cars and houses. That will have to wait until the health situation is better. At that point monetary policy will begin to perform its normal function.

Now, finally, and most innovatively, the Fed has been intervening substantially in credit markets. So credit markets have been very disrupted by the crisis, by the fact that people are so uncertain about how long it will last, what the cash flow implications will be. And so as the crisis began, many, many credit markets were disrupted and the Fed, as Glenn said, has borrowed from the Fed's playbook from 2008 and then added quite a few innovations of its own.

Borrowing from the 2008 playbook, it's done really three things. First, it's created a commercial paper facility which provides commercial paper short-term lending to corporations to help them finance their inventories and their materials, their working capital. That was something we did in 2008. That's on the shelf, that is up, that is already running.

Secondly, there's a money market liquidity fund -- that we also had in 2008 -- they brought up to allow money markets to sell their securities and reduce pressure on the money markets. We've seen some run phenomena on money market mutual funds and this has been helping there as well. This was something we did in 2008.

And then the third facility that we had that they are also planning to reintroduce, but have not yet, so-called TALF. The term asset-backed securities lending facility is used to buy packages of credit, consumer credit, credit cards, auto loans, student loans, and a variety of other types of credit to help make those markets more effective.

So these announcements, together with the treasury and mortgage-backed securities, have already improved credit market functioning considerable. Now, going beyond that, the Fed is going to use its 13(3) emergency powers, which we used in 2008 for the first time since the Depression. The Fed in general has very limited ability to buy assets and make loans, but under emergency conditions, so-called unusual and exigent conditions, and with the permission of the Treasury Secretary, the Fed essentially lend to anybody -- that's the 13(3) facility, the 13(3) power -- and based on that, they're adding a whole number of lending facilities that will try again to ensure that businesses can borrow cheaply and effectively in order to maintain their survival through this period.

So what's coming out? There's two corporate facilities. There's one that's going to lend directly to corporations, essentially making loans or buying bonds of corporations, again to help them to survive the period. There's the secondary facility that will buy existing bonds, trying to improve the functioning of the credit markets and the corporate bond markets. And then, thirdly -- and this is an important and difficult one -- departing quite substantially from past experience, the Fed is also going to be introducing a so-called Main Street business lending program. Now, Main Street is a little bit of a

misnomer because it's really for middle sized firms, 500-10,000 employees. And what the Fed will be doing -- and we don't know all the details yet -- but presumably they'll be asking banks to make the loans to these midsized firms and the Fed will be providing cheap liquidity and perhaps providing protection against risk so the banks will be incentivized to make loans on good terms to these midsized firms.

Now, the smallest institutions, the smallest businesses are eligible for loans from the SBA, the Small Business Administration. That began this week. Again, logistics is so important. There have been some snafus in terms of getting the money out. I hope that will get straightened out. But that is supposed to provide -- the SBA's program is supposed to provide cash to the smallest businesses on favorable terms and, in fact, those loans are at least partially forgivable if the small companies maintain their payroll.

Now, the Fed is helping there as well. It announced, I think just today or yesterday, that it will buy SBA loans from banks or provide a secondary market for those loans, making them more liquid and making bank more willing to make those loans.

So I think the thing to emphasize here is that the Fed -- what the Fed can do is reinforce the private credit markets. Where the private credit markets are dysfunctional because of deleveraging, because of uncertainty, the Fed can come in and replace those markets to some extent or strengthen those markets and try to bring private lenders back into those markets.

The Fed does not give away money, the 13(3) requirements do require that the Fed take collateral that intend to be repaid, but in order to give the Fed some protection, a big chunk of the money in the fiscal program, $465 billion, essentially provides equity for the Fed's lending programs so that if they do lose money it will be covered by these Treasury funds.

So, again, there has been progress already. We have seen the credit markets improve. I think the critical issue will be how quickly the public health situation improves, and that in turn will depend on the logistics of distributing equipment and gear, beds, ventilators, as well as the scientific effort that we really need to get control of this.

Finally, let me just point out that we're talking about the United States. This is a

particularly difficult situation because it is a global situation. Almost every country in the world is suffering from this pandemic and almost all have chosen to significantly reduce economic activity, so this will be a global recession. The situation is being worsened by a strong dollar, by falling commodity prices, by capital outflows from those countries. So we may well see emerging market crises and global recession as well as in the United States.

So we have a hard row ahead, but I am pretty pleased overall with the fiscal and monetary responses we've seen. We're going to need more, but at least those authorities have done what they can to help our economy stay functional until the public health situation gets better.

So, David, I'll stop there and be happy to answer any questions.

MR. WESSEL: Great. Thank you very much for that, Ben. And people listening in, we have a number of questions already, but feel free to add to the list by emailing Events@Brookings.edu or on Twitter at #Covid19Economy.

As you mentioned, Ben, the Fed has aggressively increased its balance sheet. It's now approaching $6 trillion. Soon it will be twice the size it was when you left the Fed in 2014. Is there a limit to how much money the Fed can create or reserves it can create to purchase U.S. treasuries and lend through all these emergency facilities? Is there some limit to how much the Treasury can borrow to finance this rescue?

MR. BERNANKE: Technically speaking, there's not really a limit to how big the Fed's balance sheet can get. At $6 trillion this would be about 30 percent or less of U.S. GDP. In Japan -- I don't know the exact number -- but on the order of 80 or 90 percent of GDP is the size of the Bank of Japan's balance sheet. So it could be bigger. Much of the increase is temporary. For example, a lot of the -- take the commercial paper facility, for example. Those are short-term loans and presumably as things normalize, those loans will be paid back and the Fed's balance sheet will accordingly shrink.

But, you know, I think the Fed does have capacity to increase its balance sheet and it appears willing to do so significantly and I think that's appropriate. I don't think there's any real danger from that. I don't think, for example, that inflation is going to be a risk. If anything, disinflation, low

inflation, will be more of a concern in the next year than too high inflation.

As far as borrowing is concerned, yes, the Federal Government is borrowing a lot. Again, as I mentioned, this is when that borrowing capacity is so valuable, when you have a national emergency, which if course this is. Paying for this with taxes would be counterproductive just because it would depress buying power at a time when the economy needs buying power.

The question of sustainability of the U.S. Federal debt is a tough one. I think there are long run issues. Clearly, as the population ages, as costs of medical care go up, you know, we see projections of the Federal debt that are very disturbing over the next decade or two and we need to think hard about how we're going to control of that trajectory. But I think that in the near-term, dealing with a crisis of this magnitude, that I think this is an appropriate approach.

And I would just note, finally, that interest rates being almost zero means that the interest burden associated with this borrowing is actually going to be quite low, even though the number of dollars borrowed is high.

MR. WESSEL: I want to back to that inflation point because some people look at what's going on, huge increase in the Federal deficit, low interest rates, the Fed creating a lot of reserves. And they think surely this will create inflation, maybe more than we want. You don't seem to think that's the case. How come?

MR. BERNANKE: Well, if you look at -- there are supply and demand elements of this crisis. You know, on the supply side you're seeing, for example, some types of goods are in short supply, you're seeing some supply chains being disrupted. So there are some supply side effects that, you know, will raise prices for certain goods and services. Overall, though, think about what's happening to the demand for major industries, think about what's happening to the demand for airline seats or restaurant meals. Because people are staying home and because it will be a while before they are back to more normal activity, and because when they do come back to more normal activity, they will have exhausted some of their financial reserves, presumably. I think spending is going to take a hit. So the net effect will be probably slightly disinflationary. That's what Jay Powell said in his press conference and I think he's

right. One way to see that is juts to look at what's happening to commodity prices -- oil prices, for example, which have collapsed.

So I think overall that monitoring fiscal stimulus will not sufficiently compensate to get us back quickly to full employment and the risk will be that in the short-term that inflation will actually be a bit below the Fed's 2 percent target. The Fed would like to get back to 2 percent, or even slightly above. So I think at this point inflation is not a high risk.

MR. WESSEL: It doesn't sound like you're anticipating a sharp V shaped recovery.

MR. BERNANKE: Again, it depends on -- I'm not. The reason I'm not is because of the apparent trajectory of the virus and rates of infection and the like. They tell us -- of course, I'm not a doctor by any means -- but they tell us that a vaccine is 18 months away. There are things we can do to open up the economy, significantly perhaps, but I don't see the economy returning to a more normal state until there's much greater confidence, both among average people and at the level of governors and mayors that opening up the economy won't restart the crisis.

So it seems likely that if we could shut off the epidemic, of course, the economy would bounce back quickly, but since we'll probably have to restart activity fairly gradually, and there may be subsequent periods of slower activity again, I don't think it's going to be a rapid response.

On the other hand, I do want to draw the distinction between this and say a 12 year Great Depression. If all goes well, in a year or two we should be in a substantially better position. I hope that the time back to full employment will be significantly less even than the Great Recession proved to be.

MR. WESSEL: Well, that raises an interesting question. The recovery from the Great Recession was sluggish and painfully slow. Are there lessons there that we should draw about either fiscal or monetary policy responses?

MR. BERNANKE: Well, on the margin I think both fiscal and monetary policy could have been more aggressive at certain stages in that recovery. But it was a very different kind of recession. It was started, it was created primarily by the combination of a housing boom and bust and a financial panic. And those things in the first instance, as asset prices fell, house prices fell, made people feel a lot

poorer, and then the credit crisis meant that there was tremendous disruption in credit markets as well. And so the way to think about it is that a recession is not just everyone stopping for a moment what they're doing and then going back to it, rather a recession involves a whole lot of disruption -- people losing jobs, being separated from their employers, companies closing. And depending on how long and deep and severe that disruption is, the longer it takes to get back to a more normal situation.

MR. WESSEL: But I recall you saying when you were at the Fed that you thought fiscal policy had tightened too soon, that the period of the sequester hurt the recovery. And I guess I was wondering whether you think that's a risk again this time.

MR. BERNANKE: Well, as I said a moment ago, I think fiscal policy was not sufficiently aggressive and I think at time monetary policy could have been more aggressive. The initial 2009 fiscal program, in retrospect, and some people said at the time, was perhaps not adequately sized given the size of the problem. And then there was a fairly quick response, not just in the United States, but globally towards a more deficit reduction and tighter fiscal policy starting as early as 2010, and in the United States, a very significant tightening in 2013. So, yes, the fiscal policy was too tight at various stages to fully aid the recovery back to full employment. In this case, you know, I think the politics is a little different. You know, the 2009 fiscal package was passed -- you know, it was basically on party line vote. This one we just had was a more bipartisan, supported by the President and both parties. So I'm hopeful that, you know, with a more bipartisan approach to what is again at some level really a natural disaster -- I mean this is very big, but it's in some ways similar to the hurricanes or the floods or the other things that we've dealt with in recent years. And a bipartisan response to support those people affected might lead us to a more robust fiscal response as the economy recovers.

MR. WESSEL: I see. A number of people have asked about share buybacks, which hve become controversial, and suggests that one of the consequences of a long period of low interest rates was share buybacks that somehow are unproductive.

I wondered if you have a view on that and also on the calls for the big banks to stop paying dividends and they've also already suspended their share of buybacks.

MR. BERNANKE: Well, share buybacks and dividend payments are not inherently bad things. What they are basically is the bank or the company taking its excess cash and saying, look, we haven't got any good use for this cash, we're going to give it to our shareholders. They can either use it for their own consumption or they can invest it somewhere else. You want to have capital be mobile to go from companies which have extra cash but no good for use for that to other uses in the economy where they cash can be better used.

So I don't want to argue against buybacks and dividend payments in general. Now, the good news in the current situation is that the banking system, unlike 2008, is coming in pretty strong and that's going to be helpful for recovery. On the other hand, you know, you want the banking system to stay strong. And so there's I think a very tough question as to whether the regulators ought to cut back on dividend payments.

MR. WESSEL: The banks?

MR. BERNANKE: Or tell them to stop making dividend payments. We didn't do that in 2008. I think in retrospect, you know, that might have been a mistake because obviously in the end many banks were short of capital and putting out dividends reduces the amount of capital. So I think there is a case for asking banks generally to be very cautious about dividend payouts and share buybacks.

The argument in the other direction is that you might give the impression that, as policy makers, when you tell the world we're telling the banks they can't pay dividends, you might effectively tell the world you think the banks are in trouble, which you may not believe. And I don't think it's the case now. So there's a bit of a signaling problem.

So I think it's a complicated question. I think the banks are pretty strong. I think they have much more capital today than in 2008. But I do think some caution on dividend payments. If it can be done in a way that doesn't hurt confidence in the banking system, would be worth discussing.

MR. WESSEL: One of the things that's quite different between 2009 and today is the Congress back then appropriated a lot of money. It went to the TARP, the Troubled Asset Relief Program; it was run by the Treasury. The Fed, of course, was involved, but it wasn't primarily a Fed

program. This time the Congress seems to have a lot of faith in the Fed -- has given the Fed $454 billion, which Jay Powell says he can leverage 10-1 to lend.

So I'm curious what you think about this? And including this time, they're talking about buying securities at the -- municipal bonds as well as lending against corporate debt and so forth. I'm wondering whether you're comfortable with this use of the Fed to lend almost everybody, to basically be deciding who gets credit and who doesn't, and whether you think this is an inappropriate role for the central bank?

MR. BERNANKE: I think it's an appropriate role for the Fed given the circumstances. Glenn Hutchins this morning had an op-ed talking about the importance of governance and making sure that there are clear rules and clear oversight of the lending process. But the Fed, under Jay Powell and under previous chairs I hope, has established a good record of nonpartisan and objective analysis.

So the Fed is, I think, a vehicle for providing government supported credit that will be based on objective criteria and is less subject to partisan debate than maybe another type of approach might have.

So I don't think this should be a regular feature. Obviously we want the private sector to be the source of credit under almost all circumstances. But in this case, where credit markets were clearly disrupted, the Fed I think has an appropriate role to try to restore stability. The Fed has a broad responsibility to maintain financial stability, and I think it's doing a good job of that. And one sign of this is that we don't expect the Fed's lending to crowd out all other lending. In markets like the commercial paper market and the corporate bond market, we're already seeing normal private lending returning. So the Fed is acting more like a backstop than it is the only lender or the primary lender. And I think that lender of last resort backstop role is an appropriate one under these types of circumstances.

MR. WESSEL: Have we learned anything about places in the financial system that were more fragile or more vulnerable to shocks than we had realized? Or maybe that we hadn't done enough to shore up after the Great Recession?

MR. BERNANKE: Well, I think one area that people were worried about in advance --

and my colleague at Brookings, Janet Yellen, has talked about this a lot -- is the leverage lending, high yield, some of the areas in the corporate credit markets that are stressed. And the Fed anticipated that if a shock came from some other direction that drove the economy into a slowdown, that some of these weaker credits might exacerbate the problem. And I think we're seeing some evidence of that.

There have been some surprising problems even in the treasury market which the Fed has addressed by buying treasuries. But broadly speaking, again, this situation is very different from 2008. It feels like 2008 because we're seeing the big moves in the stock market and seeing lots of financial stress, but in this case the shock is coming from outside the financial system. It's coming from, of course, the pandemic and the effects on economic activity. The financial system is strong and will be a bulwark against this becoming a much worse crisis if the Fed and the regulators do their jobs appropriately.

MR. WESSEL: You think it's appropriate for the government to take warrants or other equity interests in companies that it lends to at a time like this?

MR. BERNANKE: So there's lending and then there's also some grants going on, some -- where the fiscal policy has included, you know, payments to industries which are where lending is not going to be sufficient. In that latter case, where they're grants, then there may be various ways in which that grant can be partially paid back through warrants, for example.

I think it's a balancing act. And I'm not really closely enough involved in these particular programs to give you a good judgment. You want, obviously, the taxpayer to be protected, you want to have a reasonable return. And remember, again, the Fed's lending is lending, not grants. It's not gifts. So you want a reasonable return, you want a return that's going to not -- you want the taxpayer to get their money back. On the other hand, you don't want to impose so many conditions and complex requirements, first, that it will make people unwilling to participate and, second, that it will make the paperwork burden so high, again, that it will, you know, make the logistical problems even worse.

So I think there's a balancing act there and I think that it's appropriate to impose some requirements, obviously, including obviously certification of eligibility and need, but I -- you know, I think

the main thing that you want to do is keep those companies alive so that they can function again when the health crisis is over and to try to ensure that as much as possible the taxpayers get their money back.

MR. WESSEL: You've made this point several times, and for good reason, that keeping businesses in tact so that they can more easily restart when the virus recedes is going to be critical to how we come out of this thing. But I wondered if you could step back for a moment and -- this is speculation, I understand -- to think about ways in which the economy may be different coming out of this, either consumer business behavior, approach to government. Just to think about from the vantage point of history, what do you think we'll be watching to see if it changes?

MR. BERNANKE: Well, economists have a term called hysteresis, which basically means that temporary --

MR. WESSEL: I think it was a physics term, wasn't it? They stole it.

MR. BERNANKE: They stole it from physics. And the idea basically is that what you perceive to be temporary changes have permanent effects. And there may be some hysteresis in this crisis. In other words, some of the things that happen in the course -- even if this is only a year or two -- in the course of this recession may have permanent effects in the economy.

So one example would be small business. So one concern economists have had about the U.S. economy is that it's become more concentrated, that larger businesses have had more market share, if small businesses are knocked out by this crisis because we don't adequately keep them alive, then that could affect concentration in many industries going forward.

The form of work, here we are having this conference remotely. People at Brookings and all around the country are teleworking and learning how to work remotely. Will this change our shopping, will this change our work habits, you know, will this affect the way that we interact with people online rather than in person. Industry composition will be affected, no doubt. I can't see as many people going on cruises, for example. There may be changes in the way that other travel industries operate to reassure people about safety and health. So there are a lot of different dimensions, but I guess the historical examples, like the 1917 flu pandemic, 1917-18, the Asian flu in the '50 had close but not I think

permanent impact. I'm not expecting at this point a complete reshaping of U.S. economy, but there will e some changes. The hysteresis will probably work on some dimensions, and so there will be some change going forward.

MR. WESSEL: Before this crisis we talked quite a bit about a savings glut where there was more savings and not enough investment to soak it up, which was of course why global interest rates have been so low. As we look ahead, which way do you think that balance will go? I can think of it more than one way. We may have very risk-averse consumers; people may be willing to save more. I can imagine a lot of people not being willing to invest. On the other hand, government borrowing will be certainly a lot greater than it was before. How do you see that savings-investment balance? Or what will you be watching to see?

MR. BERNANKE: Well, as you point out, there's forces on both sides, but if you look at the experience, say of the Great Depression, people who survived the Depression for many years saved more, were more cautious. So I think that some of those same factors will be there. You know, if people think that -- in particular if they think that pandemics will happen every 10 years, they'll have more precautionary savings because they want to be prepared for those kinds of disruptions. So I would expect to see more savings and more caution, which would probably on net lower interest rates.

You're right about higher fiscal deficits, but as Larry Summers and Anna Stansbury argued I think in a recent Brookings paper, you know, without the fiscal deficits, interest rates would be lower still. But they've not been sufficient to raise interest rates up to historically more normal levels.

MR. WESSEL: And, finally, let me close with this. So I think a lot of people are just scared. It's a very frightening moment. You're not allowed to go outside in many places, you've watched, if you have, retirement savings diminish, the uncertainty about the future, the next few months, and even year of the economy is very unsettling.

So what can you tell people to reassure them, if you can, about how we get through a period like this?

MR. BERNANKE: Well, it's going to be a very difficult period. There's a lot of uncertainty

inherent in dealing with this illness. We don't understand it fully. A lot of people's financial resources are going to be tested, both because of movements in the market and because they're trying to survive this period with low or reduced income. So I don't want to in any way diminish what's happening, it's a very, very tough and scary period, one that has very few precedents in history. All that said, you know, I think history also suggests that we will find solutions for this illness, whether they are logistical, whether they are scientific advances, whether they come from changes in how we work. So I think the U.S. economy will recover and within a few years will show only modest marks of this experience.

So I think if we're patient, do what we know we should be doing, that we'll come out okay on the other end. We will have learned some lessons about being better prepared for future crises and future shocks of this type. So I think with some patience and optimism that we'll come out of this okay. But I certainly understand and appreciate that personal level uncertainty that we're all facing over the next few months.

MR. WESSEL: Well, I hope you're right about that prediction. Thank you very much for your time. And to people who are on line, if you have questions that we didn't get to, I apologize. If you send them to Events@Brookings.edu and they are questions we can answer -- and there are many we can't -- we'll try and find a way to answer them.

So, again, thank you very much, Ben.

MR. BERNANKE: Thank you.

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I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

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