

THE BROOKINGS INSTITUTION
FALK AUDITORIUM

ARE WE READY FOR THE NEXT RECESSION?

Washington, D.C.
Monday, March 21, 2016

PARTICIPANTS:

Introduction:

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

Fiscal Policy: Congress and the President:

WENDY EDELBERG
Assistant Director for Economic Analysis, Congressional Budget Office

BEN SPIELBERG
Research Associated and Project Manager for Full Employment, Center on Budget Policy and
Priorities

PHILLIP SWAGEL
Professor, University of Maryland School of Public Policy

Monetary Policy: The Federal Reserve:

RICHARD CLARIDA
C. Lowell Harris Professor of Economics and International Affairs, Columbia University; Global
Strategic Advisor, PIMCO

JON FAUST
Louis J. Maccini Professor of Economics, Johns Hopkins University

* * * * *

ANDERSON COURT REPORTING
706 Duke Street, Suite 100
Alexandria, VA 22314
Phone (703) 519-7180 Fax (703) 519-7190

P R O C E E D I N G S

MR. WESSEL: Good afternoon, and welcome. I am David Wessel, I am the director of the Hutchins Center on Fiscal and Monetary Policy here at Brookings.

Today, we are going to ask a question that seems only slightly less scary today than it did about six weeks ago when the market was down, which is are we ready for the next recession?

I am going to kick it off with a little bit of background, about five minutes, and then we are going to have one segment on fiscal policy, which I will introduce later, one segment on monetary policy, and then my colleague, Louise Sheiner, is going to come up here and moderate a panel with all the participants, at which time we will invite you to give your questions.

I want to warn everybody that this is very much on the record, and in case you have noticed, there are two cameras there, one of them is ours. This is being webcast, and one belongs to CSPAN.

So, the basic question is are we ready for the next recession. In case you are wondering, we have recessions from time to time, and the only point on this slide is to remind you that they come at irregular intervals.

I am not a believer that you can say that recessions -- that expansions die of old age, but it is a fact that it has been a long time since the U.S. has had a recession. It may not feel that way to a lot of people, but the recession ended in 2009, so we have had a long stretch. You can see we had some periods -- some quarters of lousy growth and some periods of slow growth.

And the question really we are asking today is what if. What if we had the misfortunate to be hit by a recession again, is the fiscal authorities - Congress, taxes and spending, equipped to do what it did the last time? Is the Fed equipped to do what it has done in the past to fight a recession.

And particularly interested in what happens if it happens sometime soon, because we do not know what our fiscal or monetary position will be a decade from now, and this is the reality we face.

This simply shows you the debt to GDP ratio, the size of our Federal debt as a fraction of the size of the economy, and the important thing to note is that it is pretty high now, if you look. We

RECESSION-2016/03/21

haven't been this high since the end of World War II. At the end of World War II, debt came down rather sharply. Projections from the Congressional Budget Office suggest that is the current policy line, and the current policies, the debt to GDP ratio is headed higher and higher.

My colleague, Bill Gale, and his co-author, Alan Auerbach, have drawn another line there which shows you what if interest rates stayed really low for a long time, and you can see it rises substantially less rapidly, but it is still pretty big.

We have had big deficits during the period of the Great Recession. You can see there how deep it was in 2009. You can see the deficit has come down as the economy has improved, as Congress raised taxes, and as there was by accident a lot of spending restraint, thanks to the sequester. You can see the deficit is not getting much bigger in the near term, but it starts to get bigger toward the end of the decade.

But for a Nation that has like a humongous Federal debt and which is proposing to raise - - current policy is to have deficits of three percent of GDP for the foreseeable future, and it turns out the rest of the world is still willing to lend us a lot of money at very low interest rates. The yield on 10 year Treasuries, the nominal yield, that is not adjusted for inflation, is currently below two percent. You can see here how unusual that is.

Now, one of the things about fiscal policy in our country is that it automatically adjusts to recessions, and some of our panelists are going to talk about this, so I don't want to belabor it.

This is a nice chart based on CBO data. The dark blue there shows you the extent to which automatic stabilizers, that is things that did not require Congress to do anything, kicked in during the Great Recession, and how much of the deficit was due to them.

It is important to note that these automatic stabilizers do not include the big American Recovery Act, so this is just things that took place without any action from Congress. You can see they were a substantial fraction of the deficit we ran.

These slides are all online. We just gave a little list here of all the things that Congress did in addition to those automatic stabilizers. The nice thing about this chart is you can see that although

RECESSION-2016/03/21

the TARP cost \$600 billion when it was announced, \$600 billion of the TARP was actually committed, in the end, CBO estimates the ultimate cost is only about \$40 billion.

You can see that Congress did quite a few things during the Great Recession, and the question is given that debt level that we have today and given the political environment, would we be willing to do that again, would Congress be willing to do it again, I personally would be happy to do it again, if we had another recession. Could we do it again?

Then this comes to the question of monetary policy. Now, once upon a time, we believed that we didn't really need too much fiscal policy if you had a recession because the Fed could cut interest rates. The point of this chart is pretty simple. The Fed has cut interest rates. They are at zero. If you look really carefully at the bottom there, they have managed to barely get it off the floor of zero, about a quarter percentage point.

We used to think interest rates couldn't go below zero, now we are learning in the rest of the world that maybe they can go a little bit below zero, and we will talk about that.

This is a graph of the countries abroad that have negative interest rates. You can see in Switzerland, they are three-quarters of a percentage point negative interest rates. That is if a bank puts money on reserve at the Swiss National Bank, it has to pay the Swiss National Bank money. It doesn't get any interest rate.

Of course, the other thing the Fed did was QE, buying a lot of assets, so when Ben Bernanke took over at the Fed, they had less than a trillion dollars in assets, and today, they have \$4.5 trillion in assets.

One of the questions we will ask is so, what's wrong with 5.5 or 6.5 or \$7.5 trillion? Is there some limit to what the Fed could do with QE, and is there some reason to believe that additional quantitative easing wouldn't have the same effect as this did before.

But again, this comes in a really unusual context, and the context here is that interest rates around the world are very low. This is a really nice chart taken from some Bank of England economists, and it shows you what interest rates are around the world adjusted for inflation on 10 year

Government bonds.

In other words, if what we are seeing now is unusual, rates are low, but it reflects a long period of rates being low, and the point here is we have reason to believe that interest rates may be lower than normal for a long time. The trend begins well beyond the Great Recession, and the question is in that context, will the Fed be stuck near zero for a long time, and how much will that limit their capacity.

So, could the Fed do more, could Congress do more, and what would that more be.

So, to kick us off, we have three speakers, each of whom has a different cut on fiscal policy, Wendy Edelberg -- did we decide who is going first? Wendy Edelberg is going first, from the Congressional Budget Office. I think I am supposed to say she's speaking for herself and not the CBO or something like that. No? She's speaking for CBO. Great.

Second, Ben Spielberg, from the Center on Budget and Policy Priorities, who has a nice paper with Jared Bernstein that was posted on their Web site this morning, a link on our Web site, about ways in which we might want to expand the automatic stabilizers.

And then the third is Phil Swagel, University of Maryland, formerly of the Bush Treasury, who will talk about how he sees things.

Each of them will speak for 7 to 10 minutes, and then I will bring them all up here and we will have a discussion. So, Wendy, it is all yours.

FISCAL POLICY: CONGRESS AND THE PRESIDENT

MS. EDELBERG: So, hi. I'm Wendy Edelberg from the Congressional Budget Office. I am an Associate Director for Economic Analysis, and I am delighted to be here to discuss this really important topic.

So, let me give you a quick roadmap of what I'll say. First, I will briefly walk you through CBO's budget and economic projections, and I'll highlight some of the significant consequences that we see from our projections of high and rising Federal debt.

I will also talk about how the economic projections influence our budgetary projections and the interplay of those two, and then finally I'll talk about automatic stabilizers, the role of automatic

stabilizers in fiscal policy during times of economic weakness.

This slide looks familiar because David just showed it. So, under current law, revenues are projected to stay roughly constant to the share of GDP over the next decade, but with the aging of the population and rising health care costs, CBO projects a substantial boost of Federal spending on Social Security and the Government's major health care programs.

So, alongside rising Federal interest payments, deficits are expected to increase from their current level of 2.9 percent, which is just a touch higher from the average of 2.8 percent over the past 50 years, to 4.9 percent in 2026, which leads us to projections for Federal debt held by the public.

So, if current laws generally remain in place, growing deficits are projected to raise Federal debt held by the public to 86 percent by 2026. That is up from 74 percent in 2015, and almost twice the average of the past five decades.

So, some of the consequences of high and rising debt. So, the focus of the discussion today is increased borrowing would restrict policy makers' ability to respond to economic challenges, whether that is through an economic downturn or a result of a financial crisis. That would make those economic challenges have larger negative effects both on the economy and on people's well-being.

So, in addition, just a more straightforward direct effect, is that increased borrowing would increase the amount of interest that the Federal Government would have to pay, which would make it all that much harder to stabilize debt to GDP in the future.

Harder to quantify is that we think high and rising levels of Federal debt increase the likelihood of a fiscal crisis. Now, such a crisis would certainly present policy makers with significant challenges and lead to significant negative impacts on the country.

In our view, there is no particular tipping point at which we think a fiscal crisis would occur, and certainly you would think that investors should care not just about the level of Federal debt but also their expected trajectory of Federal debt. Nonetheless, to be sure, a higher level of Federal debt and a steeper trajectory of Federal debt worsen those risks.

So, in addition, looking at that second bullet point -- sorry -- the first bullet point, CBO

RECESSION-2016/03/21

estimates that sustained higher deficits lead to lower GDP, lower economic output in the longer term, by crowding out national saving and domestic investment, which is to say CBO estimates that higher Federal borrowing crowds out private investment.

Our projections of rising deficits over time are there despite the fact that we are also projecting improving economic conditions over the next several years, beyond the next several years, so after 2019. CBO does not attempt to predict the timing or magnitude of economic fluctuations.

CBO's projections should be interpreted as the average of likely outcomes. In other words, those averages reflect CBO's projection that any cyclical strength or weakness after the next couple of years would be offset or counterbalanced by cyclical weakness or strength, such that GDP is projected to grow on average with potential in the latter part of the decade.

We endeavored to set our forecast in the center of this distribution of possible outcomes, so with that in mind, what that means is that we see both up side and down side risks to our forecast. For example, GDP growth in our forecast might be too pessimistic over the next five years.

For example, firms might respond to increases in overall demand by doing more robust hiring than CBO projects, and that would lead to faster increases in household income and consumer spending than we project. On the other hand, of course, there are also down side risks. Our forecast might be too optimistic over the next five years.

For example, increased tightness in labor markets may not lead to as fast of an increase in wages as we project, and the flip side, that would lead to less consumer spending and less household spending over the next five years. International conditions could be worse than we anticipate. There could be more of a slowing in China than we project, and that would have spillovers on the U.S. economy.

Of course, as we are discussing today, the possibility exists that the economy might enter a recession in the next several years. The current economic expansion is over six years old, which is slightly longer than the average expansion since 1945.

Over the past 30 years, expansions lasting at least six years with a really low level of unemployment as we see have tended to fall into a recession within two years. However, length of

RECESSION-2016/03/21

economic expansions vary greatly, as David said. Although the longest expansion in the last 11 business cycles has been 10 years, we see no statistical evidence that the length of a recovery or the length of an expansion is in and of itself a prediction of the economy going into a recession. Nonetheless, it is, of course, a risk.

In the latter part of the projections, CBO projects that GDP will be one-half percent below the level of potential, and that is because we estimate that output has been roughly that much below potential over the last seven complete business cycles.

So, that projected output gap, you can barely see some daylight between those two lines at the very end of our projection. So, that projected output gap has budgetary implications. Just as in the past, any cyclical strength or weakness that we project has budgetary implications through the automatic stabilizers.

Automatic stabilizers are provisions in law that decrease government revenues or increase government expenditures when the economy goes into a recession, and vice versa when the economy expands. That is always with any additional actions taken on the part of the Government, just as David said.

Stabilizers tend to reduce the debt for the recession and vice versa, tend to dampen expansions. Basically, stabilizers affect aggregate demand, so households and businesses who pay less in taxes or households who receive more in transfers, we think that those changes flow through, the changes in aggregate demand, which affect the economy.

So, this chart, which is very similar to the one David showed you but with more history, shows what has happened to automatic stabilizers, the contribution of automatic stabilizers to the budget in history and in our projections.

CBO expects that if current law generally didn't change, automatic stabilizers going forward would be much smaller than they have been over the past seven years.

For example, for this fiscal year, CBO estimates that automatic stabilizers will add \$89 billion to the deficit, that is about half a percent of potential. By comparison, from 2019 to 2015, CBO

estimates that automatic stabilizers adds on an average of about 1.5 percent of potential to deficits.

In later years, automatic stabilizers are projected to continue to shrink although they are influenced by that projection of an average output.

This table gives the numbers on how automatic stabilizers have responded to recessions in the past. In a recent recession, which was obviously severe, after four quarters, automatic stabilizers added the equivalent of 1.5 percent of potential to the deficit, and then after eight quarters, 2.1 percent.

So, previous recessions have generally seen smaller increases, smaller increases in the deficit from automatic stabilizers. Let's say about one percent after eight quarters over the previous three recessions.

Again, also as David said, he stole a lot of my thunder, even after accounting for the role of automatic stabilizers, deficits are still cyclical. For example, automatic stabilizers account for not all but much of the increase in deficits since 2008.

Indeed, in recessions, deficits are typically increased both through automatic stabilizers and through active fiscal policy. Like automatic stabilizers, we estimate that active fiscal policy that lowers revenues or increases transfers also boosts aggregate demand in GDP.

In the past, active fiscal policy has provided a short run stimulus for at least a month, two-thirds of the time the economy was in a recession in any particular year. In nearly every case, that stimulus involved a reduction in revenues, and in fact, about half the time most of that stimulus was a reduction in revenues.

Active fiscal policy has often had the reverse effect during economic expansions, dampening growth during boom times about half the time.

So, automatic stabilizers and changes in fiscal policy have different implications for budget projections. So, by design, automatic stabilizers are budget neutral, but importantly, I should note that fiscal policies underlying the automatic stabilizers generally do have budget implications, which is to say that the policies underlying automatic stabilizers may affect revenues and spending even when the economy is operating at potential. I suspect we will talk about that more later.

RECESSION-2016/03/21

For active fiscal policy, reducing deficits to stimulate the economy without imposing comparable fiscal restraint in future years would reduce output in income in the longer run, relative to what would have occurred with no changes in fiscal policy, which is to say CBO concludes that the estimates that the benefits of fiscal stimulus are temporary but the costs are permanent, in absence of any offsetting changes to fiscal policy in the future.

I should say some researchers come to a different conclusion, and they estimate that maintaining policies that boost overall demand in the short-term have positive long run economic effects, because basically the crowding out that those increases in deficits create is more than offset by increases in potential that result from the stimulus, the initial stimulus, which is to say the increase in demand raises the economy's long-term potential by enough to offset the negative effects of crowding out.

How significant that is, is really unclear; and figuring out how to net out any positive effects on potential with the negative effects from crowding out is really complicated, so CBO doesn't incorporate this effect, but certainly we continue to look at it.

That's all I have. I know I am over time. Thanks very much. (Applause)

MR. SPIELBERG: So, I just want to start out by thanking David and the Hutchins Center for hosting this event today, and also thanking all of our panelists and all of you for being here to talk about what we think is a really important topic.

I also want to thank my co-author of the paper we just released, Jared Bernstein, and all our colleagues at the Center on Budget and Policy Priorities who gave us really invaluable feedback as we developed the ideas that are contained within our paper.

When I think about the question that motivates this event, are we ready for the next recession, I really think there are two answers to this question, a short answer and a long answer. The short answer is no, we're not.

The long answer, I think, is really what motivated us to write this paper, and I think motivates a lot of the people who are also speaking here today, and it is still no, but it is we can be if we take the right lessons from our historical experience and start to prepare for it now.

So, with that idea in mind, Jared and I in our paper tried to outline two sets of broad recommendations that we think can really enhance our preparedness for the next recession before it hits.

Those two broad recommendations are first, we want to strengthen the automatic stabilizers that David mentioned and Wendy talked about, and the second is even outside the automatic stabilizers, we think there is architecture that we can either leverage or build in other programs, such that when the next recession rolls around, if Congress is going to take countercyclical action, we can maximize the effectiveness of that countercyclical action.

So, I'm going to talk about those two broad policy areas, and then I'll give an example in each area of what we talk about in the paper, just so you can get a flavor of what our recommendations are.

First, I'm going to talk about the strengthening of the automatic stabilizers, and Wendy gave a great overview of what automatic stabilizers are. Again, they are programs that expand when the economy is weak and contract when the economy is on its way to recovery.

In our paper, we discuss three automatic stabilizers, unemployment insurance, SNAP, which was formerly called Food Stamps, and Medicaid. Just to give you a sense of what an automatic stabilizer looks like, if you consider something like unemployment insurance, why does it expand when the economy is weak and contract when the economy is on its way to recovery.

When we are heading into a recession, people lose their jobs, more people qualify for unemployment insurance compensation, so therefore, more Government spending on that, compensation increases, putting money in people's pockets, and that is the cause of the increased consumer demand that Wendy was talking about, than when the economy is on its way to recovery and people are getting jobs again, fewer of them qualify for unemployment insurance compensation, and therefore, Government spending will then decline.

That is what we are talking about here when we are talking about automatic stabilizers.

Now, the three programs that we discuss in the paper are particularly suited in our view for additional countercyclical stimulus as automatic stabilizers because there is already an efficient

RECESSION-2016/03/21

administrative infrastructure in place, which you can elaborate for more countercyclical funds, and what I'm going to talk about is something called "FMAP." What FMAP is, it stands for Federal Medical Assistance Percentages, and it is the share of Medicaid funding that the Federal Government covers for states.

So, this ranges from 50 percent in some of the wealthier states like Massachusetts, for example, to a much higher percentage in states like Mississippi at 75 percent.

During the last recession and during the recession in 2001, the Federal Government boosted the FMAP, meaning it paid a higher share of state Medicaid costs. This was a really effective form of countercyclical stimulus during those recessions because it is a form of state fiscal relief.

You might know that states have balanced operating budget requirements, so during recessions when their revenues are falling, there is a lot of pressure on states to either cut services or raise revenues to make sure they meet those requirements, and what boosting the FMAP does or boosting the share of Medicaid spending the Federal Government covers, is it lets states use what used to be their share to cover other aspects of their budget shortfall.

So, it is really effective in that respect to make sure that whatever service cuts or revenue increases states may have to undertake during a recession are not as severe as they might otherwise be.

So, what we recommend in the paper is because this has been done during the last two recessions and was effective, we think it is something that should be a part of permanent law, that this should happen automatically during future recessions. We want to make this an automatic stabilizer, that the Federal Government enhances FMAP when a recession hits.

The other reason that is really valuable is because it helps with the timing if you make it into an automatic stabilizer. You can be more sure that it is not going to end too soon or begin too late when a recession rolls around.

Now, the devil is in the details, and how you make sure that enhanced FMAP is going to trigger automatically and then trigger off when the economy is on its way to recovery is somewhat difficult.

What we do in the paper is offer two potential sets of triggers, which are economic

RECESSION-2016/03/21

indicators, I can say at this point the economy is doing poorly, so we are going to turn this on, and at this point, the need for the fiscal relief is no longer necessary and we are going to try turning it off.

The thing I want to emphasize is these triggers are inherently arbitrary to a large extent, so it's hard to design a perfect one, and we are not wedded to the two that we have proposed in the paper. We did want to give some options. If people can come up with a better one, we are all for that.

The main thing for us is that enhanced FMAP should be something that triggers on and off automatically rather than relying on Congress for discretionary stimulus in the future. The other thing I'll note about the options we propose in the paper, we do look at how they would have worked during previous recessions, and they looked pretty good to us, but again, they are somewhat arbitrary and would be interested if others have ideas about how those should work.

That's the first set of our recommendations in UI and SNAP. We also have proposals that we believe would enhance their countercyclical properties.

The other thing that I want to talk about is what we can do outside of automatic stabilizers. So, the other thing that we think is true is that there is the possibility to either leverage existing architecture or build new architecture in certain programs such that when the next recession rolls around, if Congress wants to act, whatever actions they take can be more effective.

We talk about this in the paper in the context of both direct and subsidized job creation, and housing assistance. The one that I'm going to talk about is direct or subsidized job creation. What we propose in the paper is the creation of an employment fund. What the employment fund would consist of is two components. One would be a subsidized jobs program, a flexible funding stream so that states could fund subsidized jobs programs. This is modeled after a program called the TANF Emergency Fund that was enacted during the last recession, and worked pretty well.

The other aspect of the employment fund that we propose is something that a commission co-chaired by Larry Summers proposed last year, which is a set of fully funded national service jobs. They recommended about 500,000. This employment fund would leverage both those fully funded national service jobs and the flexible funding stream for state subsidized employment programs

on an ongoing basis. This would be during normal economic times.

The reason that we proposed this is because these programs are difficult to ramp up from scratch immediately, so even though the TANF Emergency Fund subsidized program was effective during the last recession, we think it would have been more effective if it had an infrastructure to build on already and could have gotten off the ground sooner.

So, our belief is especially if we have this ongoing structure in place during normal economic times, then when the next recession rolls around, Congress can do much more efficient stimulus through some subsidized job creation and some direct job creation.

To bring it full circle again, I think we are all kind of in this place right now where if we were asked are we ready for the next recession right now, the answer would be no, but the long answer is we do think it is really possible, and if we do strengthen our automatic stabilizers and build some architecture in other programs like we recommend in the paper, we really think that we will be ready for it when it gets here.

So, thank you very much. (Applause)

MR. SWAGEL: Thanks, everyone. Thanks very much. So, I will also talk about policies for the next recession, my focus. I just want to start by applauding Ben and Jared. I have just taken a quick glance at their paper, so on first glance, some I agree with, some I will disagree with, but it seems really important, so I am glad they are doing it, but the hard work is saying what is the right thing to do and how to prepare, and the point that they made just at the end here about there is a good program having the infrastructure set up so we can ramp up, that seems really important.

I am also going to focus a bit on an important detail, which is the trigger off. I kind of had the sense that sometimes the trigger on is a little bit easier, we are going to spend money, and the trigger off is not as easy, and I look at some of the programs that are temporary that don't end up being temporary.

So, the next recession, obviously, some of the focus on policies for the next recession is driven by unhappiness over the current recovery. You know, there is an obligatory joke here about

RECESSION-2016/03/21

recovery summer. We all know the repeated false dawns in a sense which even the current recovery is not super satisfactory, and I think that is implicit in the discussion of economic policy in the current presidential campaign, which I gather is going on. (Laughter)

So, implicit in some of the responses that we have seen is maybe we need more and maybe we need different, and it seems like the way to start that is by saying why was the recovery was weak, and one of the difficult things about this recession is there are many factors behind it, so there wasn't just one thing to fix, and here I have listed some of them.

The financial sector was impaired, and obviously policy, something I was involved in in my time at the Treasury -- of course, there were policy choices that kept the financial sector impaired and probably continue to keep it impaired in some ways, it has been partially addressed but not entirely, the debt overhang on consumers and businesses, which at least in the U.S., much of that has improved, but not entirely if you look at the survey of consumer finances and other data sources, which leads to inequality for relatively high income or high wealth households, their balance sheets are looking pretty good, and the other 80 percent of the households are not looking as good, and maybe they still feel the overhang.

Of course, implicit in many of these discussions of the fiscal stimulus, they were not big enough, and obviously I'm going to talk about maybe it was big enough but not good enough, so the quality was low. I'm going to talk a little bit about the fiscal quality.

I think it is impossible to avoid in substance the point about don't let the crisis go to waste, and in some instances that went counter to what would have been best for our economy, and obviously understand from a political point of view, to jam through things when there are 60 votes available to jam it through, but I suspect it went in the wrong direction.

I'm sorry. I'm skipping a bullet. Here I mean the recovery is held back by policy choices, in the sense that we are layering on disruptive change in the middle of a recession, so without going into was ACA a good thing or a bad thing, you know, going into the all arguments there, Dodd-Frank, the regulatory surge, uncertainty about the rule of law in various situations.

It's a lot of stress on the economy. It is a lot of disruptive change. It seems like layering that on to a recovery is inevitably going to impair the recovery, and then skipping back to my fourth bullet, at the same time many people would say the political system was disruptive to the recovery.

Now, of course we know today financial markets and maybe TV audiences know to kind of tune out the political show, we're not going to default on the debt, things like that, but of course, back in 2011 maybe people didn't quite get that.

So, I do understand the idea that there have been political disruptions that has interrupted the recovery. It is kind of tough to say okay, let's fix the political system, that's not a great policy recommendation.

On the other hand, there are times when things worked, and to me, I look at things that worked, on student loans, for example, right, President Obama and Congress worked very well together, the Medicare doc fix, what I call the Obama-Bush tax cuts were extended in full and then mostly made permanent.

So, there are times when the political system has not held back our growth, and lastly, I think there is still an open question about is the recovery weak or do we just have a diminished growth trajectory. I will return to that at the very end when I talk about my conclusions.

Let me talk briefly about the fiscal response, and this is a little bit of a catalog of what we have done in addressing the last recession, and then I'll use that to think forward, think about the next one.

I start from the premise that it is helpful but not the end of the discussion to address the proximal cause of the recession, but of course, it is not always possible to do that, and I think my first bullet is exactly that, where the housing sector in 2007-2008 was obviously an important source of the financial crisis and the Great Recession.

When I was at the Treasury, the Administration made the choice to do some on housing, but really to focus on the broad economy to say the housing market has to adjust and will adjust and said policy is going to address the broad economy, so there was a fiscal stimulus in early 2008. It was only

\$150 billion, which seemed like a whole lot at the time.

There is a lot of evidence, I would say, suggesting that was pretty effective, but we didn't wash away the problems in housing and those continued to weigh on the economy.

There were the banks and the broader financial sector response in 2008-2009, and my point there is the response was very politically difficult, but actually very effective and very cost effective.

Of course, the TARP was a large amount of money but in terms of the net cost, it actually turned out to be relatively small, and depending on how you count it, whether plus or minus, and then the stress tests that were put in by Treasury Secretary Geithner and the Fed were incredibly effective, right, and incredibly cost effective, as they continue to be cost effective. Those two things together went directly to part of the source of the problem driving the economy down.

There were other things, the targeted fiscal support, infrastructure and other spending, that I think is in vogue now, and I will talk about it next, and then the automatic stabilizers, and monetary policy, which will be on the next panel. I'm not going to talk about it.

I think there is broad agreement among Americans that infrastructure spending should be part of the next fiscal response and Americans want that to be in the form of a wall. (Laughter) I am not sure that is the highest quality infrastructure spending, but I think there is that agreement, so President Obama can take credit for that consensus in our society.

I think it is important, actually, in a discussion of infrastructure, which should be part of the response to the next recession, that we know the quality of fiscal stimulus, and here my joke is if you talk to administration staffers about my three bullets, they turn into teenagers and their eyes start rolling. Anyone with teenagers knows that phenomenon. They understand the Administration position on high speed rail, sort of the green pork, and Keystone, is just preposterous, right.

To me, that's the problem, it is hard to have a discussion about infrastructure until we agree not to just burn taxpayer resources.

Just a few weeks ago, the administration had another proposal to have a gas tax and to take the revenue and just burn it, as far as I can tell, burn it, right? I know that because the first words I

RECESSION-2016/03/21

saw were "high speed rail." That is a synonym for burning taxpayer resources, as far as I can tell. Obviously, the Northeast Corridor is probably not burning taxpayer resources but it also now has speed rail.

To me, that's the real key, having high quality fiscal stimulus. Romer and Romer did a paper analyzing the Sanders' plan, and they downplayed the impact of infrastructure spending for long-term growth, but they still see some benefit for it in the medium term. That is still there.

Some of these things about policies and fiscal room, and I am going to skip ahead a little bit in the interest of time.

My answer is yes, I think there is fiscal room to do a new stimulus spending, so if there is a recession soon, I think we could do it. Before, I think it would be very useful to prepare for the next downturn, and the things I have in mind there are exactly the kind of work that Jared and Ben are doing, to say what works and do more of the good and less of the bad, and especially ought to focus on less of the bad. Think about what didn't work and let's do less of it.

They have a growth agenda to say there are things we can do to improve our growth trajectory, and I think that is really the agenda for the next President, whoever that will be. I am going to stop there. (Applause)

MR. WESSEL: Thank you all for trying so hard to stick to the time, even though Phillip skipped over two-thirds of his slides.

I want to pick up on one thing you said at the end and ask Wendy and Ben about this. So, there is a view out there that we don't have the fiscal space, that is debt is so high that if we had a recession soon, we wouldn't be able to borrow money to fund whether they were automatic stabilizers or discretionary fiscal policy.

Wendy, how do we even think about that? Do we know, and what are the arguments on one side or the other?

MS. EDELBERG: I think this gets back a little bit to our interpretation of the literature, which is there is no particular trigger. So, we know that lower debt is better than higher debt, and we

know a slighter trajectory of debt is better than a steeper trajectory of debt. So, we can make those qualitative statements, but it is hard to know when investors might lose confidence.

One thing I will say is it should be true that investors should care not just about levels but about trajectories. So, a fiscal response to economic weakness only temporarily raises deficits and debt, and comes coupled with some sort of long-term response, or maybe even actually gets layered on top of a longer term fiscal agenda that stabilizes debt to GDP and should have very different implications than implementing policies that make debt to GDP steeper than it is under current law.

MR. WESSEL: I think there are many economists who would say it would be ideal if we had short-term stimulus and long-term deficit reduction, and so far none of them have been elected to Congress.

MS. EDELBERG: So, we can continue to say it.

MR. WESSEL: Ben, how do you think about -- do you worry at all about having too much debt?

MR. SPIELBERG: So, I think our perspective is we like to think of ourselves as cyclical doves, structural hawks, so definitely agree that all else equal, we want declining debt to GDP ratio, but our view is all else isn't equal, and especially that's the case during recessions, so we think when you are thinking about the automatic stabilizers and the types of recommendations we are making in the paper, we really need to weigh what are the benefits of doing these things against the potential drawbacks of higher debt to GDP.

We really think that the benefits far outweigh the potential drawbacks.

Louise came out with a paper recently actually and examined the long-term fiscal outlook and our fiscal space. I think agreed that automatic stabilizers are a place where we should definitely be bolstering what we currently do.

MR. WESSEL: Phil, is it your point that you are cool with bigger automatic stabilizers but you are not so cool about discretionary fiscal policy because in general, discretionary fiscal policy hasn't been very well designed?

RECESSION-2016/03/21

MR. SWAGEL: It's a mix. I'm cool, I guess is the word you used, with --

MR. WESSEL: Be sure you tell your teenagers you are cool.

MR. SWAGEL: Exactly. (Laughter)

MR. WESSEL: Don't tell them I'm older than you are.

MR. SWAGEL: Exactly. So, I look at the discretionary fiscal policy of the last two recessions, and it actually worked reasonably well. I look at the 2008 fiscal stimulus -- I accidentally almost implied something good about ARRA, so I take that back. (Laughter)

MR. WESSEL: I was noticing that, I was getting worried here.

MR. SWAGEL: There is literature suggesting ARRA was effective in some ways, it probably wasn't as effective as it could have been, but the 2008 stimulus was in some ways remarkable, about how quickly it was agreed upon, and how quickly it got out into the economy, which is a contrast with the 2009 stimulus.

I'm not against discretionary fiscal policy. I think there is an important role for Congress. We want Congress to own that. We want Congress to be responsive, and at the same time, I do agree with them, the authors of the paper, that there is a role for better --

MR. WESSEL: Is your point about 2008, the George Bush stimulus and the Barack Obama stimulus, that it's okay if it is tax cuts, but it is not okay if it's spending?

MR. SWAGEL: No. ARRA was a mix, right? It had some tax cuts, wage packets, and the Bush one was more heavily on the tax side. The spending part, I think there is a role for spending.

As I was thinking about what you said about the long-term, to me, that is exactly it, that spending on preschool, for example, there is lots of evidence that would be a really important thing, you want to get it right, whereas spending on increasing Social Security benefits for high earners, right, which is part of Senator Sanders' Plan, to me, it is hard to explain why you would want to do that.

MR. WESSEL: One thing I don't understand is you said, and it seemed like a nice thing to say, that it's easier to trigger it on than trigger it off, but I thought there was a critique of what fiscal policy in the last five years had been that was just the opposite, that the Obama stimulus passed pretty

RECESSION-2016/03/21

quickly, some of it got out quickly, some of it didn't, but it triggered off too soon.

MR. SWAGEL: There is a little bit in the paper, and it's probably one of my points of disagreement with the paper, is unemployment insurance. There is a debate about ending extended UI. There is some evidence from papers in the New York Fed and other places about what people call the "North Carolina question."

Set that aside, whether ending extended UI was the right thing or not, the Administration said the world will end if we don't extend UI. We didn't extend UI, right, and the world didn't end, and the recovery proceeded.

I think there are a lot of questions about some of these automatic stabilizers.

MR. WESSEL: Wait, isn't there evidence in the last couple of years that we turned them off and some people think that was a mistake? We had the sequester, the ARRA stuff ran down, things expired. I thought this was a case study where you can have temporary fiscal stimulus, it was temporary, maybe too temporary.

MR. SWAGEL: I would say I look at what is the automatic part, right? To me, that is the question. That is why UI is the example. How do we have something that is preprogrammed automatic, how do we have it actually end.

The sequester and things like that, there is lots of discussion about the political dynamics relating to the pattern of spending. We clearly didn't have the optimal pattern. I don't think that says therefore, we should have more spending or less spending.

If you could take out the political drama and say what spending should we have had, you know, to me, it's an important discussion, but I don't know, it doesn't seem indicative of --

MR. WESSEL: Ben, when you think about the automatic stabilizer part, how do you think about the trigger off part? Why is that important, and what confidence do you have that the politicians will let it trigger off?

MR. SPIELBERG: So, we try to be clear in the paper on our conversation about the triggers on and off or abstracted away from a discussion of what is benefit adequacy during normal times,

because I think that is a whole separate conversation.

We definitely do think that if you're talking about programs that are supposed to be countercyclical stimulus, they should have the on and off trigger. I tend to agree much more with you that during this past recession, we saw things trigger off too soon. I think if we want to talk about, for example, unemployment insurance compensation, which was discretionary stimulus that Congress passed, did end at the end of 2013, and we would contend there is still remaining stock in the labor market and it could have gone on longer.

The proposal that we have in the paper actually for enhancing the automatic stabilization capability of the unemployment insurance system is to incorporate new tiers where additional unemployment benefits would trigger on, which would obviate some of the need for Congress to do the discretionary stimulus on an ad hoc basis.

So, to some extent, I think our proposal would solve some of the concern that Phil is worried about because it would have an automatic way of triggering on and triggering off when it hits these tiers.

MR. WESSEL: Do you want to respond?

MR. SWAGEL: Just to say, again, I haven't had a chance to read the paper carefully, beyond a skim. To me, it will be interesting to see do you treat this literature seriously, right? What is the optimal duration? There is this sort of argument by respectable researchers back and forth.

The other thing I was just thinking of, during the gigantic snowstorm, the D.C. School System opened some of the schools and had school meals. To me, that seems that is really high quality spending. I'm trying to say I'm not against all spending.

MR. WESSEL: Okay. Wendy, go ahead and respond.

MS. EDELBERG: One thing I do want to say, I showed this graph of what deficits with automatic stabilizers and deficits without automatic stabilizers looked like between 2008 and 2015. You can see the deficits without automatic stabilizers shrunk a lot more quickly than deficits with automatic stabilizers, which is to say the automatic stabilizer portion of fiscal policy was continuing to do more to

stimulate the economy than active fiscal policy.

MR. WESSEL: Okay.

MS. EDELBERG: I shouldn't have said "more," I don't mean those in rank order.

MR. WESSEL: Even when they cut back on discretionary fiscal policy, the automatic stabilizers --

MS. EDELBERG: Automatic stabilizers were continuing on.

MR. WESSEL: Right. I think some of this has to do with how much do we want to ask Congress to tie our hands so you do what you do in advance, and how much do we trust you to do the right thing. At the moment, not very much, but that might not be a permanent condition.

Wendy, one final question. So, a lot of the discussion we have had here could have been said when interest rates were at 4 percent or 7 percent, but now interest rates are bumping along at zero, and there is reason to believe they will be close to zero for some time.

How does that change our thinking about the role that fiscal stimulus plays in a recession, both the automatic kind and the discretionary kind?

MS. EDELBERG: I think to the extent that monetary policy makers are constrained and have some of the same implications that we have talked about in terms of fiscal room, whether or not we think that fiscal policy makers are constrained, to the extent policy makers are constrained in their ability to respond to economic challenges, that is going to make the cost of those economic challenges deeper, both for the economy and for well-being. That's true on the monetary policy side and it's true on the fiscal policy side.

Yes, the fact that interest rates -- even though we project that interest rates will come up notably from their current low levels, we still project that interest rates even in the long-term will be lower in the projection than they have been in recent decades.

So, to the degree that represents or suggests that monetary policy might be more constrained in the future, yes, now you have not just one problem but two.

MR. WESSEL: We are starting with Rich or John? Rich. Now, we are going to turn to

RECESSION-2016/03/21

monetary policy, and the two speakers are Rich Clarida, who also is a veteran of the Bush Treasury, currently at Columbia and PIMCO, and he will be followed by Jon Faust, who is a recent veteran of the Bernanke-Yellen Fed, and is now at Johns Hopkins.

I will come back after they have finished, have a little conversation, and then Louise will come up here and have a conversation with everybody all at once.

MONETARY POLICY - THE FEDERAL RESERVE

MR. CLARIDA: Thank you very much, and it is a real treat to be here. It is my first visit to the Hutchins Center, although you have a great Web presence, and I follow what you do here actively.

The assignment is to talk about are we ready for the next recession from the point of view of monetary policy. I will begin by saying I don't think the next recession is eminent, but it is certainly worth thinking through the options. I think in particular the discussion regarding monetary policy is especially interesting these days.

So, what I'm going to do is I'm going to talk about where we are now vis-à-vis monetary policy, and then talk about how that provides insights into what we might see in the next downturn.

Traditionally, before the crisis, monetary policy was about raising or lowering interest rates. We all got very comfortable with that model. Of course, since the crisis, when we hit the zero lower bound in December of 2008 in the U.S., the Fed had to pursue out of necessity different measures, and the primary unconventional or new measures the Fed pursued were various forms of quantitative easing and more and more sophisticated precise forms of forward guidance.

So, to start off with some historical data, quantitative easing, we are all familiar, is purchasing large quantities of Government bonds, but unfortunately, I think the term "quantitative easing" has always been a bit misleading because what has been important about QE is not the size so much but what the Fed has been buying. It has been buying a lot of mortgage-backed securities, and it has been buying a lot of long duration or long maturity Treasuries.

I am certainly in the camp that believes that although there is some academic debate perhaps, I think the QE programs as implemented by the Fed have worked because they have taken interest rate risk out of the market and have taken the risk embedded in mortgage securities in the market.

I think that is important because if you try to look at quantitative easing through the traditional Milton Friedman $MV=PY$ lens, it is very confusing because the balance sheet is expanded, this is the growth of the balance sheet in orange, but there have been more or less offsetting reductions in the money multiplier, we know there are excess reserves in the banking system.

So, the impact of QE has not been through generating inflation directly, but by changing asset prices in a way to be supportive of the economy. I will come back in a moment as to the attractiveness and feasibility of doing more QE in the next downturn.

Here's a snapshot that I had an assistant put together. This is essentially the maturity profile of the Fed's balance sheet under a scenario where at some point they passively let the portfolio run off. You can pick your favorite date until the date on the horizontal axis, the Fed has committed to reinvesting those proceeds as those securities mature.

Now, mortgages are tricky, but mortgages nominally last for 30 years, but most people pay off their mortgage on average -- an average mortgage is outstanding for about 7 years, so you have to make assumptions about the maturity or the payoff on mortgages.

The message of this slide is simply that because of the size and scope of the QE program, it's going to take some time even in the absence of the next recession for the Fed's balance sheet to normalize. Importantly, as I'm sure Jon will remind us, the normal size for the Fed balance sheet is a lot larger than it was in 2007 because of the growth and the demand for currency, which if anything has been growing more rapidly. Even if the Fed gets back to a normal balance sheet, it is going to be bigger than it was in 2007 or 2008.

Another key fact of life that the Yellen Fed has been reminding us of is this notion that the lift off for Fed rates, and again, David's chart showed you with a microscope, you can see that 25 basis

point increase in December, but there is a lift off path, and I'll come back to that in a moment.

One reason why we have a very gradual lift off path is communicated by Chair Yellen and others is this notion that the equilibrium or as I call it, the neutral real interest rate in the economy, is lower than before the crisis.

Now, the neutral interest rate is an important input to monetary policy. It is also unobserved, and it is also time varying, which Jon Faust as the world's leading expert can tell you it means it's a really hard thing to nail down econometrically, but the best guess that we have is that neutral policy rates in the U.S. and around the world are a lot lower than they used to be, which means that the ultimate Fed destination in this cycle is lower.

Now, the corollary of that is that even when you get to that destination, rates are going to be a lot lower than they were before the crisis, which means that any adverse shock is more likely to put you into a situation where the Central Bank will have to use unconventional tools.

The rule of thumb in the famous John Taylor rule was to aim for a policy rate of two percent inflation plus Jon's assumption of a two percent neutral rate. You would have rates of around four percent. Indeed, on average from 1994 until 2007, that was the average rate in that period, and in a new neutral world because the destination is lower, you are more likely to need to use unconventional policies.

Another striking thing that is worth following is the evolution and the way financial markets think about the destination for Fed policy. What I have plotted here is the evolving view about short-term interest rates in the U.S. at a particular point in the future, December 2018.

This contract has been trading in the futures markets for a long time, and what is striking about this, again, you have to make corrections for things like liquidity and term premium, but this gives you a first cut at evolving market views of where the ultimate destination is for Fed policy.

What is striking is if you go back into those dark days of 2008 and 2009, and even after the taper tantrum in 2013, folks thought the Fed was going to get rates up more or less to where they had before the crisis, roughly two percent inflation plus two percent real.

You see those expectations have been trailing down pretty substantially to the point that there is a pretty big gap between the Fed's blue dot exercise, which we can discuss during Q&A if you wish, and market pricing. Part of this, of course, is simply the fact that market pricing has to factor in not only the most likely scenario for the economy but the tail risk of not getting to neutral, and it is slightly different from the dots. The reality is that the markets are very much in this view of a gradual lift off.

Now, just a little bit on economic theory. You probably remember from a macro course that you took in college that there is a rule of thumb that relates real interest rates to growth rates. If you look at the underlying math, there is a lot of slippage there.

The key point is even if you are in a world where the only thing that drives real rates is growth, modern macro models say it is really the global growth rate, not any one country's growth rate, because we have an integrated capital market.

So, even if we haven't changed our view of the U.S. growth outlook, if global growth slows, we would expect that to have an impact on rates. I think that needs to be regarded as well. Yet another reason why we are more likely to see the Fed needing to use unconventional tools in the next downturn.

This is a chart which I keep putting in because it attracts a lot of attention. I typed into Google "chart illustrating the complexity of Middle East geopolitics," and this is the first thing that popped up. I love it.

I had an occasion to have a conversation with Daniel Yergin about a year ago. I showed him this chart. I said "what do you make of this?" He said "looks about right." (Laughter) Of course, he knows a lot more than I do.

The key point here is not to get into our views of alliances or conflicts in the Middle East, but merely to say even though so far we haven't seen any huge repercussions, there is a lot more risk geopolitically in the world potentially.

Ken Rogoff, who you all know quite well, had a nice piece recently making what is a very basic but fundamentally important point, which is even a small increase in investor sentiment about

RECESSION-2016/03/21

extreme outcomes can lead to very big repricing of safe, sovereign bonds in a world where there is a desire to hold those assets as an insurance premium against adverse outcomes.

Just to give you an example of this, what I plot is the total realized return to someone who on January 1, 2008 had bought a 30 year Treasury bond, don't do anything fancy, you just buy the bond and go to sleep. Even though bonds are boring, at the end of the year, your total return would have been up about 40 percent.

So, sovereign bonds have a handful of countries, think Germany, think the U.S., do provide that premium, so in addition to the other factors, slower growth and neutral and the like, there is this desire for these assets. Of course, given that many other Central Banks in the world have gone to negative rates, there is yet another reason, and this gets to the fiscal discussion about the profile for U.S. rates.

I have given various examples here of forward guidance. There was a recent conference in New York discussing forward guidance as a tool, and it is important to remember that in a lot of textbook models, forward guidance shouldn't have any impact, but in the real world, it tends to for a couple of reasons.

One, it gives us some insights into the Central Banks' reaction function, and number two, depending on how you formulate the guidance, in particular, the counter date based guidance which began under Greenspan and was extended under Bernanke, can have a very powerful effect on market expectations.

Forward guidance is one of those things that in theory shouldn't work, but in practice, if it's appropriately communicated, I think can work.

Just a couple more slides to finish up. Obviously, we know we have gone through a severe crisis and a very sluggish recovery, but it is also true, and these are CBO estimates of potential output -- another factor that makes the Fed's life either interesting or complicated, depending upon your choice of adjectives, is the fact that even though because of oil prices and recovery, inflation has been below the Fed's target, we are getting to the point where the traditional output gap measures are closing,

which creates an interesting problem for the Fed if there is perhaps more inflation down the road than currently expected.

Finally, a little bit on options for the Fed. I put a question mark here as time for price level target, just a quick distinction, for a Central Bank that is pursuing a price level targeting strategy as opposed to inflation targeting, when they fall below the inflation target of two percent, they actually seek to overshoot in order to average inflation at two percent.

Chair Yellen recently, including last week, has indicated she herself is not embracing a formal Mike Woodford style price level target, but she has also indicated that she would like the two percent inflation target to be symmetric, and we have been undershooting.

Let me then conclude with a couple of observations about what I think would be in the Fed tool kit, and luckily, it's a lot easier to do with confidence because Chair Yellen was asked this question last week by a Bloomberg reporter, in particular in the context of whether or not we would see negative policy rates out of the Fed in the next downturn.

Essentially, as I read her answer, she indicated the Fed options would include various forms of forward guidance, maturity extension, which is essentially a version of quantitative easing but without ballooning the balance sheet, and then quantitative easing. She certainly seemed to indicate that negative rates perhaps because of the experience of other countries are not at the top of their list.

I would also point out another factor that Central Banks have at their disposal, which the Fed did not use in the last downturn, but certainly in principle could be deployed, is an explicit program that would essentially try to cap the yield on Government bonds essentially through substantial intervention.

You might think the Fed did everything and the kitchen sink, but in the last crisis, it didn't explicitly peg the ceiling yield on Government bonds.

So, I think I will stop there, and look forward to Jon's comments. Thank you very much.

(Applause)

MR. FAUST: Thanks. It is a pleasure to be here to talk about this somewhat ominous

RECESSION-2016/03/21

question. Rich is much more prepared and more quickly prepared than I am and sent his slides a long time ago, so I actually had an opportunity to make my talk dovetail with his a little bit, so the issues have been set up very nicely.

I think there are a few ways we can think about this question. Is the Fed ready for a recession? The Fed and not "we." There are a lot of ways you could think about that. Is the Fed prepared to do what it can, would the Fed's response be powerful and effective? Hmm. We have yes, yes, and at best modestly so. I think that is kind of what the answer was about fiscal policy as well.

I want to embellish that. First, let me say one of the reasons why I think it would be modestly so is I spent a few years as Special Advisor to the Federal Reserve Board and was there when the aforementioned fiscal cliff event happened. There was a lot of discussion about whether a recession might come, and the Chair, Bernanke at the time, was regularly asked, what could you do. Would you be able to respond if there was a recession. He said, you know, no, that the tools in place at that time probably weren't enough to completely offset such an event.

So, the question is what do we think, things could be better now or worse now, a few years have gone by, and I think the answer is probably the economy is healthier, so it certainly would be less scary, but as far as the tools are concerned, it is about the same or perhaps even weaker.

Let me go through that. We can go through various kinds of tools, the ones that Chair Yellen was asked about in the press conference. I'm going to divide them into things the Fed tried, things the Fed didn't try, and things folks talk about that probably aren't legal. (Laughter) The last is various forms of helicopter drops, which get talked about a lot.

Let me talk about things that were tried. Forward guidance. Now, forward guidance, you tell folks what is going to happen. There is a misconception, often times the distinction isn't drawn between two forms of forward guidance. I am going to call one "prescriptive," and the idea here is that somehow the current FOMC dictates policy to future FOMCs, in fact, dictates they will follow a policy that they are not going to want to follow. This goes in the "not tried" discussion. No Central Bank in the world has tried this. When we get to not tried, I'll discuss it, but not now.

Things they have tried. They did forward guidance but it is what I might call "information only forward guidance." An example would be the famous thresholds that the Fed announced. They said we're going to keep interest rates at zero at least as long as the unemployment rate is about 6.5 percent and inflation remains well behaved. That is a paraphrase-able understatement.

An underappreciated fact here, information only forward guidance that is going to add accommodation only at times when the public misunderstands what the Fed's intentions are. When the public understands how accommodative the Fed intends to be, telling folks what you are going to do doesn't do anything.

Now, as we saw in Rich's picture, interest rates declined fairly steadily and still remained high relative to today even in 2012 and 2013, there was still room for the Fed to say no, no, you don't get it yet, we intend to be really accommodative. It's not clear that room is still there. In fact, anybody who has checked recently will realize that market measures of expected policy suggest that the market's derived expectations are actually the Fed will be more accommodative than it claims it is going to be.

So, if you did forward guidance right now or you followed what the Fed is saying, it would actually represent a tightening. So, forward guidance still works. Forward guidance is just clarity about what you are going to do, the information only forward guidance. Clarity is a great thing. The Fed should do that.

It's not going to have the oomph that it did when we were brand new at all this and folks just didn't get it, so the Fed would announce something, and people would go oh, I see, they are really serious about this. That had oomph. Next time around, there won't be as much of that unless the market has really changed its opinion.

Next is large scale asset purchases, what people call "QE." The Fed calls it large scale asset purchases for the reason that Rich pointed out, that QE is kind of a misnomer or misleading. The idea here is you go out and you buy a bunch of long-term bonds, you have increased the demand for those. That pushes up their price, which is the same thing as driving down their yield. You drive down yields on long-term securities and hopefully that stimulates the economy.

You can ask, is there still capacity to do that. There are various ways you could look at the capacity question. You could say is there still a quantity of stuff to buy. There are only so many mortgage-backed securities out there. There is only so many Government securities out there. So, there are limits there, but there is still plenty of capacity in that sense.

In another sense, it's not clear that the capacity is quite as large, and it is the same point about interest rates that we have been talking about. QE2, the famous QE2 program, was adopted at the end of 2010. Rates were around 3.5. A sequence of programs including maturity extension program in QE3, some people call it QE infinity, those were adopted in rapid succession and pushed rates down to about 1.5 where they stayed until the Fed said it was time to start normalizing things.

There was nearly 200 basis points of easing in long-term rates, but we are starting out now at a different point. There is not so much room to lower long-term rates as there was back in 2012 or 2010 when QE2 was adopted.

Now, it still may be useful to push those rates negative, but that is a much more ambiguous question. Most folks think going from 3.5 to 2.5 is a good thing, going from 50 basis points to -50, that gets a little more ambiguous, not as much room.

On the things tried, still useful, arguably a bit less potential than before. So, you could still provide some support for the economy.

Things not tried. Well, there is that prescriptive forward guidance, and that is where you promise to deliver an inflationary boom in the future when interest rates are no longer zero. So, a few years down the road you say once I get the power to do so, I'm going to produce an inflationary boom.

The idea is that households and businesses anticipating future good times spend more today because that is what economists say you do. If there are going to be good times in the future, you start doing more today.

Why didn't anybody use it? Every academic paper says that's the right thing. No Central Bank tried it anywhere in the world. It requires the private sector to over extend itself today, having faith that party is going to happen in the future. Central Banks announced in their explanation for why they

RECESSION-2016/03/21

didn't do that, the ECB, the Fed, the Bank of England have all said they had lots of reasons to be dubious about this.

For the Fed, one key reason to be dubious about it is the current FOMC can't dictate future policy. We could have a chair turnover soon. We could have a chair turnover with an Administration turnover. We could think about promising to deliver a party two years from now, but Rand Paul is chair at that moment. (Laughter)

The point is there is no legal way and there is perhaps no credible way to promise that several years in the future, this boom will happen. Still with the try, if things get bad enough, sure, maybe.

So, close cousins to this are price level targeting, nominal GDP targeting, raising the inflation target. The immediate effect of all those is to cause this inflationary boom at the current moment. If it's not credible, it's not credible. So, these might be fine on average and in the long- term, in the fullness of time, maybe it would be the right thing, but would it have the immediate benefit today that we are looking for? Perhaps, but it is no more likely than the prescriptive forward guidance to do so.

Negative rates, on the table but not favored. I don't want to say more about that. It's a long discussion. I will say about what Rich did, on the table, Chair Yellen said not going to be done.

These helicopter drops. You know, Peter Praet said all Central Banks can do it, you can issue currency, distribute it to people. The question is when it is opportune to do that. It turns out Central Banks have mandates. Most couldn't legally give away cash as it turns out, so it has to go some other way. Maybe there are stealth helicopter drops, so there are various ways that could happen, I suppose.

My main point about helicopter drops is that for the Fed, the Fed's mandate really is narrow and much more precise than many Central Banks, so you are going to have to check with the lawyers first before you think that some kind of helicopter drop is going to work.

Lots of Fed legislation, both about fees, about interest rates, and other legislation have the clear intent of having the Fed operate at market prices and avoid any implicit or explicit subsidies to the banking system.

So, all of these ways that start to look like helicopter drops are dubious under the Fed's mandate, maybe folks can figure it out, maybe they can't.

Bottom line, not out of ammunition, can still provide meaningful support, but that is modest support. You might try some of the stuff that has not been tried yet but there is a reason it hasn't been tried yet, because folks didn't think it was going to be as good as what they were doing. (Applause)

MR. WESSEL: I think we should go right to the panel because we are a little behind. I just want to mention while people are coming up that Jared Bernstein of the Center on Budget and Policy Priorities, Ben Spielberg's co-author, is going to take his place, so you get the benefit of two tall people from the Center on Budget and Policy Priorities.

I want to mention also that on June 6 here at the Hutchins Center, we are going to have a discussion about negative interest rates, which has been mentioned, particularly focus on what we have learned from the European experience. We have a number of people from European Central Banks that have been doing this, and now it is no longer theoretical.

I also want to call your attention to Ben Bernanke, who has wrote a blog that posted last week where he took a view slightly different than the one Janet Yellen took, he suggested that negative interest rates might be worth trying before the Fed tries another round of QE. He has at length in a blog post that he wrote, and our research assistant, Peter Olson, explains that.

Here is the deal, Louise. You have the conversation, and if I feel you don't ask the right question when we get to the Q&A, I'll ask it. (Laughter)

PANEL AND AUDIENCE Q&A SESSION

MS. SHEINER: So, we have fiscal people and monetary people here, so let me ask the question, before the Great Recession, the conventional wisdom was that we shouldn't use fiscal policy to help with cyclical problems, we should use monetary policy. Now, it seems like the conventional wisdom has moved around, that we probably should use a combination, and fiscal policy is more important.

Is that because we learned something about how effective fiscal policy is or is that because we are at the zero lower bound? Anybody can answer. Jared, why don't you start?

MR. BERNSTEIN: Thank you, everybody. It's great to have such a great crowd here, and everybody has hung around, thank you. It's a compelling topic.

I think it is because of the ZLB, the zero lower bound. I don't think it's that complicated. I think when the Federal Reserve has more ammunition, then certainly a combination is relevant. I always thought Ben Bernanke made a lot of sense when he went to Congress regularly during the initial part of the quite weak recovery, the initially quite jobless, back in 2010-2011, and he was constantly saying we're doing all we can, we need fiscal help from Congress.

In fact, when you are at the zero lower bound, the fiscal multiplier is larger and more potent. So, I think that is why we are in the world we are in.

MR. FAUST: Ben reiterated that in his blog that David just advertised, that what we need now is a mix because the monetary tools are so weak.

MR. SWAGEL: I agree. I think we have also learned it can be effective, right. David called it the Bush, the Bush-Pelosi stimulus, they agreed to very quickly. (Laughter) The IRS did amazing work in getting it out the door. Lots of people made it effective.

MS. SHEINER: We think it doesn't have such a lag as we used to think? And also, we might need it more. If we think interest rates are going to be low and we are going to be more likely to be hit by the zero lower bound, Ben, you said it didn't make sense, there was no immediate impact of trying to raise the inflation target, but now we are saying what if we are in an era where we think the probability of having the zero low bound is a lot higher than we thought before.

What kind of arguments would push you to say it's time to raise inflation targets or is it not, is it something that should be on the table looking forward?

MR. FAUST: Yes, I think it definitely should be. The two percent was chosen explicitly to balance the risks of high inflation as costly, but low inflation has you hit the zero bound too often.

We have learned more that we were more likely to hit it than we thought, and we have

RECESSION-2016/03/21

learned it is trickier to get out than we thought. Both of those, you should at least re-do that computation, the same one you did, update it, and see if it still says two percent. I think that is undeniable.

MR. BERNSTEIN: Just working off Jon's, what I thought was a great presentation, suppose they said three. I thought it was implied in your presentation no one would really take them that seriously.

MR. FAUST: I think whether you could hit that on average over time, over the next 50 years, if that is going to be our policy, could you achieve it, yes. Right now, would people immediately expect three and would that then provide the stimulus to get us out of where we at. That is what we are dubious about.

MS. SHEINER: Rich?

MR. CLARIDA: I think as a practical matter, I think it is unlikely to see formal elevation of inflation targets -- I do think over the next 3 to 5 years, Central Banks being more receptive to some version of averaging inflation, probably not go all the way to the Woodford price level target, but could I see a Central Banker saying for the last five years, inflation has been 1.7, so we are not unhappy for the next five years if it is 2.3. I think we could see that.

MR. SWAGEL: The argument that inflation is getting out of control, you know, we're on the verge of out of control inflation, that hasn't panned out.

MS. SCHEINER: We have talked about what state our fiscal and monetary policies are in for the next recession, are our politics ready for the next recession? What do you think about political lessons, have they been learned at the state level, by people, by Congress? How does that impair our ability to fight the next recession?

MR. SWAGEL: I have to go back to my time with the Treasury. In 2008, at the beginning of 2008, it seemed like an inauspicious time to rapidly do fiscal policy, right, the Iraq debate. It wasn't like the Administration and Congress, Democratic controlled Congress, got along super well in 2006-2007.

In some ways that made the 2008 stimulus easier because both sides had an incentive to get something done. The Congress said look, we're not insisting on our kind of stimulus, and President

Bush said look, I'm not insisting on permanent tax cuts, let's just get it done. There is a sense that can lead to moments of cooperation.

MR. BERNSTEIN: One definition of --

MR. SWAGEL: We actually had that discussion in 2002 and 2003.

MR. BERNSTEIN: That said, I think one of the motivations that Ben underscored was to the extent that we can do more on the automatic side, we take away from this discretionary lag that is a legitimate concern right now.

MS. SHEINER: What about the states? Was there some concern that in the last recession there was like money left on the table by the states, that maybe going through the states to try to stimulate the economy is going to become less of a fact because of what has happened to the politics at the state level. There are a few examples, Medicaid expansions, where there is Federal money on the table which was just not taken up.

MR. BERNSTEIN: Yes, I think there was some of that, but if you kind of go down the list of multipliers, and by this, I mean which was most effective in terms of getting bang for the buck. The state fiscal relief score is very high, and this isn't just the kind of -- this comes from not just the modeling work, the type that CBO or Zandi and Blinder did, but also some pretty careful work about how state fiscal relief played.

I would suggest it was very effective in large part because of the balanced budget requirement that Ben noted, to the extent that there was some money left on the table, that doesn't dissuade me from our recommendations.

MS. EDELBERG: There is some argument that states used the money to boost their rainy day funds, but the hard thing to know is what the counterfactual, is like money is fungible, so if states were actually looking to boost their rainy day funds because they were very worried about their fiscal outlook, it is quite possible they would have done that anyway.

MS. SHEINER: There are some people that argue that we are worried about the next recession, we don't have fiscal space, we don't have monetary space, that we should take the opportunity

RECESSION-2016/03/21

now to create some by being more progressive, lowering the debt, and maybe by even raising interest rates faster than we otherwise might so we have space.

MR. CLARIDA: I never understood that argument. (Laughter) I didn't understand the argument that in order to give myself more room to cut, I want to increase the odds of the next recession. (Laughter) In fairness to those who are making that case, if you are in a world where you think you want to end up at 4 or 5 percent, why not get there, but I think the important point that the Yellen Fed has conveyed through a recent communication is they are rationalizing their gradual lift off not by saying we want to be behind the curve for the next three years, they are actually saying that is what the economy can take.

I think that reinforces the view that raising rates rapidly to a high level so you can cut them is not a winning proposition.

MR. BERNSTEIN: I couldn't agree more. If I could make a quick comment on fiscal space. I think there are three opinions about fiscal space. The first one says debt to GDP is just too high, we shouldn't do anything. Those folks, I think, are very out of tune with the kinds of evidence that we have talked about today. I think there is a lot of bipartisan sentiment that you heard today to no small extent that fits into the other two camps.

The next camp says yes, 75 percent of GDP is a high debt to GDP ratio, but it shouldn't stop us from what we need to do, we should just have a plan to bring down that debt to GDP ratio as we do stimulus, so that is the second.

The third is more like we're not going to get that plan, you know, given today's politics, so we should really just do it and not worry so much about fiscal space.

I think most politicians who are not sort of a Tea Party variety probably fit into the second bin.

MR. SWAGEL: I just have one more thought on the interest rate part, the argument that someone would make on the raise rates faster. I hope during the Q&A we will speak on this also from the audience.

Look, the economy is just not very interest elastic, right, we have pushed forward all the activity, so we raise rates, you know, the Fed rate at one percent, it is not like there are all these projects not to be done, and oh, well, if your argument there is it's the wealth effect, the market is going to get clobbered, is that really the kind of growth we want to rely on. I think that is the argument. I'm not sure it is a powerful one. Rich and Jon, am I mischaracterizing what someone might say in opposition?

MR. FAUST: That is exactly what Mike would say. No, I'm just kidding. (Laughter) That argument is made. It's still not clear under that argument that there is some future stabilization benefit out of being at one, I'd like to be at one so that I can go back to zero. It's hard to make that work.

MR. CLARIDA: I had a slide on this, but I think it is important to make the point folks in my generation, it came up at a time when we talked about the Fed as setting the interest rate and the entire yield curve of interest rates.

You know, those days are long gone. I had a slide that said what happens in Beijing and Riyadh is important for 10 year treasuries as what happens in Washington. I really believe that. There was a time when I would have argued well, the funding of the yield curve, the Fed has that under control, and increasingly now with negative rates in Europe, even that is very much in play.

I think that even though the Fed is the most important Central Bank in the world, it does not set the entire path of interest rates, and the further out you go, which is relevant for housing and capital spending, the less relevant the Fed is.

Ironically, the Fed had more control of interest rates when it was irresponsible in the 1970s because there was a huge inflation premium. By bringing down inflation, you brought down rates. Now, the Fed and other central banks are good at what they do, and that inflation premium is small, there is much less leeway to move around rates than perhaps a lot of people believe.

So, for those of you who think rates are low, if that is a global development that will persist for 5 or 10 years, that gives you a different view on fiscal sustainability, and if you think we are reverting back to 2006.

MS. SHEINER: Let me ask a little bit more on the fiscal space question. I think you have

RECESSION-2016/03/21

made your point, we don't think there is a trigger. We know higher is less fiscal space than lower. Have we learned anything during the recessions about the relationship between interest rates and debt, about how much fiscal space there might be? Have we changed our mind about what those parameters are?

MS. EDELBERG: I think we have to have learned that there is more fiscal space than we thought, that markets are less worried about not just the high level of debt but also -- well, what the trajectory of debt is under current law. Of course, it's impossible to know what markets expect themselves. It's hard to think of plausible scenario's that markets have in mind that lead to declining debt to GDP over the next 10 years, the next 25 years.

So, I think we have learned that markets are a little less sensitive than we would have thought, but we still think that those relationships are going to normalize over the next 5-10 years, which is to say that we think that as aggregate demand continues to improve over the next several years, we will see increase in interest rates that are consistent with levels of deficits and debt that we project.

I don't think the relationship is broken.

MR. FAUST: I'd like to just inject a note of how much uncertainty I think there is in this relationship. I completely agree with everything that has been said, but over the period since 1990, Japan's debt to GDP ratio has monotonically risen and is now at three times the level of ours, and at the same time their borrowing costs have monotonically fallen, and they are now borrowing not at 150 basis points but at 10 basis points or -10 basis points.

So, the thought that -- I agree, we don't know where the trigger is, but sometimes when you say that, you might be leading the implication that surely we are in the neighborhood. We are not even sure we are in the neighborhood.

MS. EDELBERG: Just to clarify, I'm not even sure we know there is a trigger.

PANELIST: Or a neighborhood. (Laughter)

MS. EDELBERG: Which comes back to the point that I think it is just not important -- I said this before, it is not just important to think about the level of debt to GDP, but to think about what the trajectory is.

So, if investors credibly thought that debt to GDP was going to rise off into infinity over some finite time period, you know, then all bets are off. So, clearly investors and people who are lending to the Federal Government, their expectations for what is happening to debt to GDP over some long period of time has to matter really importantly.

MR. SWAGEL: They think we are going to adjust, they don't know how. Every time someone says we are not going to cut this tax, we are not going to cut spending, we are not going to raise taxes, that should make investors a little bit more nervous.

MS. EDELBERG: That's right.

MS. SHEINER: I just want to ask a couple of questions about automatic stabilizers. One question is have we also learned from the recessions that they may have much deeper, longer lasting impacts than we thought? Then I wanted to ask about your work sharing idea and how do those sort of relate to each other, how important could that be as a response.

MR. BERNSTEIN: I can't speak so much, you know, that we have learned that automatic stabilizers have made some kind of a long-term difference. With the following very significant exception, there has been a growing and really, I think, rich and important literature on the benefits of the safety net to long-term outcomes in the lives of kids and their families.

So, if you go back to the beginning of Food Stamps, where it was kind of unfolding throughout the country seriatim, and you look at kids of families that got it and kids of families that didn't, and you track them over their lifetime, you do the same thing for Medicaid, EITC, even some quality Head Start programs, you can find really long-term differences and positive outcomes, earnings, health care, employment, that suggest these programs are much more than just consumption, they are a form of investment.

If you couple that with the showing of damage of particularly long-term unemployment, then you get a feel for how important the kinds of UI interventions that Ben was talking about, a third, and this one is huge in my view, and I would be interested in Wendy's view on this.

This idea that Wendy kind of alluded to, hysteresis, the idea that when the economy is

RECESSION-2016/03/21

depressed for long periods of time, long-term unemployment stays highly elevated for a long time, it's not just a problem in the present, it actually diminishes the supply side growth factors of the economy both in terms of labor force participation and in terms of capital deepening.

You can see if you look closely that in fact CBO's potential came down significantly, and some economists, and I am one of them, believe it is a very serious consequence of inadequate response to the downturn, it has long-term macroeconomic negative results.

MS. EDELBERG: To say a couple of things. The question of how hysteresis matters and whether or not hysteresis is a thing where short-term downturns always affect long-term potential, and they are doing it in the current cycle just in the way they always have, it is just the current cycle is bigger, whether or not that is the right story, or we don't typically see this kind of hysteresis but we see it in this current downturn because this current downturn is special.

A third possibility is there really isn't hysteresis. I think typical macroeconomics would have normally put hysteresis aside, and we would have said in fact, the whole point that we are cyclically adjusting things like GDP is we are trying to take out the cycle, which is to say that we are actually trying to look at these structural factors that are driving the economy because we don't think the cycle is affecting the structural factors.

So, it is really complicated to tease all those things apart. What we have certainly seen in the last cycle is that investment was hit hard enough that there are long-lived effects of capital deepening, as Jared mentioned, long-lived effects of the kinds of investment that we saw throughout the recession.

I think CBO has actually been surprised recently that hysteresis has been -- types of hysteresis have actually been less of a factor than we would have expected, and one place to look is the unemployment rate.

So, we had previously estimated that what was happening in the labor market and unemployment and other factors would have longer term scarring effects on the unemployment rate, and we have since revised that away, given what we have seen with the unemployment rate, and with long term unemployment coming down.

So, hysteresis is complicated, but just because Jared mentioned the revisions that CBO has made to our projections before the recessions and since 2007, and I think you had shown in your slides, Rich, one thing that I will say is we actually don't attribute most of the revisions -- I don't know if you can sum it up, the picture that Rich showed, of potential GDP in 2007 looking like this, and potential GDP in our current projections looking like that, and there is a lot of daylight between them.

We actually don't attribute most of that revision to the recession and hysteresis. We actually attribute most of that revision to implausibly optimistic projections for labor force growth and for hours growth in particular, pre-recession, and just in retrospect, they were just implausibly fast.

MR. SWAGEL: I just have one really quick thought, and I agree with a lot of what Jared said, in some ways, the long-lived nature of this, the events of 2006, 2007, and 2008, are living with us today or are with us today, and matter socially and politically, and very profoundly.

To me, that is why this is so important getting the policy right, and it goes back to the quality of the fiscal policy. Every dollar burned on green pork or whatever is a dollar that didn't go to preschool teachers. To me, that is why the quality matters.

MR. BERNSTEIN: We didn't have time and I don't think we necessarily need to do it now to debate some of the aspects of the Recovery Act, the crazy train.

MR. SWAGEL: To me --

MR. BERNSTEIN: Joe Biden.

MR. SWAGEL: What is frustrating to me and you could see the frustration when I was up there, is me proposing that burning on the high speed rail, the crazy train to nowhere, you know, to me that is the hardest part, you want at least some introspection.

MR. BERNSTEIN: The train thing, I'm less certain about. I think the green investments, I would argue, you have mischaracterized. I think some of them were a lot more effective than that. By the way, not to get into it now in the interest of time, the work of Michael Greenwald is very instructive on this point.

MS. SHEINER: Thank you so much. We are going to open it up to the audience now.

RECESSION-2016/03/21

Can you please raise your hands, stand up, and the mike will come to you. Tell us who you are and where you are from.

MR. SUBTLE: Phil Subtle from Chito Investment Corporation. One fiscal and one monetary question, if I may. On the fiscal side, maybe Wendy specifically, it looks to me like we have had an incredibly high elasticity for tax revenues to income in this expansion. In fact, if you look at those charts people were putting up, huge swings in budget deficits relative to what's been quite stable GDP growth.

So, I wondered if you felt the automatic stabilizers were actually a little bit bigger than the little rectangles that you were suggesting, and more to the point, when we get the next downturn, what is the change that we catapult from sort of the 3 percent of GDP deficit back to double digits? That's the fiscal question.

On the monetary side, very simple but very complicated question in some ways, why is there so much focus on the front end of monetary policy, i.e., the Fed's fund rate, and virtually no focus on the transmission mechanism?

Isn't the problem that what the Fed has been doing in tapping the accelerator just hasn't move the wheels? So, it's that transmission mechanism we should be focused on, not what the Fed --

MS. EDELBERG: I don't think that we have been particularly surprised by what has happened to automatic stabilizers, what has happened to revenues, relative to taxable income. The way I square that with the point that you are making about GDP growth is I am positing that taxable income has moved more than GDP growth, but because the question came to me so fast, I didn't have time to verify that. (Laughter)

MR. FAUST: I think that is the right question about why is the focus at the short end and not on the transmission mechanism, but the answer is the focus is very much at the longer end and on the transmission mechanism, where it should be precisely, especially with the Federal fund's rate at zero. That is why Central Banks around the world are buying longer term securities.

There is a lot of study done on the basic channels, the wealth channel, how is that being

RECESSION-2016/03/21

affected by problems with households, as mentioned, we are rebuilding a balance sheet, how did that affect the wealth channel, has the exchange rate channel changed, is intrasensitive spending much less intrasensitive than it was at one time.

The focus should be there, and I think the focus has been there.

MR. BERNSTEIN: I think both of our monetary friends have introduced a really important point in their presentations, Rich focused on this in particular, which is the international dimension. I cannot overemphasize how important that is.

Ben Bernanke, actually since the mid-2000s, has been stressing through his savings glut discussions the critical importance, to the point where you are even seeing monetary policy being challenged by these dynamics such that countries expect their currency to go down and it goes up. That happened in Japan recently, to the tune of 8 percent, so it wasn't trivial.

When the Fed turned a bit dovish in their meeting about a week ago, the dollar depreciated sharply, and so those sensitivities, those elasticities, in my view, are much more important, and they have not been unimportant in the past, but they are much more important now.

MS. SHEINER: Okay.

MR. ETHEREDGE: Lloyd Etheredge with the Policy Science Center. I wanted to ask an early warning prevention big data question. CBO has been saying for years/decades that models are not good at turning points, so we are three-quarters into a recession before things happen.

Couldn't you today think more optimistically with big data about early warning systems that detect a downward cascade, that could start at several places, and then move much faster with a new repertoire of policy tools?

MS. SHEINER: Another question before we answer that one? Go ahead.

QUESTIONER: Thank you. This is Scott, rethinking a lot of different directions. Some of the papers I've read imply there is a lot more than just negative interest rates, and the interest rate is not just a number, it is a correlation. If you insert money or change a policy, that can give the equivalent of a negative interest rate already.

Rogoff and Reinhart said at this time, it is different, and that kind of meant it isn't different, but in a way it is different because the definitions of all the variables have changed and keep changing. What goes on in the CPI, the stock market goes up, that's good, but the S&P 500 has a way different PE than it had in the 1990s, and similarly unemployment is five percent, but the labor participation is lower than it has ever been.

I liked that diagram of all the lines interconnected, some of the papers have each of those lines but they have not just a number on those lines, but each one of those lines is a complicated nonlinear partial differential equation. (Laughter)

MR. BERNSTEIN: Let us cogitate on that question and move along.

QUESTIONER: What are the real numbers that are going on here.

PANELIST: All good points.

QUESTIONER: This is for Dr. Clarida. You said in an article by Greg Epps, and there seems there is a little bit of a disagreement between you and Dr. Faust, and it might not be actually, but you seem to think helicopter money will happen, and the thing you said, in the next 5 to 10 years, and I want to know more on that.

MR. CLARIDA: Well, certainly, the U.S. would not be at the top or even in the middle, probably closer to the bottom on my list, but there are 182 countries in the world, and given the level of specificity of my answer, but as I said in the article, there are different flavors of helicopter money. I think more likely is what I called in the quote in Greg's piece "disguised helicopter money."

The Milton Freedman case, as you announced on January 3, the Government is going to issue a huge amount of debt and to the Central Bank, which will extinguish it and essentially you promise never to raise taxes, and then the issue is how much inflation do you get.

We may not see that, but we may see a close cousin of that, which is essentially you run the big fiscal program, you say you are doing QE, and after three years, you say you know what, we just read John Cochran's article, we really should have a big balance sheet, so basically, we are never going to solve this debt. We are going to roll it over forever.

I don't think that is implausible at all, but I don't think that is the U.S. story, let me be clear.

MS. SHEINER: On the big data question, for automatic stabilizers as triggers, are there are some triggers that would be faster and earlier than sort of maybe the unemployment rate or is that something --

MR. BERNSTEIN: I thought it was a really interesting question, and I must say, and I won't waste your time by trying to answer your good questions, I just don't know enough about it, but I do think there is probably some variant there, how variant, for example, talks about these ideas using all the input that Google gets.

The one constraint that Ben and I had, and we got a lot of input for your trigger discussion, and everybody said it has to be something simple that Congress can sort of understand and deal with, and that kind of leaves you with what the BLS is going to generate, not with big data.

MS. SHEINER: Mike, do you want to take on the question of raising interest rates preemptively? Go ahead.

QUESTIONER: I think the conventional wisdom is pretty strong on this one, unlike some other types of conventional wisdom. If I might, just a couple of quick observations about what we have been talking about.

I guess I'm impressed by my profound ignorance, which is even greater than I thought before we went through this financial crisis, but one thing that wasn't mentioned and I suspect is not a practical issue in terms of thinking about what we might do if there is another recession, so we have embarked in varying ways in different countries on macroprudential regulation, and I don't see there is a great enthusiasm for thinking about that as a countercyclical tool, as opposed to something that just creates an ongoing greater resiliency.

But one could envision in some countries at least, and it may be more difficult in the U.S. where we don't have a lot of different tools, but doing something on that front.

Going back to this question of interest rates and what we might do, the Fed itself has

RECESSION-2016/03/21

already shown a concern about the possible effects of persistently low interest rates, so that sort of raises a question about whether they would want to quickly move to still lower interest rates.

The questions of creating financial asset bubbles or other types of bubbles, real malinvestment, to use a term you don't hear from the Fed very much, and I don't think they are very concerned about it, but in some circles, especially Republican circles, it is a very big deal.

The question of creating further problems in financial intermediation, that is certainly one of the concerns with negative interest rates that we have heard, but you might not even have to go to negative to be concerned about that. I might cite a Wall Street Journal article today about the problems of insurance companies with long-term care insurance and raising premiums there.

That is almost a variation on another question of how do consumers respond to lower interest rates. One could envision there are some consumers who are not so impressed by how it is cheaper to borrow and they could go out and buy another car, but how their retirement savings are being affected and feeling the need, a sort of target saving approach here, so you might not get the consumption response you are expecting.

There is also -- I guess that sort of covers the main ones you hear, but there are a lot of arguments you hear for why it would not be a good thing to go to lower interest rates.

MR. FRANK: Alex Frank from Johns Hopkins. Quick question both on the fiscal and the monetary side, and the impact of regulatory policy in terms of our preparedness.

It was briefly mentioned by Professor Swagel here, but I'm kind of curious to hear a little bit more in-depth from both the monetary side of the house in terms of the Fed's ability and capacity to deal with things, with the impact that we have seen from the regulatory policy on the fluidity of the market.

MR. BERNSTEIN: I'll make a quick fiscal comment just going off Phil. I think there was a good point about some of the large changes in health care policy and financial regulations that collided with a recovery that was still finding its legs, and the only thing I would say is that the political time table doesn't necessarily track with the cyclical one the way you would always like it to, but we thought we had to.

When I was with the Obama administration, we thought we had an opening to do a historical health care reform, and I think we did it, and I think ultimately that history will show that was a very positive policy change.

MS. SHEINER: Questions?

MR. SWAGEL: While you are doing that, to me the regulatory issue is on growth, I would even call it a regulatory surge, and it had to have some effect on growth, right. I don't know if it is 10 basis points or 100, 150 basis points. It has had some impact. It would be useful, I think, to do better cost-benefit analysis or even some cost-benefit analysis and figure out how to undo the wrong regulations in some sense.

MR. FAUST: I think on the monetary side or financial system side, it is pretty clear regulations have a certain burden. As far as what they have done for resilience, I think the key contribution to resilience has been that financial institutions now have a lot more capital, and that is not particularly all the complicated 800 page regulations and the like. I think unambiguously, we know they have a lot more capital and that unambiguously makes the system more resilient.

There is a point at which, you know, requiring too high a level of capital is also a drag, but the system is much more resilient, and the thing you can point out is the capital.

We spent a long time revising and sorting out the regulations, which are beneficial, which need further revision.

MS. SHEINER: The last two questions.

QUESTIONER: I just wanted to get back to the fiscal space, isn't part of the argument for automatic stabilizers that you can build into their design that they turn off and maybe compensate, but also I wanted to ask how important do you think the fiscal space or our ability to borrow is to the conviction of people that we won't go off that default cliff?

Frankly, 2013, they spent a lot of time between 2011 and 2013 preparing, and you saw haircuts on short-term Treasury bills.

MR. BERNSTEIN: It's a great point. I remember Goldman Sachs always puts out these

RECESSION-2016/03/21

great charts of fiscal impulse, and 2013 was a huge negative, 1.5 points of GDP, you could map that onto a million jobs pretty quickly, and when fiscal impulse went from negative to neutral, you saw things really pick up pretty quickly. So, I take your question very seriously.

On the triggers, yes, as Ben very clearly articulated, the turning on and turning off is what is most important to us, and we think we have come up with ideas that would make them more timely, I would steer people towards a paper that I think was very important, and it was actually a Brookings paper, and it sort of goes in a different direction than some of the things Wendy said, which is not a criticism of CBO at all, I think sometimes what happens is the research gets out ahead of CBO, and if it becomes true, then CBO adopts it later. They are not going to change their views based on a paper or two.

I think the DeLong and Summers' paper in a Brookings paper a little while ago, showed when there is even a very small degree of hysteresis, and we have evidence in one of our papers that the degree was larger than that, they argued the countercyclical stimulus pays for itself.

I probably wouldn't go that far, because I'm just uncomfortable talking about free lunches, but if it comes to a very low cost lunch, and you can actually see in Europe in cases where austerity was bitten off big time that in fact, their debt situation worsened because they hurt their growth so much.

MR. SWAGEL: To me, the schizophrenia on this issue is illustrated by the Administration, you know, on the one hand, the sequester, and celebrating on the one hand the fiscal adjustment, and I understand that. In the sense that they can't decide which side of the sequester they want to be on, so they are on both.

MS. EDELBERG: So, if you take like an infrastructure program, let's say it costs \$100 billion, and let's say we think it is going to have a rate of return -- let's say we think right now that the private sector rate of return is 10 percent, let's say we think the infrastructure project will have the same as the private sector rate of return, which is to say it is going to increase GDP every year by \$10 million.

The revenue that the Federal Government will get from that increase in GDP of \$10 million is maybe \$2.5 billion. So, that is not very much revenue. If you think the increase in borrowing

RECESSION-2016/03/21

that the Government did in order to finance that infrastructure, assuming that is how they financed it, increased interest rates at all, first of all, that means they have to finance the \$100 billion, but keep in mind even if you increased interest rates by a trivial amount, our debt load is so high that very small increase in Federal borrowing rates has a negative effect on the deficit, which is very easy to swamp the increase in revenues that you get from the increase in GDP from infrastructure.

MR. PESTRONE: Bobby Pestrone, Citizen. Given the interconnectedness that you have talked about from country to country, several speakers have mentioned that, how important in advance is it that Central Banks or others think how they will coordinate their response in the case of a new recession, or are there competitive advantages that countries can obtain by waiting to see what others do, and therefore, it is not advantageous to coordinate responses?

MR. CLARIDA: In theory, there can be, in practice, when people actually -- at least among economists -- try to quantify and calibrate gains to cooperation, they are typically found to be pretty small.

I think a lot of what we observe in practice which sometimes we call coordinated policies, are really correlated policies. Countries get hit by common shocks and it is in their interest to do the same thing. For example, there is a global recession, everybody cuts interest rates and do fiscal expansion, was that coordination or was that correlation to a common shock.

It's a harder problem when you get into the details than it may first appear to sort that out.

MR. WESSEL: The mission of the Hutchins Center is to improve the quality of fiscal and monetary policy, which requires things like Jared and Ben's paper, thinking about how fiscal policy could be different, and improving public understanding of those which requires the cooperation of people like these who spend time explaining things to us, answering questions, and making PowerPoint slides.

One, I want to thank everybody for participating and coming. Two, the slides that all the speakers presented are on our Web site, if you want to read the small print. Three, if there is paper or coffee cups at your feet, pick them up and put them in the garbage at the end.

Please join me in thanking Louise and our panelists. (Applause)

ANDERSON COURT REPORTING
706 Duke Street, Suite 100
Alexandria, VA 22314
Phone (703) 519-7180 Fax (703) 519-7190