THE BROOKINGS INSTITUTION

FALK AUDITORIUM

THE IMPACT OF FISCAL POLICY ON MONETARY POLICY:

A CONVERSATION WITH

FED GOVERNOR LAEL BRAINARD

Washington, D.C.

Tuesday, January 17, 2017

PARTICIPANTS:

Remarks:

LAEL BRAINARD
Member, Board of Governors
Federal Reserve System

Discussion:

LOUISE SHEINER, Moderator
Senior Fellow, Economic Studies
Policy Director, Hutchins Center on Fiscal and Monetary Policy
The Brookings Institution

LAEL BRAINARD
Member, Board of Governors
Federal Reserve System

DONALD KOHN
Robert S. Kerr Senior Fellow, Economic Studies
The Brookings Institution

* * * * *

P R O C E E D I N G S

MS. SHEINER: Hello and welcome. I'm Louise Sheiner, policy director of the Hutchins Center on Fiscal and Monetary Policy here at Brookings, where our mission is to improve the quality and public understanding of fiscal and monetary policy. It is my great pleasure to welcome Federal Reserve Governor Lael Brainard this morning, who will be talking about the impact of fiscal policy on monetary policy, a topic right in the Hutchins Center sweet spot and a subject of immense importance at this particular moment.

Lael and I were classmates in graduate school at Harvard and it was pretty clear even at that time that she was going to be someone of great influence and she did not disappoint. Lael served in the Clinton White House working on international economic issues. After a time here at Brookings, she was Treasury undersecretary for international affairs in the Obama administration, at the time the highest ranking woman in the history of the Treasury Department. And she joined the Board of Governors in 2014.

Following Lael's remarks, she'll be joined on stage by Don Kohn, former vice chair of the Federal Reserve and currently a senior fellow here at Brookings, so that we can have a bit more discussion about these important issues. And then there'll be time for audience Q&A.

So please join me in giving Lael and hardy welcome. (Applause)

MS. BRAINARD: Well, good morning. It's a pleasure to be here. And thank you very much to Louise for the kind introduction, for getting me through graduate school, and I can't think of better place really to be talking about monetary policy and its relationship to fiscal policy than Brookings.

There has been substantial speculation of late about significant changes to fiscal policy, although the magnitude, composition, and timing are as yet unknown and will depend on the incoming administration and the new Congress, as well as the vicissitudes of the budgeting process. Even once any changes are enacted, uncertainty will remain about their effects on the economy. It thus seems possible that monetary policy could be affected for some time by uncertainties surrounding fiscal policy and its effects.

Before I turn to the possible effects of fiscal policy, it's helpful to underscore the immense uncertainty that accompanies any attempt to forecast future economic developments. By statute, the Federal Reserve conducts monetary policy to promote the long-run goals of maximum employment and stable prices, which the FOMC has defined as 2 percent inflation. Uncertainty about future employment and inflation naturally translates into uncertainty about the path of future monetary policy. One useful measure of that kind of uncertainty is the magnitude of forecast errors. Over the past 30 years, outside forecasts of the unemployment rate four quarters ahead, for instance, have missed the actual unemployment rate by more than three-quarter percentage point in either direction one-third of the time. It shouldn't come as any surprise then that the associated forecast of interest rates have a similar track record.

Among the many factors that can affect the aggregate economy a possible shift in fiscal policy has attracted the attention of both economic forecasters and market participants. Among forecasters surveyed by blue chip economic indicators for 2017, 44 percent indicated they had raised their forecast of inflation and 47 percent had raised their forecast of gross domestic product growth because of the U.S. election results, although on average their forecast changes were relatively modest.

In thinking about fiscal scenarios forecasters have several historical episodes on which to draw. For example, following the 1980 elections, tax cuts were enacted and defense spending rose. Federal fiscal deficits adjusted for the cyclical state of the economy increased by roughly 2-1/2 percentage points of GDP from the period before the elections to 6 years following the elections. Federal debt held by the public increased from about 25 percent of GDP to about 40 percent, and the current account deficit widened.

Following the 2000 elections, similar fiscal changes resulted in an increase in the fiscal deficit, close to 3 percentage points of GDP over the first 6 years of the new administration, again on a cyclically adjusted basis. Of course, there are very important differences in today's conditions relative to these historical settings, including the economy's cyclical position, current and projected levels of indebtedness, the relative position of the global economy, and monetary policy settings.

As of today, there's substantial uncertainty about the possible changes in the stance of fiscal policy. In addition to the critical magnitude and timing issues there are four key dimensions along with the effects of fiscal policy might vary: the composition of policy changes and their relative effects on aggregate demand and aggregate supply; the distance of our economy from full employment and 2 percent inflation; the divergence in the cyclical position of the United States relative to our foreign partners; and the amount of fiscal space.

Different types of policies can have very different implications, depending on the aggregate economic stimulus per fiscal dollar spent. Generally, fiscal stimulus that expands spending and investment directly or is targeted to households and businesses that have the greatest propensity to spend rather than save can be expected to generate the largest response in aggregate demand. It also depends whether the effect is predominantly to raise aggregate demand alone or also to expand the supply potential of the economy.

Focusing first on those policies that affect predominantly or only aggregate demand, temporary demand-based fiscal expansions can speed recovery when the economy is some distance from full employment and target inflation, particularly if conventional monetary policy is constrained by the effect of lower bound. But when the economy is close to or at full employment and inflation is converging to its target, additional fiscal demand will more likely result in inflationary pressures. Thus, fiscal expansions that affect only aggregate demand and are enacted when the economy is near full employment and 2 percent inflation are relatively less likely to sustainably boost economic activity and relatively more likely to be accompanied by increases in interest rates.

Adjusting for inflation most estimates of the neutral rate, the rate that’s consistent with output growing close to its potential rate with full employment and stable inflation, are currently close to 0 compared with about 2 percent in the decades prior to the crisis. A low neutral rate implies a conventional monetary policy has less room to respond when the economy’s hit by adverse shocks, so it’s more difficult for the economy to recover and inflation to move back to target.

Policies that persistently raise aggregate demand alone can lift the neutral rate, but that may come at substantial cost. Because these policies do not affect the economy’s long-term growth potential, but do result in persistent fiscal deficits, they can lead to increases in the debt-to-GDP ratio. In that case, the greater space for monetary policy to respond to adverse shocks provided by a higher neutral rate comes at the expense of reducing the space for fiscal policy to stabilize the economy in the event of those adverse shocks.

By contrast, changes in fiscal policy that raise productivity or induce greater labor force participation and higher levels of skill and education raise the nation's productive capacity and result in more sustainable increases in output and living standards. The higher productivity and workforce levels would likely increase investment opportunities and raise expectations of future income growth, sustainably boosting the levels of investment and consumption and, as a result, the longer run neutral rate. Such policies are more likely to be sustainable because the boost to GDP they provide continues to accumulate over time, limiting increases in the debt-to-GDP ratio and preserving fiscal space.

Third, the effects of fiscal policy depend importantly on the relative strength of the broader global economy. At a time when the U.S. economy's made important progress on employment and inflation, both Europe and Japan have output or inflation or both that remain well below desired levels. As a result, forecasters expect short-term yields in these economies to remain near zero for some time. Moreover, growth in many emerging market economies, including importantly China, has slowed in recent years and financial conditions in some appear fragile.

With deficient demand abroad, if more expansionary fiscal policy here at home raises expectations of a growing divergence, upward pressure on the exchange rate will likely result as we've seen recently with the renewed increase in the dollar. The result could be cross-border spillovers from the increase in the U.S. domestic demand, reducing the effect on U.S. real activity and inflation and potentially contributing to external imbalances.

In the past few years, the effect on the dollar of increased expectations of divergence has been especially strong. The nearly 20 percent increase in the dollar over 2014 and 2015 coincided with falling real exports and import prices in the United

States. Net exports subtracted more than one-half percentage point from GDP growth in both 2014 and ’15, while falling non-oil import prices likely subtracted one-quarter percentage point from the annual rate of core inflation.

Finally, the trajectory of federal government debt relative to GDP and views regarding its sustainability can also influence the effects of fiscal policy. Research suggests that increases in the debt-to-GDP ratio cause long-term interest rates to rise. All else equal, higher long-term interest rates reduce spending on interest-sensitive goods, possibly dampening the direct effect of fiscal expansion on economic activity. The experiences of foreign economies suggest a relationship between debt and interest rates is complex and likely nonlinear. In this light, it is notable that the current ratio of debt to GDP in the United States is substantially larger than it was preceding the fiscal expansions in the early 1980s and early 2000s, and has already been projected to increase further based on demographic trends.

With any future change in fiscal policy quite uncertain, monetary policy will continue to be guided by the current state of the economy, the underlying momentum activity and inflation, the level of the neutral rate, and the balance of risks. In recent quarters, the data have painted a consistent picture of a resilient and gently improving U.S. economy. Overall I am pleased to see that full employment is within reach and could prove sustainable with the right policy mix. Payroll growth has remained sufficiently robust to continue eroding slack, increasingly along margins that had previously seemed stubbornly elevated, including the long-term unemployed, those on the margins of the labor force, and those who are working part-time, but would prefer full-time work. Wage growth appears to be picking up gradually in a further sign that slack continues to be taken up.

While the employment cost index was up only 2.3 percent over the 12 months ending in September, still well below pre-crisis norms, average hourly earnings have accelerated more noticeably, increasing by 2.9 percent on a 12-month basis. Even so, some slack may remain in the still low level of the prime age employment-to-population ratio and still elevated share of employees working part-time who prefer full-time.

Following a long period of stubbornly below-target inflation, I've also been encouraged by recent signs of gradual progress towards our inflation target as the effects of earlier dollar appreciation and oil price declines appear to be waning. Over the 12-month period ending in November, core personal consumption expenditures prices increased 1.6 percent. This is still noticeably below our 2 percent target, but it's up one-quarter percentage point from a year earlier.

In addition, and importantly, market measures of longer run inflation compensation have improved about 40 basis points recently relative to the very depressed levels prevailing through much of the preceding year. Although even with this increase, inflation compensation remains below historical norms.

How quickly remaining slack is utilized and inflation returns to target depends on future growth and activity. Real GDP appears to have increased by about 2 percent last year, the same pace as the year before. Consumer spending's been relatively robust, rising at a more than 3 percent annual rate in the 3 months ending in November, but business fixed investment has been notably sluggish, increasing only 1-1/2 percent in the third quarter and has changed little on that since the middle of 2014.

However, measures of sentiment, both business and consumer, have moved up noticeably recently, potentially signaling a stronger pace of investment and consumer spending ahead. Changes in financial conditions have been somewhat offsetting since early November, with equity prices rising 7 percent while 10-year Treasury yields are up 50 basis points and the dollar's up 4 percent.

Based on these recent spending indicators we might expect progress to continue to be gradual and steady. However, if fiscal policy or other changes lead to a more rapid elimination of slack, policy adjustment would, all else being equal, likely be more rapid than otherwise, with the conditions the FOMC has set for a cessation of reinvestments of principle payments on existing securities holdings being met sooner than they otherwise would have been.

When the economy eventually returns to full employment and 2 percent inflation, the appropriate level of the federal funds rate will depend on the level of the neutral rate, which is expected to move up only modestly in coming years from its current low level. On the one hand, if progress on employment and inflation occurs more quickly than I anticipate, foreign risks recede and the fiscal impulse rises, the neutral rate might rise more rapidly. On the other hand, global conditions may somewhat offset the effect on the neutral rate. With weak domestic demand abroad, further tightening of financial conditions through the exchange rate could lead to spillover of demand across borders, weighing on U.S. exports investment and manufacturing activity, and potentially constraining the neutral rate.

Finally, how strongly monetary policy should react to signs of further progress depends on the balance of risks. Given the recent improvement in unemployment and inflation and the possibility of increased fiscal stimulus, risks in the domestic economy are closer to being balanced than they have been for some time. With the economy getting closer to full employment, the prospect of material fiscal stimulus over a sustained period could reasonably be expected to shift somewhat greater probability towards stronger inflation outcomes.

But risks outside our borders are still tilted to the downside. In particular, despite recent progress, policy space in Japan and the euro area is perceived to be very limited. And the euro area banking sector remains somewhat fragile. Downside risks are also present in emerging market economies such as China. With a low U.S. neutral rate, conventional U.S. monetary policy doesn't have as much room as previously to counter such adverse shocks from abroad.

So in summary, one could anticipate that with current conditions continuing that the adjustment of monetary policy will likely be gradual as we approach our goals of full employment and 2 percent inflation. But the prospect of materially greater fiscal could potentially lead to adjustments in that path, which will, of course, remain data-dependent.

Thank you very much. (Applause)

MS. SHEINER: Okay, so, Lael, let me just follow up a little bit on what you said. So you said that you thought the economy was closer to being balanced. So I think that most of the FOMC participants would probably say that the labor market is now near the Fed's maximum employment goal or maybe even a little bit beyond it. And Chair Yellen noted at the press conference that this might not be the best time for fiscal stimulus.

So two questions. One, do you think that the economy is now around full employment? And if so, why? And two, given the answer to the first, do you think that a fiscal stimulus move really is quite risk now?

MS. BRAINARD: So I think the economy has made really nice progress over the last year towards full employment. Obviously, there's some uncertainty surrounding exactly what the level of full employment is, particularly post-crisis. What we saw over the last year was that for about a year the employment rate actually held steady while we saw improvements in the labor force participation rate, which many economists hadn't anticipated given underlying demographic trends.

So I think what we've seen in recent months is continued more gradual, but still relatively robust payroll growth, which has resulted in a reduction in the unemployment rate and more modest gains on labor force participation. As I said earlier, labor force participation among prime age workers is still 1-1/2 percentage points below where it was in pre-crisis and so we don't really know exactly how much of that represents additional slack. Similarly, there's a still notably elevated number of people working part-time who prefer to work full-time. How much of that is structural I don't think we know.

So I think we are approaching full employment. And, again, I think that with the right mix of policies we can both attain it and expect to sustain it over time. And where fiscal policy I think fits in that mix, again, to the extent that we saw fiscal policy that sustainably improved the supply side of the economy, lifted potential, that would provide a more sustainable policy mix in these circumstances.

MS. SHEINER: How about you, Don? Do you think there's as much slack or do you think the FOMC has gotten behind the curve a little bit?

MR. KOHN: So I would pick up maybe on I think a very important theme that Lael had, which is uncertainty. And, I mean, the truth is we don't know. And I don't like it when people give very precise -- and Lael hasn't done this, but some do -- very precise estimates of the NAIRU and where full employment is or a little below. We're a little below. I think we're in the neighborhood of full employment. Lael might be right, there might be some more give without undue inflation pressures, but I do think we're close and might even be kind of there. And so it'd be really important to watch how that inflation evolves.

Lael was absolutely correct that it's already come up about a quarter percentage point over the last year. The unemployment rate has dropped a couple tenths. Wages are rising. So I think we're pretty close.

And we're in a situation in which we're in the neighborhood of full employment and the real federal funds rate is still pretty deeply negative, about a point and a half or almost a point and a half. So I would say we've got, even with the zero real -- R-star real sustainable interest rate, we've still got a pretty accommodative policy for already being at full employment and inflation rising slowly but steadily towards the 2 percent target.

Now, I think the Fed's been absolutely correct to be very cautious about raising rates when you're so close to the effective lower bound. You don't want to make the mistake of raising rates too rapidly and sending the economy back down again. But I also think that absent some shock that no one's ready for one way or another, it's probably going to be call for a somewhat steeper trajectory going forward than the once a year for the last two years.

MS. SHEINER: Let's talk about the difference between the changes in the FOMC projections and the market reaction to the election. So the market has reacted much more and market expectation of rates has changed a lot more than the SEP rates, the dots. Do you think that's because the market thinks there's going to be a bigger fiscal stimulus or don't sort of think about the effects on the economy the same way the Fed does?

MS. BRAINARD: But I think it's interesting to see the market-implied path in recent weeks has moved actually quite close now to the Summary of Economic Projections, the SEP, dot plot median path. And obviously, you know, there are differences between those two concepts.

Most, I think, observers believe that part of the reason or perhaps a lot of the reason for the movement in the market-implied path is that term premia have increased after being relatively negative over the past -- you know, over 2015 and 2016. And that may be interpreted as signaling that market participants are putting less weight on low inflation outcomes. And so what's been interesting to note is that after a pretty prolonged period of being below the SEP path, the market-implied path has now moved up to where the SEP path is.

MS. SHEINER: Do you think they have built in a bigger fiscal stimulus?

MR. KOHN: Well, I think it's interesting that the delta that the market revision has been larger than the FOMC participants' revision. Now, I think the FOMC participants themselves were of two minds about whether to build in fiscal stimulus. And approximately half of them did and we don't know how much they built in, but half of them didn't, being too uncertain about what exactly to build in. So I think it's perhaps not a little surprising that the market -- market participants I think have built in fiscal stimulus; FOMC participants not so clear. So maybe that's one reason why the differences are there.

And the FOMC didn't really need to assume anything about fiscal stimulus in making its interest rate decision in December. I think that was entirely justified by where inflation and unemployment had gotten. It did need to -- participants did need to assume something when they talked about the future path of policy. But I hope Lael's words about uncertainty about that path are taken to heart. And among the uncertainties that would influence it are the size and nature of the fiscal policy.

MS. SHEINER: So do you think that there was any political issue here, which is that, you know, if the Fed had taken on a big fiscal stimulus or maybe the expected value of the fiscal stimulus and then decided that that meant that they had to raise their projected path, that that might have looked like the Fed deciding to tell the new administration, well, you think you're going to raise fiscal stimulus, we're going to undo it? And given the political pressures on the Fed, do you think that was even a consideration of people writing down their paths?

MS. BRAINARD: So I can only speak for myself. Obviously, we each develop our own SEP path based on considerations. And as I tried to convey earlier in my remarks, at this juncture there's a tremendous amount of uncertainty. The magnitude, the timing, the composition, the likely effects are all unknown. We'll know more over time as the new administration, of course, start to go through the budgeting process.

So I think different members may well have taken it on board in different ways, some perhaps in the baseline, others in terms of the balance of risk. And, you know, we saw the discussion in the minutes about the staff forecast and how they took a bit on board in the forecast. So it varies, I think. In my own case, I think I do see the balance of risk, as I said earlier, having shifted and being more balanced than they have been in the domestic economy for some.

MR. KOHN: So I don't think the Federal Reserve participants -- I don't think and I hope that they did not factor in political considerations. I think it's their job to make their best guess as to what's going to happen in the economy, to explain how their monetary policy intersects with what they think is going to happen in the economy, and how that will produce maximum employment and stable prices.

And I think it would be a serious problem if people even thought the Federal Reserve was shading its forecast one way or another or its interest rate expectations one way or another out of political considerations. I think particularly over the coming year when it's going to be so uncertain about what's happening and the politics may be quite volatile, I think it's absolutely critical that the Fed be an economic forecaster, not a political forecaster.

There are a bunch of PhDs in economics sitting around that table. I don't think there are any PhDs in political science. (Laughter) And so I think -- I don't know, maybe there are, but I don't think so. So I think they're got to keep their eye on the economics and not worry about the intersection of their forecasts with the political process.

MS. SHEINER: So I understand. So the intersection of the forecast with the political process is fine, but you said two things that sort of were at odds. One is you think it's their best guess, but when there's so much uncertainty about what a fiscal package might be, and you see that half of the participants didn't even put one in, that probably wasn't their best guess. Right? So there's a question of what to do when there's just this tremendous uncertainty. You think probably something's going to happen, but you don't know what, you don't know when. And how do you deal with that?

And a forecast, I think, in a best guess you might, as you -- like the staff did put something in. How do you deal with that? Are you sort of let me do the forecast without it and then wait to see?

MS. BRAINARD: Well, I think this is not the only source of uncertainty. In fact, there are a tremendous number of sources of uncertainty. We have to take into account foreign risks. We have to take into account the price of oil, which we've seen can make a tremendous impact, and sometimes in ways that were not well anticipated, on the economy. There are a whole range. Risk attitudes may change a great deal, as we saw in the wake of the financial crisis, and affect the forecast in ways that are uncertain.

So this is one of many sources of uncertainty. And both the staff in their forecast and also individual members of the FOMC have to make their best judgment. Does it affect the balance of risk? Should I include it in my baseline? And so you come down in a different place depending on how much information you have and what kinds of historical episodes you might have to draw on, for instance.

So I don't think it's terribly different than other sources of uncertainty where, again, each FOMC participant at each meeting where they are asked to make a SEP forecast, or at meetings where they're not, but need to have a view about monetary policy, are doing the same kind of factoring in of many sources of uncertainty.

MR. KOHN: Yeah, I think your -- I agree with Lael. You're asked to do the most likely outcome, kind of the modal outcome, the most likely thing you expect to happen. You have to make a whole bunch of assumptions there.

But I also want to underline something Lael said. It may be about the risks around that mode, so how you respond in policy even to a modal forecast of what you think is the most likely thing, might depend if you saw the risk skewed one side or another. To reduce the risk to the economy you might want to skew your policy response to one side or another. But it's very subtle and complicated.

MS. SHEINER: And so you said they didn't really need to write down a fiscal policy response right now for their decision. Their decision wasn't going to be affected by it. But let's say, you know, things take a while. Like there are things that are proposed in Congress, it's not sure they're not going to get through. It's not sure what's going to happen to the ACA, but, you know, things are starting to move. How long do you have, right? Because of monetary policy lags at some point you have to say, well, I don't know what's going to happen, but I have to sort of act preemptively because it looks like it might.

And then how do you make those kinds of -- then you really do have, the economists have to make political forecasts of what is going to be enacted. And how do you approach that and what kind of timing do you think you have? Is that something you need to start thinking about right away or do you have a little bit of time now?

MS. BRAINARD: Well, it's certainly the case that every FOMC meeting you want to take into account all of the information that's available at the time. And as you say, Louise, monetary policy is inherently forward-looking because of the lags which are variable and not well known with any precision. So we're always updating our outlook and then assessing the appropriate path of monetary policy based on that.

There are some fiscal policies that take a very long time to actually work through the economy. Others you may see the effects of much closer to enactment or even in anticipation. So those kinds of considerations do necessarily get taken into account.

I would say the flip side of that is simply that we have seen that -- you know, it has been a period where we've had a variety of disinflationary forces in the global economy; that demand has been very weak outside of our borders; that the monetary policy adjustment path, the expected path, is relatively gradual and so there is a lot of space for taking on board that kind of new information. And I think there's reason to think that as additional policy is factored into the economy, that there's a lot of ability to absorb that globally. So, you know, I don't see that we're going to see very large adjustments in most likely scenarios.

MS. SHEINER: You think that's right?

MR. KOHN: Yes, I think most of these fiscal policies that particularly are being talked about will phase in somewhat over time, and I think that'll give the Federal

Reserve time to assess, as they get closer and closer to passage, the potential range of outcomes will start to narrow, they'll be able to assess it and build it into their policy.

I think one of the complicating factor is that the financial markets are forward-looking. So the financial markets will tend to build in their expectations, as you've already noted, Louise, they probably have done so already, about fiscal policy, whether it's supply or demand side. And that will, in turn, feed back on the current economy. So that's another level of complication even before the Fed acts or has to change the path -- or not change the path, but its rates. The financial markets react and the Fed has to take account of their effect, financial (audio drop 50:54) the near- and longer-term -- medium-term future.

MS. SHEINER: Yeah, so besides the financial markets' reaction there's also been this sort of surge in optimism by consumers and businesses since the election, what Larry Summers has called, you know, they're on a sugar high. So you have to decide, I think, you know, when you look at this, you look at sentiment, you know, is it a sugar high or is this something that's going to sort of persist? So how do you even do that kind of judgment? And like how much did you take into account this higher sentiment in thinking about your projection?

MS. BRAINARD: So the boost in sentiment has been notable, both business sentiment and consumer sentiment. And there are good reasons to think that consumer spending could remain robust. Jobs are more plentiful. Wealth has increased for many consumers. And after a long period of uncertain economic conditions, I think consumers are responding to better prospects. And you can see that in the kind of detailed answers that they give to some of these.

Business sentiment similarly has improved. And there, too, you know, we saw a very large reaction led by a drilling and mining sector in the wake of the oil price declines. But really, we've seen very depressed business investment and so conditions thereto are ripe for some improvement. And so, you know, the hope thereto is that this sentiment actually does come along with some improvement, some turnaround in business investment. But there, too, you know, we can build a little bit of that into our forecast, but we're going to be focused on the data bearing that out.

MR. KOHN: So I think the evidence on these consumer demand and the Michigan, for example, survey is that it's not that tight. There's broad correlation. And correlations, as I remember -- Louise, you probably remember better than I do -- when there are very large changes in the consumer sentiment index that tends to be reflected to some extent, not a huge extent, in consumer demand. So I think we have seen basically the gradual improvement that Lael was talking about with a little push at the end. I don't know if that's enough to really change consumption.

But I also think Lael's emphasis on investment and business sentiment is really important. But there, again, you have -- and Lael did a great job in her talk, emphasizing there are both supply and demand side pieces to this. So you'd get an initial push in demand from investment, and the capital deepening that would occur would gradually over time raise at least the level if not the rate of growth of productivity.

So I think the Fed will be faced with weighing the supply and demand side. And it would be great if we saw a pickup in business and businesses were more optimistic about the demand for their goods and services going forward and optimistic and perhaps anticipating greater profits from lower marginal tax rates, a little less (audio drop 54:24).

MS. SHEINER: Yeah, so let me ask you a little bit more about the demand side versus the supply side. So when you go through the policies that are being discussed, you know, some of them would have potentially supply side effects. So we're thinking about, you know, corporate taxes, infrastructure, they're not talking about education. But a question I have is how much does the timing of the expected boost to productivity matter?

So let's say I did education spending that I thought was really wonderful and was going to have a long-run effect on potential, but it was going to take a very, very long time versus maybe a corporate tax change that maybe would have more of an immediate impact, although the productivity effects might be very slow, too. How does the timing of the demand side versus the supply side affect monetary policy response?

MS. BRAINARD: So I think it is probably the case that a lot of the kinds of policies one can think of that would have that effect on the supply side of the economy, potential growth, might take some time to really get some traction and to lift the longer-run neutral rate in particular. And if you saw a shorter-term boost that really came in aggregate demand and it wasn't as clear whether the longer-run neutral rate was actually going to be boosted and whether you were going to see those longer-run supply side effects, you know, you might actually see the shorter-run neutral rate rising above the long-run neutral rate for some period of time until that became clear.

Now, again, what matters, also, is the extent to which ultimately that supply side boost means that your fiscal constraints are lessened so that you retain fiscal space. And, you know, that would matter I think importantly in terms of the timing of the longer-run supply side impact versus the shorter-run demand side.

MS. SHEINER: Go ahead.

MR. KOHN: I don't have much to add to what Lael said. I think the Fed's job -- since I think they're in the neighborhood of full employment, give or take, the Fed's job is going to be to keep demand in line with potential. And it's going to be really hard. I'm glad it's your job, not mine. And because of the points that you both made, that increase in demand may even overshoot potential for a while. If there's a lot of investment, people get overoptimistic, the potential comes along slowly.

So it's going to be tricky, but I think it's really critical for the Federal Reserve to emphasize in its communication what it's trying to do and explain why it's making the choices it's making. And it's not going to be easy in this complex environment.

And we haven't even mentioned trade. I can understand why Lael doesn't want to get into it and I don't blame her. (Laughter) But if we start seeing major tariffs imposed that's going to raise prices, raise the cost of goods and services to U.S. consumers and businesses, and, at the same time, could easily damp potential growth as U.S. businesses lose or don't have the protective tariff wall against competition. So I think open, competitive economies tend to be more innovative, more productive. So I think the Fed's job would really be complicated if there were price level increases because tariffs were imposed on goods and services coming from particular countries or particular companies as is threatened.

MS. SHEINER: Right. So one of the things people are talking about a lot is the corporate tax with the border adjustments, which isn't a tariff and which economists say would be offset completely by exchange rates, but I think there's a lot of uncertainty about that. So, you know, we've been trying to figure out exactly with these border adjustments how they work and it's very complicated. You as the Fed, when you start to see data coming in, I would guess would have to figure out, you know, is this inflation starting or is this a one-time adjustment in prices because they think the exchange rate will offset it or it's a tariff? How do you figure that out and how to do you react differently if it's supply side versus demand side, you know, one-time effect from the supply side affecting prices?

MS. BRAINARD: So I think the framework that I laid out earlier is a framework that would apply to any combination of policies. You know, I wouldn't be able to get into any particulars. Again, there's a lot of uncertainty and it's early days.

I think our job in terms of thinking about monetary policy, you know, we've got a dual mandate. It's very clear, it's forward-looking. We would have a similar kind of set of assessments, you know, how much bang you get for your fiscal buck? What's the timing? What is the relative aggregate demand versus potential growth impacts? What's the relative impact in terms of the U.S. position relative to the global economy and what kind of adjustment are you going to get in terms of demand being primarily here or spilling over across borders? And, you know, ultimately, what kind of effect is it going to have on fiscal space? Those are the same considerations that I would probably bring to any combination of policies from a monetary policy point of view.

MR. KOHN: So I think central banks have pretty good practice of late in allowing price level adjustments that don't feed into inflation. And you can see this in central banks that have -- or countries where exchange rates have moved a lot, so (audio drop 1:00:52) right after the crisis is a good example where they had big inflation overshoots, but didn't react to that because the economy was weak.

So I think a key here -- and value-added tax changes in various countries, central banks have been able to look through them because they're forward-looking. As Lael was saying, you've got to look into the future. So if it's just a price level change, then that shouldn't contribute to inflation with this one exception, which is inflation expectations.

So I think under that kind of situation the Fed would have to be looking really, really hard at what was happening to inflation expectations because an increase in inflation expectations would get built into the inflation process. So hopefully, whatever happens, that would be kept under control. It'll be important for the Federal Reserve to say that it's committed to its 2 percent inflation target even though there is an overshoot for a short period of time. And hopefully, those expectations would be anchored and the Fed wouldn't have to react to the (audio drop 1:02:04).

MS. SHEINER: And does that get harder if you're sort of doing that kind of stuff at a time when inflation is rising anyhow? So like how much does, you know, a one-time price shift affect it if you're already having inflation rising? Yeah, it makes it harder. Okay.

All right, last question. So some of the policies you might imagine might have regional effects. For example, maybe a policy would help the Rust Belt, but hurt high-tech or something. Does that factor at all into monetary policy, thinking about differences in regional effects, or do you just have to sort of smooth through the whole economy?

MS. BRAINARD: Well, it's a complicated question. We benefit from having 12 regional banks. It's a really unique feature of the U.S. system. And as you know from the transcripts and the minutes and your own experiences, the bank presidents as they're sitting around the FOMC table have two jobs. One is, you know, they're making monetary policy for the nation, so they're attentive to overall economic conditions and overall where is the U.S. economy in terms of distance from our aggregate goals? But they also have a special responsibility to gather views, gather economic intelligence from their region, and bring those to attention of other members of the FOMC. And that's been tremendously valuable to us.

For instance, there are parts of the economy that are much more affected by the recent oil price declines. And having that kind of granular information brought to the table was very important. Similarly, even within regions different groups may be quite differentially affected. And though we are making monetary policy for the nation as a whole, for the workforce as a whole, it's extremely important for us to understand if there are groups that are being left behind or communities that are not making as much progress. And so we do really benefit from having those kinds of regional differences and differences in groups being brought to the table.

Ultimately, however, we have to look at the aggregate data. That's our mandate and it is overall inflation and overall full employment that we're targeting.

MR. KOHN: I completely agree. (Laughter) I mean, you've got one instrument, basically, the short-term interest rate, and it's aimed at maximum employment, stable prices for the United States. And it's the United States' economy that you're ultimately focused on. And all this regional information, which can be very important to see early trends developing, to look beneath the data to see where things might be going, but it all feeds into a national forecast.

So this is true about regional information, it's true about, say, unemployment or wages by education, all this kind of breakdown that the Fed does a lot of, really feeds into a national forecast, itself affected by what's going on in the rest of the world, to be sure, but the congressional mandate is about the United States.

MS. SHEINER: Right. Okay, we're going to open it up to the floor for questions. Please raise your hand. We have a mic coming around. And here, why don't you go first? Oh, we have two mics, great. And please tell us who you are and where you're from.

MR. BONPAUL: Hunter Bonpaul, independent consultant. Two questions exploring the second and third order of facts of U.S. interest rates hikes and their bounce back through EM. And two cases, say: currency markets and capital outflows.

So in 1994, the exchange rate, exchange stabilization fund was used in 1994 for the peso bailout. I remember the hew and cry. And so for contingency planning, did Congress foreclose or restrict the use of that in case there is an EM currency crisis?

Secondly, on the outflow part, most of the outflow is probably going to be into the equity markets and very selected real estate markets. So in order to avoid a bubble and asset price inflation in those, short of the blunt instrument of further rate hikes, which wouldn't solve the problem, are there non-interest rate remedies as a contingency planning?

MS. BRAINARD: I didn't understand. When you are talking, I think, about macroprudential tools, do you mean with regard to the emerging markets experiencing outflows or do you mean here in the United States?

MR. BONPAUL: Yeah, emerging markets experiencing outflows, that capital headed into the United States, so here.

MS. BRAINARD: If we saw a surge here?

MR. BONPAUL: Yes, ma'am.

MS. BRAINARD: You want to start?

MR. KOHN: So I think there are regulatory and macroprudential tools that are potentially there to deal with bubbles or asset price issues and fragilities that might be building up in the financial markets. My personal view, which I've voiced a number of times, is the U.S. doesn't have enough of those tools and their use is restricted to some extent because it has to flow through FSOC. And for the banking system we have a lot of -- the Fed has a lot of tools to deal with that kind of thing. When it gets beyond the banking system it's a little harder, but I think that would be the right place to look. And lots of things intersect with the banking system, so you can use that.

I don't know the answer to your first question on restriction, use of the ESF. Maybe you do.

MS. BRAINARD: So, well, I would say, first of all, that, you know, when I enumerated the risks in the global economy, of course one of the risks that I'm attentive to is the possibility that some emerging markets may be somewhat vulnerable, particularly those whose corporate sectors may have taken on foreign currency denominated debt during this time period. And we did see some of that, that we might see some outflow pressures there and some challenges dealing with that depending on the configuration of interest rates and the exchange rate. So I think that is a risk that we want to be attentive to.

With regard to the exchange stabilization fund, there were some restrictions that were imposed and later to some degree lifted. But that issue really sits with the Treasury Department in consultation with Congress, so it's not something that the Federal Reserve has authorities.

And then, you know, Don has spoken a lot to these issues. With regard to macroprudential tools within the U.S. economy for financial stability risks, we're obviously in a much better position than we were prior to the crisis with a much stronger set of both through the cycle tools, but also some that can be adjusted, like the stress test, like the countercyclical buffer. And, of course, the banking sector has got much thicker capital buffers, much better management of liquidity.

What we don't have easily or readily available to us are borrower side restrictions, which are particularly relevant; have been used in other countries, particularly in the real estate sector. And that's just not something that is in our present toolkit.

MS. SHEINER: Thanks. Alice Rivlin.

MS. RIVLIN: Thank you, Lael, for a very helpful speech and stimulating this very good conversation. I wanted to raise the question of long-run fiscal policy and the debt-to-GDP ratio.

There was a time when a lot of economists, including the Federal Reserve economists, were viewing with alarm the rise in long-run debt. Now we've sort of gotten used to the debt held by the public being around 75 percent of the GDP. And you mentioned in passing the demographics effect likely to drive up that ratio in the future, but near-term fiscal policy could have that effect, too, if you had big spending increases coupled with big tax cuts that are very hard to reverse. You could have a rapid escalation in the projections for debt-to-GDP.

And it sort of dropped out of the conversation. I wanted to put it back in the conversation and see if you'd say a word about how worried the Fed might be about a big increase in long-run debt.

MS. BRAINARD: Well, I think obviously this is an area that you have a huge amount of expertise on, so I will just stay at the kind of level of how would I think about it in the context of monetary policy. And so, obviously, as we think about any configuration of fiscal policy, it has to be against the backdrop of how much fiscal space do we have relative to previous historical episodes where we might have seen similar kinds of fiscal expansions. And as you know, we have a much more elevated level of debt-to-GDP for demographic reasons that is expected to increase somewhat.

So as we think about potential configurations of fiscal policy, some of the important considerations would be how much bang do you get for your fiscal buck? How effective is fiscal policy? And how much additional space does it create or leave by actually boosting potential output? And so that's why that issue of the extent to which fiscal policy actually sustainably boosts potential makes a very material difference in terms of how monetary policy would likely adjust.

MS. SHEINER: Yeah. Tell us who you are and where you're from, please.

MR. DOYLE: Peter Doyle, I'm independent. There was a comment made that comfort was drawn from the fact that there's strengthening in financial sector supervision since the crisis, but, of course, that is in question now, too, with talk of repeal or reform of Dodd-Frank and other reforms. If there were to be reforms of that nature, substantive reforms, how would that affect the conduct of monetary policy going forward? Would you feel obliged to, so to speak, learn what some see are the lessons from the 2000s, that monetary policy was too loose for too long in the context of a weak financial supervisory system?

MS. BRAINARD: Well, what I can say is that we all experienced a very deep and very damaging financial crisis. And I think some very important lessons have been learned from the financial crisis.

Moreover, you know, we are now eight years into a very substantial adjustment process that the largest, the most systemic financial institutions have undergone in which they have built very substantial capital buffers based on their systemic footprint. They have developed plans so that they can be put through a resolution process in an orderly manner.

Liquidity management is a very robust part of our supervisory framework now. And funding models have changed in ways that took the important lessons from the runs that we saw in the wholesale financial markets. Money market reform has now taken place. The derivatives markets are much more transparent. We have a lot more activity that's been central cleared.

Having already seen very substantial changes of that nature, you know, it is likely that many are not going to want to start from scratch again and start a new process. So it seems like there's tremendous benefit given how much reforms have already been fully digested, so I can't speak to any possible changes.

You know, we implement the rules under our statutory mandates. And, you know, we have substantially completed that work, but my observation is simply that those adjustments are really well underway or near complete in many cases.

MR. KOHN: So I'm less constrained. (Laughter) I would be concerned if there were a material pullback in the important pieces of Dodd-Frank that, as Lael remarked earlier, greatly strengthened the financial system and gave the authorities tools to deal with emerging problems in a countercyclical way. So linking it to the previous questions on macroprudential regulation, I think most monetary authorities, certainly the Federal Reserve and Janet Yellen, has said that they look at monetary policy as a last line of defense against emerging bubbles and fragilities in the financial market and the effects that might have on financial stability. They would much prefer to use regulatory macroprudential policy to deal with those.

And I think if there's less of that, if that's rolled back in any significant material way, if the orderly liquidation authority is gone, for example, and unless it's replaced by a really effective bankruptcy regime that might actually work unlike the Lehman Brothers example, I think I would -- it puts more pressure on Lael and her colleagues to deal with financial stability issues with monetary policy under more circumstances if the regulatory system can't deal with those. So I think it would -- I mean, there are lots of changes that might be made that wouldn't do what I just said I feared, changes you could make around the edges and a number of things. But a material lessening of the authorities' ability to build resilience in the financial system, including in a countercyclical way, I think would put more pressure on the monetary authorities, and that would be a bad thing.

MS. SHEINER: So you agree, monetary policy last line of defense?

MS. BRAINARD: Well, again, I think the world has changed substantially and it's very hard to contemplate that a lot of the institutions that have made these very substantial changes are going to materially sort of depart from that.

MS. SHEINER: Questions? In the back there.

MR. BROWN: Stuart Brown with Warren Capital. I have a question about the cast of characters making decisions. Given this fellow's propensity to nominate a fox for each henhouse, how significant might it be to have a couple of Rand Pauls at the Fed? (Laughter)

MS. BRAINARD: Don? (Laughter)

MR. KOHN: So I'm not exactly sure what that means in terms of monetary policy. I would say the Fed has a legislative mandate. It has certain instruments that it uses to meet that legislative mandate. There can be disagreements about whether it's used them appropriately, how to do it, et cetera. And I would think anybody that joined the Board of Governors, without a change in the legislative mandate, Section 2A of the Federal Reserve Act having to do with maximum employment and stable prices, would say their job -- when they take that oath of office, their job is to use the instruments available to the Fed to hit the goals that Congress has given them. So I think there are constraints on what someone could do.

Now, people could come in and disagree about how to hit those goals and there are people already sitting around that table who disagree on how to hit those goals. But I think the basic framework should remain in place. That shouldn't be sensitive. This is important for democratic accountability.

When the law says what you're supposed to do, the law gives you certain instruments to do it with, you ought to be trying to do it. And I think that constraint, sort of rule of law constraint, would be a constraint on anyone who was appointed to the Board of Governors.

MR. WOLFE: Lenny Wolfe with Johns Hopkins. Question for Governor Brainard. Regardless of the structure of a fiscal stimulus package, does monetization of an increased federal deficit enter into your thinking on interest rate policy?

MS. BRAINARD: I think that the way that I laid it out earlier is really the way I think about it, which is fiscal policy could be an important additional source of uncertainty to the outlook and that monetary policy would simply -- you know, it's very clearly oriented to its dual mandate. And so, you know, the complexity is taking into account uncertainty because of the forward-looking nature.

But given that, that monetary policy would essentially react to whatever the set of changes is, depending on, again, the magnitude, the timing, the extent to which it boosted the longer-run neutral rate by raising the supply side of the economy as opposed to more predominantly focusing on aggregate demand. Those are the ways I think that monetary policy would take into account potential changes.

MS. SHEINER: Yeah. If you don't worry -- high debt-to-GDP ratio, that makes you a little bit more constrained about worrying about raising rates? Don?

MR. KOHN: No, it shouldn't. I mean, I guess I would repeat the answer to my previous question. You've got goals and you've got to meet them. And if the Congress has embedded a high debt-to-GDP ratio that's reflected in a higher equilibrium interest rate and a higher level of interest rates, so be it. That's what's going to happen. That'll crowd out certain kinds of domestic spending. Among other things it will crowd out exports and crowd in imports because it would tend to strengthen the dollar. It also might tend to crowd out investment and interest-sensitive, say, housing, interest-sensitive household spending. But that would be really in some sense for the Congress to take account of when it increased the level of the debt.

MS. SHEINER: In the back.

MR. LLENOVA: Paulo Llenova, Rokos Capital. In the past, Governor Brainard, you've mentioned the increase of this gig economy, the increase of temporary workers, contractors, Uber drivers being like the poster child. In your view, is this a structural change in the way people look at labor markets or is it a problem that shows that there's some slack remaining that the monetary policy should address it?

MS. BRAINARD: Yeah, so I actually have been giving some thought to this question. The gig economy, as you know, narrowly speaking, jobs that are enabled by new technology platforms in a very narrow sense is really tiny, but growing rapidly. But the much larger sense in which the structure of the labor force is changing is if you include contract workers and temporary workers. Then you get to closer to 15 percent of the economy, and you've seen an expansion. As Alan Krueger and Larry Katz have done in some really nice work, you've seen an expansion from 10 to 15 percent in a very short period of time. And understanding exactly what is the implications of that, I think we're in extremely early stages of understanding.

Does that potentially account for some of the elevated -- is it a structurally elevated number of workers that are working part-time who prefer full-time? I don't think we know enough yet. We're just beginning to get some sense because the BLS had discontinued their contingent worker survey and so, you know, hopefully, we'll get some insights once they rerun that, you know, again. Right now we're dependent a bit on the kind of Alan Krueger and Larry Katz work.

Similarly, I think there's a whole set of issues that really don't go to understanding employment and, you know, what underlies the slack, but goes to Social Security and social insurance. And are the kinds of workers that are employed in contract positions less likely, for instance, to have retirement benefits or health benefits or be able to invest in their career? So there's a whole set of issues there that we really don't get into from the perspective of monetary policy, but really do matter a great deal from the broader perspective of the resilience of the U.S. economy overall.

MS. SHEINER: Okay. Anything to add?

MR. KOHN: Nope.

MS. SHEINER: Okay, I think we'll make that our last question. Please thank you so much and thank you both, Governor Brainard and Governor Kohn.

(Applause)

* * * * *

CERTIFICATE OF NOTARY PUBLIC

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

Carleton J. Anderson, III

(Signature and Seal on File)

Notary Public in and for the Commonwealth of Virginia

Commission No. 351998

Expires: November 30, 2020