

MONETARY POLICY AND THE STATE OF THE ECONOMY

HEARING BEFORE THE COMMITTEE ON FINANCIAL SERVICES U.S. HOUSE OF REPRESENTATIVES ONE HUNDRED FOURTEENTH CONGRESS SECOND SESSION

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MONETARY POLICY AND THE STATE OF THE ECONOMY

Wednesday, June 22, 2016

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON FINANCIAL SERVICES,
Washington, D.C.

The committee met, pursuant to notice, at 10:04 a.m., in room 2128, Rayburn House Office Building, Hon. Jeb Hensarling [chairman of the committee] presiding.

Members present: Representatives Hensarling, Royce, Lucas, Garrett, Neugebauer, Pearce, Posey, Fitzpatrick, Westmoreland, Luetkemeyer, Huizenga, Duffy, Hurt, Stivers, Stutzman, Mulvaney, Hultgren, Ross, Pittenger, Wagner, Barr, Rothfus, Messer, Schweikert, Guinta, Tipton, Williams, Poliquin, Love, Hill, Emmer; Waters, Maloney, Velazquez, Sherman, Clay, Lynch, Scott, Cleaver, Moore, Ellison, Perlmutter, Himes, Carney, Sewell, Foster, Murphy, Delaney, Sinema, and Heck.

Chairman HENSARLING. The Financial Services Committee will come to order. Without objection, the Chair is authorized to declare a recess of the committee at any time.

This hearing is for the purpose of receiving the semiannual testimony of the Chair of the Board of Governors of the Federal Reserve System on the conduct of monetary policy and the state of the economy.

I now recognize myself for 3 minutes to give an opening statement.

I have been struck by some of the headlines I have reviewed recently. For example, "Economy barely grew in first 3 months of the year," Associated Press. "U.S. added on 38,000 jobs in May, weakest performance since September 2010," The Wall Street Journal. "Will we ever get higher wages?", CNN. And, "Labor force shrinks," Reuters.

What is clear and verifiable is that this weak economy doesn't work for millions of working Americans. The true unemployment rate stands at almost 10 percent. Paychecks are stagnant, and the national debt clock spins out of control.

After almost 8 years of the President's economic policies, he is on track to be the only President in U.S. history not to deliver a single year of at least 3 percent economic growth. This will give him the fourth-worst economy record of any President in U.S. history.

The Fed cannot escape its share of responsibility in being complicit in "Obamanomics" because it has lost much of its independence from the Administration. To wit, every Member of the Board of Governors has been appointed by this President.

There is a noticeable revolving door between the White House, Treasury, and the Fed. The Fed Chair meets almost weekly with the Secretary of the Treasury to discuss policy. Furthermore, the Fed has been a facilitator and accommodator of the Administration's disastrous national debt policy and has regrettably lent its shrinking credibility to advancing the Administration's social agenda.

There is a better way forward, which includes renormalizing monetary policy and reforming key aspects of the Federal Reserve to better comport with its mandate—as my House Republicans passed the FORM Act last year and are introducing the Financial CHOICE Act this year, which offers economic growth for all and bank bailouts for none.

The Fed's so-called "data-dependent" monetary policy strategy says nothing about which data matter, let alone how they matter. This severely compromises the kind of policy transparency and predictability that is necessary for households and businesses to grow our economy.

The Fed's so-called "forward guidance" continues to provide little or no guidance to the rest of us. The FORM Act, which has been endorsed by nationally renowned economists, including three Nobel laureates, would help reestablish the Fed's independence and promote economic growth by ensuring a systemic monetary policy framework that is truly data-dependent, consistent, and predictable.

Another drag on our economy is the blurring of fiscal and monetary policy by the Fed. By paying interest on excess reserves at above-market rates, the Fed has swollen its balance sheet by which it now directs credit to favored markets.

Stanford economics professor John Taylor rightfully calls this, "mondustral policy," for the combination of monetary and industrial policy it represents. By inviting distributional interests to crowd out the market discipline of credit, this policy favors a few at the expense of many and weakens economic growth for working Americans.

Left unabated, the central bank will soon become our central planner. This cannot be allowed to happen. It is way past time for the Fed to commit to a credible, verifiable monetary policy rule, systematically shrink its balance sheet, and get out of the business of picking winners and losers in credit markets.

I now yield 3 minutes to the ranking member for an opening statement.

Ms. WATERS. Thank you, Mr. Chairman.

And I thank Chair Yellen for joining us today. Under your leadership, we have seen a Federal Reserve that cares about American workers and families and has made tremendous progress on their behalf.

While the Fed's work may seem abstract to many people, in fact it does have a profound impact on our day-to-day lives, from determining the rates we pay on loans to ensuring that Wall Street never again puts taxpayers at risk.

Thanks to actions taken by the Fed, the Obama Administration, and Democrats in Congress, we have come a long way since the financial crisis wiped out trillions of dollars in household wealth. We

can see this in the longest-ever streak of private sector job growth, rising home prices and overall gains in household wealth.

Yet, I remain concerned that despite these gains, our recovery remains incomplete, and our progress has been uneven, particularly as it affects our middle-class workers, low-income families, and minority communities.

When you look at wages, broader measures of unemployment and the most recent jobs numbers, it is clear that too many Americans have been left behind. That is why I am pleased that you have taken a cautious approach to raising rates and have dedicated significant personal energy to increasing economic inclusion. It shows that you are indeed listening to the needs of everyone, not just the well-connected. And I would encourage you to continue down this path.

Of course, Congress must take responsibility for these disparities as well. Too many years of fiscal austerity have robbed our economy of its full potential. And now we are seeing the culmination of Republican efforts to kill the Dodd-Frank Act, putting our economy back at risk of another crisis. In addition to the chairman's wrong Choice Act, Republicans have filed over 30 amendments to the financial services appropriations bill that would undermine financial reform.

So before closing, I would like to highlight tomorrow's vote in Britain, which serves as the latest reminder of why we must preserve the Fed's independence and ability to set monetary policy on a forward-looking basis. No rule or formula could adequately account for such unpredictability, which is why foolish proposals that seek to put monetary policy on autopilot must be rejected.

I look forward to your testimony.

And I yield back the balance of my time.

Chairman HENSARLING. The Chair now recognizes the gentleman from Michigan, Mr. Huizenga, chairman of our Monetary Policy and Trade Subcommittee, for 2 minutes.

Mr. HUIZENGA. Thank you, Mr. Chairman.

I am back here, Chair Yellen.

So in response to the financial crisis, the Emergency Economic Stabilization Act accelerated its authority that had been granted to start paying interest on reserves from 2011 back to October 1, 2008. And according to the New York District Bank, the Fed expected to set interest on reserves well-below the Fed's target policy rate, that is the Federal funds rate. Had the Fed created such a "rate floor" it would have complied with the letter of the law.

Section 201 of the Financial Services Regulatory Relief Act of 2006 explicitly states that interest on reserves "cannot exceed the general level of short-term interest rates." However, as we learned in last month's Monetary Policy and Trade Subcommittee hearing, interest on reserves is above the Fed funds rate.

This above-market rate not only appears to have gone outside the bounds of the authorizing statute, it may also be discouraging a more free flow of credit in an economy that can and should be flourishing. Speeding up the authority to pay interest on reserves equipped the Fed to expand its balance sheet to previously unimaginable heights. Due to various rounds of unconventional monetary policy, such as quantitative easing, the Fed's balance sheet

has grown exponentially, and today it stands at a staggering \$4.5 trillion, with a “T,” which is about 25 percent of the United States’ GDP.

At the same time, the average maturity of Treasury securities held by the Fed increased from about 5 years to over 10 years, which considerably increases the balance sheet’s exposure to interest rate duration risk. It all leads me to wonder if the Fed has not become the ultimate global systemically important bank, or G-SIB.

Almost 7 years old, the Fed’s colossal and distortionary balance sheet shows no signs of shrinking anytime soon. To be sure, the Fed appears to have only started thinking about an exit, as described in its late 2014 policy normalization principles and plans, but the word “principles” is nowhere really to be found in this described plan.

Moreover, the “plan” simply mimics the same opaque data-dependent strategy that has been talked about for monetary policy that has left market participants scratching their heads for years, unsure of what exact data will inform the Fed’s decision-making and how the FOMC will react to that data. Unfortunately, monetary policy has clearly stepped outside this bound and shows little, if any, sign of returning and it threatens the durability of the monetary policy independence itself, in my opinion.

With that, I yield back.

Chairman HENSARLING. The Chair recognizes the gentlelady from Wisconsin, Ms. Moore, the ranking member of our Monetary Policy and Trade Subcommittee, for 2 minutes.

Ms. MOORE. Thank you so much, Mr. Chairman.

And welcome back, Chair Yellen.

I know it must be very frustrating to you every time you come here, there is some cloud over our economy and people want to point fingers directly at you. But I want you to know that I have recognized that in the time immediately following the financial crisis, I think the Obama Administration and Congress reacted very forcefully with smart reforms and stimulus to make sure that the U.S. economy, and with the help of the Fed, that we became the envy of the world, compared to Europe and China and Russia.

And in the United States, I would like to see a lot more of this recovery touch the working class and poor Americans. But that failure, Madam Chairwoman, is Congress’ failure, not your failure.

The last time you were here, we asked you about the Chinese economy. And of course, we are all here sitting on the edge of our seats to hear what you might have to say about the so-called Brexit.

And I worry that in our worrying and becoming more anxious, that we are just going to worry ourselves into doing more counterproductive things, counterproductive policies, like austerity and like the Brexit.

We have some extreme policies that are floating out here in our body politic, orderly default on U.S. debt, negotiated default, and I think we just have to stop derailing ourselves with nonsense. I think we have a bright future and I know that we can get through this deep frustration with people like you at the helm of the Fed. And so, thank you so much for joining us today.

And with that, Mr. Chairman, I yield back the balance of my time.

Chairman HENSARLING. The gentlelady yields back.

Today, we welcome the testimony of the Honorable Janet Yellen. Chair Yellen has previously testified before this committee on a number of occasions, so I believe she needs no further introduction.

Without objection, Chair Yellen, your written statement will be made a part of the record, and you are now recognized for 5 minutes to give an oral presentation of your testimony.

**STATEMENT OF THE HONORABLE JANET L. YELLEN, CHAIR,
BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM**

Mrs. YELLEN. Chairman Hensarling, Ranking Member Waters, and other members of the committee, I am pleased to present the Federal Reserve's monetary policy report to the Congress. In my remarks today, I will briefly discuss the current economic situation and outlook before turning to monetary policy.

Since my last appearance before this committee in February, the economy has made further progress toward the Federal Reserve's objective of maximum employment. And while inflation has continued to run below our 2 percent objective, the FOMC expects inflation to rise to that level over the medium term. However, the pace of improvement in the labor market appears to have slowed more recently, suggesting that our cautious approach to adjusting monetary policy remains appropriate.

In the labor market, the cumulative increase in jobs since its trough in early 2010 has now topped 14 million, while the unemployment rate has fallen more than 5 percentage points from its peak. In addition, as we detail in the monetary policy report, jobless rates have declined for all major demographic groups, including for African Americans and Hispanics.

Despite these declines, however, it is troubling that unemployment rates for these minority groups remain higher than for the Nation overall and that the annual income of the median African-American household is still well below the median income of other U.S. households.

During the first quarter of this year, job gains averaged 200,000 per month, just a bit slower than last year's pace. While the unemployment rate held steady at 5 percent over this period, the labor force participation rate moved up noticeably. In April and May, however, the average pace of job gains slowed to only 80,000 per month or about 100,000 per month after adjustment for the effects of a strike.

The unemployment rate fell to 4.7 percent in May, but that decline mainly occurred because fewer people reported they were actively seeking work. A broader measure of labor market slack that includes workers marginally attached to the workforce and those working part time who would prefer full-time work was unchanged in May and remains above its level prior to the recession.

Of course, it is important not to overreact to one or two reports, and several other timely indicators of labor market conditions still look favorable. One notable development is that there is some tentative signs that wage growth may finally be picking up. That said, we will be watching the job market carefully to see whether the re-

cent slowing in employment growth is transitory, as we believe it is.

Economic growth has been uneven over recent quarters. U.S. inflation-adjusted GDP is currently estimated to have increased at an annual rate of only 3/4 percent in the first quarter of this year. Subdued foreign growth and the appreciation of the dollar weighed on exports, while the energy sector was hard hit by the steep drop in oil prices since mid-2014. In addition, business investment outside of the energy sector was surprisingly weak.

However, the available indicators point to a noticeable step-up in GDP growth in this second quarter. In particular, consumer spending has picked up smartly in recent months, supported by solid growth in real disposable income and the ongoing effects of the increases in household wealth.

And housing has continued to recover gradually, aided by income gains in the very low level of mortgage rates. The recent pickup in household spending together with underlying conditions that are favorable for growth lead me to be optimistic that we will see further improvements in the labor market and the economy more broadly over the next few years.

Monetary policy remains accommodative. Low oil prices and ongoing job gains should continue to support the growth of incomes and, therefore, consumer spending. Fiscal policy is now a small positive for growth. And global economic growth should pick up over time, supported by accommodative monetary policies abroad. As a result, the FOMC expects with gradual increases in the Federal funds rate, economic activity will continue to expand at a moderate pace and labor market indicators will strengthen further.

Turning to inflation, overall, consumer prices as measured by the price index for personal consumption expenditures increased just 1 percent over the 12 months ending in April, up noticeably from its pace through much of last year, but still well-short of the committee's 2 percent objective. Much of this shortfall continues to reflect earlier declines in energy prices and lower prices for imports.

Core inflation, which excludes energy and food prices, has been running close to 1½ percent. As the transitory influences holding down inflation fade and the labor market strengthens further, the committee expects inflation to rise to 2 percent over the medium term. Nonetheless, in considering future policy decisions, we will continue to carefully monitor actual and expected progress toward our inflation goal.

Of course, considerable uncertainty about the economic outlook remains. The latest readings on the labor market and the weak pace of investment illustrate one downside risk, that domestic demand might falter.

In addition, although I am optimistic about the longer-run prospects for the U.S. economy, we cannot rule out the possibility expressed by some prominent economists that the slow productivity growth seen in recent years will continue into the future. Vulnerabilities in the global economy also remain. Although concerns about slowing growth in China and falling commodity prices appear to have eased from earlier this year, China continues to face considerable challenges as it rebalances its economy toward

domestic demand and consumption and away from export-led growth.

More generally, in the current environment of sluggish growth, low inflation, and already very accommodative monetary policy in many advanced economies, investor perceptions of and appetite for risk can change abruptly. One development that could shift investor sentiment is the upcoming referendum in the United Kingdom. The U.K. vote to exit the European Union could have significant economic repercussions.

For all of these reasons, the committee is closely monitoring global economic financial developments and their implications for domestic activity, labor markets, and inflation.

I will turn next to monetary policy. The FOMC seeks to promote maximum employment and price stability as mandated by the Congress. Given the economic situation I just described, monetary policy has remained accommodative over the first half of this year to support further improvement in the labor market and a return of inflation to our 2 percent objective.

Specifically, the FOMC has maintained the target range for the Federal funds rate at 1/4 to 1/2 percent, and this kept the Federal Reserve's holdings of longer-term securities at an elevated level.

The committee's actions reflect a careful assessment of the appropriate setting for monetary policy, taking into account continuing below-target inflation and the mixed readings on the labor market and the economic growth seen this year. Proceeding cautiously in raising the Federal funds rate will allow us to keep the monetary support to economic growth in place while we assess whether growth is returning to a moderate pace, and whether the labor market will strengthen further, and whether inflation will continue to make progress toward our 2 percent objective.

Another factor that supports taking a cautious approach in raising Federal funds rate is that the Federal funds rate is still near its effective lower bound. If inflation were to remain persistently low or if the labor market were to weaken, the committee would have only limited room to reduce the target range for the Federal funds rate. However, if the economy were to overheat and inflation seemed likely to move significantly or persistently above 2 percent, the FOMC could readily increase the target range for the Federal funds rate.

The FOMC continues to anticipate that economic conditions will improve further and that the economy will evolve in a manner that will warrant only gradual increases in the Federal funds rate.

In addition, the committee expects that the Federal funds rate is likely to remain for some time below the levels that are expected to prevail in the longer run because headwinds, which include restraint on U.S. economy activity from economic and financial developments abroad, subdued household formation and meager productivity growth, mean that the interest rate needed to keep the economy operating near its potential is low by historical standards. If these headwinds slowly fade over time as the committee expects, then gradual increases in the Federal funds rate are likely to be need.

In line with that view, most FOMC participants, based on their projections prepared for the June meeting, anticipate that values

for the Federal funds rate of less than 1 percent at the end of this year and less than 2 percent at the end of next year, will be consistent with their assessment of appropriate monetary policy. Of course, the economic outlook is uncertain, so monetary policy is by no means on a preset course, and FOMC participants' projections for the Federal funds rate are not a predetermined plan for future policy.

The actual path of the Federal funds rate will depend on economic and financial developments, and their implications for the outlook and associated risks. Stronger growth or a more rapid increase in inflation than the committee currently anticipates would likely make it appropriate to raise the Federal funds rate more quickly. Conversely, if the economy were to disappoint, a lower path of the Federal funds rate would be appropriate.

We are committed to our dual objectives and we will adjust policy as appropriate to foster financial conditions consistent with their attainment over time. The committee is continuing its policy of reinvesting proceeds from maturing Treasury securities, and principal payments from agency debt, and mortgage-backed securities. As highlighted in the statement released after the June FOMC meeting, we anticipate continuing this policy until normalization of the level of the funds rate is well underway.

Maintaining our sizable holdings of longer-term securities should help maintain accommodative financial conditions and should reduce the risk that we might have to lower the Federal funds rate to the effective lower bound in the event of a future large, adverse shock.

Thank you. I would be pleased to take your questions.

[The prepared statement of Chair Yellen can be found on page 56 of the appendix.]

Chairman HENSARLING. Thank you.

The Chair now yields himself for 5 minutes for questions.

Chair Yellen, I wish to spend a little time exploring interest on reserves. In 2006, you were the President of the San Francisco Fed. Is that correct?

Mrs. YELLEN. Yes.

Chairman HENSARLING. Yes, and I was a junior member of this committee, and I carried the Financial Services Regulatory Relief Act in the House, which did not contain IOR.

I have since gone back to review the legislative history, and all the legislative history I can find is that the Fed wanted IOR in order to have, number one, member bank retention—they were concerned about that—and number two, to establish a rate floor for the Fed's fund rate. So I don't know if you would have had an occasion to review the legislative history yourself, or do you have any memory of why the Fed asked for IOR in 2006? Have you reviewed the legislative history?

Mrs. YELLEN. I have some recollection of it, although perhaps not perfect.

Chairman HENSARLING. Did any Fed official at that time, to the best of your knowledge, say that IOR would supplant open market operations as the main tool of monetary policy?

Mrs. YELLEN. I don't recall exactly what was said, but we were faced with the problem. I remember former Vice Chair Donald

Kohn testified on this, and I believe there were a number of testimonies over many years.

Chairman HENSARLING. I agree. I just wanted to know if you had a memory of them.

Mrs. YELLEN. I think that the Fed felt that there were difficulties in managing short-term interest rates using our standard—

Chairman HENSARLING. Yes, but do you have any memory of the Fed saying anything else besides a rate floor? Because if you don't, my point is this: I believe Congress granted IOR for one purpose, and it appears that the Fed is using it for another purpose.

My 12-year-old son could ask me for a Louisville slugger to improve his batting practice, but that doesn't mean I approve it for the use of chasing his sister around the house. I am not sure that anybody in Congress foresaw the tool being used in such a way.

And as I think you know, Section 201 of the Financial Services Regulatory Relief Act says that payments on reserves, "cannot exceed the general level of short-term interest rates." Today, you are paying 50 basis points on interest on excess reserves. The Fed funds rate yesterday, I believe, was 38 basis points. Is that correct?

Mrs. YELLEN. That's probably correct.

Chairman HENSARLING. So, you are paying about, back-of-the-envelope calculation, a 35 percent premium on excess reserves. You are paying a premium to some of the largest banks in America, is that correct?

Mrs. YELLEN. I consider a 12 basis point difference to be really quite small and in line with the general level of interest rates.

Chairman HENSARLING. Okay. So, you believe you have the legal authority to do this, otherwise you wouldn't do it, is that correct?

Mrs. YELLEN. I do believe we have the legal authority to do it.

Chairman HENSARLING. Madam Chair, would it be legal for you to pay a 50 percent premium? You are paying a 35 percent premium today. Would it be legal to pay a 100 percent premium?

Mrs. YELLEN. I believe it is a small difference. And interest on excess reserves did not succeed as expected in setting a firm floor—

Chairman HENSARLING. And would it be legal—

Mrs. YELLEN. —on the level short-term interest rates.

Chairman HENSARLING. Would it be legal under the statute for you to pay twice the Fed's fund rate as a premium on interest on reserves?

Mrs. YELLEN. I believe that the way we are setting it is legal and consistent with the Act.

Chairman HENSARLING. No, that is not my question.

Mrs. YELLEN. Yes, it is. It is—

Chairman HENSARLING. What is the legal limit? What is the legal limit on which you can pay? What does the phrase "exceed the general level of short-term interest" mean? You are saying that 12 basis points does not trigger the statute. At what point is the statute triggered?

Mrs. YELLEN. It depends on exactly what short-term interest rate you are looking at. There are a whole variety of different rates and—

Chairman HENSARLING. Okay. Do you have an opinion on whether or not it would be legal to pay a 100 percent premium?

Mrs. YELLEN. Whatever level we set, the interest on reserves at—

Chairman HENSARLING. Madam Chair, please, it is a simple question.

Mrs. YELLEN. —funds going to trade below that level.

Chairman HENSARLING. Madam Chair, please, it is a simple question. Would it be legal under the statute to pay a 100 percent premium? If you don't know the answer to the question, you don't know the answer to the question.

Mrs. YELLEN. My interpretation is that it is legal.

Chairman HENSARLING. It would be legal to pay twice the market rate? That would not exceed the general level of short-term interest?

Mrs. YELLEN. There is likely to be for quite some time a small number of basis points gap between interest on reserves and the Fed funds rate, and that is something that—

Chairman HENSARLING. I would simply advise discussing that with the legal counsel, because I think that frankly offends common sense.

Last question: You mentioned as part of your policy of paying interest on reserves, part of the rationale is that you have sent roughly \$600 billion back to Congress, to the taxpayer, to Treasury. It is only possible because of a larger stock of reserves.

Are you aware that the GAO has opined, "While a reserve bank transfer to Treasury is recorded as a receipt to the government, such transfers do not produce new resources for the Federal Government?"

And are you aware that the Congressional Budget Office has opined that, "transferring excess earnings from the Federal Reserve to the Treasury has no import for the fiscal status of the Federal Government?" Are you aware of either of those opinions of the GAO or the CBO?

Mrs. YELLEN. I am, but I believe those opinions were rendered in connection with a highway bill which tapped Federal Reserve surplus in order to pay for the highway bill and what the opinion meant was that Congress was not generating additional revenues in transferring Federal Reserve's surplus to the Congress, that this was essentially an accounting—

Chairman HENSARLING. My time has expired, and I think the language is plain.

The Chair now recognizes the ranking member for 5 minutes.

Ms. WATERS. Thank you very much.

Last month's jobs report included an unusually steep decline in labor force participation, with 664,000 workers reporting that they had stopped looking for work altogether. You said recently that it is too soon to tell whether this drop was an aberration or the sign of a larger trend and cautioned in your testimony in the Senate not to place too much emphasis on a single jobs report.

That said, the drop was quite substantial. So, I would like to better understand your current thinking on what could have caused such a deep decline in labor force participation. Moreover, how are you reconciling the consistently positive job gains over the past 75 months with the steep labor force decline? And to what extent has

the decline in labor force participation affected your thinking regarding the timing and pace of further rate increases?

Mrs. YELLEN. Taking a slightly longer time perspective than just the last 2 months, labor force participation has been declining and is likely to continue declining in the coming years because we have an aging population. And as people move into the retirement years and their fractions in our population are increasing, they work less, even though more recent cohorts participate more. But there is a sharp drop-off in participation in the labor force, so that will continue.

But we have also felt, or at least I have felt, that labor force participation among other groups has been somewhat depressed by the fact that we have had a weak labor market. And a sign of a strengthening labor market is to see people who were discouraged brought back into the labor force. Now, over the last year, the labor force participation rate has been essentially flat. It had increased for a bit, it has come down somewhat, over the last year it has been flat.

Now, with the declining trend due to an aging population, I take the flatness in the labor force participation rate over the last year as an indication that in fact we have seen some cyclical gains, that people who were discouraged have come back into the labor force. If we just look at the last labor market report, the last month, I would caution these numbers are quite volatile and I don't think we should attach too much significance to a single month.

But as I indicated in my prepared remarks, when we have a month in which job gains are very low and we see a decline in labor force participation, that reflects an increase in the number of people who had actively been looking for work and in the previous month had been categorized as unemployed, ceased looking hard enough so they now move into the category of out of the labor force because instead of actively searching they are no longer actively searching. That is not a good sign. So, we are watching that very closely.

But I think we shouldn't over-blow the significance of a single report. I continue to believe this is likely to be a transitory phenomenon. The economy slowed toward the end of last year and in the first quarter of this year. When GDP growth slowed, the labor market, nevertheless, continued to perform well with 200,000 jobs per month in the first quarter.

Now, this more recent decline in job growth may be a reflection of that earlier weakness in spending. And as I pointed out, we are seeing, I believe, a pickup in growth. There has been a sharp increase in consumer spending. I think if that turns out to be the case, and I see the fundamentals as remaining essentially strong there, I am very hopeful that we will see a pickup in job growth, and we will be watching for that as we assess the economy.

Ms. WATERS. Thank you very much.

Let me just say, you noted in your testimony that a U.K. vote to exit the European Union would have significant economic repercussions for economic activity, labor markets and inflation here in the United States, and have previously indicated that the uncertainty posed by the referendum was a factor in the Fed's most recent decision to hold off on raising rates.

My Republican colleagues have called for tying monetary policy decisions to a strict mathematical formula. And I wanted to just get your take on whether there is any such preset formula that you are aware of that takes into account the uncertainty associated with the chance that a member country could drop out of the European Union.

Can you quickly comment on that?

Mrs. YELLEN. Mechanical rules take none of that into account. They base changes in the stance of policy on just two variables: the rate of inflation and GDP or the unemployment rate. And I do think, especially given how low interest rates are and how long it has taken the U.S. economy to recover, that it is important to look at the risks and to bring in risk management considerations, as we are doing.

I don't know that a Brexit vote would have significant consequences for us, but it could. And I think it is important to take that into account.

Ms. WATERS. Thank you. I yield back.

Chairman HENSARLING. The time of the gentlelady has expired.

The Chair now recognizes the gentleman from Michigan, Mr. Huizenga, chairman of our Monetary Policy and Trade Subcommittee.

Mr. HUIZENGA. Thank you, Mr. Chairman.

I have a lot to cover, but really quickly, I do want to clarify the quote that the chairman had read from the GAO: "Such transfers do not produce new resources for the Federal Government as a whole." That had nothing to do with the Highway Trust Fund. That was a quote from the GAO in 2002 on page 16 of their report. So I wanted to clarify that.

I was hoping to cover two other issues: one, the Fed balance sheet and risk situation, and whether the Fed has basically become a G-SIB; and two, the independence of monetary policy versus the regulatory accountability. Senator Dodd, when this was originally going through—I wasn't here—was talking about breaking those out.

But on page six of your testimony here, "Maintaining our sizable holdings of longer-term securities should help maintain accommodative financial conditions and should reduce the risk that we might have to lower the Federal funds rate to the effective lower bound in the event of future large adverse shock."

I know yesterday in the Senate, you said that you do have the ability to go to negative rates. I am assuming that is what you were talking about in your sentence.

Mrs. YELLEN. No, I said that we are not looking—

Mr. HUIZENGA. I know that. But in your written testimony, I am just trying to say, is that what you are referring to? I don't know where else we go other than into negative interest rates. And I am curious by what authority do you have to go negative?

Mrs. YELLEN. I am not thinking, and I was not referring to the possibility of going to negative interest rates. What I meant was that the higher the level of the Federal funds rate we are able to achieve, as tightening becomes appropriate to this economy, the more ability we will have to respond to some future negative shock by cutting the Fed funds rate.

Mr. HUIZENGA. I am glad you could clarify that. I want to move on.

A former Federal Reserve officer has highlighted the Fed's exposure to the very type of carry trade, borrow short, lend long that had increased financial fragility before the financial panic of 2008. You have previously expressed your support for stress testing banks using extreme worst-case scenarios. You just, in reference to the ranking member's question about Brexit, talked about risk management that the Fed is having to go through.

Given your belief in the value of stress testing, would you agree that it would also be appropriate to stress test the Fed's balance sheet with a \$4.5 trillion portfolio, to make sure that the risk to the Fed, the Treasury, and the economy as a whole, if the Fed decides in the future that it is best to shrink its balance sheet faster than it is currently expected? Should you stress test?

Mrs. YELLEN. It is very important to understand that the Fed is not like a commercial bank. Our balance sheet is very different and our liabilities are not runnable. So capital plays a very different role for a central bank.

Mr. HUIZENGA. You have a huge effect.

Mrs. YELLEN. I do not think stress testing our balance sheet is something that is necessary. But nevertheless, we have done so and we have reported publicly the outcome of such stress tests.

Mr. HUIZENGA. So, if you didn't think you needed to, why did you?

Mrs. YELLEN. Because there is public interest in what would happen under such a scenario. And it is an exercise worth undertaking to understand.

Mr. HUIZENGA. Do you believe that the Fed is exposed with this \$4.5 trillion balance sheet to considerable interest rate duration risk leading to loss of income as you unwind?

Mrs. YELLEN. Our income is very, very much higher, about 5 times higher now because of that large balance sheet, then around \$100 billion a year—

Mr. HUIZENGA. So, when you start unwinding, you will lose money. Correct?

Mrs. YELLEN. It is very unlikely that the Fed would end up with negative income. It is conceivable.

Mr. HUIZENGA. Not everybody believes that. There are a lot of people who believe that it is inevitable that the Fed is going to end up with negative income because of the amount of unwinding that needs to be done.

Mrs. YELLEN. It is certainly not inevitable. But there is a scenario in which the U.S. economy grows very strongly, and in order to avoid overheating, the Fed needs to raise short-term interest rates at a much steeper pace than we consider likely to be appropriate. And in that scenario, it is conceivable that we would end up paying more for reserves than we earn on our assets. It is very unlikely.

Mr. HUIZENGA. I think many people believe that is inevitable.

Mrs. YELLEN. And let me say this would be a very nice situation for the United States to find itself in because this would be a scenario with strong growth and large tax—

Mr. HUIZENGA. Madam Chair, my time has expired.

Mrs. YELLEN. —proceeds coming into the U.S. Treasury.

Mr. HUIZENGA. Ultimately, my question is, is the Fed solvent? And I am not sure that has solidly been answered.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentlelady from Wisconsin, Ms. Moore, ranking member of our Monetary Policy and Trade Subcommittee, for 5 minutes.

Ms. MOORE. Thank you so much, Mr. Chairman. I have some questions for you, Madam Chairwoman. I want to get to a couple of questions about the living wills and the orderly liquidation.

As you know, the chairman of this committee and our speaker have called for an end to it. So, I definitely want you to explain how the orderly liquidation authority would work, confirm for us that it would be paid for with an assessment on remaining firms and not on taxpayers.

There seems to be some sort of notion that this would be a revenue raiser for us if we were to end it. But inside of that answer, I also want you to talk about the firms that had failed. And of course, Wells Fargo, who had passed the last time, failed this time.

So, can you just review for us that once a bank passes the stress tests and the living wills test, do they need to keep updating their wills? How will they stay fruitful?

Mrs. YELLEN. Dodd-Frank contends for the largest banking organizations to structure themselves and to have in place processes that would enable them to be resolved if they were to fail under the bankruptcy code with Title II or the orderly liquidation authority that would be used by the FDIC being a backstop that would be available if it were impossible to resolve these firms under the bankruptcy code.

So, we are insisting that firms put in place structural changes, governance mechanisms, make sure that they have adequate capital, gone concern, loss absorbency, liquidity in the right places, everything that we think would maximize the odds of success in resolving such a firm under the bankruptcy code, and the living wills that have evolved over time as the banks understand better what is needed, and we do as well, set out their expectations for how they could be resolved under the bankruptcy code. In the event they encountered trouble, these are very helpful documents to have available.

Now, you mentioned that Wells Fargo, the FDIC, and the Fed did not find their initial living will a year ago to be non-credible. We did, nevertheless, identify a set of shortcomings that we wanted to see remedied and in the last submission that we evaluated and we have put all this information out publicly in the letters to the firms.

Ms. MOORE. My time is running short, so I just really do want to get to the point. There is a call for ending it. What would be the consequences of that?

Mrs. YELLEN. For ending orderly liquidation?

Ms. MOORE. Yes.

Mrs. YELLEN. I believe that is a very important backup authority for the FDIC to have.

Ms. MOORE. What will happen if we don't have it?

Mrs. YELLEN. If you don't have it and a firm were to fail, and we don't know what the circumstances would be, they might be such that it were difficult to resolve under the bankruptcy code.

Ms. MOORE. Would that be a bailout for the taxpayers if we—

Mrs. YELLEN. If the orderly liquidation provided—

Ms. MOORE. If we didn't have that?

Mrs. YELLEN. The taxpayers would be in a difficult situation.

Ms. MOORE. That is what I would like to know.

On the regulatory capital, there are pros and cons to just simple leverage, but there is also risk weighting like Basel. Could you provide your thoughts on what the right amount of banking capital would be if we went to simple leverages without other prudential protections?

Mrs. YELLEN. I think it would be a very bad idea to only have a leverage ratio that would encourage banking organizations to take on risks by loading up their balance sheets with riskier assets. That happened prior to the financial crisis. It is why we went to risk weighting. So, I think it is useful to have such a ratio as a backup measure, but not sufficient. And I also think for systemic firms that stress testing, which is a different and forward-looking capital exercise, is also necessary.

Ms. MOORE. Thank you so much, Mr. Chairman.

Chairman HENSARLING. The time of the gentlelady has expired.

The Chair recognizes the gentleman from Texas, Mr. Neugebauer, chairman of our Financial Institutions Subcommittee, for 5 minutes.

Mr. NEUGEBAUER. Thank you, Mr. Chairman.

Chair Yellen, you and I have had several discussions about the need for U.S. bank regulators to do a kind of comprehensive study of post-crisis regulation, similar to what the EU is currently doing. I really continue to be disappointed that we are in a mode right now where we implement first and study later. And to continue that discussion, I wanted to have a little bit of a dialogue with you.

Now, is it correct that the total loss absorbing capacity or the TLAC rule was designated to strengthen the ability of the largest domestic banks to resolve without government support?

Mrs. YELLEN. Yes. That is true. It is to provide gone concern loss absorbency that could be used in a Title II resolution, or alternatively, most of the large banking organizations indicated in their living wills—

Mr. NEUGEBAUER. So, it is designed to reduce the systemic footprint of the U.S. G-SIBs right?

Mrs. YELLEN. It is designed to aid an orderly resolution.

Mr. NEUGEBAUER. And is it correct of the Federal Reserve proposal to impose single counterparty limits on U.S. banks is a rule that would reduce the systemic footprint of U.S. G-SIBs?

Mrs. YELLEN. It is designed to do that, yes.

Mr. NEUGEBAUER. So, in the G-SIBs surcharge rule then, the Federal Reserve states that it is designed to reduce G-SIBs, now I am going to quote, says it is designed to reduce "GSIBs probability to default, such as G-SIBs suspected systemic impact and approximately equal to that of a large non-systemic holding company." So does the G-SIBs' surcharge methodology and calibration

structure take into account these other steps that you have taken to reduce systemic risk?

Mrs. YELLEN. I think it does. The idea here is that a G-SIBs failure would have systemic repercussions and result in cost to the economy, even if it could be resolved. And therefore, it is appropriate and Dodd-Frank was very clear on this, it is appropriate for those firms to be more resilient and less likely to fail. And by insisting that they hold more capital, that is a way of making them more resilient. And the capital surcharges take account of not only their size, but measures of interconnectedness with other parts of the financial system.

Mr. NEUGEBAUER. It just appears to me, Chair Yellen, that we are pancaking here. We say, well, this is designed to reduce systemic risk, and then we say, well, but this is designed to reduce systemic risk, well, maybe we didn't go far enough and this is designed to, and we are really not looking back. Or maybe you have. Have you done an analysis of what the impact of some of these other ones that we discussed earlier are going to have and what?

Before you said, let us look at a surcharge on top of that, did you do an analysis of the impact and basically a cost/benefit analysis? Because I think what I look at is it is kind of like going through a buffet. I think the Fed is going through a buffet. I don't know about you, but when I go through a buffet I have a big problem. I take a little of this, oh, that looks good, I will take a little of that, then I take a little of this. And when I get to the end of the check-out, I have more food than I probably should eat.

I am concerned here, and I think that is what the EU is saying right now is, before we layer more and more regulations and prohibitions on the financial sector, maybe we ought to look and see what the impact is on it. Are you all having those conversations?

Mrs. YELLEN. At various points, we have looked pretty carefully at what the impact is of these rules on the costs and benefits to society as a whole. And the overwhelming conclusion that comes from those studies is that a financial crisis is immensely costly, takes an immensely costly toll on American households, workers, and businesses—

Mr. NEUGEBAUER. So is the goal here to make these institutions fail-proof or just to make sure that the American taxpayers don't have to bail them out in the event that they do fail?

Mrs. YELLEN. I think we are trying to reduce the odds that they get into trouble and take a toll on the U.S. economy.

Mr. NEUGEBAUER. The question is, are you trying?

I think the Fed is trying to make these entities fail-proof. And I think it is kind of spilling over the entire financial community. So basically, I think what we have now is we have trying to run banks. I am not sure that when we look at the anemic growth, you are trying to paint a rosy picture, but the economic data out there is not all that rosy.

Mrs. YELLEN. I guess I would respond by saying that credit has been growing at a healthy rate.

If you look at surveys, for example, the National Federation of Independent Business, small and medium-sized businesses are not reporting that lack of access to credit is among their most significant problems. We have had great improvement in the U.S. econ-

omy. And most banks, even though it is a challenging, low-interest-rate environment, remain profitable and we have a safer financial system.

Chairman HENSARLING. The time of the gentleman from Texas has expired.

The Chair now recognizes the gentleman from Connecticut, Mr. Himes.

Mr. HIMES. Thank you, Mr. Chairman.

And welcome, Chair Yellen.

I want to make a quick statement. As you hear the scrutiny and criticism of the other side, I want to say that a lot of us subscribe to a point of view held by much of the economic profession, which is that this place, the Congress, abdicated its economic role in 2010 in favor of austerity, giving up an opportunity to do a massive investment in infrastructure and any number of other things that I think would have actually helped the economy in favor of austerity, which while it reduced the deficit fairly dramatically, has been a drag on our economic growth, leading the Federal Reserve to stand on its own with monetary policy, not an ideal situation.

But many of us appreciate the position that the Fed was put into, and many of us will go to the mat to defend the Fed against the many ideas that would damage the monetary policy independence of the Fed.

My question really pertains to something that you just closed on. There is a narrative developing that while credit markets as a whole are robust and the facts show that, whether it is the high-yield market or the IPO market, you name it, credit markets are strong for corporate America, but that is not true for small and medium-sized enterprises. The narrative, as it has developed, is that is true, and that is a question to you. You seem to believe that it is not.

Number two, the second part of the narrative is that the reason for that is bank regulation. I will just quote from one Wall Street research report that says, "New banking regulations have made bank credit more expensive and less available. This affects small firms disproportionately." So, my question is, are we in fact seeing a supply problem in terms of credit to smaller businesses, and is there any evidence that this is attributable to new bank regulations?

Mrs. YELLEN. Small businesses often find it more difficult to get access to credit.

We know that frequently small businesses or startup businesses, the owners will use their credit cards and personal credit worthiness in order to take out loans. They may have less access to capital than established businesses, but I don't—

Mr. HIMES. Pardon me, that has always been true. But has that changed?

Mrs. YELLEN. That has always been true. I wouldn't say I have seen any data suggesting there is a significant change. I know the decline we had in house prices made it more difficult for a while for small businesses, for example, to use a home equity loan to finance a business.

But that is not a small-business loan. I think every indication I have seen suggests that the supply of credit remains healthy to

small businesses, that it doesn't rank among the top of their concerns, that the demand, we meet with many banking organizations to discuss this issue, and they say the demand for credit by small businesses and medium-sized businesses remains somewhat depressed.

But I think the supply and availability of credit are there. We have not seen negative changes that I am aware of.

Mr. HIMES. And is this true throughout the Fed's many regions?

Mrs. YELLEN. I believe so. I am not aware of evidence to the contrary.

Mr. HIMES. Okay. So to part two of my question, again, you have said that is not a reality, or at least not a material reality. So part two of the question is a little more challenging, which is, is it attributable to new banking regulations on small providers of credit?

Are we seeing, are you, is the Fed observing dislocations in the credit market to small and medium-sized enterprises that might be attributable to new regulations?

Mrs. YELLEN. We know that there are community banks that are struggling under regulatory burdens, and we are doing everything that we possibly can to address that.

The fact that we are in a low-interest-rate environment also tends to put downward pressure on net interest margins that harms bank profitability. So it is a difficult environment for community banks.

And as I said, there have always been in rural areas and for some small businesses difficulties in gaining access to credit. But I have not seen a change that would be attributable to the financial regulations we have in place.

Mr. HIMES. Thank you. In my last 30 seconds, you said the Fed is doing everything they can to alleviate the burden on community banks. Can you just elaborate for 20 or 30 seconds on what the Fed is doing there?

Mrs. YELLEN. We have significantly increased the exemption under our small bank holding company policy rules so that now all holding companies under \$1 billion are not subject to our consolidated capital rules.

We have changed our exam processes to do more work off-site to make our exams more tailored. Through the EGRPRA process we are looking to reduce our regulatory burden. And we are contemplating a simplified capital rule for well-capitalized banks that would—

Chairman HENSARLING. The time of the gentleman from Connecticut has expired.

The Chair now recognizes the gentleman from Missouri, Mr. Luetkemeyer, chairman of our Housing and Insurance Subcommittee.

Mr. LUETKEMEYER. Thank you, Mr. Chairman.

Chair Yellen, at a conference in June 2011, your predecessor, Chairman Bernanke, was asked a simple question in reference to the thousands of pages of Dodd-Frank and the tens of thousands of pages of implementing regulations. He was asked, "Has anyone bothered to study the cumulative effect of these things? Is all this holding back the economy at this point?"

And Chairman Bernanke responded, “Has anybody done a comprehensive analysis of the impact? I can’t pretend anybody really has. It is just too complicated. We don’t really have the quantitative tools to do that.”

So following up on Chairman Neugebauer’s line of questioning here, you were asked, does the Fed study any of this? So I guess the question is, has an analysis been done of the cumulative effect of Dodd-Frank regulations as well as Basel III on broader economic variables such as credit availability, economy growth, capital formation, and job creation? Have you done any studies on that?

Mrs. YELLEN. Perhaps the kind of comprehensive analysis of everything that you are looking for hasn’t been undertaken, and I guess I would agree with Chairman Bernanke’s remarks. But Congress set out pretty clearly a road map for the regulators in terms of ways they wanted to see financial regulations—

Mr. LUETKEMEYER. If you don’t have the tools, the ability to study this, how can you make regulations that pinpoint what you can do to improve the economy or know the effect of those rules?

Mrs. YELLEN. Every time we put out a rule, we do an internal study of how to minimize burden under that rule. And we take public comments and ask for alternatives that could achieve the same goals with reduced burden. And so we are taking costs into account and trying to minimize those costs, while achieving—

Mr. LUETKEMEYER. Okay. If you are doing it, Madam Chair, why, in the last 5 years, have there been almost no new bank charters issued? Why? What is your reasoning for that? Is it regulation? Or is it low interest rates?

Mrs. YELLEN. The work that I have seen suggests that the challenging economic environment, a low-interest-rate environment and a sluggish economy—

Mr. LUETKEMEYER. So regulation doesn’t have anything to do with this?

Mrs. YELLEN. I am not aware of any studies that suggest that regulations are responsible for that.

Mr. LUETKEMEYER. In your testimony you talk about how housing has continued to recover gradually. And if you look at the home building market, there are actually fewer home mortgage loans now than there were a year or two or three ago. And I go home and I talk to my local community banks, and there are some that got completely out of the home mortgage lending business.

And so they go back and they point to rules and regulations as the reason for not doing this. They can’t comply. They can’t hold things in portfolio without being qualified, which infers there is an extra risk with their loans. They just said, we are not going to deal with the risk. And so now you have community banks no longer serving their communities, which is disastrous, in my mind.

So the question is, these banks are telling me it is rules and regulations that are keeping this from happening. And the CFPB is kind of the main culprit here, with the QM rule and TRID. Do you coordinate at all with other agencies, whether it is the CFPB, the Treasury, other agencies when these rules are promulgated to see if there is a cumulative effect that could be negative out there that everybody should be watching for?

Mrs. YELLEN. We coordinate, many of our rules are joint with the other banking agencies.

Mr. LUETKEMEYER. Did you coordinate with the CFPB?

Mrs. YELLEN. In the case of the CFPB, they are required to consult with us and we often offer comments to—

Mr. LUETKEMEYER. So, did they accept your comments? Or did they ignore them?

Mrs. YELLEN. There are a number of them. I would agree with you when it comes to mortgage credit that the new rules that we have, which are designed to end the abuses we saw in subprime lending and in the housing crisis—

Mr. LUETKEMEYER. This all goes back—

Mrs. YELLEN. They have made credit more difficult to obtain for individuals—

Mr. LUETKEMEYER. This all goes back to monetary policy from the standpoint that rules and regulations are strangling our economy so that people can't participate in the economy. And that goes back to, whether you are adjusting interest rates and trying to play with unemployment, that all goes back to the fact that you are dealing with lives every day, with the rules and regulations that you are messing with.

And I think we need to understand the importance of that. And when you see the impact, fewer mortgage loans, banks not being formed. And a while ago you talked about the small-business folks, we had fewer small businesses, fewer businesses created in the last 5 or 6 years than we lost.

Mrs. YELLEN. True.

Mr. LUETKEMEYER. That is the wrong direction. Small businesses are where you generate the jobs. And if we are not allowing those folks to be created, we are hurting ourselves. And it goes back to rules and regulations and monetary policy.

Please do the research. Thank you.

I yield back.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Delaware, Mr. Carney.

Mr. CARNEY. Thank you, Mr. Chairman.

Thank you, Chair Yellen, for coming in today. You are here for your twice-a-year report on Humphrey-Hawkins. And I haven't been able to read all of your monetary policy report or your opening statement, but I have gotten through some of it. And I just have really a couple of questions that maybe you could address.

You say early on that inflation has continued to run below our 2 percent objective. The Federal Open Market Committee expects inflation to rise to that level over the medium term. So you are meeting your target there. However, the pace of improvement in the labor market appears to have slowed more recently, suggesting that your cautious approach to adjusting monetary policy remains appropriate.

What other things in the economy suggest that it may be slowing down? We are pretty far out in this economic expansion. Are there other things in your report that you could point to?

Mrs. YELLEN. There are mixed developments in the economy. One thing we do note is that investment spending has been unusu-

ally weak in recent months. And the combination of particularly weak investment spending and, of course, investment spending has been very weak because of the decline in drilling and drilling and mining activity. The rig counts are way down because of the decline in energy prices. But we have seen weakness also outside of that. And the combination—

Mr. CARNEY. Is that an overall plus or minus for the economy, the lower prices?

Mrs. YELLEN. It is not a plus for the economy because, first of all, it is a part of spending that supports growth, but it is highly relevant to productivity growth.

Mr. CARNEY. Right.

Mrs. YELLEN. And productivity growth has also slowed. So we are watching that carefully. We have a drag from slow growth in the rest of the world and a strong dollar that is negatively impacting trade-exposed sectors including—

Mr. CARNEY. So, there are some pretty significant headwinds.

Mrs. YELLEN. There are some headwinds. But on the other hand, we do have strengths. Consumer spending is particularly strong. And balancing everything out, we have an economy that is, for the last four quarters, growing about 2 percent.

Growth was quite slow in the first quarter at the end of last year. It looks to be picking up. So, while we are watching things, I don't want to send a message of pessimism about the economy and where we are going.

Mr. CARNEY. So there is some pessimism underneath the unemployment numbers, which suggests that certain subgroups, African Americans and Hispanics, have higher unemployment rates, and you note that in your report.

Mrs. YELLEN. Yes.

Mr. CARNEY. Is there anything significant there that you can point to with respect to that issue?

Mrs. YELLEN. I think we should be very concerned about the fact that there are subgroups of the population who experience lower income and more distress in the labor market. And think about what we can do to address the problems of those groups. They have seen improvement.

Mr. CARNEY. What about the quality of the jobs in that job group? I was talking to some folks the other day in my State of Delaware, and one of the guys in the conversation said, "We need new old jobs." And I knew exactly what he was talking about. We need the old kind of manufacturing jobs that we had at Chrysler and General Motors in our State, manufacturing jobs that paid a good income.

Can you comment on that, the quality of the jobs that are being created?

Mrs. YELLEN. So probably the quality of the jobs that are being created, we have created a lot of high-end jobs. So, it is not only—

Mr. CARNEY. High-end jobs?

Mrs. YELLEN. High-end jobs for skilled workers.

Mr. CARNEY. Highly educated, skilled workers.

Mrs. YELLEN. Right. And a lot of the kinds of jobs that you are referring to and middle-income jobs they disappeared. They declined and were hard hit in the downturn.

But over a longer period of time, probably since the mid 1980s, there have been a combination of pressures that have made those jobs fewer and far between.

Mr. CARNEY. So I don't know that you have monetary policy tools that you can use to address that. But on our side, on fiscal policy, we should be thinking about those kinds of tools that we might deploy.

Mrs. YELLEN. I think so. We are talking about secular trends relating to the nature of technical change and how it has raised the demand for skilled labor, trends relating to globalization. And then, what are we doing in terms of education, workforce development investment in your domain?

Mr. CARNEY. Thank you very much.

Chairman HENSARLING. The time of the gentleman has expired. The Chair now recognizes the gentleman from Wisconsin, Mr. Duffy, chairman of our Oversight and Investigations Subcommittee.

Mr. DUFFY. Thank you, Mr. Chairman.

And welcome, Chair Yellen. It is good to see you.

I listened intently to your testimony and your commentary on the headwinds to our economy that I think all of us follow very closely, since it has a direct impact on all of our constituents.

But I didn't hear you comment on a couple of issues that concern me. Last year, there were 81,000 pages of new regulation. Between 2009 and 2015, there were 550,000 new pages of regulation. Would you consider that a headwind for economic growth?

Mrs. YELLEN. You are referring to our regulations?

Mr. DUFFY. No, no. I am talking about government regulations across the spectrum. I hope you don't have 550,000 new pages of regulation at the Fed.

Mrs. YELLEN. I don't think we do.

Mr. DUFFY. No, I don't think you do, either. You have a lot.

Mrs. YELLEN. We have additional regulations, we certainly do.

The regulations that have been put in effect generally are intended to address problems.

Mr. DUFFY. That is not my question. Are these headwinds to the economy or not?

Mrs. YELLEN. It is very hard to quantify the extent to which regulation is a headwind.

Mr. DUFFY. But it would be a headwind?

Mrs. YELLEN. Businesses certainly cite regulation as a factor affecting their decision-making.

Mr. DUFFY. Then why don't you cite it? If the businesses that you talk to cite this as a headwind, why don't you cite it as a headwind?

Mrs. YELLEN. I actually don't think it is the most important headwind. It may be a headwind.

Mr. DUFFY. Okay. And the U.S. corporate tax rate, 31.9 percent, the OECD average of corporate tax rate is 24.1 percent. We pay 15 percent more in corporate taxes. That is 15 percent less money that goes into wages and economic development, research and development. Do you see that as a headwind?

Mrs. YELLEN. I think it is widely agreed that there could be constructive changes to the corporate tax system.

Mr. DUFFY. I have an individual in Wisconsin, that is where I am from, who has a manufacturing facility. He manufactures in Wisconsin and has facilities all over the country. And most manufacturers in his industry have all left America, they have all gone overseas. He is one of the few that are left.

And he talks about how he spends \$15,000 a year per employee on insurance, and \$20,000 per employee on regulatory compliance. So \$35,000 goes out the door per employee before he pays them one red cent in salary. Do you see that as a headwind?

Mrs. YELLEN. These tax arrangements do have impacts on the profitability of various business activities.

Mr. DUFFY. So, you would agree that would be a headwind? Or is that a benefit? Does that help him out? Does that help him grow jobs and salaries in his company, that \$20,000 in regulatory compliance cost?

Mrs. YELLEN. Different countries have different systems for dealing with health care and financing it. And the impacts are complicated.

Mr. DUFFY. I will accept that as a non-answer.

I want to change course a little bit. Looking back at the 2008 crisis—you have been at the fed For a while—were there any banks that failed that had a leverage ratio of 10 percent or higher that you are aware of?

Mrs. YELLEN. I don't—

Mr. DUFFY. If so, give me their names, if you would.

Mrs. YELLEN. I don't know. But I can tell you that a lot of banks that failed were considered to be well-capitalized at the time that they failed.

Mr. DUFFY. That is not my question, though. There are different definitions of well-capitalized. Do you know of any one bank that had a leverage ratio of 10 percent or higher failed?

Mrs. YELLEN. I do not know.

Mr. DUFFY. Because I have looked and I haven't found one in the 2008 crisis that failed with a leverage ratio of 10 percent or higher.

And so I think you are aware that this committee is talking about a reform to Dodd-Frank, and I know that you are aware that many banks complain about the cost of compliance and what that does for them to make loans that would be good loans and traditional loans that they could usually make, but now they can't because of new regulation which has an impact on our economy, economic growth, job creation.

Do you oppose the idea that if you have a high leverage ratio, you hold good capital, that you can get out of some of the costly regulations that come from the Fed and other regulators?

Mrs. YELLEN. I do think that for community banks it would be worthwhile to put in place a simplified capital regime. And the details, I am not certain of, but we are looking at this as well.

Mr. DUFFY. Do you agree there is a correlation, though, between more capital and less regulation? Can you buy into that concept?

Mrs. YELLEN. I think for community banks, yes.

Mr. DUFFY. Because we are safer, right? We hold more capital, there is less risk to the economy.

Mrs. YELLEN. For community banks, I think a simplified regime where there is less regulatory burden—

Mr. DUFFY. For larger banks, the answer is no?

Mrs. YELLEN. I said for community banks.

Mr. DUFFY. So, is the answer no for larger banks?

Mrs. YELLEN. For systemically important banks, the answer is no.

Mr. DUFFY. My time has expired.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Illinois, Mr. Foster.

Mr. FOSTER. Thank you, Mr. Chairman.

I have a quick two questions for the record. The first, you had indicated earlier in your questioning that there was a situation of super strong economic growth where the Fed may have a period of negative income.

And I was wondering if you could just provide a brief write-up of what that scenario would look like, in particular looking at the consolidated balance sheet of the government and acknowledge the fact that this super strong economic growth would be accompanied by a very large increase in tax revenues.

And yes, would it be possible for you to make just a brief write-up? Or if you have a more detailed one, that would be great, too.

Mrs. YELLEN. Yes, I think we could certainly do that.

Mr. FOSTER. Thank you.

Secondly, earlier this week, Moody's Analytics published a macroeconomic analysis of the policy proposals of one of the presidential candidates and they are in the process of doing a similar analysis for both presidential candidates. It is my understanding that you have a similar macroeconomic model that you run. I was wondering, would it be possible for you to run in your models the assumptions and see if you reproduce their results? Because they were rather impressive, there was trillions of dollars of loss to economic activity due to at least one set of these policy proposals.

Mrs. YELLEN. Congressman Foster, we are a nonpartisan organization and I don't want us, either me as the leader or our organization, to be involved in analyzing partisan issues.

Mr. FOSTER. This is simply verifying the math, this is a mathematical question, a modeling question.

I am not asking you to question or evaluate the assumptions. I am just saying under these assumptions, do you reproduce their numbers? Because you know, obviously, policymakers are at the mercy of the details of these very complex macro models. It would be reassuring to understand that there is some agreement between macroeconomics that you are talking in similar terms. Anyway, if you could—

Mrs. YELLEN. I would say that our model, one of our workhorse models is in the public domain. We publish it on our website. If someone wanted to do it, they could download our model and feed in those assumptions.

Mr. FOSTER. And reproduce those results? Do you find in general that there are not big differences? You are familiar with the Moody's modeling and so on? Or do most of these models produce comparable results?

Mrs. YELLEN. I am not deeply familiar with the Moody's model. My guess is it is similar in many ways to ours. But again, I am

not certain about the details, but our model is available to perform that kind of analysis.

Mr. FOSTER. Sounds like a good job for a think tank, I guess.

Okay, another sort of detailed, technical question. There have been reports that the European Commission is considering delaying the going live of margin requirements for unclear derivative trades. I believe that we are on schedule to have them go live in September, the beginning of September, and that there is some foot-dragging, at least reports of it. Is that something you are willing to engage the EC that they not do this, not delay these?

Mrs. YELLEN. We have worked very hard to put these in place. It is important that we put it in place here, and my understanding is that the delay will be very short.

Mr. FOSTER. Thank you.

Another technical issue. Right now, the supplemental leverage ratio rule requires custody banks to hold capital against their deposits on the Federal Reserve. This is presumably a worry about some future scenario where the Federal Reserve will not be a reliable counterparty in some sort of financial panic. I was wondering if you would comment on the logic of this requirement to hold capital against deposits at the Fed?

Mrs. YELLEN. So, a leverage ratio is typically not in a capital regime, it is not the binding requirement. It is a backup, simple measure that assesses capital against an entire balance sheet based on its size without differentiating the different riskiness of different assets. And it has always been imposed in this way.

Mr. FOSTER. Custody banks are in a sort of unique position, as they have potentially very large and transient deposits of the Federal Reserves. I think for very good reasons, that is a behavior you want to encourage. And I just—it is a concern that I and other Members have expressed. And I think you should continue to look at that.

Mrs. YELLEN. We will do so.

Mr. FOSTER. Okay. Let's see, the last thing that I guess is relevant to those who are wearing the green shirts in the audience here.

The Federal Reserve recently published an international finance discussion paper called, "Doves for the Rich and Hawks for the Poor," which made the point that the real distributional consequences of whether in response to a monetary shock you try to maintain constant employment or constant pricing. And I was wondering, is that sort of thinking leaking into your consciousness?

Mrs. YELLEN. We are certainly very focused on maximum employment and wanting to promote stronger job markets with gains to all groups.

Chairman HENSARLING. The time of the gentleman from Illinois has expired.

The Chair now recognizes the gentleman from New Hampshire, Mr. Guinta.

Mr. GUINTA. Thank you, Mr. Chairman.

Good morning, Chair Yellen. Thank you for being here today.

Since the Federal Reserve was created in 1913, we have seen the Great Depression, the stagflation of the 1970s, the Great Recession, and currently one of the slowest economic recoveries in quite some

time. When the Federal Reserve makes artificial decisions, setting interest rates, or fails to properly communicate on its monetary policy, it creates market volatility in my opinion, which weakens the effectiveness of the markets, making it harder for economic opportunities for all Americans.

As you know, there has been considerable pushback to the Fed's current approach to stress testing financial institutions from those who believe that the process has become increasingly arbitrary and unpredictable. The committee has heard concerns from regional banks that are subject to the stress tests that the exercise is not tailored to their size and complexity, which results in significant costs that outweigh any potential benefit from a safety and soundness perspective.

To increase the transparency of the stress test process and ensure that Congress can hold the Fed accountable for its role in administering the tests, I would like to ask you, would you support legislation to require the Federal Reserve to issue regulations subject to public notice and comment spelling out in detail the scenarios it would rely upon in conducting those stress tests?

Mrs. YELLEN. I wouldn't support such legislation.

I think it is very important that the scenarios be current and reflect risks that we assess to be important and relevant at a particular time that we are conducting those stress tests. And the delay that would be caused by putting out for comment particular scenarios would result in the test being stale.

We put out a great deal of information about the stress tests. Our approach has been put out for public comment. We have model symposia, we have put out a great deal of information. And I don't think that would result in a stronger process.

Mr. GUINTA. How often do those environments change on an annual basis?

Mrs. YELLEN. We have new scenarios every year that we give to the firms and it is important that they—

Mr. GUINTA. So, annually?

Mrs. YELLEN. We put out a different set of scenarios annually.

Mr. GUINTA. Why couldn't that legislation be updated annually?

Mrs. YELLEN. Because the delay in having public comment and revising things based on public comment would mean that we would have to start very much earlier, and wouldn't have the advantage of developments that had taken place

Mr. GUINTA. But it is possible to do that—don't you think we could complete that in a 12-month period?

Mrs. YELLEN. I don't think that it would add anything to the process and I think that it would make the scenario stale.

Mr. GUINTA. I think it is important for accountability and I think it is also important for transparency. I think if we had this kind of requirement on an annual basis, we would probably have both.

But I want to move on to a different issue. Dodd-Frank established the CFPB as a bureau within the Federal Reserve System. Can you tell me which of Richard Cordray's decisions must be submitted to you for your approval?

Mrs. YELLEN. We don't approve decisions. The CFPB has to consult with us in the course of drawing up proposals. And I believe

that they have done so when we have tried to provide feedback and useful input.

Mr. GUINTA. How often does Richard Cordray consult with you personally?

Mrs. YELLEN. I have not consulted with him personally.

Mr. GUINTA. So who are they consulting with then?

Mrs. YELLEN. With our staff.

Mr. GUINTA. Do you review and approve the CFPB's budget?

Mrs. YELLEN. No, we don't approve their budget.

Mr. GUINTA. Can you by law?

Mrs. YELLEN. I believe the answer is no.

Mr. GUINTA. I am told that the CFPB gets its funding simply by sending a letter each quarter requesting, in most cases, in excess of \$100 million. Do you know if that is accurate?

Mrs. YELLEN. I don't know the details of their budget, but we follow the law in—

Mr. GUINTA. You personally don't review the requests?

Mrs. YELLEN. I don't think so. No. No, we do not.

Mr. GUINTA. Wouldn't you want to, as the head of the Federal Reserve, since they are created under your purview?

Mrs. YELLEN. Congress set up a system in which we fund them, but don't decide what their budget should be.

Mr. GUINTA. Do you have any idea what their last budget request was?

Mrs. YELLEN. I don't recall.

Chairman HENSARLING. The time of the gentleman has expired. The Chair now recognizes the gentleman from Washington, Mr. Heck.

Mr. HECK. Thank you, Mr. Chairman, very much.

Chair Yellen, I think almost unarguably, there is no person more responsible for the state of the economy than you are.

And in my humble opinion, you have a pretty good track record in that regard. Car sales are up. Home sales are up. A constant steady drumbeat of private sector job creation has accumulated. And yet, I cannot shake the feeling that it is way too premature to put out the "mission accomplished" banner on the aircraft carrier and I think most Americans agree.

I also think that the reason for that is because of an absence of wage growth. I think we are ticking upward now at about 2½ percent. I know you will cite that, so I will do it first. Put frankly, Chair Yellen, that is fairly de minimis compared to the last recovery when it was 4 percent. My question is very straightforward, when does America get a pay raise?

Mrs. YELLEN. I think we are beginning to see slightly faster wage growth based on average hourly earnings. Wage growth is, over the last 12 months now, about 2½ percent and that is up from the very low level it was. Readings on compensation, hourly compensation are very noisy, so it is hard to know, but it looks like we are seeing somewhat faster wage growth. I hope that it will be permanent.

And other measures, other wage indicators, like the Atlanta Fed's Wage Tracker, do show an improvement in wage growth. And I do believe that as the labor market continues to improve, and I certainly expect, and it will be our policy to continue to see further improvement, that will move up. But I would say one factor that

is a negative with respect to wage growth that we didn't have, for example, in the second half of the 1990s, is that productivity growth has been very slow.

So, if you ask what is a sustainable level of wage growth, given our 2 percent inflation target, kind of a rough measure, and of course this applies over long periods, not a quarter or even a year, that wages can grow at the rate of productivity growth plus the rate of inflation. So, with a 2 percent inflation target, you would expect wage growth of 2 percent plus productivity growth, trend productivity growth. Now, I believe since 2010 productivity growth has been running at a meager 1/2 percent per year.

Mr. HECK. May I interrupt and ask if you think we are still accurately measuring productivity growth? Because I note a growing body of literature and scholarship around that question, that we may not be accurately measuring it anymore, do you believe that we are accurately measuring it?

Mrs. YELLEN. I think there is mismeasurement and the work has shown that there is—

Mr. HECK. Can I ask you a question?

Mrs. YELLEN. And definitely declines due to an increase in mismeasurement.

Mr. HECK. I would like to ask you a question, however, about the relationship between employment and wage growth.

We are at the Fed's historic definition of full employment at 4.7 percent, but we are still significantly above, that is U-3, we are still significantly above on U-6. If they could put that slide up, I would appreciate it.

I think the latest number was 9.7 percent. The gap between U-6 and U-3 is greater than it was pre-recession.

So, Chair Yellen, what does U-6 have to be at to constitute what you would deem to be full employment? And what would be the relationship of that measure of full employment? Because we still have 10 percent of the employment base which either isn't employed and wants to be, is discouraged, or working part time and wants to work full time. What is the relationship? What is the point at which U-6 is "full employment," and then what would be the effect on wage increases? Because I think at the end of the day, most Americans and even everybody on this panel, these and ours, would like to see America get a pay raise.

Mrs. YELLEN. I agree with what you just said, that U-6 is not back to pre-recession levels to, say 2007 levels, U-3 is. Involuntary part-time employment which is in U-6 is very high relative to pre-recession levels.

Mr. HECK. I have 4 seconds, can you give me a number, Chair Yellen? What is full employment under U-6?

Mrs. YELLEN. I am not sure of the number but it does show a margin of slack.

Mr. HECK. A range?

Mrs. YELLEN. Adding part-time employment to an unemployed person is a difficult thing to do.

Mr. HECK. Thank you. Just let me conclude by saying I am not sure why you take your foot off the pedal before we—

Chairman HENSARLING. The time of the gentleman from Washington has expired.

The Chair now recognizes the gentleman from Oklahoma, Mr. Lucas.

Mr. LUCAS. Thank you Mr. Chairman.

Chair Yellen, as you know, I also sit on the House Agriculture Committee, and I have a particular interest in the creation and implementation of rules governing our derivatives market and ensuring that a level playing field exists for U.S. companies. I would first like to commend the Fed's efforts in working to set global standards within these markets. I think can all agree that it is certainly in the best interest of U.S. competitiveness that as global standards are developed there is consistency in the rules and their effective dates throughout various jurisdictions.

I would therefore like to discuss the European Commission's recent announcement that it will delay implementation of the margin rules for uncleared over-the-counter derivatives until mid-2017. The United States currently plans to move forward with an agreed-upon implementation date of September 1, 2016. And while the United States is ready to move forward, I am very concerned about the impact that this variation in effective dates will have on U.S. companies.

Given this likely variation date on the implementation dates, what can be done to mitigate fragmentation and to ensure that a level playing field exists for U.S. firms?

Mrs. YELLEN. We have worked very hard to get ready to implement these rules. The firms are ready to put them into effect. And my understanding is that the delay from the EU is going to be short. And we will continue to monitor that. These are markets where it is important to have a level playing field, I agree with that.

Mr. LUCAS. But even in the briefest of times, assuming that it is a year or less, September of 2016 to sometime in mid-2017, should we be concerned that market participants will limit their trading with U.S. counterparties during this period of time? Will we change their habits and patterns while they look for standards or opportunities that might be slightly more advantageous assuming the new rules will be more restrictive than the existing system? Should we be concerned that people will do business outside of the United States during this period?

Mrs. YELLEN. Hopefully, it will be a very short period.

Mr. LUCAS. I guess ultimately where I am going, Chair Yellen, is I represent constituencies in Oklahoma in agriculture and energy that use these products, both in the production of, the processing of, and the ultimate retail sales of. They are products that I am told that their bankers insist upon using, that both banking regulators at state and Federal level insist that they be used.

My concern is that if we move forward ahead of the Europeans, we will create a situation for months or a year that will disadvantage not only the consumers of these derivative products, but the market makers, too. And once patterns are established, will we be able to overcome that sometime in 2017 or later? So ultimately, I am asking you, suggesting to you that it might well be in the Fed's and the economy's best interest to continue to try to coordinate our effective dates with the Europeans. And if they are not going in

2016, maybe we shouldn't go either. Do you see where I am coming from on this point?

Mrs. YELLEN. I do. It is an issue we need to watch carefully. If there is a delay in Europe, we need to consider what impact it will have and to work closely with the Europeans to make sure this is a—

Mr. LUCAS. As you know, and as our colleagues on this committee know, we are talking about a tremendous amount of dollars in business. We are talking about establishing patterns, relationships. I just worry that this will create an undue burden on my constituents and on the market makers in this country, and that we won't be able to recover. Whether it is an accident that the Europeans are delaying or it is a good business tactic, I don't know. We need to be coordinated in whatever we do, there is too much at stake.

Thank you for acknowledging that, Chair Yellen.

With that, on the behalf of my farmers and ranchers, I yield back, Mr. Chairman.

Chairman HENSARLING. The gentleman yields back.

The Chair now recognizes the gentleman from California, Mr. Sherman.

Mr. SHERMAN. Thank you.

The gentleman from Wisconsin talked to you about the number of pages of regulations. I practiced tax law, and advised a lot of small businesses. And this idea of number of pages of regulations is a great sound bite, but has nothing to do with actually making it easier for businesses to transact business. If you look at tax law, thank God we have long pages of regulations so we can find out what the answer is.

In the area of antitrust law, the regulations are basically non-existent. And so, you go to a law library and you read hundreds of pages of court decisions and you still don't know what the answer is. So, the idea that more pages of business regulations means more problems for business is a great political sound bite, but it is actually government agencies clarifying what the law means.

As to the tax rate, I would point out that we don't have a value-added tax in this country, which all those comparative countries do. There is no one who has put forth the plan to replace the revenue from the decline in the corporate income tax. And the one thing the majority party has suggested is eliminating the earned income tax credit to really sock it to families trying to make it on \$20,000 and \$25,000 a year.

There is, of course, a loss of manufacturing jobs. That is not because we have regulations that clarify what congressional statutes mean, that is because we got really bad trade deals that Congress has ratified or approved. And I will point out that Congress is now geared up to use the chicanery of a lame-duck session to approve a TPP deal that is terrible for America, so terrible that you can't find a presidential candidate who is willing to support it.

Chair Yellen, you are going to be told, you have been told in this room by many that your rates are too low, your balance sheet is too big. People who say that are wrong. America is under-performing. Our inflation rate is lower than your target. And our labor participation rate is lower than everyone's target.

As to the size of your balance sheet, I know that you focus on the effect it has on the economy as a whole. But there is also the tens of billions of dollars that you turn over to the Treasury. Do you and your fellow FMOC members ever spend any time wondering whether Congress is going to have the money to provide a school lunch program, a school breakfast program? When you factor in how big your balance sheet should be, do you envision hungry kids here in America and how the money you turn over to this Congress could be used to feed them?

Mrs. YELLEN. We are very focused on the dual mandate that Congress has given us, namely full employment and price stability. And the size of our balance sheet and the stance of monetary policy is all designed to promote those objectives rather than trying to make a profit.

Mr. SHERMAN. I would just say that earning—

Mrs. YELLEN. But we are pleased to be able to turn over \$100 billion checks, but that is not what draws policy. But we're glad to be able—

Mr. SHERMAN. Speaking on behalf of the Congress that would otherwise have to cut cancer research or cut school lunches, thank you for the \$100 billion checks and please do factor that in.

Mrs. YELLEN. You are welcome.

Mr. SHERMAN. The world is focused on Brexit. And it may be good or bad long term for the world. We don't know. That is a decision for Britain to make.

There are some at the extreme who are painting this as some immediate world calamity. I just want to ask a question about your schedule. Have you scheduled some sort of emergency meeting on Friday because you envision some great calamity happening to the world on Thursday, or is the British vote just one of the many things that you will consider at the next regularly scheduled meeting?

Mrs. YELLEN. It is a risk that we are monitoring. I have said that, we will be watching closely to see what the vote is and what possible repercussions it might have.

Mr. SHERMAN. But you haven't blocked off Friday and Saturday on your personal schedule for emergency meetings as if the hurricane is coming to envelope the entire world?

Mrs. YELLEN. No, I haven't.

Mr. SHERMAN. Thank you.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from California, Mr. Royce, chairman of the House Foreign Affairs Committee.

Mr. ROYCE. Chair Yellen, welcome.

I am worried that the Federal Reserve has created a third pillar of monetary policy, that of a stable and rising stock market. And I say that because then-Chairman Bernanke, when he appeared here, stated repeatedly that the goal of QE was to increase asset prices like the stock market to create a wealth effect. So it seemed as though that was the goal.

It would stand to reason then that in deciding to raise rates and reduce the Fed's QE balance sheet standing at a still-record \$4½ trillion, one would have to be prepared to accept the opposite re-

sult, a declining stock market and a slight deflation of the asset bubble that QE created.

Yet, every time in the past 3 years when there has been a hint of raising rates and the stock market has declined accordingly, the Fed has cited stock market volatility as one of the reasons to stay the course and hold rates at zero. So indeed, the Fed has backed away so many times from rate normalization that, and I think this is a conceptual problem here, that the market now expects stock market volatility to diminish the odds of a rate increase.

So, Madam Chair, is having a stable and rising stock market a third pillar of the Federal Reserve's monetary policy, if I go back to what I originally heard Ben Bernanke articulate?

Mrs. YELLEN. It is not a third pillar of monetary policy.

Mr. ROYCE. Right.

Mrs. YELLEN. We do not target the level of stock prices. That is not an appropriate thing for us to do.

Mr. ROYCE. I thought you would say that. So, the question I have as a follow up is, does that mean that you are prepared to accept stock market volatility or a slight deflating of the asset bubbles as the Fed proceeds toward normalization?

Mrs. YELLEN. We are going to look at what the trajectory is for the economy, for the goals Congress has assigned us, namely inflation and maximum employment, and take policies we think are appropriate to foster them.

Now, as the economy recovers, we have said we anticipate raising rates. What implications that may have for stock prices, one shouldn't assume that it will necessarily be a negative scenario for stock prices.

Mr. ROYCE. Right.

Mrs. YELLEN. Higher rates to some extent are already built into longer-term interest rates. Longer-term interest rates are anticipating a path of rising short-term rates. They do matter to stock market valuations, but so do earnings in a strong growth economy. We are not targeting equity prices, we are trying to achieve outcomes for the economy.

Mr. ROYCE. And then there is another aspect of this that I wanted to ask you. This is my last question.

In September of 2015, you were asked whether you were worried that given the global interconnectedness, the low inflation globally—

Mrs. YELLEN. The low inflation what?

Mr. ROYCE. —globally that we were seeing, were you worried that you may never escape from this zero lower bound situation? And you answered at the time that while you couldn't completely rule it out, that is not the way that you see the outlook or the way the committee sees the outlook.

Since that time, in February, Governor Brenner suggested that financial tightening associated with cross-border spillovers may be limiting the extent to which U.S. policy diverges from major economies.

New York Fed President Bill Dudley has said that global consequences can impact the monetary policy transmission mechanism in the United States and influence the effectiveness of our monetary policy in achieving our objectives.

So my question then is restating the question from last year, not will we never escape, but will we escape any time soon? And maybe to put it more clearly, does the Fed have the capacity to defy the global pattern of zero or negative rates, if it that is the global reality?

Mrs. YELLEN. We do have the capacity to have different rates than the rest of the world, but we have to recognize that differentials in our stance of policy impact, for example, the value of the dollar and that is a linkage back to the U.S. economy.

So, those linkages, as my colleague said, are important, but the bottom line is what happens in the rest of the world and their stance of policy it does matter, but it doesn't mean we can never—

Chairman HENSARLING. The time of the gentleman from California has expired.

The Chair now recognizes the gentlelady from New York, Ms. Velazquez.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

Madam Chair, the current wealth gap between upper-income households and the rest of the country is the widest it has been in the last 30 years. The Great Recession exacerbated this troubling gap and had profound effects along racial lines.

On average, African Americans lost 52 percent of their wealth. Latinos lost 66 percent, but Whites only lost 16 percent. What type of ramifications will this type of racial wealth gap have on our country's long-term economic growth?

Mrs. YELLEN. I think the trends that you discussed, and we discussed some related data in this monetary policy report, are extremely disturbing. There has been some research that has tried to look at the links between inequality and growth and they are frankly complex and I don't think we fully understand them. But one linkage is that higher-income individuals may spend less of their income than lower-income individuals.

So, rising inequality may suppress the growth rate of consumer spending and harm our growth in that way. There may be linkages in terms of ability and desire and opportunity for education and training that can have a long-run negative impact on growth.

I think we are just beginning to understand these complicated linkages, but it is certainly a very disturbing phenomenon.

Ms. VELAZQUEZ. So there is a correlation in terms of the type of public policy that we enact to address those disparities. It will have long-term consequences.

Mrs. YELLEN. I believe they can have, yes, can have long-term consequences.

Ms. VELAZQUEZ. So as the economy continues to gain strength and we move back to normalized monetary policy, Fed decisions will have an impact on credit markets. And this has a number of businesses concerned about the availability and cost of capital.

Is there any indication that the last rate increase had an impact on credit availability for small businesses?

Mrs. YELLEN. We raised rates by 25 basis points. That is a very small amount. And I am not aware of any significant repercussions that has had for the cost of consumer credit. We have said that we expect the path of rate increases to be gradual and that we will be very cautious about raising rates. We will only do so in the context

of an economy that is performing well with the strong job market that is growing at a good pace where people's incomes are rising. And we would do that to make sure that we achieve price stability, which is our congressional objective.

Ms. VELAZQUEZ. Okay. So we discussed the current wealth gap between Whites, Blacks, and Latinos. I would like to rise another issue and that is the cost of student loans.

Student loan debt now stands at more than \$1.35 trillion, a figure that has nearly tripled over the past decade. Some experts have reported that the average student loan debt for the class of 2016 is \$37,000 per borrower.

What type of consequences for lifetime wealth creation do these levels of debt present for young people?

Mrs. YELLEN. First of all, the importance of gaining an education and the advantages that come with that and the higher income make it critically important that funds be available to students to gain that education. So let me start there.

But if a student takes on that debt and then, as happens all too often, doesn't end up completing a degree or goes to an institution that doesn't provide training that enabled them to get that higher-wage job, that can be a very, very serious burden and I think for many minorities, this is a huge burden.

And so we actually plan to hold a conference at the Fed on this topic next November. We are going to look at this issue and focus particularly on minority communities and the impact.

Chairman HENSARLING. The time of the gentlelady has expired.

The Chair now recognizes the gentleman from New Mexico, Mr. Pearce.

Mr. PEARCE. Thank you, Mr. Chairman.

Chair Yellen, thanks for being here today.

Let me wrap up some of the old business here. So, my good friend from Washington asked, when does America get a pay rise? And you sort of in your answer hinted that if the global market continues to improve—is that what I heard you say? If the global market continues to improve, then we can expect better wage growth?

Mrs. YELLEN. I think if the labor market continues to improve, we will see some pickup in wage growth. But I did want to indicate that we have at the moment low productivity growth, very low, that wage growth will be greater over time if productivity growth picks up. If it doesn't—

Mr. PEARCE. Right. I guess my main point is that there are many who see the global market as not improving at all. So, kind of the inference that it is moving in the right direction, or if it would just do a little bit more of it, it is going to okay, is one there are differing opinions on.

For instance, just in very recent days, a significant article came out talking about how business spending is down, exports are down, consumers are very cautious, and many of the foreign countries are having difficulty.

That is a little bit in contrast to your report. You talk about the 14 million jobs created. That is one of your objectives. And you also referred to the unemployment rate being below 5 percent.

So those all would indicate a fairly good opinion from the Federal Reserve about the condition of the economy. Am I interpreting that right?

Mrs. YELLEN. Yes. I think the labor market is in a pretty healthy condition.

Mr. PEARCE. Okay, but, yes, my question is the recovery.

Mrs. YELLEN. There are a lot of jobs available.

Mr. PEARCE. The recovery is pretty well in place that it is moving along.

Mrs. YELLEN. We have achieved a lot. We have gotten to a much better place.

Mr. PEARCE. Okay. But my question really is that in February of 2014, you stated that, I know this is difficult for seniors, in other words, a zero interest rate because they typically do very liquid things and they don't like risk. When we have accomplished recovery, rates of return will come back. And so I wonder when the seniors are going to see those rates come back? When are they going to see that? Because the seniors are the ones who have paid the bill through this entire thing.

When we drive the rates of interest down, that penalizes their savings. And they tell me, I lived my life correctly, I paid for my house, and you all messed up the housing market, and I saved money and you all make it where my money is worth nothing in the bank.

So, when can they expect to see an increase in their rate of return?

Mrs. YELLEN. I can't give any guarantee on that, but if the economy progresses along the lines I expect, I think it will be appropriate to gradually increase rates further.

Mr. PEARCE. Okay. But you have previously answered my question that you felt like we have made a lot of progress. Yet, seniors haven't seen any progress. So, I think that is one of the continuing problems that we have.

I also want to ask, now, you mentioned and it is well known that the Federal Reserve's objective is maximum employment. Do you have kind of a handbook that you have put out on how to achieve maximum employment? Something that political candidates, like maybe a candidate for President, might say that she is going to get rid of all the coal mining jobs? Do you have a handbook that says, if you do that, you are going to put pressure on the economy over here? Do you put out anything at all? I know you don't want to be very political, but do you put out anything at all?

Because when I look at the things that the government does, I draw a different conclusion than what my friend Mr. Sherman draws. I see regulations that say, the haze regulation for instance, that is being implemented in the West, you can't see the difference in the haze in the air, you actually have to have a computer to measure it. But using that regulation, coal miners being sent to the house in New Mexico make \$60,000 a year, and they are going to then be on subsistence-level of government support checks. And that is an actual regulation that is penalizing the job markets.

So I see those penalties, but do you put out a fact sheet that says, look, if you increase minimum wage, Burger King is going to go and announce they are going to put kiosks in. And so, the poor

people are never going to get into the labor market, and so the gap between the rich and the poor is going to increase because we have outsourced, we have sent those jobs out of America that are on the low end of the scale that allow people to get into the workforce.

And so I wonder if you all do that, because if you are in charge of a trillions-of-dollars economy, it seems like you would put out some sort of a fact sheet so people sitting on this side of the desk could actually have some idea of what effect their policies would have.

And I guess the answer is no, you don't put out a fact sheet.

Mrs. YELLEN. I think not one of the type that you were describing.

Mr. PEARCE. It is funny that we have trillions of dollars at risk, but we don't have the best practices.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair recognizes the gentlelady from Alabama, Ms. Sewell.

Ms. SEWELL. Thank you.

Chair Yellen, I apologize if you have answered this question. But as you know, 127 Members of Congress, both Senators and House Members, and I was one of them, sent a letter last month highlighting the fact that the Federal Reserve Act mandates that the presidents and the board of directors at the 12 regional Federal Reserve banks "represent the public."

Despite this mandate, there is only one non-White regional bank president and he is also the only non-White member of the FOMC; 83 percent of Federal Reserve board members are White and men make up nearly three-fourths of those directorships. One-third of the 12 regional Federal Reserve presidents are either former executives or trustees at Goldman Sachs.

In response to the letter, you said that, "45 percent of the directors are either women or minorities, meaning 55 percent are White males." Does your response indicate that you believe the leadership at the Federal Reserve bank is fulfilling its mandate to "present the public with due consideration," given the enormous economic interests of our diverse Nation?

Mrs. YELLEN. Let me start by saying that I believe that diversity is extremely important in all parts of the Federal Reserve, but I do want to distinguish two different things.

There are, if we were at full strength, 19 members of the FOMC, that is 12 presidents, and we are now at 5 board members, there are supposed to be seven. And then a completely separate category of leadership are the directors of the Federal Reserve banks, there are nine at each bank and then there are branch boards that also have their own boards of directors.

I do believe we have made substantial progress in achieving diversity and improving our performance among directors at the reserve banks in the branch boards. I believe the figure that you cited, the 45 percent, refers to those directors. At this point, 24 percent of those directors are minorities, an additional 30 percent are women, and in total women and minorities come to the number that you cited.

Now, among the reserve bank presidents, we are looking at 12 presidents, as you said, one is a minority and then there are two women reserve bank presidents. I would very much like to see

greater diversity at that level, too. And it is a goal that I hope we will make progress on in the coming years.

The procedures for appointing those presidents are set out in the Federal Reserve Act. The board has to approve the appointments of presidents that are recommended by the Class B and C directors of the reserve banks. We insist and make sure that the searches for those presidencies are national, that the candidate pool is diverse, and that due consideration is given to diversity as an important goal. We welcome and have been recently taking public suggestions from the public about possible candidates and when these searches are launched, we will make sure that candidates who are suggested gain full consideration.

Ms. SEWELL. Now, I know it has been considered or suggested that the Board of Governors fill the Class C directors on each regional bank's board with at least one individual from an academic background, one from a consumer or community-based organization, and one representative from a labor organization. What does the Fed think about this recommendation, and does the Board of Governors have a strategy for increasing the diversity of its leadership so that candidates are considered who have a variety of backgrounds, not just solely that of Wall Street?

Mrs. YELLEN. We track diversity, not only in terms of gender and race, but also in terms of experience.

And I believe we have made considerable progress in achieving the kind of diversity you are discussing. I believe in every reserve bank branch there is an individual, might be an academic or someone who represents communities and nonprofits, and we are constantly trying to add to our ranks of people who represent labor.

Chairman HENSARLING. The time of the gentlelady has expired.

The Chair recognizes the gentleman from Georgia, Mr. Westmoreland.

Mr. WESTMORELAND. Thank you, Mr. Chairman.

Chair Yellen, first of all, I want to thank you for the inspector general going through your cybersecurity policies. I want to encourage you to listen to what he has to say because you are on the frontline really of our affairs when it comes to cybersecurity. So, I just wanted to thank you for that.

The other thing I wanted to do is make some comments between the tit and tat kind of thing, between the gentleman from Wisconsin and the gentleman from California, as far as the new regulations. There were approximately 3,000 new regulations last year with 81,000 pages of it.

The gentleman from California said this was to explain, these pages, he was thankful for them because they were there to explain the regulation. Ma'am, where I am from, if it takes you 27 pages to explain something you are trying to tell somebody, something is way too complicated.

And that is the point of some of the other questions that have been here before, is the complex regulations are requiring all types of compliance officers. Banks are being taken down with this.

Sometimes they have more compliance officers than they do loan officers. So I guess my question to you regarding these overly burdensome regulations that are on our small banks is, is it a priority of the Federal Reserve and for other members really of the Federal

financial institutions, examination councils, is it your priority to get these regulations off?

Mrs. YELLEN. It is our priority to do everything that we possibly can to reduce regulatory burden.

I think we have already taken some significant steps. We are completing the EGRPRA review. I believe we will take more steps in light of that review. And we are looking carefully at a very simplified capital regime that could apply to these community banks if they are well-capitalized and managed.

Mr. WESTMORELAND. I feel like I have been asking this same question now since 2008. My district probably had more community bank failures than any other district in the United States.

And we keep hearing this over and over about, we are looking at regulations and so forth. So, is there any way that you could give me some type of timeline as to when something may come out about this?

Mrs. YELLEN. We have already put quite a few things in place. So, it is not that everything is in the future. We have raised our thresholds to a billion dollars for capital requirements to apply to small holding companies. We have changed our examination process so that our examiners spend much less time in bank premises.

We have made our examinations more risk-based so that we focus on those risks that really are relevant to banks. We have taken a number of steps. We meet regularly, twice a year with a group called CDAC which is community banks to hear their perspectives and take their suggestions when we can. We have a special committee of the board that focuses on community banks and assesses different ways to reduce burden.

Mr. WESTMORELAND. I thank you and I hope that you have been communicating with the community banks, too, about what you can do to actually help them.

One other thing just to follow up, as I mentioned, in my district in Georgia, we know what it is like to lose a bank. While the Federal Government is focusing on economic policies for large banks, designating banks and non-banks as SIFIs, conducting stress tests, all the while these policies are still creating that notion that large banks are too-big-to-fail.

And so I guess my point is that somehow there has to be a more distinct classification between banks and the size of banks.

Mrs. YELLEN. I agree with that. We want to tailor our regulations so that they are appropriate to the risks. And we are likely to make changes to the stress testing regime that would reduce burden on some of the smaller banking organizations that are subject to that process.

Mr. WESTMORELAND. Thank you.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Georgia, Mr. Scott.

Mr. SCOTT. Thank you, Mr. Chairman.

Chair Yellen, when you visited here the last time, I raised the issue about the high rate of unemployment among African Americans. It is absolutely staggering. In some of our communities, particularly with African-American males between the ages of 18 and 37, it is over 22 percent, and in some communities it is as high as

50 percent, which leads to all kinds of problems, the crime problem, but more importantly the breakdown in the African-American family, because these young men who are age 18 to 37, that is the childbearing age.

So, we have to look at this as a national crisis. And I ask you to do that. And you told me, you said that, Mr. Scott, I don't have the tools to do what you are asking.

But I say to you, Mrs. Yellen, you do have the tools. You have your voice. You have your position. You have a dual mandate to curb inflation, but also to deal with unemployment. And we need you to use that voice to holler loud and clear that this is a national crisis. It is the number-one domestic problem that we have in this country because of the devastation and the impact in the African-American community.

But here is what really concerns me. Since you say you don't have the tools, why are you so eager to change course on monetary policy and raise interest rates yourself when the unemployment level in the African-American community is so high?

Now, you said it yourself, you said here that your future rate increases depending on the data you have. Well, to me, Chair Yellen, the data is telling a pretty clear story: one, we are well-below the 2 percent inflation target; and two, growth abroad in places like China is anemic. And most importantly, the dollar remains strong.

So tell me, Chair Yellen, what harm do you see in holding the interest rate at its current level until we can get our hands around this problem and get some improvement in the African-American unemployment rate?

Mrs. YELLEN. Congressman, I do want to call attention to the material that we included in this monetary policy report and intend to continue including that discusses the situation, the labor market situation of African Americans and other minority groups. And it does document, as you said, the high unemployment rates of African Americans.

Mr. SCOTT. Yes, I know it, but—

Mrs. YELLEN. But there has been improvement.

Mr. SCOTT. What is so frustrating to me is that you are in the position to say something, to do something. This is intolerable. You are the only agency with this dual mandate.

Mrs. YELLEN. Congressman, we are doing something.

Mr. SCOTT. What is that?

Mrs. YELLEN. We are doing something extremely important, which is putting in place a monetary policy that has brought down unemployment rates and improved the labor market for all groups in American society and trying to do that in the context of our price stability mandate.

And as serious as the suffering is in the African-American community, and it is, there has been improvement and there will continue to be improvement and our policies are designed to make sure that we continue to have improvements in the labor market that will benefit the African-American community and others as well.

And I have used my voice and I will continue to do so. And in the work that we do in community development, we will continue to use the tools at our disposal to try to identify interventions—

Mr. SCOTT. Let me try to identify something right here. We are in the midst, legislatively, of doing things like building the Keystone Pipeline. Why can't we target that so these young people can get jobs or they can learn the basic skills as they work? Earn as you learn, get them involved with labor unions that have skill programs.

We just passed a bill to be able to lift the embargo on crude oil. That is going to spread out 200,000 jobs. We have to look at our economy and point out areas where we can get African-American young men into the wheel to learn these skills.

Mrs. YELLEN. This is for Congress to consider.

Mr. SCOTT. We have done that. And we have done our job—

Chairman HENSARLING. The time of the gentleman has expired.

Mr. SCOTT. We need some leadership from you and this Administration.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair recognizes the gentleman from New Jersey, Mr. Garrett, chairman of our Capital Markets Subcommittee.

Mr. GARRETT. Thank you. And let me follow up on the question that the gentleman was just talking about, about the negative, disastrous impact that the Fed has had on the African-American community and the poor in this country.

Last year you gave a speech on income inequality and you said that the income gap between the rich and the poor has long been of interest to you and the Federal Reserve, and you expressed concern about that and basically your comments were eerily similar to what the Administration has been saying.

You lamented the problem, but failed to admit to acknowledge in your comments that it is your actions and the Fed and the government policies that can have a dramatic impact on expansion of the gap between rich and the poor.

In fact, we are often reminded by the Federal Reserve and our President how low-income families have fallen behind during this Administration's last 8 years. We have seen the greatest monetary expansion and regulatory assault in history, and I think there is no coincidence.

So let us look at your predecessor, what he said. Chair Bernanke acknowledged on more than one occasion that monetary policy has the effect of raising asset prices, in particular the stock market, I am sure you agree with him. The question then we have is, who does that really benefit? Who does your policy benefit?

Let me give you a number. According to Gallup, the survey, 90 percent of households with incomes over \$75,000 own stock; only 21 percent of households under \$30,000 own stock. So, if your policies, as Ben Bernanke indicated it does and you are nodding your head as well, benefits the stock market, raises asset prices, who are you benefiting? The rich. Who are you hurting? The poor.

So, the stock market has boomed. The biggest beneficiaries have been households with income well above the national median and particularly those at the very top where the wealth in the stock market is concentrated. So, that is what the gentleman is pointing out, your policies. He is looking for leadership, but leadership to lead in the other direction, not always helping the rich, but hurting the poor.

And another area that we see where you take the pattern of helping the rich and not the poor is, where does the average poor person making under \$30,000 put their money? In the stock market? No, they put it into savings accounts. Now, according to the FDIC, the average rate of return in America is 6 basis points.

At the same time, you are paying Wall Street banks 50 basis points to park their money over there. So the question is, why do you see the need to benefit the Goldman Sachs CEOs of the world and pay them more than the small, local banks on Main Street where my constituents have to invest their money? Do you see a need to benefit the rich continuously to the disadvantage of the poor? Why is that?

Mrs. YELLEN. I'm sorry, we are not trying to benefit the rich at the expense of the poor.

Mr. GARRETT. Okay. So your statement is your intention is not to benefit the rich, but the facts of Ben Bernanke and others, what you are nodding your head, is your actions are benefiting the rich over the poor because of your monetary policy. Is that correct?

Mrs. YELLEN. It is not correct.

Mr. GARRETT. Which part is not? Is it not the fact—is Gallup wrong when they say the rich are more likely to invest in the stock markets than the poor? Is that not correct?

Mrs. YELLEN. That is true.

Mr. GARRETT. That is true. Is it not true that your quantitative easing according to Ben Bernanke also benefits asset purchases?

Mrs. YELLEN. 14 million jobs—

Mr. GARRETT. Is that a fact?

Mrs. YELLEN. —is what our policy—

Mr. GARRETT. Excuse me. I have the floor. I am trying to find out which fact is wrong.

The fact of the matter is is that the rich own stock, you said yes. The fact of the matter is that quantitative easing increases asset purchases, you said yes, asset prices, you said yes. The fact of the matter is that you are indicating yes, that is increasing the valuation of stock, you are indicating yes. And the fact of the matter is, is that for the average poor person, they are not in the stock market, they are in banks. You are saying yes. So all those facts are correct.

Mrs. YELLEN. Houses are widely held by most families and low interest rates have also—

Mr. GARRETT. But as far as where most people have their investments.

Mrs. YELLEN. —have also benefited from rising house prices.

Mr. GARRETT. Part of the problem is that although you admit here today that it is not your intention to help the rich over the poor, that when you are nodding yes on every point I raise, is that the monetary policy of the Federal Reserve over the last several years of your tenure benefits the rich over the poor and creates a greater expansion of income inequality.

Mrs. YELLEN. I am sorry—

Mr. GARRETT. Let me go on to the next question. I only have a minute here.

With regard to your balance sheet, I can't get into the details as far as the significant increase over time and the increase in the

risk in the market. I understand the question was already raised on whether you do a stress test on yourself and the answer was no?

Mrs. YELLEN. Yes, we have.

Mr. GARRETT. Oh, you do do stress tests like you do on the banks on yourself?

Mrs. YELLEN. We have performed that exercise.

Mr. GARRETT. And do you believe then that interest rate risks and credit risks of your portfolio in this position now is at greater risk than it was before when it was—

Mrs. YELLEN. We have no credit risk in your portfolio. We only hold government and agency—

Mr. GARRETT. You are immune to credit rate risk?

Mrs. YELLEN. I think U.S. Treasury bonds are a pretty safe investment.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentleman from Minnesota, Mr. Ellison.

Mr. ELLISON. Hello, Chair Yellen. I appreciate you being here, and I appreciate all the work that you do.

I would like to commend the Fed for its decision to keep interest rates low. I believe keeping interest rates low helps calm and strengthen our economy. I also wish Congress had chosen to act as assertively and creatively as the Federal Reserve did. The truth is that without the Federal Reserve working, the fact is we have had absolutely no fiscal assistance around here at all.

And I think if you looked at the historic amount of obstruction that we have seen, it is really quite remarkable that anybody in Congress would be shaking a finger at the Fed given how little we have done to try to stimulate the economy and to help low-income Americans. If Congress had funded an infrastructure bank for example and rebuilt schools, bridges, roads, and transit, we would have lower unemployment and a stronger economy. Lord knows we need it. Lord knows that our infrastructure is crumbling all around us.

Interest rates are at historic lows, we could really rebuild this economy if we would have taken fiscal action. I would like to ask you this, Chair Yellen, if the Congress approved money for infrastructure development, would that have a positive effect on employment? How would it impact wages? How would it impact our productivity if we had better, more improved infrastructure?

Mrs. YELLEN. I can't give you a detailed assessment, but I certainly would agree that productivity growth has been very weak.

We have had a shortage of investment, private investment has been very weak. That is one reason I think that productivity growth has been so meager and generally having a stronger rate of investment.

There are other things as well, education and training make a difference here and supporting research and development. But those things would contribute, I believe, to stronger productivity growth and ultimately faster wage growth.

Mr. ELLISON. If you look historically at the amount of fiscal investment, how does the era that we have been in for the last, say,

5, 6 years compare with other periods of fiscal investment in our Nation's history?

Mrs. YELLEN. I don't have the numbers at my fingertips.

Mr. ELLISON. I am not going to sue you.

Mrs. YELLEN. But I think the answer is low.

Mr. ELLISON. Okay. And so you are supposed to fix the economy, but we don't suppose to do anything.

Mrs. YELLEN. We can use some help, thank you.

Mr. ELLISON. Yes, okay. When you were here in February, you and I had an exchange on what the Federal Reserve could do to increase employment for African Americans. And I wonder if you had any update for me. Has the Federal Reserve been able to think about a traditional policy toolkit to specifically consider investments and action that might impact African Americans, Latinos, Native Americans, and low-income people?

In addition to keeping interest rates low, are there more targeted tools that the Federal Reserve is considering or might recommend?

Mrs. YELLEN. In terms of our general stance on monetary policy, we have seen a lot of improvement. And it has benefited African Americans in spite of the fact that there remains so much distress among African Americans and in the labor market that concerns us. Nevertheless, there have been improvements.

We don't have tools in monetary policy to target particular groups. We want to make sure we have continued general improvement in the labor market in the context of price stability. In the community development work that we do inside the Fed, we are quite focused on what we can do to aid low- and moderate-income communities and trying to identify and promote programs that seem to work.

In my travels, I have visited a number of workforce development programs that I think are helpful in trying to match unemployed African-American and other minorities with available jobs. Job openings are at a record level and often programs that link-up workers and jobs and sometimes there is a need for workforce training.

We have done work and tried to promote best practices in this area and credit availability more generally to low- and moderate-income—

Chairman HENSARLING. The time of the gentleman from Minnesota has expired.

The Chair recognizes the gentleman from Ohio, Mr. Stivers.

Mr. STIVERS. Thank you, Mr. Chairman.

And thank you, Chair Yellen, for being here today.

I appreciate that you have a hard job, and I wanted to ask you a couple of questions. You just said to the gentleman from Minnesota that private investment is lacking. And it is clear that you have reduced the interest rates in the economy, which is one factor when people choose to make an investment.

But at the same time it appears that the increasing regulatory requirements that are passed on to consumers through banks, including a capital surcharge on bigger financial firms that is nearly double the international average, it is 4.5 percent versus 2½ percent, a supplemental leverage ratio that is double, 6 percent versus 3 percent, a liquidity-coverage ratio that is more restrictive and

punishes certain asset classes and a total loss-absorbing capital requirement that doesn't consider things like market making to get capital in the economy.

It just seems like even though you have reduced interest rates with your monetary policy, your regulatory policies are increasing costs and therefore decreasing folks' ability to make private investment and also doing it at such a level higher than the rest of the world, it just makes America a less attractive place to place jobs, financial service jobs and other jobs. And I know you have commented that you want to try to take a look at all that and I really appreciate your willingness to take a look at it.

I know the European Commission just did a call for evidence to review the ways that their financial regulations are actually working and recalibrate the rules to support both liquidity and markets, economic growth and lending. Do you have any plans to do something similar, given that our regulations are so far out of whack with rest of the international community?

Mrs. YELLEN. I won't comment on tax policy, but our regulations with respect to banking organizations are not really out of line with international standards. We have worked jointly with other countries to try to maintain a level playing field and to raise standards in tandem. We have really improved the safety and soundness of the banking system. We have a banking system that is extending lots of credit. Credit is readily available to most corporations. Loans have been growing and banks are eager to make loans. They are priced at low interest rates given this environment, so—

Mr. STIVERS. But clearly they are not borrowing, so interest rates aren't doing enough. That is kind of to my point. I guess you didn't answer my question. Are you going to be opening up the regulations for comments the way the European regulators have or not, because you have said you will, but I have not seen anything on it. Will that happen, or not?

Mrs. YELLEN. We are currently going through the EGRPRA process and looking at our regulations.

Mr. STIVERS. Okay. I do want to compliment Governor Tarullo for his comments in The Wall Street Journal recently that acknowledged that small and medium-sized banks do not present the same systemic risk and therefore he is going to try and reduce their compliance cost.

Those are the kind of things I am talking about and they are great to see in The Wall Street Journal, I would love to see them happen. So, I want to compliment him on his willingness to say he is going to do that and I just want to encourage you to encourage that to happen.

Because the Office of Financial Research, which is charged with doing the research on systemic risk, did a study a year ago that showed the systemic risk of all the institutions. The six largest institutions have an overwhelming majority of the risk in the entire financial system, and I think we should concentrate our previous regulatory capital on those that generate the biggest risk for our system and relieve the folks who don't generate risk from things that don't want sense.

And so I was really pleased to see Governor Tarullo's comments, but I would urge you to actually implement those.

Mrs. YELLEN. I am very supportive of the things that he said. We are focused on it. I agree that we want to do everything we can to eliminate burden for those community banks.

Mr. STIVERS. Thank you. And my time has almost expired, but I would urge you, and I know that this is our monetary policy hearing, and we have a regulatory hearing every 6 months as well, and I would urge you, and I know that Governor Tarullo is an acting regulatory supervisor, he has not been confirmed by the Senate, but I would hope you would bring him with you during that hearing, which is coming up.

Thank you. I yield back the balance of my time.

Chairman HENSARLING. The time of the gentleman has expired, but to ensure that the gentleman does not engage in an act of political negligence, by unanimous consent he will be granted an additional 10 seconds if he wishes to recognize Cleveland's NBA championship.

[laughter]

Mr. STIVERS. Thank you, Mr. Chairman. Go, Cavs! I yield back.

Chairman HENSARLING. The gentleman yields back.

The Chair now recognizes the gentleman from South Carolina, Mr. Mulvaney.

Mr. MULVANEY. I thank the chairman.

Chair Yellen, thank you very much for being here.

In your opening testimony, you said the following, "Another factor that supports taking a cautious approach in raising the Federal funds is that the Federal funds rate is still near its effective lower bound." What is the effect of lower bound?

Mrs. YELLEN. Well, I meant zero.

Mr. MULVANEY. So no, we can put that to bed, correct? No negative rates in the Fed's future, correct?

Mrs. YELLEN. It is not something we are contemplating.

Mr. MULVANEY. Thank you very much. I have a couple of questions that deal with, while we are not going negative, still deal with rates staying at or near zero for a long time.

Other countries have seen their rates go negative, and obviously that has an impact on the value of the dollar, driving it up. You have taken a position previously that you thought that a strong dollar was "something of a drag or could be something of a drag on the economy."

So my question for you is this: As you make your decisions regarding rates, or even as you make your decisions regarding your guidance, what weight do you put on the fact that other countries are going negative, or are approaching zero? How does that factor into your decision-making?

Mrs. YELLEN. The situation of other countries is important in our decision-making. To the extent their rates decline or lower than ours, it does tend to put upward pressure on the dollar, which is a drag.

But to the extent that their policies are successful in promoting stronger growth in those countries, then that boosts the demand for exports, so we need to take both aspects of it into account. And generally, it may differ from situation to situation, but when countries take steps, including monetary policy steps to support de-

mand, domestic demands in their own countries, it has these mixed effects on our outlook.

Mr. MULVANEY. Thank you.

Mrs. YELLEN. Nevertheless, we assess it and take it into account in setting our own policy.

Mr. MULVANEY. Another issue regarding long-term at or near-zero rates, in 2011 this body estimated that our interest payments this year, actually next year, would be about \$600 billion. The real number next year will about \$300 billion, even though the actual debt today is greater than we thought it would have been 5 or 6 years ago.

What weight, what consideration, what pressure do you feel, if any, to maintain low interest rates in order to keep the government's borrowing costs low? We all know what could happen if interest rates were to spike, the interest cost to the Nation would go up dramatically, possibly causing a fiscal crisis. Do you factor that into your decision-making on setting your rates or setting your guidance?

Mrs. YELLEN. We do not factor that into our decision-making. That is an important reason why most countries have chosen to have their central banks have independence in making monetary policy, because when financing the government becomes the focus of monetary policy, inflation can rise to highly undesirable levels. The Congress told us to focus on maximum employment and price stability and that is what we are doing and will continue to do.

Mr. MULVANEY. So it is fair to say, and I am sorry to cut you off, but you know how we deal with time, it is fair to say that if your dual mandate required you otherwise to raise rates, you would do that, even if it were to create difficulties on a fiscal standpoint in terms of paying our Nation's debt?

Mrs. YELLEN. That is correct. That is Congress' to consider. The CBO does projections for Congress that assume an outlook with rising short-term interest rates and long-term interest rates and that factors into the information that you get in deciding on specifics of politics—

Mr. MULVANEY. Speaking of rising rates, Mr. Huizenga a while ago asked you a question about a rising interest rate environment and the impact that might have on your remittances to the Treasury and you had said that while it was certainly contemplatable that a rising interest rate environment could lead to net negative earnings at the Fed, that that, and I think your exact words were, "could be a very nice situation because it would be indicative of strong growth."

The last time I remember in my lifetime having extraordinary high interest rates, the problem was it was no growth, which was in the late 1970s, that is accurate, right?

We have had periods in this country's recent history of high interest rates and low growth. And that would not be a very good situation to be in.

Mrs. YELLEN. That would be a much less desirable situation. I did indicate that it is highly unlikely and would require a very unlikely set of circumstances.

Mr. MULVANEY. But it is possible that a set of circumstances would arise where your net earnings would go zero or negative?

Mrs. YELLEN. It is possible.

Mr. MULVANEY. Thank you, ma'am.

Chairman HENSARLING. The time of the gentleman has expired. The Chair now recognizes the gentleman from North Carolina, Mr. Pittenger.

Mr. PITTENGER. Thank you, Mr. Chairman.

Chair Yellen, I would like to make a comment initially, a reference to my friend Mr. Heck from Washington, he stated that you played a most important key role in terms of our economy and the increasing of jobs.

And after that you mentioned that we are allotting 14 million jobs through a very accommodating monetary policy. That comes out to about 160,000 jobs a month over an average around 90 months during this Administration.

The contrast I would bring to you is that we had, in the 1970s, 20 percent interest rates, high inflation, high unemployment, and gas lines, as you recall. And the regulatory burden was significantly reduced, the tax burden was reduced, and in 2 years we were creating 300,000 and 400,000 and 500,000 jobs a month, 1 month a million jobs.

Don't you see that the clear contrast in terms of the regulatory burden that has been put on in our economy today and how that has not achieved the desired impact that these good folks have come to want? And there was a concern, I see their green shirts, I see their expressions of hope.

And yet, the fact that the very policies that have been initiated seems to be counterproductive. That is my comment.

Now, my question is related to, as you know, the comprehensive capital analysis and review known as CCAR is the Federal Reserve supervisory stress test for U.S. financial institutions.

This month, Governor Tarullo announced the Fed will likely add the G-SIB surcharge as a component of future CCAR exercises. I am concerned that the Fed has failed to adequately consider if there is any benefit in adding this as a component.

The CCAR currently contains two components that are unique to U.S. G-SIBs. First, only U.S. G-SIBs are required to assume a counterparty failure scenario. Secondly, the U.S. G-SIBs are required to assume an instantaneous global market shock. According to a clearinghouse analysis, both of these existing components already make up a significant portion the G-SIB surcharge calculation, including on issues of interconnectedness, complexity and cross-jurisdictional activity.

Chair Yellen, doesn't inclusion of the G-SIB surcharge on top of the current G-SIB-only components result in regulatory redundancy? Do you believe that this is in essence a double tax on these risks?

Mrs. YELLEN. I think Congress intended for systemically important firms to be more resilient than other firms and recognize that it is important that even in very adverse circumstances, those firms can go on serving the credit needs of the country, continue to lend. And in all the static requirements, the leverage ratio, static capital requirements, we have added an extra level, higher requirements for those firms. And I believe it is appropriate—

Mr. PITTENGER. Let me ask you this. What then is the net added benefit of adding the G-SIB surcharge as part of the CCAR exercise? Where do you see the benefit to that?

Mrs. YELLEN. It is a forward-looking exercise in which we look at how these firms would perform and survive in a highly adverse circumstance—

Mr. PITTENGER. You don't see it as an unnecessary added burden to these firms?

Mrs. YELLEN. I think it is important that these firms be resilient. But let me just say that we are doing a 5-year review of the stress test in CCAR and will probably make other changes as well that could be partially offsetting in terms of capital levels.

Mr. PITTENGER. One comment, there has been much said about community banks, the Federal Reserve Bank Minneapolis President Neel Kashkari made comments regarding his contact with the community bank in seeking to get a loan.

And his comment was that he saw through that an extraordinary painful process. This was his own personal experience. He went on to say that these community banks suffer under the new regulatory regime. He added that the notion of let us solve too big to fail and relax regulations on those who are not systemically risk, that he supports that philosophy.

I just want to emphasize again and some of this has already been said today, the real issue of addressing these community banks—I served on a community bank board for a decade and to date there are no additional community banks that are being formed because they don't see that market capability, they don't see their ability to support the requirements of the regulatory burden, but I would just emphasize that need to you.

Chairman HENSARLING. The time of the gentleman has expired.

The Chair now recognizes the gentlelady from New York, Mrs. Maloney, the ranking member of our Capital Markets Subcommittee.

Mrs. MALONEY. Thank you very much, Mr. Chairman.

Chair Yellen, when you were here in February, I asked you whether the decline in inflation expectations to historically low levels had caused you to rethink the inflation projections. And you said that it is something that you are, and I quote, "evaluating closely."

Since February, however, inflation expectations have fallen even further. Why do you think inflation expectations have continued to decline?

Mrs. YELLEN. Some measures have declined and others have not. Survey measures like the Michigan survey of households have declined. In professional forecaster surveys, we don't see a decline.

I'm not sure why, we are focused on that, but the decline we have seen in energy prices going back some time may be influencing household's perceptions. We have also seen declines since I was here last, in what is called inflation compensation, which is market-based measures of the extra yield that investors require to hold longer-dated Treasury nominal securities over tips.

And that is not a pure measure of inflation expectations. I think perceptions of inflation risk and the value given the global risks that investors attach to Treasuries as a safe haven may be playing

a role. We watch this carefully because it can feed into actual price setting, but core inflation is now running about 1.6 percent over the last 12 months. It has moved up some. Headline inflation is moving up as oil prices have come up some and stabilized and as the dollar has stabilized, and of course, we need to keep track of this. It is a risk. But inflation is behaving largely as I would have anticipated.

Mrs. MALONEY. How long do we have to go without an increase in inflation expectations for you to reconsider your plan to gradually increase interest rates?

Mrs. YELLEN. We are watching inflation and inflation expectations. As I said, in spite of some of these measures declining further, actual inflation is moving up and roughly in the manner we expected and we are also watching the labor market as the labor market tightens and we see pressures develop there.

We certainly are contemplating some further increases in short-term rates if things continue as we expect. We want to make sure, we want to get inflation back to 2 percent, that is our objective, we are committed to that, but we want to make sure that inflation doesn't rise to the point where we compromise price stability either.

Mrs. MALONEY. Okay. I am very concerned about the recent cybersecurity breaches involving SWIFT in which hackers successfully stole foreign banks' SWIFT credentials and then initiated fraudulent fund transfers from these foreign banks.

And as you know, I sent you, the Fed, and the OCC a letter last month asking what your agencies are planning to do in response to these truly unprecedented attacks. Can you give us an update on the banking regulators' response to these attacks? Are you concerned that these cyberattacks could undermine confidence in the international payments system?

And even though the hackers have not successfully stolen the SWIFT credentials of a U.S. bank, what effect could these attacks have on the U.S. banking system? It certainly rattled me that this happened.

And as you know, the Federal Reserve is one of the 10 central banks that collectively oversees SWIFT. What has the Fed done in its capacity as a regulator of SWIFT to respond to these attacks? I must tell you, if I go to a foreign country that I am not expected to be in, my bank stops my transaction until I tell them it is okay. It is, to me, quite unbelievable that such a large amount of millions of dollars could be transferred to sites, including a casino in the Philippines. I think this is a threat to the U.S. banking system.

Mrs. YELLEN. So, let me just say, the New York Fed systems weren't compromised, but they are looking at their processes, looking at what is best practices, looking at the possibility of enhanced monitoring for certain kinds of transactions.

We expect the institutions we supervise to make sure that they comply with procedures to control access to critical payment services and to review and ensure that they are meeting security requirements. We do participate in an oversight arrangement for SWIFT run by the—

Chairman HENSARLING. The time of the gentlelady from New York has expired.

The Chair wishes to advise Members that in order to accommodate the witness' schedule, the Chair intends to recognize three more Members. Currently, the queue would be Mr. Barr, Mr. Rothfus, and Mr. Williams.

The gentleman from Kentucky, Mr. Barr is recognized.

Mr. BARR. Thank you, Mr. Chairman.

Welcome back to the committee, Chair Yellen.

New York Fed Bank President William Dudley recently acknowledged a link between post-crisis regulations and liquidity problems in Treasuries, corporate bonds, and asset-backed securities. Specifically, he stated that capital liquidity requirements for the largest securities dealers, which have been raised significantly since the financial crisis, have adversely impacted market liquidity.

These regulatory changes have affected the profitability of dealer intermediation activities and consequently the provision of market liquidity. Do you agree that market liquidity has declined since the implementation of these post-crisis regulations?

Mrs. YELLEN. It is really difficult to tell because by many measures, market liquidity remains quite adequate and hasn't deteriorated, but we certainly hear and have seen some evidence that under stress, the liquidity may disappear.

And there are a bunch of different factors that we are looking at that may be relevant to that. Regulations are on the list. I am not precluding a role there, but there are changes in business models. High-frequency trading has become very dominant in the Treasury market.

Mr. BARR. Let me just interject right there. Do you agree with your colleague, Mr. Dudley, that Volcker, risk retention, TLAC, some of the supplemental ratio and some of these other requirements have decreased trade sizes, have resulted in fewer active trading participant participants, there is a transfer of market making activities out of highly regulated banks and into the less regulated shadow banking sector which has less capacity to act as a liquidity provider?

Mrs. YELLEN. I didn't know that he said that. That's a long list.

Mr. BARR. I got a little more specific than he did.

Mrs. YELLEN. Okay.

Mr. BARR. But that is really what is happening according to a lot of the market participants.

Mrs. YELLEN. You put a lot of things on the list that I am not aware of any research suggests are in any way relevant to this phenomenon. I am not aware of research that documents what the role is of any specific regulation, but it is something we will look at.

We are looking at—

Mr. BARR. Let me follow up on a question, a specific question about this issue that I asked you in February.

I asked you how the Fed was reviewing and tailoring the fundamental review of the trading book for the domestic market. That is a rule that increases capital held against securitization exposures in the bank trading book by up to 5 times the amount already required under Basel III. And one industry study suggests that the trading of U.S. asset-backed securities would become uneconomical if the rule is not tailored to the U.S. marketplace.

That is a really big deal, Chair Yellen, because if it is uneconomical to act as a market maker for commercial mortgage-backed securities, or residential mortgage-backed securities, auto loans, credit cards, collateralized loan obligations, and if banks pull out of the ABS marketplace, that is a \$1.6 billion source of consumer lending. That is 30 percent of all lending to U.S. consumers. So how is that going? You indicated to me 4 months ago that you were taking a look at that. How is that going?

Mrs. YELLEN. I need to get back to you with further details, and I will do that.

Mr. BARR. Thank you for doing that. We need you to take a look at it. Tailoring is very important.

And kind of to conclude, in your prepared remarks, you indicated that business investment was surprisingly weak. Maybe the reason why the Fed is surprised and continued to miss on forecasts, and the Fed, as The Wall Street Journal pointed out estimated 2.4 percent growth in December, that had fallen to 2.2 percent by March, this month it was down to 2 percent, and it follows the Federal Reserve's consistent record of forecasting error from a standpoint of predicting stronger growth than is actually occurring.

Maybe the reason why the Fed is missing out on these forecasts is that you continue to view fiscal policy as a "small positive" when it is obvious to everybody in the private economy that over-regulation is producing illiquidity. It is drying up access to capital. You are very cognizant of keeping interest rates low, you are putting off raising rates, it seems to me contradictory to the lack of attention that the Fed seems to be giving to over-regulation as an impediment to economic recovery.

I would like you to comment on that.

Mrs. YELLEN. Growth has been disappointing. I am not sure of the reason. But our forecasts of the unemployment rate and progress in the labor market have been pretty close. And we have seen a lot of job creation, firms that are doing relatively little investing are doing a lot of hiring.

Chairman HENSARLING. The time of the gentleman has expired. The Chair now recognizes the gentleman from Pennsylvania, Mr. Rothfus.

Mr. ROTHFUS. Thank you, Mr. Chairman.

Chair Yellen, my colleague Mr. Foster touched on the issue with custody banks. I just want to follow up a little bit. I asked you previously about custody banks and their ability to accept deposits because of the supplementary leverage ratio rule. I would like to follow up by asking, is the Fed studying or analyzing how the supplementary leverage rule is impacting the custody banks' ability to accept deposits?

Mrs. YELLEN. We will look at that. I am aware of concerns around that.

Mr. ROTHFUS. There is no current study that you are going to do, or you are planning on doing, but you are not studying it today?

Mrs. YELLEN. We don't have a study underway, but you are talking about a handful of banks and the impact this has on them. And we are aware of the concerns around this, and we will look at it.

Mr. ROTHFUS. If a bank is charging for deposits, that is the equivalent of a negative interest rate, would you agree with that?

Mrs. YELLEN. For that bank for that class.

Mr. ROTHFUS. If custody banks are unwilling or unable to take client cash, where would the cash go? Any idea where a customer might park that cash?

Mrs. YELLEN. They might put it in other banks that are less constrained or in money market funds.

Mr. ROTHFUS. Purchase Treasuries?

Mrs. YELLEN. Or do other things, yes.

Mr. ROTHFUS. As you know, both the proposed net stable funding ratio rule and the liquidity coverage ratio rule use the same thresholds to determine whether and to what extent those rules apply to financial institutions. Specifically, any institution with more than \$250 billion in assets is subject to the full version of the rules.

In prior testimony, though, you indicated that the full version of these rules should apply to only those that are internationally active. Yet, in defining the term, you indicated that institution could be considered as such merely if it has more than \$250 billion in total assets, even if it has no or limited foreign activities. Could you explain why a bank should be considered internationally active even if it has no or very limited foreign activities?

Mrs. YELLEN. I am not sure exactly what firms you are referring to. I don't have enough detail on that to be able to tell you, to answer that. I will get back to you on it.

Mr. ROTHFUS. Yes, I would appreciate it. We will follow up with you.

Again, any firm with more than \$250 billion being somehow deemed to be internationally active, that is what we would be curious to learn.

You talked about headwinds the last time you were here, headwinds to the economy, headwinds today. The Fed is not operating in a vacuum. There has been discussion about any number of issues that are going out there. You would agree that low interest rates themselves are not a headwind, right?

Mrs. YELLEN. No.

Mr. ROTHFUS. And in fact, with low interest rates, you would expect much more robust economic growth.

Mrs. YELLEN. That is correct.

Mr. ROTHFUS. You testified you expect the headwinds to "slowly fade over time."

I contend those headwinds, like I did last time, are regulatory and we had a discussion here today about some of the regulatory impact. A number of Members have raised this issue because we are hearing it from our constituents back home, small businesses.

So I contend again it is the regulatory and fiscal policies that this Administration has pursued, which is not the vacuum, again, the Fed is not operating in a vacuum. We have higher taxes, the Affordable Care Act, EPA, Dodd-Frank regulations that I contend are missing the mark because Dodd-Frank itself missed the mark. Would you consider any of these regulations or fiscal policies to be headwinds to the economy?

Mrs. YELLEN. I would say that productivity growth and growth in the economy's capacity to supply goods and services has been pretty meager. And we are really not sure what the cause is. I

would point out that it is a global phenomenon. We are seeing this in many parts of the world.

Mr. ROTHFUS. But you also see other countries imposing other regulations on their economies as well.

Mrs. YELLEN. The reasons may not all be the same in different countries. I don't think we really have a very good handle on it.

Mr. ROTHFUS. I am concerned because you talk about the headwinds, yet you are not diagnosing the full scope of what the headwinds are.

And as we look at the performance of this economy, which is sputtering, and looking at the constituents I talk to have not seen raises and the small businesses who are not accessing capital. I think we have to take a comprehensive look at what those headwinds truly are. I would encourage you to do that.

I yield back.

Chairman HENSARLING. The gentleman yields back.

The Chair is going to recognize now the last Member, the gentleman from Texas, Mr. Williams, who is recognized for 5 minutes.

Mr. WILLIAMS. Thank you, Mr. Chairman.

And Chair Yellen, thank you for being here.

I am from Texas. I am a small-business owner, and I have been for 44 years. I appreciate your testimony.

Last July, we had a chance to chat about community-based financial institutions. I further asked you, when I go back home, what should I tell the community bankers, the credit unions who feel they are being penalized, even targeted, for the financial collapse of our economy?

What you said was that you are trying to do everything you can to relieve burdens on community banks that have been through very difficult times.

Now, Madam Chair, 1 year later, community-based financial institutions are still feeling the pain, I can tell you, and most of them don't see any relief in sight.

Recent research from the Mercatus Center shows that the Dodd-Frank Act creates more regulatory restrictions than do all other regulations of the current Administration combined, over 27,000 restrictions for all laws passed through 2014. So clearly, someone is not getting the message.

So, in your experience, is it more difficult for a small institution to comply with new regulatory mandates than it is for a larger institution?

Mrs. YELLEN. Well, very small institutions, certainly we would recognize there are burdens involved. But we have also tried to tailor our regulations so that there is less burden and many fewer rules apply to smaller institutions.

There has been an increase in the capital standards that apply to those institutions, but most of the things we have discussed today, stress tests, TLAC, other things, liquidity regulations, don't apply to those institutions at all. And as I said, we have tried to make many efforts and will continue looking for ways to simplify the regulatory regime and the capital regime for those institutions.

Mr. WILLIAMS. Has the number of regulatory changes negatively affected the community financial institutions' ability, do you think,

to offer products and services to consumers more than it has affected larger institutions?

Mrs. YELLEN. I don't know that it has affected smaller institutions more than larger institutions.

Mr. WILLIAMS. I would submit that it has. I wish you would take a look at it, because to be honest I don't really know how you start a business—like I said, I am a business person—in this economic environment. I don't know how people would get started. I don't know how a new business even secures capital or is able to remain profitable.

One thing you said earlier was that corporations can secure credit. They can secure capital. But I am a Main Street person, and I can tell you I don't see that opportunity being able to get capital and start a business right now with Main Street.

So let me just close by saying this, Madam Chair. I ask these questions because the Federal Reserve is responsible for the regulatory oversight of about 5,000 bank holding companies, 850 depository institutions that are State-chartered members of the Fed. I personally have heard from banks in my district that the disproportionate impact of the ever-mounting regulatory burden is contributing to increased industry consolidation.

So, my question would be, would you please explain the negative consequences that result from consolidation and the effects of consolidation on the local and national economy?

Mrs. YELLEN. Community banks are very important in supplying the kinds of services to their communities that may not be readily available from larger institutions. And I certainly agree that it is important that they remain healthy and vibrant and able to thrive and contribute to the growth of their communities.

Mr. WILLIAMS. Reducing regulations would help that. So, please take a look at it. Main Street America is hurting. There is a difference between Main Street and Wall Street.

Mr. Chairman, I yield back.

Chairman HENSARLING. The gentleman yields back.

I wish to thank Chair Yellen for her testimony today.

The Chair notes that some Members may have additional questions for this witness, which they may wish to submit in writing. Without objection, the hearing record will remain open for 5 legislative days for Members to submit written questions to this witness and to place her responses in the record. Also, without objection, Members will have 5 legislative days to submit extraneous materials to the Chair for inclusion in the record.

This hearing stands adjourned.

[Whereupon, at 1:07 p.m., the hearing was adjourned.]

A P P E N D I X

June 22, 2016

Statement by

Janet L. Yellen

Chair

Board of Governors of the Federal Reserve System

before the

Committee on Financial Services

U.S. House of Representatives

June 22, 2016

Chairman Hensarling, Ranking Member Waters, and other members of the Committee, I am pleased to present the Federal Reserve's semiannual *Monetary Policy Report* to the Congress. In my remarks today, I will briefly discuss the current economic situation and outlook before turning to monetary policy.

Current Economic Situation and Outlook

Since my last appearance before this Committee in February, the economy has made further progress toward the Federal Reserve's objective of maximum employment. And while inflation has continued to run below our 2 percent objective, the Federal Open Market Committee (FOMC) expects inflation to rise to that level over the medium term. However, the pace of improvement in the labor market appears to have slowed more recently, suggesting that our cautious approach to adjusting monetary policy remains appropriate.

In the labor market, the cumulative increase in jobs since its trough in early 2010 has now topped 14 million, while the unemployment rate has fallen more than 5 percentage points from its peak. In addition, as we detail in the *Monetary Policy Report*, jobless rates have declined for all major demographic groups, including for African Americans and Hispanics. Despite these declines, however, it is troubling that unemployment rates for these minority groups remain higher than for the nation overall, and that the annual income of the median African American household is still well below the median income of other U.S. households.

During the first quarter of this year, job gains averaged 200,000 per month, just a bit slower than last year's pace. And while the unemployment rate held steady at 5 percent over this period, the labor force participation rate moved up noticeably. In April and May, however, the average pace of job gains slowed to only 80,000 per month or about 100,000 per month after adjustment for the effects of a strike. The unemployment rate fell to 4.7 percent in May, but that

decline mainly occurred because fewer people reported that they were actively seeking work. A broader measure of labor market slack that includes workers marginally attached to the workforce and those working part-time who would prefer full-time work was unchanged in May and remains above its level prior to the recession. Of course, it is important not to overreact to one or two reports, and several other timely indicators of labor market conditions still look favorable. One notable development is that there are some tentative signs that wage growth may finally be picking up. That said, we will be watching the job market carefully to see whether the recent slowing in employment growth is transitory, as we believe it is.

Economic growth has been uneven over recent quarters. U.S. inflation-adjusted gross domestic product (GDP) is currently estimated to have increased at an annual rate of only 3/4 percent in the first quarter of this year. Subdued foreign growth and the appreciation of the dollar weighed on exports, while the energy sector was hard hit by the steep drop in oil prices since mid-2014; in addition, business investment outside of the energy sector was surprisingly weak. However, the available indicators point to a noticeable step-up in GDP growth in the second quarter. In particular, consumer spending has picked up smartly in recent months, supported by solid growth in real disposable income and the ongoing effects of the increases in household wealth. And housing has continued to recover gradually, aided by income gains and the very low level of mortgage rates.

The recent pickup in household spending, together with underlying conditions that are favorable for growth, lead me to be optimistic that we will see further improvements in the labor market and the economy more broadly over the next few years. Monetary policy remains accommodative; low oil prices and ongoing job gains should continue to support the growth of incomes and therefore consumer spending; fiscal policy is now a small positive for growth; and

global economic growth should pick up over time, supported by accommodative monetary policies abroad. As a result, the FOMC expects that with gradual increases in the federal funds rate, economic activity will continue to expand at a moderate pace and labor market indicators will strengthen further.

Turning to inflation, overall consumer prices, as measured by the price index for personal consumption expenditures, increased just 1 percent over the 12 months ending in April, up noticeably from its pace through much of last year but still well short of the Committee's 2 percent objective. Much of this shortfall continues to reflect earlier declines in energy prices and lower prices for imports. Core inflation, which excludes energy and food prices, has been running close to 1-1/2 percent. As the transitory influences holding down inflation fade and the labor market strengthens further, the Committee expects inflation to rise to 2 percent over the medium term. Nonetheless, in considering future policy decisions, we will continue to carefully monitor actual and expected progress toward our inflation goal.

Of course, considerable uncertainty about the economic outlook remains. The latest readings on the labor market and the weak pace of investment illustrate one downside risk--that domestic demand might falter. In addition, although I am optimistic about the longer-run prospects for the U.S. economy, we cannot rule out the possibility expressed by some prominent economists that the slow productivity growth seen in recent years will continue into the future. Vulnerabilities in the global economy also remain. Although concerns about slowing growth in China and falling commodity prices appear to have eased from earlier this year, China continues to face considerable challenges as it rebalances its economy toward domestic demand and consumption and away from export-led growth. More generally, in the current environment of sluggish growth, low inflation, and already very accommodative monetary policy in many

advanced economies, investor perceptions of and appetite for risk can change abruptly. One development that could shift investor sentiment is the upcoming referendum in the United Kingdom. A U.K. vote to exit the European Union could have significant economic repercussions. For all of these reasons, the Committee is closely monitoring global economic and financial developments and their implications for domestic economic activity, labor markets, and inflation.

Monetary Policy

I will turn next to monetary policy. The FOMC seeks to promote maximum employment and price stability, as mandated by the Congress. Given the economic situation I just described, monetary policy has remained accommodative over the first half of this year to support further improvement in the labor market and a return of inflation to our 2 percent objective. Specifically, the FOMC has maintained the target range for the federal funds rate at 1/4 to 1/2 percent and has kept the Federal Reserve's holdings of longer-term securities at an elevated level.

The Committee's actions reflect a careful assessment of the appropriate setting for monetary policy, taking into account continuing below-target inflation and the mixed readings on the labor market and economic growth seen this year. Proceeding cautiously in raising the federal funds rate will allow us to keep the monetary support to economic growth in place while we assess whether growth is returning to a moderate pace, whether the labor market will strengthen further, and whether inflation will continue to make progress toward our 2 percent objective. Another factor that supports taking a cautious approach in raising the federal funds rate is that the federal funds rate is still near its effective lower bound. If inflation were to remain persistently low or the labor market were to weaken, the Committee would have only

limited room to reduce the target range for the federal funds rate. However, if the economy were to overheat and inflation seemed likely to move significantly or persistently above 2 percent, the FOMC could readily increase the target range for the federal funds rate.

The FOMC continues to anticipate that economic conditions will improve further and that the economy will evolve in a manner that will warrant only gradual increases in the federal funds rate. In addition, the Committee expects that the federal funds rate is likely to remain, for some time, below the levels that are expected to prevail in the longer run because headwinds—which include restraint on U.S. economic activity from economic and financial developments abroad, subdued household formation, and meager productivity growth—mean that the interest rate needed to keep the economy operating near its potential is low by historical standards. If these headwinds slowly fade over time, as the Committee expects, then gradual increases in the federal funds rate are likely to be needed. In line with that view, most FOMC participants, based on their projections prepared for the June meeting, anticipate that values for the federal funds rate of less than 1 percent at the end of this year and less than 2 percent at the end of next year will be consistent with their assessment of appropriate monetary policy.

Of course, the economic outlook is uncertain, so monetary policy is by no means on a preset course and FOMC participants' projections for the federal funds rate are not a predetermined plan for future policy. The actual path of the federal funds rate will depend on economic and financial developments and their implications for the outlook and associated risks. Stronger growth or a more rapid increase in inflation than the Committee currently anticipates would likely make it appropriate to raise the federal funds rate more quickly. Conversely, if the economy were to disappoint, a lower path of the federal funds rate would be appropriate. We are

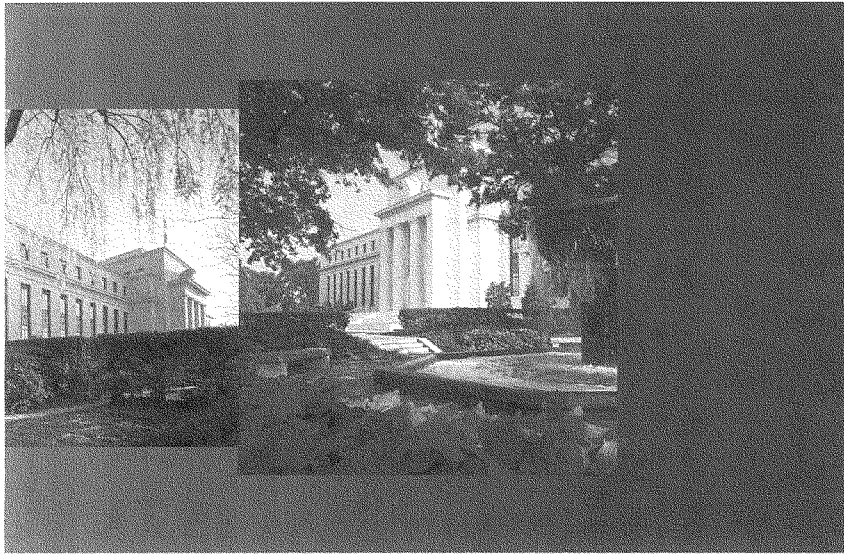
committed to our dual objectives, and we will adjust policy as appropriate to foster financial conditions consistent with their attainment over time.

The Committee is continuing its policy of reinvesting proceeds from maturing Treasury securities and principal payments from agency debt and mortgage-backed securities. As highlighted in the statement released after the June FOMC meeting, we anticipate continuing this policy until normalization of the level of the federal funds rate is well under way. Maintaining our sizable holdings of longer-term securities should help maintain accommodative financial conditions and should reduce the risk that we might have to lower the federal funds rate to the effective lower bound in the event of a future large adverse shock.

Thank you. I would be pleased to take your questions.

MONETARY POLICY REPORT

June 21, 2016



Board of Governors of the Federal Reserve System

LETTER OF TRANSMITTAL



BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM

Washington, D.C., June 21, 2016

THE PRESIDENT OF THE SENATE
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES

The Board of Governors is pleased to submit its *Monetary Policy Report* pursuant to section 2B of the Federal Reserve Act.

Sincerely,

A handwritten signature in cursive script that reads "Janet L. Yellen".

Janet L. Yellen, Chair

STATEMENT ON LONGER-RUN GOALS AND MONETARY POLICY STRATEGY

Adopted effective January 24, 2012; as amended effective January 26, 2016.

The Federal Open Market Committee (FOMC) is firmly committed to fulfilling its statutory mandate from the Congress of promoting maximum employment, stable prices, and moderate long-term interest rates. The Committee seeks to explain its monetary policy decisions to the public as clearly as possible. Such clarity facilitates well-informed decisionmaking by households and businesses, reduces economic and financial uncertainty, increases the effectiveness of monetary policy, and enhances transparency and accountability, which are essential in a democratic society.

Inflation, employment, and long-term interest rates fluctuate over time in response to economic and financial disturbances. Moreover, monetary policy actions tend to influence economic activity and prices with a lag. Therefore, the Committee's policy decisions reflect its longer-run goals, its medium-term outlook, and its assessments of the balance of risks, including risks to the financial system that could impede the attainment of the Committee's goals.

The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation. The Committee reaffirms its judgment that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate. The Committee would be concerned if inflation were running persistently above or below this objective. Communicating this symmetric inflation goal clearly to the public helps keep longer-term inflation expectations firmly anchored, thereby fostering price stability and moderate long-term interest rates and enhancing the Committee's ability to promote maximum employment in the face of significant economic disturbances. The maximum level of employment is largely determined by nonmonetary factors that affect the structure and dynamics of the labor market. These factors may change over time and may not be directly measurable. Consequently, it would not be appropriate to specify a fixed goal for employment; rather, the Committee's policy decisions must be informed by assessments of the maximum level of employment, recognizing that such assessments are necessarily uncertain and subject to revision. The Committee considers a wide range of indicators in making these assessments. Information about Committee participants' estimates of the longer-run normal rates of output growth and unemployment is published four times per year in the FOMC's Summary of Economic Projections. For example, in the most recent projections, the median of FOMC participants' estimates of the longer-run normal rate of unemployment was 4.9 percent.

In setting monetary policy, the Committee seeks to mitigate deviations of inflation from its longer-run goal and deviations of employment from the Committee's assessments of its maximum level. These objectives are generally complementary. However, under circumstances in which the Committee judges that the objectives are not complementary, it follows a balanced approach in promoting them, taking into account the magnitude of the deviations and the potentially different time horizons over which employment and inflation are projected to return to levels judged consistent with its mandate.

The Committee intends to reaffirm these principles and to make adjustments as appropriate at its annual organizational meeting each January.

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NOTE: Unless stated otherwise, the time series in the figures extend through, for daily data, June 16, 2016; for monthly data, May 2016; and, for quarterly data, 2016:Q1. In bar charts, except as noted, the change for a given period is measured to its final quarter from the final quarter of the preceding period.

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SUMMARY

Labor market conditions clearly continued to strengthen during the early months of this year: Payrolls expanded at a solid pace of almost 200,000 per month in the first quarter, and while the unemployment rate flattened out at close to 5 percent, the labor force participation rate moved up strongly. More recently, the signals regarding labor market improvement have become more mixed: Payroll gains are reported to have slowed to an average of 80,000 per month in April and May (or about 100,000 after adjustment for the effects of a strike). The unemployment rate dropped in May to 4.7 percent, its lowest level since late 2007; however, the labor force participation rate fell back again and was little changed from its year-ago level. All told, the latest readings suggest that labor markets are tighter than they were at the end of last year but that the pace of improvement has slowed. Whether those signs of slowing will be confirmed by subsequent data, and how persistent any such slowing will be, remains to be seen.

Consumer price inflation has continued to be held down by lower prices for energy and imports, and the price index for personal consumption expenditures (PCE) increased only about 1 percent over the 12 months ending in April. Changes in the PCE price index excluding food and energy items, which provide a better indication than the headline figure of where overall inflation will be in the future, also remained modest; this index, which rose 1½ percent over the 12 months ending in April, was partly restrained by lower prices for non-oil imported goods. However, both the headline and core inflation measures have picked up somewhat from a year earlier. Meanwhile, some survey-based measures of longer-run inflation expectations have remained relatively stable, while others have moved down; market-based measures of inflation compensation also are at low levels.

Although real gross domestic product is reported to have increased at a sluggish rate in the first quarter of 2016, the available data for the second quarter point to a noticeable step-up in the pace of growth. On average, consumer spending so far this year appears to be expanding at a moderate pace, supported by solid income gains and the ongoing effects of the increases in wealth and the declines in oil prices of the past two years. The housing market continues its gradual recovery, and fiscal policy at all levels of government is now modestly boosting economic activity after exerting a considerable drag in recent years. One area of concern, however, is the softening in business fixed investment in recent quarters even beyond those sectors most directly affected by the plunge in energy prices. In addition, the weakness of exports—following the significant appreciation of the dollar over the past two years and the subdued pace of foreign economic growth—continues to hold back overall output growth.

On balance, household and business credit conditions in the United States have remained accommodative so far this year. Following a period of heightened global financial market volatility earlier this year in which risk spreads for U.S. corporate bonds rose, financial conditions have eased somewhat in recent months, and corporate bond yields have returned to historically low levels. Mortgage rates once again have approached their all-time lows, and mortgage credit appears widely available to borrowers with solid credit profiles, though less so to would-be borrowers with imperfect credit histories. Student and auto loans are broadly available, including to borrowers with nonprime credit scores, and the availability of credit card loans for such borrowers appears to have expanded somewhat over the past several quarters. Broad measures of U.S. equity prices have increased slightly, on net, since the beginning of the year. Meanwhile, foreign financial markets

appear to have stabilized following the period of volatility earlier this year, with foreign equity prices higher and risk spreads lower. That said, the potential remains for spillovers to the U.S. economy from shocks to foreign economic activity and financial markets, including possible reverberations from the U.K. referendum this week on membership in the European Union.

Turning to the stability of the U.S. financial system, financial vulnerabilities have remained at a moderate level this year. Domestic financial institutions and markets functioned well during the period of heightened volatility early in the year. Large banking firms have kept their capital and liquidity ratios at high levels relative to historical standards, capital at other financial firms also appears to be elevated, and financial firms' use of short-term wholesale funding remains subdued. Debt growth in the household sector has been modest. However, leverage of nonfinancial corporations is elevated by historical standards, and lower-rated firms are potentially vulnerable to adverse developments. In particular, the performance of firms in the energy sector has been especially weak due to the prolonged period of low oil prices. In equity markets, valuation pressures have increased somewhat as expectations for corporate earnings have been revised downward; valuation pressures have remained notable in the commercial real estate sector, to which some small banks have substantial exposures.

After having raised the target range for the federal funds rate to between $\frac{1}{4}$ and $\frac{1}{2}$ percent last December, the Committee maintained that target range over the first half of the year. The Committee's decisions to leave the stance of policy unchanged were supported by its assessments earlier in the year that global economic and financial developments posed risks to the economic outlook and that growth in economic activity appeared to have slowed. In June, the Committee noted that recent information indicated that the pace of

improvement in the labor market had slowed, while growth in economic activity appeared to have picked up. In addition, the Committee's policy stance so far this year reflected its expectation that inflation would remain low in the near term, in part due to earlier declines in energy prices and in the prices of non-energy imports. The Committee stated that its accommodative stance of policy is intended to support further improvements in labor market conditions and a return to 2 percent inflation.

The Committee continued to emphasize that, in determining the timing and size of future adjustments to the target range for the federal funds rate, it will assess realized and expected economic conditions relative to its objectives of maximum employment and 2 percent inflation. These judgments will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. The Committee expects that economic conditions will evolve in a manner that will warrant only gradual future increases in the federal funds rate, and that the federal funds rate will likely remain, for some time, below levels that are expected to prevail in the longer run. Consistent with this outlook, in the most recent Summary of Economic Projections (SEP), which was compiled at the time of the June meeting of the Federal Open Market Committee (FOMC), FOMC participants projected that the appropriate level of the federal funds rate would be below its longer-run level through 2018. (The June SEP is discussed in more detail in Part 3 of this report.)

The Federal Reserve continued to use interest paid on reserve balances and employ an overnight reverse repurchase agreement facility to manage the federal funds rate, and these tools were effective in keeping the federal funds rate within its target range. The Federal Reserve also continued to test the operational readiness of other policy implementation tools.

PART 1 RECENT ECONOMIC AND FINANCIAL DEVELOPMENTS

Labor market conditions have improved this year, though recent data suggest there has been a loss of momentum. Payroll gains averaged about 200,000 per month in the first quarter but then only 80,000 per month in April and May. The unemployment rate has edged down to 4¾ percent, a level that is near the midpoint of the Federal Open Market Committee (FOMC) participants' estimates of its longer-run rate. That said, a few indicators suggest that some slack in the labor market remains. Despite persistently weak productivity growth, measures of labor compensation show some tentative signs of acceleration. Overall consumer price inflation has continued to be held down by lower prices for energy and imports, but both overall inflation and inflation excluding food and energy items, a useful gauge of where overall inflation will be in the future, have picked up a bit over the past year. Some survey-based measures of longer-run inflation expectations have moved down; market-based measures of inflation compensation have declined noticeably since last summer.

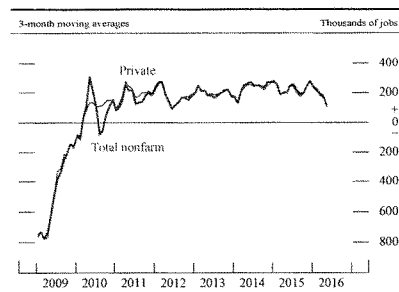
Real gross domestic product (GDP) is estimated to have increased at a sluggish rate in the first quarter, but more recent data point to a noticeable step-up in the pace of growth in the second quarter. Consumer spending appears to be expanding at a moderate pace so far this year, while the housing market continues its gradual recovery, and fiscal policy at all levels of government is now modestly boosting economic activity after exerting a considerable drag in recent years. An area of concern, however, is the softening in business fixed investment in recent quarters, even beyond those sectors most directly affected by the plunge in energy prices. In addition, weak exports are providing little boost to overall output growth. Heightened global financial market volatility early this year damped confidence both domestically and abroad, but financial conditions have generally eased somewhat in recent months; in the United States, credit conditions for both households and businesses have remained generally accommodative.

Domestic Developments

Early this year, the labor market continued to improve . . .

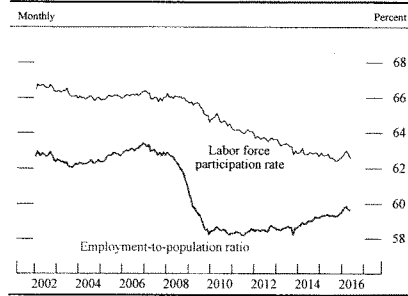
The labor market continued to improve in the first few months of this year. Payrolls expanded at an average rate of around 200,000 per month from January through March, modestly below the average of 230,000 jobs per month last year but still well above the number needed to absorb the trend number of new entrants into the workforce (figure 1). The unemployment rate held at about 5 percent, where it had been since the fall, but both labor force participation and the employment-to-

1. Net change in payroll employment



SOURCE: Department of Labor, Bureau of Labor Statistics.

2. Labor force participation rate and employment-to-population ratio



NOTE: Both series are a percent of the population aged 16 and over.
SOURCE: Department of Labor, Bureau of Labor Statistics.

population ratio rose noticeably (figure 2). The rise in the labor force participation rate was encouraging because it seemed to suggest that labor supply was responding significantly to the strengthening labor market.

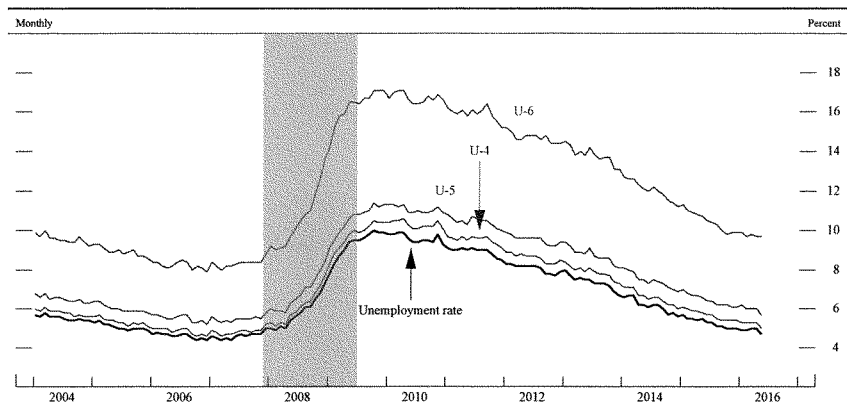
... but recently there may have been a loss of momentum ...

The data for April and May, however, suggest that the pace of labor market improvement has slowed. Payroll growth is reported to have averaged a pace of only 80,000 per month (about 100,000 after adjustment for the effects of a strike).¹ And although the unemployment rate fell to 4.7 percent in May, that decline occurred as both labor force participation and the employment-to-population ratio fell back somewhat from their levels in March. On net, the participation rate in May was little changed from a year earlier (a position that should nonetheless be viewed as a strengthening relative to a trend that is probably declining because of demographic changes, especially the aging of the baby-boom generation).

Despite these disappointing data, other labor market indicators are consistent with a job market that has continued to strengthen. In particular, initial claims for unemployment insurance, now available through early June, remain very low—and therefore at odds with the weaker tenor of the recent payroll figures. In addition, according to the Job Openings and Labor Turnover Survey, the rate of job openings as a share of private employment remains at a very high level; the quits rate has continued to trend up and is now fairly high, the latter measure indicating that workers feel increasingly confident about their employment opportunities.

1. According to the Labor Department, payroll employment in May was reduced by about 35,000 because of workers on strike at Verizon. These employees have returned to work and are expected to be included in payroll figures for June.

3. Measures of labor underutilization



NOTE: U-4 measures total unemployed plus discouraged workers, as a percent of the labor force plus discouraged workers. Discouraged workers are a subset of marginally attached workers who are not currently looking for work because they believe no jobs are available for them. U-5 measures total unemployed plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force. Marginally attached workers are not in the labor force, want and are available for work, and have looked for a job in the past 12 months. U-6 measures total unemployed plus all marginally attached workers plus total employed part time for economic reasons, as a percent of the labor force plus all marginally attached workers. The shaded bar indicates a period of business recession as defined by the National Bureau of Economic Research.

SOURCE: Department of Labor, Bureau of Labor Statistics.

... and a few signs of labor underutilization remain

Although the May level of the unemployment rate is near the midpoint of the FOMC participants' estimates of its longer-run rate, a few indicators suggest that some slack in labor resource utilization remains. Most notably, the share of workers who are employed part time but would like to work full time is still elevated; accordingly, the more comprehensive U-6 measure of labor underutilization, which includes these underemployed individuals, has remained well above its pre-recession level (figure 3). Meanwhile, jobless rates for African Americans and Hispanics are high relative to the aggregate, though these rates have also improved during the economic recovery (figure 4). (For additional discussion, see the box "Have the Gains of the Economic Expansion Been Widely Shared?")

Have the Gains of the Economic Expansion Been Widely Shared?

The financial crisis resulted in massive job losses and falling income for American households. However, not all households suffered to the same extent during the downturn, nor have they benefited to the same extent during the subsequent recovery. This discussion reviews the labor market situation and household incomes for Americans of different races and ethnicities during the Great Recession and the ensuing economic expansion.¹

A figure in the main text shows that unemployment rates for blacks and Hispanics rose more during the recession, and have declined more during the expansion, than for the nation as a whole (text figure 4).² Rates for these groups remain higher than for whites; the differentials among these rates are now roughly the same as prior to the recession. A similar result is true for employment-to-population ratios of prime-age individuals (ages 25 to 54).³ Prime-age employment rates are lower for blacks and fell more sharply during the financial crisis, dropping nearly 8 percentage points between mid-2008 and the end of 2011, compared with declines of between 4 and 5 percentage points for whites, Asians, and Hispanics (figure A). Since 2011, however, blacks

have experienced the largest rebound in employment. Thus far in 2016, blacks continue to have the lowest prime-age employment rates among these four groups, and the racial differences in employment-to-population ratios are very similar to pre-recession levels.

Among the working population, blacks and Hispanics suffered the greatest losses in *full-time* employment share during the recession, and, even as overall employment has recovered, the full-time share remains significantly depressed for these workers (figure B). By early 2016, white and Asian prime-age workers had nearly returned to their pre-recession rates of full-time work, but the share of full-time employment among black and Hispanic workers remains several percentage points lower than their previous high levels. Prior to the Great Recession, black workers were the most likely to report usually working 35 hours per week or more, closely followed by Hispanics. By 2016, Hispanic workers had slightly lower rates of full-time employment than whites, and the full-time share of black workers was slightly lower than that of Asians.

In the period of sustained high unemployment following the financial crisis, household incomes for all groups of Americans fell sharply and did not begin to recover until 2012. The decline in median household income was particularly large for black households—16 percent, compared with approximately

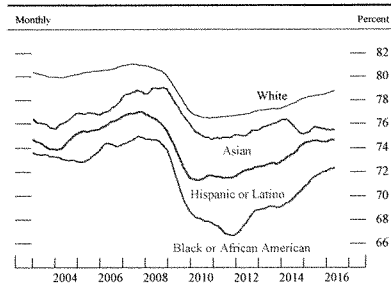
1. The employment-to-population ratio and full-time share of employed individuals are calculated using data from the monthly Current Population Survey (CPS). Median household income and the income composition are calculated using data from the March CPS Annual Social and Economic Supplement (ASEC). Monthly data are available through April 2016, while the most recent ASEC data (March 2015 CPS) are for 2014.

2. The Hispanic ethnicity and race categories are not mutually exclusive. Some individuals are, for example, both Hispanic and white, and they are represented in both lines in the figures in the box.

3. The unemployment rate shows the number of unemployed individuals actively looking for work as a share

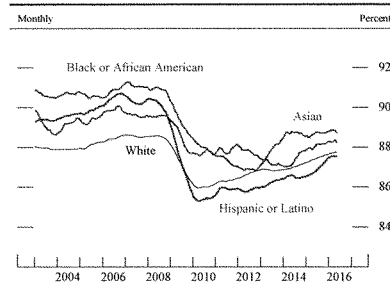
of the total labor force. The employment-to-population ratio ignores the distinction between those actively seeking work or not and simply measures the number of employed individuals as a share of the total population. We use the prime-age population because we want to focus on the labor market recovery and do not want income to include Social Security and other sources of retirement income that are largely independent of economic conditions.

A. Prime-age employment-to-population ratio, by race



NOTE: The data are 12-month moving averages. Prime age is defined as those aged 25 to 54.
SOURCE: Department of Labor, Bureau of Labor Statistics.

B. Full-time share of all prime-age employed persons, by race



NOTE: The data are 12-month moving averages. Prime age is defined as those aged 25 to 54.
SOURCE: Department of Labor, Bureau of Labor Statistics.

8 percent for white, Hispanic, and Asian households (figure C).⁴

By 2014 (latest data available), median household incomes of Asian, white, and Hispanic households had improved and were at least 94 percent of pre-recession levels, but median income for black households remained only 88 percent of the 2007 level. Racial and ethnic differences in income were sizable before the financial crisis and have only grown larger since then, with the median black household income at \$40,000 in 2014, compared with \$67,000 for white and \$85,000 for Asian households (figure D).

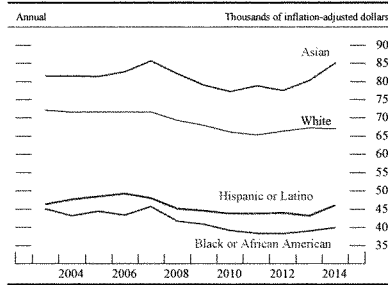
Losses in wage income account for the bulk of the decline in income for households during the downturn. Between 2007 and 2011, mean wage income for households in the middle quintile of the income distribution fell just over \$5,000 for white households, \$4,000 for Hispanic households, \$8,000 for black households, and \$7,000 for Asian households (figure E).⁵ Wages and salaries are the single largest source of income and have provided most of the increase in total income since 2011. Mean wage income for 2014 had returned to pre-recession levels for Asian households and had made up some of the lost ground among white and Hispanic households. Wage income for black households, however, remained

substantially below levels experienced prior to the financial crisis.

Transfer income rose substantially during the recession because of federal economic stimulus programs and automatic stabilizers, but the increases only offset a modest portion of the overall decline in income.⁶ Transfer income has receded very slowly since 2011, with mean transfers in 2014 remaining above pre-recession levels for all racial and ethnic groups.

6. Transfer income includes Social Security income, welfare, Supplemental Security Income, unemployment benefits, and educational assistance. Other income includes business income; farm income; income from interest, dividends, rent, alimony, and contributions; retirement income; trusts; workers' compensation; veterans', survivors', and disability benefits; educational assistance from nongovernment sources; assistance from friends and family; and other sources.

D. Median prime-age household income, by race

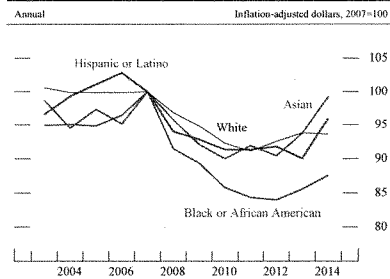


NOTE: Prime-age households are defined as households led by those aged 25 to 54. Race refers to the race of the head of household. The data extend through 2014.
SOURCE: U.S. Census Bureau, Current Population Survey, March 2016.

4. Percentages are based on an analysis of income data from the March CPS ASEC. Household race was determined by answers to the Hispanic ethnicity question and the first racial category selected by household heads between the ages of 25 and 54. Income of all household members is included. Any household head identifying as Hispanic is coded as Hispanic, regardless of race. Incomes for a very small group of households (less than 2 percent in 2014) that are identified as some other race group are not shown here, as the estimates are somewhat volatile and not very precise.

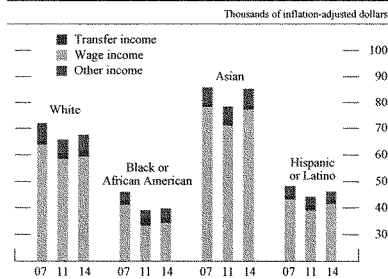
5. To show changes in the composition of income for "typical" households, we switch here to using mean income of households in the middle quintile of the distribution.

C. Indexed median prime-age household income, by race



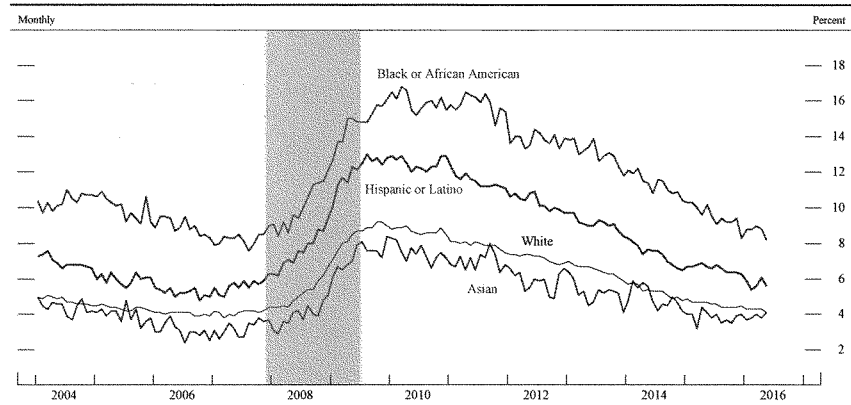
NOTE: Prime-age households are defined as households led by those aged 25 to 54. Race refers to the race of the head of household. The data extend through 2014.
SOURCE: U.S. Census Bureau, Current Population Survey, March 2016.

E. Changing composition of income for middle quintile of prime-age households, by race group and key year



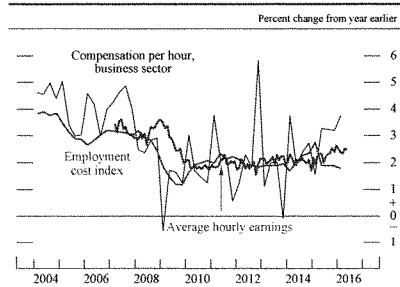
NOTE: Prime-age households are defined as households led by those aged 25 to 54. Race refers to the race of the head of household. The data are grouped according to key years 2007, 2011, and 2014.
SOURCE: U.S. Census Bureau, Current Population Survey, March 2016.

4. Unemployment by race and ethnicity



NOTE: Persons whose ethnicity is identified as Hispanic or Latino may be of any race. The shaded bar indicates a period of business recession as defined by the National Bureau of Economic Research.
SOURCE: Department of Labor, Bureau of Labor Statistics.

5. Measures of change in hourly compensation



NOTE: The average hourly earnings data series begins in March 2007 and extends through May 2016. The compensation per hour and employment cost index data extend through 2016:Q1. For business-sector compensation, change is over four quarters; for the employment cost index, change is over the 12 months ending in the last month of each quarter; for average hourly earnings, change is from 12 months earlier.
SOURCE: Department of Labor, Bureau of Labor Statistics.

Compensation growth has shown tentative signs of a pickup . . .

By most measures, the growth of labor compensation has remained modest, though recently there have been some signs of faster increases. The employment cost index (ECI) for private-industry workers, which includes the cost of employer-provided benefits as well as wages, registered a rise of only 1¼ percent over the 12 months ending in March (figure 5). However, two other prominent measures of labor compensation—average hourly earnings for all private-sector employees and business-sector compensation per hour—recorded larger increases than the ECI over the past year, and the increases in both series were above their corresponding averages over the preceding several years. In addition, according to the Federal Reserve Bank of Atlanta’s Wage Growth Tracker, the median of 12-month changes in individuals’ hourly wages (from the monthly survey of households) has been gradually trending higher, reaching 3½ percent in May.

... amid persistently weak productivity growth

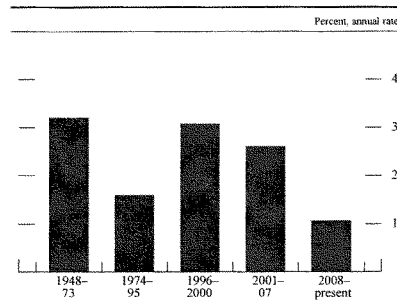
The relatively slow gains in labor compensation in recent years have occurred against a backdrop of persistently weak productivity growth. Since 2008, labor productivity gains have averaged around 1 percent per year, far below the pace that prevailed before the recession (figure 6). Indeed, in the past five years, productivity growth has averaged only ½ percent per year. The relatively slow pace of productivity growth is at least in part a consequence of the sustained weakness in capital investment over the recession and early recovery period. Productivity gains may improve in the future as investment in productivity-enhancing capital equipment and in research and development strengthens.

Falling energy prices have held down consumer price inflation

Overall consumer price inflation has moved up from the lows recorded last year, but it remains well below the FOMC’s longer-run objective of 2 percent. In April, the 12-month change in the price index for personal consumption expenditures (PCE) was around 1 percent, higher than the ¼ percent rate recorded in April 2015 (figure 7). The pickup over this period was largely due to a slower rate of decline in both energy prices and non-energy import prices.

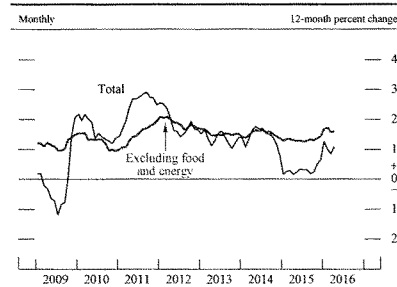
Low oil prices have reduced global investment in the oil sector and have led to some cutbacks in production, particularly in the United States. These declines, firming global demand, and some temporary supply disruptions—including in Canada due to wildfires—have recently pushed crude oil prices higher after they reached a 12-year low in mid-January (figure 8). Nonetheless, at a bit below \$50 per barrel, the spot price of Brent crude oil remains less than half its mid-2014 peak. Moreover, the continued low level of oil futures prices suggests that market participants expect only a modest increase in oil prices over

6. Change in business sector output per hour



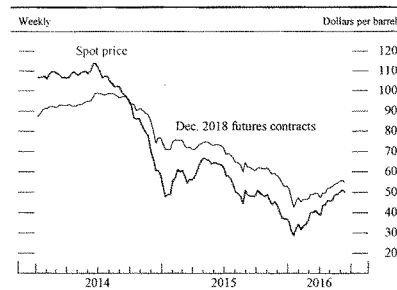
NOTE: Changes are measured from Q4 of the year immediately preceding the period through Q4 of the final year of the period. The final period is measured from 2007:Q4 through 2016:Q1.
SOURCE: Department of Labor, Bureau of Labor Statistics.

7. Change in the price index for personal consumption expenditures



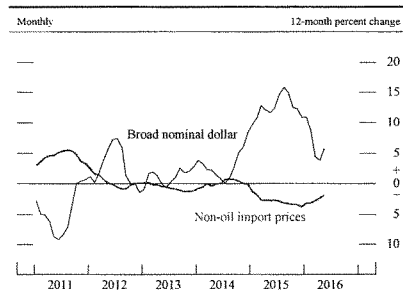
NOTE: The data extend through April 2016; changes are from one year earlier.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

8. Brent spot and futures prices



NOTE: The data are weekly averages of daily data and extend through June 16, 2016.
SOURCE: NYMEX via Bloomberg.

9. Non-oil import prices and U.S. dollar exchange rate



SOURCE: Department of Labor, Bureau of Labor Statistics, Federal Reserve Board, Statistical Release H.10, "Foreign Exchange Rates."

the next couple of years, given the historically high global inventories of crude oil. The large cumulative drop in crude oil prices had mostly passed through to lower retail prices for gasoline and other energy products by early this year; despite some increases thereafter, prices at the pump remain at levels substantially below those of last summer.

Similar to the price of crude oil, prices of metals and agricultural goods have moved higher since early this year. The rise in the prices of agricultural goods followed several quarters of declines that have held down retail food prices for consumers so far this year. The rise in many nonfuel commodities prices, together with a weaker dollar, helped push non-oil import prices higher in May—the first increase since 2014 (figure 9).

Outside of the energy and food categories, inflation has picked up a little bit

Inflation for items other than food and energy (so-called core inflation) has picked up a little. Core PCE prices rose about 1½ percent over the 12 months ending in April, up about ¼ percentage point from its year-earlier pace.² The increase in the trimmed mean PCE price index, an alternative indicator of underlying inflation, has also picked up a bit over the past year; as is typically the case, this measure has run somewhat above core inflation over this period. Because the slack in labor and product markets appears to have been mostly taken up, and given the recent upward movements in oil prices and non-oil import prices—after months of declines—the downward pressure on inflation from these factors is likely waning.

2. Data from the consumer price index and the producer price index point to a similar reading for the 12-month change in core PCE prices in May.

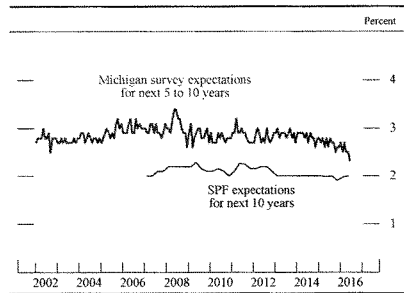
Some survey-based measures of expected inflation have drifted downward . . .

The FOMC devotes careful attention to indicators of long-run inflation expectations, as these expectations are believed to be an important factor underlying many wage- and price-setting decisions. The latest readings from surveys of longer-term inflation expectations have sent mixed signals (figure 10). In the Survey of Professional Forecasters, conducted by the Federal Reserve Bank of Philadelphia, the median second-quarter reading on expected annual PCE price inflation over the next 10 years was again 2 percent. The distribution of inflation expectations 5 to 10 years ahead derived from surveys of primary dealers has remained similarly stable. But in the University of Michigan Surveys of Consumers, the median reading on inflation expectations over the next 5 to 10 years has drifted down over the past two years and recorded a new low in early June. To the extent that this downward drift is a reaction to energy-driven declines in overall inflation, it could reverse over time as energy prices stop declining.

. . . and market-based measures of inflation compensation have remained low

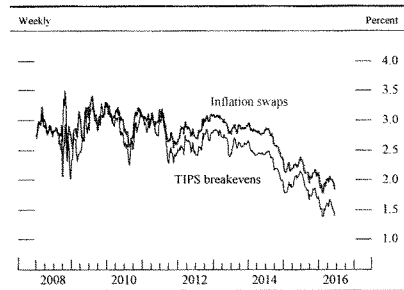
Market-based measures of longer-term inflation compensation—derived either from differences between yields on nominal Treasury securities and Treasury Inflation-Protected Securities or from inflation swaps—have continued to decline and now stand at very low levels (figure 11). Deducing the sources of changes in inflation compensation is challenging because such movements reflect not only expected inflation, but also an inflation risk premium—the compensation that holders of nominal securities demand for bearing inflation risk—and other factors. Nevertheless, one cannot rule out a decline in inflation expectations among market participants since last summer.

10. Median inflation expectations



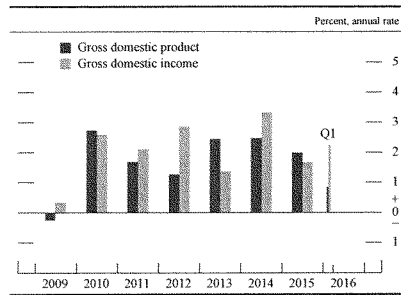
NOTE: The Michigan survey data are monthly and extend through June 2016. The SPF data for inflation expectations for personal consumption expenditures are quarterly and extend from 2007:Q1 through 2016:Q2. Michigan survey data for June are preliminary.
SOURCE: University of Michigan Surveys of Consumers; Federal Reserve Bank of Philadelphia, Survey of Professional Forecasters (SPF).

11. 5-to-10-year-forward inflation compensation



NOTE: The data are weekly averages of daily data and extend through June 17, 2016. TIPS is Treasury Inflation-Protected Securities.
SOURCE: Federal Reserve Bank of New York; Barclays; Federal Reserve Board staff estimates.

12. Change in real gross domestic product and gross domestic income



SOURCE: Department of Commerce, Bureau of Economic Analysis.

Economic activity has been expanding at a moderate pace

Real GDP is currently reported to have increased at an annual rate of just $\frac{3}{4}$ percent in the first quarter, but with several signs of faster growth in the current quarter, real GDP appears on track to record a moderate overall gain in the first half of this year (figure 12).³ Consumer spending is advancing further, and housing activity continues to strengthen gradually. Meanwhile, government expenditures have maintained momentum. Although inventory investment exerted a sizable drag on GDP growth in the latter half of last year, it has been less of an influence in the first half of this year.

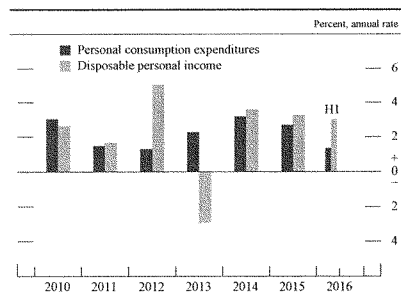
Nevertheless, several of the headwinds that were apparent last year have continued to restrain growth in activity this year. In particular, a substantial appreciation of the dollar over the past couple of years, along with continued sluggish foreign growth, is weighing on the demand for U.S. exports. In addition, the sizable drop in oil prices since 2014—notwithstanding the substantial benefit to households—has led to marked cutbacks in production and investment in the energy sector of our economy. These negative factors have had particularly pronounced effects on activity in the industrial sector.

Gains in income and wealth continue to support consumer spending

Consumption growth was lackluster early in 2016, but data on retail sales and motor vehicle sales suggest that spending has picked up appreciably so far this quarter. Smoothing through the monthly fluctuations, consumer spending is reported to have increased at an annual rate of nearly 3 percent over the first four months of this year, only a little slower than the pace in 2015 (figure 13).

3. While it appears likely that residual seasonality—a predictable seasonal pattern remaining in data that have already been seasonally adjusted—in some components of GDP held down measured GDP growth in the first quarter, this factor would imply an offsetting boost in measured GDP growth over the remainder of the year.

13. Change in real personal consumption expenditures and disposable personal income

NOTE: The reading for 2016:H1 is the annualized April/Q4 change.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

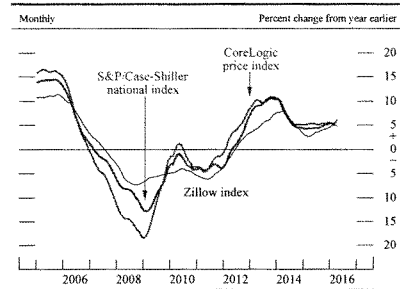
The improvement in the labor market has continued to support income growth, and low energy prices are boosting households' purchasing power. As a result, real disposable personal income—that is, income after taxes and adjusted for inflation—was reported to have advanced at an annual rate of about 3¼ percent over the first four months of this year, just a touch below the pace in 2015.

Ongoing gains in household net worth likely have also supported growth in consumer spending. House prices, which are of particular importance for the balance sheet positions of a broad set of households, have continued to move higher, with the CoreLogic national index showing a rise of about 6 percent over the 12 months ending in April (figure 14). Elsewhere, although equity prices have only increased slightly, on net, so far this year, the prior gains of the past few years have helped improve households' financial positions. In the first quarter of this year, the ratio of aggregate household net worth to disposable income, which had previously returned to its pre-recession highs, ticked down slightly but remained far above its long-run historical average (figure 15).

Consumers are upbeat about their economic prospects . . .

The solid pace of income growth over the past year has helped households retain fairly upbeat perceptions about their economic prospects. The Michigan survey's composite index of consumer sentiment—which incorporates households' views about their own financial situations as well as economic conditions more broadly—has improved again recently following a moderate deterioration earlier in the year, and the latest readings were near the upper end of the range of values recorded during the previous economic expansion (figure 16). After having lagged behind improvements in headline sentiment earlier in the recovery, the survey measures of households' expectations for real income changes over the next year or two have also improved noticeably and now stand close to their pre-recession levels.

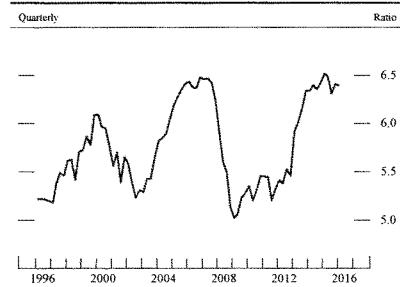
14. Prices of existing single-family houses



NOTE: The data for the S&P/Case-Shiller index extend through March 2016. The data for the Zillow and CoreLogic indexes extend through April 2016. For Dow Jones Indices licensing information, see the note on the Contents page.

SOURCE: CoreLogic Home Price Index; Zillow; S&P/Case-Shiller U.S. National Home Price Index ("Index"). The S&P/Case-Shiller Index is a product of S&P Dow Jones Indices LLC and/or its affiliates.

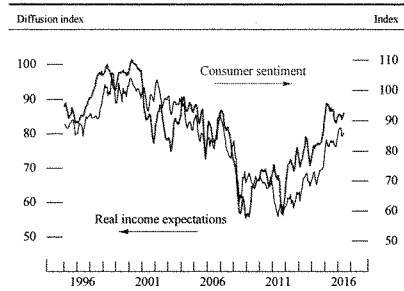
15. Wealth-to-income ratio



NOTE: The series is the ratio of household net worth to disposable personal income.

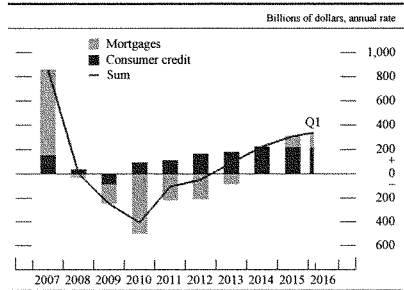
SOURCE: For net worth, Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States"; for income, Department of Commerce, Bureau of Economic Analysis.

16. Indexes of consumer sentiment and income expectations



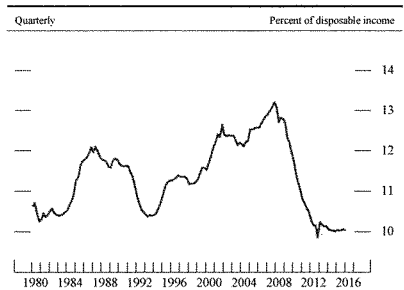
NOTE: The data are three-month moving averages and extend through June 2016. June data are preliminary. Consumer sentiment is indexed to 100 in 1966. Real income expectations are calculated as the net percent of survey respondents expecting family income to go up more than prices during the next year or two, plus 100.
SOURCE: University of Michigan Surveys of Consumers.

17. Changes in household debt



SOURCE: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

18. Household debt service



NOTE: Debt service payments consist of estimated required payments on outstanding mortgage and consumer debt.
SOURCE: Federal Reserve Board, Statistical Release, "Household Debt Service and Financial Obligations Ratios."

... and household credit availability is generally favorable

Consumer credit has continued to expand this year amid stable credit performance (figure 17). Auto and student loans remain widely available, even to borrowers with lower credit scores, and outstanding balances of these types of loans expanded at a robust pace. Credit card borrowing has also accelerated a bit, on balance, and the outstanding balance in April was 5½ percent above its level a year earlier. Although there have been some tentative signs of easing overall, credit card standards have remained tight for nonprime borrowers.

Low interest rates and rising incomes have enabled many households to lower their debt payment burdens. The household debt service ratio—that is, the ratio of required principal and interest payments on outstanding household debt to disposable personal income—has remained at a very low level by historical standards (figure 18). Interest rates on 30-year fixed-rate mortgages are down about ½ percentage point from the level at the December liftoff date, and rates on auto loans, on net, have been little changed since then. Going forward, the effect of any policy rate tightening on mortgage rates and, in turn, on households' debt burdens will likely show through only gradually, as the current stock of household debt is disproportionately held in loan products with fixed interest rates.

Residential construction activity has improved at a gradual pace

The recovery in residential construction activity has maintained a moderate pace. Single-family starts continued to edge up slowly over the past year, while multifamily starts receded a little from their elevated levels in the middle of 2015 (figure 19). Looking further back, the rise in multifamily starts over the past five years has been substantial and has far exceeded the percent gain in single-family housing starts. The relative strength in multifamily construction partly reflects a shift

in demand away from owner-occupied housing toward rental housing since the recession. Elsewhere, outlays for improvements to existing homes increased more than 10 percent over the past year, and commissions and fees paid on the sale of residential real estate rose moderately, in line with the uptrend in sales of existing homes and contracts for new homes (figure 20). In all, residential investment rose almost 10 percent in 2015 and appears on track to maintain a similar pace in the first half of this year.

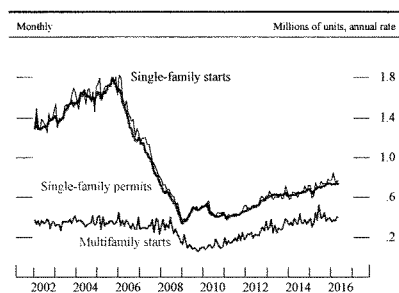
Low interest rates and an ongoing easing in mortgage credit standards have continued to support the expansions in housing demand and construction activity. In the April Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS), banks reported having eased lending standards and experienced stronger demand for most types of residential real estate loans in the first quarter.⁴ Even so, for individuals with relatively low credit scores, mortgages remain difficult to obtain. With mortgage interest rates having again moved down close to their all-time lows, housing affordability has remained favorable despite the moderate growth in house prices over the past year (figure 21).

Business fixed investment has declined . . .

A worrisome development in recent quarters has been the weakening in business fixed investment (private nonresidential fixed investment). Over the past year, real outlays in the nonresidential structures category—which constitutes roughly one-fourth of total business fixed investment—have fallen sharply, as investment in oil wells and other drilling and mining structures has followed the steep drop in oil prices (figure 22). The decline in the number of drilling rigs in operation has been so pronounced that investment in drilling and mining structures has shrunk to

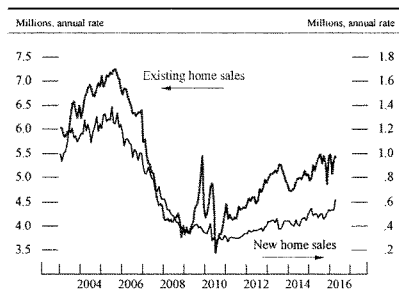
4. The SLOOS is available on the Board's website at www.federalreserve.gov/boarddocs/slnloosurvey.

19. Private housing starts and permits



SOURCE: Department of Commerce, Bureau of the Census.

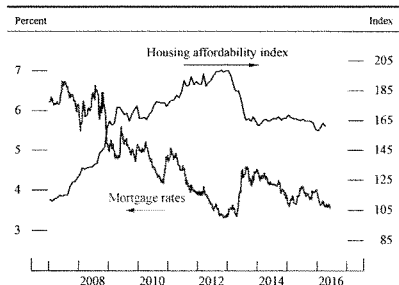
20. New and existing home sales



NOTE: The data extend through April 2016. "Existing home sales" includes single-family, condo, townhome, and co-op sales.

SOURCE: For new single-family home sales, Census Bureau; for existing home sales, National Association of Realtors.

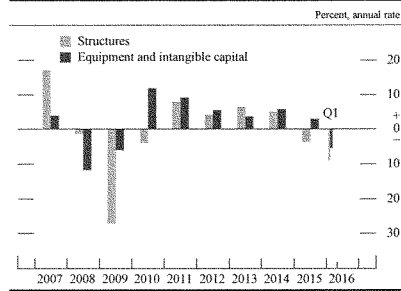
21. Mortgage rates and housing affordability



NOTE: The housing affordability index data are monthly through April 2016, and the mortgage rate data are weekly through June 15, 2016. At an index value of 100, a median-income family has exactly enough income to qualify for a median-priced home mortgage. Housing affordability is seasonally adjusted by Board staff.

SOURCE: For housing affordability index, National Association of Realtors; for mortgage rates, Freddie Mac Primary Mortgage Market Survey.

22. Change in real private nonresidential fixed investment



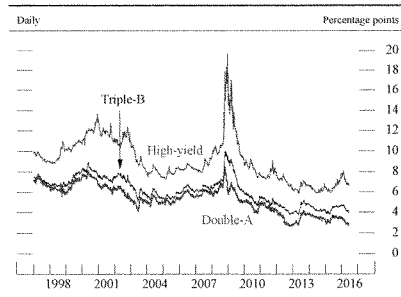
SOURCE: Department of Commerce, Bureau of Economic Analysis.

less than one-third its peak in 2014, and the ongoing contraction has subtracted nearly ½ percentage point from real GDP growth over the past four quarters. Outside of the energy sector, business outlays for structures recorded relatively modest increases following the sizable gains observed in the first half of 2015. Meanwhile, business spending on equipment and intellectual property products moved down in the fourth quarter of last year and the first quarter of 2016, and the available indicators, such as orders and shipments of capital goods and surveys of business conditions, point to continued softness in the current quarter.

Although investment spending continues to be supported by low interest rates and generally accommodative financial conditions, spending is likely being restrained by a slowing in actual and expected business output growth. Weak foreign demand and the stronger dollar are already having an adverse effect on domestic businesses, and analysts' forecasts for year-ahead corporate earnings have been revised down considerably, even outside of the energy sector. Meanwhile, as reported by the Bureau of Economic Analysis, corporate profits recorded only a slight increase in the first quarter after falling sharply at the end of last year, although here, too, the weakness was heavily concentrated in the energy sector.

... while corporate financing conditions have remained generally accommodative

23. Corporate bond yields, by securities rating



NOTE: The yields shown are yields on 10-year bonds.
SOURCE: BofA Merrill Lynch Global Research, used with permission.

Corporate financing conditions remained generally accommodative in the first half of this year, although ongoing oil market developments and episodes of global financial stress led to sporadic periods of heightened perceptions of risk. In particular, corporate bond markets showed strains early in the year, especially for those firms most affected by the low energy prices. In recent months, however, pressures in bond markets have eased somewhat, and corporate bond yields overall have returned to historically low levels (figure 23). In the April SLOOS, banks indicated that they had tightened their

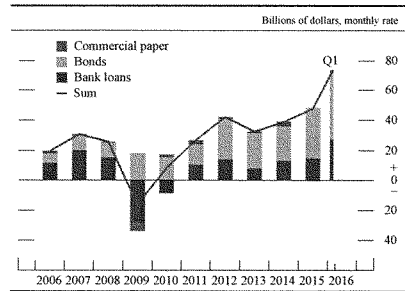
standards on commercial and industrial (C&I) loans to large and middle-market firms in the first quarter, but even so, such financing remained broadly available. For the first quarter as a whole, corporate bond issuance and the growth of C&I loans on banks' balance sheets were quite strong (figure 24). Firms' equity issuance was also generally solid, though initial public offerings have been weak. Meanwhile, the growth of small business loans was subdued.

Financing conditions in the commercial real estate (CRE) sector have remained accommodative overall, but here, too, there have been some signs of tightening. Growth of CRE loans at banks remained strong during the first half of the year. However, banks indicated that they had further tightened their lending standards on CRE loans in the first quarter of 2016, according to the April SLOOS. In addition, spreads on interest rates for CRE loans relative to 10-year swap rates and to yields on commercial mortgage-backed securities rose sharply further early this year, and although they have retreated significantly since then, these measures remain well above their historical average levels.

Exports and imports have both been weak this year

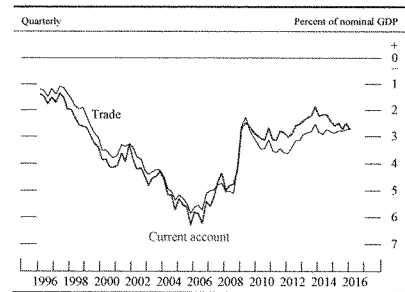
Based on recently released trade prices and the nominal census trade data, it appears that real exports were roughly flat in the first quarter of 2016, held back by slow foreign growth and the considerable appreciation of the dollar over the past two years. Despite the appreciation of the dollar, real imports looked to have declined in the first quarter, with weakness in both capital- and consumer-goods categories. Overall, the net export contribution to GDP growth was about neutral. While the nominal trade deficit narrowed a little in the first quarter, the current account deficit widened a touch to 2.7 percent of nominal GDP (figure 25). The April trade data suggest that net exports will be a small drag on GDP growth in the current quarter, as the trade deficit increased, with imports rebounding from a very weak March level.

24. Selected components of net debt financing for nonfinancial businesses



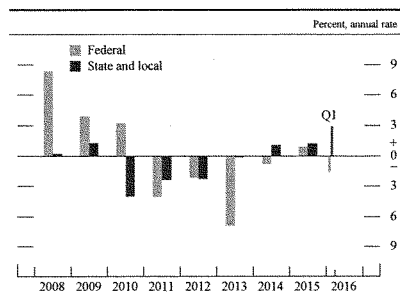
SOURCE: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

25. U.S. trade and current account balances



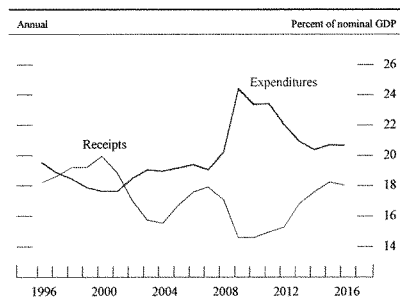
NOTE: GDP is gross domestic product. SOURCE: Department of Commerce, Bureau of Economic Analysis.

26. Change in real government expenditures on consumption and investment



SOURCE: Department of Commerce, Bureau of Economic Analysis.

27. Federal receipts and expenditures



NOTE: Through 2015, receipts and expenditures are for fiscal years (October to September); gross domestic product (GDP) is for the four quarters ending in Q3. For 2016, receipts and expenditures are for the 12 months ending in May, and GDP is the average of 2015:Q4 and 2016:Q1. Receipts and expenditures are on a unified-budget basis.

SOURCE: Office of Management and Budget.

The drag from federal fiscal policy has ended . . .

Fiscal policy at the federal level had a roughly neutral influence on GDP growth in 2015, as the substantial contractionary effects of earlier fiscal consolidation have abated. Policy actions had little effect on taxes, while transfers and federal purchases of goods and services merely edged up (figure 26). Going forward, if the increased spending authority enacted in last year's budget agreement is fully utilized, federal fiscal policy would likely be mildly supportive of GDP growth over 2016 and 2017.

After narrowing significantly over the past several years, the federal unified budget deficit has recently widened slightly. At 18 percent of GDP, receipts have remained high relative to the recession and early recovery period (figure 27). At 21 percent, expenditures as a share of GDP are above the levels that prevailed before the start of the most recent recession. Although the ratio of federal debt held by the public to nominal GDP is already quite elevated, the deficit currently remains small enough to roughly stabilize this ratio at around 75 percent (figure 28).

. . . and state and local government expenditures are rising

The expansion of economic activity and further gains in house prices continue to support a gradual improvement in the fiscal position of most state and local governments. Consistent with their improving finances, states and localities significantly expanded real construction spending in 2015 and in the early part of this year. By contrast, employment growth in the state and local sector was muted last year, but the pace has stepped up somewhat so far in 2016 (figure 29).

Financial Developments

Financial conditions tightened early in the year but then eased

Early in 2016, domestic financial conditions tightened, as uncertainty about the outlook

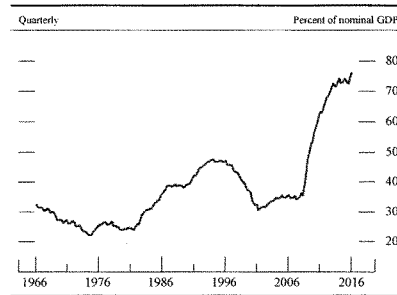
for the Chinese economy, lower oil prices, and weak data on economic activity in several economies contributed to concerns about the prospects for global economic growth and to a pullback from risky assets. At that time, Treasury yields declined across maturities, equity prices fell steeply, equity price volatility rose, and risk spreads on corporate bonds widened notably. In addition, investors came to expect a more gradual increase in the target range for the federal funds rate than they had previously anticipated. However, investors' concerns appeared to diminish beginning in mid-February, and since then, amid mixed U.S. economic data, domestic financial conditions have generally eased on balance: Stock prices rose notably, equity price volatility declined, and credit spreads on corporate bonds narrowed. (For a discussion of financial stability developments over this same period, see the box "Developments Related to Financial Stability.")

On balance to date this year, the expected path for the federal funds rate over the next several years declined . . .

The path of the federal funds rate implied by market quotes on interest rate derivatives flattened, on net, since December. The turbulence in global financial markets early in the year, the FOMC's communications, and some indications of a slowing in the pace of improvement in the labor market of late contributed to market participants' expectation that U.S. monetary policy would be more accommodative than they had anticipated late last year.

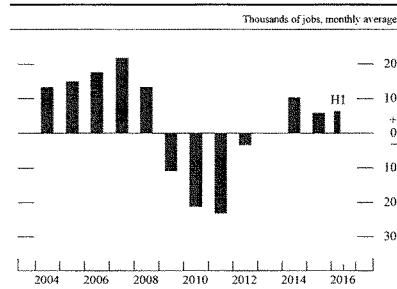
Survey-based measures of the expected path of policy also moved down this year. Respondents to the Survey of Primary Dealers and to the Survey of Market Participants in June expected fewer 25 basis point increases in the FOMC's target range for the federal funds rate this year than they projected in December. Market-based measures of uncertainty about the policy rate approximately one to two years ahead declined, on balance, from their year-end levels.

28. Federal government debt held by the public



NOTE: The data for gross domestic product (GDP) are at an annual rate. Federal debt held by the public equals federal debt less Treasury securities held in federal employee defined benefit retirement accounts, evaluated at the end of the quarter.
SOURCE: For GDP, Department of Commerce, Bureau of Economic Analysis; for federal debt, Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

29. State and local government employment change



NOTE: The value for 2016:H1 is calculated with data extending through May. The value for 2013 is -0.08.
SOURCE: Department of Labor, Bureau of Labor Statistics.

Developments Related to Financial Stability

Financial vulnerabilities in the United States overall remain at a moderate level. This assessment is supported by the resilience demonstrated by domestic financial firms and markets during the period of heightened financial volatility near the start of the year. Capital and liquidity ratios at large banks have stayed at high levels relative to historical standards, and debt growth in the household sector has been modest. However, leverage of nonfinancial corporations continues to be elevated by historical standards, leaving lower-rated firms potentially vulnerable to adverse developments. Stresses on energy firms remain high given the low level of oil prices. Valuation pressures have increased somewhat in equity markets as expected profits have been marked down. Commercial real estate (CRE) prices are near or above their previous peaks. Even given moderate financial vulnerabilities, a number of possible external shocks, including if the United Kingdom chooses to leave the European Union in a pending referendum, could pose risks to financial stability.

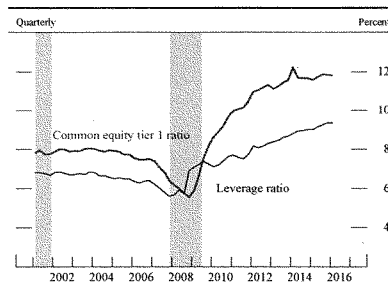
Stronger capital positions at domestic banking organizations have substantially contributed to the improved resilience of the U.S. financial system (figure A). The results of the stress tests mandated by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the accompanying Comprehensive Capital Analysis and Review are scheduled to be released June 23 and June 29, 2016, respectively.¹ In addition, large domestic banks have continued to hold high levels of liquid assets and have shifted the composition of their liabilities toward more-stable funding sources. However, measures of profitability, such as return on assets and return on equity, declined noticeably in the first quarter as many banking firms increased provisions for loan losses. The pickup in provisions to date primarily reflects rising delinquencies for loans to energy-related firms. Energy exposures for most banks appear manageable, but some small domestic banks still have significant exposure to the oil sector, and others could be affected by spillovers from the energy sector to other business lines. A few large domestic banks have material ties to global banks that appear to be more susceptible to low oil prices due to their significant exposures to oil-producing emerging market economies.

1. The exercise tests the ability of the 34 participating bank holding companies to maintain adequate capital ratios and continue to provide intermediary services in the face of a hypothetical severe recession. For descriptions of the scenarios, see Board of Governors of the Federal Reserve System (2016), *2016 Supervisory Scenarios for Annual Stress Tests Required under the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule* (Washington: Board of Governors, January), <https://www.federalreserve.gov/newsevents/press/bcreg/bcreg20160128a2.pdf>.

Capital positions also have remained relatively elevated at insurance companies and broker-dealers. In addition, net secured borrowing by dealers—primarily used to finance their own portfolios of securities—has stayed near its lowest levels since 2001. Margin credit extended by dealers—which funds clients' positions in traded stocks—has fluctuated within the upper part of its historical range, but margin calls reportedly were met without disruption or a marked increase in disputes during the heightened market volatility at the start of the year.

The stock of private, short-term, money-like instruments, which form funding intermediation chains that are vulnerable to runs, has continued to trend down relative to gross domestic product (GDP) and total nonfinancial debt, suggesting vulnerabilities from maturity transformation have continued to fall. Assets in money market mutual funds (MMFs) have been relatively stable this year, though assets in institutional prime MMFs have been declining, primarily because Securities and Exchange Commission (SEC) reforms aimed at mitigating the funds' susceptibility to investor runs have induced conversions of prime funds into government-only funds. Nevertheless, some structural vulnerabilities are expected to persist in MMFs even after SEC reforms go fully into effect in October 2016. For open-end mutual funds, the Financial Stability Oversight Council highlighted potential risks to financial stability from liquidity transformation

A. Regulatory capital ratios at the top 25 bank holding companies



NOTE: The common equity tier 1 ratio equals core equity capital divided by risk-weighted assets, while the leverage ratio equals tier 1 capital divided by average total consolidated assets. Exact calculations for the two regulatory capital ratios can be found in schedule HC-R of the Federal Reserve Board's reporting form FR Y-9C. Before 2014:Q1, the numerator of the common equity tier 1 ratio is tier 1 common capital. Beginning in 2014:Q1 for advanced approaches bank holding companies and in 2015:Q1 for all other bank holding companies, the numerator is common equity tier 1 capital. The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.

SOURCE: Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Bank Holding Companies.

through funds that hold less liquid assets and could face elevated redemptions, and the council suggested possible actions to mitigate those risks.

Valuation pressures have generally stayed at a moderate level since January, though they rose for a few asset classes. Forward price-to-earnings ratios for equities have increased to a level well above their median of the past three decades. Although equity valuations do not appear to be rich relative to Treasury yields, equity prices are vulnerable to rises in term premiums to more normal levels, especially if a reversion was not motivated by positive news about economic growth. In contrast, valuation pressures in corporate bond markets—which manifest in low yields and credit spreads—were about unchanged. Credit spreads for 10-year investment- and speculative-grade bonds changed little, on balance, and far-term forward spreads on speculative-grade corporate bonds have risen slightly, suggesting only a small decrease in investors' risk appetite. Although respondents to the Board's Senior Credit Officer Opinion Survey on Dealer Financing Terms reported some deterioration in market liquidity during the heightened financial volatility near the start of the year, standard measures of liquidity in corporate bond markets decreased only about in line with what might be expected given historical relationships between liquidity and volatility.

Valuations in the CRE sector appear increasingly vulnerable to negative shocks, as CRE prices have continued to outpace rental income and exceed, by some measures, their pre-crisis peaks. However, leverage in the sector does not appear excessive, and some evidence points to a recent reduction in risk appetite among CRE investors. Overall growth of CRE debt is moderate, and the ratio of debt backed by nonfarm nonresidential property to GDP is below an estimate of its long-run historical trend. In addition, according to the January and April results of the Board's Senior Loan Officer Opinion Survey on Bank Lending Practices, banks tightened lending standards in the fourth quarter of 2015 and first quarter of 2016.

The private nonfinancial-sector credit-to-GDP ratio has stayed near the levels that prevailed in the mid-2000s, though it is below conventional estimates of its long-term upward trend. In addition, debt growth in the household sector remained modest and mostly attributable to prime borrowers. In contrast, leverage for the nonfinancial corporate sector has stayed elevated and indicators of corporate credit quality, though still solid overall, continued to show signs of deterioration for lower-rated firms, especially in the energy sector. Even so, the risks posed by the elevated indebtedness of nonfinancial corporations may be attenuated by substantial cash holdings of investment-grade firms, relatively low interest expenses, and limited short-term debt.

The Federal Reserve Board has taken several further steps to improve the resilience of financial institutions and overall financial stability, including three proposals that apply only to large banking organizations and increase in stringency with the systemic footprint of the organization. First, the Board issued for public comment a proposed rule that would impose single-counterparty credit limits to help constrain interconnectedness within the financial system.² Second, the Board and the other federal banking agencies issued for public comment a proposed rule that would require large U.S. banking organizations to maintain a minimum net stable funding ratio (NSFR).³ The proposal would require those institutions to maintain sufficient levels of stable funding relative to the liquidity of their assets, derivatives, and commitments over a one-year period, reducing liquidity risk in the banking system. The NSFR proposal would also serve as a complement to the liquidity coverage ratio rule. Third, the Board issued for public comment a proposed rule that would reduce the threat of disorderly liquidation of financial firms by requiring U.S. global systemically important banks (G-SIBs) and the U.S. operations of foreign G-SIBs to restrict the ability of counterparties to terminate qualified financial contracts early if the firm enters bankruptcy or a resolution process.⁴

In addition, the Board and the Federal Deposit Insurance Corporation announced their determinations and provided firm-specific feedback on the 2015 resolution plans of eight U.S. G-SIBs.⁵ The two agencies ordered five of the firms to address identified deficiencies in their plans by October 1, 2016, or possibly be subjected to more stringent prudential requirements.

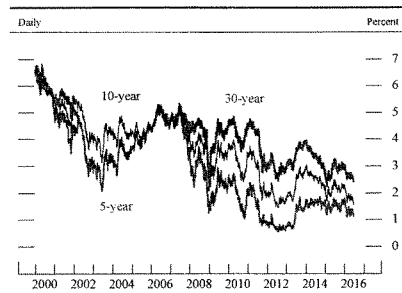
2. See Board of Governors of the Federal Reserve System (2016), "Federal Reserve Board Proposes Rule to Address Risk Associated with Excessive Credit Exposures of Large Banking Organizations to a Single Counterparty," press release, March 4, <https://www.federalreserve.gov/newsevents/press/bcreg/20160304b.htm>.

3. See Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency (2016), "Agencies Propose Net Stable Funding Ratio Rule," joint press release, May 3, <https://www.federalreserve.gov/newsevents/press/bcreg/20160503a.htm>.

4. See Board of Governors of the Federal Reserve System (2016), "Federal Reserve Board Proposes Rule to Support U.S. Financial Stability by Enhancing the Resolvability of Very Large and Complex Financial Firms," press release, May 3, <https://www.federalreserve.gov/newsevents/press/bcreg/20160503b.htm>.

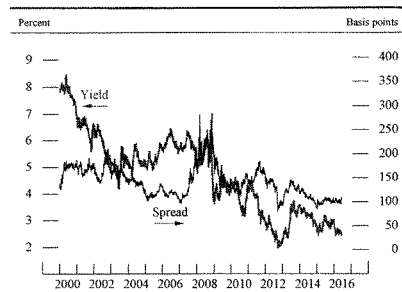
5. See Board of Governors of the Federal Reserve System and Federal Deposit Insurance Corporation (2016), "Agencies Announce Determinations and Provide Feedback on Resolution Plans of Eight Systemically Important, Domestic Banking Institutions," joint press release, April 13, <https://www.federalreserve.gov/newsevents/press/bcreg/20160413a.htm>.

30. Yields on nominal Treasury securities



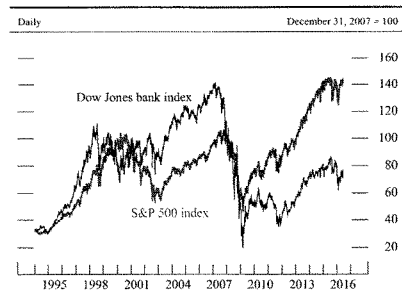
NOTE: The Treasury ceased publication of the 30-year constant maturity series on February 18, 2002, and resumed that series on February 9, 2006.
SOURCE: Department of the Treasury.

31. Yield and spread on agency mortgage-backed securities



NOTE: The data are daily. Yield shown is for the Fannie Mae 30-year current coupon, the coupon rate at which new mortgage-backed securities would be priced at par, or face, value. Spread shown is to the average of the 5- and 10-year nominal Treasury yields.
SOURCE: Department of the Treasury; Barclays.

32. Equity prices



NOTE: For Dow Jones Indices licensing information, see the note on the Contents page.
SOURCE: Standard and Poor's Dow Jones Indices via Bloomberg.

... longer-term nominal Treasury yields decreased ...

Yields on 5-, 10-, and 30-year nominal Treasury securities declined in the first half of the year on balance (figure 30). Treasury yields decreased most notably in the early part of the year amid an increase in safe-haven demands and a pullback from risky assets. Yields changed little since then, on net, as risk sentiment generally improved but concerns about longer-term economic growth remained. Consistent with the change in yields on Treasury securities, yields on 30-year agency mortgage-backed securities (MBS)—an important determinant of mortgage interest rates—decreased, on balance, in the first half of 2016 (figure 31).

... broad equity price indexes increased slightly, and those of companies linked to energy sectors rose substantially ...

After incurring sharp declines early in the year, broad equity price indexes rebounded as risk sentiment improved, resulting in levels that were slightly higher, on net, than at year-end (figure 32). In addition, reflecting the rebound in oil prices since the turn of the year, stock prices of companies in the energy sector outperformed broad equity market indexes over the first half of 2016. Meanwhile, implied volatility of the S&P 500 index increased through mid-February and then declined, ending the period above its year-end level.

... while risk spreads on corporate bonds narrowed

Similar to the movements in equity markets, spreads on corporate bonds over comparable-maturity Treasury securities widened early in the year but later retraced those moves, leaving spreads generally little changed, on net, over the first half of the year. Spreads on the lowest-rated speculative-grade issues declined appreciably. Nonetheless, corporate bond spreads stayed notably above their historical median levels, consistent with some deterioration in credit quality in the corporate sector.

Bank credit continued to expand, but profitability declined

Aggregate credit provided by commercial banks increased at a solid pace through May (figure 33). The expansion in bank credit reflected strong loan growth coupled with a modest increase in banks' holdings of securities. The growth of loans on banks' books was generally consistent with banks' reports in the April SLOOS of stronger demand for most loan categories and easier lending standards for loans to households.

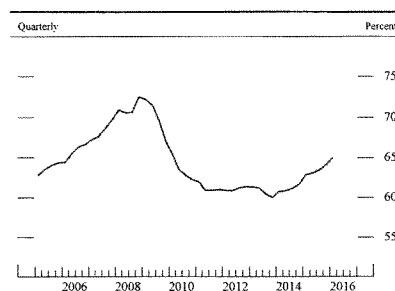
Measures of bank profitability remained below their historical averages and declined in the first quarter of 2016, pressured by higher provisioning for losses on loans to borrowers in the oil and gas sectors, reduced trading and investment banking revenues, and continued low net interest margins (figure 34). However, with the exception of C&I loans, loan delinquency and charge-off rates continued to decline across most major loan types and remained near or at their lowest levels since the financial crisis. Stock prices of large bank holding companies decreased over the first half of the year, while banks' credit default swap spreads increased and stayed above their average level over the past two years.

Measures of liquidity conditions and functioning in financing markets were generally stable

Available indicators of Treasury market functioning have remained broadly stable over the first half of 2016. A variety of liquidity metrics—including bid-asked spreads and bid sizes in secondary markets for Treasury securities—have displayed no notable signs of liquidity pressures over the same period. In addition, Treasury auctions generally continued to be well received by investors.

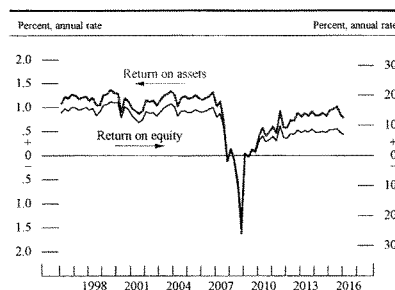
Liquidity conditions in the agency MBS market also appeared to be generally stable. Dollar-roll-implied financing rates for production coupon MBS—an indicator of the scarcity of agency MBS for settlement—

33. Ratio of total commercial bank credit to nominal gross domestic product



SOURCE: Federal Reserve Board, Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States"; Department of Commerce, Bureau of Economic Analysis.

34. Profitability of bank holding companies



NOTE: The data are quarterly and are seasonally adjusted.
SOURCE: Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Bank Holding Companies.

suggested limited settlement pressures over the first half of 2016. In addition, measures of corporate bond market liquidity, such as gauges of the effect of trades on market prices, stayed at levels comparable with those seen prior to the financial crisis. However, accurately measuring liquidity in fixed-income markets can be challenging, and liquidity conditions may vary in certain segments of the market or during times of stress.

Short-term dollar funding markets also continued to function smoothly during the first half of 2016. There were generally no signs of stress in either secured or unsecured money markets, including at March quarter-end.

Municipal bond markets functioned smoothly despite recent developments on Puerto Rico's debt

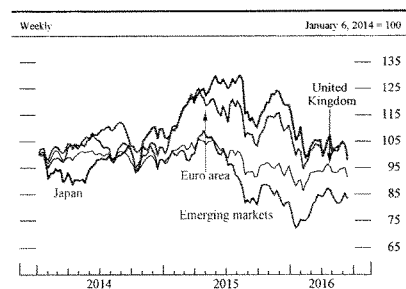
Credit conditions in municipal bond markets continued to be stable even as the situation facing Puerto Rico and its creditors deteriorated further. Gross issuance of municipal bonds remained solid in the first quarter, and yield spreads on general obligation (GO) municipal bonds over comparable-maturity Treasury securities increased a bit on net. Puerto Rico's Government Development Bank missed a substantial debt payment due in early May, and investors remained focused on the next sizable payment of GO bonds due in July.

International Developments

Foreign financial market conditions improved after tightening early in the year

Foreign financial market conditions tightened early in the year, with bond spreads rising and equity markets falling in most countries as investor concerns about global economic growth increased, particularly with regard to China (figure 35). Since mid-February, in response to the release of some positive foreign data, reassuring moves by Chinese policymakers, and a market perception that

35. Equity indexes for selected foreign economies



NOTE: The data are weekly averages of daily data and extend through June 16, 2016. For Dow Jones Indices licensing information, see the note on the Contents page.

SOURCE: For Japan, Tokyo Stock Price Index (TOPIX); for the euro area, Dow Jones Euro STOXX Index; for the United Kingdom, FTSE 350 Index; for emerging markets, Morgan Stanley Emerging Markets MEXF Capital Index; all via Bloomberg.

U.S. monetary policy would be somewhat more accommodative than previously expected, financial conditions generally improved. A rebound in oil prices also seemed to reassure investors, possibly by diminishing financial stability concerns around oil-producing firms and oil-exporting economies. Bond yields, however, have generally moved lower since February, both because of low readings on inflation and in response to the U.S. employment report in June (figure 36).

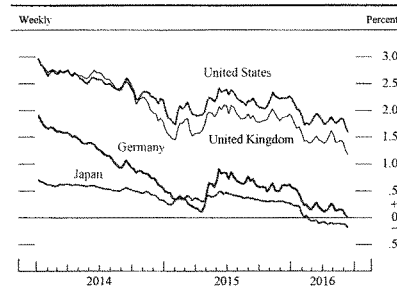
The dollar depreciated early in the year but has risen, on balance, more recently

After increasing more than 20 percent from mid-2014 through its recent peak in January of this year, the broad dollar index—a measure of the trade-weighted value of the dollar against foreign currencies—has declined about 4 percent on balance (figure 37). The exchange value of the dollar fluctuated importantly over the first half of this year in response to shifting views about the path of U.S. monetary policy—falling early on, rising starting in May, and declining again more recently. On net, the dollar declined significantly against currencies of some commodity exporters, including Canada, as higher oil prices provided support for those currencies. In contrast, the British pound appreciated less against the dollar than other currencies, likely reflecting investor concerns about the upcoming referendum on whether the United Kingdom should leave the European Union. The Chinese renminbi was under considerable depreciation pressure late last year and very early in 2016 but stabilized as fears that Chinese policymakers would allow the renminbi to fall considerably further were allayed by reassuring statements of Chinese authorities, positive macroeconomic data, and decreased capital outflows (figure 38).

Economic growth remained modest in most advanced foreign economies

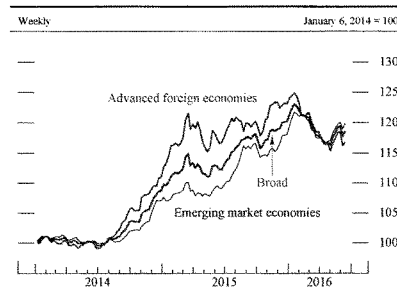
In the euro area, Canada, and Japan, economic growth picked up in the first quarter of 2016 (figure 39). The euro-area economy was supported by the European Central Bank's

36. 10-year nominal benchmark yields in selected advanced economies



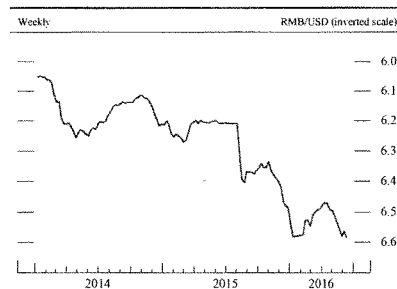
NOTE: The data are weekly averages of daily data and extend through June 16, 2016.
SOURCE: Bloomberg.

37. U.S. dollar exchange rate indexes



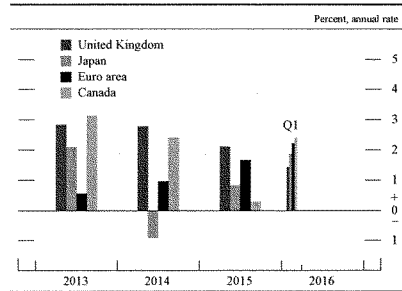
NOTE: The data, which are in foreign currency units per dollar, are weekly averages of daily data and extend through June 16, 2016.
SOURCE: Federal Reserve Board, Statistical Release H.10, "Foreign Exchange Rates."

38. Chinese renminbi exchange rate



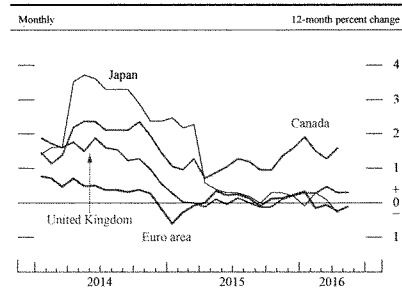
NOTE: The data are weekly averages of daily data and extend through June 16, 2016. The line plots the number of Chinese renminbi per U.S. dollar (RMB/USD). Given the inverted scale, the line moving up indicates an appreciation of the renminbi against the dollar.
SOURCE: Bloomberg.

39. Real gross domestic product growth in selected advanced foreign economies



SOURCE: For the euro area, Eurostat; for Japan, Cabinet Office, Government of Japan; for Canada, Statistics Canada; for the United Kingdom, Office for National Statistics; all via Haver Analytics.

40. Inflation in selected advanced foreign economies



NOTE: The data for Canada and Japan extend through April 2016.
 SOURCE: For the United Kingdom, Office of National Statistics; for Japan, Ministry of International Affairs and Communications; for euro area, Statistical Office of the European Communities; for Canada, Statistics Canada; all via Haver Analytics.

highly accommodative monetary policies, and the Canadian economy continued to recover from a brief recession in early 2015, with past depreciation of the Canadian dollar providing some support. However, GDP growth in the second quarter is likely to be hampered in Japan (as a result of an earthquake in April) and in Canada (on account of massive wildfires that have disrupted oil production). In addition, uncertainty related to the forthcoming U.K. referendum appears to have contributed to a step-down in U.K. growth this year.

Inflation also remained low . . .

In most advanced foreign economies (AFE), core inflation remained subdued, reflecting continued economic slack in some countries and generally subdued wage growth. As a result, despite the recent rebound in oil prices and the inflationary effects of past sizable depreciations of some currencies, headline inflation remained well below central bank targets in Canada, the euro area, Japan, and the United Kingdom (figure 40).

. . . leading AFE central banks to maintain highly accommodative monetary policies

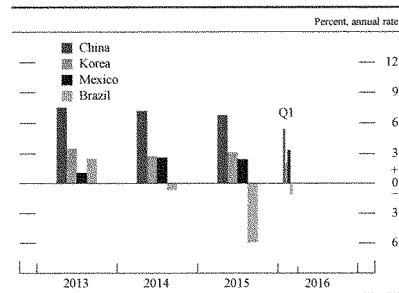
In late January of this year, the Bank of Japan adopted a negative policy rate, and in March, the European Central Bank reduced its deposit rate further into negative territory, increased the pace and scope of its asset purchases, and announced a new program of four-year loans—potentially at slightly negative rates—to euro-area banks. Meanwhile, the Bank of Canada, the Bank of England, and many other AFE central banks maintained their policy rates at historically low levels.

In emerging markets, economic growth picked up from late last year but remains subpar

The Chinese economy slowed in the first quarter (figure 41). However, recent indicators suggest that more accommodative fiscal and monetary policies are providing a lift to economic activity, particularly in the property market, where easier credit conditions have fueled a sharp turnaround. Elsewhere in emerging Asia, weak external demand from both the advanced economies and China weighed on growth in the first quarter, but exports and manufacturing have improved more recently.

Mexico's economy was a bright spot in Latin America in the first quarter, as GDP growth picked up despite lackluster exports to the United States; however, it appears economic activity decelerated in the second quarter. In Brazil, the recession continued in the first quarter, reflecting long-standing structural problems, low commodity prices, and a political crisis, subsequently resulting in a change in government. However, the contraction was smaller than in previous quarters, as commodity prices recovered somewhat and the sharp depreciation of the currency last year helped boost exports. Growth was mixed in the rest of South America, with Chilean GDP rebounding sharply while Venezuela's economy continued to experience a deep recession.

41. Real gross domestic product growth in selected emerging market economies



NOTE: The data for China are seasonally adjusted by staff. The data for Mexico, Brazil, and Korea are seasonally adjusted by their respective government agencies.

SOURCE: For China, China National Bureau of Statistics; for Korea, Bank of Korea; for Mexico, Instituto Nacional de Estadística Geografía e Informática; for Brazil, Instituto Brasileiro de Geografia e Estatística; all via Haver Analytics.

PART 2 MONETARY POLICY

Over the first half of the year, monetary policy remained accommodative to support further improvement in labor market conditions and a return to 2 percent inflation. In particular, the Federal Open Market Committee (FOMC) maintained the target range for the federal funds rate at $\frac{1}{4}$ to $\frac{1}{2}$ percent. This unchanged policy stance was supported, among other factors, by the FOMC's assessments in the first months of the year that global economic and financial developments posed risks to the economic outlook, and in June that recent information indicated that the pace of improvement in the labor market had slowed. In addition, the Committee's policy stance reflected its expectation that inflation would remain low in the near term. Looking ahead, the FOMC expects that economic conditions will warrant only gradual increases in the federal funds rate. In determining future adjustments to the federal funds rate, the Committee will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments.

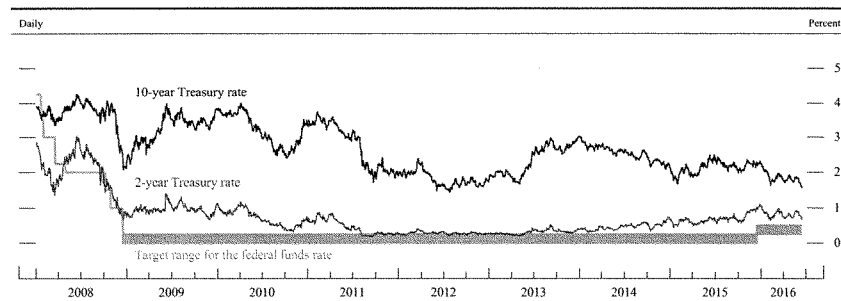
The FOMC maintained the federal funds rate target range at $\frac{1}{4}$ to $\frac{1}{2}$ percent in the first half of the year . . .

After raising the target range for the federal funds rate last December to between $\frac{1}{4}$ and $\frac{1}{2}$ percent, the Committee has maintained that range over the first half of the year (figure 42). This unchanged policy stance was supported initially by the Committee's assessment that global economic and financial developments posed risks to the economic outlook, as expressed in its March 2016 statement, and by its judgment in April that growth in

domestic economic activity appeared to have slowed.⁵ In June, the Committee noted that recent information indicated that the pace of improvement in the labor market had slowed, while growth in domestic economic activity

5. See Board of Governors of the Federal Reserve System (2016), "Federal Reserve Issues FOMC Statement," press release, March 16, <https://www.federalreserve.gov/newsevents/press/monetary/20160316a.htm>; and Board of Governors of the Federal Reserve System (2016), "Federal Reserve Issues FOMC Statement," press release, April 27, <https://www.federalreserve.gov/newsevents/press/monetary/20160427a.htm>.

42. Selected interest rates



NOTE: The 2-year and 10-year Treasury rates are the constant-maturity yields based on the most actively traded securities.
SOURCE: Department of the Treasury; Federal Reserve Board.

appeared to have picked up in the spring.⁶ The decision to maintain the target range for the federal funds rate also reflected the Committee's expectation that inflation would stay low in the near term, partly because of earlier declines in energy prices and in the prices of non-energy imports, as well as recently elevated uncertainty about the possible consequences of the U.K. referendum on European Union membership for the U.S. economic outlook.

Over the first half of 2016, the Committee remained particularly attentive to risks to the U.S. economic outlook posed by global economic and financial developments. The Committee noted earlier in the year that it was closely monitoring such developments and assessing their implications for the labor market and inflation and for the balance of risks to the outlook. The Committee subsequently indicated that these concerns had attenuated, but that it would continue to closely monitor inflation indicators and global economic and financial developments.

. . . indicated that the stance of monetary policy was likely to remain accommodative . . .

The Committee continued to expect that the federal funds rate was likely to remain, for some time, below levels that were expected to prevail in the longer run, and that with gradual adjustments in the stance of monetary policy, economic activity would expand at a moderate pace and labor market indicators would continue to strengthen. The Committee also continued to expect inflation to remain low in the near term but to rise to 2 percent over the medium term as the transitory effects of past declines in energy and import prices dissipate and the labor market strengthens further.

Consistent with this outlook, in the most recent Summary of Economic Projections, which was compiled at the time of the June

6. See Board of Governors of the Federal Reserve System (2016), "Federal Reserve Issues FOMC Statement," press release, June 15, <https://federalreserve.gov/newsevents/press/monetary/20160615a.htm>.

FOMC meeting, FOMC participants projected that the appropriate level of the federal funds rate would be below its longer-run level through 2018.

. . . and stressed that future changes in the target range for the federal funds rate will depend on the economic outlook as informed by incoming data

The FOMC continued to emphasize that, in determining the timing and size of future adjustments to the target range for the federal funds rate, the Committee would assess realized and expected economic conditions, as informed by incoming data, relative to its objectives of maximum employment and 2 percent inflation. This assessment would take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. In light of the current shortfall of inflation from 2 percent, the Committee indicated that it would carefully monitor actual and expected progress toward its inflation goal. Stronger growth or a more rapid increase in inflation than the Committee currently anticipates would likely call for faster increases in the federal funds rate; conversely, if conditions prove weaker, a lower path of the federal funds rate would likely be appropriate.

The size of the Federal Reserve's balance sheet has remained stable

To help maintain accommodative financial conditions, the Federal Reserve kept its holdings of longer-term securities at sizable levels over the first half of the year. In particular, the Committee maintained its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction, and it anticipates doing so until normalization of the level of the federal funds rate is well under way.

With the continuation of the Committee's reinvestment policy, the Federal Reserve's total

assets have held steady at around \$4.5 trillion (figure 43). Holdings of U.S. Treasury securities in the System Open Market Account (SOMA) have remained at \$2.5 trillion, and holdings of agency debt and agency mortgage-backed securities at approximately \$1.8 trillion. Consequently, total liabilities on the Federal Reserve’s balance sheet were mostly unchanged.

Interest income on the SOMA portfolio has continued to support substantial remittances to the U.S. Treasury Department. The Federal Reserve provided \$117.1 billion of such distributions to the Treasury in 2015, which included a one-time transfer of \$19.3 billion made in December 2015 to reduce aggregate Reserve Bank capital surplus to \$10 billion, as required by the Fixing America’s Surface Transportation Act, and a transfer of \$24.8 billion during the first quarter of 2016.⁷

7. See Board of Governors of the Federal Reserve System (2016), “Federal Reserve System Publishes Annual Financial Statements,” press release, March 18, <https://www.federalreserve.gov/newsevents/press/other/20160317a.htm>; and Board of Governors of the Federal Reserve System (2016), *Quarterly Report on Federal Reserve Balance Sheet Developments* (Washington: Board of Governors, May), https://www.federalreserve.gov/monetarypolicy/files/quarterly_balance_sheet_developments_report_201605.pdf.

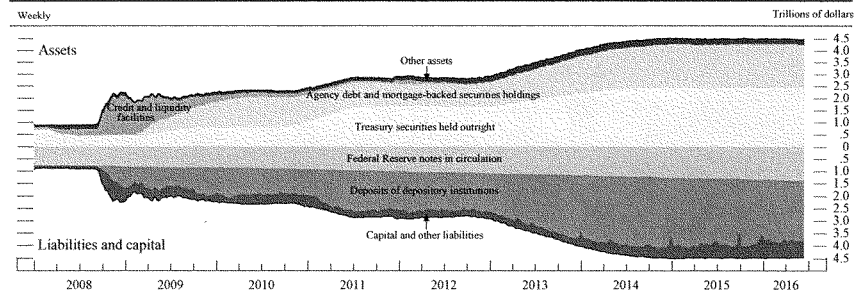
The Federal Reserve’s remittances to the Treasury have totaled over \$600 billion on a cumulative basis since 2008.

The Federal Reserve’s implementation of monetary policy has continued smoothly

Consistent with the FOMC’s Policy Normalization Principles and Plans published on September 17, 2014, and augmented with additional operational information at the March 2015 FOMC meeting, the Federal Reserve continued to use interest paid on reserve balances and employ an overnight reverse repurchase agreement (ON RRP) facility to manage the federal funds rate, and the effective federal funds rate has remained in its target range.⁸ Specifically, the Board of Governors left the interest rate paid on required and excess reserve balances unchanged at ½ percent, while the FOMC continued to authorize daily ON RRP

8. See Board of Governors of the Federal Reserve System (2014), “Federal Reserve Issues FOMC Statement on Policy Normalization Principles and Plans,” press release, September 17, www.federalreserve.gov/newsevents/press/monetary/20140917c.htm; and Board of Governors of the Federal Reserve System (2015), “Minutes of the Federal Open Market Committee, March 17–18, 2015,” press release, April 8, www.federalreserve.gov/newsevents/press/monetary/20150408a.htm.

43. Federal Reserve assets and liabilities



NOTE: “Credit and liquidity facilities” consists of primary, secondary, and seasonal credit; term auction credit; central bank liquidity swaps; support for Maiden Lane, Bear Stearns, and AIG; and other credit facilities, including the Primary Dealer Credit Facility, the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility, the Commercial Paper Funding Facility, and the Term Asset-Backed Securities Loan Facility. “Other assets” includes unamortized premiums and discounts on securities held outright. “Capital and other liabilities” includes reverse repurchase agreements, the U.S. Treasury General Account, and the U.S. Treasury Supplementary Financing Account. The data extend through June 15, 2016.
SOURCE: Federal Reserve Board, Statistical Release H.4.1, “Factors Affecting Reserve Balances.”

operations at an offering rate of $\frac{1}{4}$ percent. In addition, the Board of Governors took no action to change the discount rate (the primary credit rate), which remained at 1 percent.

The FOMC also continued to indicate that the Federal Reserve's daily ON RRP operations would be undertaken in amounts limited only by the value of Treasury securities held outright in the SOMA that are available for such operations and by a per-counterparty limit of \$30 billion per day. The total take-up at ON RRP operations with the Federal Reserve generally decreased in the first half of the year and remained at levels below those observed prior to the increase in the target range for the federal funds rate in December. The

Committee has stated that it intends to phase out the ON RRP facility when it is no longer needed to help control the federal funds rate.

The Federal Reserve also continued to test the operational readiness of other policy tools. In particular, two Term Deposit Facility operations were conducted in the first half of 2016; seven-day deposits were offered at both operations at a floating rate of 1 basis point over the interest rate on excess reserves. In these operations, term deposit volumes were broadly in line with those in previous tests with similar parameters. In addition, the Open Market Desk conducted several small-dollar value exercises solely for the purpose of maintaining operational readiness.

PART 3

SUMMARY OF ECONOMIC PROJECTIONS

In conjunction with the Federal Open Market Committee (FOMC) meeting held on June 14–15, 2016, meeting participants submitted their projections of the most likely outcomes for real output growth, the unemployment rate, inflation, and the federal funds rate for each year from 2016 to 2018 and over the longer run.⁹ Each participant's projection was based on information available at the time of the meeting, together with his or her assessment of appropriate monetary policy and assumptions about the factors likely to affect economic outcomes. The longer-run projections represent each participant's assessment of the value to which each variable would be expected to converge, over time,

9. One participant did not submit longer-run projections in conjunction with the June 2016 FOMC meeting.

under appropriate monetary policy and in the absence of further shocks to the economy. “Appropriate monetary policy” is defined as the future path of policy that each participant deems most likely to foster outcomes for economic activity and inflation that best satisfy his or her individual interpretation of the Federal Reserve’s objectives of maximum employment and stable prices.

The median of participants’ projections for the growth of real gross domestic product (GDP) was 2 percent for each year from 2016 through 2018, in line with the median estimate of the longer-run growth rate of real GDP (table 1 and figure 1). The median of growth projections in 2016 and 2017 was slightly lower than the median of near-term projections made at the time of the March FOMC meeting. The range of participants’ projections

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assessments of projected appropriate monetary policy, June 2016

Variable	Median ¹				Central tendency ²				Range ³			
	2016	2017	2018	Longer run	2016	2017	2018	Longer run	2016	2017	2018	Longer run
Change in real GDP	2.0	2.0	2.0	2.0	1.9–2.0	1.9–2.2	1.8–2.1	1.8–2.0	1.8–2.2	1.6–2.4	1.5–2.2	1.6–2.4
March projection	2.2	2.1	2.0	2.0	2.1–2.3	2.0–2.3	1.8–2.1	1.8–2.1	1.9–2.5	1.7–2.3	1.8–2.3	1.8–2.4
Unemployment rate	4.7	4.6	4.6	4.8	4.6–4.8	4.5–4.7	4.4–4.8	4.7–5.0	4.5–4.9	4.3–4.8	4.3–5.0	4.6–5.0
March projection	4.7	4.6	4.5	4.8	4.6–4.8	4.5–4.7	4.5–5.0	4.7–5.0	4.5–4.9	4.3–4.9	4.3–5.0	4.7–5.8
PCE inflation	1.4	1.9	2.0	2.0	1.3–1.7	1.7–2.0	1.9–2.0	2.0	1.3–2.0	1.6–2.0	1.8–2.1	2.0
March projection	1.2	1.9	2.0	2.0	1.0–1.6	1.7–2.0	1.9–2.0	2.0	1.0–1.6	1.6–2.0	1.8–2.0	2.0
Core PCE inflation ⁴	1.7	1.9	2.0	2.0	1.6–1.8	1.7–2.0	1.9–2.0	2.0	1.3–2.0	1.6–2.0	1.8–2.1	2.0
March projection	1.6	1.8	2.0	2.0	1.4–1.7	1.7–2.0	1.9–2.0	2.0	1.4–2.1	1.6–2.0	1.8–2.0	2.0
Memo: Projected appropriate policy path												
Federal funds rate	0.9	1.6	2.4	3.0	0.6–0.9	1.4–1.9	2.1–2.9	3.0–3.3	0.6–1.4	0.6–2.4	0.6–3.4	2.8–3.8
March projection	0.9	1.9	3.0	3.3	0.9–1.4	1.6–2.4	2.5–3.3	3.0–3.5	0.6–1.4	1.6–2.8	2.1–3.9	3.0–4.0

Notes: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are percent changes from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The projections for the federal funds rate are the value of the midpoint of the projected appropriate target range for the federal funds rate or the projected appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. The March projections were made in conjunction with the meeting of the Federal Open Market Committee on March 15–16, 2016. One participant did not submit longer-run projections in conjunction with the June 14–15, 2016, meeting.

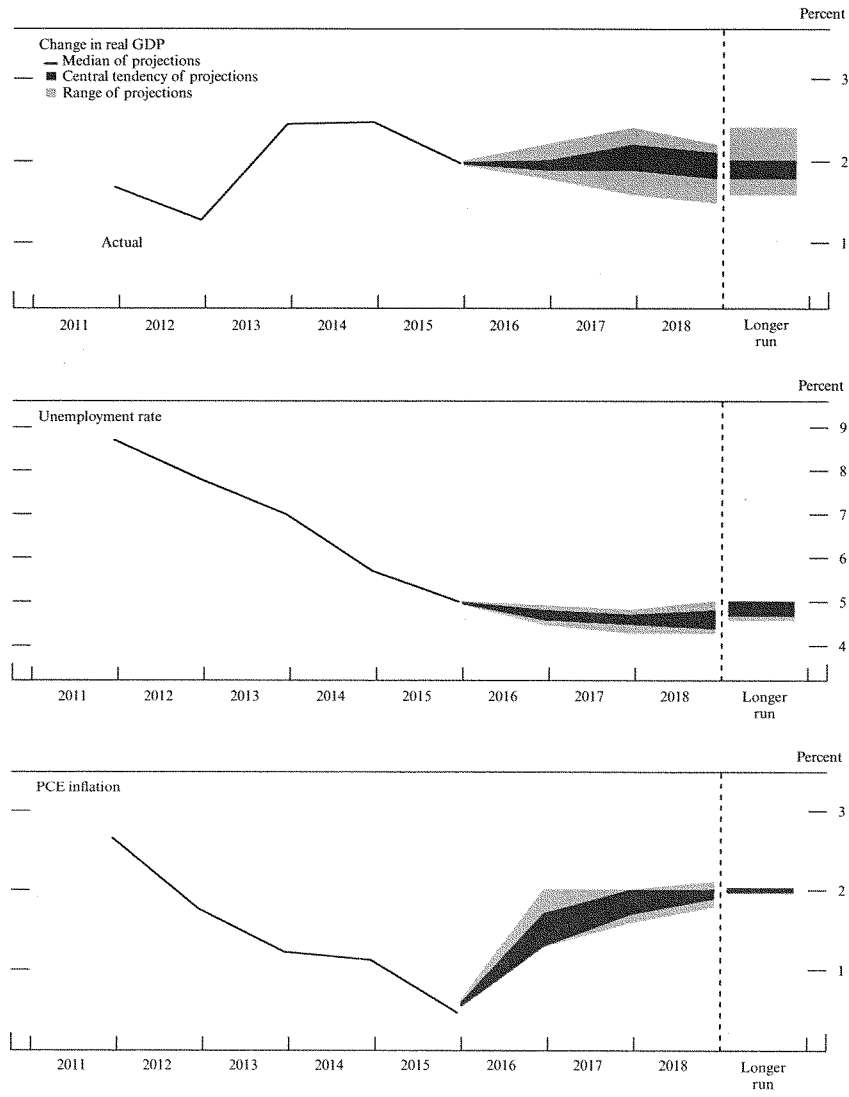
1. For each period, the median is the middle projection when the projections are arranged from lowest to highest. When the number of projections is even, the median is the average of the two middle projections.

2. The central tendency excludes the three highest and three lowest projections for each variable in each year.

3. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.

4. Longer-run projections for core PCE inflation are not collected.

Figure 1. Medians, central tendencies, and ranges of economic projections, 2016–18 and over the longer run



for real GDP growth in 2017, 2018, and over the longer run widened somewhat relative to March.

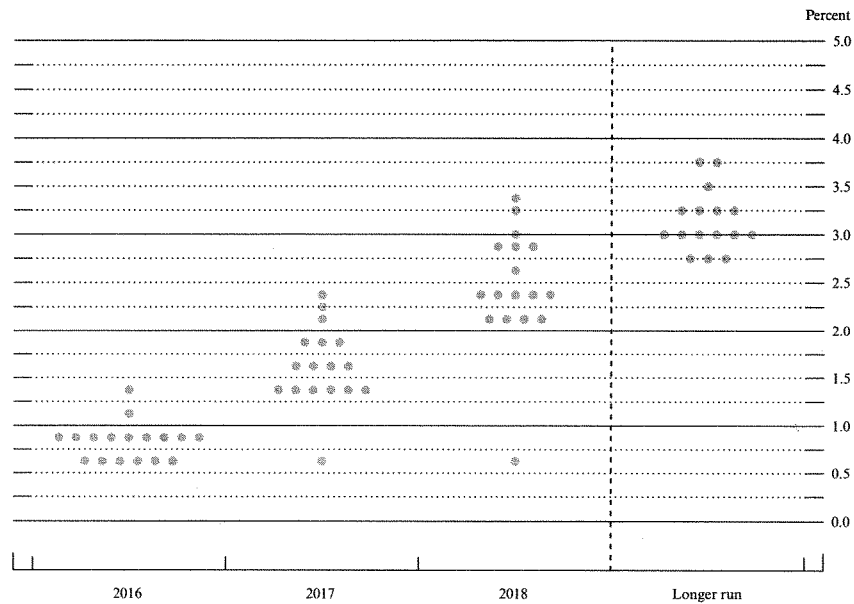
The median of projections for the unemployment rate edges down from 4.7 percent at the end of 2016 to 4.6 percent in 2017 and 2018, modestly below the median assessment of the longer-run normal unemployment rate of 4.8 percent. The medians and ranges of the unemployment rate projections for 2016 to 2018 were nearly unchanged from March.

The median of projections for inflation as measured by changes in the price index for

personal consumption expenditures (PCE) in 2016 stands at 1.4 percent, a bit higher than in March; the median rises to 1.9 percent for 2017 and to the Committee's objective of 2 percent for 2018 and over the longer run. The medians of projections for core PCE inflation also rise gradually over the next two years.

With regard to participants' projections of appropriate monetary policy, the median projection for the federal funds rate rises only gradually from $\frac{7}{8}$ percent in 2016 to 1 $\frac{1}{8}$ percent at the end of 2017 and 2 $\frac{1}{8}$ percent by the end of 2018, somewhat below the 3 percent median of participants' estimates of its longer-run normal level (figure 2).

Figure 2. FOMC participants' assessments of appropriate monetary policy: Midpoint of target range or target level for the federal funds rate



NOTE: Each shaded circle indicates the value (rounded to the nearest $\frac{1}{4}$ percentage point) of an individual participant's judgment of the midpoint of the appropriate target range for the federal funds rate or the appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. One participant did not submit longer-run projections.

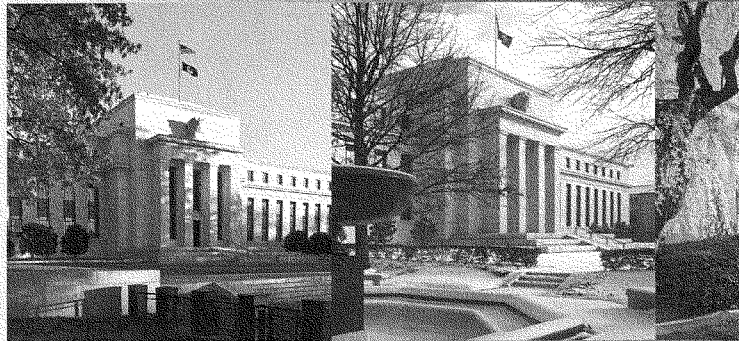
Although the median federal funds rate at the end of 2016 is unchanged from the March projection, a number of participants revised down their projections. For 2017 and 2018, the median projections are $\frac{1}{4}$ percentage point and $\frac{3}{8}$ percentage point lower, respectively, than in March. The median estimate of the longer-run level of the federal funds rate was revised down $\frac{1}{4}$ percentage point. These projections represent participants' individual assessments of appropriate policy consistent with their projections of economic growth, employment,

inflation, and other factors. However, the economic outlook is inherently uncertain; thus, each participant's assessment of appropriate policy is also necessarily uncertain, especially at longer time horizons, and will change in response to changes to the economic outlook and associated risks.

A more complete description of the Summary of Economic Projections will be released with the minutes of the June 14–15, 2016, FOMC meeting on July 6.

ABBREVIATIONS

AFE	advanced foreign economy
C&I	commercial and industrial
CRE	commercial real estate
ECI	employment cost index
FOMC	Federal Open Market Committee; also, the Committee
GDP	gross domestic product
GO	general obligation
MBS	mortgage-backed securities
Michigan survey	University of Michigan Surveys of Consumers
ON RRP	overnight reverse repurchase agreement
PCE	personal consumption expenditures
SEP	Summary of Economic Projections
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
SOMA	System Open Market Account
S&P	Standard & Poor's



Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Chairman Hensarling:

1. Chair Yellen, you testified that, unlike funding sources for commercial banks, Fed-liabilities are not prone to runs. You also testified that, despite the Fed's immunity from systemic risks, the Fed nevertheless conducts stress tests on itself. Please describe in detail the results of those tests, and how your self-testing differs from tests you administer to commercial banks.

Federal Reserve staff have examined how the Federal Reserve's income would be affected in the "supervisory severely adverse scenario" in the annual Comprehensive Capital Analysis and Review (CCAR) stress tests. The CCAR stress tests to date have focused on macroeconomic conditions that could give rise to large losses at depository institutions. Typically, these involve shocks that drive various credit spreads much higher and that could be expected to result in significant losses on bank loan portfolios. However, these scenarios generally involve lower short-term Treasury yields along with modest declines in long-term Treasury yields. This type of interest rate configuration tends to result in somewhat higher Federal Reserve income.

A number of other studies have also examined the risks to the Federal Reserve's balance sheet and income over time employing stress tests and related methodologies.¹ All of these studies conclude that the risk that the Federal Reserve will experience a prolonged period in which its net income turns negative is very remote. The types of hypothetical scenarios that could lead to periods of negative net income for the Federal Reserve are those in which short-term interest rates rise very quickly relative to the level of long-term interest rates. In extreme cases, the Federal Reserve's interest expense could rise faster than its interest income and result in negative net income for a time. The Federal Reserve reports the results of the effects of alternative interest rate scenarios along these lines in the Annual Report of the System Open Market account. Even when subjected to large and sustained increases in interest rates, Federal Reserve net income generally remains positive.²

2. The Fed regularly discloses details about various aspects of its monetary policy conduct. Given that the rate paid on reserves (required and excess) has become a prominent monetary policy tool, will the Fed commit to identifying the top twenty recipients of interest on reserves on a quarterly basis, and detail the amounts each such recipient received?

¹ See for example, Carpenter, Seth B., Jane E. Ibrig, Elizabeth C. Klee, Daniel W. Quinn, and Alexander H. Boote. 2013. "The Federal Reserve's Balance Sheet and Earnings: A Primer and Projections." Finance and Economics Discussion Series paper 2013-01, Federal Reserve Board, Christensen, Jens H.E., Jose A. Lopez, and Glenn D. Rudebusch. 2013. "A Probability-Based Stress Test of Federal Reserve Assets and Income." FRB San Francisco Working Paper 2013-38. Christensen, Jens H.E., and Glenn D. Rudebusch. 2013. "Modeling Yields at the Zero Lower Bound: Are Shadow Rates the Solution?" FRB San Francisco Working Paper 2013-39. Greenlaw, David, James D. Hamilton, Peter Hooper, and Frederic S. Mishkin. 2013. "Crunch Time: Fiscal Crises and the Role of Monetary Policy." NBER Working Paper 19297.

² See pages 30-34 of the Annual Report of the System Open Market Account for 2015 at <https://www.newyorkfed.org/medialibrary/media/markets/omo/omo2015-pdf.pdf>.

Under the Dodd-Frank Act, the Federal Reserve has published a great deal of detailed information by individual counterparty on participation in Federal Reserve credit and liquidity programs established during the financial crisis.³ In addition, on a quarterly basis, the Federal Reserve publishes detailed data on open market operations and discount window lending by counterparty with a two-year lag.⁴ However, consistent with the practice of all other U.S. financial institutions and other central banks, the Federal Reserve does not generally publish current information about the individual accounts or transactions of specific customers or counterparties.

In aggregate, the twenty depository institutions with the largest interest payments on reserves account for about 60 percent of the Federal Reserve's total interest payments to depository institutions. The Federal Reserve publishes information on total interest payments to depository institutions in its quarterly financial statements.⁵

3. In the Federal Reserve's legal opinion, how far above the general level of short-term rates does interest on reserves, required or excess, have to rise before it breaches the legal limit specified in Section 201 of the Financial Services Regulatory Relief Act of 2006?

The Federal Reserve sets the interest rate on reserves at the level necessary to keep the federal funds rate in the target range established by the Federal Open Market Committee. At present, the interest rate on required reserves and on excess reserves are both set at 50 basis points, and the federal funds rate has generally been just a few basis points below that level.

The Federal Reserve Act provides that the Federal Reserve may pay interest on balances held by depository institutions at a level not to exceed the general level of short-term interest rates. In financial markets, the term "short-term rates" is often taken to mean rates on obligations with maturities of one year or less. The Federal Reserve Board adopted a similar definition of the "general level of short-term interest rates" in Regulation D. The interest rates on required and excess reserves have been well within the range of short-term rates under the Regulation D definition. For example, at present, rates paid by financial institutions on three-month commercial paper and wholesale time deposits are significantly above 50 basis points.⁶

4. Testifying before the Committee on February 10, 2016, you rationalized the Fed's above-market interest on reserves by arguing that it ultimately lets the Fed put money back into taxpayers' pockets:

I would point out that although we are paying interest to banks on reserves, those reserves are financing our holdings, a large portfolio of holdings of longer-term

³ See http://www.federalreserve.gov/newsevents/reform_transaction.htm.

⁴ See http://www.federalreserve.gov/newsevents/reform_quarterly_transaction.htm.

⁵ See http://www.federalreserve.gov/monetarypolicy/bst_fedfinancials.htm.

⁶ See for example the Board's H.15 statistical release, <http://www.federalreserve.gov/releases/h15/current/>.

*treasury securities and mortgage-backed securities on which we earn substantially greater interest. And because of that large balance sheet...the Fed transferred back to the Treasury and to the American taxpayers \$100 billion.*⁷

*I really want to emphasize that from the taxpayers' point of view the Federal Reserve has transferred, since 2008 through 2015, roughly \$600 billion back to Congress, to the taxpayers, to the Treasury, funds that have contributed importantly to financing the government, and that has only been possible because we have a larger stock of reserves in the—on our—in the banking system and, correspondingly, hold a far larger stock of interest-bearing assets that pay in larger amounts.*⁸

*We have \$2.5 trillion, roughly, of reserves in the banking system, as compared with \$20 billion or \$30 billion prior to the crisis. The counterpart of that on our balance sheet is that we hold a very large stock of assets on which we are earning a substantially higher rate of return than we are paying to the banks. And that differential between what we earn on our holdings of long-term treasuries and mortgage-backed securities and the 25 or 50 basis points we pay to the banks, that differential all shows up in the taxpayers' pocket. It is money that Congress can use to address all of the problems that you have discussed.*⁹

The Government Accountability Office and Congressional Budget Office,¹⁰ as well as recent testimony before the Subcommittee on Monetary Policy and Trade, suggest that Fed remittances do not put money back into the taxpayers' pocket. According to GAO, for example,

While a Reserve Bank transfer to Treasury is recorded as a receipt to the government, such transfers do not produce new resources for the federal government as a whole.

In light of GAO's and related assessments, will you commit to publicly retracting the Federal Reserve's repeated claim that paying above-market interest on reserves puts money in taxpayers' pockets? If not, please provide the Committee with an analysis of whether taxpayers are earning a competitive return on "their money," given the Fed's considerable balance sheet exposures to both interest rate and credit risk. In that case, please also provide your opinion about whether the Fed's investment of taxpayers' money is consistent with that of a fiduciary.

The reference from the Government Accountability Office report noting that transfers from Reserve Banks to the Treasury do not produce new resources for the federal government as a whole is focused on the case of a transfer of Federal Reserve surplus. The Federal Reserve concurs with that analysis and with similar statements in the Congressional Budget Office (CBO) analysis of the recent transfer of Federal Reserve

⁷ Monetary Policy and the State of the Economy (2016). Transcript of Hearing Before the Committee on Financial Services, U.S. House of Representatives, 114th Congress, Second Session, February 10, p. 11. U.S. Government Publishing Office, Washington.

⁸ Ibid, p. 12.

⁹ Ibid, p. 41.

¹⁰ Government Accountability Office (2002, p. 16). Federal Reserve System: The Surplus Account, GAO-02-939.

surplus in connection with the Surface Transportation Reauthorization and Reform Act of 2015.¹¹

In contrast to transfers of Federal Reserve surplus, the Federal Reserve's remittances to the U.S. Treasury do represent an increase in resources available to the government over standard investment horizons. Indeed, that view is reflected in the procedures that have long been employed by the CBO in scoring various policies that could affect Federal Reserve remittances over time. The Federal Reserve has remitted over \$600 billion dollars to the U.S. Treasury over the period from 2008 to present.¹² Those elevated remittances have lowered federal debt and the government's net interest expense substantially relative to levels that would have prevailed if remittances had been closer to historical levels.

It is important to note that the Federal Reserve conducts monetary policy to foster progress toward its statutory goals of maximum employment and stable prices. Thus, while the elevated Federal Reserve remittances to the Treasury over recent years have benefited U.S. taxpayers, the most important benefit of the Federal Reserve's policies for U.S. households and businesses has come from the effects of those policies in boosting U.S. economic activity and employment and averting disinflationary pressures. The improvement in the U.S. economy over recent years, in turn, has greatly benefited the fiscal position of the United States in terms of increased tax revenues, lower expenses on unemployment insurance and other social programs, and lower federal debt burdens.

5. In response to a question posed by Congressman Garrett, you testified that

We have no credit risk in our portfolio. We only have government and agency [debt].

According to Vanguard, however, U.S. government agency debt has exposure to a number of risks, including the following.¹³

Agency bond prices can rise or fall depending on interest rates. Interest rate changes generally have a greater effect on long-term bond prices.

All agency bonds carry the credit risk that the issuer will default or will be unable to make timely payments of interest and principal. GSE debt is solely the obligation of the issuer and carries greater credit risk than U.S. Treasury securities.

Certain events can impact a GSE or agency issuer's financial situation and ability to make timely payments to bondholders, including economic, political, legal or regulatory changes and natural disasters. Event risk is unpredictable and can significantly impact bondholders.

¹¹ See <https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/costestimate/51015-stractrevision.pdf>.

¹² See, for example, <http://www.federalreserve.gov/newsevents/press/other/20160111a.htm>.

¹³ Accessed at <https://personal.vanguard.com/us/content/Funds/FixIncAgencyBondsContent.jsp>.

Agency bonds sold prior to maturity may be subject to substantial gain or loss. The secondary market may also be limited.

Is the Fed's portfolio subject to credit risk, or does the Fed assume that U.S. government agencies will be bailed out in times of stress? In addition, to what extent does the Fed believe its balance sheet is subject to interest rate risk? Finally, will the Fed commit to a regular and transparent disclosure of its balance sheet's duration?

The Federal Reserve's principal securities holdings include about \$2.5 trillion of Treasury securities and \$1.8 trillion of agency Mortgage-Backed Securities (MBS) securities.¹⁴ The credit risk for the Federal Reserve in holding such securities is very low. All Treasury securities are full faith and credit obligations of the U.S. government. Moreover, about \$400 billion of the Federal Reserve's holdings of agency MBS securities are Ginnie Mae securities; these securities are also full faith and credit obligations of the U.S. government. The Federal Reserve's remaining agency MBS are those issued and guaranteed by Fannie Mac and Freddie Mac.

The Housing and Economic Recovery Act of 2008 authorized the Secretary of the Treasury to support Fannie Mae, Freddie Mac, and the Federal Home Loan Banks by purchasing obligations and other securities from those entities. On September 7, 2008, individual agreements with Fannie Mae and Freddie Mac were initiated to purchase senior preferred stock. The Senior Preferred Stock Purchase Agreements (SPSPAs) effectively provide a long-term federal guarantee to existing and future debt holders.

Regarding interest rate risk, as noted in the answer to question 1, the Federal Reserve regularly reviews the effects of alternative interest rate scenarios on its net income and reports those results in the public documents cited above.

The Federal Reserve's holdings of securities are readily available to the public.¹⁵ Moreover, we publish information on the maturity distribution of our securities holdings on a weekly basis.¹⁶ Additional information on our securities holdings is presented in the quarterly report to the Congress on Credit and Liquidity Programs and the Balance Sheet.¹⁷

¹⁴ The Federal Reserve also holds a small amount (about \$22 billion) of direct obligations of Fannie Mae and Freddie Mac. The bulk of these holdings will mature by the middle of 2018.

¹⁵ See https://www.newyorkfed.org/markets/soma/sysopen_accholdings.html.

¹⁶ See table 2 in the Board's H.4.1 statistical release <http://www.federalreserve.gov/releases/h41/current/>.

¹⁷ See <http://www.federalreserve.gov/monetarypolicy/quarterly-balance-sheet-developments-report.htm>.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Chairman Hensarling:

6. You testified, in response to Congressman Heck, that a marked slowdown in productivity growth may simply reflect difficulty in measuring output from service firms, especially those producing tech-based services. In doing so, you also suggested that the weight of academic research supports this conclusion. However, University of Chicago economist Chad Syverson has been influential in arguing that the measurement-problem hypothesis falls well short of rationalizing our observed productivity slowdown.¹

After referring to “growth” almost twenty times in your opening statement, you acknowledged in response to questioning that while “growth has been disappointing...I’m not sure of the reason.” Clearly, you think “growth” is important. Why is the Fed “not sure of the reason” for our economy’s disappointing performance?

Can the Fed make prudent monetary policy decisions without understanding why growth repeatedly falls short of its projections?

Could a real productivity slowdown, related perhaps to a prolonged period of remarkably unconventional monetary policy, be contributing to the persistence of “disappointing” growth?

Given the fundamental importance of productivity growth to economic opportunity, is the Fed also considering how monetary policy may be dragging on productivity?

Economic growth since the end of the last recession has been disappointing, not only in the United States but also in many other advanced economies. When considering the reasons, it is useful to distinguish between factors that have contributed to slower growth in the economy’s capacity to produce goods and services (slower growth in potential GDP), and factors that have contributed to the speed with which the economy recovered from the recession -- that is, factors that influenced how quickly actual GDP moved up toward potential GDP and thus how quickly the economy put unemployed workers and idle production capacity back to work.

Growth of potential GDP over time reflects supply-side factors: growth in labor supply, growth of the capital stock, and growth of multi-factor productivity. Whether actual real GDP grows at a faster or slower pace than potential GDP in the short-run largely reflects demand-side factors: the economic variables and policy decisions that influence the growth rates of consumer spending, business and residential investment, government purchases of goods and services, exports, and imports. Of course, there is interaction between supply-side and demand-side factors. For example, stronger or weaker business investment spending contributes to strength or weakness in total demand for U.S. goods and services in the short run, but persistently strong or weak business investment means faster or slower growth of the capital stock. And the rate of productivity growth is an important influence on the growth rates of wages and incomes, and thus on growth of consumer spending. Nonetheless, the distinction between supply-side and

¹ Syverson, Chad (2016). Challenges to mismeasurement explanations for the U.S. productivity slowdown. January, University of Chicago Booth School of Business and NBER.

demand-side factors is useful for analytic purposes so long as one bears in mind that they interact, as is the case in the analytic models we use in the Federal Reserve.

The disappointing pace of economic growth in the U.S. during the current economic recovery and expansion reflects both a slower than historically normal recovery in demands for goods and services and a slowdown in the growth rate of potential GDP.

With respect to growth in demands for goods and services, consumer spending has grown at a solid pace, on average, with low interest rates contributing to strong growth spending on durable goods. In contrast, business fixed investment spending, residential investment, and government purchases of goods and services have generally shown weaker growth than one would have expected based on their behavior in past economic recoveries.

As a matter of growth accounting, a combination of slower growth of the labor force in recent years than in the preceding several decades, slower growth of the capital stock, and sluggish growth of multifactor productivity have contributed to slower growth of potential GDP since the end of the last recession.

Slower growth of the labor force largely reflects demographic trends, primarily the aging of the baby-boom generation and the drop in the labor force participation rate as a growing fraction of that generation pass retirement age. Slower growth of the capital stock reflects relatively weak business investment spending as a share of GDP and, to some extent, relatively weak infrastructure investment.

Lastly, slow growth of productivity since the last recession appears to be a global phenomenon. As illustrated by a recent Brookings Institution conference on "Slow Growth in Productivity: Causes, Consequences, and Policies," economists are still actively debating the causes of slow productivity growth, whether the slowdown is likely to be temporary or persistent, the extent to which productivity growth may be mismeasured, and what policy changes might contribute to faster productivity growth. Regardless of its causes, sluggish productivity growth is a worrisome phenomenon because, if it continues, it portends a period in which there will be little or no growth in households' standard of living. With respect to policy actions, participants mentioned increasing competition through changes in patent, regulatory and licensing policies, investing more in infrastructure and in workers' skills, and expanding rather than restricting international trade.

The implications of sluggish productivity growth for monetary policy are twofold. First, a lower rate of productivity growth implies that the economy's capacity to produce goods and services is growing at a slower rate. In recent years, real GDP growth averaging around 2 percent, an appreciably slower pace of growth than during the recoveries from previous recessions, has been sufficient to generate continued labor market improvement, including a substantial decline in unemployment. The decline in unemployment clearly indicates that actual GDP growth has exceeded potential GDP growth, on average. If sluggish productivity growth persists and labor markets continue to tighten, it is possible that monetary policy accommodation will need to be reduced while the economy is growing at only a moderate pace. Second, the rate of productivity growth is an important factor determining the neutral interest rate, that is, the interest rate that keeps the economy growing on an even keel. A lower trend growth rate of productivity likely

implies that the federal funds rate will be lower in the longer run than has been the case historically. Productivity growth may pick up, however, if tighter labor markets and stronger demand for their goods and services lead firms to undertake more investment in cost-reducing and productivity-enhancing technologies.

7. In response to Congressman Carney, you testified that lower energy prices are *not* a plus for the economy, since lower prices cause a drop in spending. At the same time, you acknowledged that lower prices can reflect productivity growth.

Fundamentally, what is more important for economic growth, spending per se or productivity growth?

Given that prices can decrease with productivity gains, why does the Fed maintain a fixed 2% inflation target?

Lower energy prices are, on balance, a plus for American households because lower energy prices allow households to spend less of their incomes on energy and more on other goods and services -- or, if they prefer, to save more. Of course, not all households have benefited from lower energy prices; many people who work in the energy sector have seen their incomes decline as energy prices fell. On balance, however, lower energy prices have boosted real consumer spending in the United States. At the same time, the sharp drop in energy prices resulted in a substantial decline in business investment spending, particularly in the energy sector. The decline in investment spending has been a factor restraining growth in demands for goods on services.

In general, lower prices can result from weaker demands for goods and services, or from reduced production costs (which may, in turn, result from productivity gains, particularly from productivity gains that exceed wage increases), or from both. In an economy with high resource utilization and thus little slack, productivity gains might well be reflected in rising wages rather than falling prices.

The Federal Reserve adopted and maintains a 2 percent inflation objective because, taking into account historical experience and extensive empirical research, we have concluded that inflation at a rate of 2 percent per year is most consistent over the longer run with the statutory mandate to foster both maximum employment and stable prices. I want to note that we do not have a rigid, inflexible, inflation target. If a period of rapid productivity growth were to put downward pressure on inflation at a time when labor market conditions indicate that the economy is operating in the vicinity of maximum employment, the Federal Open Market Committee would not be alarmed if inflation were to run below 2 percent for a time, particularly if longer-run inflation expectations remained consistent with our 2 percent longer-run inflation objective. In addition, it is worth noting that differences in productivity growth across industries will be reflected in different rates of inflation for different types of goods and services even when the average inflation rate is close to 2 percent. For example, rapid productivity growth in the electronics industry can generate declining prices for goods such as computers and televisions even as sluggish productivity growth in some other industries translates into rising production costs and rising prices.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Barr:

1. You have indicated the this delay will be short; however it is my understanding that even a nine-month delay by the Europeans could have a significant and adverse impact on US swaps markets. In a June 14 House Agriculture Committee hearing, several witnesses noted that this delay could put domestic firms at a competitive advantage compared with their European counterparts. Could you advise the Committee as to what you and your colleagues are doing to assess and mitigate the impact of the European Union's delay of implementation on domestic markets?

The rules for margin requirements on uncleared swaps are a key component of the post financial crisis reform package. While the Europeans have not followed through with the internationally agreed upon timeline for phasing in these requirements, other jurisdictions such as Japan and Canada have joined the U.S. in implementing these requirements. Accordingly, across the globe a wide array of firms are subject to these requirements. In addition, any European firm that transacts with a U.S., Japanese, or Canadian dealer will be required to comply with the margin requirements as well. Accordingly, the amount of activity that is not subject to any requirements is expected to be small and largely limited to transactions between European dealers.

As these requirements have been implemented across the globe, we have been keeping a very close eye on market developments to assess whether the staggered implementation is having any significant effects on market functioning. To date, our discussions with regulated banks as well as general media reports suggest that the onset of the requirements on September 1, 2016, has been well received by the market. While some operational delays and other technical issues have arisen, firms are dealing with these issues, and there is no evidence of a wide-spread market dislocation or pullback in general market liquidity.

We view these requirements as being critical to achieving financial reform, but we also have a deep appreciation for market stability and integrity. We intend to closely monitor the market over the next several months and look forward to a time in the near future when all major jurisdictions have implemented this important and much needed reform.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Beatty:

1. I'd like to start off by thanking you for your prompt response to the letter that over 100 Members of this body signed, including myself, regarding diversity at the Federal Open Market Committee (FOMC) and among Federal Reserve Bank Presidents. I want to commend you for your leadership in this effort over the past few years to increase women and minority employment at the Board and the Federal Reserve Banks. I would like to ask about the Federal Reserve Board's 2016 OMWI report; specifically the Employer Information Report for calendar year 2015, which accounts for diversity throughout the Federal Reserve System. Looking at the numbers in this report, I noticed a profound trend. The higher up you go starting with the Officials and Managers band, the less diverse the workforce becomes. The highest band, the Executive and Senior level officers band, is represented by only 37.23% women, 2.6% Hispanic, 7.36% African-American, while 81.82% are white, with over half of the Executive and Senior level officers being white males. The OMWI provisions in Dodd-Frank are meant, in part, to promote diversity in the financial services industry, where historically it has been lacking. If we want our private sector to become more inclusive and raise their diversity profiles, the Federal regulators must first take the lead. Again, I recognize your efforts and commitment to diversity, I believe more work needs to be done and I know that with your leadership, we will get to a more diverse workforce.

My question is, why do you think senior leadership at the Federal Reserve, and more generally, why senior leadership in the financial services industry is lacking in diversity?

The Federal Reserve recognizes the value of building and sustaining a diverse work force at all levels of the organization. I also believe that diversity makes the Federal Reserve more effective in carrying out its mission. When I joined the Board staff, I was one of relatively few women economists. Since then, there have been significant gains in diversity at the Board and throughout the System.

Currently, minorities represent 18 percent and women represent 37 percent of official staff (executive senior leadership) at the Board of Governors. Throughout the Federal Reserve Banks, minorities make up 19 percent of official staff and women comprise 47 percent. In the past four years, minority representation at the Reserve Banks' official staff level has increased by 22 percent and women by 14 percent. At the Board of Governors, the increase in minority and female official staff over the past four years was 17 percent and 13 percent, respectively.

Throughout the Federal Reserve System, we are committed to further expanding the range of perspectives reflected on Reserve Bank boards by identifying and recruiting individuals from a broad range of economic sectors and historically underrepresented groups, such as women and minorities. Since 2010, minority representation among all Reserve Bank and Branch board directors has increased by approximately 7 percentage points. This increase is most notable in several Reserve Bank Districts where the number of minority directors has nearly doubled, and in some cases, tripled, over the past several years. There has been a similar increase of nearly 7 percentage points with respect to female directors. Currently, with regards to Reserve Bank and

Branch board leadership positions (i.e., Reserve Bank Chairs and Deputy Chairs and Branch Chairs), 40 percent are held by women. We have also achieved greater diversity among Reserve Bank and Branch directors with respect to occupation and sector representation. Despite this progress, there is room for more, and our focus will remain on identifying and recruiting diverse candidates for all vacancies.

Increasing minority representation in official staff is an ongoing objective and challenge for the Board. Targeted outreach activities, recruitment strategies, and talent development opportunities continue to be implemented and evaluated for desired outcomes. In addition, the Board continues its participation in minority recruitment events at Historically Black Colleges and Universities and at Hispanic professional conferences and career fairs for MBAs, as well as in events for information technology professionals and financial and legal professionals as part of its efforts to increase minorities in the pipeline workforce.

While the availability of minority and female professional economists in the educational and professional pipeline remains persistently low, creating recruitment challenges for the Board, the Federal Reserve continues to promote diversity in the financial services industry as well. To address this challenge, the Board aims to stimulate an interest in economics and math among minorities and women through its participation in financial literacy programs. Under the purview of the American Economic Association's Committee on the Status of Minority Groups in the Economics Profession, the Board will continue to organize, oversee, and participate in the three programs intended to foster a long-term strategy in the recruitment of minority economists: 1) the Summer Economics Fellow Program; 2) the Summer Training Program; and 3) the Mentoring Program.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Beatty:

2. Last year, when you presented testimony before this committee I asked you whether the Federal Reserve and the FOMC looked at the disparities in employment between the overall unemployment number and the higher unemployment numbers among minorities. I was pleased to see a section in the Monetary Policy Report dedicated to this question. Now, I would like to turn to the issue of income inequality. The reason I would like to discuss income inequality is because the International Monetary Fund concluded in a June 2015 study that closing the income inequality gap between the lower and middle-class to the upper-class would increase growth in the economy, while conversely, a rising income share of the top 20% would result in lower growth. When the Board of Governors decided it was an appropriate time to raise interest rates last December, did the Board take into account income inequality? Moving forward, when the Board determines it appropriate to raise rates in the future, will income inequality be a factor considered?

Federal Reserve policymakers are well aware of, and concerned that, not all demographic groups or income groups are faring equally well as the U.S. economy and U.S. labor market conditions improve. Clearly there is scope for improvement with regard to income inequality and with ensuring that lower-income and middle-income households share more fully in the economic recovery. And as you noted, we have changed the Monetary Policy Report (MPR) to include broader coverage of the economic experiences of major demographic groups and this coverage is now a regular component of the MPR.

However, monetary policy is not capable of addressing differences in income or wealth across specific groups. Rather, we are using our monetary policy tools to support rising employment and incomes across the entire American society. The best contribution that the Federal Reserve can make to improve the economic circumstances of particular demographic groups is to promote the objectives that the Congress has established for monetary policy: maximum employment and stable prices for the overall economy.

Our monetary policy since the financial crisis has contributed to promoting faster job growth and substantially lower unemployment; the more vibrant labor market is benefiting all income groups. Widespread income gains are shown in a recent Census Bureau report on income, poverty, and health insurance coverage in the United States. In addition, unemployment rates among disadvantaged groups, including lower-income households have dropped sharply over recent years, but they remain above levels prevailing prior to the crisis. Even so, our work is not done. As noted in the Federal Open Market Committee's most recent policy statement, the stance of monetary policy remains accommodative, thereby supporting further improvement in labor market conditions. In addition to lower unemployment rates, we hope and expect to see some pickup in wage growth over time that should benefit lower- and middle-income households.

Of course, monetary policy is not our only tool. The Federal Reserve is very engaged, especially at the Reserve Bank level, with community and economic development initiatives, conducting and sharing applied research, and identifying emerging issues. These initiatives aim to improve economic opportunities for disadvantaged and other lower-income households.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Beatty:

3. One of the concerns of keeping interest rates too low for too long, is that asset bubbles can begin to emerge. Commentators have suggested that asset bubbles may be beginning to emerge in the sub-prime auto lending industry; that credit card debt is approaching the all-time peak of \$1.02 trillion set in July 2008 and we all know the pressure student loans are putting on our younger generation to make ends meet. Does the Federal Reserve have any concerns regarding asset bubbles forming in today's economy due to prolonged periods of low interest rates?

Long-term interest rates are low in all advanced economies, likely reflecting a low level of projected inflation and sluggish economic growth, as well as an apparently accommodative stance of monetary policy and possibly lower real interest rates. Accommodative monetary policy is important for promoting a strong economy, but a prolonged period of low interest rates could encourage an imprudent reach for yield by some investors and eventually undermine financial stability.

The Federal Reserve, on its own and with other domestic and international regulators, has increased its efforts to comprehensively monitor the financial system to identify emerging systemic risks and guide actions to mitigate those risks. Our monitoring includes a focus on asset prices and debt burdens, and possible consequences for financial firms and the economy. For the financial system as a whole, asset valuation pressures remain at a moderate level, though they have risen for a few asset classes. Over the first half of the year, valuation pressures increased somewhat in equity markets and remained notable in commercial real estate. The Federal Reserve, in cooperation with other federal banking regulators, issued a joint statement in December reinforcing existing guidance for prudent risk management in Commercial Real Estate (CRE) lending. Recent indicators suggest a deceleration of prices in some of the most expensive markets and that banks have tightened lending standards on CRE loans.

In terms of household debt, as you noted, student loans and car loans are broadly available, including to consumers with nonprime credit scores, and credit card standards appear to have eased somewhat, but mortgages remain constrained for households with less than perfect credit histories. Overall, the growth of household debt remains modest; indeed, the ratio of household debt to gross domestic product has continued to move down since its pre-crisis peak. In the business sector, leverage of nonfinancial firms is elevated by historical standards and corporate credit quality has deteriorated for lower-rated firms; however, credit quality remains solid and risks from elevated leverage are attenuated by substantial cash holdings of investment-grade firms, relatively low interest rates, and limited short-term debt.

Overall leverage in the financial system is low, supporting the resilience of the system. In addition to careful monitoring, the Federal Reserve has taken important steps to boost the resilience of the financial system, so that it is better positioned to absorb losses if an asset bubble were to burst. Financial firms are now much stronger than they were before the crisis. We have increased risk-based and leverage capital requirements at the nation's largest banks, which must hold nearly double the amount of capital before the financial crisis as a buffer against economic and financial shocks. We have proposed additional measures, including liquidity requirements

for large U.S. banking firms, to reduce the failure probabilities of such firms and to mitigate the adverse spillovers from distress at an individual firm that could stem from a sharp decline in asset prices. In addition, the Federal Reserve conducts annual Dodd-Frank Act stress tests (DFAST) of large banking firms to gauge the resilience of such firms to possible adverse shocks, including severely adverse scenarios with sharp declines in economic activity and asset prices, and in this year's DFAST, all firms' projected capital ratios under a hypothetical scenario of severe economic and financial market stress exceeded the minimum requirements. In 2013, 2014, and 2015, DFAST also considered the effect of changes in interest rates on bank's profits and capital. And the Federal Reserve is engaged in supervisory work on interest rate risk at the largest banking firms and insurance companies. Finally, the Federal Reserve has also developed and published a framework last year for putting in place the Basel countercyclical capital buffer. The buffer can be activated when there is an elevated risk of above-normal losses, and released when the risk of above-normal losses recedes.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Hinojosa:

1. Chair Yellen, the Federal Reserve has been operating at near zero interest rates since December 2008. Given current global economic weakness, near zero rates and negative rates in Japan and Europe and slowing growth here at home, it doesn't appear interest rates will return to normal anytime soon. In your most recent public comments, you stated that "low interest rates" may be the "new normal".

Persistently low interest rates are associated with slower economic growth, deflation and economic stagnation, such as has happened to Japan over the past nearly three decades. Are you concerned that the persistence of extremely low interest rates are dragging down investment and economic growth here in the United States?

Are you concerned that the United States is heading into a trap similar to what Japan has been facing for the past three decades?

Current conditions do not suggest that we are heading to a period of economic stagnation and deflation. Indeed, the incoming data indicate that U.S. economic activity continues to expand, led by solid growth in household spending. While economic growth has not been rapid, it has been sufficient to generate further improvement in the labor market. Although the unemployment rate has remained fairly steady this year--just under 5 percent--broader measures of labor utilization have improved. Inflation has continued to run below the Federal Open Market Committee's (FOMC) objective of 2 percent, but that shortfall reflects in part the transitory effects of earlier declines of energy and import prices.

Looking ahead, the FOMC expects moderate growth in real gross domestic product, additional strengthening in the labor market, and inflation rising to 2 percent over the next few years. Based on this economic outlook, the FOMC continues to anticipate that gradual increases in the federal funds rate will be appropriate over time to achieve and sustain employment and inflation near our statutory objectives. Raising the federal funds rate target only gradually will allow us to verify that the economy is evolving as expected. In addition, a cautious approach to raising rates is all the more appropriate given that short-term interest rates are still near zero, which means that monetary policy can more effectively respond to surprising inflation pressures in the future than to a weakening labor market and falling inflation.

3. Corporate debt has reached record peaks, largely due to low interest rates. In fact, the ratio of non-financial corporate debt to nominal GDP (44%) is at its highest level since Q2 2009, when the economy was still in recession. Moreover, consumer and student debt is also at an all-time high. When interest rates eventually normalize, the cost of servicing much of that debt will also rise.

c. To what extent does the seemingly ever rising levels of debt in our economy factor into the FOMC's decision making with respect to interest rates?

Consistent with its statutory mandate, the FOMC seeks to foster maximum employment and price stability. In determining its policy decisions and the timing and size of adjustments to the

target range for the federal funds rate, the FOMC assesses incoming data, evolving economic conditions and the outlook, and their implications for the mandated objectives. The FOMC looks at a broad set of financial indicators in making its decisions about monetary policy, including the levels of non-financial corporate debt and consumer debt, and debt servicing costs. While many individual households struggle with burdensome debt and the cost associated with servicing that debt, overall debt relative to household income has moderated in recent years and the share of disposable income that households spend on servicing debt is at its lowest level in decades.

In making monetary policy decisions, the FOMC looks at a broad array of data on the macroeconomy. The FOMC has noted in its recent statements that its assessment of the economy takes into account measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. At its most recent meeting in July, the FOMC decided to maintain the target range for the federal funds rate at 1/4 to 1/2 percent. The stance of monetary policy remains accommodative, thereby supporting further improvement in labor market conditions and a return to 2 percent inflation.

4. Several economic indicators point to a souring economy. Industrial production has declined in 10 of the past 12 months, and is now off nearly 2% from its peak in December 2014. While corporate profits peaked around the summer of 2014 and were off by nearly 5% as of the third quarter of last year, Corporate debt has reached record peaks, largely due to low interest rates. In fact, the ratio of non-financial corporate debt to nominal GDP (44%), yet investment spending is very low.

Of the warning signs, the decline in U.S. industrial production has one of the best track records. The output from mines, factories and utilities has always begun to decline before recession strikes.

Do you see the U.S. heading into a recession?

To the contrary, I expect the economic expansion to continue. While it is true that industrial production has been negatively affected by the steep decline in oil prices since mid-2014, weak foreign demand, and the appreciation of the dollar, overall economic activity has continued to expand and we expect it to continue to do so. This view is reflected in the Summary of Economic Projections (SEP) released in conjunction with the June FOMC meeting, in which policymakers did not see the U.S. as heading into recession. The median of participants' projections for the growth rate of real GDP fourth-quarter-over-fourth-quarter basis, conditional on their individual assumptions about appropriate monetary policy, was 2 percent for each year from 2016 through 2018, the same as the median of their projections for the longer run GDP growth rate. However, a majority of participants expected that real GDP growth would pick up a bit in 2017 from this year's pace, and most expected it to remain at or above their estimates of its longer-run pace in 2018. The range of forecasts for real GDP growth submitted by the 17 FOMC participants was relatively concentrated around the 2 percent median, with projections ranging from 1.8 to 2.2 percent in 2016, 1.6 to 2.4 percent in 2017, and 1.5 to 2.2 percent in 2018. Participants pointed to a number of factors that they expected would contribute to moderate output growth over the next few years, including a diminution of the drag on net exports from a strong dollar, the continued improvements in household and business balance sheets, accommodative financial conditions, and somewhat more supportive fiscal policy

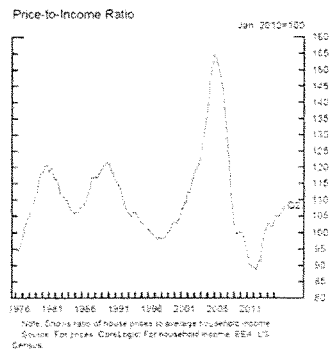
The median projection in the June SEP was for the unemployment rate to edge down from 4.7 percent in the fourth quarter of 2016 to 4.6 percent in 2017 and to remain at that level in 2018, modestly below the median assessment of the longer run normal unemployment rate of 4.8 percent. The median of projections for headline Personal Consumption Expenditures (PCE) price inflation in 2016 was 1.4 percent. The median projections for the next two years and in the longer run were for headline PCE price inflation to rise to 1.9 percent in 2017, and to the Committee's objective of 2 percent in 2018. Almost all participants projected that inflation will be within 0.1 percentage point of the Committee's 2 percent objective by 2018.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Hinojosa:

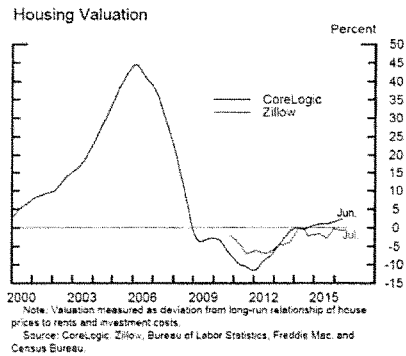
2. The Swedish Riksbank recently warned that housing prices in Sweden were rising too quickly. Swedish household debt is far too high, and that persistent low interest rates in that country have the potential to cause serious vulnerabilities in the financial system, leading to a crash in asset prices and potentially a recession.

Housing prices in the United States have returned to pre-recession levels and almost all rises in the CPI index recently have come from rising home prices. Are you concerned that the extremely low interest rate environment is leading to another housing bubble here at home?

Aggregate measures of house prices in the United States are nearing the nominal peak seen in the mid-2000s. However, it is normal for nominal prices to rise over time as housing demand expands. In fact, as shown below, the ratio of house prices to income is still somewhat on the low side of its historical norm.



The purchase price of a house can be thought of as composed of two parts: the price of lodging (rents) and the price of a long-lived investment asset. A bubble occurs when expectations about future house prices increases become overly optimistic, causing current house prices to exceed the level predicted by rents and investment costs. Consequently, one can gain some evidence (albeit inconclusive) of whether there are bubbles in the housing market by comparing house prices to the level that would be predicted from rents and the cost of investment (which includes interest rates). As shown below, this approach shows significant overvaluation of housing from 2004 through 2007. Currently, two such measures suggest that house prices are relatively close to the value predicted by rents and investment costs, which suggests that housing—in aggregate—is not overvalued. However, a good deal of statistical uncertainty surrounds assessments like this one.



For the housing rent component of the Consumer Price Index (CPI), the Bureau of Labor Statistics (BLS) is interested in capturing only the price of lodging; it excludes the investment aspect. To measure the price of lodging, the BLS collects data on rents paid by tenants and constructs an index of tenants' rent. In addition, the BLS uses those rent data and data on energy costs to impute an index for what they call owners' equivalent rent. Thus, although there is some correlation between changes in house prices and changes in rents, the purchase prices of houses do not directly affect the consumer price index.

For a detailed description of how the price of housing services are calculated in the CPI see the BLS fact sheet *How the CPI measures price change of Owners' equivalent rent of primary residence (OER) and Rent of primary residence*.¹ Housing services, comprised of OER, Rent of primary residence, and Lodging away from home (e.g. hotels, motels, college dorms), account for roughly one-third of the consumer price index.

Over the past twelve months (through July 2016) housing services in the CPI increased 3.3 percent, only slightly faster than the 2.9 percent increase in other non-energy services, but a fair amount faster than the 0.8 percent increase in the overall index. The overall CPI was held down by declines in prices for energy goods and services, which fell 11 percent over the past twelve months led by a large decline in gasoline prices. The overall CPI was also held down by food prices, which rose only 0.2 percent.

3. Corporate debt has reached record peaks, largely due to low interest rates. In fact, the ratio of non-financial corporate debt to nominal GDP (44%) is at its highest level since Q2 2009, when the economy was still in recession. Moreover, consumer and student debt is also at an all-time high. When interest rates eventually normalize, the cost of servicing much of that debt will also rise.

a. To what extent are you concerned about the largest corporate, consumer, and student loan debt load in history, and whether such large debt loads are sapping economic activity and investment in the economy?

¹ See <http://www.bls.gov/cpi/cpifacnewrent.pdf>.

Non-financial corporate debt indeed grew at a rapid pace over the past five years. This is an important development, which the Federal Reserve monitors closely. However, one important consideration is that, overall, the interest expenses of nonfinancial companies (in relation to business's cash flow) are still low by historical standards. Furthermore, corporations have used a substantial portion of their new debt to refinance outstanding obligations at lower (fixed) interest rates and to extend their maturity profile of their liabilities. Finally, the growth of debt issued by riskier companies, which pay higher interest rates and carry higher debt servicing costs, has slowed markedly in recent quarters, although outstanding obligations remain high by longer-term standards.

While total outstanding consumer and student debt are at record high levels, debt relative to aggregate household income has moderated in recent years. Moreover, the share of disposable income that households devote to servicing such debt remains well below the levels seen prior to the financial crisis, due to the low levels of interest rates paid on that debt. In addition, delinquency rates for credit card debt are near historically low levels and those on auto loans are also below their historical averages. This indicates that borrowers are currently managing those obligations relatively well, aided by the strengthening U.S. economy and much-improved employment opportunities. Student debt, which had continued to expand through the recession at a concerning pace, has moderated over the past couple of years, and the delinquency rate on student loans has stabilized as well, albeit at a high level.

b. To what extent are you concerned about the ramifications that future rate rises will have on the ability of business, government and consumers to make payments on their debt, and the effects on the economy?

Increasing interest rates in coming years would be expected to push up companies' debt service costs, but from generally modest levels. Several factors will mitigate the effects of higher interest rates on corporate borrowers. The relatively long maturities of fixed-rate corporate bonds will slow any resulting rise in the burden of interest payments. While exposure to floating-rate bank loans has also grown, many of the more-leveraged nonfinancial firms tend to at least partially hedge the associated interest rate risk through derivative contracts. Finally, companies' holdings of liquid assets are relatively high, representing an available source of funds to cover rising interest expenses or weather unanticipated developments.

Because most auto loans carry fixed interest rate terms, any increases in interest rates should feed through only gradually to increases in car-buyers' (aggregate) monthly payments. The majority of the stock of student debt is also fixed-rate, and only the loans originated in the current year are indexed to the Treasury yields of the same year, so payments on student debt are also only expected to be moderately affected by prospective interest rate increases. By contrast, interest rates charged on credit card balances tend to reset with current interest rates at a fairly high frequency, translating into required monthly payments that are more sensitive to market rates. Factors that would be expected, on the whole, to mitigate the adverse effects on households' financial conditions associated with a rising interest rate environment include ongoing improvements in employment opportunities and the fact that credit card balances are currently heavily skewed toward individuals with stronger financial circumstances (as evident by credit scores, for example).

Although federal debt is elevated, interest rates are quite low, keeping debt service costs low by historical standards. Looking forward, the Congressional Budget Office anticipates that debt service costs will increase to 2½ percent of GDP as interest rates rise, from 1¼ percent in 2015, still below the level seen during the mid-1980s. All else equal, this increase in debt service burden would raise budget deficits and would require fiscal authorities to cut other spending or increase taxes to keep the ratio of debt to GDP at the current level.

Finally, absent an unexpected surge in inflation, in coming years, interest rates are likely to be rising in the context of a stronger U.S. economy, the benefits of which would be expected to counterbalance much of the increased burden on businesses, households, and governments of servicing outstanding debt. Moreover, interest rates are expected to normalize at levels that are somewhat lower than was experienced during the decades preceding the financial crisis.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Luetkemeyer:

1. As you know, financial regulators including the Federal Reserve Board recently put forward a joint proposed rule on executive compensation pursuant to section 956 of the Dodd-Frank Act. The rules, which are intended to reduce systemic risk, would represent a sweeping change to executive compensation arrangements for many financial institutions, and would apply to a subset of insurance companies - those that own thrifts. Applying the rule to thrift insurers and their subsidiaries without tailoring runs counter to the Fed's own policy in other areas. Why has the Fed allowed the group of financial regulators to take this approach? Are you willing to conduct an analysis of insurance executive compensation practices and insurance risks before finalizing the rule for thrift insurers, and will you treat insurers distinctly from banks in the final rule, consistent with the treatment of thrift insurers for capital purposes?

Consistent with the statutory requirements of section 956 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the Agencies¹ joint notice of proposed rule-making² covers all depository institution holding companies, including all savings and loan holding companies.³ As described in the preamble, the proposed rule does not establish a rigid, one-size-fits-all approach. Rather, the Agencies have tailored the requirements of the proposed rule to the size and complexity of covered institutions. In addition, the proposed rule would allow firms to tailor the incentive-based compensation arrangements to the nature of a particular institution's business and risks, as long as those incentive-based compensation arrangements appropriately balance risk and reward. The Agencies have encouraged institutions to provide feedback on the potential impact of the proposed rule on covered institutions through the comment process.⁴ The Agencies have included numerous questions, touching on all aspects of the rule. The comment process is intended to help us assess and address the impact of the rule on all types of covered institutions, including insurance savings and loan holding companies. At the request of certain insurance companies, we have met with those companies, and will include summaries of these meetings in the rulemaking record. Through these meetings, we plan to obtain a deeper understanding of how their compensation practices work to inform the final rule. Similarly, the Agencies will consider your comments, and all other comments received, as a final rule is developed.

¹ Office of the Comptroller of the Currency; Board of Governors of the Federal Reserve System; Federal Deposit Insurance Corporation; Federal Housing Finance Agency; National Credit Union Administration; and U.S. Securities and Exchange Commission.

² 81 FR 37670 (July 10, 2016).

³ Section 956 of the Dodd-Frank Act defines "covered financial institution" to include any of the following types of institutions that have \$1 billion or more in assets: (A) a depository institution or depository institution holding company, as such terms are defined in section 3 of the Federal Deposit Insurance Act (FDIA) (12 U.S.C. 1813); (B) a broker-dealer registered under section 15 of the Securities Exchange Act of 1934 (15 U.S.C. 78o); (C) a credit union, as described in section 19(b)(1)(A)(iv) of the Federal Reserve Act; (D) an investment adviser, as such term is defined in section 202(a)(11) of the Investment Advisers Act of 1940 (15 U.S.C. 80b-2(a)(11)); (E) the Federal National Mortgage Association (Fannie Mae); (F) the Federal Home Loan Mortgage Corporation (Freddie Mac); and (G) any other financial institution that the appropriate Federal regulators, jointly, by rule, determine should be treated as a covered financial institution for these purposes.

⁴ As of the preparation of this response, the Agencies have already received multiple comments letters regarding the application of the proposal to insurance SLHCs and have met with insurance industry representatives.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Luetkemeyer:

2. The Fed has released two separate draft capital requirements for federally supervised insurers. The “building block approach” would apply to savings and loan holding companies and is based on the state insurance capital requirements. The “consolidated approach” would apply to SIFI insurers and is a new standard and is not based on state insurance capital requirements, likely lengthening the time necessary for development of the standard. Would the Board consider applying the Building Block Approach for both SLHCs and SIFIs as an interim approach? If not, are you concerned about potential unintended consequences resulting from the creation of an un-level playing field in the insurance sector?

The Federal Reserve issued an advance notice of proposed rulemaking (ANPR) that requests input from the public on two possible options for capital standards for supervised insurers. The Federal Reserve Board (Board) has not reached decisions on approaches to be used to build a capital standard for supervised insurers. As stated in the ANPR, the Board’s initial analysis of the relative strengths and weaknesses of the consolidated approach indicates that this approach may be an appropriate regulatory capital standard for the systemically important insurance companies. As a consolidated capital standard, this approach would cover all material risks of the systemically important insurance companies, reduce the opportunity for regulatory arbitrage and risk of double-leverage, and more easily enable supervisory stress testing and other macroprudential measures for these companies. While we note your comment that it is a new standard that does not directly rely on state insurance capital requirements, the consolidated approach would conceptually have a simple and transparent factor-based design and would be relatively expeditious for the Board to develop and institutions to implement, particularly in light of the broad risk segmentation that may initially be used. The advantages of the consolidated approach are most salient for the systemically important insurance companies, which tend to be large, internally and externally complex institutions.

The Board also understands the concern you raise about a level playing field in the insurance sector, and believes that prudential measures requiring insurers to maintain capital commensurate with their risk profile and activities, thereby mitigating any systemic risk and potential impact of default borne by solvent insurers and their customers, best achieves the Board’s mandate and objectives in the competitive insurance market. As indicated by the questions included in the ANPR, the Board welcomes comment on the considerations that should guide the development of its insurance regulatory capital framework for the two populations of supervised institutions significantly engaged in insurance activities, as well as whether the consolidated approach is appropriate to apply to systemically important insurance companies and key challenges in this application.

3. The Financial Stability Board (FSB) has noted that, in designating U.S. insurers as global SIFIs, it did so in “consultation” with “national authorities.” With which U.S. authorities did the FSB consult before designating American insurers as G-SIFIs?

The Financial Stability Board (FSB), in its identification of global systemically important insurers (G-SIIs), relied on the methodology and analytical work conducted by the members of the International Association of Insurance Supervisors (IAIS). Numerous state insurance regulators, including those with significant insurance markets, the National Association of Insurance Commissioners, the Federal Insurance Office, and the Federal Reserve were all active participants in this analysis and recommendation process.

4. Given that the FSB is not subject to the requirements of the Dodd-Frank Act, and several members of FSOC serve on the FSB and have been involved in the separate designation process for global SIFIs, how much does FSOC rely on or consider the FSB's designations in conducting its own assessment of SIFI prospects? Does the FSB influence the decisions that FSOC makes regarding designation?

The Financial Stability Oversight Council (FSOC) process for assessment and designation of companies is not linked, mechanically or otherwise, with the deliberations or findings of agencies outside the United States, including the FSB. Indeed, a designation by the FSB that an insurer is globally systemically important would not logically require a similar finding of domestic systemic risk by the FSOC, even if the FSB and the FSOC agreed on the underlying facts. In addition, any standards adopted by the FSB, including any designation of an entity as a G-SII, are not binding on the Federal Reserve, the FSOC, or any other agency of the U.S. government, or any U.S. companies.

The FSOC undertakes a process for designating nonbank firms as systemically important that assesses the potential harm that the firm's distress or failure could cause to the economy of the United States. The methodology underlying the FSOC's assessment process, including the quantitative metrics used to rule out smaller, less complex firms, has been made public.¹ In addition, for the firms it ultimately votes to designate, the FSOC publishes the basis for its finding. Under the Dodd-Frank Act, the FSOC is responsible for deciding whether a nonbank financial company should be regulated and supervised by the Board, based on the FSOC's assessment of the extent to which the failure, material distress, or ongoing activities of that entity could pose a risk to the U.S. financial system.

5. Why did U.S. authorities consent to the designation of U.S. insurers as global SIFIs before having undertaken the "detailed exchange of information" that occurs as part of the FSOC process? Wouldn't you want the U.S. to act first on SIFI designations, before the FSB acts, so that the FSB's actions could be aligned with ours, and not the other way around?

The specific designation frameworks and standards at the FSB and FSOC are distinctive. The fact that both groups have examined the same firms, at times in close proximity, is to be expected given the limited number of firms that would reasonably be large and interconnected enough to be considered systemically important. The FSB's process for identifying a firm that is a global systemically important insurer is completely independent from the FSOC's designation

¹

<http://www.treasury.gov/initiatives/fsoc/rulemaking/Documents/Autonomy%20to%20Require%20Supervision%20and%20Regulation%20of%20Certain%20Nonbank%20Financial%20Companies.pdf>

process of firms that are domestically systemic. The methodology for identifying G-SIIs is developed by the IAIS and has been updated this year.

The FSOC's analysis is based on a broad range of quantitative and qualitative information available to the FSOC through existing public and regulatory sources and as submitted to the FSOC by the firms under consideration. The analysis is tailored, as appropriate, to address company-specific risk factors, including, but not limited to, the nature, scope, size, scale, concentration, interconnectedness, and mix of the activities of the firms. The FSOC undertakes its analysis for designating nonbank firms as systemically important in accordance with its assessment process, and not for the purpose or because of any FSB action.

A designation by the FSB that an insurer is globally systemically important would not require or result in a similar finding by the FSOC, and neither the FSB nor FSOC must align its actions with those of the other.

6. Throughout your testimony, you referenced the need to provide regulatory relief for "small banks" or "community banks." How do you and the Board define "small" or "community" banks? Assuming your determination relies on a bank's asset size, please tell me what asset size qualifies an institution to be "small" or "community."

The terms small banks and community banks are used interchangeably. Generally, the Federal Reserve defines community banking organizations as state member banks, bank holding companies, and savings and loan holding companies with consolidated assets totaling less than \$10 billion. This threshold was reinforced by Congress in the Dodd-Frank Act, which exempted banking organizations with less than \$10 billion in total assets from many requirements and restrictions applied to regional and larger banking organizations. However, we recognize there are differences in complexity among firms with less than \$10 billion in assets and further tailor our policies and supervision of these firms. For example, we supported extending the examination cycle from 12 to 18 months for banks with assets totaling \$1 billion or less and increasing the threshold for firms that may qualify for the Small Bank Holding Company Policy Statement to \$1 billion.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Messer:

1. Chair Yellen, in a final rule released by the Fed on April 1, 2016, relating to the liquidity coverage ratio (LCR) and the treatment of U.S. Municipal Securities as High-Quality Liquid Assets, I was encouraged to see that the Fed conceded that investment grade municipal bonds are highly liquid assets and are appropriate for banks to hold under the LCR.

However, I was disappointed that the Fed singled out a certain class of municipal securities as being ineligible for banks to hold, specifically municipal revenue bonds*. These revenue bonds, like general obligation bonds have very similar liquidity and volatility characteristics to general obligation bonds. I'm concerned that this rule will increase borrowing costs for cities and towns in Indiana, hurting Hoosiers all across the state.

Chair Yellen, why did the Fed exclude municipal revenue bonds in this rule?

The April 2016 amendment to the Liquidity Coverage Ratio (LCR) rule expanded the definition of high-quality liquid assets (HQLA) to include certain investment-grade municipal securities. The amendment does not limit in any way the ability of banking organizations to invest in municipal securities, including revenue bonds, for other purposes.

The Federal Reserve Board (Board) is committed to designing liquidity regulations that strengthen the resilience of the banking sector to liquidity shocks. For the purpose of the LCR rule, the definition of HQLA includes assets that could be monetized in a period of significant liquidity stress. General obligation bonds are less likely to experience significant price declines during a period of significant stress because they are backed by the general taxing authority of the issuing municipality and, therefore, are less likely to default in times of stress.

The Board expects banking organizations will continue to invest in municipal securities, including revenue bonds, and does not anticipate a significant change in the demand for these securities based on their treatment in the LCR rule.

2. Chair Yellen, as you know, many types of revenue bonds are not always dependent on a single source of repayment. And many are backed by the full faith and credit of other public entities, or by other sources of tax revenues.

a. Wouldn't it be more appropriate to single out revenue bonds that are tied to a single revenue source, rather than applying the same standard to an entire class of municipal securities?

During a period of significant stress, the revenue of a municipal project or public entity that supports a revenue bond may fall dramatically as domestic consumption declines. Revenues derived outside of a municipality's general taxing authority may be more susceptible to the level of business and consumer consumption in a time of stress. As the risk of default of any associated revenue bond increases, these revenue bonds may experience significant price

declines and become less liquid. The credit quality of revenue bonds tends to deteriorate more significantly than general obligation bonds during periods of stress, and thus, the liquidity of revenue bonds may not be as reliable as that of general obligation bonds in a market stress. Historically, there have been a significantly higher number of defaults on revenue bonds than general obligation bonds.

b. Do you believe this rule will increase municipal borrowing costs, ultimately hurting the taxpayer?

Banking organizations invest in municipal securities for a range of purposes other than liquidity risk management. The amendment to the LCR rule does not prohibit banking organizations from continuing to invest in municipal securities for those other purposes. The Board does not anticipate that the LCR rule or the recent amendment will have a significant impact on municipal borrowing costs.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Messer:

3. Chair Yellen, as you know over the past year the dollar has had a remarkable strength against many European currencies. This strength has led to a disadvantage for American exporters, particularly in the agricultural industry in my district.

In the face of the potential Brexit, continuing European economic difficulties, and diverging* European Central Bank (ECB) and Federal Reserve monetary policy strategies, the dollar appears likely to gain even more strength against European currencies.

Chair Yellen, how can we ensure farmers in rural Indiana are competitive in the global market, in the face of a strengthening dollar?

Although a stronger U.S. dollar may have contributed to some of the recent decline in the value of U.S. agricultural exports, there are many factors that have the potential to affect global demand for U.S. agricultural products. From 1993 to 1996, for example, the real value of U.S. agricultural exports increased more than 40 percent following the passage of The North American Free Trade Agreement in 1993, despite a 16 percent increase in the value of the U.S. dollar on a trade-weighted basis over that time. From 2008 to 2014, U.S. agricultural exports increased by more than 30 percent, alongside strong economic growth in China, even as the dollar strengthened about 4 percent. Productivity growth in the U.S. farm sector, spurred by both public and private sector investments, likely has also contributed significantly to historical increases in agricultural exports. Since 1980, for example, corn yields in Indiana have nearly doubled, from 96 bushels per acre in 1980 to 187 bushels per acre projected for 2016, with notable productivity and efficiency gains also apparent in the livestock industry.

In sum, a stronger U.S. dollar may present some challenges for the U.S. farm sector due to the potential effect on agricultural exports. However, the pace of economic growth among key trading partners of the U.S. will likely remain a fundamental driver of export demand strength. Whereas the United Kingdom accounted for only 1.3 percent of the value of U.S. agricultural exports in 2015, Canada, China, and Mexico together accounted for nearly 45 percent of the total. In addition to the effects of economic growth in these nations, innovations that generate productivity gains or reduce production costs, and policies that reduce the cost of trade, may also have a significant effect on the competitiveness of the U.S. farm sector in the global marketplace.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Murphy:

1. The recent referendum in the United Kingdom to leave the European Union has already had significant repercussions on the global economy. Falling equity markets have erased trillions of dollars in equity value. The Bank of England has laid the groundwork for slashing interest rates and has publicly warned of slower growth, which is likely to spill into the Eurozone.

In your testimony before the committee, you had previously noted that the Fed “cannot rule out the possibility expressed by some prominent economists that the slow productivity growth seen in recent years will continue into the future.”

I certainly share your assessment that a cautious approach to adjusting monetary policy remains appropriate. However, I would like to know what contingency plans the Fed has in place to respond to the event of a slowdown in the economy as swiftly as possible, especially if European concerns increase investor demand for U.S. Treasury securities.

The Federal Open Market Committee (FOMC) seeks to promote maximum employment and price stability as mandated by the Congress. Monetary policy has remained accommodative to support further improvement in the labor market and a return of inflation to our two percent objective. Specifically, the FOMC has maintained the target range for the federal funds rate at 0.25 percent to 0.5 percent, and this kept the Federal Reserve’s holdings of longer-term securities at an elevated level.

The FOMC’s actions reflect a careful assessment of the appropriate setting for monetary policy, taking into account continuing below-target inflation and the readings on the labor market and economic growth seen this year. Proceeding cautiously in raising the federal funds rate will allow us to keep the monetary support to economic growth in place while we assess whether growth is returning to a moderate pace, and whether the labor market will strengthen further, and whether inflation will continue to make progress toward our two percent objective.

Another factor that supports taking a cautious approach in raising the federal funds rate is that the federal funds rate is still near its effective lower bound. If inflation were to remain persistently low or if the labor market were to weaken, the FOMC would have only limited room to reduce the target range for the federal funds rate. However, if the economy were to overheat and inflation seemed likely to move significantly or persistently above two percent, the FOMC could readily increase the target range for the federal funds rate. The FOMC continues to anticipate that economic conditions will improve further and that the economy will evolve in a manner that will warrant only gradual increases in the federal funds rate.

In addition, the FOMC expects that the federal funds rate is likely to remain for some time below the levels that are expected to prevail in the longer run because headwinds, which include restraint on U.S. economy activity from economic and financial developments abroad, subdued household formation, and meager productivity growth mean that the interest rate needed to keep the economy operating near its potential is low by historical standards. If these headwinds

slowly fade over time as the FOMC expects, then gradual increases in the federal funds rate are likely to be needed.

With regard to the United Kingdom (U.K.), the country's vote to leave the European Union (EU) has increased uncertainty about the future trading relationship between the U.K. and the EU. That increased uncertainty appears to be weighing on U.K. investment and hiring decisions, and early indicators following the June 23 referendum point to a slowdown in U.K. economic growth. The broader effect on the global economy, however, is likely to be limited, as many post-vote declines in global asset prices have since been reversed. For instance, U.S. stock price indexes are now higher than before the referendum.

Questions for The Honorable Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System from Representative Tipton:

1. As exemplified by the increasing amount of cyber incidents over the past few years, the Federal Reserve's knowledge in cybersecurity protections is critical to the health of the financial sector. Does the Federal Reserve use the National Institute of Standards and Technology's (NIST) Federal Information Processing Standards (FIPS) and associated guidelines and best practices on cybersecurity?

The Federal Reserve's Information Security Program is built on a foundation of the Federal Information Security Management Act of 2014 (FISMA) and guidance from the National Institute of Standards and Technology (NIST), including the Federal Information Processing Standards (FIPS), the Office of Budget and Management, and Department of Homeland Security. The Federal Reserve Board's Inspector General reviews the Federal Reserve Board's (Board) Information Security Program on an annual basis to ensure the Board is maintaining an effective and compliant program.

The Federal Reserve District Banks completed implementation of a new information security framework for key systems in 2014, and in keeping with its requirements has started recertifying key systems every three years. The framework, known as Security Assurance for the Federal Reserve, is based on guidance from NIST and adapted to the Federal Reserve's environment.

a. If so, do you find FIPS to be sufficient standards for protecting the financial sector? If not, why not?

The Federal Reserve assesses supervised firm's information technology risk management capabilities using the Federal Financial Institutions Examination Council (FFIEC) Information Technology Handbook. Private sector organizations that compose the critical infrastructure of the United States are encouraged to use the standards of the FIPS as appropriate.¹ However, financial institutions that are supervised by the Federal Reserve are not required to use the FIPS standards. The Federal Reserve conducts risk-based examinations and does not explicitly assess supervised entities' compliance with the FIPS standards.

b. Does the Federal Reserve consult with the NIST on cybersecurity best practices and standards to implement to protect the financial sector's information system? If so, has this been helpful? Please explain. If not, why not?

Board and System staff have collaborated with NIST on cybersecurity matters since the issuance of Executive Order 13636, Improving Critical Infrastructure Cybersecurity in February 2013. Staff actively participated in all five open public workshops in 2013 and staff continues to meet on a periodic basis to collaborate and exchange ideas about alignment between the NIST Cyber Security Framework (CSF) and regulatory approaches to protect the sector's information systems.

¹ Federal Information Processing Standards 200, Applicability, p. iv.

The Federal Reserve's collaboration with NIST on cybersecurity best practices and standards has enhanced our collective efforts to protect critical infrastructure within the financial services sector.

c. Do you know of any instances of others in the financial services industry using NIST's standards or consulting with NIST on cybersecurity best practices?

Anecdotally, Board and System staff have heard from supervised financial institutions during examination events that some firms are adopting the CSF because it contains common definitions of cybersecurity terms. The Board has also utilized the NIST CSF to organize internal horizontal cybersecurity supervisory efforts.

The Board and the FFIEC have adopted NIST as a foundation upon which to build the Cybersecurity Assessment Tool (CAT). The CAT, developed by the FFIEC in light of the increasing volume and sophistication of cyber threats, is a voluntary tool to help institutions identify their risks and assess their cybersecurity preparedness. It provides a repeatable and measurable process for financial institutions to measure their cybersecurity preparedness over time. We encourage financial institutions that are regulated by the FFIEC agencies to utilize this tool to assess their cybersecurity preparedness.

d. Can NIST be doing more to help the financial sector with protecting its information systems? Please explain.

NIST has proactively engaged the financial services sector and regulators since the issuance of Executive Order 13636. The actions undertaken by NIST to date, such as their open public workshops and collaborative exchanges with various industry stakeholders, have encouraged broad participation by the financial and other critical infrastructure sectors to protect their information systems.

The adoption and implementation of the NIST CSF will require financial sector firms make significant business process changes. NIST has to balance the changing risk landscape and the need to revise the CSF standards with the fact that it takes time for firms to change their core business processes. Board and System staff recognize that NIST is continuing to work to balance these competing needs.

2. Are there currently any standards for distributed ledger technologies? If so, who is setting those standards, are they sufficient, and are they being implemented? If not, who do you believe should be working on these standards to effectively mitigate risk for this technology?

Distributed ledger technology is an emergent technology that has garnered much interest in the financial sector. As such, various applications are being conducted by the financial industry to better understand how to leverage the technology. Currently, it is unclear what specific uses for the technology may be viable for the financial industry.

Because of this, specific standards for this technology do not exist. There are a number of efforts in the industry, however, that are looking at developing standards.

Federal Reserve staff continues to monitor global and industry developments with distributed ledger technology, including following the development of standards. We periodically engage with various stakeholders in the industry, including technology firms, financial institutions, and other federal agencies.

