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THE ECONOMIC OUTLOOK WITH FEDERAL RESERVE CHAIR JANET YELLEN

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JOINT ECONOMIC COMMITTEE

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WEDNESDAY, NOVEMBER 29, 2017

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The Committee met, pursuant to call, at 10:01 a.m., in Room 1100, Longworth House Office Building, Honorable Pat Tiberi, Chairman, presiding.

Representatives present: Tiberi, Paulsen, Schweikert, LaHood, Comstock, Maloney, Delaney, Adams, and Beyer.

Senators present: Heinrich, Lee, Cruz, Klobuchar, and Peters.

Staff present: Theodore Boll, Daniel Bunn, Kim Corbin, Whitney Daffner, Alaina Flannigan, Connie Foster, Natalie George, Colleen Healy, Matt Kaido, Paul Lapointe, Allie Neill, and Alex Schibuola.

OPENING STATEMENT OF HON. PATRICK J. TIBERI, CHAIRMAN, A U.S. REPRESENTATIVE FROM OHIO

Chairman Tiberi. Good morning, and welcome. I want to welcome everyone to the Joint Economic Committee's annual hearing with the Federal Reserve Chair on monetary policy and the prospects for our economy.

The Federal Reserve is one of the most important institutions in the country and, indeed, the world. Chair Yellen served as President of the San Francisco Fed, then as Vice Chair, then as Chair of the Federal Reserve Board. Her distinguished service at the Fed encompassed the most tumultuous period of the United States financial and economic systems since the Great Depression.

Many books have already been written about the events of this period, and many more will certainly be written, from different points of view and with varying assessments. But one thing is certain: The financial system and the economy have stabilized. We are no longer debating how to reconstitute them but, rather, how they might work even better.

This hearing will review the developments since the crisis and especially since Dr. Yellen became the Chair of the Fed, in terms of the Fed's dual mandate of maximum employment and price stability. By the standard measure of unemployment, which is 4.1 percent at last reading, and by the standard measure of inflation, which most recently stood at 1.6 percent, both the first and the second goals have been achieved.

Although the standard metrics of unemployment and inflation are very good, all is not well in our economy. Economic growth has been slow, to the point that some economists have advised that we should try to lower our expectation for future growth by about a third from the average post-war growth rate.

Wage growth has been surprisingly low, as has been business investment. Labor force participation has remained low, and various measures of economic dynamism, such as new business formation, are way down from before the previous recession.

Various explanations have been offered, including an aging population and decreased international competitiveness of U.S. businesses that are impaired by taxes and regulation. But money and banking also seem to have a role. Commercial banks, rather than issuing more loans, are holding extraordinarily large amounts of reserves at the Fed, and the Fed has invested trillions of dollars in mortgage-backed securities and treasuries.

So we have a condition in which businesses are investing less, workers are staying on the sidelines, and banks are lending less than they could. In short, the economy is not realizing its full potential. The Joint Economic Committee has devoted several hearings this year to determine why economic growth has been slow and is interested to hear Chair Yellen's views.

Taxes and regulation are major reasons for the reluctance of businesses to invest and hire more workers in the United States, which is why the current effort in Congress to reform the tax system is so very important.

Both the House and the Senate versions of tax reform make critical improvements—in particular, reducing the corporate tax rate to bring it more in line with those of other countries that we compete with. We are very interested to know how the Fed perceives such tax rate alignment and whether its policymaking will assume that it increases the economy's productive potential.

In closing, let me express my deepest appreciation for Chair Yellen's service to the Nation in one of the most consequential positions for the economy and Americans' welfare.

Chair Yellen, thank you so much.

I will now yield to the ranking member, Senator Heinrich, for his statement.

[The prepared statement of Chairman Tiberi appears in the Submissions for the Record on page 34.]

OPENING STATEMENT OF HON. MARTIN HEINRICH, RANKING MEMBER, A U.S. SENATOR FROM NEW MEXICO

Senator Heinrich. Thank you, Chairman.

And, Chair Yellen, I want to begin by thanking you for your extraordinary public service. Your leadership at the Federal Reserve has played a key role in helping the economy recover from the financial crisis. The Nation owes you a debt of gratitude for your careful stewardship of monetary policy.

Last year, when you appeared before this committee, I asked you about how we can get the economy delivering for more Americans. Unfortunately, the economic situation is probably even more polarized today. Economic growth, jobs, startups—all are increasingly concentrated by ZIP code. And while we have made real progress since the recession, some parts of the country are still being left behind. Too many rural areas, too many tribal areas are struggling to get back to where they were a decade ago before the recession.

I represent a State with an unemployment rate well above where it was when the recession began back in December of 2007 and that sure doesn't seem to me like we have fully recovered from this recession.

I know that the Federal Open Market Committee has not yet made a decision on an interest rate hike next month, but if analysts are correct, the Fed is expected to raise interest rates, which would be the third rate hike this year. With many communities across New Mexico and the country still struggling, I am concerned that we may be putting the brakes on too soon.

Wage growth remains weak, while healthcare, college, and child care are less affordable for working families, and this reality should inform both monetary and fiscal policy. We need targeted fiscal actions to grow the economy and to help these areas that have been left behind. But that is not what some of my colleagues are delivering in the current tax proposals.

The Republican tax bill moving through the Senate adds 13 million to the ranks of the uninsured to pay for tax breaks for the wealthy and special interests. To hand out tax breaks to the wealthiest among us, Republicans are not only taking health insurance away from millions of Americans, but they are wasting an opportunity to invest in our people and our communities.

There is a lot that we could be doing instead. Congress should be focusing on important goals such as growing the economy and driving up wages for working families. For the cost of the current tax proposals, we could literally provide all children with early learning opportunities, plus offer students free tuition at community colleges and public universities, ensure broadband access for every American, rebuild our infrastructure, and take bold actions to fight the opioid epidemic. But we are not going to be able to make those kinds of investments if Republicans insist on adding another $1.5 trillion to the debt for tax giveaways to the wealthy.

Chair Yellen, as you conclude your term, it is an appropriate time to highlight the vital role an independent Fed plays in the economy. This Congress, as was the case in the last Congress, is considering several Republican proposals to limit the Fed's ability to independently conduct monetary policy. These bills seek to change the way the Fed carries out monetary policy, even going so far as requiring the central bank to swap its current mortgage-backed securities for Treasury bills.

There are also proposals to limit the central bank's flexibility in responding to financial emergencies. This idea is especially hard to understand, from my point of view, in light of the critical role that the Fed played in responding to the financial crisis and preventing another Great Depression. I am concerned about these attempts to undermine the Federal Reserve's independence, and I suspect you may be as well.

I would like to close with a point about the challenges of crafting monetary policy in today's political environment. Fiscal and monetary policies work best when they are aligned, but it is difficult to know with any certainty where Republicans in Congress are ultimately heading with fiscal policy. For years, they have pledged to reduce the deficit, but their tax package explodes the deficit.

The disconnect between words and actions is also visible on infrastructure. President Trump has talked about the need to invest in infrastructure, but as we wait for a real infrastructure proposal from the Administration, Republicans are proposing to eliminate key infrastructure funding sources, like private activity bonds.

They said they would deliver middle-class tax cuts, but in 2027 nearly 24 million Americans earning less than $100,000 a year would face a tax increase under the current House Republican tax plan. And in the Senate bill, half of all households would see a tax increase when it is fully implemented.

The chasm between words and policy must make the already challenging job of conducting monetary policy that much more difficult.

Chair Yellen, again, thank you for your service to our country, and I look forward to hearing your testimony today.

[The prepared statement of Senator Heinrich appears in the Submissions for the Record on page 34.]

Chairman Tiberi. Thank you, Senator.

Rather than give the Republican response, I am just going to introduce the Chair.

It is with great pleasure for me to introduce Dr. Janet Yellen, Chair of the Board of Governors of the Federal Reserve System.

She has long experience at the Federal Reserve, including 4 years as the Vice Chair of the Board of Governors and 6 years as the president and chief executive officer of the Federal Reserve Bank of San Francisco.

Chair Yellen previously served as Chair at the Council of Economic Advisers under President Clinton and as Chair of the Economic Policy Committee of the Organization for Economic Cooperation and Development.

She is also professor emeritus at the University of California at Berkeley. Chair Yellen earned her Ph.D. in economics from Yale University, has been granted an honorary doctorate of law degree from Brown University, and an honorary doctor of humane letters from the Bard College.

Chair Yellen, welcome. You are recognized. Thank you.

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

Chair Yellen. Chairman Tiberi, Ranking Member Heinrich, and members of the committee, I appreciate the opportunity to testify before you today. I will discuss the current economic outlook and monetary policy.

The U.S. economy has strengthened further this year. Smoothing through the volatility caused by the recent hurricanes, job gains averaged about 170,000 per month from January through October, a somewhat slower pace than last year but still above the range that we estimate will be consistent with absorbing new entrants to the labor force in coming years.

With the job gains this year, 17 million more Americans are employed now than 8 years ago. Meanwhile, the unemployment rate, which stood at 4.1 percent in October, has fallen six-tenths of a percentage point since the turn of the year and is nearly 6 percentage points below its peak in 2010.

In addition, the labor force participation rate has changed little, on net, in recent years, which is another indication of improving conditions in the labor market, given the downward pressure on the participation rate associated with an aging population.

However, despite these labor market gains, wage growth has remained relatively modest. Unemployment rates for African Americans and Hispanics, which tend to be more sensitive to overall economic conditions than those for Whites, have moved down, on net, over the past year and are now near levels last seen before the recession. That said, it remains the case that unemployment rates for these minority groups are noticeably higher than for the Nation overall.

Meanwhile, economic growth appears to have stepped up from its subdued pace early in the year. After having risen at an annual rate of just 1¼ percent in the first quarter, U.S. inflation-adjusted gross domestic product is currently estimated to have increased at a 3-percent pace in both the second and third quarters despite the disruptions to economic activity in the third quarter caused by recent hurricanes.

Moreover, the economic expansion is increasingly broad-based across sectors as well as across much of the global economy. I expect that with gradual adjustments in the stance of monetary policy, the economy will continue to expand and the job market will strengthen somewhat further, supporting faster growth in wages and incomes.

Although asset valuations are high by historical standards, overall vulnerabilities in the financial sector appear moderate, as the banking system is well capitalized and broad measures of leverage and credit growth remain contained.

Even with a step-up in growth of economic activity and a stronger labor market, inflation has continued to run below the 2-percent rate that the Federal Open Market Committee judges most consistent with our congressional mandate to foster both maximum employment and price stability.

Increases in gasoline prices in the aftermath of the hurricanes temporarily pushed up measures of overall consumer price inflation, but inflation for items other than food and energy has remained surprisingly subdued. The total price index for personal consumption expenditures increased 1.6 percent over the 12 months ending in September, while the core price index, which excludes energy and food prices, rose just 1.3 percent over the same period, about a half percentage point slower than a year earlier.

In my view, the recent lower readings on inflation likely reflect transitory factors. As these transitory factors fade, I anticipate that inflation will stabilize around 2 percent over the medium term. However, it is also possible that this year's low inflation could reflect something more persistent. Indeed, inflation has been below the committee's 2-percent objective for most of the past 5 years. Against this backdrop, the FOMC has indicated that it intends to carefully monitor actual and expected progress toward our inflation goal.

Although the economy and the jobs market are generally quite strong, real GDP growth has been disappointingly slow during this expansion relative to earlier decades. One key reason for this slowdown has been the retirement of the older members of the baby boom generation and, hence, the slower growth of the labor force. Another key reason has been the unusually sluggish pace of productivity growth in recent years.

To generate a sustained boost in economic growth without causing inflation that is too high, we will need to address those underlying causes. In this regard, the Congress might consider policies that encourage business investment and capital formation, improve the Nation's infrastructure, raise the quality of our educational system, and support innovation and the adoption of new technologies.

I will now turn to the implications of recent economic developments and the outlook for monetary policy.

With ongoing strengthening in labor market conditions and an outlook for inflation to return to 2 percent over the next couple of years, the FOMC has continued to gradually reduce policy accommodation. The Committee raised the target range for the Federal funds rate by a quarter percentage point at both our March and June meetings, with the range now standing at 1 to 1¼ percent.

And, in October, the Committee began its balance sheet normalization program, which will gradually and predictably reduce our securities holdings. The Committee set limits on the pace of balance sheet reduction. Those limits should guard against outsized moves in interest rates and other potential market strains.

Indeed, there has been little, if any, market effect associated with the balance sheet runoff to date. We do not foresee a need to alter the balance sheet program, but, as we said in June, we would be prepared to resume reinvestments if a material deterioration in the economic outlook were to warrant a sizable reduction in the Federal funds rate.

Changes to the target range for the Federal funds rate will continue to be the Committee's primary means of adjusting the stance of monetary policy. At our meeting earlier this month, we decided to maintain the existing target range for the Federal funds rate.

We continue to expect that gradual increases in the Federal funds rate will be appropriate to sustain a healthy labor market and stabilize inflation around the FOMC's 2-percent objective. That expectation is based on the view that the current level of the Federal funds rate remains somewhat below its neutral level—that is, the rate that is neither expansionary nor contractionary and keeps the economy operating on an even keel.

The neutral rate currently appears to be quite low by historical standards, implying that the Federal funds rate would not have to rise much further to get to a neutral policy stance. If the neutral level rises somewhat over time, as most FOMC participants expect, additional gradual rate hikes would likely be appropriate over the next few years to sustain the economic expansion.

Of course, policy is not on a preset course. The appropriate path for the Federal funds rate will depend on the economic outlook as informed by incoming data. The Committee has noted that it will carefully monitor actual and expected inflation developments relative to its symmetric inflation goal.

More generally, in determining the timing and size of future interest rate adjustments, 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.

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

[The prepared statement of Chair Yellen appears in the Submissions for the Record on page 36.]

Chairman Tiberi. Thank you so much, Chair Yellen.

The Congressional Budget Office has noted that the United States Treasury is on track to lose corporate tax revenue over the next decade because of our high corporate tax rate, and the worldwide system is encouraging companies to shift income and even their own headquarters overseas.

Could a lower corporate tax rate and a more competitive international treatment of our U.S. companies reverse this trend by making America a more attractive place to invest in?

Chair Yellen. So I think this is an important question for Congress to consider and to review all of the analysis that has been done on this topic.

I would say there is widespread concern that the current structure of the corporate tax system does have the effects that you have indicated.

But looking at the likely impact of particular proposals that may be under consideration is something that we haven't done carefully at the Federal Reserve, and I would leave it to Members of Congress and the Administration to judge what the likely consequences would be.

Chairman Tiberi. Okay. Thank you.

One other question: A major criticism in some quarters of Dodd-Frank has been the regulatory burden that it has placed on small banks in particular. There is a legislative initiative that would raise the $500 billion to $250 billion, the regulatory threshold for heightened oversight by the Federal Reserve.

Do you agree that overly burdensome regulations have hindered particularly small-bank lending to the effect of contributing to maybe the slowness of that economic recovery that we have both talked about from the last recession?

Chair Yellen. Well, I do agree that community banks face substantial burdens, regulatory burdens. And it is very appropriate for the Fed and other banking regulators to look for ways to reduce the compliance burdens that they face.

We meet with many community bankers and are very aware of concerns about this. We are really focused on trying to tailor our supervision so that we find ways to reduce regulatory burdens. We have put into effect a number of changes that reduce reporting requirements and recently have a simplified capital proposal that we think should address some of the concerns.

But we have long been on record as favoring some increase in the $10 billion and $50 billion asset thresholds that are incorporated into Dodd-Frank. In particular, we think that the Volcker Rule and incentive compensation are things that should not apply to smaller, less complex banks, and we do think an increase in those thresholds would assist us in appropriately tailoring our regulations.

We do think it is important that the Fed retain authority to impose enhanced prudential standards on banking firms, particularly in the $100 billion to $250 billion total asset range, both for safety and soundness and financial stability concerns. And, in particular, stress-testing we think is a particularly important component of our safety and soundness approach and do think it is appropriate for that to apply to banks, let's say, over the $100 billion threshold.

Chairman Tiberi. Thank you.

I am going to turn it over to Ranking Member Heinrich for 5 minutes.

You are recognized.

Senator Heinrich. Thank you, Chairman.

Chair Yellen, the unemployment rate in October was 4.1 percent, the lowest since late 2000, but that average rate does not capture the health of the labor market in many areas in this country. You talked a little bit about that in terms of demographics as well.

There is a broad expectation that the Fed could raise interest rates at its December meeting, and I am certainly not asking you to tip your hand with regard to that. But what could change between now and the upcoming Fed meeting that could affect your thinking on that, either one way or the other?

And then, if you would, talk a little bit about how you take into account those geographical and/or demographic disparities in the labor market health when making those monetary policy decisions.

Chair Yellen. So I think it is a very desirable development that the unemployment rate has fallen to a level that is about the lowest we have seen since the early 2000s. And I do think that this is a development that has brought gains and improvements to almost all groups in the labor market.

That said, there are huge disparities in how different groups are fairing in the labor market, both in terms of unemployment rates, where, for example, African Americans traditionally and still have unemployment rates that are almost twice those of Whites, but also across groups with different degrees of education and in different parts of the country.

And I do think a generally strong labor market is helpful in alleviating all of those disparities, but we don't have a targeted set of tools that would enable us to address disturbing differentials across groups.

More generally, labor market experience of different groups depends not only on employment opportunities and unemployment rates but also on wages. And we have a multidecade trend of increasing disparities in income and in wages, with the wage premium being earned by those with more education that has continued to increase over time. And we have seen a long trend of disappearance of middle-income jobs that could be either automated or outsourced.

So there remains a great deal of pain in the labor market in spite of the fact that I think we have seen general improvement spilling over to all groups.

You asked me about our upcoming meeting and our monetary policy decisions. So we are very focused. We have a dual mandate; we care about price stability, and we also care about employment and achieving our maximum employment mandate. At the present time, even though the unemployment rate is below levels that most of my colleagues see as sustainable in the longer run, inflation is running below our objective. And so our monetary policy has been designed to be accommodative and to allow the labor market to become tighter. We think that is actually helpful not only in its own right but in bringing benefits to groups that are having a tough time in the labor market.

And there I do see encouraging signs, for example, that in a very tight labor market, where so many firms are having a tough time hiring workers, they are beginning to focus more on training, they are looking for ways to bring on board and help bring into their workforce individuals who in a looser labor market they would just put into the reject pile. So I think all of that is good. And we are not seeing undue inflationary pressure in the labor market, so our policy remains accommodative.

But we do think it is important to gradually move our policy rate toward what I will call a neutral level, which would be consistent with sustainably strong labor market conditions. And we want to do this gradually, because if we allowed the economy to overheat, we could be faced with a situation where we might have to rapidly raise rates and throw the economy into a recession.

And we don't want to cause a boom-bust set of conditions in the economy. I would love to see a sustainably strong labor market. And we think if inflation is depressed on a temporary basis, as I believe but we are carefully monitoring, we think that a gradual path toward a neutral stance is appropriate.

Senator Heinrich. While we have been able to drive down unemployment in recent years, you know, one of the things we haven't seen in that tightening labor market has been upward pressure on wages.

Do you have an opinion on why that might be different today than in previous recoveries? And what policies would be important in trying to address that?

Chair Yellen. So it is true, we have seen, I would just say, maybe modest upward pressure on wages. For example, the employment cost index, which is a broad measure of compensation pressures, has moved up a little bit, perhaps half a percent or so, over the last 3 or 4 years. But wage increases are modest.

One lesson I take from that or moral I draw is that the labor market and the economy are not significantly overheated in spite of the fact that we have a very low unemployment rate. But, importantly, over the long to medium term, the pace of real or inflation-adjusted wage growth hinges on productivity growth, that firms are really only able and willing to pay wage gains that are matched by productivity. And for reasons that are not well understood, productivity growth has really been dismally slow in recent years.

And, I mean, I can't tell you exactly what the reasons are for that. It may partly reflect slow technological innovation, at least as it spills over into producing measured output that is part of GDP. We are also seeing signs of less dynamism. The process of creative destruction of new firms, innovative firms expanding at the expense of those that are less innovative, that process seems to have slowed, and I think some productivity growth is associated with that.

But if you ask for what remedies can there be to this—and I think to really see a faster average pace of real wage growth, we need faster productivity—I would point you toward investments—investments in people, investment in physical capital in the private sector, infrastructure investments can be helpful—and policies that facilitate innovation, and, of course, the education and human capital of the workforce. Those are the classes of policies that could have a favorable effect on these adverse trends.

Chairman Tiberi. Thank you.

Vice Chairman Lee, you are recognized.

Senator Lee. Thank you very much, Mr. Chairman.

Thank you, Chair Yellen, for being here. I want to thank you for your service over the years. I have enjoyed the opportunity to visit with you as you have appeared before the Joint Economic Committee during your service as Chair of the Board of Governors.

Chair Yellen. Thank you.

Senator Lee. We make policy here in Congress. Here in Washington, there are a lot of people who make policy. Policy is forward-looking. It requires us to look to the future, to anticipate events, and to set rules that will govern the behavior of members of our society.

I assume you would agree with me if I said it is important, when you are making policy, from time to time to look back and review what you have done, figure out whether it succeeded or failed.

Chair Yellen. Absolutely.

Senator Lee. And so, retrospective reviews of policy can be a good thing. Does the Fed look back and review its monetary policy choices from time to time?

Chair Yellen. Our monetary policy——

Senator Lee. Yes.

Chair Yellen [continuing]. Choices? Yes, of course. We do.

Senator Lee. And so, in doing that, it looks back and tries to look at policy decisions it has made and figure out whether the data support those decisions.

So, if the Federal Reserve already does that, how would a congressionally mandated, transparent review of those policy choices be a bad thing? Why wouldn't that be a good thing, to have congressionally mandated, transparent review of the Fed's monetary policy choices?

Chair Yellen. Well, we need to be accountable to Congress, and I completely agree that an independent central bank in a democratic society needs to explain itself to the public and to Congress. And appearances before Congress where you ask questions about our policy choices and how they worked out is 100-percent appropriate.

Nevertheless, I do think that it is very important that the Federal Reserve, like most other central banks, be allowed to make independent policy decisions that are shielded from short-term political pressure.

So you didn't mention any specific legislation or ways of accountability, but I have long expressed concern about, for example, "audit the Fed" legislation or, more recently, the CHOICE Act because those acts would essentially bring short-term political pressure onto the Fed that could affect our monetary policy decisions by mandating real-time GAO policy reviews of recent decisions that would second-guess the decisions made by the Fed and call into question their legitimacy and credibility.

Senator Lee. I understand that that is your position. And, at the same time, while we are talking about independence, the fact that these reviews are undertaken in the first place suggests to me that making them subject to a transparent review process would just allow the public to have input. I understand it is the desire, it is the impulse of any policymaker anywhere to insulate him or herself from any public review. But we do live in a republic, in a republic where the people are the sovereigns, where ultimately the government is accountable to the people. And you at the Fed exercise a significant amount of government policymaking authority, and that is why I think these things are appropriate.

My time is short. I want to get to a couple of other issues very quickly.

The Joint Tax Committee's analysis of the tax plan pending before Congress is expected to assume an aggressive response by the Federal Reserve, one that would effectively assume that monetary policy would hinder some of the growth that could otherwise be anticipated from this tax reform policy.

Now, you emphasized in your testimony today that you expect a gradual adjustment to monetary policy. I would think that a gradual adjustment from the Fed would look very different and is certainly described very differently than an aggressive monetary policy. Do you agree those are two different things?

Chair Yellen. So what I would say is that we are very focused on our congressionally mandated objectives of employment and price stability or 2-percent inflation. And we will try to adjust policy to achieve those goals in light of changes in the environment, whether they could be due to fiscal policy or, importantly, many other things that affect the outlook.

I would say, look, we welcome strong growth. The Fed is not trying to stifle growth. We are worried about trends that could push inflation above our 2-percent objective.

As I said, it has been extremely disappointing to the Fed, as it has been, I am sure, to all of you and to the public, that we have achieved as much improvement as we have in the labor market in the context of growth that has been running only slightly under 2 percent. And if that pace of growth, consistent with a labor market that is creating jobs for new entrants, if that rises, we will be delighted to support that and to accommodate it.

So we don't have some cap on growth that we are trying to achieve. But in the context of an economy that is close to full employment, to have sustained higher growth would require that changes boost productivity growth or growth in the labor force.

Senator Lee. Understood. Understood.

Last year, I asked you about how the Fed's approach to stress-testing might damage the due process and property interest of investors, not just big investors but also investors in the form of school teachers, firefighters, those who invest in any way, in any amount.

Due process and property rights are undermined anytime you have a rule of law that is ever-changing, anytime you have a rule of law that it can't be understood as constant from one day to the next, that is so unclear, so opaque, or so subject to constant metamorphosis that one can't rely on what the law demands.

What can you tell me about what the Fed has done since we last spoke to make sure that the due process rights of individuals, of investors are protected?

Chair Yellen. So stress-testing is a very important component of our supervision and has led to more rigorous, forward-looking assessments of capital adequacy at large banks and particularly those that are systemic. So this really is a key component of supervision.

But I would agree with you that the firms that are subjected to it need to understand it. And we have done many things, including putting out for comment proposals concerning the design of our scenarios. We have put out a great deal of information about qualitatively what is in the models that we use. We have given feedback to firms on their models and comments on their submissions so they understand the shortcomings we see in their approaches.

And we are currently working on a transparency initiative that would seek to provide more granular, more detailed information that would help banking organizations understand the ways in which specific characteristics of loan portfolios would affect our evaluation of stress losses.

So I would agree, we would strongly resist publishing the actual models, for a whole set of reasons, but providing more information so that banks understand how we are engaging this evaluation is appropriate and important.

Senator Lee. My time has expired. Thank you very much, Chair Yellen.

Thank you, Mr. Chairman.

Chairman Tiberi. Thank you.

Representative Delaney, you are recognized for 5 minutes.

Representative Delaney. Thank you, Mr. Chairman.

And, Chair Yellen, thank you for your incomparable service to our country.

Chair Yellen. Thank you.

Representative Delaney. I think many of us will miss you very much.

Chair Yellen. Thank you.

Representative Delaney. You gave a very nice overview of what is happening in the economy in general, on average, if you will, the macro statistics you opened up your presentation with, which describe a fairly stable to slightly positive picture in many ways.

But I wonder, you know, when do you think it is time for us to start thinking a little differently about the data that we look at?

Because I saw some data recently where they disaggregated what has happened to two, kind of, portfolios of the population, the top 40 percent and the bottom 60 percent. And they tracked this since 1980. And when you look at that data you see a very different picture. People in the top 40 percent, their incomes, on average, are up about 40 percent since 1980, and in the bottom 60 percent, they are flat. The top 40 percent, on average, used to be worth six times more than the bottom 60 percent. Now they are worth 10 times more than the bottom 60 percent.

The top 40 percent used to spend twice as much on education for their children than the bottom 60 percent. Now they spend four times as much on, you know, education for their children. The retirement savings of the top 40 percent, on a relative basis, compared to what they will need for retirement, have actually improved since 1980, and the story is very bad for the people in the bottom 60 percent.

Life expectancies back in 1980 for both of these groups were actually extending, and now, for the first time in quite some time, we are actually seeing life expectancies of the people in the bottom 60 percent going down.

So I am just wondering, when do you think we, as policymakers, you in your position at the Federal Reserve and us as policymakers here on the Hill, have to actually start thinking differently about the decisions we make, based on the disparities that are starting to grow in our country? And I am not talking top 1 percent, et cetera. I am talking about large disaggregation pools, top 40 percent versus bottom 60 percent.

Because it seems to me that that bottom 60 percent is also particularly vulnerable to two macro trends that are going on: one, rapid change in the future of work based on automation and innovation. They are much more likely to have their jobs disrupted. And then, further, they rely much more on important government programs that are likely to come under continued stress.

So, when you make decisions about what to do with monetary policy, how much have you started, or has the Fed started, to disaggregate some of this data and make the decisions differently?

Chair Yellen. Well, you describe in your question a set of very disturbing long-term trends that the Fed is very focused on. And, in fact, some of the information that enables one to document these trends is produced by the Federal Reserve and our surveys of consumer finances and our surveys of household and economic decisionmaking.

And, of course, there has been over decades a trend toward rising inequality of both income and wealth in the United States that—it is not recent. It is something that has been going on for many decades——

Representative Delaney. Right. But does it cause you to change decisions you would have otherwise made, based on what is happening for the average performance of the economy? Do you see what I mean?

Chair Yellen. Well, to the extent that these shifts in income distribution do affect the pace of overall spending in the economy—for example, if high-income households spent less of extra income they earn than lower-income households, that shift in income distribution can make a difference to overall——

Representative Delaney. Right.

Chair Yellen [continuing]. Spending, and it is something we would take account of.

Representative Delaney. Because I would think, hearing your average statistics, that the position to actually continue towards a more normal rate environment makes sense. But when you look at the disaggregated statistics, you would be—I would, at least, be really scared of how vulnerable this bottom 60 percent is to any kind of shock in the economy.

And I guess, moving on to what we should be doing, I mean, in your judgment, when we think about fiscal policy, tax policy decisions, spending policy decisions, how much should we really have a laser-like focus on programs, whether they be investing in infrastructure, investing in human capital, creating incentives in the Tax Code for people to allocate capital to parts of the country that have been left behind economically? How high a priority should that be for us in making our decisions, based on the statistics that you are looking at?

Chair Yellen. So, for us, unfortunately, we don't have tools that enable us to target particular groups. So our own focus is, while we take these trends and study them, we really only have a blunt tool——

Representative Delaney. Right.

Chair Yellen [continuing]. That can't address this. But Congress and the Administration, you have a much wider set of tools. And, obviously, it is up to you to formulate appropriate priorities that——

Representative Delaney. Would you consider it urgent for us to be addressing these trends?

Chair Yellen. Well, I am very disturbed and have spoken out for many years about the disturbing trend toward rising inequality. And the equity of the Tax Code is something that I think should importantly be taken into account.

And as I said earlier, we are suffering from slow productivity growth. And here, too, I think it is quite important that in making fiscal policy and other decisions that the focus be on how can that be improved. And that does point to investment in people, infrastructure, also private capital, technology, education.

So these are squarely, I think, in Congress' court, and I do think they are urgent to address.

Representative Delaney. Thank you again, Chair Yellen.

Chairman Tiberi. Representative Schweikert, you are recognized for 5 minutes.

Representative Schweikert. Thank you, Mr. Chairman.

And, look, this may be one of those auspicious days. I don't know if this will—is probably your last time to come and do this.

Chair Yellen. Probably.

Representative Schweikert. It is also our chairman's probably last one. I am going to miss Mr. Tiberi, because he is one of the few people to tolerate me, so I appreciate it.

Last thing in this, sort of, lovefest: It is an opportunity to say something publicly that I said to the Chairwoman privately. Your team around you, particularly your senior team, has always been very kind to my staff and myself, particularly when we have had some more unusual data-type questions.

I am still a bit of an advocate of wanting more and more of the models becoming public, but a lot of that is already beginning—I mean, like, I live on some of the Atlanta Fed's data, their GDPNow, and they allow you to look at parts of the formula. So I believe that openness that you began with has come a long ways.

Chair Yellen. Thank you.

Representative Schweikert. It would be wonderful one day to be able to log in and do certain stresses, for those of us in the policymaking—what would happen if labor force did this, what would happen if interest rates did this—and sort of understand what is in sort of the back end of some of the data.

Chair Yellen. So, Congressman, you know, the model that we use at the Fed for economic analysis of overall economic trends, we refer to it as FRB/US, Federal Reserve Board/U.S. This model is in the public domain. It is sitting on our website. And anybody who wants to perform a "what if" exercise—what if monetary policy were different or if the labor force grew faster or slower—you know, we have tried to provide access to that tool to the public.

Representative Schweikert. Yeah, and it has gotten so much better. I mean, I live on the Atlanta Fed's app. I know that is a snapshot of current time, and a snapshot is not a trend, but it has been very helpful in removing some of the mystery.

Now, to run through a dozen questions as quickly as I can. And you actually touched on this. I had the experience of flying back to Phoenix about a week ago, and I was looking at something, it was a few years old, and then the current unemployment. And it was looking at the tables of labor force participation and what was being predicted a few years ago of what would happen and what we see happening right now. And it was talking about the demographic trend; labor force participation is going to continue to fall.

But yet we see some really interesting things in the last three quarters. Folks that were being predicted not to be moving into the labor force are moving into the labor force. We just saw some recalculations of numbers of Social Security disability, and, all of a sudden, the longevity of the trust fund jumped substantially because it turns out a number of folks who are on Social Security disability moved back into the labor force.

So there is something in our models that—and I know it is at the margin, but we are already seeing some of the data that this substantial economic opportunity that is in the labor—job opportunities is actually starting to pull people we thought were falling out of labor force participation.

If you had an interest in that, where would you go to find more information on such a thing? This sort of goes back to Senator Lee's question of the ability to back-test and sort of figure out where we have also made mistakes in some of our models.

Chair Yellen. So, I mean, Fed researchers have done very detailed modeling of labor force participation trends and that is published research in places like Brookings Papers and refereed journals. And my staff could provide you references on that.

You know, as I mentioned in my opening statement, what we have seen over the last 3 years is aggregate labor force participation has been essentially flat. The trend is downward, and a flat labor force participation with a downward underlying demographic trend means just what you said. People——

Representative Schweikert. Was contrary to what we were predicting just 4 years ago.

Chair Yellen. Well, you know, I think a strong labor market does attract people back in, and people who might have left and retired are being incented to remain in the labor force. Of course, we know that more recent cohorts of retirees—although when people reach retirement age, their labor force participation falls significantly, younger retirees are working more than older retirees, and that is a trend as well.

Representative Schweikert. And that is a really interesting trend, of how many of our seniors are staying in the labor force.

Chair Yellen. More than they used to.

Representative Schweikert. And I know I am going over time, but—oh, he just left, so I was going to compliment—I fear often we fuss at the Fed, but you only have so many tools. And a lot of the tools are actually sitting here with us, where some of us may both absolutely agree and disagree ideologically.

There were some interesting things in the—we will call them the cross-tabs in the data of trade-school-type jobs, you know, alignment, to use a previous conversation, and seeing salary movements in there, but yet we often turn around and reinforce a university education model.

And it turns out it may be our own misallocation of design and resources that are actually causing many of these problems out there, that we have to rethink what we are doing policywise.

And, with that, I yield back, Mr. Chairman.

Chairman Tiberi. Thank you. Good comments.

Representative Maloney, you are recognized for 5 minutes.

Representative Maloney. Thank you, Mr. Chairman.

I just want to start out by thanking Chair Yellen for your extraordinary service. As the very first woman to lead the Federal Reserve, you broke a major barrier, and——

Chair Yellen. Thank you.

Representative Maloney [continuing]. We are so very proud of you.

Chair Yellen. Thank you so much.

Representative Maloney. And thank you, too, for your record as Fed Chair. I think your record speaks for itself. The unemployment rate has fallen to 4.1 percent, the lowest in 17 years. Inflation has been steady. GDP growth is now a robust 3 percent. The Fed also ended the quantitative easing program, has begun the process of shrinking the $4.4 trillion balance sheet, and has started to gradually raise interest rates as the economy improves.

So, in short, I would say your tenure has been an unqualified success. By every metric, you have been one of the most successful Fed chairs——

Chair Yellen. Thank you.

Representative Maloney [continuing]. In history.

Chair Yellen. Thank you.

Representative Maloney. So I just want to publicly thank you for your service, everything that you have done, and say that I and many of us in this Nation will miss you.

Chair Yellen. Thank you so much. I appreciate that.

Representative Maloney. I want to ask you about regulation. I think that the Fed has generally done a good job under your leadership in writing regulations that have strengthened the safety and soundness of our financial institutions. But there have been discussions in Congress right now about tailoring these regulations that were put in place after the financial crisis. And, as you know, Senate Chairman Crapo has introduced bipartisan legislation on regulatory relief, a major package for banks. Some people want to go further than this and really roll back Dodd-Frank.

So I have two questions. First, do you think it is a good idea to roll back Dodd-Frank in this post-crisis regulatory time? And, secondly, what do you think of Chairman Crapo's regulatory relief package? Do you think it goes too far, or do you think it strikes the right balance?

Chair Yellen. Well, let me start with the first question about rolling back Dodd-Frank.

I think that Dodd-Frank provided an excellent roadmap to a series of changes that have led to a far safer and sounder banking system and one that has been able—over the last 10 years, there have been stresses of all sorts that have hit the U.S. financial system, sometimes emanating from abroad, and it has proven resilient and able to support good growth and a strong labor market.

And core reforms include more and higher-quality capital; more liquidity; stress-testing, which I think is very important; and resolution planning so, if a systemic firm were to fail, that we would have the tools to be able to deal with it without its imposing such costs on the economy. And I would not want to see those things rolled back. I think it would be very dangerous to do so.

That said, I do believe it is appropriate to tailor regulations to the systemic footprint of a financial institution. And so tailoring is an important principle. And we have long indicated that we would be supportive of raising some of the thresholds incorporated into Dodd-Frank—in particular, the $10 billion and $250 billion thresholds—and that would give us more ability to tailor to the systemic footprint of particular firms.

Particularly important to us is having the continued ability to impose enhanced prudential standards on a firm that might fall under a new threshold if we thought it was justified by safety and soundness or financial stability concerns.

So the legislation that has been proposed, I haven't had a chance to study every detail of it, but I would say it generally incorporates those principles and is a move in a direction that we think would be good in enabling us to appropriately tailor our supervision.

Representative Maloney. Thank you.

And, also, the U.S. banking system is the strongest in the world, but we now have international standards that have raised the capital requirements for all banks. And I know that you are having ongoing discussions about capital standards at the international level. Are you considering lowering the international capital standards at all in these discussions?

Chair Yellen. You know, we have had a global agreement to raise capital standards, Basel III. And what is under discussion now are some details about—a particularly contentious issue is the use of internal models as opposed to standardized capital requirements. And foreign firms, particularly European firms, some of whom rely on internal models, testing and analysis suggests that they may hold too little capital relative to what we think would be appropriate based on what U.S. banks have in standardized models.

So we have ongoing discussions of this issue and, I think, are coming closer to reaching agreement on this final issue, which would enable us to finalize Basel III. So this is really not a question about changing standards for U.S. banks; it is more about the standards that we would want to see applied to foreign banks.

But we chose to impose standards on U.S. banks, particularly systemically important banks, that exceed the global minimums that were agreed in Basel. Those are expected to be and intended to be minimum requirements, and individual countries that see a need and benefit from having higher standards are fully expected to adopt higher standards.

And, in some cases, particularly with the largest and most systemically important U.S.-based banking organizations, we have done that, in imposing higher standards, and think it is appropriate and warranted by the safety and soundness benefits for our financial system.

Chairman Tiberi. Thank you.

Representative Maloney. Thank you.

Chairman Tiberi. The gentlelady's time has expired.

Mr. Paulsen is recognized for 5 minutes.

Representative Paulsen. Thank you, Mr. Chairman.

And, Chair Yellen, let me also thank you for your service to the country——

Chair Yellen. Thank you.

Representative Paulsen [continuing]. And taking the time to engage with us as policymakers.

You mentioned earlier the importance of having more robust growth and dynamism in the economy, in terms of investments in capital, investments in people, employees at different companies. And, certainly, some of the tax policies that we are engaged in and talking about right now will and can and should lead to that, I think, more robust growth that I think a lot of people would anticipate.

I just want to dive a little bit more into some of the conversation we had earlier about—you mentioned wage growth has been relatively modest. And you have this Phillips curve issue, which the Fed looks at, certainly, in terms of the logic of it. When you have a tight labor market with low unemployment, that should lead to more competition for workers. Then you are going to have higher wages. And some of those higher wages would get passed on down to higher prices for consumers, right? So inflation would rise.

But the data doesn't really support that, right? It has been sort of this mystery. And so I am just curious, from your perspective, as you look right now at whether the so-called Phillips curve that depicts this inverse relationship between unemployment and inflation is no longer valid. I mean, what are your thoughts around that?

Chair Yellen. So, it is still a framework that I personally find useful. I think the relationship between unemployment and inflation has become more attenuated over time, and so the impact of changing unemployment on inflation has diminished. And I think that is well documented in many, many studies.

So I don't want to overstate just how strong that linkage is, but the overall framework incorporates an understanding that there are other very important factors that affect inflation. And when you look at the U.S. inflation history over the last 5 years or since the financial crisis, movements in oil prices and also movements in the dollar that have translated into significant changes in the pace of inflation of imported goods, those things have had very substantial effects on overall U.S. inflation.

So, if we look back, say, over the last 3, 4 years, 5 years, I don't think it is a mystery why inflation has been so low. First, we had a lot of slack in the labor market. Then we had periods when we had falling oil prices that really pulled inflation down. Starting in mid-2014, the dollar appreciated substantially; that held import prices down. It really wasn't a mystery. And we want inflation to be as close to our 2-percent objective as possible, but of course there is going to be variation, and these things produce variation.

What is surprising is this year. This year, with a 4-percent unemployment rate, we are in the vicinity of full employment. Oil prices have been roughly stable, and the dollar, if anything, this year has depreciated somewhat, pushing up import prices. So why has inflation fallen this year and been so low? That is puzzling. And I have opined on the fact that there may be a number of transitory or idiosyncratic factors that explain that, but it is something we are keeping an eye on and want to look carefully at.

But I would say, generally, a framework that incorporates the labor market, slack in the labor market, along with these other factors does provide a pretty good understanding of inflation in the U.S.

Representative Paulsen. And would you say that some of the tax reform proposals that have been talked about—and it could be the corporate side, for large employers, but also for small employers—that are aimed at increasing productivity, even with a low unemployment rate right now, would be helpful or essential in terms of making sure that those individuals in that 25-to-54 age range, in their prime working years, where you have a higher labor force participation rate, for instance, would that higher productivity help change and enter those people into the labor market again?

Chair Yellen. Well, I think investment spending by private companies does matter to how well equipped members of the labor force are to produce, and stronger investment could raise productivity. And if productivity growth goes up, that can serve to boost wages.

But the linkages between tax policy and investment spending are ones that economists don't agree on. And it is important, I think, for Congress to be trying to evaluate what you think the likely impact would be. But stronger investment, I think, would have those favorable impacts.

Representative Paulsen. Thank you.

Chairman Tiberi. Thank you.

Representative Beyer, you are recognized for 5 minutes.

Representative Beyer. Thank you, Mr. Chairman, very much. I want to add my thanks, too, for your firm hand, your deeply grounded wisdom——

Chair Yellen. Thank you.

Representative Beyer [continuing]. Your nonpartisan leadership. And you have fulfilled the dual mission of the Fed——

Chair Yellen. Thank you.

Representative Beyer [continuing]. Low unemployment; stable, low inflation—very, very well. So we are really going to miss you.

Chair Yellen. Thank you, Congressman. I appreciate that.

Representative Beyer. You know, candidate Trump talked about abandoning NAFTA, and now the Trump administration is working on prioritizing and modernizing NAFTA with Mr. Lighthizer. And yet we have seen that the higher perception of NAFTA risk is driving down the value of the peso, is making Mexican goods and services more competitive.

Do you agree that stable trade treaties are still the best way to solve trade imbalances?

Chair Yellen. So, without commenting on the details of NAFTA or any particular trade treaty, I generally think that, at least overall, the United States has benefited from a more open global trading environment. We have gotten the benefit of a broader range of goods and services available to consumers at better prices, lower input costs for firms, and the ability to export to a broader range of markets.

But there are adverse impacts of such developments on particular groups in the labor force. And it is important for Congress to keep in mind the need to address dislocations that may come from trade. But, generally, I think it has been beneficial.

And from Mexico's point of view, the studies that have been done suggest, you know, the U.S., I think, enjoyed some benefits, at least overall, from NAFTA. Mexico, I believe, enjoyed significant benefits. And, as you have said, there has been downward pressure on the peso because of the discussions that are taking place.

Representative Beyer. Yeah. Thank you.

In The Washington Post, there is lots of discussion now about how much dynamic growth will occur from the current tax cut packages that are out there. The Washington Post has suggested, the editorial board, that if the revenue increase targets are missed that taxes should be restored or automatically raised. Is this the best way of ensuring fiscal responsibility?

Chair Yellen. Well, I will say, my understanding is the idea of trigger is motivated by a concern that some have over the picture we have of debt sustainability now and into the future.

And I would simply say that I am very worried about the sustainability of the U.S. debt trajectory. Our current debt-to-GDP ratio of about 75 percent is not frightening, but it is also not low. But when you look at, for example, CBO's long-term budget projections, it is the type of thing that should keep people awake at night. And it shows a picture in which, as our population ages, expenditures on Medicare, Medicaid, and Social Security grow more rapidly than tax revenues, and the debt-to-GDP ratio moves up. And this should be a very significant concern.

So exactly what is the right way to address this, I think, is a matter for you to decide. My understanding is the trigger discussion is motivated by that. And I would just say it is right to be focused on that problem, and I would urge you to remain focused on it.

Representative Beyer. And you are absolutely right; that is what stimulates the trigger discussion. Yeah.

And Mr. Paulsen talked about the Phillips curve, and you talked about low oil prices, the movement in the dollar—transitory, idiosyncratic factors—and our low inflation.

Others have suggested that technological innovation, the global disinflationary impulse of integrating China, all these other low-cost countries, in our global trading system—does it mean that the FOMC 2-percent target is going to be hard to hit for the foreseeable future?

Chair Yellen. Well, we are forecasting that inflation will move up over the next year or two back to 2 percent. And I think that is a reasonable forecast, although I believe there is uncertainty about it, which is why we have indicated we are closely monitoring these trends.

But as important as the trends are that you described—I mean, they are important trends. And I would point out that our estimates of the sustainable level of the unemployment rate have declined very substantially. And the factors that you discuss that have arguably exposed firms more heavily to global competition, constraining prices, and restrained bargaining power of labor, rather than necessarily showing up as chronic low inflation, these things can instead mean the labor market can operate on a sustainable basis at lower unemployment rates than we might have thought of in the past, in the sixties or seventies or eighties. Currently, my colleagues estimate the sustainable level of the unemployment rate in the U.S. at just over 4½ percent. That contrasts with a 6 or higher we used to think.

And I think the trends you mentioned have been influential in meaning, yes. In other words, yes, it is true, it takes a tighter labor market or lower unemployment to give us 2-percent inflation. So I don't mean to minimize their importance, but I think it should be achievable for us, and we do have a low unemployment rate.

Representative Beyer. Thank you very much.

Mr. Chair, I yield back.

Chairman Tiberi. Thank you.

Representative LaHood is recognized for 5 minutes.

Representative LaHood. Thank you, Chairman Tiberi.

And thank you, Chair Yellen, for your service to the Federal Reserve and to our country.

Chair Yellen. Thank you.

Representative LaHood. I had a question as it related to the commercial mortgage market. And we are all aware in 2008, 2009 when we had the financial crisis as it related to the housing mortgage market, and as we look at the growth of Amazon and other online retailers across the country, really changing the business model as it relates to retailers. And we continue to see traditional brick-and-mortar stores and malls and others being really obliterated across the country—JCPenney, Macy's, Sears Roebuck, and large malls. And in a lot of medium-size markets, there continues to be vacant commercial properties, and these type of brick-and-mortars become more and more unproductive.

And as we look at the commercial mortgage market, I wonder if you could comment on whether there is a possibility, as these unproductive properties continue this trend, of causing a financial crisis like we saw in 2008 and these markets going bad.

Chair Yellen. So I think you are raising an important question. I don't have detailed information at my fingertips on these trends. I think that delinquency rates generally remain pretty low in commercial real estate. There are legacy properties incorporated in CMBS that have much higher delinquency rates.

But we are focused on underwriting standards at banks, at maintaining strong underwriting standards to protect the banking system against possible weaknesses that could result in especially commercial real estate. We are seeing overall in commercial real estate that valuations are very high and we have highlighted elevated asset prices. Commercial real estate generally is an area, also, where we do see elevated prices or low cap rates.

So we are focused on soundness of underwriting standards and the safety and soundness of banks associated with it, but in detail, just how this trend is going to play out, I would like to get back to you on that.

Representative LaHood. And as you sit here today, do you have any fears or concerns?

Chair Yellen. Well, these are obviously significant trends that are affecting retail. You know, what they will mean for banks is something I would like to look at more closely and get back to you.

[The response submitted by Chair Yellen appears in the Submissions for the Record on page 39.]

Representative LaHood. Okay. Thank you.

Another topic. I wanted to talk just generally about the makeup of the Federal Reserve. For the last decade, the Federal Reserve has had at least one vacancy in the Board of Directors. And should Mr. Powell become the next Chair after your resignation, the Federal Reserve Board will only have three out of seven positions filled.

I understand that the President must nominate and the Senate must approve each of these appointees and that both parties are culprits in the gridlock there.

Can you give us examples of how the Federal Reserve does not function optimally or efficiently without a full Board of Governors?

Chair Yellen. Well, I do think it is important that the number of Governors serving on the Board increase, and, ideally, it would be at full strength at seven. So, you know, certainly, my colleagues and I would welcome additional appointments to the Board.

In fact, I don't think there has been any significant amount of time, perhaps not ever, that the Board has operated with only three members. That is a very rare and difficult situation. But let me say, it does not stop the Federal Reserve from carrying out its mandated activities. And while our deliberations benefit from having more individuals with a range of views and, of course, extra pairs of hands to help manage the various operational and oversight responsibilities that we have, the Fed is able to carry out its key work even with a diminished Board.

Representative LaHood. And just lastly, do you have any suggestions on reform as it relates to this topic?

Chair Yellen. Reform as it relates to the Federal Reserve in general or——

Representative LaHood. Yeah. Recommendations or reform measures to help with this problem of only having three or limited numbers on the Board.

Chair Yellen. Well, you know, I think it is part of the trend of slower appointments and more vacancies. And I think it is really—you know, it creates a problem, for it to take so long to have individuals nominated and confirmed. And this is, you know, something I think it is important for the Senate to look at, and the Administration.

And there have been many reports, including one I participated in myself some years ago by the National Academy of Sciences, about vacancies and the difficulty of making appointments to agencies. So I do believe it is a significant concern, but I don't have suggestions for you on how to improve that.

Representative LaHood. I agree with you on that.

Thank you.

Chairman Tiberi. Representative Adams, you are recognized for 5 minutes.

Representative Adams. Thank you, Mr. Chairman.

And let me add my words of thanks, along with my colleagues. And, certainly, I want to associate myself with the Congresswoman who made the comments about the accomplishments you have made as a woman. And hopefully we can find some——

Chair Yellen. Thank you.

Representative Adams [continuing]. Women as smart as you to fill some of those seats. But thank you very much for your service.

Chair Yellen. Thank you.

Representative Adams. In my home State of North Carolina, the unemployment rate in the first quarter of 2017 was 4.2 percent; for African Americans, it was 7.5 percent; for Hispanics, 5.3 percent.

This unemployment disparity is not a recent or one-time occurrence. The Economic Policy Institute looked at the change in the unemployment rates between 2007 and 2017, and their analysis shows that the White unemployment rate in North Carolina is now below what it was before the recession, while the unemployment rate for African Americans and Hispanics is actually higher than it was before the recession.

So do you believe that the Federal Reserve should ever consider its full-employment mandate achieved when there is significant disparity between the White unemployment rate and the Black unemployment rate?

Chair Yellen. So I find the disparities, which are long, have been there for many years, between African-American/White and Hispanic and White unemployment rates to be very disturbing and to reflect broader problems that minorities and less skilled individuals also are having in the labor market, and they are very worrisome and damaging trends.

But I would say that, for most of these groups, unemployment rates and other measures of labor market functioning are back to levels that we had pre-crisis. So I believe it is the case that, since the Bureau of Labor Statistics started collecting information on African-American unemployment rates, that it almost never declined below 7 percent. These rates bounce around a lot. In September, the African-American unemployment rate did decline to 7 percent. In the most recent reading in October, it moved up about half a percent. But it is generally at a low level.

So, unfortunately, African-American and other minority unemployment rates and labor market experience are highly cyclic. So, when the Great Recession hit and unemployment nationally skyrocketed, the worst experienced, largest increase in unemployment and the greatest toll came for African-American, Hispanic, and other minority workers.

As the labor market strengthened, actually, the African-American unemployment rate has declined more strongly than that for Whites. And the disparities now, which are longstanding—African-American unemployment rates are basically double those of Whites—were back to something like that again.

Representative Adams. Thank you very much.

The United States makes up about 5 percent of the world's population, 21 percent of the world's prisoners. In 2014, African Americans constituted 2.3 million, or 34 percent, of the total 6.8 million correctional populations.

What do you think is the impact of mass incarceration on unemployment racial disparities?

Chair Yellen. Well, I think it has a very important and negative effect. And there have been many discussions about ways to potentially address that, but, clearly, it is something that employers will be less willing to hire individuals who have criminal records. And this is a serious problem and concern.

I will say that this is anecdotal as opposed to systematic, but as the labor market has tightened and so many firms now, almost all firms we talk to, report they are having difficulty finding workers, I do hear more reports of individuals who may have a criminal record who are succeeding in finding jobs and being integrated back into the labor force. But it is clearly a very significant issue.

Representative Adams. Thank you very much.

And you actually answered the other question I was going to ask in your response, about the labor force and getting back into it. So thank you very much.

Chair Yellen. Thank you.

Representative Adams. I yield back.

Chairman Tiberi. Senator Peters, you are recognized for 5 minutes.

Senator Peters. Thank you, Mr. Chairman. And, once again, thank you for your service. I appreciate your leadership on this committee and wish you well in all of your future endeavors.

And, Chair Yellen, I will add my accolades to everybody else on the committee. We appreciate your tenure as Chair. You have presided over the Fed during some very challenging times and have always been a very steady hand, and we appreciate that steady hand and look forward to following you in your future endeavors, as well, which I am sure will be equally as significant.

Chair Yellen. Thank you so much. I appreciate that.

Senator Peters. So, Chair Yellen, in response to some previous questions, you mentioned—and I would like you to maybe elaborate a little bit—that the linkage between tax policy and investment is under some dispute among economists, that there is disagreement as to whether or not a tax cut would definitely lead to a level of investment.

Is that because the data is inconclusive? I mean, tell me a little bit more about this debate and why we can't necessarily think that there is that strong linkage.

Chair Yellen. So I am not an expert in this topic. Let me say that at the outset. And it is not one that we are attempting, ourselves, to independently evaluate. But there is a literature on this.

I think, empirically, the linkages are not clear, so it is difficult based on empirical information to draw strong conclusions.

Theoretically, tax changes that lower the cost of capital ought to, in principle, incent greater investment. And with greater investment, there is arguably some passthrough into wages.

But I would say, empirically, just generally, impacts of the cost of capital on investment spending are very hard to detect also in economic data. And while most economists think there is some linkage, it isn't strong enough or pronounced enough to come across in a clear way in the economic data.

And then, of course, the entire set of tax changes that are under consideration matter. So I think this is a complicated question.

Senator Peters. Well, it is complicated, and that is because it depends on the investment decisions that are made by people who receive these tax breaks.

Chair Yellen. Yes.

Senator Peters. And those are human beings. So my experience has always been it is probably best just to listen to folks as to what they would do if they get a large tax break.

In fact, I think it was interesting that today in Bloomberg there is an article, "Trump's Tax Promises Undercut by CEO Plans to Reward Investors." So CEOs are telling us something very different than what we are hearing from the Administration. In fact, they are telling us that, for the most part, if they get this tax break, they are going to do share buybacks. There are probably going to be significant share buybacks.

Robert Bradway, chief executive of Amgen, said in an earnings call that he has been actively returning capital and he is going to continue to do that in the form of dividends and buybacks. Executives from Coca-Cola, from Pfizer—Cisco's CFO, Mr. Kramer, said, quote, "We will be able to get much more aggressive on share buyback after a tax cut."

At a November 14 speech to The Wall Street Journal CEO, counseled by Trump's top economic adviser, Gary Cohen, the moderator asked business leaders in the audience to show hands if they had planned to reinvest these tax proceeds. A few people responded. I think a couple hands went up.

Another provision, according to this article, that would impose an even lower tax rate on companies' stockpiled overseas earnings, giving them an incentive to return trillions of dollars in offshore cash to the U.S., that that money is also unlikely to spur hiring because companies are already well capitalized and can bring on as many employees as they need, according to John Shin, who is a foreign exchange strategist at Bank of America Merrill Lynch.

In fact, I think he is quoted as saying, "Companies are sitting on a large amount of cash. They are not financially constrained." Shin conducted a survey of more than 300 companies, asking their plans for a tax overhaul, and they said they are all basically focused on their shareholders and engaging in buybacks.

So, as the Fed looks at this and they are saying that there is not a linkage between these tax cuts and investment, in fact, CEOs are saying they are going to do share buybacks, as the Fed is looking at that and your policies, are share buybacks generally—are they going to increase wages?

Chair Yellen. Well, I don't think share buybacks would increase wages. The usual linkage would be investment in capital and equipment, if they occurred or to the extent that they occur, would help raise the productivity of the labor force and, in boosting their productivity, would likely end up raising wages. But the linkage occurs through capital spending and not through share buybacks.

Senator Peters. Yeah. Share buybacks don't do anything. And, in fact, share buybacks will increase the stock price. That is really the main reason for that. So, if you have stock options, boy, you are going to do really well. If you are a significant shareholder, you are going to do really well. But the person on the floor of the shop making the products, they are not going to see much of anything, unless they own some shares in their mutual funds, perhaps, which would be great. But it is disproportionally at the very top.

So an efficient way of growing an economy is not to be engaged in share buybacks. And I would argue—and just your thoughts—I mean, we talked about the fact that there is less dynamism in the economy, as well. And there is certainly a number of economists who believe that part of that lack of dynamism is a result of an increasing concentration of capital and fewer and fewer firms.

Chair Yellen. That is true.

Senator Peters. So that is accurate, that because of that——

Chair Yellen. Yes.

Senator Peters [continuing]. Concentration, we are seeing fewer firms, less dynamism, less business formation. Also, that can slow growth. When you have that kind of concentration, growth is constrained.

So, if you are a company and you want to increase your share price, probably the best thing to do is just to do a share buyback, and, boy, if you get a tax windfall, that is going to be great.

And how is that going to impact your policy?

Chairman Tiberi. The gentleman's time has expired, but the Chair may finish answering the question.

Chair Yellen. Oh.

So we will, you know, understand there is uncertainty about what the impact of policy will be. And, you know, as it unfolds, you know, and we see what those consequences are, you know, we will try to evaluate it as it occurs. But there is tremendous uncertainty, as I said, based on existing literature.

Senator Peters. Right. Thank you so much, madam.

Chairman Tiberi. Thank you, Senator.

Senator Cruz, you are recognized for 5 minutes.

Senator Cruz. Thank you, Mr. Chairman.

Chair Yellen, welcome. Thank you for your service. Thank you for your testimony today.

Chair Yellen. Thank you, Senator.

Senator Cruz. You note in your testimony that inflation has continued to run below the 2-percent rate that the FOMC considers the most consistent with maintaining maximum employment and price stability. And you have expressed some uncertainty as to why this is the case.

One factor that your testimony didn't discuss is that our labor force participation rate remains at its lowest rate since 1978 at 62.8 percent. How does the historically low labor force participation rate impact your assessment of the employment picture that the country is facing right now?

Chair Yellen. Of the employment picture?

Senator Cruz. Yeah.

Chair Yellen. So it is a complicated question because there are good reasons why labor force participation in the aggregate is declining in the United States. And it is a trend we expect to continue, because it mainly reflects the aging of the U.S. population and the fact that individuals, once they reach their retirement years, participate much less in the labor force than before those years. So, even though more recent cohorts of retirees are working more than their parents did, overall, the labor force participation rate drops when the population ages. So this is a continuing trend that is not going to go away.

However——

Senator Cruz. So, if I might, though, what about discouraged workers and workers who drop out of the labor force who are of working age, who are not seniors but simply giving up on hopes of finding meaningful employment?

Chair Yellen. Well, if you look at prime-age workers, their labor force participation rates have come up as the economy has expanded. They are not quite back to the levels we saw pre-recession. But what you do have in the United States is, for prime-age workers, especially men, chronic, long-lasting, multidecades decline in labor force participation. And my own assessment would be that is not about retirement; that is about working-age individuals who are not participating in the labor force.

I think that reflects longer-term trends that are adverse that are affecting particularly low-skilled Americans in the workforce: the disappearance of middle-income jobs; pressures on wages at the lower end; the opioid crisis, which partly reflects that labor market distress but also contributes to individuals staying out of the labor market and being not able or willing to work. So I think we do have adverse trends affecting labor force participation.

I mean, you asked me how does it impact my view of employment. Well, when I see for the last 3 years the U.S. labor force participation rate has been essentially stable, I see that as a good trend showing improvement in the labor market, because stability is occurring in the face of what is a declining underlying trend. And so it does suggest that with a stronger labor market we have individuals who are being drawn in by greater job opportunities and more "help wanted" signs that they are seeing.

Senator Cruz. I agree with you, the trend, particularly towards working-age adults dropping out of the labor force, is troublesome. And we need serious economic policy to address and hopefully change that trajectory.

One of the factors that I think is important for doing so is a robust small-business sector. And an ongoing concern is credit availability for small business.

When Congress passed Dodd-Frank, one of the major bases for Dodd-Frank was stopping the phenomenon of "too big to fail." I think, as we have seen Dodd-Frank implemented, the big banks are all bigger now. You made reference to that in your last answer, that we have seen an aggregation of capital, the giant banks have gotten bigger and bigger and bigger under Dodd-Frank. And we have seen small financial institutions, community financial institutions, going out of business at a record rate.

How would you assess the effectiveness of Dodd-Frank, in particular, on impacting small and community banks? And how is that impacting credit availability, in turn, for small businesses?

Chair Yellen. So, as you point out correctly, community banks are gradually diminishing in numbers. It has been a very tough environment for them. And we do recognize that regulatory burden is something that they are suffering from, and it is something we are very focused on trying to address and reduce. So I think that, for us, is and should be a very important priority.

I mean, there are other things that are making it tough to be a community bank, including the fact that we are in a low-interest-rate environment with a pretty flat yield curve, and that has impacted net interest margins and earnings. So, you know, that is a completely separate factor.

But in terms of small-business lending, the landscape has changed a lot. Perhaps community banks are providing less than they used to; large banks are providing more. Online lenders and new fintech firms are coming in and filling part of the void and devising new ways to lend quickly to small businesses in ways that are perhaps less costly than traditional banks.

But our surveys suggest there are some particularly small and minority firms that do feel that they don't have adequate access to credit. Surveys of small firms, like the National Federation of Independent Business that is somewhat larger but still small firms, suggest that most firms feel they have adequate access to credit. They don't feel they are in an environment where their credit needs aren't being satisfied.

So, as a general matter, I think credit is available. I think banks are looking to extend credit. When we ask them regular questions, they tell us they don't see much demand on the part of small businesses for credit. It is sometimes hard to disentangle demand, what is driving something, whether it is demand or supply. But there is evidence that there is weak demand and it is not simply a matter of weak supply due to regulations.

Chairman Tiberi. I thank the gentleman. The gentleman's time has expired. Thank you.

Last but not least, Senator Klobuchar is recognized for 5 minutes.

Senator Klobuchar. Well, thank you very much. Thank you, Mr. Chairman. And thank you for your service, and good luck.

Thank you, Senator Heinrich.

And thank you, Chair Yellen. I sent out a tweet about you, about how you have been a strong, trusted, steady presence——

Chair Yellen. Thank you.

Senator Klobuchar [continuing]. You have done good work, and it is very popular. So always when someone retires, you know, it is like a good moment. But mostly I want to thank you, coming in as Vice Chair and Chair at difficult times in our country.

Chair Yellen. Thank you, Senator.

Senator Klobuchar. And, certainly, in my State, I have seen your steady hand. And what we have seen with the unemployment rate—in our State, it is at 3.3 percent. And while I see issues with the cost of things, I see issues with our debt and other things that we have to tackle in the Congress, I do want to thank you for that steady hand. I think it has made a difference.

Chair Yellen. Thank you so much. I appreciate that.

Senator Klobuchar. So one of the things that I have talked about in the past I don't think has been talked about too much here is just the infrastructure issue. And I am so disappointed, as we look at this tax bill that we are seeing both in the House and now in the Senate, in that it adds, in the Senate's case, over $1.5 trillion in debt, but we didn't put any money into infrastructure, which, if we are going to start messing around like that, I would think we would want to really put in an injection of funding into our infrastructure.

Could you talk about how improving U.S. infrastructure, including our broadband, can benefit our economy?

Chair Yellen. Well, I do think it is one of the factors that impacts productivity. And when I think about what we can do to improve living standards and raise productivity, I think about all sorts of investment. So private investment in capital equipment is important. That affects many workers. But——

Senator Klobuchar. You and I talked about the depreciation tax hump that was during the downturn, the depreciation allowance.

Chair Yellen. Right. But, I mean, infrastructure is important. And then I would also add to that a focus on investment in people and human capital, which is—and especially in light of rising inequality, is a form of investment, too, that deserves emphasis.

Senator Klobuchar. Right. And that has been a major focus of mine, some because our State has such low unemployment rates, especially in our rural areas. Susan Collins and I introduced a bill to expand apprenticeship programs, and I think there is much more work we could do.

Could you talk about that issue, is that we have students that sometimes aren't graduating from high school or are graduating from even college with degrees and then they can't find jobs, and yet we have hundreds of thousands of these jobs that are in welding and trades——

Chair Yellen. Yeah.

Senator Klobuchar [continuing]. And these things and how we get at that?

Chair Yellen. So, I mean, there clearly is—we have a tight labor market. Almost every firm that you talk to discusses the challenges of finding qualified workers. And there is a degree of mismatch, that the qualifications that people have, sometimes college graduates but often high school graduates can't qualify for the jobs. So

I think training, apprenticeships. Other countries, like Germany, seem to do a better job of matching people with jobs and training for them than we do.

I have made a practice of my own when I travel around the country, I am interested in what sort of programs work. There are a lot of efforts by community colleges and nonprofits, sometimes partnering up with firms, to try to address that skill gap.

And what I would say is I have seen many programs I think are very promising, you know, in 6 months or a year, giving people the training and credentials they need maybe for a manufacturing job that requires technical skills, doesn't require a college education.

And what I am particularly gratified by is that, in the tight labor market like we have now, firms are really interested in these programs, and they really want to participate, because they really need workers. And when they care about it and they don't have a lot of applications in the hopper, they are willing to invest in it, too, and partner with the community college or the nonprofits and guarantee that if they participate in these training programs, then they will guarantee that when someone comes out successfully of the program they are going to at least be sure——

Senator Klobuchar. Right.

Chair Yellen [continuing]. They are going to get a chance at a job at that firm.

So, you know, this is an area that obviously Congress can consider investments, but this is private-sector investment that——

Senator Klobuchar. Exactly. And I think it is just making it easier with everything from—if tax credits or if it is also just pilot programs, best practices, those kinds of things.

I was just at Summit Academy in Minneapolis, which is focused on minority students. Seven hundred a year are getting these credentials. And they directly go into the jobs when they graduate, because the companies, like THOR Construction, one of the biggest minority-owned construction companies that just worked on our stadium that is going to host the Super Bowl—not that I am doing hawking up here on stage, Mr. Chairman—in February—but it was just really—I think these things have to be encouraged.

Chair Yellen. Right.

Senator Klobuchar. Because, otherwise, we are going to lose work, if we don't have——

Chair Yellen. Well, I completely agree. And I think these programs are deserving of emphasis and can be very successful.

We are trying, through our own work, our community development programs that exist in the reserve banks, to understand what is best practice in this area and to disseminate information about approaches that work.

Senator Klobuchar. Thank you very much. Thank you. And I look forward to seeing you in your new capacity, whatever it is.

Chair Yellen. Thank you so much. I appreciated it, Senator.

Chairman Tiberi. Thank you.

And I echo the comments of your tenure and your service to our country. And this being your last hearing, it has been an honor and privilege to get to hear you.

And, like you, this is my last hearing of the Joint Economic Committee as the chairman. And I want to thank Ranking Member

Heinrich and Senator Lee and all the members of this committee for making my term a successful one.

I also want to particularly thank the hardworking staff at the Joint Economic Committee. And, in particular, I want to thank Whitney Daffner, who has helped lead the committee, who is sitting to my back. And for the historical knowledge, I want to thank Colleen Healy for helping us kind of get through all the challenges at the beginning of this process.

So it has really been an honor and a privilege to chair this committee. I look forward to watching it in the future as a private citizen.

And, again, thank you, Chair, for your distinguished service.

Should members wish to submit questions for the record, the hearing record will be open for 5 business days.

With that, we are adjourned.

Chair Yellen. Thank you so much.

Chairman Tiberi. Thank you.

[Whereupon, at 11:45 a.m., the committee was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF HON. PAT TIBERI, CHAIRMAN, JOINT ECONOMIC COMMITTEE

Good morning and welcome. I want to welcome everyone to the Joint Economic Committee's annual hearing with the Federal Reserve Chair on monetary policy and the prospects for the economy.

The Federal Reserve is one of the most important institutions in the country and indeed the world. Chair Yellen served as President of the San Francisco Fed, then as Vice Chair and as Chair of the Federal Reserve Board. Her distinguished service at the Fed encompassed the most tumultuous period in the U.S. financial and economic systems since the Great Depression.

Many books have already been written about the events of this period and many more will be written from different points of view and with varying assessments. But one thing is certain, the financial system and the economy have stabilized. We are no longer debating how to reconstitute them but rather how they might work better.

This hearing will review the developments since the crisis and especially since Dr. Yellen became Chair of the Fed in terms of the Fed's dual mandate of maximum employment and price stability. By the standard measure of unemployment, which is 4.1 percent at last reading, and by the standard measure of inflation, which most recently stood at 1.6 percent, both the first and second goals have been achieved.

Although the standard metrics of unemployment and inflation are very good, all is not well in the economy. Economic growth has been slow to the point that some economists have advised that we should lower our expectation for future growth by about a third from the average postwar growth rate.

Wage growth has been surprisingly slow, as has been business investment; labor force participation has remained low and various measures of economic dynamism such as new business formation are way down from before the recession.

Various explanations have been offered, including an aging population and decreased international competitiveness of U.S. businesses that are impaired by taxes and regulation. But money and banking also seem to have a role. Commercial banks, rather than issuing more loans, are holding extraordinarily large amounts of reserves at the Fed, and the Fed has invested trillions of dollars in mortgage-backed securities and Treasuries.

So we have a condition in which businesses are investing less, workers are staying on the sidelines, and banks are lending less than they could. In short, the economy is not realizing its full potential. The Joint Economic Committee has devoted several hearings this year to determining why economic growth has been slow and is interested to hear Chair Yellen's views.

Taxes and regulation are major reasons for the reluctance of businesses to invest and hire more workers in the United States, which is why the current effort in Congress to reform the tax system is so important. Both House and Senate versions of tax reform make critical improvements—in particular, reducing the corporate tax rate to bring it more in line with those of other countries. We are very interested to know how the Fed perceives such tax rate alignment and whether its policy-making will assume that it increases the economy's productive potential.

In closing, let me express my deepest appreciation for Chair Yellen's service to the Nation in one of the most consequential positions for the economy and Americans' welfare. Chair Yellen, thank you.

PREPARED STATEMENT OF HON. MARTIN HEINRICH, RANKING MEMBER, JOINT ECONOMIC COMMITTEE

Chair Yellen, I want to begin by thanking you for your extraordinary public service.

Your leadership at the Federal Reserve has played a key role in helping the economy recover from the financial crisis. The Nation owes you a debt of gratitude for your careful stewardship of monetary policy.

Last year, when you appeared before this committee, I asked you about how we can get the economy delivering for more Americans. Unfortunately, the economic situation is probably even more polarized today. Economic growth, jobs, and startups are increasingly concentrated by zip code.

While we have made real progress since the recession, some parts of the country are being left behind.

Too many rural and tribal areas are struggling to get back to where they were a decade ago.

I represent a state with an unemployment rate well above where it was when the recession began back in December 2007. That sure doesn't seem to me like we have fully recovered from the recession.

I know that the Federal Open Market Committee has not yet made a decision on an interest rate hike next month. But, if the analysts are right, the Fed is expected to raise interest rates, which would be the third rate hike this year.

With many communities across New Mexico and the country still struggling, I'm concerned that we may be putting the brakes on too soon.

Wage growth remains weak while health care, college, and child care are less affordable for working families.

This reality should inform both monetary and fiscal policy.

We need targeted fiscal actions to grow the economy and help these areas that have been left behind. But that's not what Republicans are delivering.

The Republican tax bill moving through the Senate adds 13 million to the ranks of the uninsured to pay for tax breaks for the wealthy and special interests.

To hand out tax breaks to the wealthiest among us, Republicans are not only taking health insurance away from millions of Americans, but they are wasting an opportunity to invest in our people and communities.

There's so much we could be doing instead.

Congress should be focusing on important goals such as growing the economy and driving up wages for working families.

We could provide all children with early learning opportunities, offer students free tuition at community colleges and public universities, ensure broadband access for every American, rebuild our infrastructure, and take bold actions to fight the opioid epidemic.

But we're not going to be able to make those investments if Republicans insist on adding $1.5 trillion to the debt for tax giveaways to the wealthy.

Chair Yellen, as you conclude your term, it's an appropriate time to highlight the vital role an independent Fed plays in the economy.

This Congress, as was the case last Congress, is considering several Republican proposals to limit the Fed's ability to independently conduct monetary policy.

These bills seek to change the way the Fed carries out monetary policy, even going so far as requiring the central bank to swap its current mortgage-backed securities for Treasury bills.

There are also proposals to limit the central bank's flexibility in responding to financial emergencies.

This idea is especially hard to understand in light of the critical role the Fed played in responding to the financial crisis and preventing another Great Depression.

I'm concerned about these attempts to undermine the Federal Reserve's independence, as I suspect you are as well.

I'd like to close with a point about the challenges of crafting monetary policy in today's political environment.

Fiscal and monetary policies work best when they are aligned. But, it is difficult to know with any certainty where Republicans in Congress are ultimately heading with fiscal policy.

For years, they have pledged to reduce the deficit. But, their tax package explodes the deficit.

The disconnect between words and actions is also visible on infrastructure. President Trump has talked about the need to invest in infrastructure. But, as we wait for a real infrastructure proposal from the Administration, Republicans are proposing to eliminate key infrastructure funding sources like Private Activity Bonds.

They said they would deliver middle-class tax cuts. But in 2027, nearly 24 million Americans earning less than $100,000 would face a tax increase under the House Republican tax plan.

And in the Senate bill, half of all households would see a tax increase when it is fully implemented.

The chasm between words and policy must make the already challenging job of conducting monetary policy that much more difficult.

Chair Yellen, again, thank you for your service to our country. I look forward to your testimony today.

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

Chairman Tiberi, Ranking Member Heinrich, and members of the Committee, I appreciate the opportunity to testify before you today. I will discuss the current economic outlook and monetary policy.

THE ECONOMIC OUTLOOK

The U.S. economy has strengthened further this year. Smoothing through the volatility caused by the recent hurricanes, job gains averaged about 170,000 per month from January through October, a somewhat slower pace than last year but still above the range that we estimate will be consistent with absorbing new entrants to the labor force in coming years. With the job gains this year, 17 million more Americans are employed now than eight years ago. Meanwhile, the unemployment rate, which stood at 4.1 percent in October, has fallen 0.6 percentage point since the turn of the year and is nearly 6 percentage points below its peak in 2010. In addition, the labor force participation rate has changed little, on net, in recent years, which is another indication of improving conditions in the labor market, given the downward pressure on the participation rate associated with an aging population. However, despite these labor market gains, wage growth has remained relatively modest. Unemployment rates for African Americans and Hispanics, which tend to be more sensitive to overall economic conditions than those for whites, have moved down, on net, over the past year and are now near levels last seen before the recession. That said, it remains the case that unemployment rates for these minority groups are noticeably higher than for the Nation overall.

Meanwhile, economic growth appears to have stepped up from its subdued pace early in the year. After having risen at an annual rate of just 1¼ percent in the first quarter, U.S. inflation-adjusted gross domestic product (GDP) is currently estimated to have increased at a 3 percent pace in both the second and third quarters despite the disruptions to economic activity in the third quarter caused by the recent hurricanes. Moreover, the economic expansion is increasingly broad based across sectors as well as across much of the global economy. I expect that, with gradual adjustments in the stance of monetary policy, the economy will continue to expand and the job market will strengthen somewhat further, supporting faster growth in wages and incomes. Although asset valuations are high by historical standards, overall vulnerabilities in the financial sector appear moderate, as the banking system is well capitalized and broad measures of leverage and credit growth remain contained.

Even with a step-up in growth of economic activity and a stronger labor market, inflation has continued to run below the 2 percent rate that the Federal Open Market Committee (FOMC) judges most consistent with our congressional mandate to foster both maximum employment and price stability. Increases in gasoline prices in the aftermath of the hurricanes temporarily pushed up measures of overall consumer price inflation, but inflation for items other than food and energy has remained surprisingly subdued. The total price index for personal consumption expenditures increased 1.6 percent over the 12 months ending in September, while the core price index, which excludes energy and food prices, rose just 1.3 percent over the same period, about ½ percentage point slower than a year earlier. In my view, the recent lower readings on inflation likely reflect transitory factors. As these transitory factors fade, I anticipate that inflation will stabilize around 2 percent over the medium term. However, it is also possible that this year's low inflation could reflect something more persistent. Indeed, inflation has been below the Committee's 2 percent objective for most of the past five years. Against this backdrop, the FOMC has indicated that it intends to carefully monitor actual and expected progress toward our inflation goal.

Although the economy and the jobs market are generally quite strong, real GDP growth has been disappointingly slow during this expansion relative to earlier decades. One key reason for this slowdown has been the retirement of the older members of the baby boom generation and hence the slower growth of the labor force. Another key reason has been the unusually sluggish pace of productivity growth in recent years. To generate a sustained boost in economic growth without causing inflation that is too high, we will need to address these underlying causes. In this regard, the Congress might consider policies that encourage business investment and capital formation, improve the Nation's infrastructure, raise the quality of our educational system, and support innovation and the adoption of new technologies.

MONETARY POLICY

I will turn now to the implications of recent economic developments and the outlook for monetary policy. With ongoing strengthening in labor market conditions and an outlook for inflation to return to 2 percent over the next couple of years, the FOMC has continued to gradually reduce policy accommodation. The Committee raised the target range for the Federal funds rate by ¼ percentage point at both our March and June meetings, with the range now standing at 1 to 1¼ percent. And, in October, the Committee began its balance sheet normalization program, which will gradually and predictably reduce our securities holdings. The Committee set limits on the pace of balance sheet reduction; those limits should guard against outsized moves in interest rates and other potential market strains. Indeed, there has been little, if any, market effect associated with the balance sheet runoff to date. We do not foresee a need to alter the balance sheet program, but, as we said in June, we would be prepared to resume reinvestments if a material deterioration in the economic outlook were to warrant a sizable reduction in the Federal funds rate.

Changes to the target range for the Federal funds rate will continue to be the Committee's primary means of adjusting the stance of monetary policy. At our meeting earlier this month, we decided to maintain the existing target range for the Federal funds rate. We continue to expect that gradual increases in the Federal funds rate will be appropriate to sustain a healthy labor market and stabilize inflation around the FOMC's 2 percent objective. That expectation is based on the view that the current level of the Federal funds rate remains somewhat below its neutral level—that is, the rate that is neither expansionary nor contractionary and keeps the economy operating on an even keel. The neutral rate currently appears to be quite low by historical standards, implying that the Federal funds rate would not have to rise much further to get to a neutral policy stance. If the neutral level rises somewhat over time, as most FOMC participants expect, additional gradual rate hikes would likely be appropriate over the next few years to sustain the economic expansion.

Of course, policy is not on a preset course; the appropriate path for the Federal funds rate will depend on the economic outlook as informed by incoming data. The Committee has noted that it will carefully monitor actual and expected inflation developments relative to its symmetric inflation goal. More generally, in determining the timing and size of future interest rate adjustments, 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.

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

RESPONSE FROM JANET L. YELLEN TO QUESTIONS FOR THE RECORD SUBMITTED BY CHAIRMAN TIBERI

Chair Yellen, given the large amount of excess reserves that banks hold, they have little need for interbank lending at the Federal funds rate to avoid potential shortfalls in required reserves. This renders the Federal funds rate largely moot, except for lending by government-sponsored enterprises (GSEs) that are ineligible to earn interest on reserves. Hence, there is no other practical means for the Fed to control short-term interest rates than to pay interest on bank reserves, as you recently explained.[1] Would you please answer the following and provide your reasons:

a. Should the current method of controlling short-term interest rates by setting the IOER rate at or above the Federal funds rate become permanent or should the Fed use it only in transition until the level of banks reserves declines to where banks once again may want to exchange reserves among one another as they did prior to 2008?

As noted in the addendum to the Policy Normalization Principles and Plans issued in June of 2016, the Federal Open Market Committee (FOMC) currently anticipates reducing the quantity of reserve balances, over time, to a level appreciably below that seen in recent years but larger than before the financial crisis; the appropriate level of reserves will reflect the banking system's demand for reserve balances and the Committee's decisions about how to implement monetary policy most efficiently and effectively in the future.

[1] "Fed interest payments to banks are here to stay, Yellen says," By John Heltman, American Banker, November 21, 2017.

The FOMC discussed a range of considerations related to the long-run policy implementation framework at the July and November FOMC meetings in 2016.[2] At the November 2016 meeting, FOMC participants noted that the present approach to policy implementation was working well and would likely remain appropriate for some time. Moreover, policymakers expected to benefit from accruing additional information before making judgments about a future implementation framework; policymakers emphasized that their current views regarding the long-run policy implementation framework were preliminary and they expected that further deliberations would be appropriate before decisions were made.

b. IOER has consistently exceeded other short-term interest rates such as 3-month Treasury and commercial paper rates. Does that inhibit banks from lending more and encourage them to hold large excess reserves?

The level of IOER has been slightly above the level of the Federal funds rate over recent months but below many other short-term interest rates such as 1- to 3-month commercial paper rates. Treasury bill yields have been somewhat below IOER and most other short-term rates over recent months. In part, the relatively low level of yields on Treasury bills reflects the strong demand for these securities by global investors and the Treasury's debt management decisions which have tended to keep Treasury bills in relatively short supply.

c. The Fed's professed goal to shrink its balance sheet can have a contractionary effect on the economy. Does raising the IOER rate, as is anticipated, not make it more difficult for the Fed to shrink its balance sheet?

The Federal Reserve initiated its plan to normalize the size of its balance sheet over time beginning in October of last year. Under the plan, the Federal Reserve will scale back the extent to which it reinvests principal payments on its existing securities holdings. As a result, the balance sheet will gradually decline over a period of several years.[3]

The gradual runoff of the Federal Reserve's balance sheet is projected to put some upward pressure on longer-term interest rates over time. For example, based on some estimates, the Federal Reserve's elevated holdings of longer-term securities is currently keeping longer-term interest rates about 90 basis points lower than would otherwise be the case.[4] As the Federal Reserve's balance sheet declines, this effect on longer-term interest rates will gradually decline as well. Of course, there are many factors affecting the level of longer-term interest rates and many observers have projected that longer-term interest rates will remain quite low for many years to come.

The gradual normalization of the Federal Reserve's balance sheet is a factor that the FOMC must take into account in adjusting the level of the Federal funds rate. All else equal, the reduction in the Federal Reserve's balance sheet and the corresponding gradual increase in term premiums embedded in longer-term interest rates are factors that would result in a flatter trajectory for the target range for the Federal funds rate than would otherwise be the case. That is one of the reasons the FOMC has noted in recent statements that it anticipates that the level of the Federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the longer run.

RESPONSE FROM JANET L. YELLEN TO QUESTIONS FOR THE RECORD SUBMITTED BY SENATOR HASSAN

1. We had a hearing in this committee in July on the number of open jobs in our economy right now. And at that time, there were over 6 million open jobs in the U.S. It would seem to me that if there are that many open jobs out there, we would see an increase in wages in an attempt to attract talent. But we have seen a lot of wage stagnation. Do you have an opinion on why that might be? Or what we could do to address that?

Although the step-up in wage growth has been modest thus far, we are hearing more anecdotes about emerging labor shortages among our contacts. Employers reportedly are responding to these shortages by broadening the range of workers they are willing to hire, providing more training to new employees, increasing workforce

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[2] Summaries of the discussion of those topics was included in the minutes for those meetings (See *https://www.federalreserve.gov/monetarypolicy/fomcminutes20160727.htm* and *https://www.federalreserve.gov/monetarypolicy/fomcminutes20161102.htm*).

[3] For more details on the likely path of the Federal Reserve's balance sheet, see the Annual Report of the System Open Market Account at: *https://www.newyorkfed.org/medialibrary/media/markets/omo/SOMAPortfolioandincomeProjections__July2017U pdate.pdf*.

[4] See Borris et al. at *https://www.federalreserve.gov/econres/notes/feds-notes/projected-evolution-of-the-somaportfolio-and-the-l0-year-treasury-term-premium-effect-20170922.htm*.

flexibility, and in some cases raising wages, all of which are favorable developments. If the labor market continues to tighten, we would expect wage growth to pick up somewhat further.

That said, one likely reason for the sluggish pace of wage growth in recent years is that productivity growth has been disappointing for quite some time, and a continuation of this pattern would tend to temper any further pickup in wage growth. Thus, a very high priority for the Nation should be to boost the pace of productivity growth; this is essential for ensuring that standards of living improve at a more satisfactory pace. While there is disagreement about what policies would most effectively boost productivity, a variety of policy initiatives would likely contribute. More investment, both through improved public infrastructure and more encouragement for private investment, would likely play a meaningful role. More effective regulation likely could contribute as well. And better education, at all grade levels and including adult education, could both promote productivity growth and contribute to higher incomes not just on average, but throughout our society.

2. Generally speaking, corporations are doing better than ever. Our unemployment rate is low. But workers' wages have not gone up. Broadly speaking, in your opinion what are some of the potential implications of a corporate tax cut right now? Will it/how will it impact the decisions of the Fed on monetary policy?

Over long periods of time, productivity growth is a key determinant of wage growth, and thus one likely reason for sluggish wage gains in recent years is that the pace of productivity increases has been quite slow for some time. Corporate tax changes that reduced the cost of capital and led to higher business cash flows could boost investment and the capital stock, which, in turn, could raise labor productivity and wages. However, a persistent increase in Federal Government debt associated with tax cuts could put some upward pressure on longer-term interest rates, which could tend to mitigate some of the boost to investment and productivity. That said, corporate tax policy is just one of many factors potentially affecting the economic outlook that informs decisions about appropriate monetary policy.

RESPONSE FROM JANET L. YELLEN TO QUESTIONS FOR THE RECORD SUBMITTED BY REPRESENTATIVE LAHOOD

1. "Chair Yellen: At the hearing, we had an exchange on CMBS and you said you'd get back to me with more information on your concerns in that area. Can you comment more on your concerns in this space?"

Hearing exchange:

Representative LaHood. I had a question as it related to the commercial mortgage market. And we are all aware in 2008, 2009 when we had the financial crisis as it related to the housing mortgage market, and as we look at the growth of Amazon and other online retailers across the country, really changing the business model as it relates to retailers. And we continue to see traditional brick-and-mortar stores and malls and others being really obliterated across the country—JCPenney, Macy's, Sears Roebuck, and large malls. And in a lot of medium-size markets, there continues to be vacant commercial properties, and these type of brick-and-mortars become more and more unproductive.

And as we look at the commercial mortgage market, I wonder if you could comment on whether there is a possibility, as these unproductive properties continue this trend, of causing a financial crisis like we saw in 2008 and these markets going bad.

Mrs. Yellen. So I think you are raising an important question. I don't have detailed information at my fingertips on these trends. I think that delinquency rates generally remain pretty low in commercial real estate. There are legacy properties incorporated in CMBS that have much higher delinquency rates.

But we are focused on underwriting standards at banks, at maintaining strong underwriting standards to protect the banking system against possible weaknesses that could result in especially commercial real estate. We are seeing overall in commercial real estate that valuations are very high and we have highlighted elevated asset prices. Commercial real estate generally is an area, also, where we do see elevated prices or low cap rates.

So we are focused on soundness of underwriting standards and the safety and soundness of banks associated with it, but in detail, just how this trend is going to play out, I would like to get back to you on that.

Representative LaHood. And as you sit here today, do you have any fears or concerns?

Mrs. Yellen. Well, these are obviously significant trends that are affecting retail. You know, what they will mean for banks is something I would like to look at more closely and get back to you.

Response:

Changes in the retail sector, such as the growth of online sales, have been generating stress on existing retail properties for quite some time. That stress is evident in slower price appreciation of retail properties relative to other property types and higher default rates for legacy properties in the commercial mortgage-backed securities (CMBS) market. Default rates for CMBS loans secured by retail properties, as well as default rates for commercial real estate (CRE) loans at held in bank po1ifolios, are significantly higher than loans backed by non-retail properties. As of June 2017, the average default rate for CMBS loans secured by retail properties was 0.83 percent over the previous year while the default rate for CMBS loans backed by non-retail properties was 0.54 percent. The comparable rates for CRE loans held at banks with assets more than $50 billion, including construction loans but excluding owner-occupied loans, were 0.15 percent for loans backed by retail properties, and 0.09 percent for loans backed by non-retail properties.[1] That difference in performance reflects stronger underwriting standards at banks, which are in part due to Federal Reserve regulatory and supervisory programs that are intended to promote the resiliency of individual banks and the financial system as a whole. Further, the annual stress test evaluates the ability of large banks to continue to support the economy while undergoing significant stress. In the 2017 Dodd-Frank Act Stress Test exercise, the Federal Reserve projected that the 34 participating banks had sufficient capital to absorb $493 billion in losses (including more than $56 billion in losses from domestic commercial real estate) under the supervisory severely adverse scenario.

As I mentioned at the hearing, banks are reportedly tightening standards and terms on a range of CRE property types. Most responses to the July 2017 Senior Loan Officer Opinion Survey (SLOOS) indicate that lending standards on all types of CRE loans are either at or somewhat tighter than the midpoint of the range of standards and terms for these banks between 2005 and mid-2017.

Nevertheless, CRE borrowers and lenders potentially face the prospects of additional losses. We believe that the market is aware of, and is responding appropriately to these long-term trends in the retail space. Our focus in financial stability at the Federal Reserve is ensuring that the system can absorb such events rather than amplifying them, so that households and businesses with no connection to this industry suffer in the form of reduced access to credit. We will continue to closely monitor trends in the retail market and their potential impact on the stability of the banking system as a whole and at the individual bank level.

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[1] The default rate is defined as the share of loans that are current in the previous quarter transitioning to a default status in the current quarter. Loans more than 90 days delinquent, in special servicing (for CMBS loans), or identified as non-accrual or in remediation (for bank loans) are considered in default.