EXAMINING THE FEDERAL RESERVE'S MANDATE AND GOVERNANCE STRUCTURE

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EXAMINING THE FEDERAL RESERVE'S MANDATE AND GOVERNANCE STRUCTURE

Tuesday, April 4, 2017

U.S. HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON MONETARY
POLICY AND TRADE,
COMMITTEE ON FINANCIAL SERVICES,
Washington, D.C.

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

Members present: Representatives Barr, Williams, Huizenga, Pittenger, Love, Hill, Emmer, Mooney, Davidson, Tenney, Hollingsworth; Moore, Foster, Sherman, Green, Heck, Kildee, and Vargas.

Ex officio present: Representative Hensarling.

Chairman BARR. The Subcommittee on Monetary Policy and Trade will come to order.

Without objection, the Chair is authorized to declare a recess of the subcommittee at any time.

Today's hearing is entitled, "Examining the Federal Reserve's Mandate and Governance Structure."

I now recognize myself for 3 minutes to give an opening statement. Last month, we hosted a hearing on sound monetary policy. One witness testified that unconventional policies will work, but they need more time. After a decade of unconventional monetary policies, we are tired of waiting. Well before the Great Recession and to this day, the Fed has chased a Keynesian nirvana. We were told the economy would speed up; instead, it slowed down. We were sold a reliable solution; now we are left with a persistent problem. American households are right to demand a more reliable governance structure for our Federal Reserve.

Today, we will carefully consider what this structure should look like. To be sure, my colleagues on the other side of the aisle have an answer for why their central planning went awry. They blame Republicans for fiscal austerity, but the truth is inconvenient. There was no fiscal austerity. The previous Administration recklessly spent beyond our means, and instead of preserving monetary policy independence, it cajoled the Fed into fueling a Keynesian stimulus that promised more than it could ever deliver.

A lot of fingerprints were left at this economic crime scene; none of them belonged to austerity. Eye-popping fiscal stimulus and monetary accommodations were supposed to promote a robust economy. Instead, they infected every nook and cranny of what was a resilient economy. Washington elites pretended to know how they should spend your paycheck. They pretended to know what jobs employers should create and how much those jobs should pay. They pretended to know what businesses should produce, because they also pretended to know what you should consume. Pretending to know is the problem. Budget blowouts and unconventional monetary policies promised something better, and when better did not materialize, we got even more of the same.

The first step to ending this Keynesian goose chase is a more disciplined and transparent monetary policy. We need to stop asking for policy miracles and start returning to the simple objective of stabilizing prices. Doing so will give households and businesses the information they need to make productive economic decisions. A Reason Foundation author put it this way: "Wealth is what we humans produce, while money is but a measure that speeds our exchange of the goods and services we create. Money by itself has no value. Instead, it fuels value creation by facilitating commerce wherever it shows promise."

The record is clear. Unsustainable spending of other people's money, coupled with the most interventionist and improvisational monetary policies left us with a persistent economic funk. The answer cannot lie with doing even more of the same. Monetary policy can and should serve as a reliable foundation for growing economic opportunities, but it cannot do so without a more productive governance structure, a structure that holds the Fed to account for only what it can do, and insulates monetary policy from political pressures to do what it can't.

The Chair now recognizes the ranking member of the subcommittee, the gentlelady from Wisconsin, Gwen Moore, for 5 minutes for an opening statement.

Ms. MOORE. Thank you so much, Mr. Chairman. And let me join you in thanking our witnesses for taking time out of their busy schedules to be with us today.

I would just like to say that I was here when Henry Paulson walked in and said, "I need $700 billion to keep our economy from going into free-fall." I was here when Barak Obama raised his hand and was sworn in, and we were losing 700,000 jobs a month and our economy was in free-fall. I was here when you say that there was no such thing as austerity. I was here for the sequester, the massive cuts in food stamps. And I was here last week when we just dodged a bullet of having $1 trillion pulled out of health care in the United States of America. So I am just scratching my head here wondering whatever are we talking about.

Regarding the dual mandate of the Fed, I am on record opposing eliminating considerations of employment from the dual mandate. And it is an odd notion to think that labor and inflation are not linked. So it strikes me as counterproductive that the Fed should turn a blind eye to employment in its policy consideration. It just doesn't make sense economically for the American people.

As for limited authority of the Fed, we made some targeted changes to the Fed in the Dodd-Frank Act, including ending bailouts. I think those were timely and provide additional accountability and stability to the financial system. I also think that expanding representation at the Fed so that it is more authentic and realistic in how it reflects society as a whole is good, but I grow increasingly anxious with the committee's preoccupation with infusing politics into the Fed, constraining the Fed from executing its mission by further limiting its open market activities, adding unworkable formula rules to monetary policy, and restructuring the Fed to give banking interests even more weight on decisions, a decision that would only make policy more myopic and not better.

Academic studies inform us that making the Fed look more like America will lead to better economic outcomes. Industry is moving to diversify, and so should the Fed. If anywhere on Earth anyone should use economic research, it is the Fed. So I believe that the future of the Fed will look more authentic, more like this vast, diverse country. The Fed will need to normalize its monetary policy in the future, but I applaud the steps the Fed has taken to harmonize its growth policies with early steps that Democrats took to stabilize the economy after the Bush-GOP deregulation and induced Great Recession, lack of accountability, lack of—just drunken sailor financial activity.

And I just don't get it. How do bread lines and austerity serve our constituents? And so I will not be apologetic for my votes for pro-growth policies like the stimulus, which could have been better targeted, but I certainly have no regrets about Dodd-Frank, and have worked on a bipartisan basis for tweaks and fixes. I think that the Fed's moves, while unconventional, have been largely helpful, and certainly more helpful than the GOP austerity agenda.

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

Chairman BARR. Thank you. The gentlelady yields back.

The Chair now recognizes the gentlelady from Utah, Mia Love, for 1 minute for an opening statement.

Mrs. LOVE. Thank you, Mr. Chairman, for holding this important hearing.

When the Federal Reserve was created in 1913, Congress set price stability as the Fed's principal objective with regards to monetary policy. It wasn't until 65 years later, in 1978, that Congress amended the Act to redefine the goals of monetary policy to include maximum employment. And the late 1970s, of course, was a period of stagflation, slow economic growth, and high inflation, and Congress was reacting to a serious, but ultimately temporary, circumstance.

Last month at a previous hearing of this subcommittee regarding sound monetary policy, we heard several witnesses contend that the only thing the Federal Reserve can control over the longer run is the rate of inflation. The purchasing power of currency, giving the Fed multiple, at times conflicting, objectives, on the other hand, merely creates unsatisfactory outcomes.

Proponents of the dual mandate contend that the Fed can and should work to achieve both employment and inflation goals. Federal Reserve Chair Yellen herself, in explaining her strong support of the dual mandate, has said that she believes that both inflation and employment matter greatly to the American people and that they both impact the welfare of households and individuals in this economy. There is no question that inflation and employment both matter to the American people greatly.

The question is whether the Federal Reserve is appropriately tasked with actively pursuing both objectives and is capable of achieving them. I would also note that most economists would agree, and I would confidently wager that Chair Yellen agrees, that the economy performs best and therefore creates jobs the most effectively under circumstances of price stability.

I look forward to exploring the question today of whether we should stick with price stability. Thank you.

Chairman BARR. The gentlelady's time has expired.

The Chair now recognizes the gentleman from California, Mr. Sherman, for 1 minute for an opening statement.

Mr. SHERMAN. First, I was surprised to hear the chairman say that we shouldn't be cajoling the Fed. I have seen his party do it in this room hundreds of times.

But I want to focus on democracy, because people who are dedicated to constitutional values don't spend a lot of time reading FMOC notes and people in economics tend not to focus a lot of their time on the U.S. Constitution. We believe in this country in one person, one vote, but when it comes to the Fed, which is a governmental institution, we have one bank, one vote, in selecting various regional Governors. And then when it comes to the FMOC, the region that I am from, California, has 21 percent of the people, and it is in the lowest of 3 categories to have a seat on the FMOC. It is treated exactly the same as a region that has 3 percent.

So I look forward to democracy reining in the structure of the Fed. It was in the 1960s that we got the ruling one person, one vote, when it came to State senate districts. Maybe this last bastion of King George will be liberated.

I yield back.

Chairman BARR. The gentleman yields back.

And the Chair now recognizes the gentleman from Minnesota, Mr. Emmer, for 1 minute.

Mr. EMMER. I want to thank Chairman Barr for calling this important hearing this morning, and I want to thank all of our witnesses for agreeing to be here to testify.

We are only a few months into the 115th Congress, however, this is already the second subcommittee hearing we have had to review the policies of the Federal Reserve, and the third hearing if we consider the committee as a whole. I am pleased to see the chairman's dedication to ensuring proper oversight of the Fed, and I share his commitment to make the Federal Reserve a more transparent and market-friendly institution.

The Fed has immense influence over capital markets, financial institutions, and the American economy. Since the Great Recession, the Fed has used its nearly unlimited discretion to reduce interest rates to historical lows by trillions of dollars of toxic assets and bailouts of numerous financial institutions. However, the consistently inconsistent nature of the Fed's forecast to raise interest rates, as well as the flawed nature of its dual mandate, have led to confusion in the markets, anemic growth, and lack of confidence in our economy.

I look forward to today's hearing as well as the opportunities provided to this chamber in the 115th Congress to chart a new course for the Fed and provide stability and opportunity to businesses and families across this country.

And I yield back.

Chairman BARR. The gentleman yields back.

And finally, the Chair recognizes the gentleman from Illinois, Mr. Foster, for a 1-minute opening statement.

Mr. FOSTER. First off, I would like to second a few comments that were made. I was there during the TARP scenario, and it was ugly. And I think that Members on both sides of the aisle who were not there would do themselves well to look over the tapes of the hearings and the congressional Floor vote and remember what it was that got us into this and what we had to do to get out, because it wasn't pretty.

I think the discussion that just happened having to do with the tradeoff between maintaining price stability and employment stability is fundamental to your attitude. There was a very interesting paper out of the Federal Reserve research arm having to do with—I think the title of it was, "Doves for the Poor, Hawks for the Rich," or vice versa—that had to do with the fact that over the course of a business downturn, you actually do less damage to your economy by maintaining employment stability, and there are substantial redistributive effects if you decide that you are going to maintain employment stability at the expense of price stability. And I think this is a tradeoff that we have to understand, and not duck from the fact that it is a fundamental tradeoff that will always be with us.

Thank you. I yield back.

Chairman BARR. The gentleman's time has expired.

Today, we welcome the testimony of Dr. Charles Calomiris, who currently serves as the Henry Kaufman Professor of Financial Institutions at Columbia University; Dr. William Spriggs, who serves as the AFL-CIO's chief economist, and is also a professor of economics at Howard University; and Dr. Mickey Levy, who is the chief economist for the Americas and Asia at Berenberg Capital Markets, LLC.

Each of you will be recognized for 5 minutes to give an oral presentation of your testimony. And without objection, each of your written statements will be made a part of the record.

Dr. Calomiris, you are now recognized for 5 minutes.

STATEMENT OF CHARLES W. CALOMIRIS, HENRY KAUFMAN PROFESSOR OF FINANCIAL INSTITUTIONS, COLUMBIA UNIVERSITY

Mr. CALOMIRIS. Chairman Barr, Ranking Member Moore, subcommittee members, it is a pleasure to be with you today to share my thoughts on how to improve the governance structure of the Federal Reserve System.

The Fed has failed to achieve its central objectives, price stability and financial stability, during about three-quarters of its 100 years of operation. Although the Fed was founded primarily to stabilize the panic-plagued U.S. banking system, since the Fed's founding and, largely, as the result of errors in Fed monetary and other policies, the United States has continued to suffer an unusually high frequency of severe banking crises, including during the 1920s, the 1930s, the 1980s, and the 2000s. The two major U.S. banking crises since 1980 place our country within the top quintile of risky banking systems in the world, a distinction it shares with countries such as Argentina, Chad, and Democratic Republic of Congo.

It is high time to address deficiencies in our financial system that have produced these subpar results, and one of the key areas where reform is needed is in the governance of the Fed. The Fed has played an active role in producing most of those crises, and its failure to maintain financial stability has often been related to its failure to maintain price stability.

In his review of Fed history, Allan Meltzer points to two types of deficiencies that have been primarily responsible for the Fed's falling short of its objectives: adherence to bad ideas; and politicization. Failures to achieve price stability and financial stability reflected a combination of those two deficiencies.

Unfortunately, the failures of the Fed are not nearly a matter of history. Since the crisis of 2007 to 2009, a feckless Fed has displayed an opaque and discretionary approach to monetary policy in which its stated objectives are redefined without reference to any systematic framework that could explain those changes; has utilized untested and questionable policy tools with uncertain effect; has been willing to pursue protracted fiscal, as distinct from monetary, policy actions; has grown and maintains an unprecedentedly large balance sheet that now includes a substantial fraction of the U.S. mortgage market; has been making highly inaccurate near-term economic growth forecasts for many years; and has become more subject to political influence than it has been at any time since the 1970s.

The same problems that Mr. Meltzer pointed to, bad ideas and politicization, now as before, are driving Fed policy errors. I am very concerned that these Fed errors may result once again in departures from price stability and financial stability. In my written testimony, I show that the continuing susceptibility of the Fed to bad thinking and politicization reflects deeper structural problems that need to be addressed. Reforms are needed in the Fed's internal governance, in its process for formulating and communicating its policies, and in delineating the range of activities in which it is involved.

My testimony focuses on reforms that address those problems: one, internal governance reforms that focus on the structure and operation of the Fed, which would decentralize power within the Fed and promote diversity of thinking; two, policy process reforms that narrow the Fed's primary mandate to price stability and that require the Fed to adopt and to disclose a systematic approach to monetary policy; and three, other reforms that would constrain the Fed asset holdings and activities to avoid Fed involvement in actions that conflict with its monetary policy mission.

Table 1 summarizes the reforms proposed here and Figure 1 outlines the primary channels through which reforms would improve monetary policy.

In my remaining time, I would like to point to some of the most important elements in my testimony. Improving the Fed's primary mandate to focus on price stability is a reform that is long overdue. Price stability is an achievable long-run objective, and thus, the Fed can be held accountable for achieving it. Indeed, long-run inflation is completely under its control. Inflation matters for growth. High levels of inflation or volatile inflation result in low output and high unemployment in the long run.

As Milton Friedman and many others have correctly argued for years, the reason to target price stability is not because we care about price stability per se, no one should, but rather because we care about employment and output. By making price stability the primary long-run objective of the Fed, we ensure that the average levels of employment and output will be maximized in the long run.

Paradoxically, the point of narrowing the Fed's long-term mandates to inflation is to boost average employment. Narrowing the Fed's primary mandate makes the Fed more accountable, while protecting it from myopic political pressures that are inherent in a democracy.

Holding the Fed primarily to account for price stability does not preclude it from supporting the economy during slumps with countercyclical policy over the short or medium terms as a secondary objective. Indeed, a host of possible monetary policy strategies are consistent with both meeting a long-run inflation target and providing countercyclical influence.

There is no doubt that a Fed with a single inflation mandate would continue to execute countercyclical policy aggressively. By making that countercyclical process systematic, we would further ensure the appropriate accountability of monetary policy, while further insulating it from myopic political pressures or from seat-of-the-pants biases that cause monetary policy to fall short of its objectives.

Much of my testimony is devoted to the need to improve the deliberative process at the Fed by making it more democratic and by ensuring true diversity of thinking. The Fed has lost the diversity of experience and perspective that used to animate and inform its debates.

Chairman BARR. The time of the gentleman has expired. We will continue to explore these topics—

Mr. CALOMIRIS. Okay.

Chairman BARR. —in Q and A. Thank you, sir.

Mr. CALOMIRIS. Thank you.

[The prepared statement of Dr. Calomiris can be found on page 30 of the appendix.]

Chairman BARR. Dr. Spriggs, you are now recognized for 5 minutes.

STATEMENT OF THE HONORABLE WILLIAM E. SPRIGGS, CHIEF ECONOMIST, AFL-CIO, AND PROFESSOR, DEPARTMENT OF ECONOMICS, HOWARD UNIVERSITY

Mr. SPRIGGS. Thank you, Chairman Barr, and thank you, Ranking Member Moore, for inviting me today.

I think we should once again be reminded of, as was mentioned earlier, the Humphrey-Hawkins Full Employment Act. It was an act of democracy. Congress did give instructions to the Federal Reserve. And it is clear from the instructions that Congress gave and the fact-finding that went into the legislation, that Congress' mandate was full employment, full employment with common sense. And included in that common sense was full employment with price stability.

Economists all agree that the economy can overheat, and you could try and attempt to get full employment and end up with accelerating inflation. Economists must agree, because we now have experienced it, that you can have another problem, which is deflation. And ignoring the threat of deflation, a real threat, is as dangerous as ignoring accelerating inflation. This is the lesson of the Bank of Japan, which has still not figured out how to get out of its deflation. So we should be reminded that our Federal Reserve, by having a dual mandate, is also cautionary in thinking about that.

One of the problems with the Fed is that it is made up of and owned by banks. This gives it a very one-sided view of the economy. And when you look at the transcripts of the Federal Reserve minutes for the Federal Open Market Committee, you see a very other worldly view of unemployment at the peak of this downturn.

Can the Fed itself and by itself achieve full employment? The Humphrey-Hawkins Act did not anticipate that the Fed could do that. It placed clear responsibility on the fiscal authority of Congress to make that happen. So no one thinks the Fed can do that by itself. And the austerity that was pursued immediately after the initial stimulus is why this recovery is unique compared to all other recoveries before this. When you look at what happened under George W. Bush, when you look at what happened under Ronald Reagan, when you look at the downturn under George H.W. Bush, you see a different response from fiscal stimulus.

This downturn had the biggest downturn in public investment, the Federal Reserve did not step in to shore up public investment, and State and local governments have still not recovered their level of investment in roads, in education, and in the infrastructure of our cities and societies. That is not the Federal Reserve's fault. Those things come under fiscal authority. And we continue to starve and cut the budgets that would have allowed public investment to return. In fact, the current President is saying we need infrastructure, because even he recognizes that we have starved public investment.

The Federal Reserve did take some unusual steps, but steps which have been proven in the light of the reality of deflation. The Federal Reserve is looking at the lessons learned in Japan and has understood that quantitative easing was a tool that they could use. Many economists have blinded themselves to this reality. There is a zero lower bound, there is a point at which typical traditional policy is not going to lead to stability.

Now, this century, the Federal Reserve has kept the price level at an average of 1.9 percent. Its target for inflation is 2 percent. So one can say they have pretty well hit the target over this long period, with a very small standard deviation. The claim that price stability alone leads to job gains and income growth just is contradicted by the simple facts. Before the great moderation, before the deliberate downturn of the 1980s, we had an average unemployment rate in the United States of 5.2 percent, which allowed us to have a greater and more rapid growth of income. Since then, we have had price stability, far greater price stability, but unemployment has averaged 6.2 percent, and we have had very short periods in which unemployment was sufficient to drive up the wages of American workers and stimulate the growth of new establishments.

It is the growth of wages and broad income growth that leads to new firm establishment. It is not the other way around. The causal factor is by generating broad-based income growth, you create new customers, and that allows for new establishments.

I look forward to being able to answer questions.

[The prepared statement of Dr. Spriggs can be found on page 84 of the appendix.]

Chairman BARR. Thank you, sir. The gentleman's time has expired.

Dr. Levy, you are now recognized for 5 minutes.

STATEMENT OF MICKEY D. LEVY, CHIEF ECONOMIST FOR THE AMERICAS AND ASIA, BERENBERG CAPITAL MARKETS, LLC

Mr. LEVY. Chairman Barr, Ranking Member Moore, and members of the subcommittee, I appreciate this opportunity to present my views on monetary policy. My focus is specifically on the Federal Reserve's balance sheet.

In summary, my assessment is that while the Fed's asset purchases during the financial crisis of 2008–2009 were emergency measures that did help lift the financial crisis and end the recession, the subsequent quantitative easing asset purchases, particularly the Fed's Large Scale Asset Purchases under QE3, and maintaining a $4½ trillion balance sheet, even though the economy is growing normally and financial markets are behaving normally, has served no economic purpose and are very risky.

The Fed's balance sheet of $1.8 trillion of mortgage-backed securities (MBS) inappropriately involves the Fed in credit policy and credit allocation. The Fed's overall balance sheet of $4½ trillion gives the false impression to Congress that it is reducing the budget deficit in a riskless way, when in fact it exposes the government, as well as current and future taxpayers, to very large losses. In addition, it blurs the role between monetary and fiscal policies, and jeopardizes the Fed's credibility and maybe even its independence.

I recommend that the Fed embark immediately on a strategy that would gradually and predictably unwind the excesses in its portfolio as part of normalizing monetary policy. Once again, reflecting the Fed's current $4½ trillion portfolio, there are over $2 trillion in excess reserves in the banking system. By gradually and predictably unwinding these excess reserves, this would enhance economic performance and provide for a healthier banking system.

The financial crisis was scary and required emergency unprecedented Fed policy, but the Fed's continuation of crisis management quantitative easing that has bloated its balance sheet has been a mistake. Along with maintaining extremely low interest rates, there is no question that it has stimulated financial markets, boosted stock prices and housing values, and encouraged risk-taking. However, strikingly, it has failed to stimulate nominal GDP. Nominal GDP growth has actually decelerated despite all the Fed's efforts. So it is inappropriate for the Fed to say that it has stimulated the economy. Meanwhile, through its quantitative easing and artificially low rates, the Fed has increased wealth inequality and it has added financial burdens to poorer Americans and older Americans. The economy would have continued growing along its modest pace and jobs would have been created even without QE, the Fed's Operation Twist (which involved selling shorter-term securities and buying longer-duration securities), and the Fed's reinvestment of maturing assets.

Unfortunately, potential growth has been slowed significantly by higher taxes and a growing web of government regulations that have deterred businesses from expanding, investing, and hiring. These economic and job-dampening factors are way beyond the scope of the Fed's monetary policy. All of the Fed's excessive easing cannot help.

In Fiscal Year 2017, reflecting the Fed's positive carry from its excessive balance sheet, the Fed will remit over $100 billion of net profits to the Treasury, but this comes at a very high risk. The CBO estimates that if interest rates were to rise by one percentage point from its baseline, it would add $1.6 trillion to the deficit over 10 years. Based on the Fed's own forecast of what it thinks is appropriate for the Fed funds rate and its forecast of economic growth and inflation, the unfavorable deficit risks are even higher. Where is the Fed's transparency on this important fiscal exposure?

I encourage the Fed to establish this strategy for unwinding the excesses in its portfolio. It is important that the Fed establishes a strategy and then sticks with it, and not waiver back and forth and be pushed around by financial markets.

I recommend two steps, and they are pretty easy and pretty passive. First, the Fed should announce it will halt reinvesting the maturing assets in its portfolio, which would lead to a sizeable runoff in its holdings of the Treasuries, and then after a couple of years, announce a Treasury for MBS swap that would move the Fed toward an all Treasuries portfolio. Even this fairly aggressive unwinding of the Fed's portfolio would leave plentiful excess reserves in the system. It would help the health of the banking system and be positive for economic performance. Thank you.

[The prepared statement of Dr. Levy can be found on page 68 of the appendix.]

Chairman BARR. Thank you, Dr. Levy. Your time has expired, and we can get to your second point in the Q and A there.

The Chair now recognizes himself for 5 minutes. Dr. Calomiris, monetary policy is not easy, but could our monetary policy and thus our economy benefit from greater diversity of thought in the Federal Open Market Committee (FOMC)?

Mr. CALOMIRIS. Thank you for that question, Mr. Chairman. Yes, I believe that this is a major problem right now. The lack of diversity reflects excessive centralization of power, and we see it in a lack of diversity in the models the Fed is using and we also see it in the lack of dissent. And, in fact, this has been a very troubling pattern over the past 20 years, that the Federal Reserve Board has moved away from the dissent patterns that we observed in the past, and I think this reflects the fact that the power within the Fed system is overly centralized. You can't have diverse thinking if you have monopolistic power.

Chairman BARR. And with that greater diversity of thought in mind, Dr. Calomiris, should we expand the voting rights on the Fed's monetary policy committee? And as you know, only 5 of 12 district bank presidents presently vote at each FOMC meeting. Wouldn't broadening those voting rights to include all of the district bank presidents at every FOMC meeting provide for a monetary policy that directly benefits from all of the information that all of the committee members would bring to bear?

Mr. CALOMIRIS. Very much so. There are two obvious reasons to believe so. First, note that the dissents that are still happening within the Federal Reserve System are coming entirely from Federal Reserve bank presidents. In terms of diversity of opinion, they are the whole show right now. So I think expanding their role by having all of them vote at every meeting would definitely improve the diversity.

The second point is they are the ones who, other than the Chair, control research departments. The Governors don't. The Governors only get the information that the Chair of the Fed is willing to give them. The bank presidents actually have staffs, and they can and do, therefore, research independently to some extent.

Chairman BARR. I agree with you. And I would just note that Dallas Fed president Richard Fisher advocated for just such a governance reform. And Mr. Fisher was among the first to sound the housing crisis alarm actually more than a year before other committee members acknowledged the smoke that they smelled was actually evidence of fire. So I would agree with that.

One final question to you, Dr. Calomiris, related to the directors and the regional district banks. The 12 district presidents are nominated by their boards of directors, who, in considerable part, represent the economic interests of their region. Each board, as you know, is composed of class A, B, and C directors, the latter two being nonbankers, and the class A directors being bankers. The Dodd-Frank Act took away the power of the bankers or the class A directors to vote for their district presidents. Is this a power that we should restore to class A directors?

Mr. CALOMIRIS. I think it is a good idea. Again, we want diversity of views, but bankers have a particular expertise that is very valuable in this system. And if you go back to the Federal Reserve Act, the 12 banks were actually given power so that they would reflect bankers' knowledge and interest. So I think it makes sense to include them. And if you think about who some of the most successful presidents have been, they have been people who have benefited from that kind of real-world financial experience.

Chairman BARR. Dr. Levy, in my time remaining, as you know, the Fed continues to reinvest proceeds from maturing assets, effectively maintaining its QE policy. You testified about this. In addition, the Fed is still using interest on excess reserves and repos to set the Federal funds rate as opposed to conventional open market operations. The Fed still owns more than $1.8 trillion in mortgage-backed securities, the Fed's balance sheet remains 4½ times the size of the pre-crisis balance sheet, yet we are 8 years beyond the Great Recession.

How would empowering every district president to fully participate in each FOMC meeting, and how would a single mandate of price stability or at least creating, or placing a priority on price stability, how would those reforms improve monetary policy, especially with reference to the balance sheet?

Mr. LEVY. I think an even-handed balance of power in the Federal Reserve System between the Federal Reserve presidents and the Board of Governors would lead the Fed to make the right decision and stop reinvesting the maturing assets on its portfolio and let them run off.

As Dr. Calomiris said, we definitely need a balance. And the bank presidents, who have a keen understanding of banking, would contribute a lot to monetary policy deliberations.

With regard to inflation and the dual mandate, the Fed would be much more precise about its inflation target, and like the ECB, identify 2 percent as its definitive target and not waiver and give the impression that inflation above 2 percent for a while would be acceptable. By pursuing absolutely discretionary policies and frequently changing its mind creates more uncertainties in financial markets and—

Chairman BARR. Thank you, sir.

The Chair's time has expired. So thank you for your answer.

And the Chair now recognizes the ranking member, Ms. Moore, for 5 minutes.

Ms. MOORE. Thank you so much, Mr. Chairman. And here I am adding on to my free MBA that I get whenever we have such a distinguished panel here.

I don't want to seem naive, but I just want to start out with you, Dr. Calomiris. In your testimony, on page 17 at the bottom, you state that, "A policy rule must be a specific algebraic formula that can be used to determine how monetary policy should respond to changes in macroeconomic conditions."

And I guess, since we are debating whether or not the QE was a good policy, I want you to share with us, if we had used this sort of algebraic formula, we would have been below zero interest rates when QE was first adopted. So this seems to be a contradiction that we ought to have a policy that meets the algebraic formula, and in reality the Fed saved the economy by doing QE.

Can you just justify those two things?

Mr. CALOMIRIS. Sure. Thanks for your question. No, there is no contradiction. The formula can change. And, of course, I agree, and have written about it for many years, that when you hit the zero lower bound, the formula has to potentially include some quantitative easing, but that doesn't mean that you can't still be systematic, that you can't explain to people what you are doing.

So, yes, as I talk about at length in my testimony, there is going to be a need for the formula to adapt, and the Fed should be in charge of deciding from time to time—

Ms. MOORE. It isn't a formula if you change it.

Okay. So, Dr. Spriggs, we have heard my colleagues here agree that we need more diversity on the Fed, but when they do it, they just talk about more white men from the other banking regions having a vote. So when you talk about diversifying the committee, are you talking about just other white men having an opportunity to vote, or how would you explain diversity?

Mr. SPRIGGS. No. I think it means diversity of experiences and diversity of communities that have been served. So I am very happy that the Fed can celebrate that they have chosen an African American to be the president of the Atlanta Regional Bank. This is historic, as he is the first one. But more important than his skin color is that he is a housing expert. And having someone who understands the housing market and the need of finance to sustain a middle-class country is an important voice to be at the table.

What was missing during the housing crisis was someone who actually understood, what did this mean for the American household to have that much wealth disappear. So it is that kind of diversity.

Now, of course, economists, unfortunately, are of a similar mind. We are a discipline which is far more orthodox than any other social science. People have studied this. If you compare the Ph.D. comprehensive exam at Howard to the Ph.D. comprehensive exam at any other university, you will find that there are maybe two questions that are different. We all do think alike.

So part of the diversity is at least achieving having different voices at the table and people who understand—

Ms. MOORE. Thank you so much.

Mr. SPRIGGS. —that the responsibility is beyond bankers.

Ms. MOORE. Thank you, Dr. Spriggs. I want you to comment on the dual mandate, which is continually being challenged in this committee. As a matter of fact, Mr. Brady offered a bill to end the dual mandate. How do you think that might compromise, in fact, price stability, so how they might work together or how that might affect it?

Mr. SPRIGGS. I think we see—and as you mentioned before, the problem with a Taylor-like rule, an algebraic rule that runs into the zero lower bound means that the Fed would have to do something different, and that something different is a reality that comes about if the Fed isn't paying attention to the real economy and paying attention to what is happening to wages. You can't get price stability if you have high unemployment, because high unemployment means that you are far away from the production possibilities curve.

If you run an economy that only touches that curve, that only pushes us to the peak, and not think about it in the long run, then every time we reach that peak, you keep shrinking the economy, and that is the problem we have run into.

Ms. MOORE. All right. Thank you so much.

Dr. Levy, let me let you finish this out. You said that you want more clarity on Fed goals. Well, the Fed mandate is 2 percent inflation. Could it be more clear?

Mr. LEVY. It could be much clearer. The Fed identifies 2 percent, but then after the fact, it modifies its view and states that 2 percent is just a long-run average. It proceeds with saying that exceeding 2 percent for a while is just fine if the overheating is helpful. So it is totally discretionary.

In contrast, the European Central Bank has a mandate up to but not exceeding 2 percent, period.

Ms. MOORE. Thank you.

Chairman BARR. The gentlelady's time has expired.

The Chair now recognizes the distinguished gentleman from Texas, the Vice Chair of the subcommittee, Mr. Williams, for 5 minutes.

Mr. WILLIAMS. Thank you, Chairman Barr, and to all our witnesses today. I wanted to begin by talking about the Fed's balance sheet. We have heard that today. Pre-crisis, $900 billion; today,

$4.2 trillion. Let's first explore how we got there. The required reserves provide $110 billion of funding, less than 3 percent of the balance sheet, while the value of currency in circulation stands at about $1.5 trillion today, an amount that is less than 15 percent of the balance sheet. More importantly, and maybe more troubling, is the spike in excess reserves held at the bank, currently $2 trillion. Large domestic and foreign banks who are privileged to receive higher rates on these excess funds have taken advantage of the policies put in place by the Federal Reserve. In turn, that is money that is just sitting there and not being lent out, not serving an economic purpose. The Fed funds rate at the end of February was 66 basis points, while the interest on reserves and interest on excess reserves was 75 basis points.

Clearly, the Fed has stepped well outside the bounds of the conventional balance sheet in both funding sources and size. The bottom line is the Fed governance can be improved to get out of these distortionary rates.

Question, Dr. Levy: In your testimony, you noted that the Fed's excessive large balance sheet does not serve any positive economic purpose but has many downside aspects to it. In terms of economic opportunity, how damaging is it to leave the balance sheet too big for too long?

Mr. LEVY. It is damaging and very, very risky. I mentioned the risk that if interest rates rise, it could generate very large losses. Presently the Fed, through its large balance sheet, generates a little over $100 billion in profits annually that it remits to the Treasury. If interest rates go up, then not only does the amount it remits dissipate, but the portfolio, which includes largely longer-duration securities, could incur large losses. In particular, the Fed's large holdings of longer-maturity MBS are of major concern.

Think about it the following way: Fannie Mae and Freddie Mac failed because they took excess risk involving excess leverage, and after failing, they are now under conservatorship of the Treasury. Some large too-big-to-fail banks ran very risky leveraged portfolios and precipitated the financial crisis and faced failure. Their forced recapitalization involved the government's TARP program and subsequently the Fed has played a critical role in forcing banks to raise more capital, deliver their balance sheets, and reduce the risk in their portfolios and behavior.

Now, the Fed is borrowing short and has a $4½ trillion portfolio, playing the positive carry game that involves large risks, but it does not talk about the risks. It should be more transparent.

Mr. WILLIAMS. Okay. Another question: The Fed's balance sheet stands as a monument to numerous discretionary decisions, including the decision to step well outside the bound of simple monetary policy and dive headfirst into the credit markets. Does the Fed that now favors some borrowers over others not only create economic distortions, but also compromise the very independence of monetary policy?

Mr. LEVY. Yes. The Fed—through its balance sheet and quantitative easing—has expanded the role of monetary policy over the boundaries into fiscal policy. This definitely risks the credibility of the Fed and could effectively harm its independence.

In addition, the Fed's holdings of $1.8 trillion of mortgage-backed securities directly involves monetary policy in credit allocation policy. That is beyond the role of monetary policy. It is inappropriate for the Fed to influence credit conditions in one sector over another. The Fed should unwind its portfolio over a lengthy period of time and move to an all Treasuries portfolio and reduce the scope of monetary policy back to what is normal.

Mr. WILLIAMS. Now, Dr. Calomiris, as we know, the Fed sets interest rates on reserves. In your testimony, you talk about how setting very high interest rates tends to dissuade banks from lending. Can you explain briefly to the committee why it is inappropriate for the Fed to pay above market rates on bank reserves?

Mr. CALOMIRIS. First of all, because it is a subsidy. If you are paying above market rates, you are trying to pay someone to do something, and in this case, paying them not to lend. So it is obviously a fiscal policy.

It also clearly contradicts the statute that authorized the payment of interest on reserves, which said that they would be at market rates, not above market rates. So I find that strange.

But I want to emphasize a point that Dr. Levy also made. The reason the Fed has gotten itself all tangled up in these fiscal policies, including interest payment on reserves, is because it is worried about having to recognize capital losses, like the ones that Dr. Levy is talking about, and it is the political risks from that for the Fed that is driving the Fed to do these fiscal interventions.

Chairman BARR. The gentleman's time has expired.

The Chair recognizes the gentleman from California, Mr. Vargas.

Mr. VARGAS. Thank you very much, Mr. Chairman. And thank you again to the witnesses for being here.

Going back, then, to the issue of the effectiveness of the Fed's large scale asset purchases I heard from Dr. Levy, and, again, thank you for those comments.

Mr. Spriggs, would you like to comment on those? Because I thought, in fact, it was just the opposite; it did create stability as opposed to become a problem or a bubble.

Mr. SPRIGGS. Thank you, Congressman. It created stability in one of the most important areas. The sector that was hurt the most by the downturn, the household sector, was in great need of having its balance sheet stabilized. Without that stabilization, we would have continued the downward collapse of consumption. So when there was a tremendous spike in mortgage interest rates and spread of the mortgage interest rates, this was going to lead to huge ramifications in the housing market.

The Fed's intervention in this market was important to restoring the historic spread so that interest rates looked normal. And if you will see from the way that the markets have responded since, whether it is looking at Treasuries or looking at mortgage rates, we have seen that stability. And that is important, because only with that stability has the household sector been able to figure out how it can rebalance after the huge losses taken in savings. Because of the foreclosure crisis, because of the collapse of pensions, because of the loss of jobs, the household balance sheet was shaken very greatly. This has to be part of what the Fed takes into consideration if we are going to have a stable financial sector.

Mr. VARGAS. Dr. Levy, would you like to comment on that? Because it does seem to me that the balance sheet stabilization did work in exactly the way that Mr. Spriggs was talking about, but you don't agree with—oh, wait. Dr. Calomiris, you wanted to comment on it. Please do.

Mr. CALOMIRIS. Yes. So I think that there is a lot of evidence about this, and it depends on which interventions you are talking about and what time you are talking about.

The most recent detailed study of this by Marco Di Maggio, who is now at Harvard Business School, shows that QE1 actually seems to have had an effect. QE2 and QE3, the only parts of those interventions that had an effect were their relative price effects through their mortgage-backed securities purchases, which is a fiscal policy. If you want to subsidize mortgage-backed securities by making their yields lower, then you can do that, that is a fiscal policy of Congress, but the Fed has actually done that. And I would say beyond the period where there was any need to stabilize the markets, it is simply a giveaway.

Mr. VARGAS. Dr. Levy?

Mr. LEVY. Yes. I agree with Dr. Spriggs regarding 2008–2009. As I mentioned several times in my testimony, there is no question that the Fed's asset purchases during the financial crisis in an emergency situation did help stabilize financial markets and help lift the economy out of recession. But if we look at the subsequent quantitative easing programs, the Fed's Operation Twist and its reinvestments of all the maturing assets, the economy has not been stimulated; rather it has merely continued to grow very close to its potential growth path. Nominal GDP, which is the broadest measure of current dollar spending in the economy, actually decelerated. That is contrary to what the Fed had predicted would happen and also contrary to what its models predicted. The actual economic performance and particularly the persistent disappointment of capital spending suggest strongly that the Fed's monetary policy had very, very little impact.

So when we talk about the expansion years following the financial crisis and recession and particularly the period since 2012, households' balance sheets had already stabilized and consumption was growing. The housing market was growing. Financial markets were behaving normally. Does that require an emergency quantitative easing?

When you ask them whether the quantitative easing helped, it is instructive to emphasize that it helped during the crisis, but we haven't been in crisis for 8 years, and it has done little to stimulate faster growth during the expansion.

Mr. VARGAS. My time is about up. But it seems to me, then, that in the first instance, you would agree that the flexibility that the Fed had was almost necessary, then, for this stability?

Mr. LEVY. Yes.

Mr. VARGAS. It seems there would be agreement, I imagine. Dr. Spriggs, if you—

Mr. LEVY. And I think the legislation that is pending provides that flexibility.

Mr. VARGAS. Thank you, Mr. Chairman.

Chairman BARR. The gentleman's time has expired.

The Chair now recognizes the gentleman from North Carolina, Mr. Pittenger.

Mr. PITTENGER. Thank you, Mr. Chairman. Thank you for your fine leadership in the important work of this committee. And thank you, each one of you, for coming, for your service to our country, for being here today.

I would like to say that the Fed's extraordinary policy stance over the last decade, one that Governor Walsh called such—it was financial engineering, why has it not produced the results that have been so consistent since World War II? We haven't had robust economic growth, and many Americans have been left underemployed or are really barely making it. So I just really would like to get your take on that. Dr. Calomiris?

By the way, Dr. Calomiris, my daughter went to Columbia Business School, and she knows of you. She did not have you for a class, but you have a great reputation there.

Mr. CALOMIRIS. Thank you, Congressman.

Monetary policy can temporarily, over the business cycle, stimulate employment and growth, but it can't over any long period of time. Beyond a couple of years, it can't. So when you are looking at a sort of protracted under-performance of the economy, you have to look elsewhere.

And I think the answer to your question, it is a long answer, but it has to do with needs to improve the supply side of the economy. There is a long list of things. It could be tax policy, it could be regulatory policy, it could be job training, but it is not going to be monetary policy.

Mr. PITTENGER. Thank you.

Mr. Spriggs, do you want to give a comment?

Mr. SPRIGGS. Thank you, Congressman. I would reemphasize that this is a unique recovery, because we didn't have a fiscal response. Public sector investment went down by historic levels and has not recovered. We are still down several hundred thousand public schoolteachers compared to where we were before.

Mr. PITTENGER. You wouldn't say—

Mr. SPRIGGS. And that is—

Mr. PITTENGER. Excuse me, sir.

Mr. SPRIGGS. And that is not per pupil.

Mr. PITTENGER. Let me reclaim my time.

Mr. SPRIGGS. We are down several hundred thousand public schoolteachers.

Mr. PITTENGER. You don't believe that had to do with any restrictions on the market itself and the regulatory environment?

Mr. SPRIGGS. No, that is not regulation of that. That is Congress—

Mr. PITTENGER. In terms of the—

Mr. SPRIGGS. That is Congress failing to learn the lesson of the Great Depression. Fortunately, the Federal Reserve learned the monetary lesson of the Great Depression, but we have not seen the fiscal response commensurate with what took place. And this—

Mr. PITTENGER. Dr. Levy?

Mr. SPRIGGS. —lack of investment—

Mr. PITTENGER. I am short on time, sir, with all due respect. I do thank you.

Dr. Levy, what are your comments? Dr. Levy, would you like to respond?

Mr. LEVY. Yes. In December of last year, I testified before this committee and argued that monetary policy affects aggregate demand in the economy. What has happened so far in this elongated expansion is there is not insufficient demand in the economy, but there are various factors that have constrained economic growth, including tax policy, a growing web of regulations and government-mandated expenses, not just on the Federal level, but the State and local levels, that have inhibited businesses from hiring and investing. And then there is this broad issue of educational attainment and skill levels of our population. There is demographics. Obviously, you could identify these factors one by one, and each is way beyond the scope of monetary policy.

So I agree with both Dr. Calomiris and Dr. Spriggs. There are a lot of factors that are affecting economic activity, particularly tax and regulatory policies. It is absolutely incorrect and can lead to undesired economic performance if we continue to rely on the wrong policy tool.

Mr. PITTENGER. What would you say that we need to be doing now to free ourselves from this trap that we appear to be in, this low-growth trap? What could the Fed be doing right now?

Mr. LEVY. I like the idea of well-thought-out tax reform, particularly on corporate tax policy, that affects the pass-through businesses that employ half of all workers and generate roughly half of all profits in businesses. We do need more infrastructure spending, but wise infrastructure spending that is really needed, rather than just throwing money at the economy.

And we definitely, by every way possible, need to improve our educational system and retrain working-age people who are out of work.

Mr. PITTENGER. Thank you. Dr. Calomiris?

Mr. CALOMIRIS. I think what is interesting is that this is an area where economists are very broadly in agreement. Exactly how to do it is another matter. But the areas of deficiency that matter for long-term growth, I can think of the four most obvious ones. First, regulatory policy has been a major drag on growth.

Mr. PITTENGER. You have a few seconds left, sir.

Mr. CALOMIRIS. Yes. Second, tax policy. Third, I agree with Dr. Levy about the right kind of infrastructure. And, fourth, educational policies. And I think that is where you are going to get growth.

Mr. PITTENGER. Thank you. My time has expired.

Chairman BARR. The gentleman's time has expired. The Chair recognizes the gentleman from Texas, Mr. Green.

Mr. GREEN. Thank you, Mr. Chairman. I thank the ranking member as well. And I thank the witnesses for appearing today.

Mr. Chairman, I want to talk about an acceptability factor. There seems to be an acceptability factor with reference to a good many things that are happening at the Fed. It seems that it is acceptable in society—maybe more so than the Fed, but I will relate it to the Fed—that women earn 80 cents for every dollar a man earns. Why would I say it is acceptable? Because we don't focus on it to do something about that, the fact that women earn 80 cents for every dollar a man earns, and by the way, it seems to be an improvement because at one time it was 76 cents for every dollar a man earned.

The certain sort of acceptability factor that we have to work with that is a mindset: African Americans nearly always—there are exceptions—have unemployment rates that are twice that of white Americans. There is a sort of acceptability associated with that. It seems that we should be able to do something about these things if we focus on them.

And I was honored that when Chair Yellen was here last, she agreed that she would examine this relationship between white Americans and African Americans and the notion that the African-American unemployment rate is nearly always twice that of white Americans.

Now, if there is someone on the panel who differs with what I have said in terms of the empirical evidence, kindly extend a hand into the air so that you may be recognized? Anyone?

Kindly allow the record to show that no one has extended a hand into the air.

This acceptability factor goes into the Fed itself—there have been 134 Federal Reserve Bank presidents in the history of the Fed, and we find that Dr. Bostic is the first African American. We live in a world where it is not enough for things to be right. They must also look right. It doesn't look right for the Fed to not have diversity, not only in the opinions, but diversity with reference to the people who serve. It ought to be diverse.

Does anybody differ? If you differ, kindly extend a hand into the air. Let the record reflect that no one differs.

The Fed ought to have diversity of opinions that can be reflected through capable, competent, and qualified women as well as men. One of the reasons Dr. Spriggs is here today is because he is capable, competent, and qualified; and that sends a message to the rest of the world about what African Americans are capable of doing.

Does anybody differ? Raise your hand. Let the record reflect that no one differs.

So now, let's move a little bit further into this and look at interest rates in terms of their being increased and how they may have a harmful impact on some demographics. Dr. Spriggs, do interest rate increases have an adverse impact or a different impact on some demographic groups as opposed to others?

Mr. SPRIGGS. Thank you, Congressman, and thank you for the kind words. Yes, they can. In the current setting, a large part of the recovery has been through the automobile sector.

It was mentioned before that the Fed causes calamities, but what the Fed did was not regulate properly. It didn't believe it should. In the instance of the mortgages, it was that they didn't properly police discrimination in mortgage. In the case of automobiles, a disproportionate share of growth in auto sales have been through subprime loans, which probably should have been regular auto loans. That delinquency rate on payment is beginning to rise because those are not good instruments. The risk is in the instrument, not in the purchaser.

Unfortunately, because African Americans and Latinos are the most vulnerable in the economy to any slowdown, there is a real risk here in the real economy because we currently generate enough jobs to keep the unemployment rate flat. If we slow down, if the purpose of raising interest rates is to slow the rate of growth, that means the algebra is you will generate not enough jobs to keep the unemployment rate down, and people will have a higher unemployment rate.

The first people who will have a higher unemployment rate are Latinos and African Americans, the ones who are currently trying to outrun these loans. And a collapse in the auto market would lead to a recession. That is a real risk.

Mr. GREEN. Mr. Chairman, before you proceed, I have a letter that is being sent to Chair Yellen that I would like to add to the record.

And I would also like to add to the record, Mr. Chairman, if I may, the reason we want to see diversity of ethnicity is because it is expected that if you are there and you are African American, it is expected that you are going to raise some of these issues that impact African Americans. That is kind of expected of you. I yield back.

Chairman BARR. Without objection, the gentleman's submission will be included in the record.

And the gentleman's time has expired. The Chair now recognizes the gentlelady from Utah, Mrs. Love.

Mrs. LOVE. Thank you. Thank you, Mr. Chairman, and thank you all for being here today. This is obviously a very important issue.

The last election, I believe, was a testament to the frustration that the American people had about their economic circumstances, but I think that frustration is more properly directed at Congress instead of the Fed. I believe that we put too many mandates on the Fed while Congress has failed to meet its own responsibilities regarding the economy. Congress, after all, has a lot more levers, or should have many more levers, than the Fed does to address employment, policies towards tax, trade, regulation, and spending, and the Fed by contrast is uniquely qualified to address price stability.

So, Dr. Calomiris, in order for consumers, households, and businesses to plan for the future and save, consume, save, and invest most effectively, do they need to be confident that prices will remain relatively constant over a period of time?

Mr. CALOMIRIS. Yes. We have a lot of clear evidence about that. So two pieces of evidence, because I know we are short on time.

Number one, when inflation is more variable, contracting periods shorten. People aren't willing to enter into contracts, labor contracts, or debt contracts, over long periods of time.

Number two, when inflation is more volatile, holding everything else constant, employment and output decline.

Mrs. LOVE. Okay. So for both consumers and businesses to allocate capital to the highest valued uses, they need a sense of price stability. So contracts, for instance, when you were talking about sending out contracts, they can't have a long period of contract which affects the economy?

Mr. CALOMIRIS. Correct.

Mrs. LOVE. So price instability on the other hand in the form of either deflation or rapid inflation can have drastic consequences on economic decision-making and, therefore, economic growth and job creation. That also is a major factor in how our economy is—

Mr. CALOMIRIS. Agreed.

Mrs. LOVE. Okay. So would it be reasonable to argue that the Fed would be pursuing maximum employment, in fact, pursuing maximum employment if they most effectively focus their efforts on ensuring price stability?

Mr. CALOMIRIS. Exactly. That is the argument for making price stability the sole primary objective. And I just want to emphasize, that doesn't mean the sole objective; you can still have a secondary objective of stabilizing unemployment that is subject to your primary objective of price stability. You want to hold the Fed accountable for something we know how to hold it accountable for, but you also want to encourage it to stabilize over the business cycle in addition to that. There is no conflict between those.

Mrs. LOVE. Okay. Thank you.

Isn't it also widely accepted that the Fed's monetary policy changes impact the economy with substantial lag, perhaps as much as several quarters or even more than a year, after changes in policies are announced?

Mr. CALOMIRIS. Correct. And as you pointed out, variable lags that are often hard to predict.

Mrs. LOVE. Okay. And lastly—I am actually happy I am able to get through all of this—isn't it also broadly accepted that by the time policy changes are fully incorporated, economic circumstances very often have changed so that change in policy made in quarters or even a year before are no longer appropriate?

Mr. CALOMIRIS. Yes. We even have words for that in economics. We have the words "recognition lag" and "implementation lag" to point out exactly the problems that you are addressing.

Mrs. LOVE. Okay. And given that reality, isn't it reasonable to argue that in trying to meet the mandate of maximum employment, the Fed might do, and perhaps even more often than not, does do more harm than good?

Mr. CALOMIRIS. It depends on exactly how the Fed approaches this. We know that there are seat-of-the-pants biases that if you don't have a commitment to price stability, the answer is yes. But if you do have a commitment to price stability, the answer is not necessarily yes. That is, you can stabilize employment and should stabilize employment subject to having that commitment to price stability.

I have an article I cite in my paper which is written by two Federal Reserve Board economists in 2004, that talks about that, that if you have that commitment to price stability as your primary objective—I am not putting words in their mouth, but I am interpreting their results—that then you avoid these biases that allow you to be able to target over the cycle.

Mrs. LOVE. So in all, what I am trying to say is that I believe that the Fed can be pursuing maximum employment more effectively if they really focus on ensuring price stability, and Congress needs to take its responsibility back in using its levers to focus on maximum employment.

Mr. CALOMIRIS. I couldn't agree more.

Mrs. LOVE. Thank you.

Chairman BARR. The gentlelady's time has expired, and now the Chair recognizes the gentleman from Arkansas, Mr. Hill.

Mr. HILL. I thank the chairman.

And I thank the distinguished panel.

Mr. Chairman, I would like to ask unanimous consent that an article be put in the record. It is by Dr. Todd Buchholz, who was my deputy when I ran the Economic Policy Council in the White House. He has written a very thoughtful piece on restructuring the Fed.

Chairman BARR. Without objection, it is so ordered.

Mr. HILL. Thanks, Mr. Chairman.

Dr. Calomiris, you talked about the concentration of power in the Fed and governance, and I found that very interesting considering you talked about the lack of dissent in the Open Market Committee, and yet when we include the district bank presidents, we get more discretion, more discussion, more dissents.

And I find that so curious that they are reluctant to these kinds of structural governance changes when that is the absolute call for corporate America, to have more dissent, more discussion, more independent directors, more demonstrating that by votes. As a former banker, I saw it in bank examinations. Where are the dissents in your loan committee? Why does everybody vote yes? So I really enjoyed that part of your testimony, and we do want directors of our regulatory commission, just like we look for directors in corporate America, we want saber-toothed tigers as directors and Governors, not tabby cats. So thanks for that comment.

And in that regard, the concentration of the Board of Governors, it seems to me sometimes is disconnected with reality. And I cite for example, you talk about rent seeking between interest groups and the Board of Governors, and so I have some draft legislation that would try to shift power back in Fed policy to the district banks for things like M&A approvals or CRA issues, and let the expertise be held primarily at the district bank instead of coming to Washington. Could you comment on that, Dr. Calomiris?

Mr. CALOMIRIS. I can see the argument that that would be an improvement, but I would like to see that get out of the Federal Reserve System entirely. I think it conflicts, as I argue in my report, with monetary policy.

And I would also point out that this is not a partisan issue. I think it is very important to mention, I cite the Governors who were Democratic appointees who have been the most vocal complainers about the concentration of power at the Federal Reserve Board, Larry Meyer and Alan Blinder.

So this need of both to create more independence in the bank presence, but also to empower the Governors. Give them staff. Let them have the ability to actually think in an organized way.

Mr. HILL. Because we do have that at the SEC, for example. Commissioners have their own counsel; isn't that right, sir?

Mr. CALOMIRIS. Exactly. I think this is exactly the right comparison, yes.

Mr. HILL. Good. Thank you for that.

Dr. Levy, let me turn to you and talk a bit about your concerns about the Fed balance sheet, which, again, I found your testimony important. I am concerned that we are running, the Fed is now running the largest hedge fund in the world and that they, in fact, are at potential systemic risk as they attempt to unwind this balance sheet, and I enjoyed your comments about the transparency of that.

Again, legislation I am considering would in the emergency lending powers under Section 13(3), require that those have some congressional oversight to do that, and I would be interested in you talking about that topic.

And then also on 14(2), limiting the Fed to only borrowing Treasury securities. And I remain concerned that other central banks are now buying corporate stocks, for example, which I find very concerning. It is concerning enough that the Fed now has a major interest in the mortgage-backed securities market, which I think puts it in a severe conflict.

So could you reflect a little bit about your philosophy of Treasury-only purchases in the open market operations and then also swapping out if they take other assets as well?

Mr. LEVY. In all but emergency situations, the Fed's purchase should be Treasuries only, and I strongly recommend that the Fed take the appropriate steps that over a reasonable period of time it unwinds its current mortgage-backed security portfolio. Right now, it is at $1.8 trillion.

That would take a while. To begin, I recommend allowing the Fed's holdings of Treasuries to passively roll off. Next, it should involve a measured and preannounced swap of Treasuries for mortgage-backed securities. Regarding your point about other securities, the Fed should not be involved at all in what other central banks are doing, such as purchasing stocks and corporate bonds.

Mr. HILL. Thank you, Dr. Levy. I yield back, Mr. Chairman, thank you.

Chairman BARR. Thank you. The gentleman yields back.

The Chair recognizes the gentleman from Minnesota, Mr. Emmer.

Mr. EMMER. Thank you, Mr. Chairman, and thanks again to the witnesses for being here today.

In the short time that we have, I would love to talk with all three of you, and I am sure we are going to get an opportunity at some subsequent date, but I just want to go back. I thought Congresswoman Love did a fantastic job addressing this dual-mandate issue.

Dr. Calomiris, the question is this. I am looking at your testimony. In your testimony you write, you provide some internal governance reforms for the Federal Reserve, and then you talk about the fact that they need to be supplemented. These reforms you are talking about, diversity of opinion, the rest, experience, needs to be supplemented with some policy reforms as well.

And in the quote that I think is very important, you say, "These reforms that ensure the right kind of accountability for the Fed by improving policy transparency, constraining unaccountable discretion, and discouraging politicization of monetary policy." And then you go on and you say, "The most obvious policy process improvement would be to repeal the dual mandate imposed on the Fed in the 1970s and replace it with a single primary price stability mandate."

And you continue, “The reason to target price stability is because we care about employment and output. By making price stability the primary long-run objective of the Fed, we ensure that the average levels of output in employment will be maximized in the long run.”

Short question, was it a mistake to put in the 1970s to establish this full employment as part of the dual mandate when you already had a mandate for price stability?

Mr. CALOMIRIS. I guess I would say that it was an insufficiently clear formulation. Congress said, do these two things, but it didn’t really explain how to do them.

So my criticism would be, as I testify, that what Congress should tell the Fed to do is to have a single primary mandate, and then subject to achieving that mandate, also stabilize over the cycle. There is no conflict between those. There are many algebraic formulas that explain that. And by the way, through the Fed’s successful years of the 1990s, the Fed was doing that, so we know that it can be done.

Mr. EMMER. Right. But here is the problem. You might be surprised to know that I think the dual mandate is the problem, one of the greatest problems that we have with the Fed, because of politicization, politicization—I can’t even say the word today—because the decisions are political, right? And that is what you are talking about, more accountability with the discretion that you have given.

By putting this in there, and I was going back to your words, with price stability, it is already there, if we would have just focused on price stability, rather than adding this nebulous full employment. That is part of price stability. If you just focus on that and target on that, correct?

Mr. CALOMIRIS. Correct, but I would want to correct one thing, which is the Fed didn’t really have a clear price stability mandate. And even now, the Fed has picked a 2 percent inflation target, but if you have been following the news, you know that currently Fed leaders are talking about increasing it maybe to 4 percent.

The point is, there needs to be, in my view, a legislative definition of price stability, too. That would be something new.

Mr. EMMER. But this is where we are going. Some would argue that that is theft, 2 percent, 4 percent, this is what we are trying to do. It is all the different tools that they don’t seem to run out of, and yet none of them seem to accomplish the ends.

Just briefly, in the time we have left, could you point out some of the political pressures that have impacted the Fed in the last 8 years, that you are referring to?

Mr. CALOMIRIS. I have worked with the Federal Reserve banks, many of them, as a consultant, and so I have been privy to being part of the Federal Reserve System as a sort of semi-outsider. I also served on the Fed’s Centennial Advisory Committee which was advising Fed officials, and was cochaired by Mr. Greenspan and Mr. Volcker.

I guess I would say that there are many examples, but that many of these are hard to put your finger on. I will give you one example, though. If the Fed Chair has a meeting where she brings individuals who are unemployed to express the Fed’s sympathy for individuals who are unemployed, I think that is a symptom of a very politicized central bank. It doesn't mean you don't care about people who are unemployed, but it shows a certain level of political pressure on the short term.

So the point is, yes, the Fed needs to think about long-term policy but not be exhibiting this kind of sympathy about the near term, about the short term, and that I think was a symptom of it. But I guess I would say that in private discussions with Fed officials, that this is not in my experience, not something that is highly disputed; that there has been a trend recently. Some of it has to do with Fed leadership changes that have politicized the Fed very much.

Mr. EMMER. Thank you. My time has expired.

Chairman BARR. The gentleman's time has expired. The Chair now recognizes the gentleman from Ohio, Mr. Davidson.

Mr. DAVIDSON. Thank you, Mr. Chairman.

My context as we speak about monetary policy, I just want to highlight what some of my colleagues have referred to as an austere time with fiscal policy. As highlighted by the chart that we see on the screen, I think it is hard to support that this is austerity. When we talk about monetary policy, we clearly haven't been austere as we have seen the interest rates held low, and we have seen the balance sheet at the Fed grow high.

Dr. Calomiris, an expansive mandate gives the Fed a lot of room to hide from accountability and a lack of diverse thought mutes dissent. Combined with the lack of either external or internal checks, we saw the Fed's balance sheet run far out of bounds. Doesn't this demonstrate how important it is for us to focus the Fed's mandate and develop governance guardrails, so we don't drive an economy off the road again?

Mr. CALOMIRIS. Yes. I think it is very important because making the Fed have to be systematic means that the Fed can be held to account by you. It means that the Fed tells you in advance how it is thinking, and then you can actually hold the Fed to a consistency with its own announcements. That is what is lacking right now.

The Fed has changed its targets. It says, we are chasing this employment indicator. Then when they meet that, they say, no, we don't like that one. We are chasing another one. It makes you think. In answer to the prior question, when somebody tells you that they are constantly changing what their target is, it makes you think that their goal might be something that is driven by some other objective.

Mr. DAVIDSON. Correct. Thank you. And I think the other part is, we mention all these multiple mandates. Does that mean that the Fed really only looks at two things to make their formulation?

So, Dr. Levy, for example, currency clearly matters at some level in what is going on. Does that mean that people don't care how the dollar is valued as part of monetary policy?

Mr. LEVY. The Fed cares about the dollar, but it is not its primary concern.

Mr. DAVIDSON. Just to pick a couple of other things, for example, price inherent, labor market participation is inherent in inflation. Any number of inputs go into that consideration. Does that mean without a mandate that the Fed doesn't care about the topic?

Mr. LEVY. Great question. The Fed cares. We all care, and we all want healthy, sustained, rapid economic growth. And we all want low unemployment for everybody, including minorities and uneducated or semi-skilled workers. So we all want strong economic performance. The question is, what is the proper role of the Fed in achieving these objectives? And what we have discussed today is that many of these goals we want for society and for economic performance are quite simply beyond the scope of the Fed to achieve.

All of the quantitative easing in the world and the Fed's expanding footprint in financial markets and mortgage-backed securities do not help us achieve our goals. Those goals have to be addressed by other policy tools, including some of the points that Charlie and I made, on skills training, and education, and infrastructure, and tax policy.

Mr. DAVIDSON. Thank you. So in short, fiscal policy has to play its role. And in passing this dual mandate, just to highlight whether it is working or not, for example, we would desire that this would work, but at some point you have to say what is it?

And when it was passed, it promised this Keynesian nirvana that with a dual mandate. It promised that unemployment would not rise above 3 percent. It promised that we would have no inflation by now, in other words, real price stability, which may not even be a good objective. So we look at many of these things, and we go down the path to say, is it working? And at some point when it isn't, you have to reassess and say, can't we take that into account with a single mandate? I think you all have made a very good case for that.

A lot of Americans continue to go missing from our workforce or remain underemployed. Do they deserve something better than a dual mandate that has so far not worked?

Dr. Calomiris?

Mr. CALOMIRIS. Yes. I just want to say that I think that is quite right, and I think that if you look at what the Fed is doing right now, you see why we need to clarify this. The Wall Street Journal article I just read says the Fed is talking about shrinking its balance sheet, and it is going to try a little and see what the market thinks and actually is soliciting comments from self-interested parties in the market about whether they like what the Fed is doing. That would only happen with a central bank that is completely adrift.

Mr. DAVIDSON. Thank you. My time has expired. Thanks for your answer.

Chairman BARR. The gentleman's time has expired.

The Chair now recognizes the chairman of our Capital Markets Subcommittee, Mr. Huizenga.

Mr. HUIZENGA. Thank you, Mr. Chairman.

And this is just stunning. The hubris that central bank has is just amazing, as you were describing, Dr. Calomiris, the direction of basically soliciting input about whether they should or shouldn't unravel the mess that they have helped create.

As a courtesy, I am going to recognize my friend, whom I know had a clarification for you, for 30 seconds.

Mr. GREEN. Thank you. I greatly appreciate it. Mr. Calomiris, you indicated, in my opinion, that you thought the CRA should not be associated with the Federal banking system. Would you care to give any clarity on that?

Mr. CALOMIRIS. I said that I would prefer, as my testimony says, I would prefer enforcement of CRA and bank mergers and other kinds of regulatory policies, particularly those that are very politically charged, to be removed from the Federal Reserve consistent with the Treasury's 2008 blueprint to have other regulatory agencies do that and to create a consolidated bank regulatory agency that does that.

I think there is a conflict of interest by combining monetary policy with those, and I think it would better serve monetary policy for those to happen outside the Fed. That is my testimony.

Mr. HUIZENGA. All right. And reclaiming my time. I appreciate that. Hopefully, that answered the gentleman's question.

Mr. GREEN. Thank you for the time.

Mr. HUIZENGA. As you were starting to lead in here—this pretense of knowledge about what monetary policy can and can't do that is just pervasive really is frustrating to me. And as I think Dr. Levy was just pointing out, buying MBSs and a bunch of other instruments doesn't necessarily achieve our goals, and our goal is to provide an environment for all to have an opportunity to go be successful. And I believe that what the Fed has done has not done that.

Now we know that Wall Street is doing just fine and Main Street is not. And a few years ago the Wall Street Journal published a commentary entitled, "Confessions of a Quantitative Easer," which was Andrew Huszar, and that was in November of 2013. And he was the guy that did the trading. And he said that you would think the Fed would have finally stopped to question the wisdom of QE.

And only a few months later after QE won, after a 14 percent drop in the stock market, renewed weakening in the banking sector, the Fed announced a new round of bond buying, QE2. It had never bought a mortgage bond previously, and now he says, "Now my program was buying so many each day through active unscripted trading that we consistently risked driving bond prices too high and crashing global confidence in key financial markets. We were working feverishly to preserve the impression that the Fed knew what it was doing."

And he goes on, "Despite the Fed's rhetoric, my program wasn't helping make credit any more accessible for the average American. The banks were only issuing fewer and fewer loans. More insidiously, whatever credit they were extending wasn't getting much cheaper."

QE may have been drying down the wholesale cost for banks to make loans, but Wall Street was pocketing most of the extra cash. And who was getting pinched? It was the average American worker. It was the person on the lower end.

I see Mr. Spriggs is shaking his head on that, but how do you deny that? It seems to me that we need to narrow the Fed's mandate on this when we know that we have a common goal, but when the average American is paying a price for a hubris act that has done nothing but beef up the bottom line for those that have already had a beefed-up bottom line, it seems we are doing a disservice.

So, Dr. Calomiris, I would like you to address that.

Mr. CALOMIRIS. I think there are a lot of pieces to what you are saying. One is, is it a good public policy—this is the question—to subsidize risk in the mortgage market? That is what the Fed's MBS purchases are doing, and of course that is what Fannie and Freddie purchases do, and that is what Federal Home Loan Banks do, and that is what the FHA does. They are subsidizing risk.

And we know from the last crisis the answer. It is not a good idea. It tends to get more risk. It tends to boost housing prices to unsustainable levels, and it is not a good affordable housing policy.

In my testimony, I refer to some other work I have done, talking about what would be better affordable housing policies. Subsidizing mortgage risk doesn't work. Subsidizing downpayments might work a lot better, especially on a means-tested basis.

So I think the bigger question is not just, do we want the Fed to be doing this? Obviously, we don't. But what we have also learned is that we don't want to be doing this.

Mr. HUIZENGA. My time has expired. Thank you.

Chairman BARR. The gentleman's time has expired.

And I would like to thank our witnesses for their testimony today.

We have no further Members of Congress with questions.

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

This hearing is now adjourned.

[Whereupon, at 11:38 a.m., the hearing was adjourned.]

A P P E N D I X

April 4, 2017

Reforming the Rules That Govern the Fed

Testimony of

Charles W. Calomiris[1]

Before the U.S. House of Representatives

Subcommittee on Monetary Policy and Trade of the

Committee on Financial Services

April 4, 2017

[1] The author is Henry Kaufman Professor of Financial Institutions at Columbia University, Director of the Program on Financial Studies at Columbia Business School, Research Associate of the National Bureau of Economic Research, Member of the Shadow Open Market Committee, Member of the Financial Economists Roundtable, Co-Director of the Hoover Institution Initiative on Regulation and the Rule of Law, and a fellow at the Manhattan Institute. This testimony draws upon prior work, including a coauthored 2015 Shadow Open Market Committee (SOMC) presentation to Congressional staff written by Charles Calomiris, Greg Hess, and Athanasios Orphanides. That is especially true of section 4, which includes an adaptation of detailed notes that originally were prepared by Athanasios Orphanides. Allan Meltzer, Mickey Levy, John Taylor, Athanasios Orphanides, and Deborah Lucas provided helpful comments. The author retains full and sole responsibility for the opinions expressed here.

1. Introduction

Chairman Barr, Ranking Member Moore, subcommittee members, it is a pleasure to be with you today to share my thoughts on how to improve the governance structure of the Federal Reserve System.

As historians of the Fed such as Allan Meltzer (2003, 2009a, 2009b, 2014) frequently note, the Fed has failed to achieve its central objectives – price stability and financial stability – during about three-quarters of its one hundred years of operation. Although the Fed was founded primarily to stabilize the panic-plagued U.S. banking system, since the Fed's founding the U.S. has continued to suffer an unusually high frequency of severe banking crises, including during the 1920s, the 1930s, the 1980s, and the 2000s. Unfortunately, research shows that the Fed has played an active role in producing most of those crises, and its failure to maintain financial stability has often been related to its failure to maintain price stability. The Fed-engineered deflation of the 1930s was the primary cause of the banking crises of that era. The Fed's lax monetary policy produced the Great Inflation of the 1960s and 1970s, which was at the heart of the interest rate spikes and losses in real estate, agricultural, and energy loans during the 1980s, which produced the banking crisis of that period. A combination of accommodative monetary policy from 2002 to 2005, alongside Fed complicity with the debasement of mortgage underwriting standards during the mortgage boom of the 2000s, and Fed failures to enforce adequate prudential regulatory standards, produced the crisis of 2007-2009 (Calomiris and Haber 2014, Chapters 6-8).

It is worth emphasizing that the U.S. experience with financial crises is not the global norm; according to the IMF's database on severe banking crises, the two major U.S. banking crises since 1980 place our country within the top quintile of risky banking systems in the world

– a distinction it shares with countries such as Argentina, Chad, and the Democratic Republic of Congo (Laeven and Valencia 2013, Calomiris and Haber 2014).

In his review of Fed history, Allan Meltzer (2003, 2009a, 2009b, 2014) points to two types of deficiencies that have been primarily responsible for the Fed's falling short of its objectives: adherence to bad ideas (especially its susceptibility to intellectual fads); and politicization, which has led it to purposely stray from proper objectives. Failures to achieve price stability and financial stability reflected a combination of those two deficiencies.

Unfortunately, the failures of the Fed are not merely a matter of history. Since the crisis of 2007-2009, a feckless Fed has displayed an opaque and discretionary approach to monetary policy in which its stated objectives are redefined without reference to any systematic framework that could explain those changes, has utilized untested and questionable policy tools with uncertain effect, has been willing to pursue protracted fiscal (as distinct from monetary) policy actions, has grown and maintains an unprecedentedly large balance sheet that now includes a substantial fraction of the U.S. mortgage market, has been making highly inaccurate near-term economic growth forecasts for many years, and has become more subject to political influence than it has been at any time since the 1970s. The same problems that Meltzer pointed to – bad ideas and politicization – now, as before, are driving Fed policy errors. I am very concerned that these Fed errors may result, once again, in departures from price stability and financial stability (Calomiris 2017a, 2017b, 2017c).

In my testimony I show that the continuing susceptibility of the Fed to bad thinking and politicization reflects deeper structural problems that need to be addressed. Reforms are needed in the Fed's internal governance, in its process for formulating and communicating its policies, and in delineating the range of activities in which it is involved. My testimony will focus on three types of reforms that address those problems: (1) internal governance reforms that focus on the structure and operation of the Fed (which would decentralize power within the Fed and promote diversity of thinking), (2) policy process reforms that narrow the Fed's *primary* mandate to price stability and that require the Fed to adopt and to disclose a systematic approach to monetary policy (which would promote transparency and accountability of the Fed, thereby making its actions wiser, clearer, and more independent), and (3) other reforms that would constrain Fed asset holdings and activities to avoid Fed involvement in actions that conflict with its monetary policy mission (which would improve monetary policy and preserve Fed independence).

Together these three sets of reforms would address the two most important recurring threats to monetary policy – short-term political pressures and susceptibility to bad ideas – and thereby improve the Fed's ability to achieve its ultimate long-run goals of price stability and financial stability, which are crucial to promoting full employment and economic growth. Table 1 summarizes the reforms proposed here, and Figure 1 outlines the primary channels through which reforms would improve monetary policy.

2. The Need for Internal Governance Reforms

The Fed needs broad and fundamental changes to its internal governance. Internal governance reform should make the Fed more institutionally democratic and more diverse in its thinking. Those improvements, in turn, would make the Fed less susceptible to political pressure because centralization of power in the Chair invites more political pressures on the chair. They also would make the Fed less likely to adhere to bad ideas, because of a reduced likelihood of "group think." My proposed changes are unlikely to have strong internal advocates within the Fed system (at the very least inside the beltway, at the Board of Governors), and therefore will require legislation. Ironically, although the Fed has been a champion of governance reform for banks as a means of improving their performance, it is much less receptive to recognizing its own governance problems.

In recent years, there has been an unhealthy increase in the centralization of power within the Fed, which has two parts: (1) the power of the Fed Chair over the Federal Reserve Board, and (2) the concentration of power within the Federal Reserve System at the Board of Governors.

Daniel Thornton and David Wheelock (2014), both economists at the Federal Reserve Bank of St. Louis, provide some heuristic evidence on the need to reduce the power of the Fed Chair over the Board of Governors. Thornton and Wheelock report that Federal Reserve Board Governors have dissented from the Chair only two times from 1995 to 2014. This compares to 65 dissents during the same period of time by Federal Reserve Bank Presidents. Interestingly, both Presidents and Governors had a similar pattern of dissents from 1957-1995, about 8 dissents per year for each group.

Surely, a well-informed and diligent group of six independent (non-Chair) Governors would find reason to disagree from time to time with the Chair. Federal Reserve Bank Presidents dissent frequently, and Supreme Court Justices dissent with aplomb. Dissents remain common at the Bank of England. But somehow, Fed Governors in recent years have become restrained from expressing their dissenting views.

This lack of dissent would seem strange to architects of the current Fed structure. When Fed Chair, Marriner Eccles, testified before the Senate Banking Committee on March 4, 1935, regarding the proposed structure of the Federal Open Market Committee (FOMC), he complained that including only 3 Federal Reserve Board Governors ran the risk that "a minority of the Board [of Governors] could adopt a policy that would be opposed to one favored by the majority [of the 7 Board members]." That argument convinced Congress to structure the FOMC to include all 7 Governors. Clearly, Eccles envisioned a healthy degree of potential dissent within the Board of Governors about monetary policy. That is no longer the case.

Three possible explanations emerge for this unhealthy trend toward uniformity at the Board of Governors, each of which indicates a need for reform. One possibility is that Governors are selected based on their willingness to compromise and "to go along, to get along." The Chair has substantial discretionary power that can be wielded against uncooperative Governors. This possibility, if true, is indicative of an unhealthy internal governance system that quashes independent thinking.

A second possibility is that many of the Governors have become, de-facto, short-timers who may not have a permanent stake in the System's long run management or performance. Why bother to dissent if you are leaving soon after arriving? If this explanation has merit, it indicates that Fed Governors are not playing the role intended by the Federal Reserve Act, which entrusted them with significant authority, gave them long-term (14-year) appointments, and envisioned them as important contributors to shaping the policies of the Fed.

Finally, a third possibility is that Governors may not have the information or background needed to support the formation of independent decisions. This is quite possible given that (non-

Chair) Governors do not have *any* staff to support their own lines of research and inquiry, and historically their access to the Board's staff has been limited. To the extent that limits are sometimes relaxed by the Chair, this is a discretionary decision that can be reversed (and perhaps would be reversed if Governors made use of staff to support positions that opposed the Chair). Fed Governors have complained publicly about the lack of independent staff to advise them, or the inability to speak to staff without permission. Former Vice Chairman Alan Blinder frequently complained about the limitations placed on his ability to communicate with Fed staff, and also complained about the "real reluctance to advance alternative points of view" at the Fed. Former Governor Laurence Meyer said that he was "frustrated by the disproportionate power the Chairman wielded over the FOMC," and said that dissents were viewed as disruptive to the process of monetary policy making (Calomiris 2014).

Not only is there a disturbing power imbalance within the Board of Governors, there has been a shift in power within the System towards Washington. Throughout the founding and operation of the Fed it has always been recognized that the Board of Governors is more attuned to political pressures than the Fed Presidents. The Presidents, therefore, play a crucial function in deterring political influences that tend to make monetary policy myopic. The shift of power toward the Board has made it harder for Federal Reserve Bank Presidents to challenge the point of view coming from the Chair, and serves to politicize the Fed (e.g., through pressures applied by the Administration to the Chair).

One symptom of the shift of power toward Washington has been an increasingly aggressive "approval" process by the Board of Governors for nominees to be Presidents of Federal Reserve Banks. The Fed Board of Governors has approval authority over the appointment of Presidents, but recently, they have been taking a more aggressive role in suggesting nominees and refusing to approve others. Although the discussion of this issue has been limited to those within the system, as well as journalists, recent Presidential searches have purportedly resulted in the non-approval of multiple finalist candidates put forth to the Federal Reserve Board by Boards of Directors of the Federal Reserve Banks.

In addition to the problems of excessive centralization of power in Washington and in the Fed Chair, there has been a cultural shift at the Fed that has reduced the diversity of thinking and made the Fed more susceptible to academic fads. As recently as the 1970s, Fed Governors and Presidents typically were not academics steeped in the latest modeling fads of macroeconomics. But in recent years, it has become rare for Governors or Presidents to be people coming from backgrounds other than academia. This likely reflects several influences, including the increasing centralization of power within the system noted above, and changes in the structure of the banking industry; but it also probably reflects the increasing technical complexity of macroeconomic modeling, which many non-PhD economists find challenging to comprehend.[2]

The models the Fed has employed for policy purposes, however, have not proven to be of much value. The fashionable "DSGE" model, which was all the rage in Fed and academic thinking during the years leading up to the crisis, conceived of the economy as divorced from the banking sector (a sector that was not important enough to be included in the DSGE model). Needless to say, the banking crisis proved that this was an important omission. Since the 2007-

[2] The rise of nationwide branch banking in the 1990s caused important local and regional banks to largely disappear, which has changed the profiles of Federal Reserve Banks' boards. The increasing rigor of Fed modeling at FOMC meetings (despite the inaccuracy of that modeling, especially in the years leading up to the subprime crisis) has fostered a culture that makes it quite difficult for non-academics to challenge the assumptions of the Chair's preferred econometric model, however mis-specified it may be. Even someone like Alan Greenspan, a trained economist who worked outside of academia and who resisted placing too much weight on forecasts from the Fed's macroeconomic models, is missing in the ranks of Fed leadership today.

2009 crisis, DSGE models have been modified to try to incorporate the financial sector. Nevertheless, the consistent failure of the Fed to forecast economic growth over the past decade gives little reason for confidence in current Fed modeling.

In the past, many of the most successful Fed leaders have not put much stock in the latest fads of macroeconomic modeling. It is widely believed that Paul Volcker was the most successful Fed Chair of the past several decades. In one Fed cartoon prepared for high school students, Paul Volcker is lovingly portrayed as a superhero wearing a red cape. Few would object to that characterization. Over the 100-year history of Fed monetary policy, Mr. Volcker's combination of *integrity, judgment, and courage* stand alone. Integrity because, prior to his appointment, he leveled with President Carter about his intention to attack inflation aggressively. Judgment because he rejected the model-driven advice of some top Fed economists who adhered to "Phillips-curve"-based projections; Volcker recognized that only a draconian policy change would be sufficient to establish Fed credibility in lowering inflation. Courage because he stayed the course despite sustained high unemployment and vilification from many academics who derided his policies because they contradicted the received academic wisdom of the day.

If the Fed were to face a similar challenge again—and the risks associated with its balance sheet's size and structure make that a real possibility—would someone emerge with the same combination of virtues? Sadly, the answer is perhaps not. People like Volcker – who took macroeconomic modeling with the appropriately large grain of salt, whose spine was stiffened by years in the trenches of global banking, and who deeply understood the psychology of financial markets – are unlikely to end up as leaders of today's Fed.

That fact would not have pleased the Fed's founders. The structure of the System, as originally conceived, and as reformed in 1935, was designed to ensure a healthy diversity of experience among its leaders. Fed leadership was supposed to combine those with experience in banking with political appointees with different life experience. Academics were absent from leadership positions, as they were not selected as political appointees until much later – Arthur Burns was the first academic to serve as Chair. A system of 12 Federal Reserve Banks was intended to ensure that Fed leaders would be guided by diverse regional *banking* perspectives. Even at the Board, banking professionals sometimes dominated (e.g., Marriner Eccles was a Utah banker, and Paul Volcker worked at Chase when he wasn't at the Treasury or the Fed).

Some Fed leaders I have spoken with tell me that non-academics often lack understanding of key economic issues. That may be true, but every Governor or President doesn't have to understand statistics deeply to be able to contribute to the collective wisdom of the Fed. Sometimes the most important contribution one can make in a meeting is to question things that economists as a group accept too easily. It is worth emphasizing that group think about models has been a perennial problem at the Fed. In the 1920s-1960s, it was the Riefler-Burgess "net free reserves" model; later it was the Phillips Curve, and more recently, the New Keynesian DSGE model.

Don't get me wrong: technical modeling is necessary, but it is not helpful to fill the FOMC with people who use the same model. We need multiple models, and we need people who bring other facts and thinking to bear on economic questions. There is no better antidote to Fed group think than having FOMC members who are willing to scoff at economists' certainties, especially if their own experiences provide credible alternative perspectives about how markets and people behave.

3. Promoting Democratization of Power and Diversity of Thinking within the Fed System

It is possible to construct new rules for Fed leadership that will reduce the centralization of power, enhance diversity, and reduce group-think risk.

Congress could require, for example, that at least two of the seven Fed Governors be people with significant financial markets experience. Having at least two people on the Board with backgrounds in the financial industry like Peter Fisher and Kevin Warsh would create a critical mass of market-savvy opinion.

To further build diverse thinking at the Board, the power of the Chair should be limited. For starters, to ensure that Governors have access to necessary information and can act independently in their voting, Governors should each have at least two staff members under their direct control, which would enable them to develop independent views.

Perhaps that reform would help to solve another problem: the short tenure of most Governors. Governors terms are 14 years, but most leave after only two years. Before Governors become fully educated to the intricacies and challenges of monetary policy they are on their way back to the universities whence they came (to avoid losing their chaired professorships). Congress should require Governors to resign their other positions, including university professorships, as a condition for appointment, and also ask them to pledge that they expect to stay on as Governors for at least half of their appointed terms. Salaries for Governors should also be increased to ensure that the Fed remains able to attract talented people. Part of the reason that Governors return to academia so quickly is that for most of them their salaries as Governors are much less than what they earn at universities. Furthermore, after two years on the FOMC, lucrative consulting and private board of directors appointments beckon. Retirement benefits for

Governors could also be enhanced, and made contingent on a sufficient number of years of service.

In addition to reforming the Board of Governors, Congress should increase the role of Federal Reserve Banks within the FOMC and increase their independence within the Fed System. Federal Reserve Bank Presidents should be selected based on the independent decisions of their Board of Directors, and should not be subject to the approval of the Board of Governors. At the very least, if the Board of Governors is to retain its approval power, let's adopt a sunshine law that requires it to provide summary information to Congress (which maintains all candidates' privacy) regarding any candidates the Federal Reserve Board rejects, as well as information about candidates that the Board suggests for consideration, or asks to be dropped from consideration prior to being formally proposed by the Banks.

Congress also should change FOMC voting rules so that all Reserve Bank Presidents vote at every meeting. That would promote diversity by giving more power and voice to the research staffs of the Reserve Banks. Current FOMC rules of rotation are designed to give greater weight to the Board, which effectively means the huge research staff controlled by the Fed Chair.

Perhaps most importantly, the 12 Federal Reserve Banks should also be freed from the budgetary control of the Fed Board and its Chair, who can use budgetary power (e.g., to limit the size and scope of their research activities) as a threat to gain cooperation on policy matters. For example, the Federal Reserve System could establish a committee comprised of representatives of all the Federal Reserve Banks and the Board of Governors, and perhaps even some outsiders, to consider the budgets of each Bank and each Governor's staff.

It would further promote diversity of thinking if Federal Reserve Banks were prohibited from appointing Reserve Bank Presidents from within their own Bank. When Federal Reserve Banks' Boards were comprised of regional banking and business leaders, Boards had a direct stake in Fed decision making and Presidents were selected from a broad pool of outsiders. Now, almost all Fed Presidents are former Bank research economists (usually research directors). Although formal searches are always undertaken, it is hard to attract qualified outsiders to participate in that process when they know that the internal candidate has the inside track, based on his or her relationship with the Board, and even if they do participate, risk-averse Boards often prefer the devil they know to the one they don't. The result is unhealthy inbreeding.

4. Policy Process Reforms: A Primary Price-Stability Mandate and Systematic Policy

The internal governance reforms outlined above must be supplemented with policy process reforms that ensure the right kind of accountability for the Fed by improving policy transparency, constraining unaccountable discretion, and discouraging politicization of monetary policy. Fed history shows that some of the Fed's worst errors were the result of the wrong kind of accountability. As Allan Meltzer's (2003, 2009a, 2009b, 2014) work shows, including his three volume *History of the Federal Reserve*, Fed failures often have reflected political pressures on the Fed to accommodate deficits, or an excessive focus on short-term unemployment goals (with an eye to upcoming elections) at the expense of long-term inflation and unemployment goals. An important safeguard against monetary policy errors, therefore, is to promote greater independence of the Fed.

Paradoxically, unlimited Fed discretion does not result in greater independence of action because unlimited discretion invites political interference. Fed independence is best achieved by imposing discipline on the process of monetary policy in a way that sets clear objectives for policy and enhances accountability with respect to achieving those objectives.

The most obvious policy process improvement would be to repeal the "dual mandate" imposed on the Fed in the 1970s and replace it with a single primary price-stability mandate, as Paul Volcker and Alan Greenspan, among many others, have publicly championed.[3] The sole primary objective of price stability is embodied in many other central banks' charters, including those of the European Central Bank and the Bank of England. There are three arguments for adopting this policy in the U.S.

First, price stability is an achievable long-run objective, and thus, the Fed can be held accountable for achieving it. Indeed, long-run inflation is *completely* under its control. The Fed has a monopoly over the supply of currency. Inflation is the (inverse of the) value of money; if you control its supply, you control its value. Unpredictable short-term changes in demand and measurement problems make this hard to do on a short-term basis, but over sufficient time, the Fed can control inflation. In contrast, the Fed cannot be held accountable for achieving a given unemployment target in the long run; indeed, economists agree that the long-run rate of unemployment is the result of factors outside of the control of the Fed.

Second, inflation matters for growth. High levels of inflation, or volatile inflation, result in lower output and higher unemployment in the long run. As Milton Friedman and many others

[3] With respect to the financial stability mandate, focusing monetary policy on price stability would also tend to avoid financial instability, as I pointed out in the introduction to this testimony. Of course, aside from monetary policy, there are other important regulatory policy tools that should be used to promote financial stability. See Calomiris (2017a).

have correctly argued for many years, the reason to target price stability is not because we care about price stability per se (no one should), but rather, because we care about employment and output; by making price stability the primary long-run objective of the Fed we ensure that *the average levels of output and employment will be maximized in the long run*. Paradoxically, the point of narrowing the Fed's long-term mandate to inflation is to boost average employment.

Third, narrowing the Fed's primary mandate protects it from myopic political pressures that are inherent in any democracy. Elections can lead politicians to pressure the monetary authority to make the wrong tradeoffs, such as boosting output today (in the interest of current voters) at the expense of higher inflation and lower output tomorrow (at the expense of future voters). Giving the Fed a narrow price stability primary objective provides cover for the Fed in defending itself against opportunistic attacks. Complicating monetary policy by introducing multiple goals (unemployment alongside price stability) makes it hard to hold the Fed accountable for its actions in the long run, while encouraging political pressures on the Fed to achieve an amorphous employment objective. I believe that the Fed's risky QE3 program of purchasing mortgage-backed securities and long-term Treasury bonds in an effort to demonstrate its commitment to reducing unemployment (which had very little effect in boosting employment) is an example, among many, of how such myopic political pressures can distort monetary policy.

The call for a single price-stability mandate is often misunderstood as reflecting a callous lack of interest in unemployment, but the opposite is the case. Economic studies have shown that in the long run there is no tradeoff between price stability and maximum employment; it follows that a single primary long-run commitment to price stability in no way requires a tradeoff of lower employment. Holding the Fed primarily to account for price stability does not preclude it from supporting the economy during slumps with countercyclical policy over the short- or medium-terms, as a *secondary* objective. Indeed, the Taylor Rule is an example of a policy that is consistent with both meeting a long-run inflation target, and providing countercyclical influence. There is no doubt that a Fed with a single inflation mandate would continue to execute countercyclical policy aggressively. However, making price stability its sole primary objective ensures maximum *sustainable* growth and employment over the long run, while defending the independence of the Fed from short-term political pressures.

In addition to narrowing the Fed's primary mandate to price stability, it would also enhance accountability and independence to require the Fed to maintain a *systematic approach* to monetary policy. This is crucial for two reasons: First, systematic policy defends against the dangers of discretionary, seat-of-the-pants policy-making that is susceptible to biases and socio-political pressures. One of the most important seat-of-the-pants biases is "dynamic inconsistency." As academics and Fed researchers have long recognized, a non-rule-based monetary policy will tend to err both with respect to hitting its inflation target and with respect to optimally stabilizing the economy over the business cycle. These twin seat-of-the-pants biases are sometimes referred to as "inflation bias" and "stabilization bias" (see, for example, Faust and Henderson 2004), and are part of a long tradition in monetary policy research emphasizing the social welfare improvements that come from adherence long-term commitments by the monetary policy authority (e.g., Friedman 1948, 1959, 1968, Phelps 1968, 1972, Kydland and Prescott 1977, Orphanides 2003a, 2003b). Systematic rule-based policy is key to avoiding undue focus on the short-term at a long-term cost to society.

Second, because businesses and households take decisions that depend on expectations about the future, including future policy decisions and their economic consequences, a systematic policy framework that makes monetary policy more predictable facilitates better private-sector decisions over time and enhances social welfare.

What constitutes systematic monetary policy? Clearly, not the status quo, which delegates monetary policy to Fed policymakers with broad mandates and allows these policymakers to employ unconstrained judgment in meeting those mandates.

Over its first century of operation, however, the Fed sometimes acted relatively systematically. Variation in the quality of Fed policy-making over time reflects, in part, variation in the degree to which policy was systematic and oriented toward clear long-term objectives. One reason for this diversity in outcomes over different periods is the immense discretionary power that the Federal Reserve has exercised over time in interpreting its mandate and in deciding monetary policy, as well as the lack of any effective oversight of the monetary policy process. Recognizing that appointed policymakers are humans and are susceptible to all the pressures and biases that humans face, reform legislation can play a crucial role in giving monetary policy a clear long-term focus and forcing it to implement a systematic policy process. Policy so conceived would be more predictable, and less susceptible to fads, to short-term seat-of-the-pants biases, and to myopic political influences.

Does a systematic approach to monetary policy imply adherence to a rigid, static rule? If economists had a perfect understanding of the economy and the ability to observe and properly interpret shocks, and if the structure of the economy were unchanging, then monetary policy could be guided by a fixed policy rule that would specify how the Fed would react to observed shocks to maintain price stability and smooth the business cycle. But that is not a realistic vision of what systematic monetary policy would mean in the real world of changing economic structure and imperfect economic understanding.

Economists always have an incomplete understanding of the economy and face limitations in observing and interpreting shocks hitting the economy in real time, when policy decisions counteracting potential adverse effects of various shocks have to be made. As a result, there are divergent views and considerable uncertainty regarding precisely what the best monetary policy response to macroeconomic conditions may be. Furthermore, as the structure of the economy evolves over time, any algebraic rule characterizing the appropriate policy response to macroeconomic factors will have to adapt to changing circumstances. In addition, Policy makers learn over time, and their understanding of appropriate policy responses, therefore, is also subject to change even if the structure of the economy is not changing.

The limitations introduced by these sources of uncertainty have been used by some to justify relying on policymaker's "best judgment" with unlimited discretion. That is a fatuous argument. So long as the systematic formulation of monetary policy is flexible and able to adapt to changes in the economy's structure and our understanding, uncertainty cannot justify the resistance to making policy systematic.

This point bears emphasis: the adoption of a simple, but flexible, monetary policy rule is clearly desirable because it can tackle uncertainty about the economy while avoiding the adverse consequences of discretion.

Let me be clear: A policy rule must be a specific algebraic formula that can be used to determine how monetary policy should respond to changes in macroeconomic conditions, as summarized by specific observable variables such as the current inflation and unemployment rates. By its very nature, such a policy rule ensures that policy is systematic, transparent, and accountable. If well designed (based on existing empirical evidence), the policy rule will also deliver good economic performance. Research with estimated models of the U.S. economy over the past few decades suggests that simple policy rules can be designed that would deliver good economic performance. Of course, there is reasonable disagreement about what the best rule would be, and care is required both in the evaluation of alternative policy rules and in their implementation. Sifting through this evidence and reaching appropriate judgments about which rule to apply, and adapting the rule over time as needed, should be the central functions of any monetary policy authority.

Taylor (2016) discusses recent progress in the evaluation of macroeconomic models, like those that would form the basis for the evolving Fed policy rule. Two important characteristics of the model evaluation process are noteworthy. First, models must be developed in what Taylor calls the "rules space" rather than the "path space." Models in path space conceive of policy as the execution of isolated, hypothetical one-time policy actions. Models in rules space evaluate alternative policy rules in a framework in which policy actions occur within the context of the rules that produce them. Not only are rules-space models the only coherent approach to model the effects of policy on the economy (because, for example, they take account of expectations that are influenced by the existence of the rule), they are also ideally suited to inform an FOMC that is charged with developing and constantly improve its explicit monetary rule. Second, the model evaluation process must identify common performance criteria that would be used to evaluate the relative validity of a diverse range of models. Volker Wieland's pioneering efforts to develop *The Macroeconomic Model Data Base* (see www.macromodelbase.com) shows that this is possible (see Wieland et al. 2016). Wieland's web site invites all comers to propose models, and provides a platform in which they can be compared, debated, and verified empirically. An FOMC charged to follow and disclose its systematic approach to monetary policy could benefit from making use of just such a web site. And a Fed structured to encourage diverse thinking would make effective use of it.

One might ask whether a flexible policy rule could be an effective constraint on unbridled discretion. After all, the FOMC would be free to change its rule at every meeting. Yes, it would, but it would have to do so as a committee, reaching agreement on the changes needed, and embodying those beliefs in observable parameter changes that outsiders could challenge. Outside opinions about the quality of FOMC deliberations and decisions about its rule would be a source of accountability, including at Congressional hearings, and the FOMC would have reason to care about its reputation as a crafter of empirically defensible rules.

To help fix ideas about how FOMC discussions would be likely to proceed, consider an example policy rule for the federal funds rate, f, based on the well-known Taylor (1993) rule:

$$f = r^* + \quad + a\,(\pi - 2) - b\,(u - u^*).$$

This rule suggests that when the inflation rate equals the 2 percent target and the unemployment rate equals the natural rate of unemployment, u*, monetary policy should be neutral, that is the federal funds rate should be equal to the sum of the real natural rate of interest, r*, and the inflation target. If inflation is above the target, then policy should be tighter, with the degree of the policy response depending on the parameter *a* (in Taylor's original formulation this was equal to ½). If the unemployment rate is above the natural rate of unemployment, as is typically observed in recessions, monetary policy should be eased, with the response governed by the parameter *b*. Considering different values for the parameters a and *b* is a simple way to see that care is required to ensure that a policy rule, if followed, will contribute to good economic outcomes over time. If b is set to zero, this rule does not respond at all to employment conditions and may lead to undesirable volatility in unemployment. If b is set to a very high value, say 10, this rule becomes very activist and may result in undesirable instability in both inflation and unemployment. Which parameters would deliver best macroeconomic performance, depends on one's beliefs about the economy. Alternative estimated models typically suggest somewhat different values for the parameters that work best.

The Taylor-type rule above also highlights an important issue relating to the natural rate of unemployment and the natural rate of interest. These concepts are unobservable and are typically estimated. However, estimates are uncertain and may vary considerably both over time and due to differences in estimation methodologies. Using a Taylor-type rule with the wrong estimates of the natural rates introduces a bias that results in deviations from price stability. As an example, the original formulation of the Taylor rule was based on the assumption that the natural rate of interest is 2 percent. Some analysts, including Federal Reserve officials, presently suggest that their preferred current estimates of the natural rate of interest are zero or even negative. The same policy rule with these two alternative assumptions would give policy prescriptions from the Taylor rule that would differ by 200 basis points or more.

I emphasize, however, that such disagreements about hard-to-measure concepts like the natural rate of interest are not insurmountable obstacles to agreeing on a rule. Indeed, alternative policy rules could be specified that do not depend on estimates of the natural rates to set policy and are therefore not subject to related uncertainty. For example, a rule might employ the values of the federal funds rate and the unemployment rate in the previous quarter, f_{-1} and u_{-1}.

$$f = f_{-1} + a\,(\pi - 2) - b\,(u - u_{-1}),$$

Compared to the Taylor rule, this rule suggests that the federal funds rate should be raised (relative to its value a quarter earlier) if inflation is above the target and should be reduced if the unemployment rate is higher than what it was in the previous quarter.

Simple rules, based on the examples above, can also make use of forecasts of economic activity and inflation. Indeed, there are many reasonable candidates for a simple policy rule. A critical issue in determining which rule the monetary authority should adopt among the many alternatives is how robust the rule is to the various sources of uncertainty and potential error. In a committee setting, such as the FOMC, there may be differences of opinion about what is the appropriate way to think about the US economy that may not be possible to distinguish on the basis of available empirical evidence.

A reasonable criterion for designing a simple rule for the Federal Reserve would be the robustness of the rule to reasonable alternative models. This is how policy ought to be designed to defend against major inference errors in an environment of uncertainty.

Requiring the Fed to identify and adopt a policy rule along the lines highlighted above would replace meeting-by-meeting discretion and thus ensure that the harmful consequences of seat-of-the-pants policy are avoided. But as I have noted, given the complexity and continuous change of the economy, it would not be expected that any simple algebraic formula could be the basis for robust policymaking forever.

The goal in making monetary policy systematic is not to replace discretionary policy with an immutable rule, but rather to replace it with a systematic framework for selecting a simple and robust rule that foresees periodic reviews and adaptation. Nor would this process of discussing and disclosing come as an unprecedented innovation within the Fed. The publication of the simple rule that the FOMC would follow the precedent of the Fed's current publication of principles regarding its longer run goals, which the FOMC has been publishing every January since 2012. As the FOMC adapts its rule over time, to ensure that best practices prevail in the evaluation process, it would be important that a high degree of transparency accompany the process of evaluation of alternative rules and any adaptations under consideration.

Crucially, the selected rule should be specified with sufficient detail to hold the FOMC accountable and eliminate meeting-by-meeting discretion. An outside observer should be able to determine the meeting-by-meeting setting of policy *using only public information.* If the rule's implementation requires use of unobserved concepts that may vary from quarter to quarter, such as the natural rate of interest, then the methodology for tracking those changes over time should be made explicit so that it could replicated with public information. Similarly, if the rule employs short-term projections of inflation, these projections should be in line with those available to the public. In other words, unaccountable discretion should not be introduced through the back door, for example by using a simple rule that responds to inflation projections based on policymaker's "judgment" that cannot be independently reproduced and evaluated.

Because no simple rule can encompass satisfactorily crisis situations that might require a rapid policy response, an escape clause should be included that allows policy to deviate from the simple rule. In the past few decades, a few instances could be identified, perhaps once every decade or two, when a deviation from a simple rule could be necessary. To cover such contingencies, a comply-or-explain approach should be adopted, with the understanding that deviations are rare and related explicitly to crisis circumstances.

Providing the Fed with a single primary mandate of price stability and requiring it to maintain a systematic, flexible approach to policy are reforms that are long overdue. Several senior Fed policy makers recently mischaracterized the current legislative proposal (U.S. House of Representatives 2016) to require monetary policy to be systematic as dictating an immutable rule, such as the Taylor Rule, to the Fed. This is disingenuous. My understanding of the current proposed legislation is that it conforms to the proposal I lay out here: the Fed would determine its own policy rule, which would be subject to its decisions to alter the rule over time, and in emergency circumstances the Fed would not be rigidly bound to adhere to its stated framework.

The methodology and expertise necessary for the Federal Reserve to adopt a simple and robust policy rule that can preserve price stability and deliver good stabilization performance is available. Requiring a systematic approach will have a constructive effect on the substance of FOMC deliberations and their information content for outside observers, by encouraging much of the debate to focus on whether to revise the existing framework, and how to do so. This will make monetary policy more predictable, more understandable to the market, more accountable to Congress, and more independent of myopic political pressure. Given the undisputed benefits of avoiding seat-of-the-pants policy-making, preserving the Fed's unlimited discretionary approach cannot be reasonably defended.

5. Limits on Fed Activities and Holdings

There are major problems that arise from combining monetary policy with other functions and powers. Most obviously, a systematic rule for monetary policy may mean little if it is only one of many things that the monetary policy authority is doing. Unaccountable discretion could arrive through the back door of other policies and undermine the commitment to systematic policy. And those other policies, because they would not be subject to the discipline of systematic thinking and accountability, would invite myopic political influence. Furthermore, other mandates on the Fed related to regulatory policy, or its own financial interests, may conflict with its role as a monetary policy authority.

These are not hypothetical problems. The Fed's current fiscal and regulatory policy actions give it many policy levers other than those related to traditional monetary policy. Without reforms that limit Fed actions and holdings, even if the internal governance and policy process reforms suggested above were implemented, the Fed would continue to suffer from conflicts of interest and politicization risk that could encourage it to choose inferior monetary policy rules, or to undermine the effects of its systematic monetary policy rule with other actions. Additional reforms, therefore, are needed to avoid the conflicts and politicization that result from the current multiple roles, powers, and instruments of the Fed.

The Fed's powers and toolkit have grown since the crisis of 2007-2009. One of the most remarkable aspects of Dodd-Frank was the confidence it evinced in the Fed. The Office of Thrift Supervision (OTS) was abolished after the 2007-2008 crisis in response to its perceived incompetence. But Dodd-Frank enhanced the supervisory and regulatory powers of the Fed (which was a primary regulator of several of the most deeply troubled banks, including Citi and Wachovia).

That enhancement of Fed power was all the more remarkable when one considers that in March 2008, the U.S. Treasury circulated a "blueprint" explaining why it would be desirable to redesign the U.S. financial regulatory structure along functional lines. That change also would have reduced the conflicts of interest inherent in exercising of monetary policy and regulatory authority by removing many supervisory and regulatory powers from the Fed (Calomiris 2006, 2013). Under the "blueprint," the Fed would continue playing a key role in examinations, with full access to information that might be useful to it in its capacity as lender of last resort, but it would not play a central role in the rule setting or supervision of banks. The "blueprint" was put aside after the crisis, which largely reflected the skill of Fed advocates (especially Chairman Bernanke) in convincing Congress that the Fed was the most able and trustworthy party in which to vest many of the new regulatory powers created by Dodd-Frank.

Since the crisis, as the Fed's powers have grown, so have its conflicts of interest. In particular, monetary policy experimentation has involved the Fed as a direct participant in financial markets in unprecedented ways. As of February 22, 2017, the Fed holds $1.8 trillion dollars in mortgage-backed securities on its balance sheet (which amounts to roughly one-sixth of the U.S. mortgage market), reflecting the Fed's new role in spurring the economy by subsidizing mortgage finance costs. It is noteworthy that this new fiscal policy role of the Fed was not primarily the result of crisis-support, but rather, of Fed purchases of mortgage-backed securities as part of its "quantitative easing" experiments.

Many critics regard this as an inappropriate incursion into fiscal policy by the Fed. It also creates numerous conflicts of interest with respect to the Fed's role as a regulator of banks. As a holder of mortgage-backed securities (MBS), the Fed has an incentive to avoid actions that might increase mortgage interest rates, even if that would be desirable as a matter of monetary policy. This is true for two reasons. First, any accounting losses on its MBS portfolio would increase the

Fed's contribution to the measured deficit, with obvious adverse political ramifications.[4] Second, housing finance is a magnet for political interests, therefore, implying severe continuing pressures on the Fed not to sell its mortgage portfolio, even if failing to do so serves to prop up a destabilizing housing bubble.

The Fed also sets interest rates banks earn on reserves. The Fed apparently intends to use this tool to potentially offer very high interest rates, if necessary, to dissuade banks from lending, as an alternative to selling its portfolio (and recognizing politically unappealing capital losses when doing so). Although Title II, Sec. 201 of the Financial Services Regulatory Relief Act of 2006, which authorized the payment of interest on reserves, clearly limited Fed discretion in setting interest payments by specifying that "[b]alances maintained at a Federal Reserve Bank ... may receive earnings ... at a rate or rates not to exceed the general level of short-term interest rates," the Fed appears to intend to side-step this legislative limit by creating a "range" of targeted values, with the interest on reserves expected to lie at the top of the specified range, and by reserving its right to "adjust the interest on excess reserves rate...as necessary for appropriate monetary control, based on policymakers' assessments of the efficacy and costs of their tools."[5] Some politicians have already challenged the Fed to explain why it is appropriate for it to pay above-market rates on bank reserves. Clearly, this is a fiscal expenditure, just as paying zero interest is the commonly understood "reserve tax." It is inappropriate for the Fed to make fiscal

[4] According to the Fed's accounting rules, the Fed does not mark its portfolio to the market; it incurs losses on securities only if those securities are sold. The Fed's capital losses affect the measured deficit, but on a consolidated basis they have no economic effect on the government's deficit. Nevertheless, they matter politically, as critics of the Fed are likely to make use of its measured contribution to the deficit. Because that threat is real, the Fed will seek to avoid sales of assets that cause its measured contribution to the deficit to rise.
[5] See the September 2014 FOMC statement, available at https://www.federalreserve.gov/monetarypolicy/policy-normalization.htm.

decisions about the taxes or subsidies transferred from the government to banks, and it is doubly inappropriate, given the Fed's role as a bank regulator.

Not only does the Fed's holdings of MBS and its setting of interest on reserves entail new fiscal actions and politicization risks, the Fed now acts as a repo counterparty, and will do so increasingly over time. This new activity (like setting interest on reserves) appeals to the Fed because it provides the Fed a means for avoiding the politically embarrassing recognition of capital losses that it would otherwise incur if it sold long-duration securities into the market as interest rates rise. Rather than sell securities from its portfolio to contract its balance sheet, the Fed engages in reverse repos, repeatedly lending those securities into the market until they mature, and thus avoiding sale while effectively reducing its balance sheet size.

Over the past several decades, repo has been an important alternative source of funding for lending in the U.S. economy, by both regulated banks and non-bank lenders. The massive expansion of the Fed's balance sheet over the past decade has withdrawn a large amount of low-risk collateral from the market, thereby making repo funding of loans and other financial transactions harder to arrange.

Furthermore, the Fed's imposition of the Supplementary Leverage Ratio (SLR) requirement has also reduced the supply of repo funding. This policy was announced in late 2012 and became effective in 2013. It includes the quantity of repos (and other items) in the regulatory measure of leverage. In effect, including repo in the SLR means that repo funding is more costly to banks that use it as a source of funding. Allahrakha et al. (2016) find that this new requirement significantly increased the cost of repo finance by regulated U.S. institutions.

The Fed's dual role as regulator and repo counterparty raises important and disturbing questions about a new conflict of interest. As a repo counterparty, the Fed benefits financially from imposing the Supplementary Leverage Ratio, which reduces competitors' abilities to transact in repo. Might the Fed have taken into account its own financial benefits from being able to engage in reverse repo on more favorable terms when setting regulations for its competitors?

When the Fed began contemplating its reverse repo tool (as a means to avoid sales of securities), it was already cognizant that it might want to engage in a large amount of such transactions to avoid the political consequences of suffering losses on securities sales and thereby being perceived as contributing to government deficits. I do not claim to know whether the Fed's new SLR rule was motivated in part by a desire to improve its own competitive position in the repo market, but the coincidence in timing between the SLR rule and the Fed's entry into the repo market is disturbing, and there is no question that the Fed suffers a conflict of interest from being both a repo counterparty and a repo regulator.

These conflicts of interest are nothing new. The Fed's regulatory power has long been a lightning rod for politicization which has often placed the Fed at the center of highly contentious power struggles, often with disastrous consequences for both the economy and the Fed's independence. There are many examples, but the most obvious one has been the Federal Reserve Board's role as the arbiter of bank mergers in the last three decades. The Fed was given that role precisely because it could be counted upon to go along with an ill-conceived government policy, which designed the merger approval process to be a source of rent creation for merging mega banks in the 1990s, and ensured that those rents would be shared between merging banks and urban activist groups, which were given power to influence the merger approval process.

According to Fed officials with whom I have spoken, fears of possible Congressional or Administrative reprisals against the Fed that might have threatened its monetary policy actions were a major part of the explanation for the Fed's willing participation in this farce. As Stephen Haber and I show in our book, *Fragile By Design: The Political Origins of Banking Crises and Scarce Credit*, Fed bank merger hearings focused on the testimony of activist groups about whether the merging banks were "good citizens," a trait that was measured by the amount of loans and grants the merging banks had contractually promised to give the activists as the quid pro quo for their testimony. Those contractual promises exceeded $850 billion from 1992 to 2006. The Fed's role in overseeing these unseemly political bargains not only lessened the Fed as an institution, it also helped to precipitate the risky mortgage lending that was at the heart of the recent subprime crisis.

The destabilizing debasement of mortgage standards and prudential bank regulatory standards – which were part and parcel of the political deal the Fed oversaw through its merger powers – profoundly contributed to the financial crisis of 2007-2009. If the Fed had not been given the authority to approve mergers and set prudential capital standards, and if merger approval and prudential standards had been based on clear rules enforced by an independent regulatory body, then the Subprime Crisis might have been avoided, or at least substantially mitigated.

Removing the Fed from its regulatory role would not in any way prevent the Fed from examining banks and pursuing all the related supervisory functions that are necessary to a central bank's lending function. Examination powers and some continued shared supervisory authority should be preserved. But there is no reason for the central bank to determine merger policy, whether banks should be permitted to act as real estate brokers, or other matters unrelated to central banking. And allocating that decision making to the Fed does positive harm by putting the Fed in the line of fire with respect to highly charged political battles, which often results in inferior regulatory decisions and jeopardizes independent monetary policy.

Four reforms would avoid most of the problems from combining the Fed's monetary policy authority with its other authorities and powers. First, the Fed should not hold securities other than U.S. Treasury securities in its portfolio (except briefly in the context of assistance approved under its emergency lending powers).[6] Second, rather than permit the Fed to set the interest rate paid on reserves, interest on reserves should be fixed at 10 basis points below the federal funds rate. Third, the Fed should be prohibited from competing with other intermediaries in the repo market. Fourth, the 2008 Treasury "blueprint" provided a thoughtful vision of how to reorganize the administration of financial regulation. Avoiding duplication of effort by consolidating regulatory functions (not only in banking, but also by creating a federal charter for insurance companies) is long overdue. This approach also would remove the Fed from the job of writing and enforcing regulations, which would free monetary policy from the conflicts that arise when it is combined with those tasks. The Fed would still participate in examinations and have full access to all information necessary to fulfill its role as a lender of last resort, as envisioned under the Treasury blueprint. At the very least, the Fed should be removed from merger decisions and oversight of highly politically sensitive matters, such as Community Reinvestment Act (CRA) examinations.

[6] See also Plosser (2017). For a discussion of how to make Fed lender-of-last-resort lending more credibly rule-based, see Calomiris et al. (2017).

6. Conclusions

Table 1 summarizes the three sets of reforms proposed in this testimony: internal governance reforms, policy process reforms, and limits on Fed asset holdings and activities. Together these proposed reforms would provide a new approach to governing monetary policy, which would result in better monetary policy decision making than we have witnessed in the troubled first century of the Fed's history (through the channels of influence summarized in Figure 1). A central bank that operates as a more democratic institution, is able to benefit from more diverse thinking, is required to follow transparent and systematic policy actions in pursuit of achievable objectives, is held accountable for its actions, freed from myopic political pressures and less conflicted by non-monetary policy mandates and tools, would be much more likely to achieve the proper objectives of monetary policy.

There are practical political considerations that make 2017 an ideal time to push forward on needed reforms. A majority of Republicans have long favored many of the reforms listed here, but they have not been able to gain sufficient support from enough Democrats to enact policy reforms. Over the next two years, all seven Fed Governors will be appointed by President Trump and confirmed by a Republican-majority Senate. It seems likely that many Democrats that have opposed Fed reforms in the past now may find it appealing to support measures that would make Fed policy making more systematic, more receptive to diverse viewpoints, and more immune to political influences.

There is another reform relating to the Fed that should also be implemented, which does not fit into any of the categories discussed above. The Fed's surplus revenues should not be used as an off-budget means of funding the Consumer Finance Protection Bureau, other regulatory activities (including those undertaken by the Fed itself), or highway expenditures, or other programs. Those practices undermine honest government budgetary accounting and discipline. If the U.S. government wants to be taken seriously as an instrument of monetary reform, it must also be willing to subject itself to honest accounting.

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Table 1: Summary of Proposed Reforms

Internal governance reforms to Fed structure and operation

1. Require at least two of seven Fed Governors to be people with significant financial markets experience.

2. Governors should each have at least two staff members under their direct control.

3. Require Governors to resign other positions as a condition for appointment.

4. Require Governors to pledge that they expect to stay for at least half of their appointed terms.

5. Increase salaries for Governors to ensure that the Fed remains able to attract talented people.

6. Enhance retirement benefits for Governors, contingent on a sufficient number of years of service.

7. Federal Reserve Bank Presidents should be selected by their Board of Directors, not subject to the approval of the Board of Governors. At the very least, adopt a sunshine law that requires the Board of Governors to provide summary information to Congress regarding any candidates the Federal Reserve Board rejects, as well as information about candidates that the Board suggests for consideration, or asks to be dropped from consideration prior to being formally proposed by the Banks.

8. All Reserve Bank Presidents should vote at every FOMC meeting.

9. Budgetary authority should rest in a committee comprised of representatives of all the Federal Reserve Banks and the Board of Governors, and perhaps even some outsiders, to determine the budgets of each Bank and each Governor's staff.

10. Prohibit Reserve Bank Presidents from being promoted from within their own Bank.

Policy process reforms

11. Replace the "dual mandate" with a single price-stability primary objective.

12. Require the Fed to maintain and state a systematic approach to monetary policy. The policy framework would be controlled by the Fed, and subject to change as the Fed sees fit.

Avoiding inappropriate policies or conflicts of interest

13. Prohibit the Fed should from holding securities other than U.S. Treasury securities in its portfolio (except during emergencies, in the context of assistance approved under its emergency lending powers).
14. Interest on reserves should be set at 10 basis points below the federal funds rate.
15. Prohibit the Fed from transacting in the repo market.
16. Remove the Fed from writing and enforcing regulations. The Fed would still participate in examinations and have full access to all information necessary to fulfill its role as a lender of last resort. At the very least, the Fed should be removed from merger decisions and oversight of highly politically sensitive matters, such as CRA examinations.

U.S. budgetary reform

17. The Fed's surplus revenues should not be used as an off-budget means of funding the Consumer Finance Protection Bureau, other regulatory actions, or highway expenditures (including those undertaken by the Fed), or other programs.

Figure 1: How Proposed Governance Reforms Would Improve Monetary Policy

Internal governance reforms to Fed structure and operation
Policy process reforms (price stability mandate, systematic policy)
Avoid inappropriate policies or conflicts of interest

↓

More diversity of thinking within the Fed
Democratization of power within the Fed
Fewer political entanglements for the Fed
Less seat-of-the-pants bias in monetary policy
Greater Fed accountability
Greater Fed independence

↓

Less adherence to bad ideas and intellectual fads
Less myopic politicization of monetary policy
More effective and predictable monetary policy

Unwinding Excesses in the Fed's Balance Sheet

Mickey D. Levy*

Testimony before the Subcommittee on Monetary Policy and Trade
Committee on Financial Services
U.S. House of Representatives

April 4, 2017

Chairman Barr, ranking member Moore and members of the Committee, I appreciate this opportunity to present my views on the Federal Reserve's monetary policy. My testimony will focus on the Fed's balance sheet. In summary, while the Fed's asset purchase decisions during the financial crisis were made in an emergency situation, the Fed's dramatic expansion of its massive quantitative easing programs while the economy was growing and financial markets were functioning normally--and its ongoing reinvestment policies that maintain a bloated balance sheet—have served no economic purpose, are risky on many dimensions and inappropriately involve the Fed in credit allocation. As such, the Fed must embark immediately on a strategy that would gradually unwind the assets in its portfolio as part of normalizing monetary policy. Doing so will enhance economic performance, support a healthier banking system and reduce unnecessary risks.

Prior to the financial crisis, the Fed's balance sheet was approximately $850 billion, consisting primarily of short duration Treasury securities needed for the conduct of monetary policy under normal conditions. Now, eight years after the financial crisis, the economy and financial markets are behaving normally and the Fed has begun to normalize interest rates, but the Fed is maintaining a balance sheet with $4.5 trillion in assets, five times larger than before the crisis (Chart 1).

Of the Fed's assets, $2.5 trillion are Treasury securities of various maturities and $1.8 trillion are mortgage backed securities (MBS), primarily with very long maturities (Charts 2-5). This portfolio results from a series of large scale asset purchases (LSAPs, better known as quantitative easing, or QE) and

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maturity extensions (so-called "Operation Twist") and the Fed's ongoing policy of reinvesting the proceeds of maturing assets. These assets are mirrored by liabilities on the Fed's balance sheet.

The Fed finances these long-maturity assets by borrowing $2 trillion in short-duration notes from the banking system, and accounts for those liabilities as excess reserves on the balance sheet (Chart 6). In October 2008, the Fed adopted a policy to pay interest on excess reserves (IOER), which was intended to provide a floor for propping up the effective Federal funds rate. Since then, the effective funds rate has struggled to remain above the IOER floor rate. Today the Fed pays interest equal to the top band of the Fed funds rate target, currently 1 percent.

The Fed's excessively large balance sheet does not serve any positive economic purpose, but has many downside aspects. It does not stimulate economic growth or increase bank lending. Arguments that the outsized balance sheet improves financial stability and the monetary policy transmission mechanism are a stretch. The Fed's policies reduce the government's net cash flow debt service, but its enormous long duration portfolio exposes the government and taxpayers to potentially costly interest rate risks. This false impression of riskless deficit reduction encourages misleading and inappropriate budget tactics and exposes the Fed to potentially troublesome politics that could harm its credibility and jeopardize its independence. The Fed's MBS holdings suppress mortgage rates and help housing at the expense of other sectors. The Fed has been insufficiently transparent about these risks and distorting impacts.

A brief review of the QE and Operation Twist asset purchases. The Fed's decisions to so dramatically expand and maintain its balance sheet reveal a lot about the Fed's strengths and weaknesses. In late 2008, as the financial crisis deepened and the economy faltered, the Fed lowered the Fed funds rate aggressively from 2% in September to 0%-0.25% in December. The Fed began providing various liquidity facilities to banks and select credit sectors; the Fed sterilized these loans by selling an equal amount of Treasuries, thereby maintaining the availability of credit but increasing the supply to select sectors. With the over-leveraged mortgage market seizing, the Fed boldly instituted a policy of purchasing $100 billion of GSE debt and $500 billion of MBS. In a December 1, 2008 speech, Fed Chair Bernanke stated "To avoid inflation in the long run and to allow short-term interest rates ultimately to return to normal levels, the Fed's balance sheet would eventually have to be brought back to a more sustainable level. The FOMC will ensure that this is done in a timely way." In March 2009, the Fed announced an additional $750 billion in purchases of agency debt and MBS and an additional $300 billion of Treasury securities. These purchases contributed to dramatic increases in the Fed's balance sheet.

The economy began to recover in 2009Q2 and growth gained momentum through 2010. In particular, business fixed investment rebounded strongly, but housing activity remained hungover from the mortgage crisis and continued to contract. Atypical of the early stages of most economic recoveries from recession, the unemployment rate actually receded from its peak.

In November 2010, the Fed announced QEII, which involved the purchase of $600 billion of longer-dated Treasuries--$75 billion per month through June 2011. The economy temporarily contracted in 2011Q1, but expanded at a relatively healthy pace during the rest of the year, and the unemployment rate continued to decline slowly. In September 2011, in an attempt to reduce bond yields and signal its intention to maintain its aggressive monetary ease, the Fed announced Operation Twist, which involved the purchase of $400 billion of longer-dated maturities and the sale of the same amount of shorter-maturity securities. In June 2012 the Fed extended the Twist program by $267 billion through 2012. This significantly lengthened the duration of the Fed's portfolio.

In 2012, housing activity strengthened, but following a healthy Q1, overall economic growth moderated. The unemployment rate continued to recede from its cyclical peak of 10 percent, but by mid-year was 8 percent, above its 5.6 percent longer-run average. The core PCE deflator, the Fed's inflation measure of choice, averaged 1.9 percent, barely below the Fed's 2 percent longer-run target.

In September the Fed announced QEIII, an open-ended commitment to purchase $40 billion of agency MBS securities per month until the labor market improved "substantially". In December the Fed announced a continuation of this pace of purchases and an additional monthly purchases of $45 billion in longer maturity Treasury securities, which would continue after Operation Twist concluded, lifting total monthly purchases to $85 billion.

In May 2013 testimony to the Joint Economic Committee, Chairman Bernanke said the Fed would begin to taper the amount of QE purchases later in the year, conditional on continuing good economic news. In a June press conference, Bernanke noted improving economic conditions and stated "The Committee currently anticipates that it would be appropriate to moderate the monthly pace of purchases later this year". The so-called "taper tantrum" followed: bond yields rose significantly more than the Fed had anticipated. This shocked the Fed and greatly heightened its sensitivity to market reactions to the Fed's policies and announcements. This fear of financial markets contributed to the Fed's misguided decisions in 2015-2016 to delay normalizing interest rates.

In December 2013, with the 10-year Treasury yield of 2.9 percent, a full percentage point higher than before Bernanke warned of an eventual tapering, the Fed officially began reducing its purchases by $10 billion per month, and ended the QEIII purchases in October 2014. Throughout the Fed's tapering of asset purchases, bond yields receded. During this period, the Fed decided that its monetary policy normalization strategy would start with very gradual Fed funds rate increases while continuing to reinvest the proceeds of maturing assets. This decision was driven by the Fed's fear that announcing a policy that would reduce its balance sheet could jar financial markets. As several Fed members noted in 2014, not reinvesting maturing assets would "send the wrong signal to markets". That fear continues to underlie its reinvestment policy, even after three hikes in the Fed funds rate—in December 2015, December 2016 and March 2017.

Assessment of the Fed's asset purchases and balance sheet management. The Fed can rationalize its quantitative easing during the financial crisis. Faced with the zero bound on its policy rate, the Fed's alternative liquidity facilities and asset purchases helped to end the financial crisis and lift the economy from deep recession. They were extraordinary policy measures taken in scary financial times. However, the Fed's massive asset purchase programs well after the economy and financial markets had returned to normal—in an explicit attempt to improve labor markets—have been an unnecessary and risky expansion of the scope of monetary policy that did little to stimulate growth.

The Fed's quick response--that if it had not done what it did, the economy would have suffered and millions of fewer jobs would have been created—is a valid assessment of its policies during the financial crisis, but a misleading assessment of its policies and their effectiveness during the now-lengthy expansion. This is particularly true of QEIII and the Fed's reinvestment policy, whose full costs are likely to unfold in coming years.

The open-ended QEIII and forward guidance certainly stimulated financial markets, kept bond yields low and pumped up the stock market and encouraged risk, but they did not have their desired or predicted economic impact. Most noteworthy, these unprecedented monetary policies failed to stimulate nominal GDP growth, which actually decelerated. Most glaringly, business investment failed to respond positively to the lower interest rates and real costs of capital. Although these economic outcomes are far different than the Fed's earlier goal and predictions, the Fed takes credit for the sustained growth and all of the new jobs created. This incorrect interpretation overlooks the natural functioning of the economy growing along its potential growth path, and conveys the false impression that the Fed's monetary policy is the exclusive driver of economic activity.

Most likely, the economy would have continued to grow moderately without QEIII and even if the Fed had begun to raise interest rates. History provides an important lesson that the Fed seems to ignore: during every prior cyclical recovery, when the Fed raised rates after a period of monetary ease, economic growth was unharmed. Not surprisingly, economic growth remained healthy during the rise in interest rates during the taper tantrum in 2013 and in 2014 when the Fed was actually reducing its asset purchases.

It is noteworthy that during 2012-2016, while consumer spending and housing were healthy, business investment and productivity were disappointingly weak. Despite aggressive monetary ease, growth of the economy, particularly business investment, was inhibited by an array of non-monetary factors, including rising government taxes and a growing web of government regulations. These policies deterred business investment, hiring and expansion by raising business operating expenses, lowering expected after tax rates of return on investment and raising uncertainties.

These trends led to significant reductions in estimates of potential real growth. In 2007, the Congressional Budget Office and the Fed estimated potential at 2.6 percent; now those estimates are 1.8 percent. The cumulative implications of the lower growth on jobs, wages and standards of living are enormous. Obviously, the Fed's unlimited QE and bloated balance sheet cannot lift potential growth. The Fed's elevated assessment of its role in managing the economy seems to lead it to over-estimate its contribution to favorable outcomes. Only recently has Fed Chair Yellen acknowledged some of the non-monetary factors, including government regulations and taxes that have inhibited growth and are beyond the Fed's scope.

The explicit intention of QEIII—commonly referred to as "QE infinity"—was to improve labor markets. Frustrated with the moderate growth and lingering high unemployment, the Fed extended its emergency monetary policies, complemented by formal forward guidance that signalled the Fed's intention to keep bond yields low, push up the stock markets and home values and encourage risk until labor markets improved substantially.

Effectively, the Fed transformed the primary goal of monetary policy into maximizing employment subject to the constraint of Fed's 2 percent inflation target. This open-ended QE culminated the Fed's big shift from its decades-long approach based on the principle that low inflation was the best contribution monetary policy could make to sustained maximum economic and employment growth. Implicit in the Fed's reaction function was a lot of flexibility in the Fed's perception of its inflation target. The Fed made clear that 2 percent was merely a longer-run average, and some members suggested that over-heating the economy above 2 percent inflation was desirable in an attempt to boost jobs.

QEIII's aggressively activist policy presumed that the undesired high unemployment was primarily cyclical, relating to insufficient demand, and could be addressed with an ever-expanding effort to stimulate aggregate demand, rather than any structural problems including demographics, low educational attainment, skill mismatches or government tax and regulatory policies that deterred people from working and businesses from hiring. The Fed's primary focus on improving the labor market led it to significantly understate the distorting impacts of the open-ended asset purchases and their implications for income and wealth inequality and intergenerational distributions. The eventual economic and financial costs of eventually normalizing monetary policy received little weight.

The costs of the Fed's balance sheet have been sizeable and far outweigh any benefits. The massive amount of excess bank reserves has had little if any impact on bank lending. Most likely, the Fed's sustained negative real Fed funds rate and historically low bond yields have deterred bank credit. But the artificially low rates and excess reserves encouraged banks to add risks to their portfolios. Domestic demand and capital spending have shown little response to the aggressive monetary ease.

But the distortions in credit markets are sizeable. The Fed's MBS purchases have expanded monetary policy into private sector credit allocation, an undesirable misuse of the Fed's mandate. The Fed is the largest holder of MBS. This keeps mortgage rates lower than they would be otherwise and results in the

allocation of too much credit into mortgages at the expense of other activities (Charts 7-8). Fed Chairman Bernanke acknowledged this ill-suited role of monetary policy and recommended that ultimately the Fed's portfolio would be all-Treasuries. The Fed has ignored this concern.
The Fed's massive portfolio blurs the border between monetary and fiscal policy, with highly undesirable consequences and many risks. The Fed lowers the government's net debt service costs through its low policy rate and net profits on its long duration portfolio that it remits to the US Treasury. In Fiscal Year 2017, the Fed remitted $110 billion, equal to roughly one-fifth of the government's budget deficit. This may sound good superficially, but in reality it involves very high risks that are not reflected in the government's budget and are not made clear by the Fed. And it also entangles the Fed in fiscal policies and in ways that may jeopardize the Fed's credibility and inadvertently reduce its independence. Presumably the Fed understands these risks but chooses not to be transparent about them.

Most obviously, a rise in interest rates or a deterioration in the mortgage credit market puts current and future taxpayers at significant risk. If interest rates rise, the Fed will remit less profits to the Treasury and the net debt service costs rise. It is ironic that if the Fed's excessive monetary ease actually stimulated the economy, rates would rise a lot and the result would be large losses.

The risks of rising rates are acknowledged by the CBO (but are not fully captured in its baseline forecast), but are barely mentioned in official Fed documents, while the credit risks of the Fed's $1.7 trillion holdings of mostly long maturity MBS are not captured. The CBO's baseline 10-year budget forecasts assume a gradual runoff of the Fed's balance sheet and interest rates that are probably too low, particularly in the intermediate term (3-month Treasury bills are assumed to be 0.7 percent in 2017, 1.1 percent in 2018, 2.0 percent in 2019-2020 and 2.8 percent in 2021-2027; 10-year Treasury bonds are assumed to be 2.3 percent in 2017, 2.5 percent in 2018; 3.0 percent in 2019-2020, and 3.6 percent in 2021-2027). According to the CBO, a 1 percentage point rise in interest rates over the 10-year projection period would add $1.6 trillion to the budget deficit during 2018-2027. That is definitely a risk that merits attention.

The Fed should be equally transparent about its interest rate and credit exposure. Even though fiscal policy is beyond the Fed's purview, the Fed should own up to it substantial impacts on fiscal outcomes.

The Fed's entanglement with the government's budget and fiscal policies is unhealthy. Concerns about the budget's interest rate sensitivity may weigh on the Fed's monetary policy deliberations, while Congress' perceptions of the Fed may be influenced by the current reductions in net interest costs without considering the sizeable risks. The Fed's portfolio and net profits may be too enticing for fiscal policymakers to resist, and encourage budget practices that involve "sleight-of-hand" that affect the allocation of national resources. Redirecting the Fed's net profits from the Treasury's general fund into specific trust funds has no real effect on the government's finances, but such a strategy may be used by opportunistic fiscal policymakers to increase spending or reallocate resources to favorite programs. There is precedent for such behavior. In December 2015, the FAST Act, whose objective was to shore up the Highway Trust Fund, involved redirecting a small portion of the Fed's assets and some of its net income into the Highway Trust Fund. The Fed was compromised but did not protest the way this budgetary procedure used monetary policy for fiscal purposes.

The Fed's maintenance of a massive portfolio is ironic following the failed and costly excessive leverage strategies of the Government Sponsored Enterprises Fannie Mae and Freddie Mac and commercial banks and their roles in the financial crisis. The government and the Fed bailed out the GSEs and some large financial institutions, and forced them to raise capital and deleverage. Now it is the Fed that maintains an excessive balance sheet that provides large positive carry while understating the risks. The Fed's narrow capital base and high leverage are different in nature from the high leverage and low capital that used to characterize commercial banks, insofar as the Treasury is the Fed's capital backstop and large Fed losses would be met with an infusion of capital from the Treasury. But such an outcome may be just as costly or even more so in terms of the damage to the Fed's credibility.

The potential costs and risks of the Fed's reinvestment policy far outweigh the benefits. Since monetary policy has always affected the economy and inflation with lags, future risks are high. This is particularly true now, as pro-growth fiscal reform currently under consideration would raise interest rates and make the Fed's abnormally large balance sheet even more inconsistent with economic and inflation conditions and prospects.

The Fed rationalizes maintaining its outsized balance sheet based on the general notion that it helps maintain accommodative financial conditions. Bernanke has argued that it provides safe short-term assets to banks and combined with the Fed's expanded role in the RRP market reduces some risky behavior and enhances financial stability. It is also argued that the large balance sheet and the use of RRPs improves the transmission of monetary policy. The driving force underlying these arguments a justification for keeping Fed's policies just the way they are presently. Basically, the Fed does not want to reverse the expanded scope of monetary policy, and it does not want to face the potentially negative market response to normalizing policy. These arguments ignore the risks of the Fed's enlarged footprint on financial markets and are particularly inappropriate in current circumstances.

At the press conference following the March 2017 FOMC meeting, Fed Chair Yellen recently emphasized the Federal funds rate as the "key active tool of policy" while putting the balance sheet into proper perspective: "while the balance sheet asset purchases are a tool that we could conceivably resort to if we found ourselves in a serious downturn where we were, again, up against the zero bound...It's not a tool that we could want to use as a routine tool of policy." A related issue is the effectiveness of QE in addressing a future economic downturn or crisis. Asset purchases likely would have a bigger impact on interest rates and the economy if the Fed's balance sheet had previously been reduced to a more normal size; for the same reason a normalization of interest rates is perceived to provide more flexibility for future monetary policy. So why is the Fed continuing to maintain its large balance sheet?

A strategy for unwinding the Fed's balance sheet. Establishing a strategy for a gradual reduction in the Fed's balance sheet and implementing it in a predictable manner is of overriding importance. The objective should be to reduce the excesses of the Fed's balance sheet and move it toward an all-Treasuries portfolio while maintaining a healthy banking system and facilitating the monetary policy transmission mechanism. Markets adjust to gradual and predictable changes. The Fed must avoid announcing a policy and then discretionarily changing it in response to concerns about every twist and turn of market sentiment and high frequency economic data. Such adjustments would only raise uncertainty and the costs of the transition. There is a debate about the "new normal" size of the Fed's balance sheet. Currency in circulation is now $1.5 trillion, up from $900 billion prior to the financial crisis. The economy is bigger and the banking system is bigger. Without identifying precisely an optimal size for the Fed's balance sheet, it is obvious that over $2 trillion in excess bank reserves is unnecessary and risky, and that any reasonable strategy for unwinding the excesses will take many years, and it is important to get the process started without delay.

As a first step, the Fed should announce that it will cease reinvesting maturing assets at some point in the near term. This would initiate a passive and predictable reduction in the Fed's portfolio involving magnitudes that are relatively small in the context of the overall Treasury and mortgage markets. Financial market participants are recommending that the Fed take a small step and reinvest all but a small portion of maturing assets and apply a different portion to Treasuries than MBS. This would unduly elongate the process, encourage further policy adjustments and fuel market speculation of future adjustments. The result would be maintaining current risks and raising uncertainty.

In the first three years of not reinvesting maturing assets, approximately $900 billion of the Fed's holdings of Treasuries would mature and not be replaced, but only a very small amount of MBS would mature (Charts 9-10). The actual duration of the Fed's MBS portfolio would be shortening very gradually as mortgages amortize, even with very low pre-payments. As a result, at the end of three years, the Fed's portfolio would consist of $1.5 trillion Treasuries and roughly $1.7 trillion of MBS.

Relative to the $14.3 trillion in outstanding publicly-held debt, the runoff of Fed holdings of Treasuries would have only a minor impact on financial flows. Banks would remain awash in excess reserves, and their lending would be unaffected. The impact on Treasury bond yields would likely be very modest, 25 basis points or less. My assessment is shared by a number of fixed income portfolio managers. The factors supporting this low interest rate impact are: the total net change in the Fed's Treasury holdings would be small relative to the size of market flows; the announcement effect of each of the Fed's succeeding QE asset purchase programs diminished and eventually reversed; the "Taper Tantrum" resulted from a surprise announcement by Bernanke and yields declined during the actual reduction in asset purchases; the announcement effect of each balance sheet policy change was temporary; and markets would realize that the balance sheet runoff would lower the extent to which the Fed would need to raise rates to achieve its long-run objective. This latter factor may contribute to a flatter Fed funds rate futures curve.

The impact on MBS yields would also be modest, according to market participants, but slightly larger than the impact on Treasuries. Markets would quickly realize that there would be only a small and measureable amount of MBS runoff for over a decade (stemming from the natural amortization of mortgages), but they may price in future policy shifts that would affect the Fed's MBS holdings.

Although mortgage yields may temporarily widen relative to Treasury yields, it is noteworthy that over the long run, their spread has not deviated significantly, despite the Fed's large MBS purchases.

Any interest rate impact would be sufficiently small that it would not harm the economy. Remember, the outsized Taper Tantrum had little economic impact.

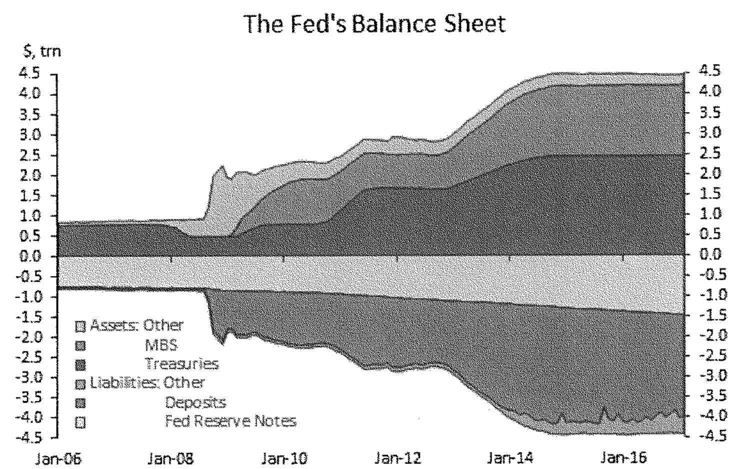
The second step, a long-term program of gradually swapping the Fed's holdings of MBS for shorter-maturity Treasuries, would be announced once the natural runoff in Treasuries is underway and before 2020. The Fed would sell approximately $150 billion per year of long maturity MBS and purchase the same amount of intermediate term Treasuries (3-7 year maturities) until the Fed's MBS holdings were reduced to zero. The Fed would continue to allow maturing assets to roll off its balance sheet. As this swap program proceeded, estimates of an appropriate range for the Fed's balance sheet would be refined.

The announcement of this swap program likely would increase MBS yields and widen the yield spreads between MBS and Treasuries. Although the magnitude of the gradual MBS sales—roughly $12 billion per month--would be small relative to the $14.3 trillion mortgage market, the expectation of the Fed's ongoing sales would lift yields. The rise in mortgage rates would have some dampening impact on housing activity and home values from what would have occurred otherwise.

In the third step, as the Fed's balance sheet moves toward normalization, the Fed would slowly wind down its involvement with RRPs in the short-term funding market which would no longer be necessary.

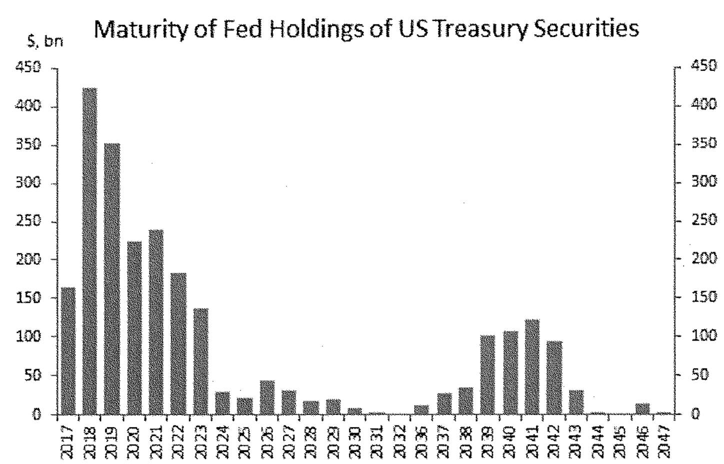
The Fed's must consider the benefits and costs of its conduct of monetary policy over the longer run. As the Fed undertook its unprecedented policies during the financial crisis, it acknowledged that its emergency policies were temporary and inconsistent with its longer-run mandated objectives. As the recovery matured, however, the Fed expanded and extended these QE programs in an aggressive attempt to lower unemployment. Those polices did little to stimulate economic growth. In recent years, as the economy has continued to grow moderately, the Fed has delayed normalizing its balance sheet and has understated its costs and risks. It has developed arguments to justify that its unconventional policies are really conventional. This approach is misguided and should be replaced with a monetary policy strategy consistent with the Fed's long-run mandated objectives. At some time in the future should a financial crisis and deep recession unfold and the Fed faced with the zero bound, it would have flexibility to reinstitute unconventional monetary policy.

Chart 1:



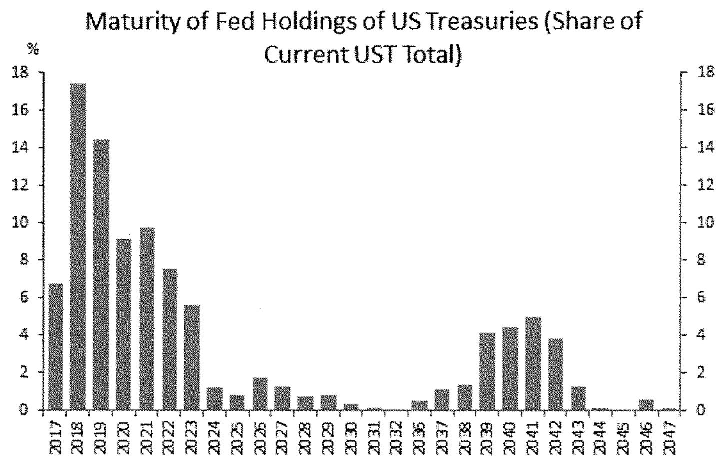
Source: Federal Reserve Board

Chart 2:



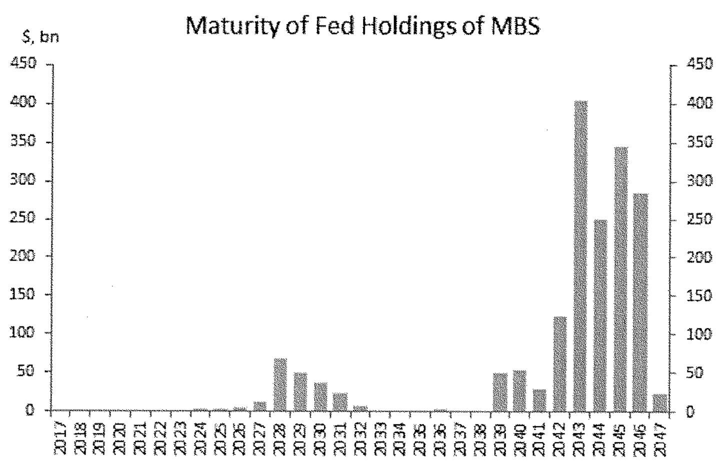
Source: Federal Reserve Board

Chart 3:



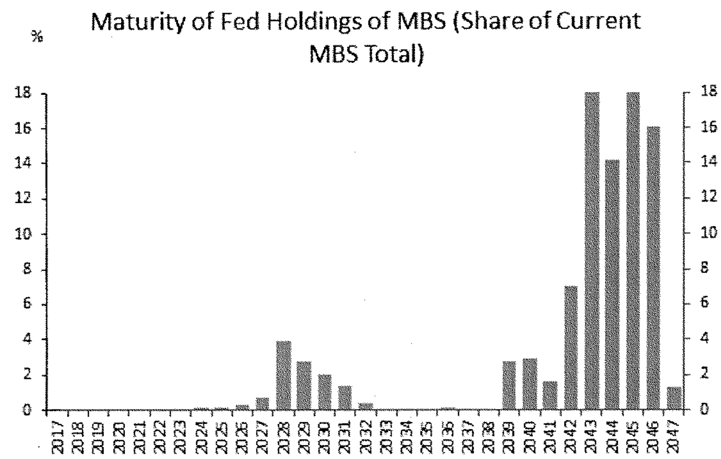
Source: Federal Reserve Board

Chart 4:



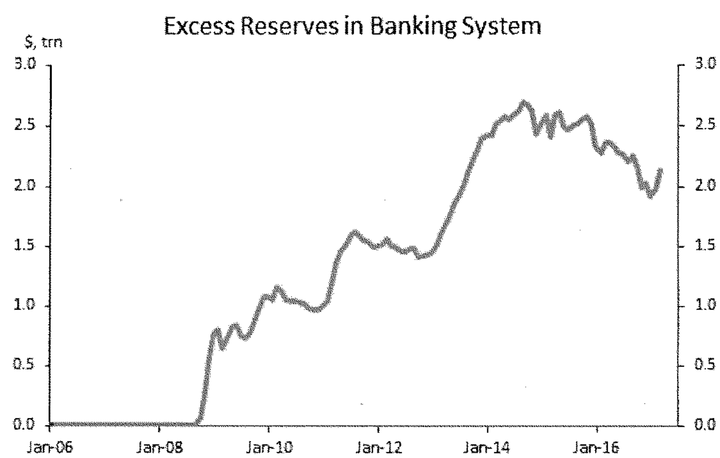
Source: Federal Reserve Board

Chart 5:



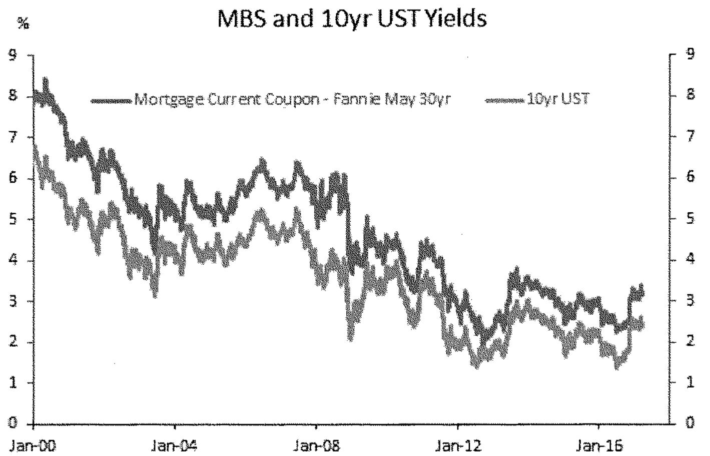
Source: Federal Reserve Board

Chart 6:



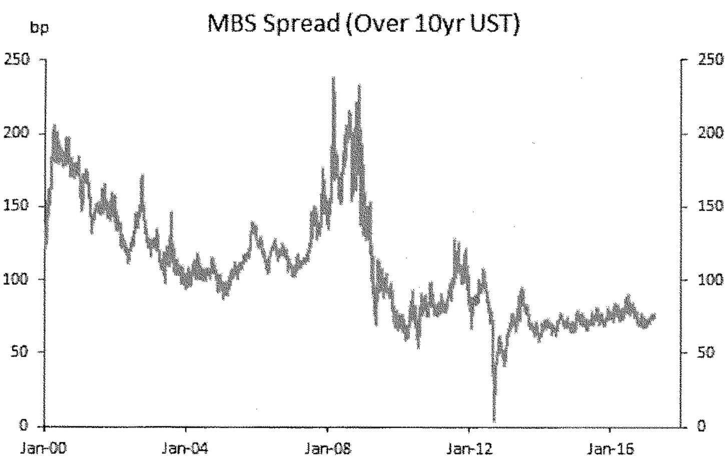
Source: Federal Reserve Board

Chart 7:



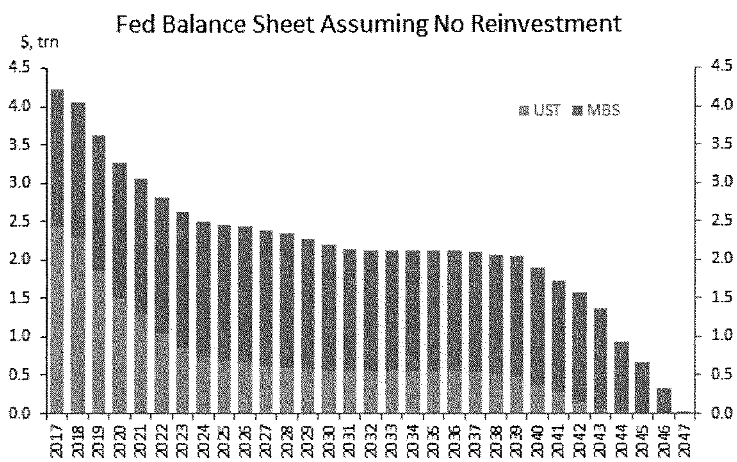
Source: Bloomberg, US Treasury

Chart 8:



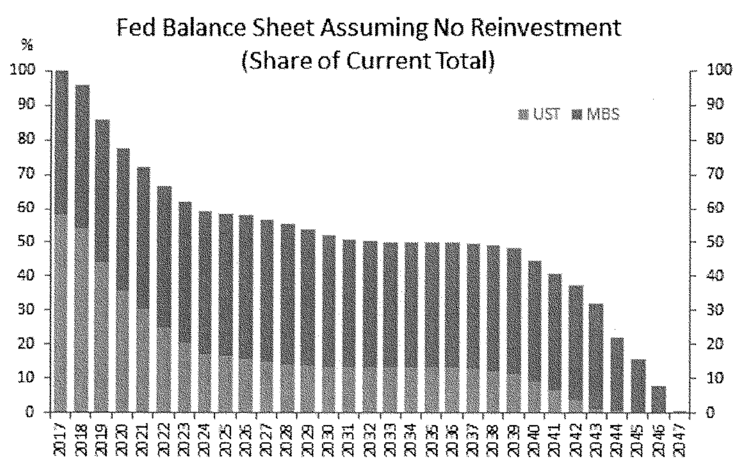
Source: Bloomberg, US Treasury

Chart 9:



Source: Federal Reserve Board

Chart 10:



Source: Federal Reserve Board

Statement of William E. Spriggs

"A Mandate for Full Employment"

Testimony prepared for

US House of Representatives Subcommittee on Monetary Policy and Trade

115th Congress, First Session

Hearing on

Examining the Federal Reserve's Mandate and Governance Structure

April 4, 2017

Thank you to Chair Andy Barr and Ranking Member Gwen Moore for this invitation to give testimony before your subcommittee today on the issues of the Federal Reserves' mandate and governance. I am happy to offer this testimony on behalf of the AFL-CIO, America's house of labor, representing the working people of the United States; and based on my expertise as a professor in Howard University's Department of Economics.

To have sustained growth, the financial system must remain stable. When banks grow too large and present systemic risks to the system, or when banks can create shadow investments trading in their own debt, the system itself becomes a risk. Glass-Steagall, the Banking Act of 1933,[1] provided a period of such stability. The financial collapse of 2007-2008 clearly demonstrated that the financial system cannot self-regulate. The fallout in the real economy was deep and far-reaching, causing a collapse in private and public investment, and the stripping of wealth of the household sector by depleting savings to keep households going. Nine years away, we have yet to restore public investment to the level needed to sustain strong growth. Household debt has returned to its pre-crisis level as household incomes have yet to recover. So, similarly to the lessons learned from the financial collapse of the Great Depression, Dodd-Frank, the Wall Street Reform and Consumer Protection Act of 2010,[2] addresses the excesses that the financial collapse of the Great Recession demonstrated create a system of great economic risk. For that reason, the AFL-CIO supports the Dodd-Frank reforms and continues to believe it prudent to defend them as necessary for sustained growth.

[1] Public Law 73-66 http://www.legisworks.org/congress/73/publaw-66.pdf

[2] Public Law 111-203 https://www.gpo.gov/fdsys/pkg/PLAW-111publ203/html/PLAW-111publ203.htm

It is key for monetary policy to provide enough liquidity to the market to allow for investment in productive capital, and enough liquidity for households to make long-term purchases like automobiles and houses; and with regulation to reduce systemic risks from market concentration and discrimination in access. A necessary condition for growth is monetary policy that adheres to the Humphrey-Hawkins Act, the Full Employment and Balanced Growth Act of 1978, to keep Americans at work, letting the economy run at a rate that keeps unemployment low.[3]

The Federal Reserve actions show greater concern for price stability than for its mandate in the Humphrey-Hawkins Act for full employment. This century, inflation measured by the Personal Consumption Expenditure price index has averaged 1.9 percent, virtually the Federal Open Market Committee's goal of two percent. Further, it has done so with very little deviation. On the other hand, unemployment this century has averaged 6.2 percent, though in some meetings the FOMC appears to aim for a number between five and six percent.[4]

The Federal Reserve targets unemployment based on its notion of an unemployment rate that would not lead to an acceleration in inflation, which would differ from the language of the Humphrey-Hawkins Act that calls for full employment. The year the Act passed, the unemployment rate averaged 6.1 percent. Section 2 of the Act, states among the general findings "The Congress finds that the Nation has suffered substantial unemployment and underemployment..."[5] clearly a target of between five and six percent unemployment are not consistent with the concerns Congress was expressing when considering the Act.

To understand further the Congressional intent, it is important to remember the role of the late Mrs. Coretta Scott King, the widow of Dr. Martin Luther King, Jr., in chairing the Full Employment Action Council that spearheaded the creation of the Act. In addressing critics, from the left on the Act's final amendments that tacked on inflation targets, Mrs. King said, "It forces the Federal Reserve to work toward that employment objective. In the past, the Federal Reserve Board has often taken...steps which forced up the jobless rate. Not any more. I understand the unhappiness some of our coalition supporters have felt because the opposition succeeded in including specific targets for controlling inflation—without defining any program to achieve

[3] Public Law 95-523, 92 *Stat.* 1887, https://www.gpo.gov/fdsys/pkg/STATUTE-92/pdf/STATUTE-92-Pg1887.pdf
[4] Quoting Michael Kiley at page 6 of the transcript of the November 1, 2011 Federal Open Market Committee Meeting at https://www.federalreserve.gov/monetarypolicy/files/FOMC20111102meeting.pdf
[5] 15 USC 2101 Sec. 2. (a) at https://www.gpo.gov/fdsys/pkg/STATUTE-92/pdf/STATUTE-92-Pg1887.pdf

them—in an obvious effort to negate the bill's effectiveness. However, those inflation goals—while laudable objectives in their own right—do not have the same priority as the employment goals."[6]

The Federal Reserve, on the other hand, appears to have the tools to stabilize the financial sector and asset prices. Research continues to suggest that faced with the problem of reaching zero interest rates, the Federal Reserve's Quantitative Easing program was a success for sound economic reasons.[7] And, it used those tools to great effect during the crisis. In particular, the panic from the onset of the foreclosure crisis led to a precipitous drop in housing prices and spike in the long term spread between mortgage interest rates and Treasuries. By 2008 when the spike became huge, the Fed had already taken aggressive steps through conventional policy means and started to adopt additional changes through the management of its balance sheet. However, when the Fed began its Mortgage Backed Securities program, it quickly restored mortgage interest rate spreads and helped to stabilize housing prices. While some argue that was related to shoring up the position of the Government Sponsored Enterprises—Fannie Mae and Freddie Mac—the foreclosure crisis continued to build and did not peak until later.[8] Therefore, the response of the mortgage rate was more likely tied to the Fed intervention. The action did not restore private investment in residential structures, but it did help stabilize the household balance sheet. Further, because many banks wanted more liquidity, for potential draws on corporate lines of credit and to offset loan liabilities that were hard to evaluate, the MBS program was helpful to giving banks the needed liquidity.[9]

Those actions have greatly expanded the size of the Federal Reserve's balance sheets. While some are concerned by this, it can equally be argued that the successful management of the

[6] Letter of Coretta Scott King to the Baltimore (MD) *Afro-American*, 31 October 1978 page 4, at https://news.google.com/newspapers?nid=2205&dat=19781031&id=sYIIAAAAIBAJ&sjid=I_UFAAAAIBAJ&pg=2369,2494733

[7] Michael Woodford, "Quantitative Easing and Financial Stability," National Bureau of Economic Research, NBER Working Paper No. 22285 (May 2016) http://www.nber.org/papers/w22285 , Marco Di Maggio, Amir Kermani and Christopher Palmer, "How Quantitative Easing Works: Evidence on the Refinancing Channel," National Bureau of Economic Research, NBER Working Paper No. 22638 (September 2016) http://www.nber.org/papers/w22638 as examples.

[8] Johannes Stroebel and John Taylor, "Estimated Impact of the Fed's Mortgage-Backed Securitites Purchase Program," National Bureau of Economic Research, NBER Working Paper No. 15626 (December 2009)

[9] Marcia Cornett, Jamie McNutt, Philip Strahan and Hassan Tehranian, "Liquidity Risk Management and Credit Supply in the Financial Crisis," Journal of Financial Economics, 101 (Number 2, 2011): 297-312.

portfolio shows the Fed might wish to use policies aimed at managing its portfolio when changes in interest rates might be riskier for financial stability.

However, on the other hand, the Federal Reserve did little to address the debacle of the public sector during the crisis. State and local governments struggled with dramatic declines in revenue, and the drop in public investment has yet to recover. The Federal Reserve has been very cautious to use its authority to purchase state and local debt.

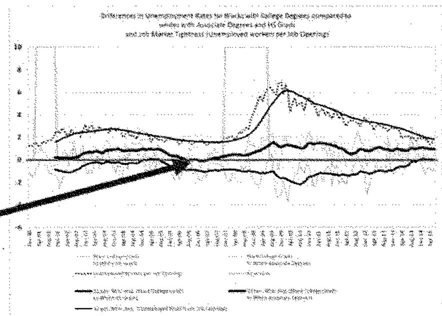
It is not clear whether the Federal Reserve has sufficient diversity in its membership on the Board or among the Regional Bank Presidents to understand the dimensions of their decisions and their calculus in weighing the costs of unemployment. Others have noted that in 2011 when the unemployment crisis continued, the transcripts of the FOMC sound oblivious to the labor market conditions.[10]

The need to understand its mandate for full employment is necessary to sustain the shared prosperity achieved during the period 1946 to 1979 when the average unemployment rate was 5.2 percent, a full point lower than this century. When the labor market tightens, glaring disparities in unemployment shrink, incomes rise and new business establishments can be created. Full employment is necessary for that growth path.

In January 2017, the unemployment rate for Blacks with college degrees converged with the unemployment rate for whites with Associate Degree's after having been more like those of white high school graduates.

[10] Matt Stoller, Federal Reserve Bankers Mocked Unemployed Americans Behind Closed Doors, https://theintercept.com/2017/01/27/federal-reserve-bankers-mocked-unemployed-americans-behind-closed-doors/ and Alex W. https://alexwdc.wordpress.com/2017/01/28/federal-reserve-laughing-at-the-vulnerable-is-cruel-inhuman-callous-fomc-5-year-meeting-transcript-release-sched-is-being-abused/

After prolonged improvement in labor tightness, Black college graduates can sustain unemployment rates of whites with associates degrees



At last labor market peak in 2007, the Black college unemployment rate and the white associates degree rate were equal

In the real economy, many policies fostered a period of shared prosperity and rapid economic growth in the United States. From 1946 to 1979, the wages of American workers grew with their productivity. Moreover, income gains were roughly equally shared throughout the income distribution. Many federal policies invested in the American people and put the government on the side of raising wages. In sum, these policies promoted shared prosperity, so incomes grew at each income quantile. Economists are converging on a consensus that equality promotes faster economic growth. In addition, equality provides the basis for enhancing social mobility and a more meritocratic society.

Several key federal programs stand out for enhancing shared prosperity. The GI Bill, gave many World War II veterans access to college by paying their tuition and giving them living stipends; home ownership through reduced down payments and low interest loans—two tickets to the middle class.

The introduction in 1946 of federal legislation to establish a national school lunch program decreased the food insecurity of children. Participation of children in interventions to address basic food needs has been shown to improve the health of children and have lasting impacts on educational attainment.[11]

During this period, broad political consensus maintained a neutral National Labor Relations Board that maintained balance in labor management relations. The period allowed the continued ability of workers to exercise their right to organize. Therefore, during this period, the share of workers who in unions rose, as did their diversity. At higher levels of union density all workers benefit, both union and non-union in striking deals to divide the benefits of rising productivity.[12]

Each President during the period signed legislation to raise the minimum wage and keep all wages in step with general growth in productivity and wage gains. This spread the benefits of increases in productivity to the wages of the lowest quantile; insuring that work paid. Increases in the minimum wage correlate with reducing food insecurity and lowering low-birth weight and premature babies for less educated women.[13]

Republican President Dwight Eisenhower, when the former Soviet Union launched Sputnik in October 4, 1957, got the Democratic Senate to pass legislation in less than one-year to launch the National Defense Student Loan program that assured American students could borrow enough money to cover an Ivy League education at interest rates below the prime rate. Students who the loans supported but accepted jobs in K-12 education had their loans forgiven. American became the world's most educated country with the highest share of its workforce holding college

[11] Craig Gundersen, Brent Kreider and John Pepper, "The impact of the National School Lunch Program on child health: A nonparametric bounds analysis," *Journal of Econometrics*, Vol. 156 (January 2012): 79-91; Peter Hinrichs, "The effects of the National School Lunch Program on education and health," *Journal of Policy Analysis and Management*, Vol. 29 (Summer 2010): 479-505.

[12] Daniel Tope and David Jacobs, "The Politics of Union Decline: The Contingent Determinants of Union Recognition Elections and Victories," *American Sociological Review*, Vol. 74 (October 2009): 842-864; Jake Rosenfeld, Patrick Denice, and Jennifer Laird, "Union decline lowers wages of nonunion workers: The overlooked reason why wages are stuck and inequality is growing," Economic Policy Institute, (August 30, 2016) at http://www.epi.org/files/pdf/112811.pdf

[13] George Wehby, Dhaval Dave and Robert Kaestner, "Effects of the Minimum Wage on Infant Health," National Bureau of Economic Research, NBER Working Paper No. 22373 (June 2016); William M. Rodgers III, "The Impact of the 1996/97 and 2007/08/09 Increases in the Federal Minimum Wage on Food Security," manuscript, Rutgers University (September 2015) at https://www.researchgate.net/publication/266023361_The_Impact_of_the_199697_and_20070809_Increases_in_the_Federal_Minimum_Wage_on_Food_Security

degrees. The NDSL provided the money for the teacher corps that then produced the inventors of the personal computer and internet.[14]

President Eisenhower also launched one of the largest peacetime government programs in creating our current modern interstate highway system. Not only did this create many middle-class construction jobs, it vastly improved America's infrastructure and lowered transportation and production costs for American business. It spurred the expansion of new industries like motels and reduced the isolation of rural communities.

In the 1960's, President Lyndon Johnson expanded the role of the federal government in investing in the early education of America's children. The Head Start program, launched in 1965 has proven to be a valuable program in changing the long-run prospects for children from low-income families: increasing their success in school, earnings in adulthood and lowering criminal activity.[15]

Also in 1965, President Johnson put in place Medicaid and Medicare. Research shows Medicaid increases the educational attainment and earnings of women who had greater access to Medicaid as children, and boosts the taxes paid by young adults who were helped by Medicaid.[16] Medicare ended racial segregation in the provision of health in the United States, improved the lives of older Americans and began narrowing the life expectancy gap between whites and African Americans.

These investments in American children and the American people, and the investment in public infrastructure put the federal government clearly on the side of empowering Americans to achieve a high level of productivity. It provided American corporations the largest pool of

[14] Public Law 85-864 (September 2, 1958) https://research.archives.gov/id/299869; Saul B. Klaman, "The Postwar Pattern of Mortgage Interest Rates," in Saul B. Klaman (ed.) *The Postwar Residential Mortgage Market* (Princeton University Press, 1961) sited from: http://www.nber.org/chapters/c2341.pdf, University of Pennsylvania, University History, Tuition and mandated fees, Room and Board and other educational costs at Penn since 1900: 1950-1959 web page: http://www.archives.upenn.edu/histy/features/tuition/1950.html

[15] Patrick Kline and Christopher Walters, "Evaluating Public Programs with Close Substitutes: The Case of Head Start," National Bureau of Economic Research, NBER Working Paper No. 21658 (October 2015); Hilary Shager, Holly S. Schindler, Katherine A. Magnuson, Greg J. Duncan, Hirokazu Yoshikawa and Cassandra M. D. Hart, "Can Research Design Explain Variation in Head Start Research Results? A Meta-analysis of Cognitive and Achievement Outcomes," *Educational Evaluation and Policy Analysis*, Vol. 35 (March 2013): 76-95.

[16] David W. Brown, Amanda E. Kowalski and Ithai Z. Lurie, "Medicaid as an Investment in Children: What is the Long-Term Impact on Tax Receipts?" National Bureau of Economic Research, NBER Working Paper No. 20835 (January 2015).

highly educated and healthy workers to propel American growth. In addition, the government was clearly on the side of American workers in getting their fair share of the increased productivity. Wages rising with productivity insured all the correct market signals in the labor market would encourage Americans to make the investment in their skills. Moreover, by keeping unemployment rates low, fiscal, and monetary policy gave incentive to firms to train workers, invest in their productivity and aim at retaining those workers.

Since that era, most of those policies have been undermined. In the 1980s and again in the 2000s the NLRB too often took positions favorable to management to limit workers organizing; raising the minimum wage went from a bipartisan effort to a partisan battle; the wages for the middle stagnated and the real wages at the bottom fell. Profits as a share of national income rose, but taxes from corporate America shrank, putting more of the nation's tax burden on workers as the wage share of national income fell. Once the United States stood out for its highly-educated work force, as recently as 1995 ranking first for the share of workers with college degrees, but by 2012 the United States ranked 19th among 28 advanced economies.[17] In 1975 state and local governments provided 63% of all expenditures on higher education, by 2010 that figure fell to 34.1% resulting in a trend of ever-rising tuition for individual students.[18]

The financial collapse of 2007-2008 further crippled American manufacturing, forcing American automobile manufacturing into bankruptcy and reorganization, and crushed public sector investment beyond de-investment in higher education. Falling values of pension investments and drops in revenue, led to the greatest drop in state and local public investment since the Great Depression.

Americans see politicians that argue for tax breaks for the top 1%, and a retreat on policies to invest in them while their wages stagnate and corporations get support to suppress those wages, hours and working conditions. This is a great source of cynicism, as workers no longer believe in "trickle down" economics.

Now most economists agree. The International Monetary Fund (MF) and the Organization for Economic Cooperation and Development (OECD) find that income inequality hurts growth.

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[17] Liz Westin, "OECD: The US Has Fallen Behind Other Countries in College Completion," Business Insider (September 9, 2014) at http://www.businessinsider.com/r-us-falls-behind-in-college-competition-oecd-2014-9

[18] Thomas Mortenson, "State Funding: A Race to the Bottom," American Council on Education (Winter 2012) at http://www.acenet.edu/the-presidency/columns-and-features/Pages/state-funding-a-race-to-the-bottom.aspx

The IMF finds that near term growth over the business cycle, roughly five years, is slower and of shorter duration in those advanced economies where net income inequality is higher; where net income inequality considers market-based income (or gross inequality) net of income transfer programs (safety-net and other redistributive programs).[19] There are various reasons for this. At high levels of inequality, those at the bottom of the income distribution are more vulnerable and lack resiliency to absorb downward shocks in income. Workers also become highly leveraged to keep up when the economy expands, increasing systemic risks for the economy. Importantly, the IMF find that redistribution of income has no effect on growth, but inequality does. This means concerns that safety-net programs slow growth by reducing labor supply and effort is not shown in the data. However, the effects of inequality do show. Therefore, the net benefit of redistribution that lowers inequality is clear.

Focusing on income distribution more specifically, the IMF finds that when growth goes up disproportionately to the top 20% of the income distribution that national income growth—GDP per capita—falls. Clearly, policies that aim to increase the post-tax income of the top do not trickle down; they instead slow overall growth. They further find that programs that increase access to education and health in particular, that help the middle class and the poor specifically, reduce inequality and spur growth.[20] And, that labor market policies that do not exclude the poor from accessing middle income jobs spur growth. In short, the very policies pursued by the United States across Democrat and Republican Presidencies during the 1946 to 1979 era.

The IMF further investigates and finds that the growth in inequality is mainly driven by gains at the top 10% and is tied together with a reduction in the share of workers in labor unions to bargain for a higher share of gains to the middle and the lowering value of minimum wages that protect earnings at the bottom. The report also found evidence that declining top marginal

[19] Jonathan D. Ostry, Andrew Berg, and Charalambos G. Tsangarides, "Redistribution, Inequality, and Growth," IMF Staff Discussion Note, SDN/14/02 (February 2014) at https://www.imf.org/external/pubs/ft/sdn/2014/sdn1402.pdf

[20] Era Dabla-Norris, Kalpana Kochhar, Nujin Suphaphiphat, Frantisek Ricka and Evridiki Tsounta, "Causes and Consequences of Income Inequality: A Global Perspective," IMF Staff Discussion Note, SDN/15/13 (June 2015) at https://www.imf.org/external/pubs/ft/sdn/2015/sdn1513.pdf

income tax rates increases inequality, as does financial deregulation. Technological change was not a driving force.[21]

The OECD research finds a sizable impact on growing inequality and slowing growth. Specifically, the decline in the share of income for the bottom 40% of income distribution hurts growth the most. The OECD finds a clear link between the shrinking income share of the bottom 40% and a drop in educational investment. Clearly, an effect of rising inequality that can be mitigated is to increase public investment in education targeted toward the bottom 40 percent. They also find that policies that can increase women's labor force participation, like supporting childcare, paid sick days and family leave also reduce inequality, and promote growth. Further, raising labor standards to reduce non-standard and irregular work, reduce poverty and inequality and promote growth.[22]

OECD research also finds that increased centralized bargaining structures, like those that can come from higher labor union density, help to reduce the risk of extreme failures from economic shocks. Moreover, it is the case that higher minimum wages reduce the risks of very negative extremes from economic shocks. Perhaps explaining stability in the United States economy during the 1946 to 1979 period.[23]

The evidence from the IMF and OECD that has been built on a growing economic literature on the effects of inequality are reassuring in understanding what helped form greater political and social cohesion in the United States from 1946 to 1979 when U.S. productivity, income growth and educational attainment led the world. The loss of faith of American workers in the system has risen with policies that have promoted inequality that reversed patterns of investing in America and Americans and led to rising inequality that has slowed economic growth. There can be little social cohesion when policies consistently favor those at the top, as they do not help growth.

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[21] Florence Jaumotte and Carolina Osorio Buitron, "Inequality and Labor Market Institutions," IMF Staff Discussion Note, SDN/15/14 (July 2015) at https://www.imf.org/external/pubs/ft/sdn/2015/sdn1514.pdf

[22] OECD, *In it Together: Why Less Inequality Benefits All*, (OECD Publishing: Paris, 2015) at http://www.keepeek.com/Digital-Asset-Management/oecd/employment/in-it-together-why-less-inequality-benefits-all_9789264235120-en#.V-FiwCgrKhc

[23] Aida Caldera Sanchez and Oliver Roehn, "How do Policies Influence GDP Tail Risks?" OECD Economics Department Working Paper (forthcoming)

Since 1979, incomes have grown very unequal in the U.S.[24] This growth in inequality has been accompanied by several other discouraging factors. Among those factors has been a decline in new establishment creation including small businesses. The creation of new firms is related to product innovation and labor market reallocation. These two help increase aggregate productivity, a key to faster economic growth rates.[25]

Firm growth is dependent on the growth of their customer base.[26] When there is broadly shared prosperity more households have their budget constraint expanded; resulting in a larger increase in potential customers. When the economy produced shared prosperity, new establishments were created without hurting the market share of large firms. However, when income growth is limited, there is a smaller increase in potential customers. Customer growth becomes a zero-sum game. Firms with adequate liquidity compete by lowering prices or buying competitors. But, lowering costs by lowering wages means a competition for customers that lowers the incomes of some households, further shrinking the aggregate customer base. In 1980 when the Federal Reserve deliberately created a slowdown in the economy, incomes dropped as did wages. The depth of the drop was the most severe since the Great Depression to that point. The slowdown was achieved and greatly limited access to liquidity. Real wages for Americans fell, accommodated by a fall in the real value of the minimum wage. The result was rise in income inequality, and a slowing of the growth of the customer base. And, a trend of declining new establishments ensued, as expected initially in the retail sector; the one tied directly most directly to need for the growth of a broad customer base.[27]

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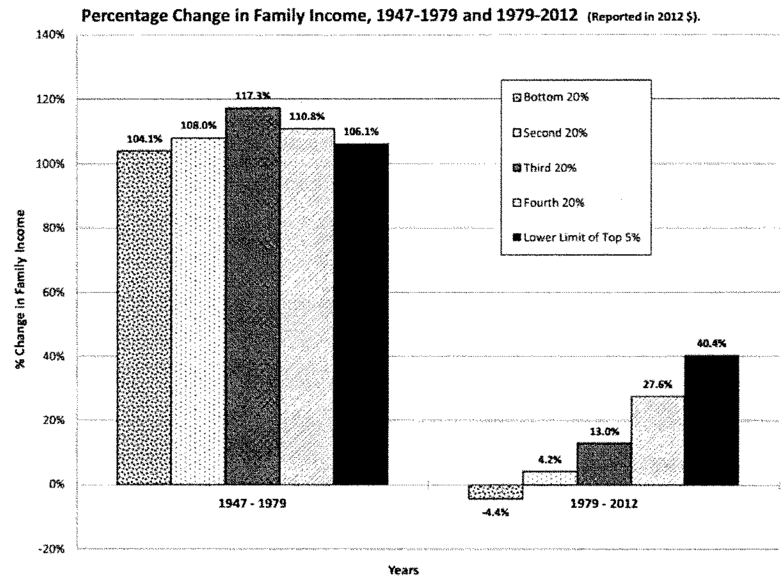
[24] Congress of the U.S., Congressional Budget Office, Trends in the Distribution of Income Between 1979 and 2007, October 2011 at http://www.cbo.gov/sites/default/files/cbofiles/attachments/10-25-HouseholdIncome.pdf

[25] Ryan Decker, John Haltiwanger, Ron S. Jarmin and Javier Miranda, "Where Has All the Skewness Gone? The Decline in High Growth (Young) Firms in the U.S.," NBER Working Paper No. 21776 (December 2015) at http://www.nber.org/papers/w21776

[26] Simon Gilchrist and Egon Zakrajšek, "Customer Markets and Financial Frictions: Implications for Inflation Dynamics," Federal Reserve Bank of Kansas City, 2015 Economic Symposium: *Inflation Dynamics and Monetary Policy,* (August 2015) at https://www.kansascityfed.org/~/media/files/publicat/sympos/2015/2015gilchrist_zakrajsek.pdf?la=en

[27] Decker, Haltiwanger, et. al. (2015)

RSF *Russell Sage Foundation - Chartbook of Social Inequality*



Data Source: U.S. Census Bureau, Table F-1. Income Limits for Each Fifth and Top 5 Percent of Families, from Historical Income Tables (http://www.census.gov/hhes/www/income/data/historical/index.html).

Figure One shows the difference between the broadly shared growth of incomes from 1947 and 1979 with the period from 1979 to 2012. Fast and equal growth before 1979 has given way to negative growth at the bottom for workers like those who keep our schools in order as crossing guards, cafeteria workers or janitors (for those workers most affected by policies that keep unemployment rates too high and away from full employment) and meager growth for the rest of America's workers in the bottom 80 percent.[28]

Indeed, between 1992 and 2015, there is a high correlation between income growth in each portion of the income distribution and the growth rate in the formation of new establishments in the following year. But, that correlation is more pronounced for income growth from the bottom

[28] Russell Sage Foundation Chartbook of Social Inequality at http://www.russellsage.org/sites/all/files/chartbook/Income%20and%20Earnings.pdf

up through the upper middle income fifth than between the top 20 percent and new establishment formation. When incomes grow widely, more potential customers make it easier to create a firm to take advantage. Increases among the highest income groups are more likely to increase the intensity of demand (spending more money on the same things) than demand of more goods. With this correlation, clearly the rate of new establishments will be lower in the post 1979 era of rising inequality and modest income growth for the bottom 80 percent.

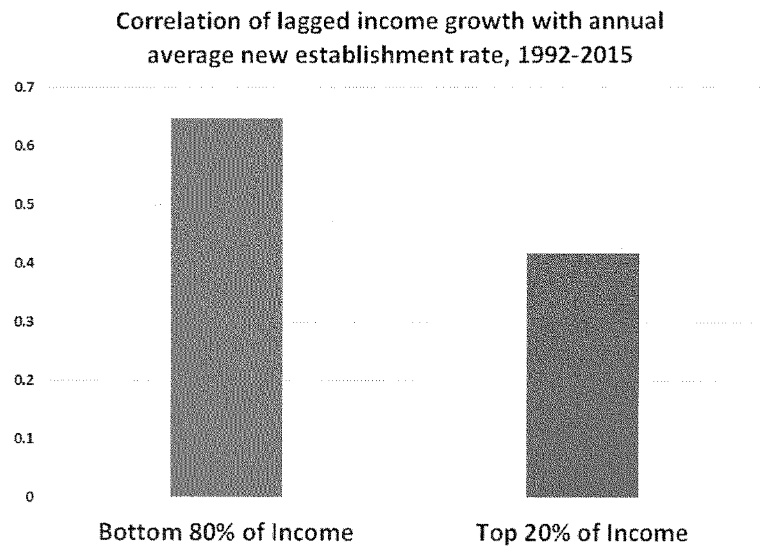


Figure Two shows the correlation between income growth of the bottom 80 percent of the income distribution, roughly households with incomes less than $110,000 a year, and the rate of new establishment formation in the following year, and for the top 20 percent of the income distribution. The correlation for the bottom 80 percent is presented to summarize the relationship between each of the lower fifths of the income distribution (the lowest fifth of the household income distribution making less than roughly $22,500 like meat packers and textile workers, lower-middle income households making less than $42,600 like computer control machine tool operators and bus drivers, middle income households making less than $68,200 like airplane mechanics and fire fighters and those in upper middle income households like air traffic controllers and registered nurses) who are the backbone of America's working families with new establishment formation.[29] New establishment creation needs accommodating financial conditions, but more importantly first needs customer growth through widely shared income growth.

The causal relationship for firm formation is clear: it runs from customer growth to enabling firm formation; firms do not grow first. It follows that to form a new firm, there must be customers first, otherwise there would be a condition like a perpetual motion machine, policies would not matter if firms can create customers.

From 2014 to 2015 when all parts of the income distribution showed income growth, the share of small firms with employees reporting profitability and rising revenues increased from 15 to 27 percent, and from 21 to 26 percent. In 2015 among growing and start-up firms, credit availability ranked fourth among their challenges, mentioned half as often as the more highly ranked problems of hiring and cash flow. While only 47 percent of small firms with employees applied for funding, 61 percent did so to expand their business. Firms were more successful borrowing from small banks than large banks; overall, 79 percent of firms who applied for funding received at least some funding.[30] So, the data on small business financial demand point to responding to growing opportunities from rising revenue and to fuel growth. They also point to the need of financial regulation to insure there is fair access to capital.

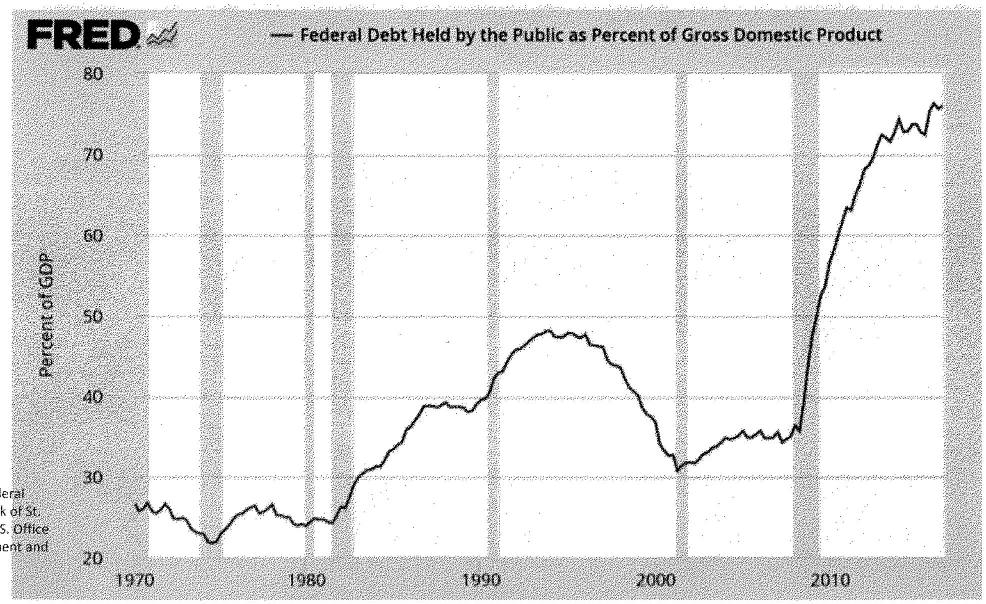
The data suggest that promoting new establishments (including small business) requires an economy that creates broad based income growth for all workers, and supportive small banks close to the action of small business and willing to invest in their growth; that is an economy that needs regulations to protect workers and protect the viability of a competitive banking landscape. Legislation like Dodd-Frank is necessary to limit systemic risk and excesses of exploiting

[29] Calculations based on authors calculations from US Bureau of Labor Force Statistics, Consumer Expenditure Survey data, and Business Employment Dynamics data. The correlation is between pre-tax income growth by quintile reported in the Consumer Expenditure data and average quarterly New Establishment Rate data for each year from the Business Employment Dynamics data. The reverse correlation, using the rate of new establishments correlated to income growth the following year is much lower, suggesting the causation is more likely that income growth leads to new establishment formation.

[30] Federal Reserve Banks of New York, Atlanta, Boston, Cleveland, Philadelphia, Richmond, St. Louis, 2015 *Small Business Survey Report on Employer Firms* (March 2016) at https://www.newyorkfed.org/medialibrary/media/smallbusiness/2015/Report-SBCS-2015.pdf

consumers. Sustained growth needs conscious government investment in Americans, in their health and their education, and in the nation, in its environment and its infrastructure.

Federal Debt as % of GDP



Sources: Federal Reserve Bank of St. Louis and U.S. Office of Management and Budget

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https://www.wsj.com/articles/a-21st-century-federal-reserve-1489618419

COMMENTARY

A 21st-Century Federal Reserve

Redraw the map, measure new currencies, and pay attention to how politics distorts the economy.

The Federal Reserve Bank in Washington, D.C. *PHOTO: KEVIN LAMARQUE/REUTERS*

By Todd G. Buchholz
March 15, 2017 6:53 p.m. ET

Janet Yellen and her Federal Reserve Board colleagues warn that they must nudge us out of the weird world of zero interest rates. But the entire decision-making apparatus needs to be nudged—or, better, shoved—into the 21st century. While some congressmen call for a Fed audit, the problem is not hanky-panky in oak-paneled boardrooms. The problem is that the Fed got gobsmacked by the Great Recession of 2008, the dot-com crash of 2000 and the credit crunch of 1990.

When the Fed's forecasting fails, it imperils the economy and the very idea that free markets make people better off. Reform should aim to make the Fed better at its job so that markets can do theirs. Here are three important steps:

• *Redraw the map to represent modern commerce.* Take a look at the Federal Reserve Board system, made up of 12 regional districts. Though it was set forth in 1913, it could have been mapped out on rawhide by Lewis and Clark. If you were allocating just 12 districts across 3,000 miles, would you place two of them in Missouri—Kansas City and St. Louis? The Chicago Fed is fewer than 300 miles up the road, Detroit another 300 or so, and Cleveland 170 miles further. The East Coast districts link closely connected Boston, New York, Philadelphia and Richmond, Va.—plus headquarters in Washington—as if purchased at an Amtrak ticket booth.

Meanwhile, look to the West and you'll see that the Fed institutionalizes the joke about "flyover country." The only Fed bank west of the Central Time zone is in San Francisco. I write this miles from the Mexican border in San Diego, one of the largest trade portals in the world and an epicenter of the subprime mortgage meltdown. Yet the San Francisco Fed president is somehow responsible for covering diverse places from oil-dependent Alaska to tech-savvy Seattle and Silicon Valley to Hollywood, and even for American Samoa and Guam. (Some Rocky Mountain states are under the jurisdiction of Dallas, Kansas City and Minneapolis.)

That made sense when Western commerce depended on a rickety Wells Fargo covered wagon pulling up into lonely towns with dry goods. But the Federal Reserve Board's antiquated map leads to forecasting errors and poor policy. When the San Francisco Fed president speaks at Open Market Committee meetings to set interest rates, he gets equivalent time as Richmond, which covers a much smaller and less populous five-state area. Because regional Fed presidents vote on a rotating basis (unlike Washington-based governors), in 2017 San Francisco does not even get a vote.

• *Revise models to incorporate big data, new currencies and the gig economy.* I have closely followed monetary policy since I corresponded with Milton Friedman as an undergraduate in the 1980s. But Friedman died in 2006, before bitcoins and blockchains entered the scene. The Federal Reserve must continue to monitor conventional metrics like bank balances, loan growth, jobless claims and commodity prices. Yet in recent years commodities have swung wildly, with oil hitting $115 barrel in June 2014 before collapsing to $60 in December.

The Fed must also learn to pay attention to crypto-currencies and to engines like PayPal that help drive the gig economy. The gig economy has helped tame inflation by adding new supplies of land, labor and capital to the economy. Airbnb has effectively boosted by about 20% the number of hotel rooms in major cities. This is the new supply-side economics.

• *Pay attention to government policies that juice up demand or choke the supply of funds.* Congress, Fannie Mae and Freddie Mac fueled the 2000s real estate bubble with their reckless drive to raise homeownership levels. By 2006 nearly 1 in 4 new mortgages was considered subprime. More recently, the Dodd-Frank Act has burdened community banks with regulations that squeeze off credit to small businesses. Within just a few years, then, policies juiced up and then dried up lending. The Fed must compensate for nonmarket, politically driven forces.

Despite the Fed's flaws, it should not be put under the thumb of Congress or the White House. The Fed should act with independence, prudence, real-time data, and an understanding that when it fails, it imperils livelihoods and the very credibility of democratic capitalism.

Mr. Buchholz has served as a White House director of economic policy and managing director of the Tiger hedge fund, and is author of "The Price of Prosperity" (HarperCollins 2016).

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