# A Strategy for Normalizing Monetary Policy

Peter Ireland, Boston College and Shadow Open Market Committee

Mickey Levy, Berenberg Capital Markets and Shadow Open Market Committee*


Shadow Open Market Committee
Princeton Club, New York City, New York
May 5, 2017


* Prepared for the May 5, 2017 meeting of the Shadow Open Market Committee. The views expressed herein are the authors' own and do not reflect those of Berenberg Capital Markets, LLC.

Early 2017 has brought the United States economy – and Federal Reserve policy with it – to a long-awaited inflection point. Figure 1 provides an overview. Solid growth in payroll employment continues, keeping unemployment low and stable. Labor force participation shows signs of bottoming, wage growth is on the rise, and consumer and business sentiment have clearly improved. Most important for the Fed, key measures of inflation have rebounded smartly. Year-over-year growth in the price index for personal consumption expenditures, at 2.1 percent, is now running slightly above the FOMC's long-run target. Core PCE price inflation, at 1.7 percent, is not much lower, and converging to target as well.

Against this favorable backdrop, the FOMC raised its target for the federal funds rate last December and once again this March. Recent statements from key Federal Reserve officials, including Chair Janet Yellen, make clear that the process of "scaling back accommodation" will continue to occur more rapidly this year than in 2015 and 2016 (Yellen 2017). Most FOMC members now expect that there will be at least two, and possible three, more rate hikes during 2017 (FOMC 2017). The Fed no longer sees itself struggling to provide enough stimulus to fight deflationary stagnation. That challenge has been supplanted by a new one: the task of taking away the monetary accommodation at a pace that is sufficient to prevent inflation from persistently overshooting its long-run 2 percent target, yet measured enough to avoid shocking the economy and threatening the ongoing expansion.

Having identified the problem, the Fed must now establish, articulate, and execute a strategy for solving it. Fortunately, the basic elements unpinning such a strategy have been outlined before: they are well-known and have stood the test of time. Milton Friedman lists them in a 1971 address marking the twenty-fifth anniversary of the Employment Act of 1946 (1971). They are repeated in the Shadow Open Market Committee's own Statement of Core Beliefs (2014). And they are simple and concise enough to list again here, in three short bullet points:

1. The strategy should draw a clear distinction between monetary and credit policies, using the Fed's position as a monopoly supplier of reserves to stabilize aggregate nominal variables while avoiding actions that influence the allocation of credit.

2. The strategy should recognize that the Fed creates conditions most favorable to achieving its dual mandate of stable prices and maximum employment when it focuses on stabilizing inflation first.

3. The strategy should require the Fed to conduct monetary policy in a systematic, rule-like fashion that guards against any attempt at too much fine-tuning.

Adopting and following a strategy based on these three principles will require changes that go well beyond simply raising interest rates three times, instead of once, per year. It will also involve breaking away from bad habits formed during and since the financial crisis.

Open market purchases of United States Treasury securities are legitimate monetary policy actions, both during normal times and periods of crisis, when they are aimed at increasing the rate of broad money growth and, through that channel, bringing nominal income growth and inflation back to target. Since the financial crisis of 2007, however, the purely monetary effects of the Fed's large-scale asset purchase programs, known more popularly as "quantitative easing," have been at least partially offset by the payment of interest on reserves. Although there is a long-run efficiency argument for paying interest on reserves, in practice this policy has worked mainly to turn open market operations into a device through which Treasury debt is exchanged for the Fed's own interest-bearing liabilities, minimizing the impact on broad money growth (Friedman 1959)[1]. Instead of acting as central bank, the Fed has used interest on reserves and QE to turn itself into something more like a gigantic money market mutual fund that issues its own short-term, floating rate liabilities and uses the proceeds to acquire highly liquid but longer-term bonds. In addition, by extending its bond-buying programs to include purchases of United States government agency mortgage-backed securities, the Fed has used QE to channel credit to a specific sector of the economy, a function more appropriately played by private financial institutions, such as banks and savings and loan associations, that accept deposits and make mortgage loans.

After recognizing that QE as implemented resembles a series of credit market interventions as opposed to a set of more traditional monetary policy actions, it becomes far less surprising that, as shown in figure 2, nominal income growth since 2010 has averaged only 3.6 per year, more than 1.5 percentage points lower than average annual rate recorded over the pre-crisis period from 1990 through 2007[2]. On net, QE did not succeed in stabilizing inflation during and after the financial crisis, but nevertheless left the Fed with a bloated balance sheet and an unnecessarily outsized presence in private credit markets. Announcing a plan for shrinking the Fed's balance sheet would, conversely, eliminate distortions, reduce uncertainty in financial markets, and above all allow the FOMC to refocus its attention on stabilizing the growth rate of nominal variables, including inflation. This step, alone, would do much to ensure the success of the Fed's efforts to normalize the effects of its monetary policy operations.

During the financial crisis, the Fed's interpretation of its dual mandate appears to have shifted as well. Previously, during the Volcker and Greenspan eras, establishing and maintaining price stability was viewed by the Fed as the best foundation for robust

[1] For a more recent discussion, see Goodfriend (2002).

[2] For a more detailed analysis of these trends in nominal income growth and the Fed's role in generating them, see Ireland (2016).

economic and job growth. Today, by contrast, discussions of unemployment and inflation are given equal space in official policy statements, but the review of labor market developments receives special emphasis by appearing first[3]. The Fed has developed a Labor Market Conditions Index that it updates monthly and its shown on its website, while no analogous detail is provided for inflation. This new approach might, on the surface, seem more consistent with the statutory phrasing of the dual mandate, but with view towards actually *achieving* those legislated goals, this communication strategy obscures the fact that while employment and unemployment, as real variables, are influenced by numerous factors including but by no means limited to monetary policy, inflation, as a nominal variable, is determined in the long run by the Fed and the Fed alone. Certainly, monetary policy has the power to affect unemployment over shorter horizons and, at times, slow growth in employment can be reflective of insufficiently accommodative monetary policy. But, even then, insufficiently accommodative monetary policy will be reflected in slower inflation as well.

In fact, both theory and evidence have shown that monetary policy works best when it focuses on inflation first (Kydland and Prescott 1977)[4]. To try anything more risks failure; to promise anything more raises false hopes. The result is frustration, which puts the Fed's credibility at risk. Chair Yellen recognized this in her recent speech, observing that

> Monetary policy cannot, for instance, generate technological breakthroughs or affect demographic factors that would boost real GDP growth over the longer run or address the root causes of income inequality. And monetary policy cannot improve the productivity of American workers (2017).

Repeating and placing greater emphasis on points like these would help enormously, as the Fed continues to reduce its accommodation. They help explain why modest interest rate increases are needed now, to prevent inflation from rising persistently above target, so that more aggressive actions can be avoided later. They help underscore that, by acting pre-emptively to stabilize inflation, the Fed is not ignoring the other side of its dual mandate. To the contrary, policy normalization is intended to create and preserve an economic environment featuring both stable prices *and* continuing growth in income and jobs.

Finally, in recent years, the Fed has resisted calls to announce publicly a rule that serves as a more consistent guide to its policymaking decisions. This is a mistake and a lost opportunity. The Fed shouldn't wait for Congress to demand this; instead, the FOMC

[3] A typical example is provided by the Federal Reserve System (2017).
[4] See also Barro and Gordon (1983). A great deal of international evidence is assembled and presented by Bernanke et al (1999).

should disarm its critics, by voluntarily and unilaterally announcing a policy rule that guides the conduct of monetary policy under normal conditions, but is sufficiently flexible to allow for unconventional policy during abnormal or crisis situations. The frequent complaint, that a rule-based approach requires the Fed to act mechanically during normal and abnormal times, ignoring valuable information about the economy not captured by the small number of variables that appear in the rule itself, is spurious and far off-the-mark. No simple rule should be followed mechanically. Instead, it should serve systematically to provide the starting point for deliberations and debates as to whether and why the federal funds rate should be held below, above, or equal to the setting prescribed by the rule. And deviations from this rule would be considered appropriate under extreme circumstances.

Describing their policy actions with consistent reference to a pre-announced rule would offer a host of advantages that would begin to accrue immediately and accumulate over the longer run. The rule would serve as a device for communicating more effectively the Fed's intent to maintain an appropriate degree of policy accommodation, even as it raises interest rates gradually, so long as inflation remains below target. The rule would also make clear that the Fed's decisions are contingent on the evolution of the economy, but would keep the public's focus on intermediate developments that affect the outlook for trend inflation instead of high-frequency noise in the daily data. The rule would thereby enhance the Fed's credibility by emphasizing, in particular, that adjustments to the pace of tightening reflect changes in the underlying economic fundamentals, and not shifts in FOMC members' own preferences for more or less inflation. The rule would help FOMC members maintain their own focus on broader trends and resist the temptation to try too much fine-tuning. And the rule would take the pressure off FOMC members as they attempt to adjust policy on a meeting-by-meeting basis.
Once observers are aware that the trajectory of interest rates is determined by intermediate-term trends and not day-to-day market movements, they will attach much less importance to whether any given interest rate increase happens at one particular meeting or the next.

Such a rule would also help the Congress in its oversight responsibilities of the Fed. As such, it would improve communications between the Fed and Congress, and help establish the parameters for the scope of the Fed's monetary policy, bringing a better understanding of what can be expected of the Fed.

Presently, as the FOMC enters into a new phase of its tightening cycle, the economic and political stakes are high. Based on the principles above, we offer the following concrete advice for maximizing the probability of success.

First, the Fed should begin scaling back its involvement in credit markets *now*. FOMC members may be justified in their concern that selling off nearly $3.5 trillion in Treasury

and government agency mortgage-backed securities too quickly risks disrupting the markets. A gradual approach is warranted. On the other hand, FOMC members must also recognize that there are significant risks in moving too slowly as well, including the risk that the Fed's new policy tools – interest on reserves and reverse repurchase agreements – might not be sufficient to prevent inflation from jumping unexpectedly higher, given the present size of the balance sheet. Moreover, the fiscal budgetary risks of the Fed's oversized long-dated portfolio funded with short term borrowing are substantial. With so many longer-term securities in its portfolio, the longer the Fed delays its asset sales against the backdrop of rising short-term rates, the more costly the balance-sheet unwind becomes. Until the Fed establishes a clear strategy for winding down its positions in mortgage-backed securities, mortgage rates and financial flows will continue to be distorted. The Fed's role in the mortgage markets may become particularly awkward if the U.S. Treasury and Congress undertake much-needed efforts to reform Fannie Mae and Freddie Mac. And, as noted above, the Fed's massive balance sheet blurs the distinctions between monetary control and credit market intervention, entangling the Fed in fiscal policy in ways that may reduce its credibility and threaten its independence.

As an initial step, the Fed could immediately announce that it will cease reinvestment of funds provided by maturing assets. This would set in motion a passive and predictable reduction in the size of its portfolio. Figure 3 shows that in the first three years, approximately $900 billion, or more than one-third, of the Fed's holdings of Treasury securities would mature and not be replaced[5]. As shown in the same figure, only a small amount of mortgage-backed securities would mature, but the actual duration of the Fed's MBS portfolio would shorten as mortgages are amortizing, however gradually. And as confidence builds that this first step can be taken without great disruption to financial flows, a more ambitious plan for actively reducing the Fed's MBS holdings can be formulated and announced. This could involve, for instance, gradually swapping long-maturity MBS for the same amount of short-to-intermediate term Treasury securities, while continuing to allow maturing bonds to roll off the balance sheet passively. Finally, as the balance sheet shrinks in these ways, the Fed could slowly wind down its involvement with reverse repurchase agreements, using interest on reserves to place a "hard floor" under its target for the federal funds rate[6].

Second, the FOMC should, immediately and unilaterally, announce a parsimonious rule to guide monetary policy decisions during the tightening phase and beyond. FOMC members should make regular reference to that rule in their official policy statements, interviews and speeches, and Congressional testimonies. Many possible rules exist. But one of the best known, due to John Taylor, takes the form

[5] For more detail on the size and composition of the Fed's balance sheet, see Levy (2017).
[6] Economic and political rationale for eliminating RRPs and using IOR alone to target the funds rate is provided by Goodfriend (2015)

$$f = r^* + p^* + 1.5(p - p^*) + 0.5(y - y^*),$$

where $f$ is the prescribed setting for the federal funds rate target, $p - p^*$ is the logarithmic (percentage-point) difference between actual inflation $p$ and the Fed's target $p^*$, $y - y^*$ is the output gap, measured by the percentage deviation of real GDP $y$ from the level of potential output $y^*$, and $r^*$ is the long-run natural (real) rate of interest (Taylor 1993). Figure 4 compares the actual trajectory for the funds rate to the path suggested by the Taylor rule, using $p^* = 2$ percent for the inflation target and the value $r^* = 1$ suggested by the most recent FOMC projections (FOMC 2017, Yellen 2017). With core PCE inflation still running about 25 basis points below target and with a lingering output gap of about 1 percent, the rule calls for a funds rate target just slightly above 2 percent. This prescribed rate is 100 basis points below its long-run value, but more than a full percentage point above the FOMC's current interest rate target.

By making reference to this rule, the FOMC could emphasize that its interest rate policy remains accommodative and that additional rate increases, as planned, are needed simply to bring the federal funds rate target back to a level that would normally prevail, given current economic conditions. In the most likely event that the output gap continues to shrink, the rule would set an appropriate pace for further interest rate increases, dictated by the speed at which inflation approaches its long-run target. Consistent reference to the rule would therefore allow the FOMC's decision-making to be appropriately "data dependent," while at the same time keeping policymakers focused on controlling inflation and constraining them to follow through with planned rate increases so long as inflation continues moving back towards target. The rule would also provide a sound economic rationale for raising rates more quickly should inflation and real economic growth accelerate markedly, for instance, because of renewed fiscal expansion.

These two steps – announcing a plan to begin winding down its balance sheet and a rule to guide monetary policy – are simple and straightforward for the Fed to adopt right away. They will work immediately to help disentangle the central bank from issues and problems beyond its purview and refocus its efforts on using traditional monetary policy levers to control inflation. They will make the actions necessary to re-normalize monetary policy appear gradual and predictable, minimizing the potential for disruption of financial markets and economic activity more generally. And by constraining policymakers to adhere to a plan and avoid discretionarily changing it with every twist and turn in market data and sentiment, it would strengthen the Fed's reputation and credibility. These steps form the basis for a sensible, sound strategy for raising interest rates, maintaining price stability, and normalizing Fed policy, thereby setting the stage for a prolonged period of robust economic growth.

## References

Barro, Robert J. and David B. Gordon. 1983. A Positive Theory of Monetary Policy in a Natural Rate Model, *Journal of Political Economy* 91, 589-610. August.

Bernanke, Ben S., Thomas Laubach, Frederic S. Mishkin, and Adam S. Posen. 1999. *Inflation Targeting: Lessons from the International Experience*. Princeton: Princeton University Press.

The Federal Reserve System. 2017. Federal Reserve issues FOMC statement. March 15. Available at https://www.federalreserve.gov/newsevents/pressreleases/monetary20170315a.htm

FOMC. 2017. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents under their individual assessments of projected appropriate monetary policy. March. Available at https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20170315.pdf

Friedman, Milton. 1959. *A Program for Monetary Stability*. New York: Fordham University Press.

Friedman, Milton. 1972. Problems with Respect to Monetary Policy, *Proceedings of the American Philosophical Society* 116, 183-196. June 9.

Goodfriend, Marvin. 2002. Interest on Reserves and Monetary Policy, *Federal Reserve Bank of New York Economic Policy Review* 8. May. Available at https://www.newyorkfed.org/medialibrary/media/research/epr/02v08n1/0205good.pdf

Goodfriend, Marvin. 2015. The Fed Should Fix the Interest on Reserves Floor, *SOMC Position Paper* 20. March. Available at http://shadowfed.org/wp-content/uploads/2015/03/GoodfriendSOMC-March2015.pdf

Ireland, Peter. 2016. Why Has Nominal Income Growth Been So Slow? *SOMC Position Paper*. April 29. Available at http://shadowfed.org/wp-content/uploads/2016/04/IrelandSOMC-April2016.pdf

Kydland, Finn E. and Edward C. Prescott. 1997. Rules Rather Than Discretion: The Inconsistency of Optimal Plans, *Journal of Political Economy* 85, 473-492. June.

Levy, Mickey D. 2017. Unwinding Excesses in the Fed's Balance Sheet, *Testimony before the Subcommittee on Monetary Policy and Trade, Committee on Financial Services, U.S. House of Representatives*. April 4. Available at

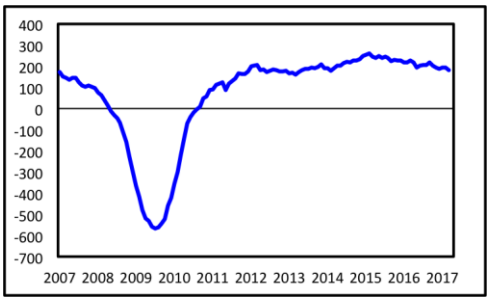
https://financialservices.house.gov/uploadedfiles/hhrg-115-ba19-wstate-mlevy-20170404.pdf

Shadow Open Market Committee. 2014. *The SOMC and Its Core Beliefs* 2. November 3. Available at http://shadowfed.org/wp-content/uploads/2014/10/SOMC-CoreBeliefs2014.pdf

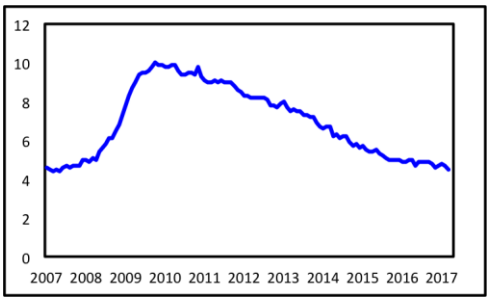
Taylor, John B.1993. Discretion Versus Policy Rules in Practice, *Carnegie-Rochester Conference Series on Public Policy* 39, 195-214. December.

Yellen, Janet L. 2017. From Adding Accommodation to Scaling It Back, *Speech given at the Executives' Club of Chicago*. March 3. Available at https://www.federalreserve.gov/newsevents/speech/yellen20170303a.htm

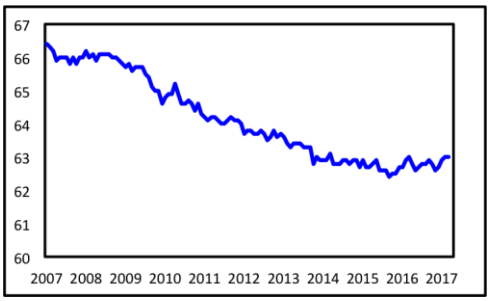
**Figure 1. Recent United States Data**



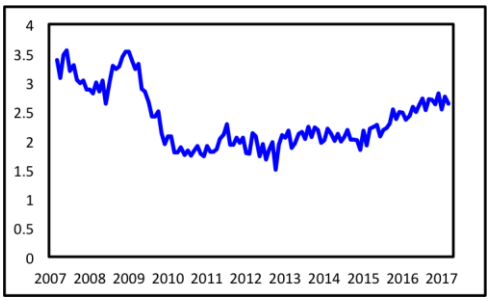

a. 12-Month Average Payroll Employment Growth



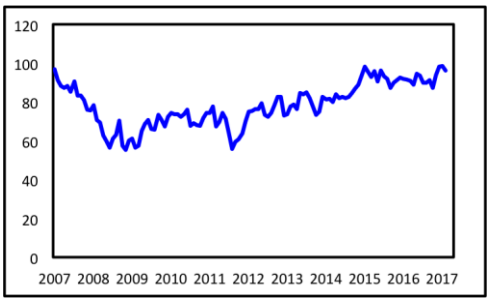

b. Unemployment Rate



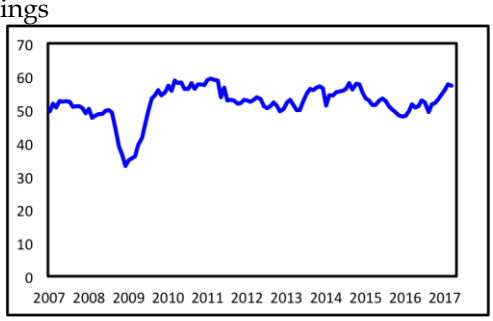

c. Labor Force Participation Rate



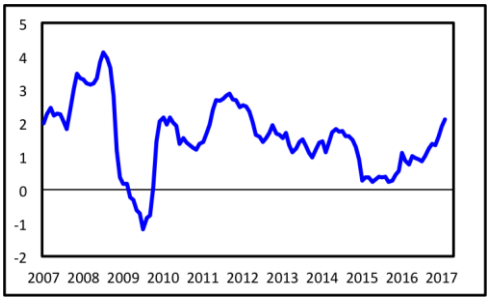

d. Year-over-Year Growth in Average Hourly Earnings



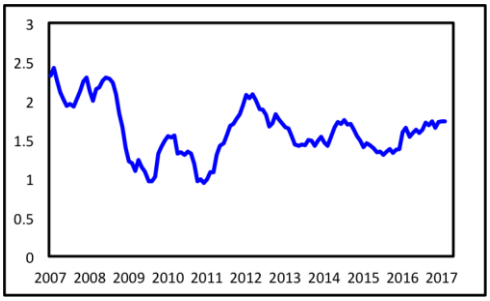

e. University of Michigan Consumer Sentiment Index




f. ISM Purchasing Managers Index



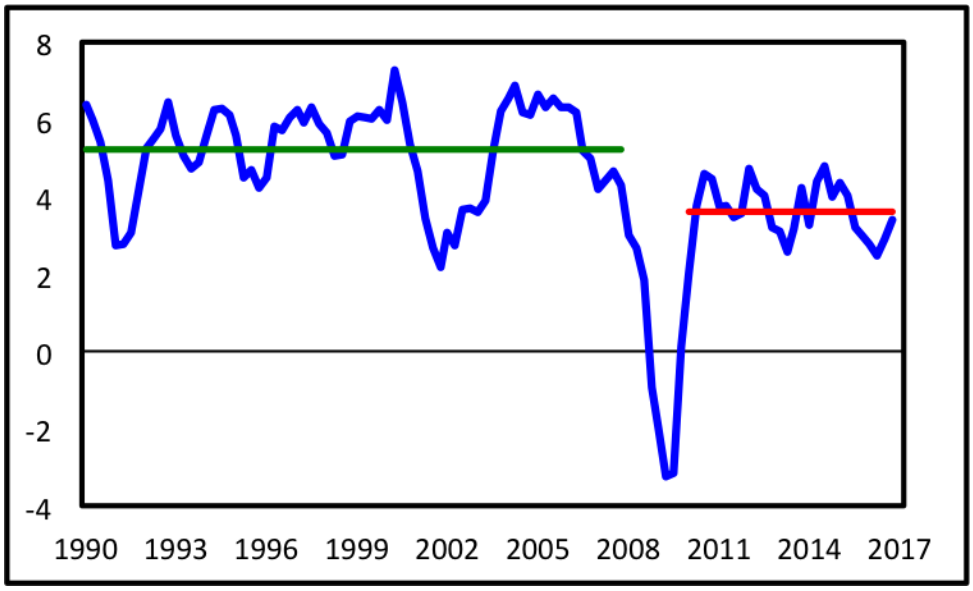

g. Year-over-Year PCE Price Inflation




h. Year-over-Year Core PCE Price Inflation

*Sources:* Federal Reserve Bank of St. Louis FRED database (panels a-e, g, h) and Institute for Supply Management (panel f).

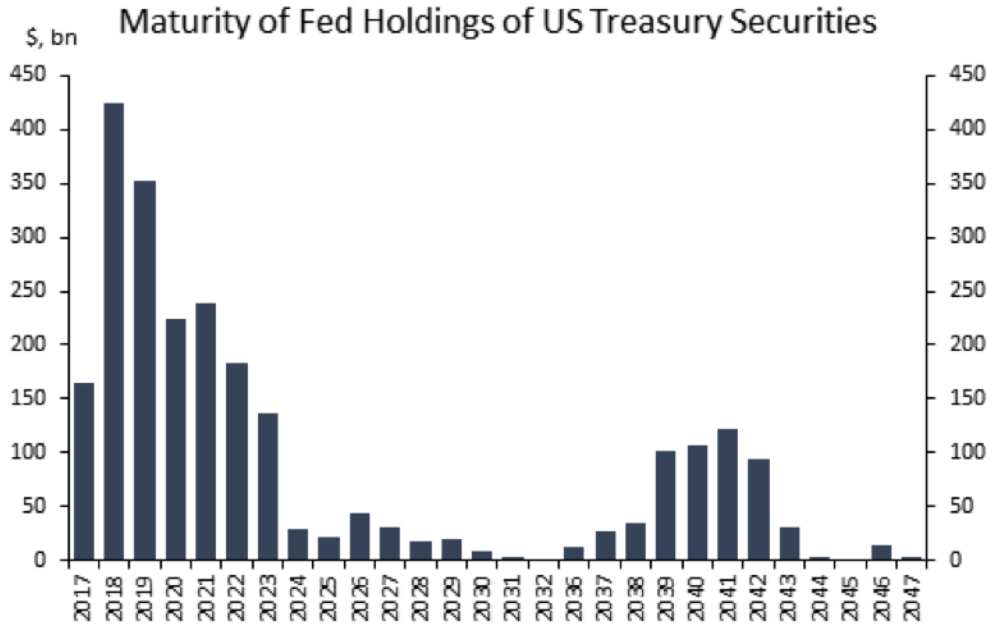
**Figure 2. Nominal GDP Growth Before and Since the Crisis**

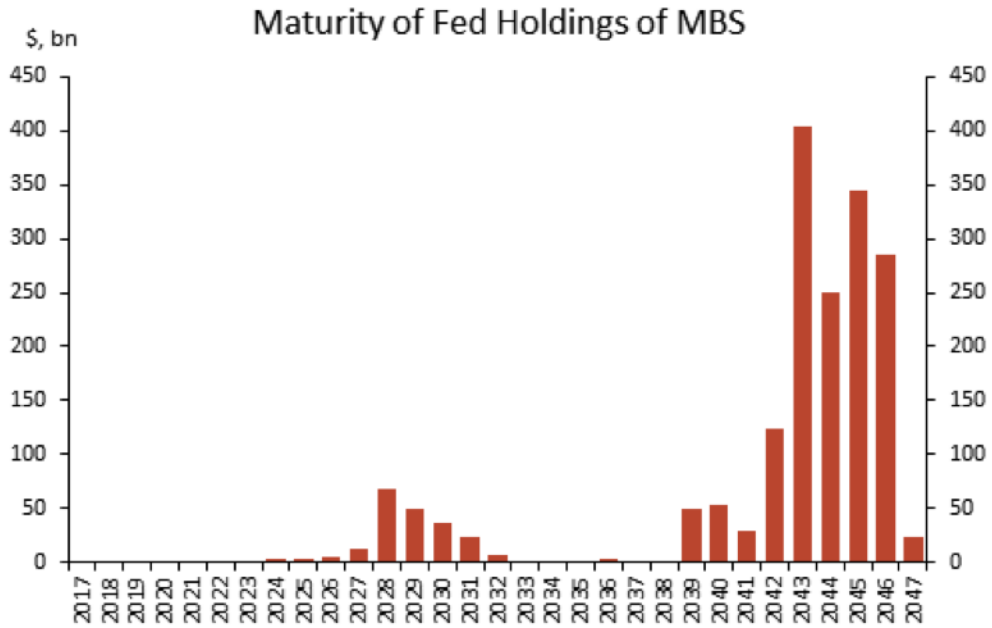



*Notes:* The blue line shows year-over-year growth in nominal GDP. The green line shows the 5.2 percent annual average over the pre-crisis period from 1990 through 2007, and the red line shows the 3.6 percent annual average over the post-crisis period from 2010 through 2016.

*Source:* Federal Reserve Bank of St. Louis FRED database.

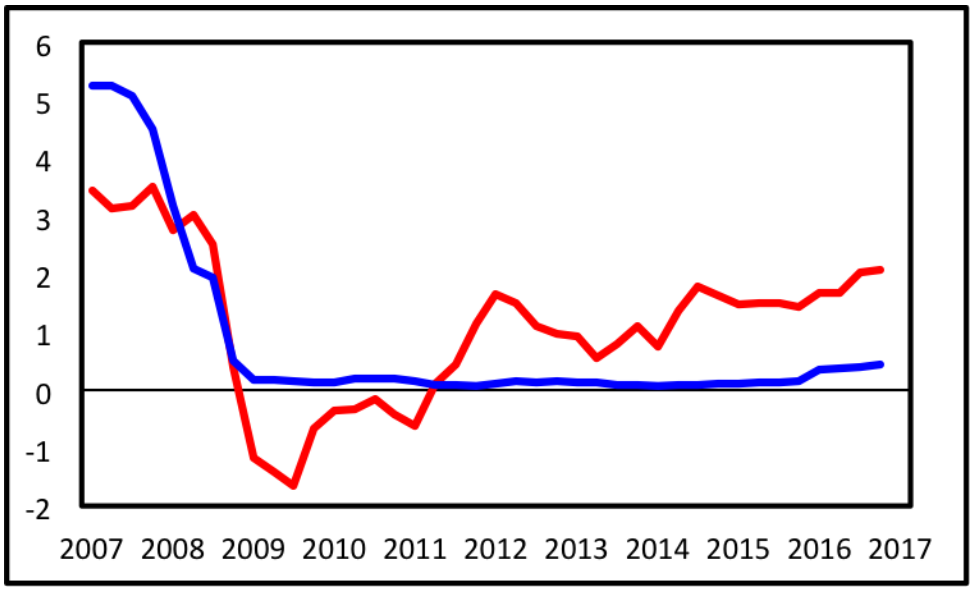
**Figure 3. Maturity Structure of Federal Reserve Asset Holdings**






*Source:* Federal Reserve Board.

**Figure 4. The Federal Funds Rate and the Taylor Rule**




*Notes:* The blue line shows the federal funds rate. The red line shows the rate prescribed by a version of the Taylor rule with inflation measured by year-over-year core PCE

price inflation, the output gap by the percentage deviation of real GDP from the Congressional Budget Office's estimate of potential, a two-percent inflation target, coefficients of 1.5 and 0.5 on the inflation and output gaps, and a value of r*, the long-term real interest rate, equal to 1 percent.

*Source:* Federal Reserve Bank of St. Louis FRED database.