Monetary Policy in 2017 and Beyond

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Disclaimer: I do not speak for:
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Eric Rosengren, President of Boston Fed
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Janet Yellen, Chair of Federal Reserve
1 Fed Operating Procedures
Outline

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2 The Taylor Rule
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1. Fed Operating Procedures
2. The Taylor Rule
3. Rules vs. Discretion
4. The Legacy of the Zero Lower Bound
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- Independence of the Fed does not mean a lack of accountability
Does the Federal Reserve ever get audited?

Yes, the Board of Governors, the 12 Federal Reserve Banks, and the Federal Reserve System as a whole are all subject to several levels of audit and review:

- The Government Accountability Office (GAO) conducts numerous reviews of Federal Reserve activities.
- The Board's financial statements, and its compliance with laws and regulations affecting those statements, are audited annually by an outside auditor retained by the Office of Inspector General (OIG).
- The Board’s OIG audits and investigates Board programs and operations as well as those Board functions delegated to the Reserve Banks. Completed and active GAO reviews and completed OIG audits, reviews, and assessments are listed in the Board’s Annual Report. (Before 2002, the reviews were listed in the Board’s Annual Report: Budget Review.)
- The financial statements of the Reserve Banks are also audited annually by an independent outside auditor.
- Each week, the Federal Reserve publishes its balance sheet and charts of recent balance sheet trends, as well as provides an interactive guide to the Fed’s balance sheet. The balance sheet is included in the Federal Reserve’s H.4.1 statistical release, "Factors Affecting Reserve Balances of Depository Institutions and Condition Statement of Federal Reserve Banks."

In addition, the Reserve Banks are subject to annual examination by the Board. The Board’s financial statements and the combined financial statements for the Reserve Banks are published in the Board’s Annual Report.

See our audit page for more information on all of the above audits and more information on the accounting, financial reporting, and internal controls of the Federal Reserve Board and Federal Reserve Banks.
Fed’s Marching Orders: The Dual Mandate

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   - Fed has to estimate natural rate of unemployment
Dual Mandate: Inflation and Unemployment
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1. Inflation \( \pi \) fell below the Fed’s target of \( \pi^* = 2\% \).
2. Unemployment \( UR \) was far above the natural rate \( UR^* \) and output \( Y \) was far below \( \bar{Y} \).
The Zero Lower Bound
Source: Greg Mankiw text

![Graph](image-url)
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Inflation

![Inflation Chart]

- Core CPI
- Headline CPI

12-Month Percent Change

1960m1 1980m1 2000m1 2020m1

Foote (Boston Fed)
A Computer Can’t Do the Fed’s Job

Mechanically following the Taylor rule would limit the central bank’s policy tools and harm the economy.

By NEEL KASHKARI
Updated Dec. 18, 2016 5:39 p.m. ET

After extraordinary actions by the Federal Reserve during and following the Great Recession, including quantitative easing programs and record low interest rates, some economists are calling for the Federal Open Market Committee to mechanically follow a simple rule in conducting monetary policy. As a regional Fed bank president and member of the FOMC, I believe this would unduly limit the Fed’s policy tools and ultimately harm the economy and in turn employment.
Federal Funds Rates Based on Seven Simple Monetary Policy Rules

Edward S. Knotek II, Randal Verbrugge, Christian Garcia, Caitlin Treanor, and Saeed Zaman

Monetary policymakers often use simple monetary policy rules, like the Taylor rule, as an input into their decision-making. However, there are many different simple rules, and there is no agreement on a single “best” rule. We look at the federal funds rates coming from seven simple rules and three economic forecasts to investigate the range of results that can be produced. While there are some commonalities, we document that the differences in the federal funds rates suggested by the rules can be quite pronounced.
Table 1. Forms of the Seven Policy Rules

1. Taylor (1993) rule:  
\[ i_t = r^* + \pi_t + 0.5(\pi_t - \pi^*) + 0.5(\text{output gap}_t) \]

2. Core inflation in Taylor (1999) rule:  
\[ i_t = r^* + \pi_t^{\text{Core}} + 0.5(\pi_t^{\text{Core}} - \pi^*) + (\text{output gap}_t) \]

3. Inertial rule:  
\[ i_t = \rho i_{t-1} + (1 - \rho)[r^* + \pi_t^{\text{Core}} + 0.5(\pi_t^{\text{Core}} - \pi^*) + (\text{output gap}_t)] \]

4. Alternative \( r^* \) rule:  
\[ i_t = \rho i_{t-1} + (1 - \rho)[r_{\text{alt}}^* + \pi_t^{\text{Core}} + 0.5(\pi_t^{\text{Core}} - \pi^*) + (\text{output gap}_t)] \]

5. Forward-looking rule:  
\[ i_t = r^* + \pi_{t+3}^F + 0.5(\pi_{t+3}^F - \pi^*) + 0.5(\text{output gap}_t) \]

6. First-difference rule:  
\[ i_t = i_{t-1} + 1.74(\pi_{t+3}^F - \pi^*) - 1.19(u_{t-1} - u_{t-2}) \]

7. Low weight on output gap rule:  
\[ i_t = 0.91 i_{t-1} + (1 - 0.91)[r^* + \pi^* + 1.58(\pi_{t+1}^{\text{QF}} - \pi^*) + 0.14(\text{output gap}^{F}_{t+1})] \]
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Central banks and governments around the world must be able to adapt policy to changing economic circumstances. The time has come to critically reassess prevailing policy frameworks and consider adjustments to handle new challenges, specifically those related to a low natural real rate of interest. While price level or nominal GDP targeting by monetary authorities are options, fiscal and other policies must also take on some of the burden to help sustain economic growth and stability.
Figure 1
Estimated inflation-adjusted natural rates of interest

Source: Holston, Laubach, and Williams (2016); data are four-quarter moving averages.
The Legacy of the Zero Lower Bound

The Taylor Rule Again

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