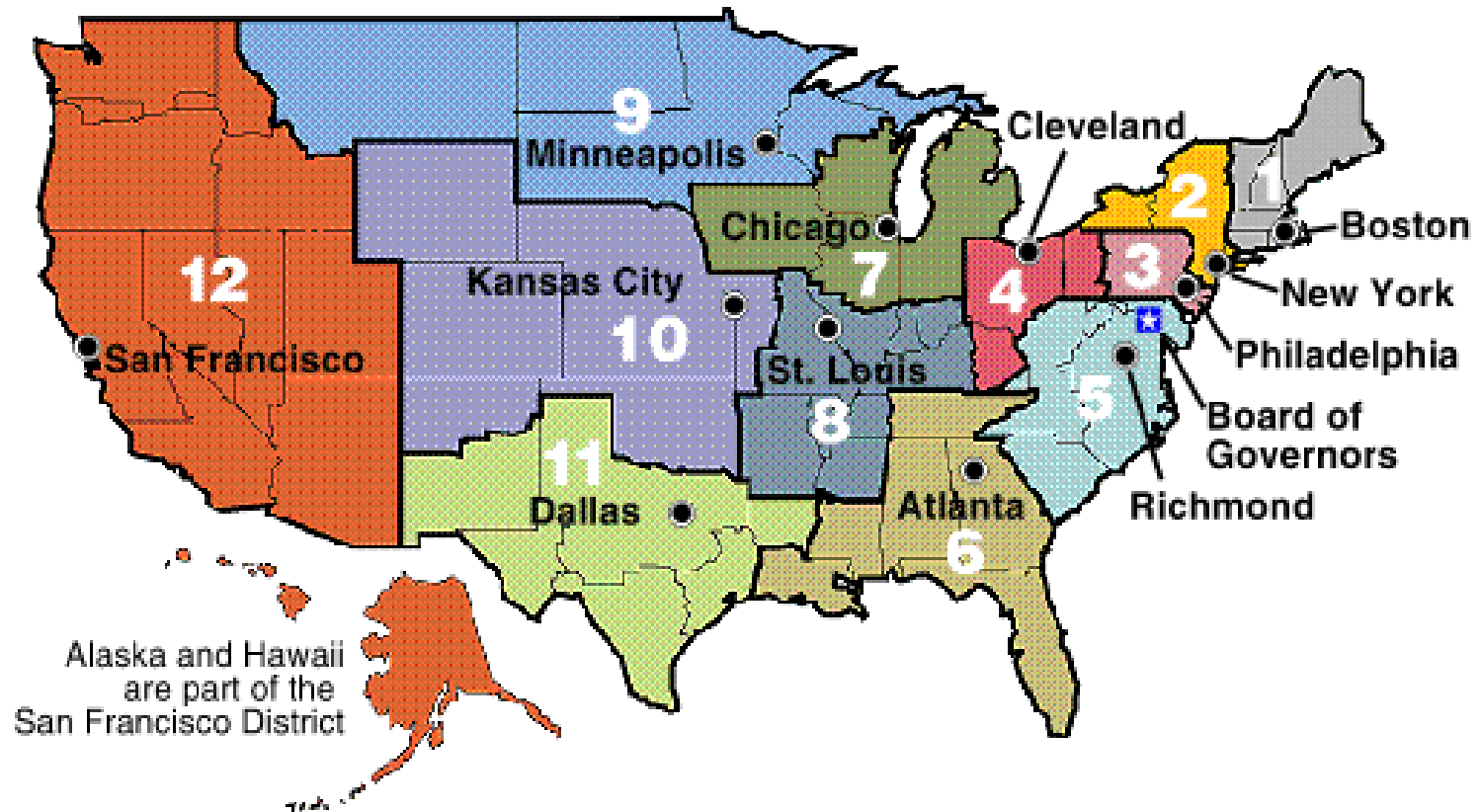

Making Monetary Policy at the Fed

Kalamazoo College
March 2, 2016

Spencer Krane
Senior Vice President, Economic Research

The views expressed are my own and not those of the Federal Reserve
Bank of Chicago or the Federal Reserve System

Federal Reserve Districts



Nice Marble

Board of Governors



Chicago Fed





The Federal Reserve Board of Governors*



Janet L. Yellen



Stanley Fischer



Daniel K. Tarullo



Lael Brainard



Jerome H. Powell

** Two seats currently vacant*

Presidents of the District Reserve Banks

* 2016 voting FOMC member



Eric S. Rosengren*

First District - Boston



William C. Dudley*

Second District - New York



Patrick T. Harker

Third District - Philadelphia



Loretta J. Mester*

Fourth District - Cleveland



Jeffrey M. Lacker

Fifth District - Richmond



Dennis P. Lockhart

Sixth District - Atlanta



Charles L. Evans

Seventh District - Chicago



James B. Bullard*

Eighth District - St. Louis



Neel Kashkari

Ninth District - Minneapolis



Esther L. George*

Tenth District - Kansas City



Robert S. Kaplan

Eleventh District - Dallas



John C. Williams

Twelfth District - San Francisco

FOMC Meetings



Monetary Policy: The Fed's Dual Mandate

- **Federal Reserve Act: Section 2a. Monetary Policy Objectives**
- ... the Federal Open Market Committee shall maintain long run growth of the monetary and credit aggregates **commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.**

Long Run Goals and Policy Strategy Principles

■ Price stability

- Goal: 2% inflation in price index for total personal consumption expenditures (PCE)
- Target is symmetric: an average over medium term, not a ceiling

■ Full employment

- Employment goal may change over time for non-monetary reasons
- Most FOMC participants see 4.8-5.0% unemployment as consistent with mandate (current forecast of long-run “normal” unemployment)
- Seek an economy operating at its level of potential output

■ Balanced approach

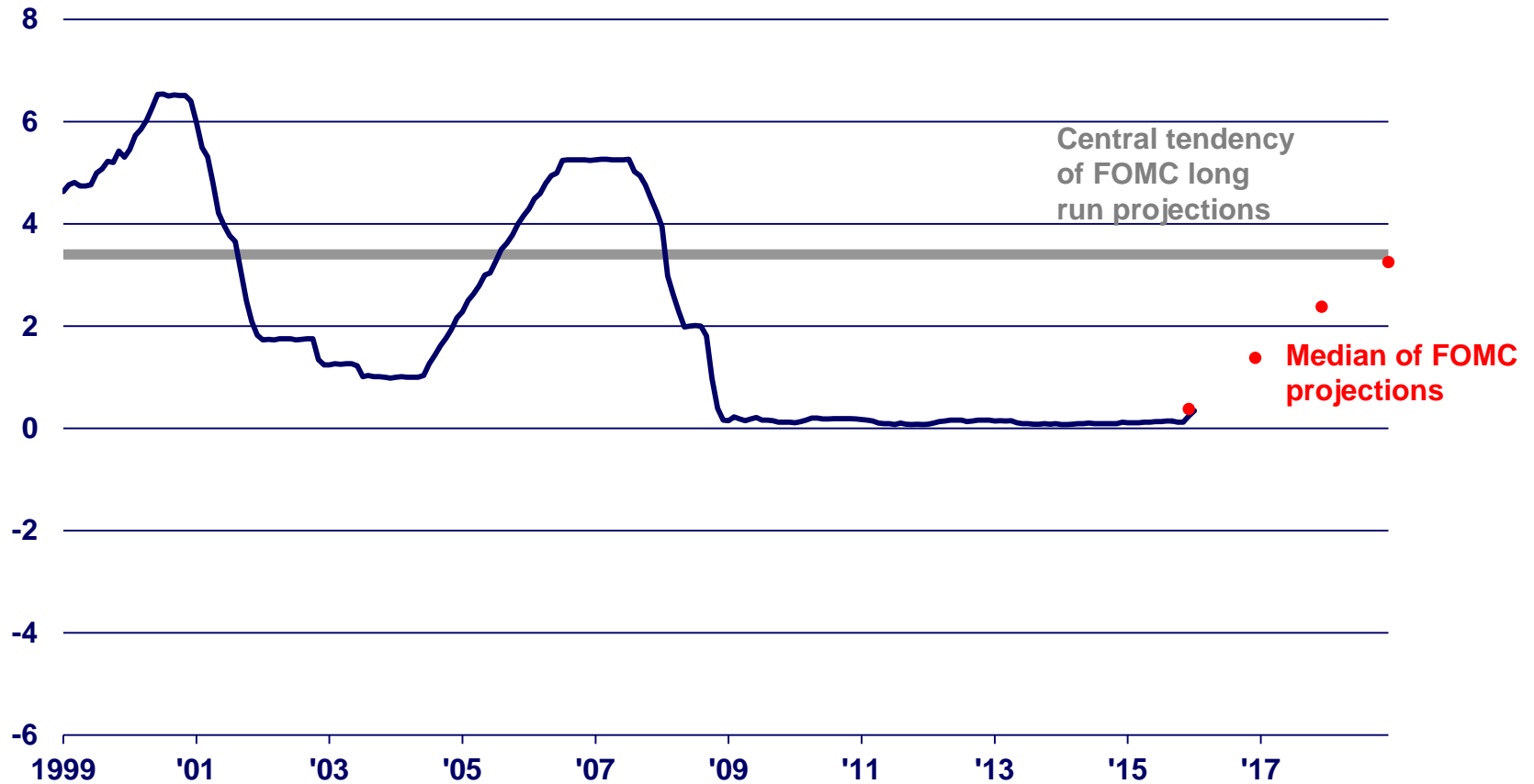
- Balanced approach to achieving both goals if they are in conflict
- Takes account of lags and other limits in effects of monetary policy

Monetary Policy In Usual Times

- **Target the federal funds rate**
- **Changes in fed funds rate move other short-term interest rates**
- **Changes in short-term interest rates influence**
 - Longer-term interest rates
 - Exchange rates
 - Asset values
- **These then affect saving and investment decisions, which in turn influence employment and output**
- **Inflation influenced by these and factors**

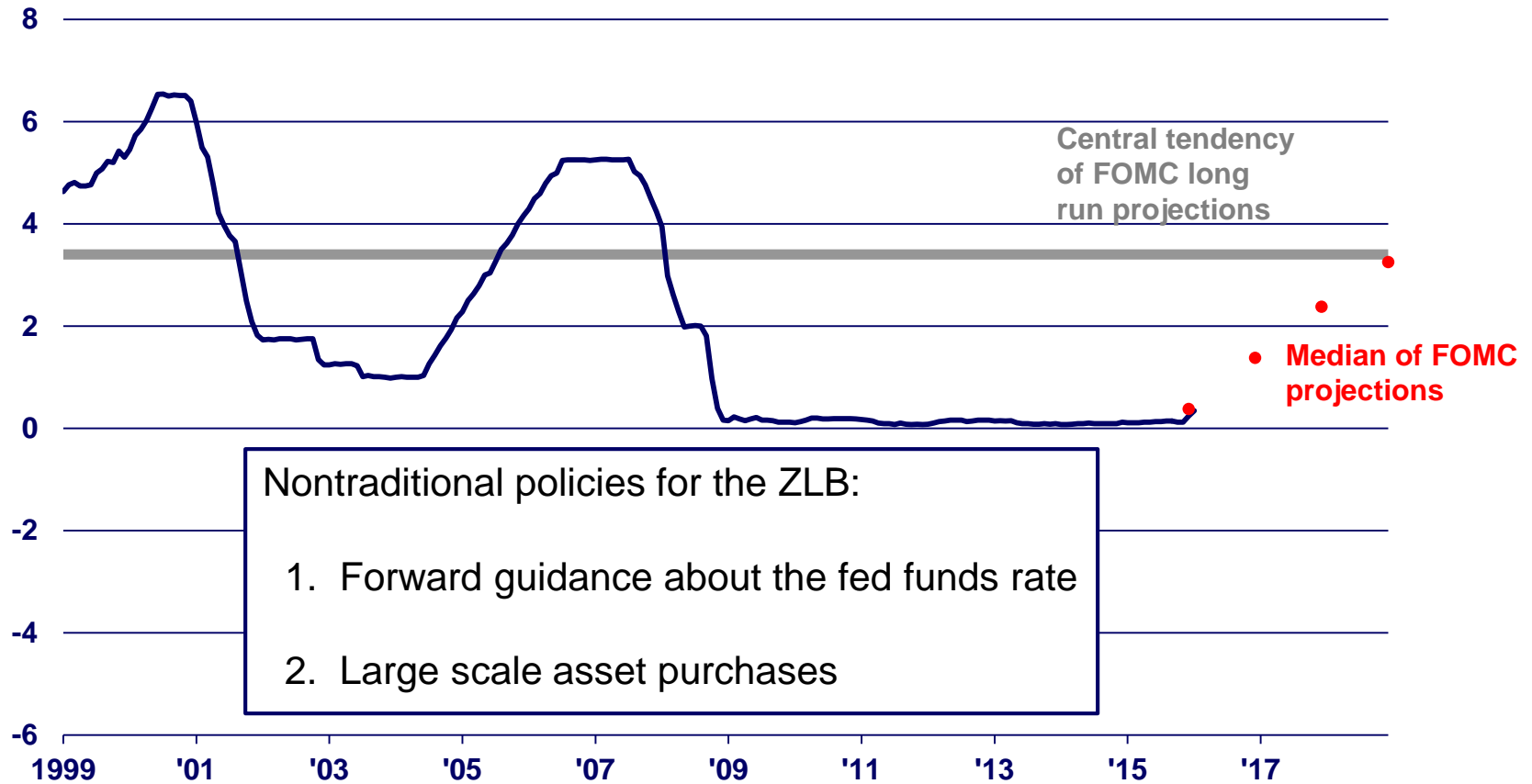
Policy Rate Constrained By Zero Lower Bound

Federal Funds Rate
(percent)



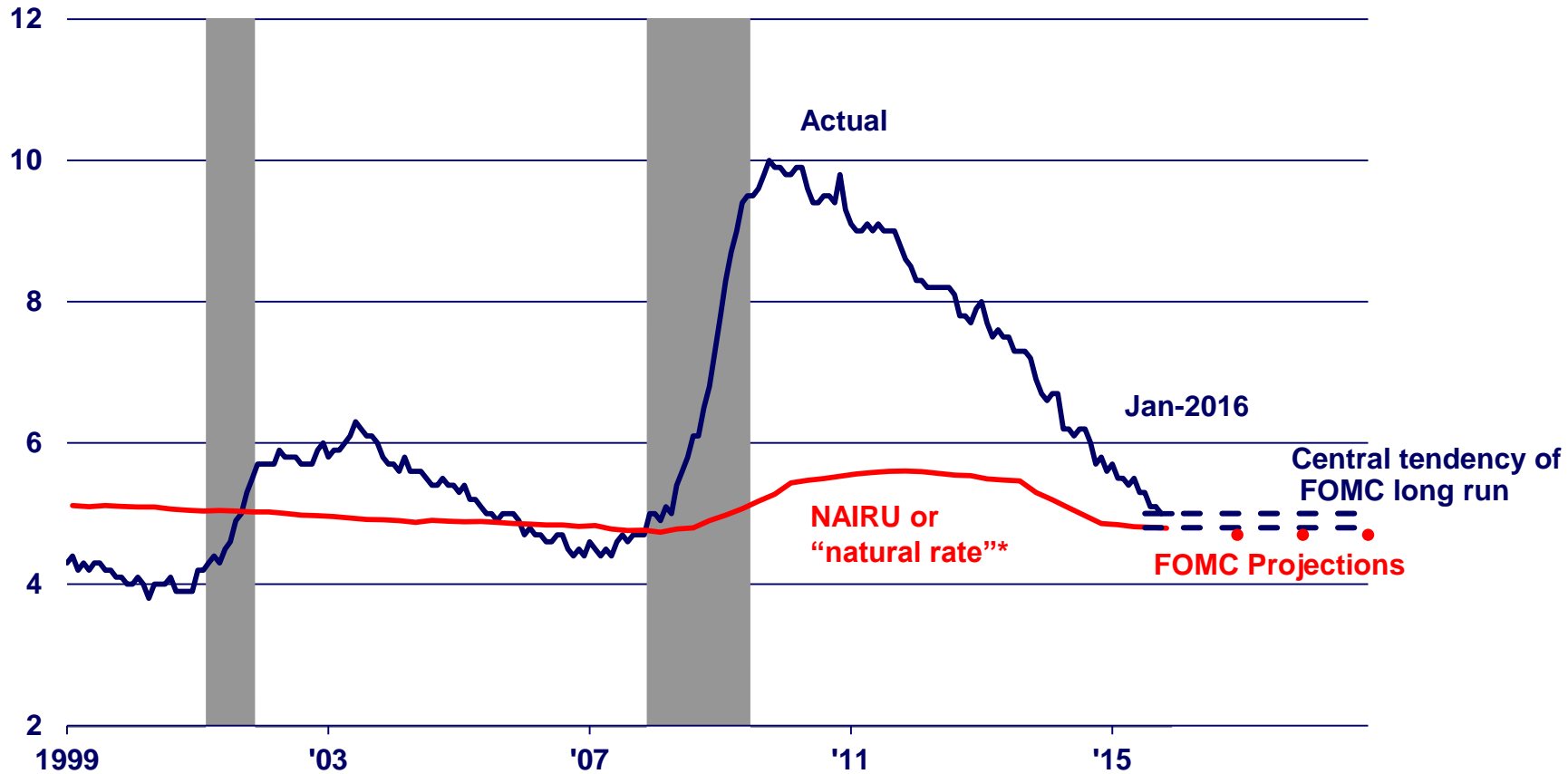
Policy Rate Constrained By Zero Lower Bound

Federal Funds Rate (percent)



Unemployment Rate

Unemployment Rate (percent)



*FRBCHI staff estimate

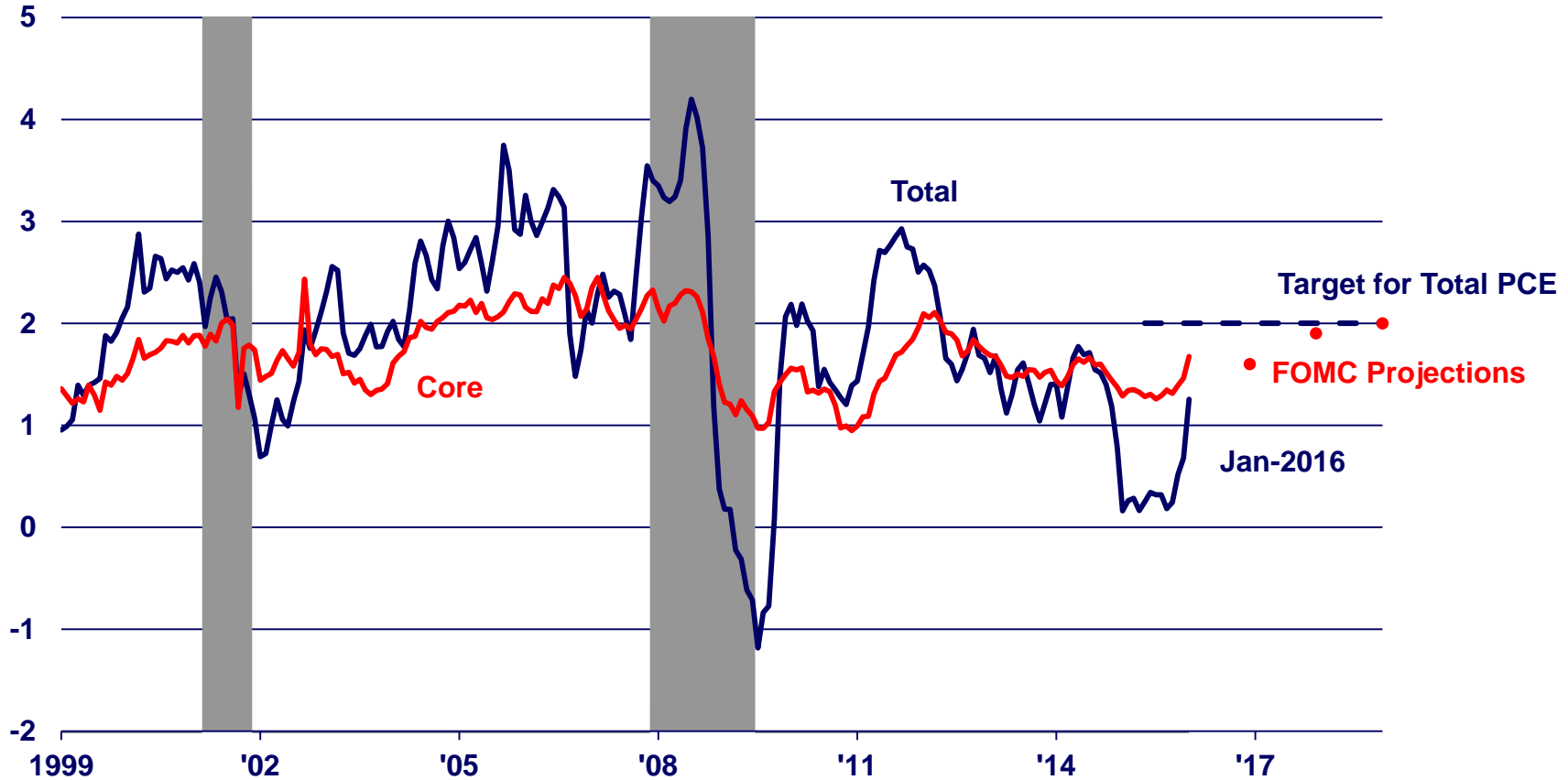
FOMC projections are the median of projections from December 2015.

Source: Haver Analytics and Economic Projections of the Federal Reserve Board Members and Bank Presidents.

Inflation

PCE Price Index

(12-month percent change in the price index for personal consumption expenditures)



FOMC projections are the median of projections from December 2015.

Source: Haver Analytics and Economic Projections of the Federal Reserve Board Members and Bank Presidents.

What Happens Before the FOMC Meeting?

- **Board staff prepare and distribute to entire FOMC:**
 - Economic forecast (Tealbook Part A)
 - Monetary policy alternatives (Tealbook Part B)
 - Other analyses

- **Regional bank staffs prepare their bank presidents:**
 - Internal forecasts and analyses
 - Study Board staff documents
 - Help bank president prepare commentary on
 - ◆ Board staff materials
 - ◆ Personal economic outlook and policy views

What Happens at an FOMC Meeting?

- **Preliminaries**
 - Administrative matters
 - Often presentation on special topic
- **Report from the “Desk”**
 - NY Fed Markets Group: What’s up in financial markets
- **Tealbook Part A presentation**
 - The economic outlook
- **Financial stability report (quarterly)**
- **“First Go-Around”:** Participants present views on regional and national outlook
 - Supposed to avoid talking about policy; people cheat a little

What Happens at an FOMC Meeting?

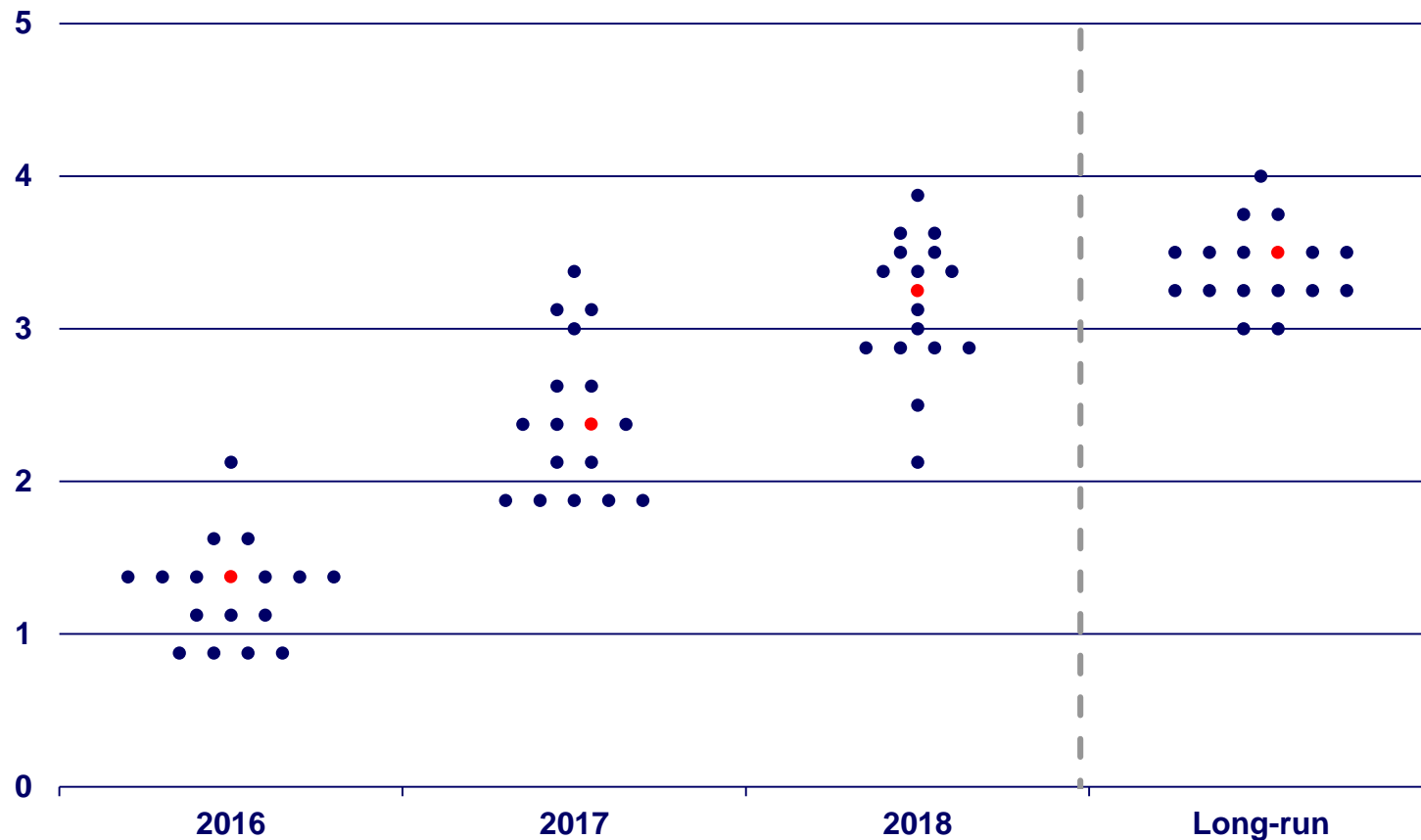
- **Tealbook Part B presentation: The policy options**
- **“Second Go-Around”:** Policy discussion
 - Participants give views of appropriate policy
- **The Vote: The Chair gives sense of the consensus**
 - Sometimes “word-smith” the FOMC statement
 - Only members vote
- **Post-decision activities**
 - Lunch
 - Sometimes presentation of a special topic
 - The Chair’s press conference (quarterly)

Communicating Policy Rationale to the Public

- **Immediately following the FOMC meeting**
 - Statement
 - Press conference and forecasts (quarterly)
- **Soon after meeting**
 - Minutes (3 weeks after meeting)
 - Speeches and testimony
- **Biannually -- Monetary policy report**
- **With a longer lag, meeting documents become public**
 - 5-years: Tealbook
 - 10-years: Transcripts

Appropriate Pace of Policy Firming

Federal Funds Rate at Year-End (percent)



Source: Interest rate projections are from the December 16, 2015 FOMC Summary of Economic Projections. Red dots indicate the median projection. Market expectations are from OIS futures as of December 16, 2015 and February 25, 2016. Survey of Primary Dealers responses received by January 19, 2015.

FOMC Communications: Data Dependence

- **The actual path of the federal funds rate will depend on the economic outlook as informed by incoming data**
- **Realized and expected conditions relative to maximum employment and 2 percent inflation**
- **Take account a wide range of information**
 - Labor market conditions, inflation pressures and inflation expectations, and financial and international developments

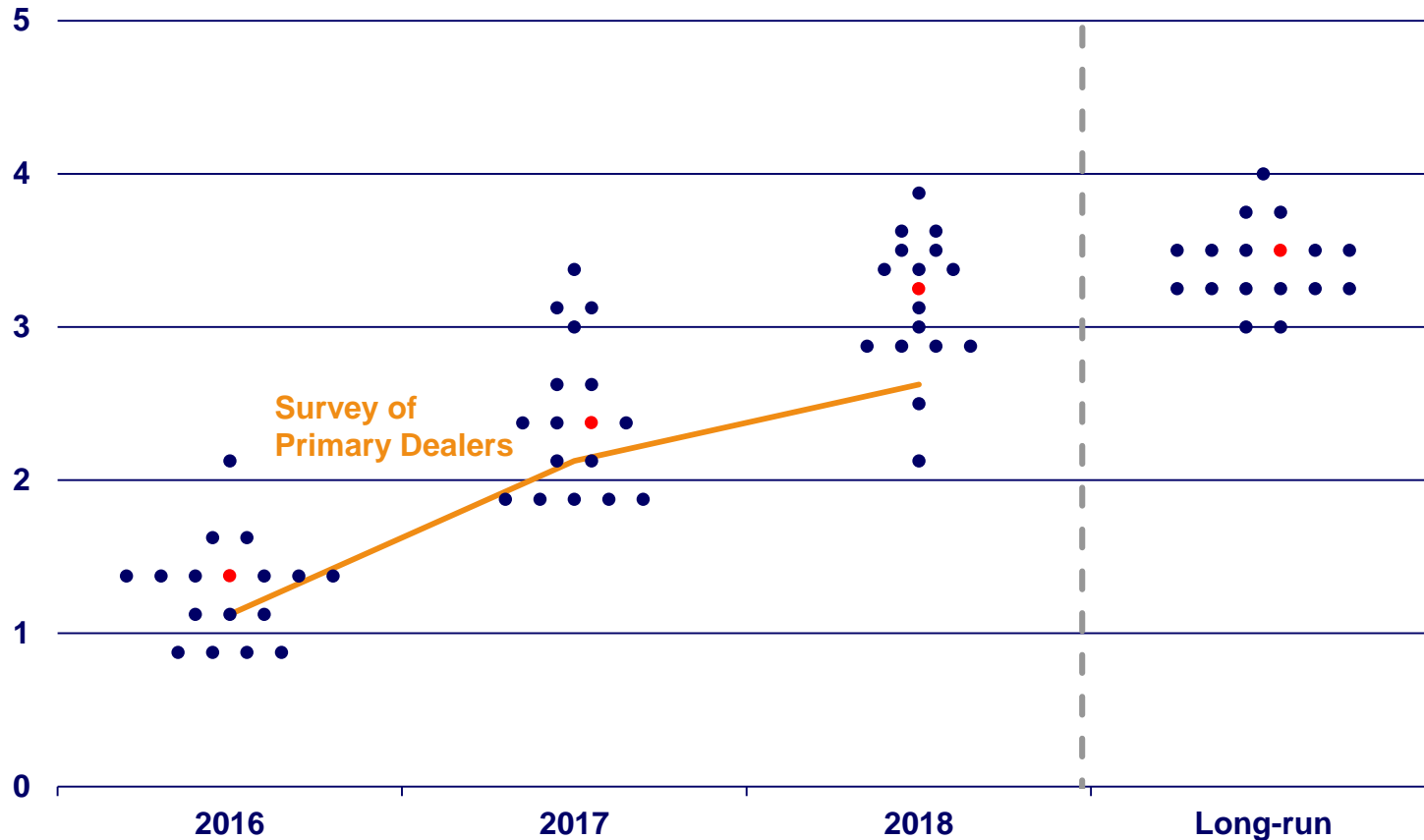
FOMC Communications: Path Likely Gradual

- **The Committee expects:**
- **That economic conditions will evolve in a manner that will warrant only gradual increases in the federal funds rate;**
- **The federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the longer run.**

Appendix

Appropriate Pace of Policy Firming

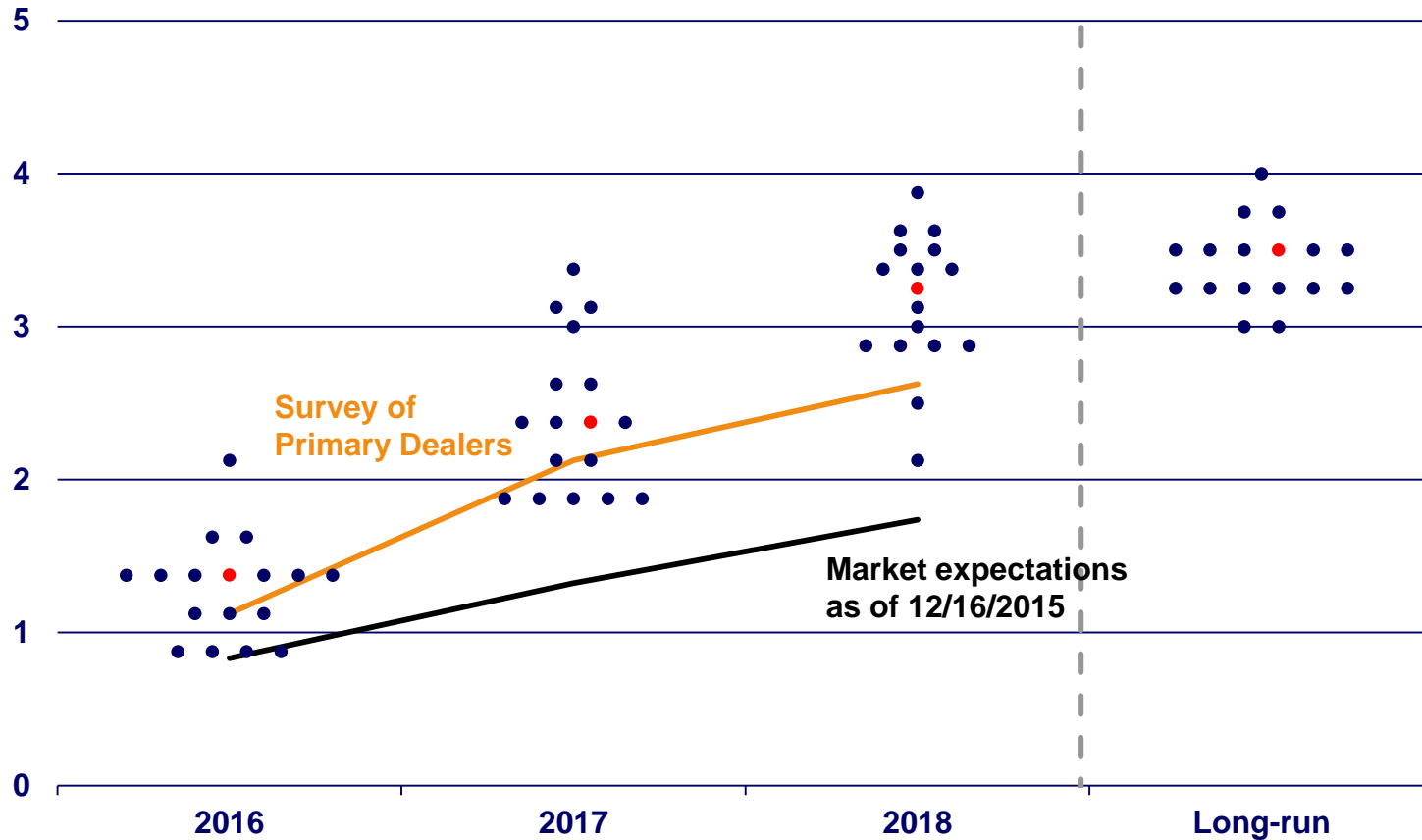
Federal Funds Rate at Year-End (percent)



Source: Interest rate projections are from the December 16, 2015 FOMC Summary of Economic Projections. Red dots indicate the median projection. Market expectations are from OIS futures as of December 16, 2015 and February 25, 2016. Survey of Primary Dealers responses received by January 19, 2015.

Appropriate Pace of Policy Firming

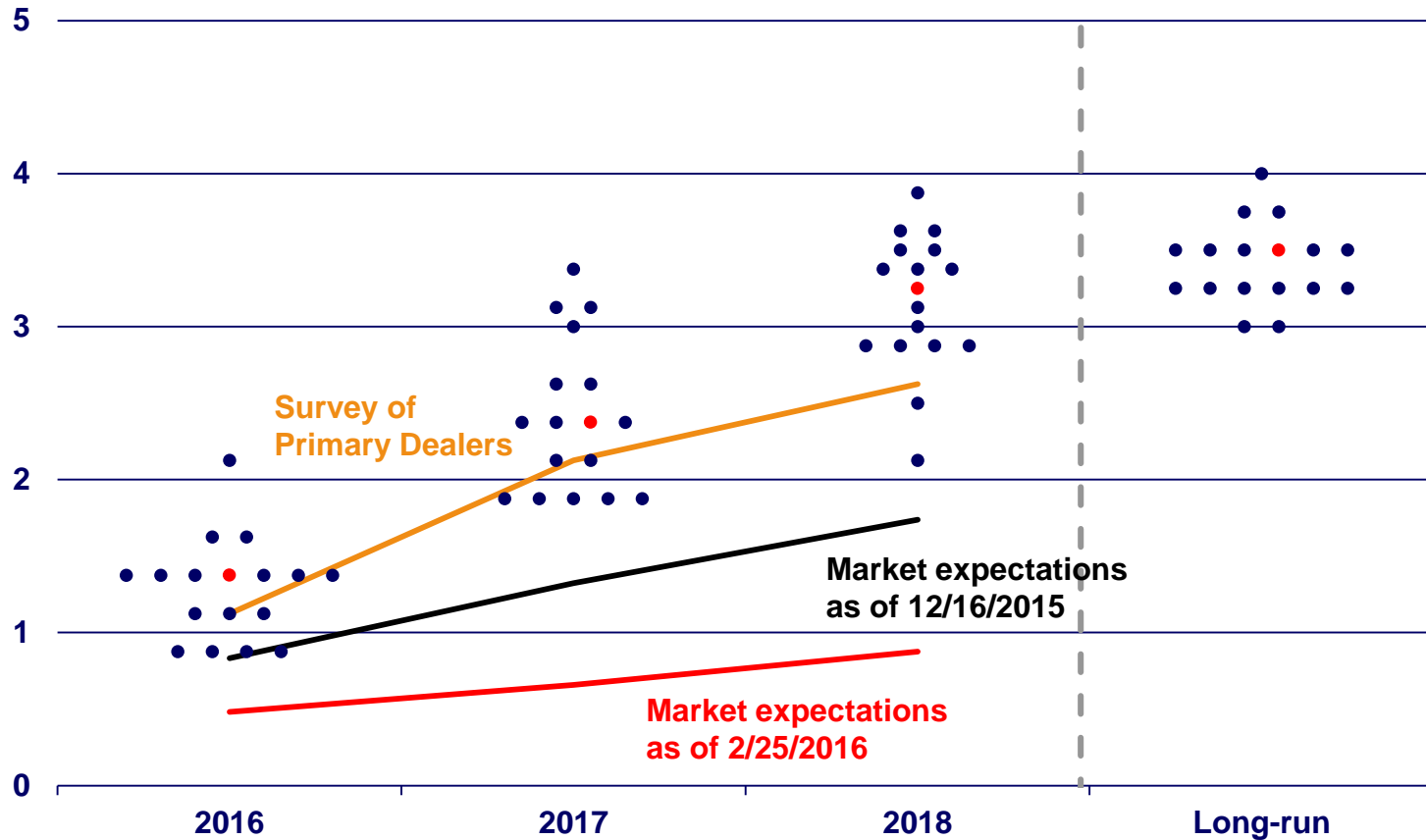
Federal Funds Rate at Year-End (percent)



Source: Interest rate projections are from the December 16, 2015 FOMC Summary of Economic Projections. Red dots indicate the median projection. Market expectations are from OIS futures as of December 16, 2015 and February 25, 2016. Survey of Primary Dealers responses received by January 19, 2015.

Appropriate Pace of Policy Firming

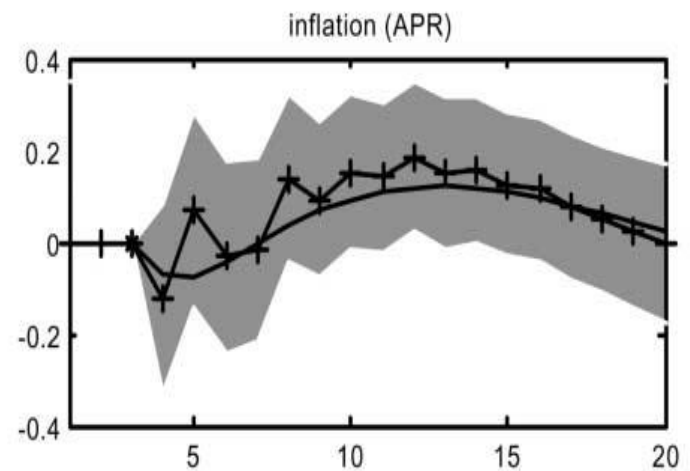
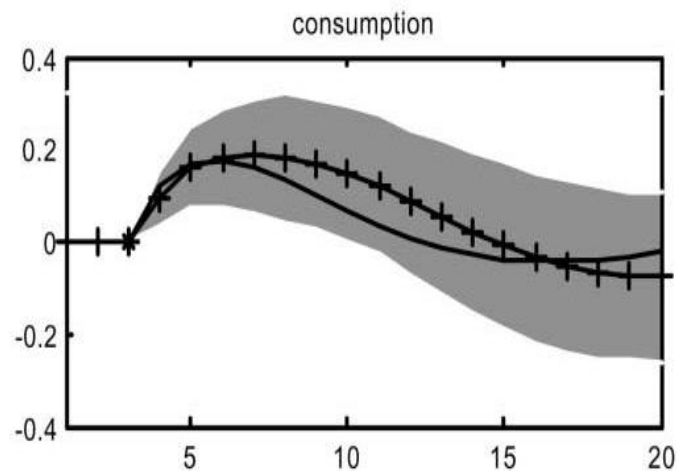
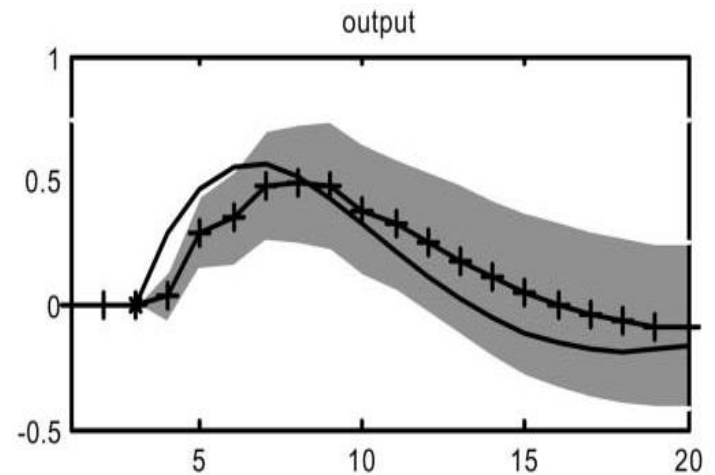
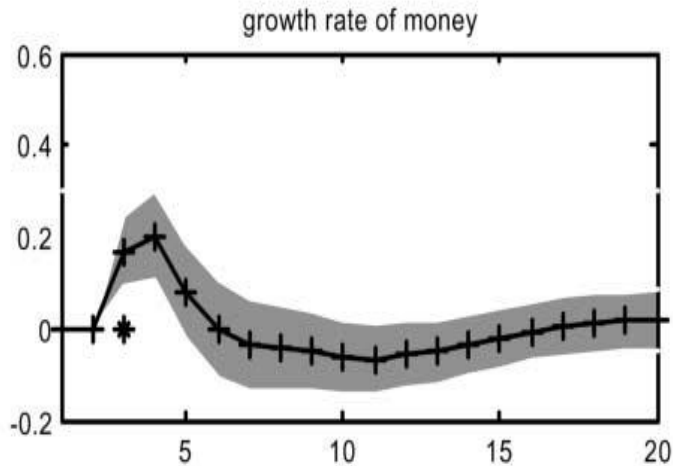
Federal Funds Rate at Year-End (percent)



Source: Interest rate projections are from the December 16, 2015 FOMC Summary of Economic Projections. Red dots indicate the median projection. Market expectations are from OIS futures as of December 16, 2015 and February 25, 2016. Survey of Primary Dealers responses received by January 19, 2015.

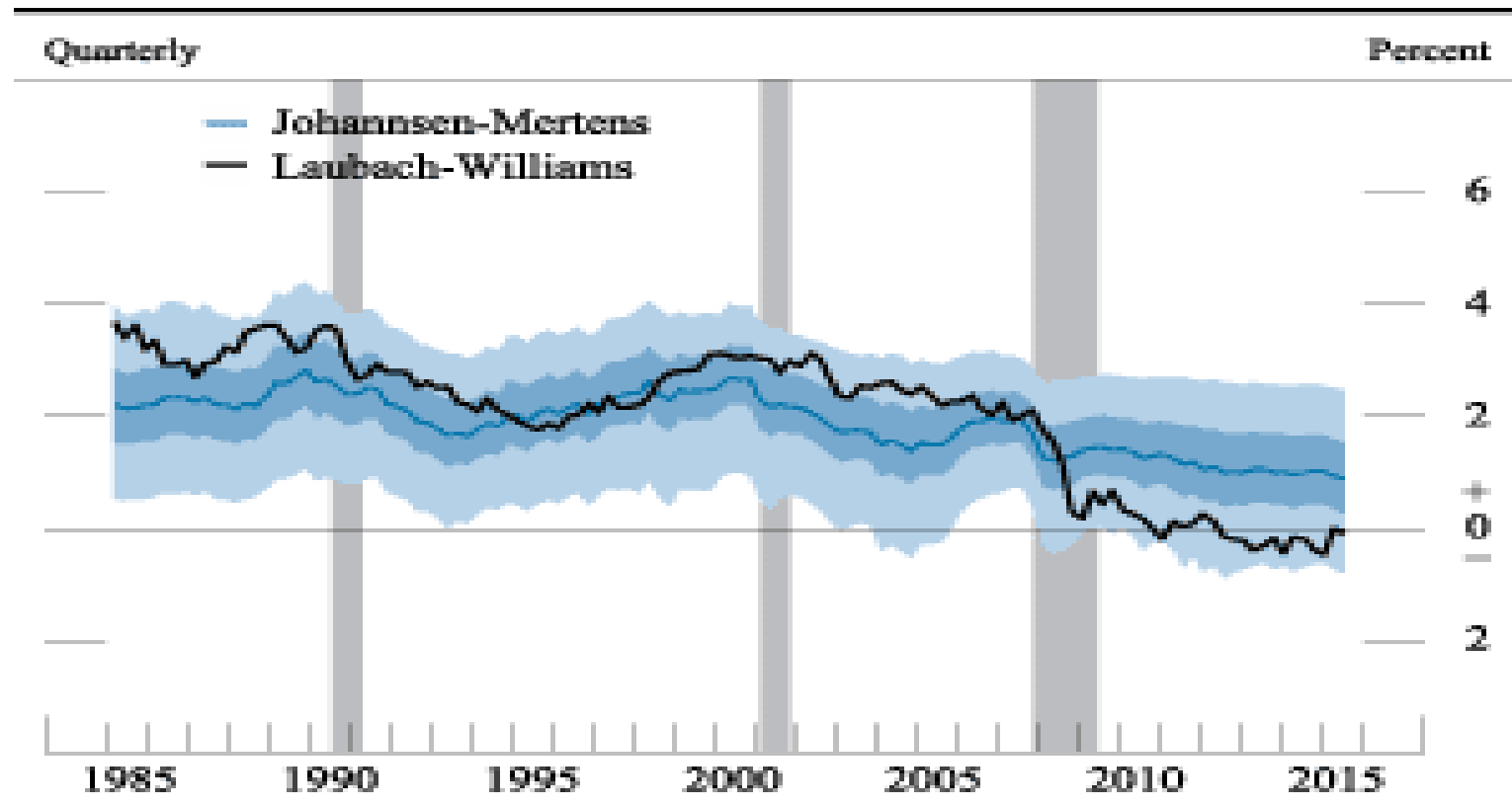
Short-Run Monetary Non-Neutrality

■ Evidence from Christiano, Eichenbaum, and Evans (2005)



Model Estimates of r^*

A. Estimates of the neutral real rate in the longer run



NOTE: The data extend through 2015:Q3. For the Johanssen-Mertens model, at each date, the parameters of the model and the longer-run equilibrium real rate are jointly estimated using data up to that date. For the Laubach-Williams model, the parameters are estimated on the entire data sample, but estimates of the longer-run equilibrium real rate use data only up to the date of interest. Shaded regions are 50 and 90 percent uncertainty bands from the Johanssen-Mertens model. The shaded bars indicate periods of business recession as defined by the National Bureau of Economic

How Did We Get In This Situation?

■ **Housing market boom and bust**

- Period of rapidly rising home prices, loose lending, and booming construction
- Unwind was big drag on economy

■ **Financial market disruption**

- Surprising financial market fragility
- Banks and “shadow banks” both highly stressed
- Reduced credit availability slowed economy

■ **Business and consumer pessimism**

- Many disturbing events
- Businesses and consumers become cautious; reduce spending

■ **As a result we got a very bad recession in 2008-2009 followed by a very slow recovery**

Why Was the Recovery so Disappointing?

- **Long-lasting damage from the recession**
 - Difficult balance sheet restructuring by households, nonfinancial businesses and financial institutions
 - Scars from long-term unemployment, low capital formation
- **Additional shocks**
 - European crisis
 - Fiscal issues in U.S.
- **Continued business and consumer pessimism and uncertainty**
 - Precautionary behavior
- **Monetary policy runs into the zero lower bound (ZLB)**