FEDERAL RESERVE BANK *of* NEW YORK

The Federal Reserve in the 21st Century

Monetary Policy Decision Making

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Outline

- Monetary policy refers to the actions undertaken by a central bank to influence the availability and cost of money and credit to help promote national economic goals
- In what follows we will review
  - the institutional framework and organization of the Federal Reserve System ("the Fed"), the *central bank* of the U.S.
  - the Fed's *goals and objectives* (the so-called dual mandate)
- We will discuss how the Fed pursues its dual mandate in terms of strategy and tactics
- And close with an assessment of issues and concerns in the current policy debate, as reflected in recent FOMC communication

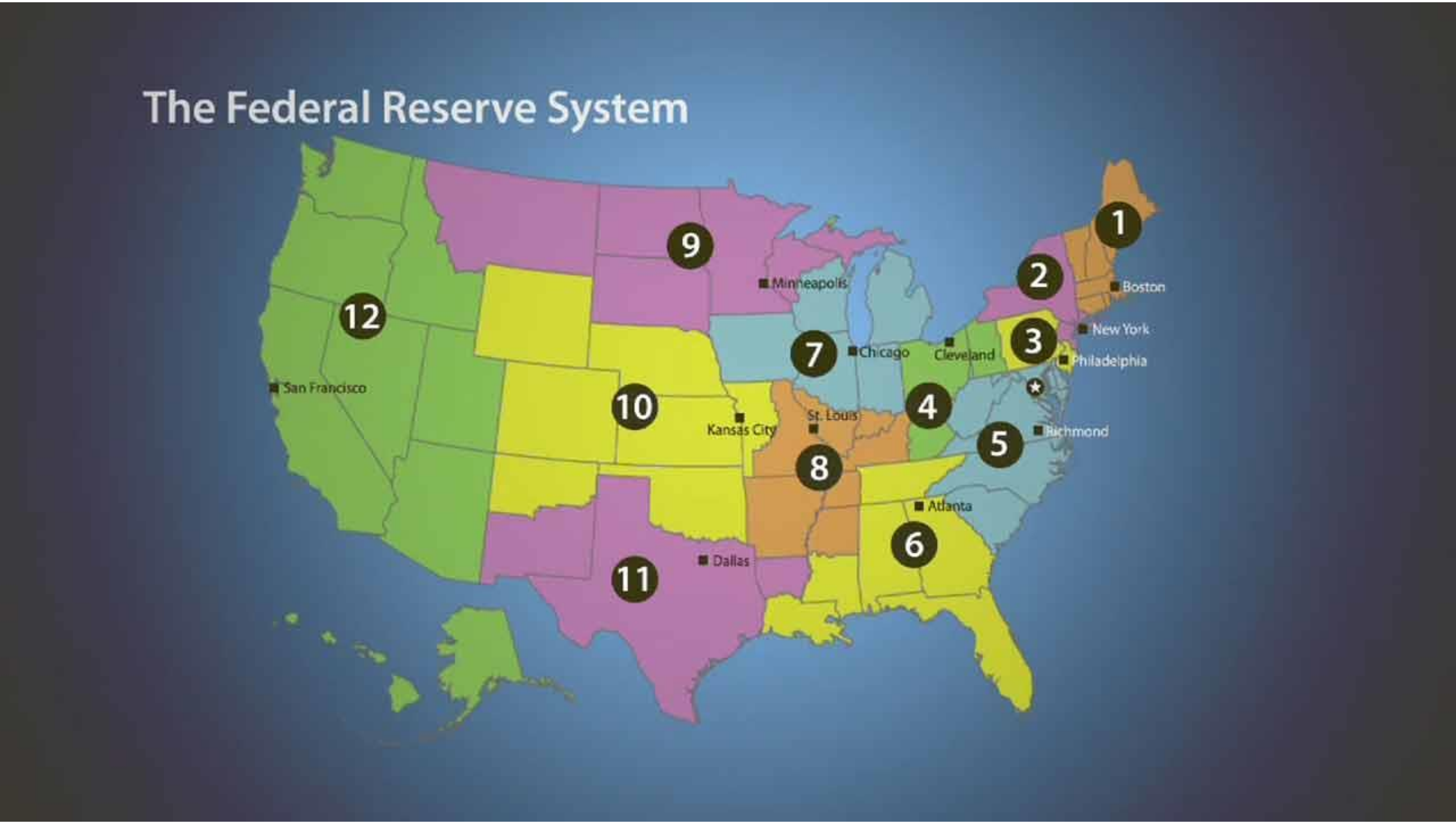
The Federal Reserve System: Institutional Structure

The Federal Reserve System

- 12 Federal Reserve Banks, the “regional Feds”
  - part private, part government institutions
  - each with a Board of Directors (9 members)
  - who appoint the president and officers of the FRB subject to approval by the Board of Governors
- Board of Governors of the Federal Reserve System, “the Board”
  - in Washington DC
  - up to 7 members appointed by POTUS and confirmed by Senate
  - currently (March 2017) five members, 2 (soon to be 3) vacancies
- Federal Open Market Committee, the FOMC
- Around 2900 member commercial banks

Depending on the context, the shorthand “Fed” can refer to the whole system, or the Board in Washington, or the FOMC…

The 12 Fed Districts



The FOMC

- The Federal Open Market Committee has twelve members
  - the (up to) seven governors of the Board in Washington DC
    - Board Chair = FOMC Chair, currently Janet Yellen
  - the president of the Federal Reserve Bank of New York
    - FOMC Vice Chair
  - four of the remaining eleven FRB presidents, serving one-year terms on a rotating basis
    - Currently Charlie Evans, Patrick Harker, Robert Kaplan, Neel Kashkari
    - the other presidents attend the meetings of the Committee, participate in the discussions, but do not vote
- The FOMC holds eight regularly scheduled meetings per year to
  - review economic and financial conditions,
  - assess the risks to its long-run goals, and
  - determine the appropriate stance of monetary policy
  - decisions are explained in a statement released after each meeting

How FOMC meetings look like (March 2014)

The Dual Mandate

The Fed’s dual mandate

- The Federal Reserve Act of 1913 provides the statutory basis for monetary policy
- The goals of monetary policy, as amended in 1977
  - “The Board of Governors of the Federal Reserve System and 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”

Maximum employment and stable prices

↓

The dual mandate

Interpreting the dual mandate: Price Stability

- The "Statement on Longer-Run Goals and Monetary Policy Strategy" provides the FOMC's interpretation of the dual mandate
  - Adopted in 2012, and reaffirmed/adjusted every January

- Price stability → longer-run goal for inflation
  - "inflation at the rate of 2 percent is most consistent over the longer run with the Federal Reserve's statutory mandate"
    - measured by the annual change in the price index for personal consumption expenditures (PCE), a comprehensive measure of prices faced by US households
  - Symmetric: "The Committee would be concerned if inflation were running persistently above or below this objective"
    - Clarification introduced in January 2016

Interpreting the dual mandate: Maximum Employment

- Maximum employment → no fixed goal
  - policy decisions must be informed by assessments of the maximum level of employment, based on a wide range of indicators, recognizing that such assessments are necessarily uncertain and subject to revision
  - estimates of the longer-run rate of unemployment are published four times per year in the FOMC's Summary of Economic Projections (SEP)
    - according to the latest SEP, the longer-run rate of unemployment is between 4.5 and 5 percent, with a median of 4.7 percent
    - The median was 4.8 percent in December

Why the asymmetry?

- The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation.
  - A modern version of the idea that “inflation is always and everywhere a monetary phenomenon” (M. Friedman, 1970)
  - Communicating this symmetric inflation goal clearly to the public helps keep longer-term inflation expectations firmly anchored, thereby fostering price stability (…) and enhancing the Committee’s ability to promote maximum employment

- The maximum level of employment is largely determined by nonmonetary factors that affect the structure and dynamics of the labor market. These factors may change over time and may not be directly measurable.
  - Indeed, it is an estimated range in the SEP that changes over time

Pursuing the Dual Mandate:
The Stance of Monetary of Policy

The stance of monetary policy

- Monetary policy cannot directly affect employment or inflation (the *ultimate objectives*)
  - But it can affect the flow of credit to the economy by influencing financial conditions
  - The flow of credit in turn affects aggregate demand and economic activity

- Accommodation: Higher availability and lower cost of credit provides economic stimulus, boosts demand and spending, and puts upward pressure on prices
- Tightening: Lower availability and higher cost of credit reduces economic stimulus, contracts demand and spending, and contains risk of inflation

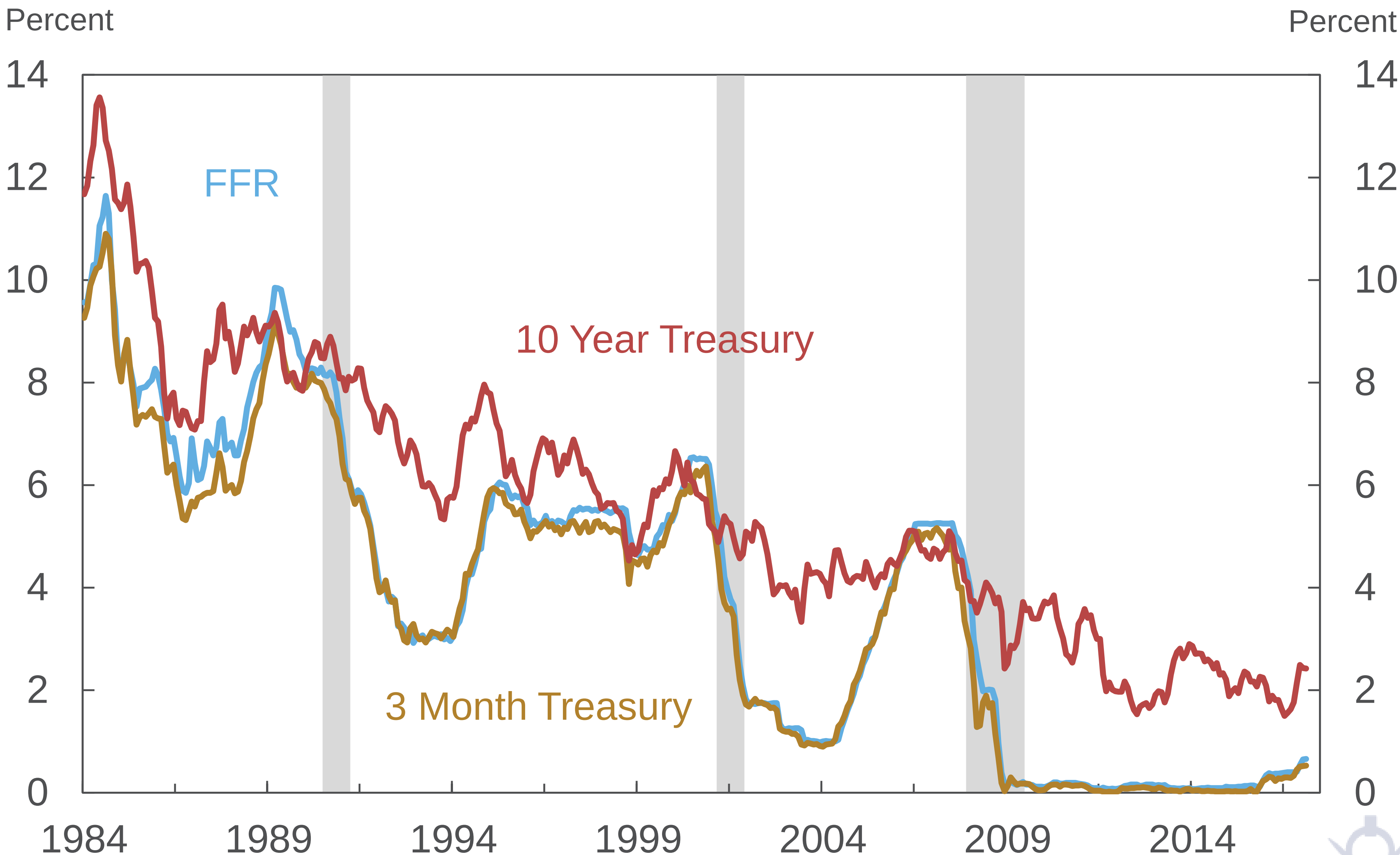
OK, but how?

The federal funds rate (FFR) and its transmission

- The FFR is the Fed's main tool to affect financial conditions
- The FFR is the rate at which banks borrow and lend reserves overnight in the federal funds market
  - Reserves are deposits that banks hold in their accounts at the Federal Reserve
- The Fed can "control" the FFR through various tools (IOER, ON/RRP, etc.)
- The FFR influences other interest rates and financial conditions more broadly

- To increase (reduce) accommodation, FOMC lowers (hikes) FFR
  - FFR affects other interest rates, the stock market, exchange rates, and ultimately a range of economic variables, including employment, output, and prices (the transmission mechanism)

FFR, 3-month and 10-year Treasury rates



Source: Federal Reserve Board

Note: Shading shows NBER recessions.

Unconventional monetary policy

- Traditionally, the FFR has been the main instrument of monetary policy

- But during the Great Recession the FFR hit “zero”
  - 0 to 0.25 percent range, aka the effective lower bound (ELB)
  - Recent international experience suggests that the ELB might be lower than “zero”

- What then? Enter “unconventional” monetary policy
  - Forward guidance on the future path of the FFR, or “low for long”
  - Large scale asset purchases (LSAPs), or quantitative easing (QE)

Accommodation at the ELB

- Even when the FFR and short-term rates cannot go further down, monetary policy can still lower long-term rates

- Return on long-term securities depends on two elements:
  - expectations about future short-term interest rates
  - uncertainty about future events, so called risk premium

- If you want to provide more accommodation by lowering long-term returns, you can
  - use communication about keeping the FFR low for long (forward guidance)
  - purchase long-term securities to drive down the term premium (quantitative easing)

Decision-making at the FOMC: Strategy and Tactics

Decision-making strategy: a balanced approach

- How does the FOMC choose the appropriate stance of policy?
- In setting monetary policy, the Committee seeks to mitigate deviations of inflation from its longer-run goal and deviations of employment from the Committee's assessments of its maximum level
- These objectives are generally complementary
  - A stance of policy that helps closing the employment gap also helps closing the inflation gap
  - But sometime there may be policy trade-offs: a policy that helps with employment might make inflation worse, and vice versa
    - We might be getting closer to this trade-off
- Under circumstances in which the Committee judges that the objectives are not complementary, it follows a balanced approach in promoting them

Decision-making at the FOMC

At each meeting, the Committee

- assesses where current and projected economic conditions stand relative to its long-run goals
  - Summarized in the first and second paragraphs of the FOMC statement
- evaluates the potential trade-offs involved in closing projected inflation and employment/unemployment gaps
- debates extensively pros and cons of alternative choices
  - A summary of these debates appears in the minutes of the meetings, published with a three week delay
- votes on a specific action
  - Voters in favor and against are identified in the FOMC statement

From actions to communication

- Once an action has been taken, communication of the decision and of its rationale sets off the "transmission mechanism"
- The Committee seeks to explain its monetary policy decisions to the public as clearly as possible. Such clarity facilitates well-informed decisionmaking by households and businesses, reduces economic and financial uncertainty, increases the effectiveness of monetary policy, and enhances transparency and accountability
- Communication's main objective is to clarify the Fed's reaction function: its response to developments in the economy
    - Crucial piece of information to form expectations, which in turn feed back onto current behavior

Channels of FOMC communication

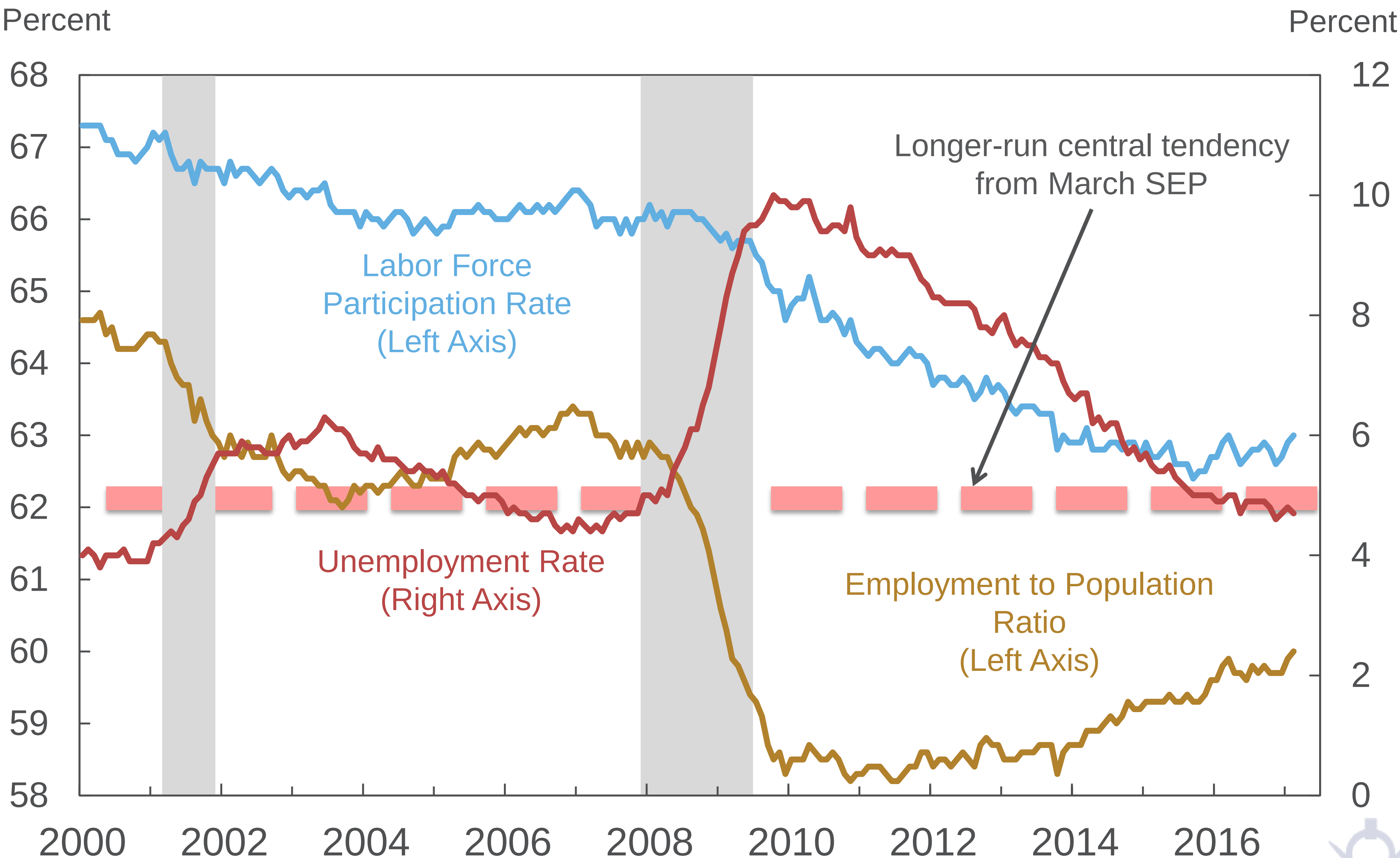
- The FOMC statement
  - Issued at the end of each meeting
  - Includes the Committee's view on economic outlook, the policy decision and an assessment of risks
- The minutes
  - Published three weeks after the meeting
  - Summarize the discussion and the rationale of the policy decision
- Summary of Economic Projections (SEP)
  - Projections by FOMC participants for output, inflation and unemployment, as well as FFR
- Press conferences
  - 4 times a year, after every other meeting
  - Chair discusses statement and answers questions
- Speeches, testimonies and other communication

Bringing It All Together: Where Are We Now and Where are We Heading?

Recommended reading

"From Adding Accommodation to Scaling It Back," speech by Janet Yellen at the Executives' Club of Chicago on March 3, 2017.

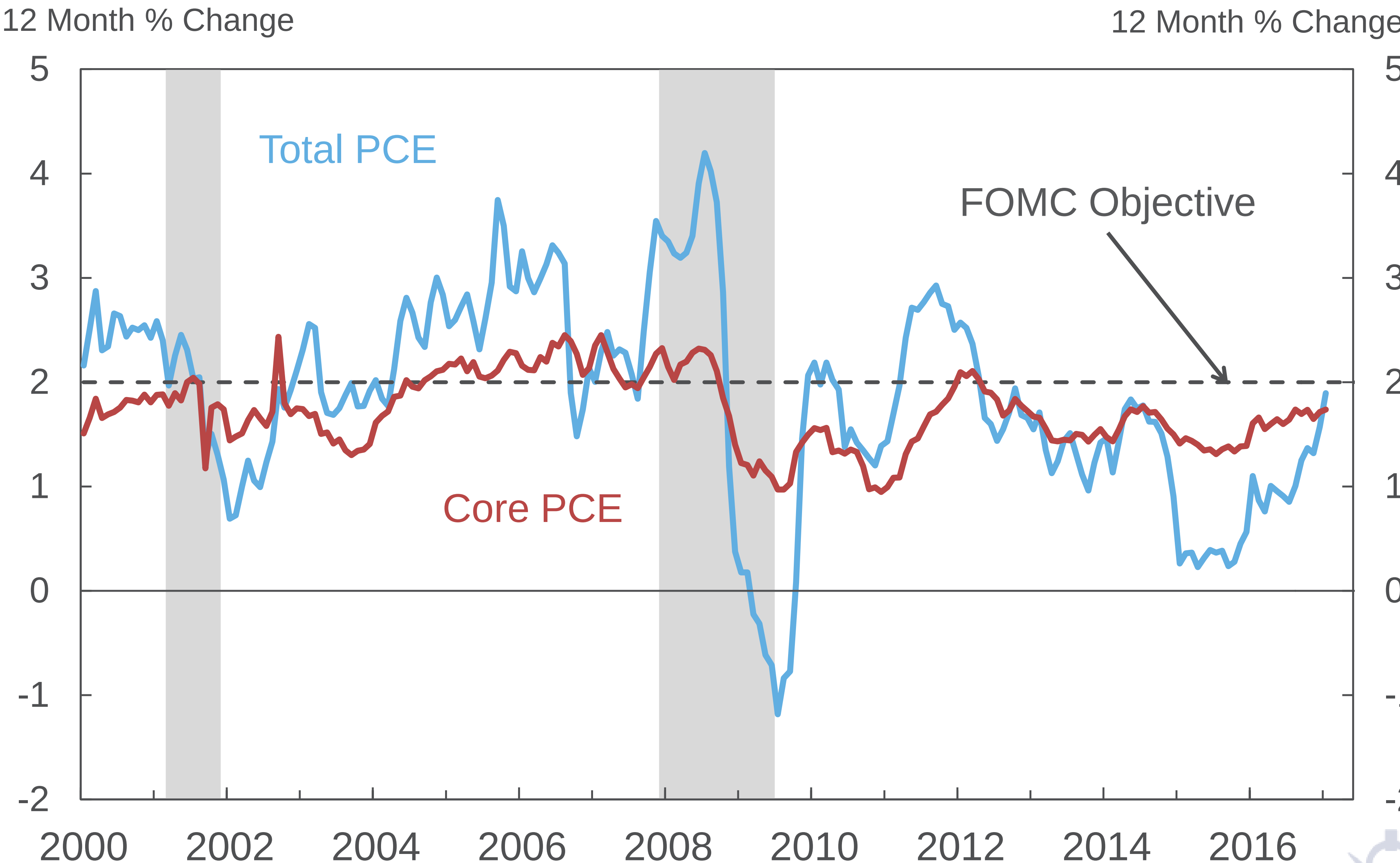
Performance against the goals: labor market



Source: Bureau of Labor Statistics

Note: Shading shows NBER recessions.

Performance against the goals: Inflation



Source: Bureau of Economic Analysis

Note: Shading shows NBER recessions.

Where are we now? The state of the economy

- "Lift-off" in December 2015, with FFR to 0.25-0.5 percent
- A pause through 2016 and two more 25 bps hikes in December 2016 and March 2017
- From the March 2017 FOMC statement
  - the labor market has continued to strengthen and (…) economic activity has continued to expand at a moderate pace. Job gains remained solid and the unemployment rate was little changed in recent months. (…). Inflation has increased in recent quarters, moving close to the Committee's 2 percent longer-run objective; excluding energy and food prices, inflation was little changed and continued to run somewhat below 2 percent. Market-based measures of inflation compensation remain low; survey-based measures of longer-term inflation expectations are little changed, on balance.

From the March statement: Outlook and Decision

- The Committee expects that, with gradual adjustments in the stance of monetary policy, economic activity will expand at a moderate pace, labor market conditions will strengthen somewhat further, and inflation will stabilize around 2 percent over the medium term. Near-term risks to the economic outlook appear roughly balanced.

- In view of realized and expected labor market conditions and inflation, the Committee **decided to raise the target** range for the federal funds rate to **3/4 to 1 percent**. The stance of monetary policy remains accommodative, thereby supporting some further strengthening in labor market conditions and a sustained return to 2 percent inflation.

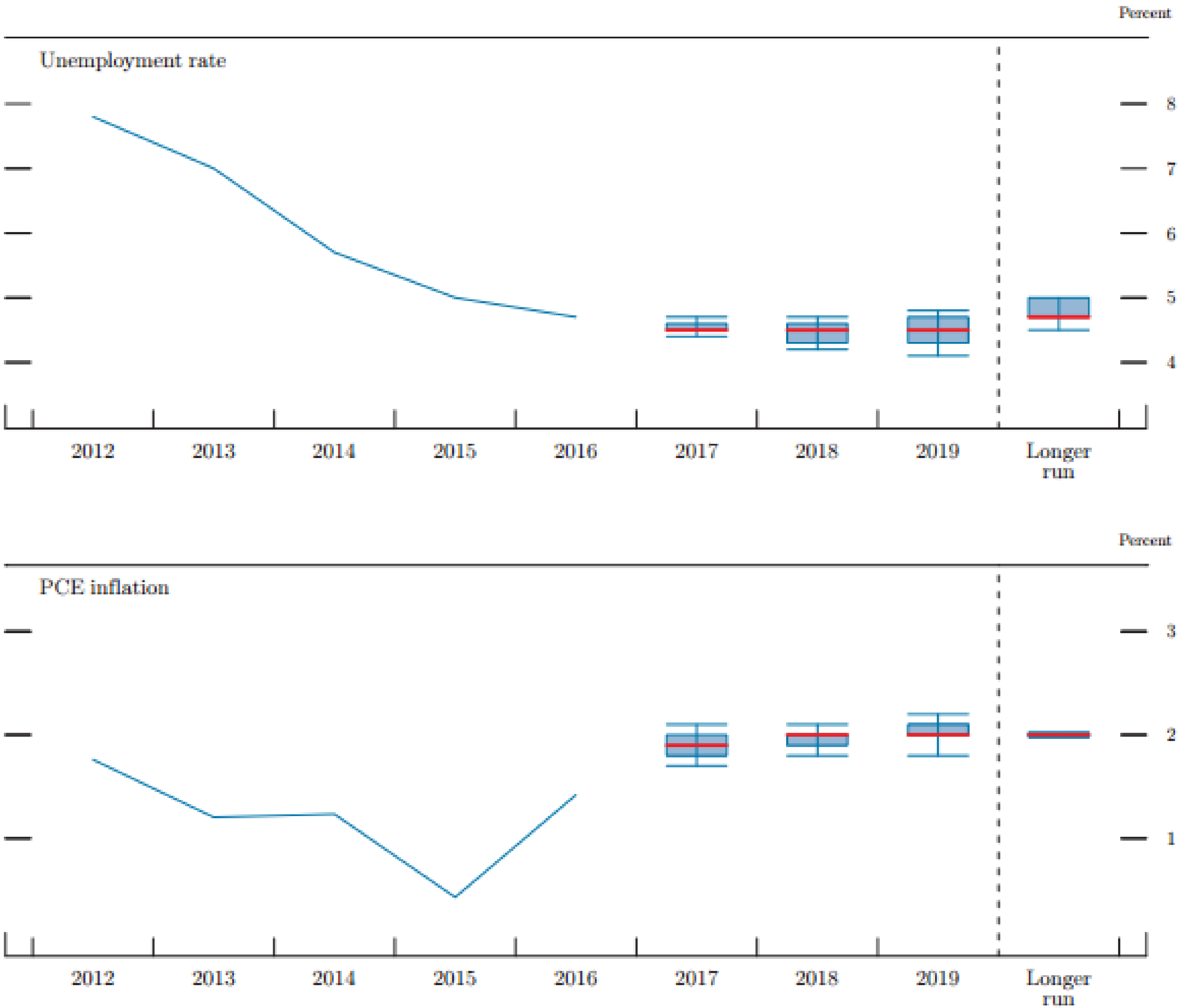
From the March statement: the Strategy

- In determining the timing and size of future adjustments to the target range for the federal funds rate, **the Committee will assess realized and expected economic conditions relative to its objectives** of maximum employment and 2 percent inflation. (…) The Committee will carefully monitor actual and expected inflation developments relative to its symmetric inflation goal. The Committee expects that economic conditions will evolve in a manner that will warrant **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. However, the actual path of the federal funds rate will depend on the economic outlook as informed by incoming data.

From the March statement: the Balance Sheet

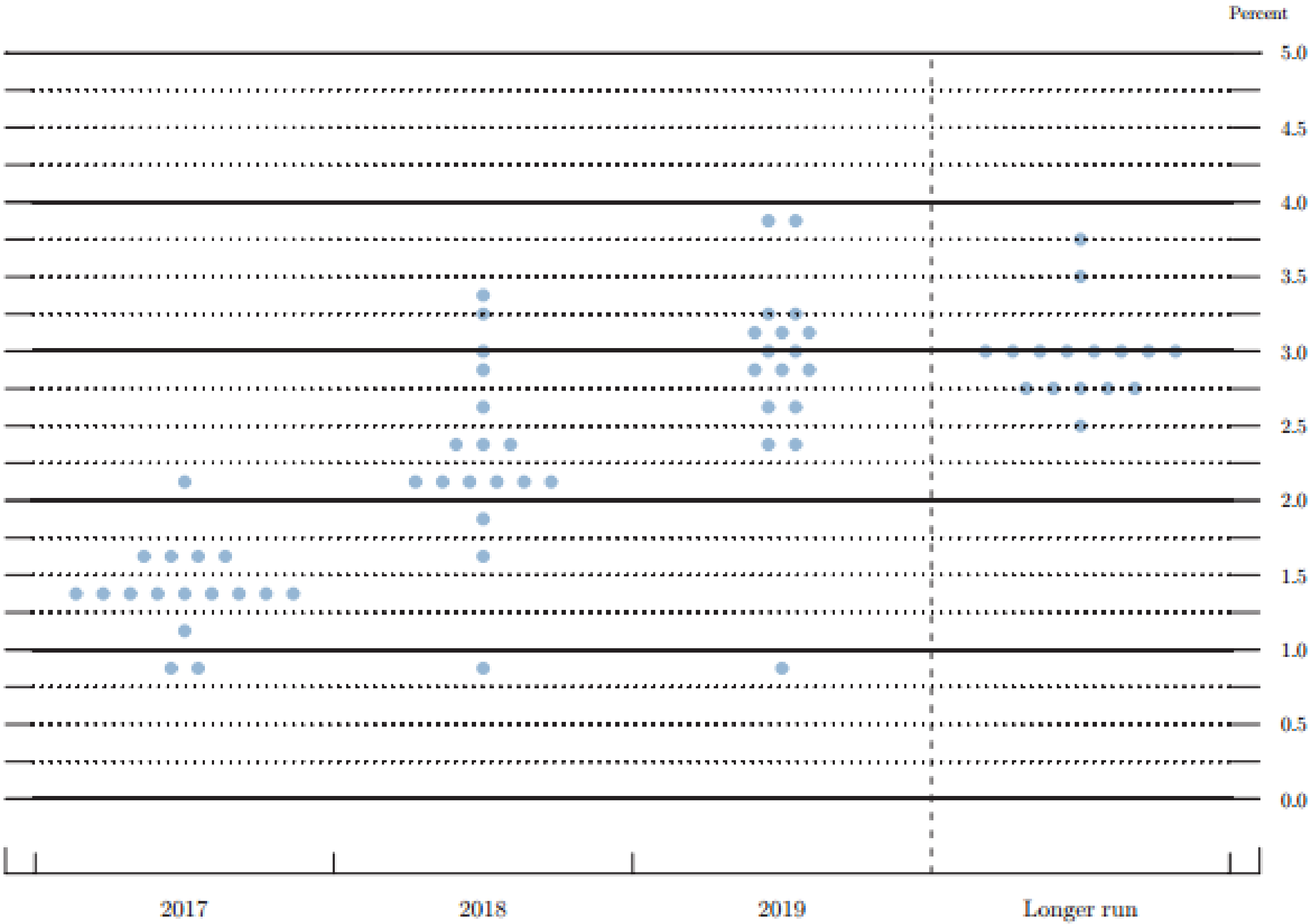
- The Committee is **maintaining its existing policy of reinvesting** principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction, and it **anticipates doing so until normalization of the level of the federal funds rate is well under way**. This policy, by keeping the Committee's holdings of longer-term securities at sizable levels, should help maintain accommodative financial conditions.

A Picture is Worth a Thousand Words: March 2017 SEP



Source: Summary of Economic Projections, March 15th 2017

What next? Ask the "dots"



Each shaded circle indicates the value (rounded to the nearest 1/8 percentage point) of an individual participant's judgment of the midpoint of the appropriate target range for the federal funds rate or the appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run.

Source: Summary of Economic Projections, March 15^{th} 2017