



Economic Update and the Fed's Dual Mandate

VCU Executive MBA Program
November 14, 2016

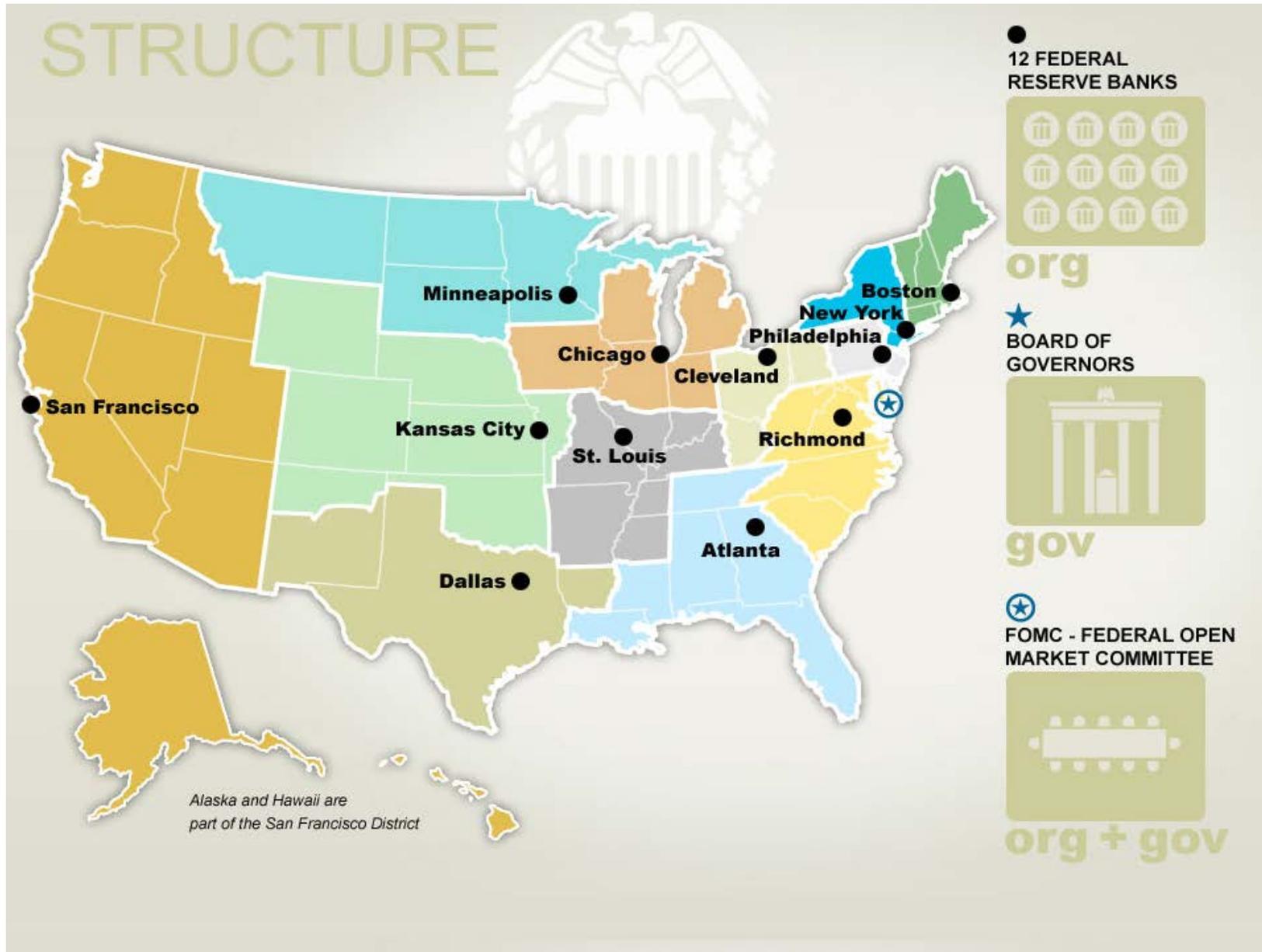


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Overview

- The Fed's Dual Mandate
 - Goals of Monetary Policy
 - Long-run Growth Potential
- The Real Economy
 - Output (Real GDP)
 - Consumer Spending
 - Housing
 - Business Investment
 - Labor Markets
- Inflation
 - Personal Consumption Expenditure Index
 - Consumer Price Index
- Monetary Policy

How is the Fed Structured?



Fed's Mission and Functions

Mission: To foster a stable banking system and a healthy, growing economy.

Core Functions

- Monetary Policy
- Bank Supervision and Regulation
- Payment Services

The Fed and You



The Fed's Dual Mandate

Goals of Monetary Policy – The “Dual Mandate”

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.**

Long-run Growth Potential

What is the relationship between changes in output and employment (and productivity)?

- Real Output (Y) = Number of Employed \times Worker Productivity
- Therefore, any change in the number of workers **and/or** productivity will change real output:

$$\% \Delta \text{ Output} = \% \Delta \text{ Employed} + \% \Delta \text{ Productivity}$$

$$\% \Delta \text{ Output} = 1.2\% + 1.0\%$$

- Thus, in this example, the real economy's long-run growth potential is 2.2%.

Maximum Employment

What factors determine how fast employment can increase?
(the “Maximum Employment” mandate)

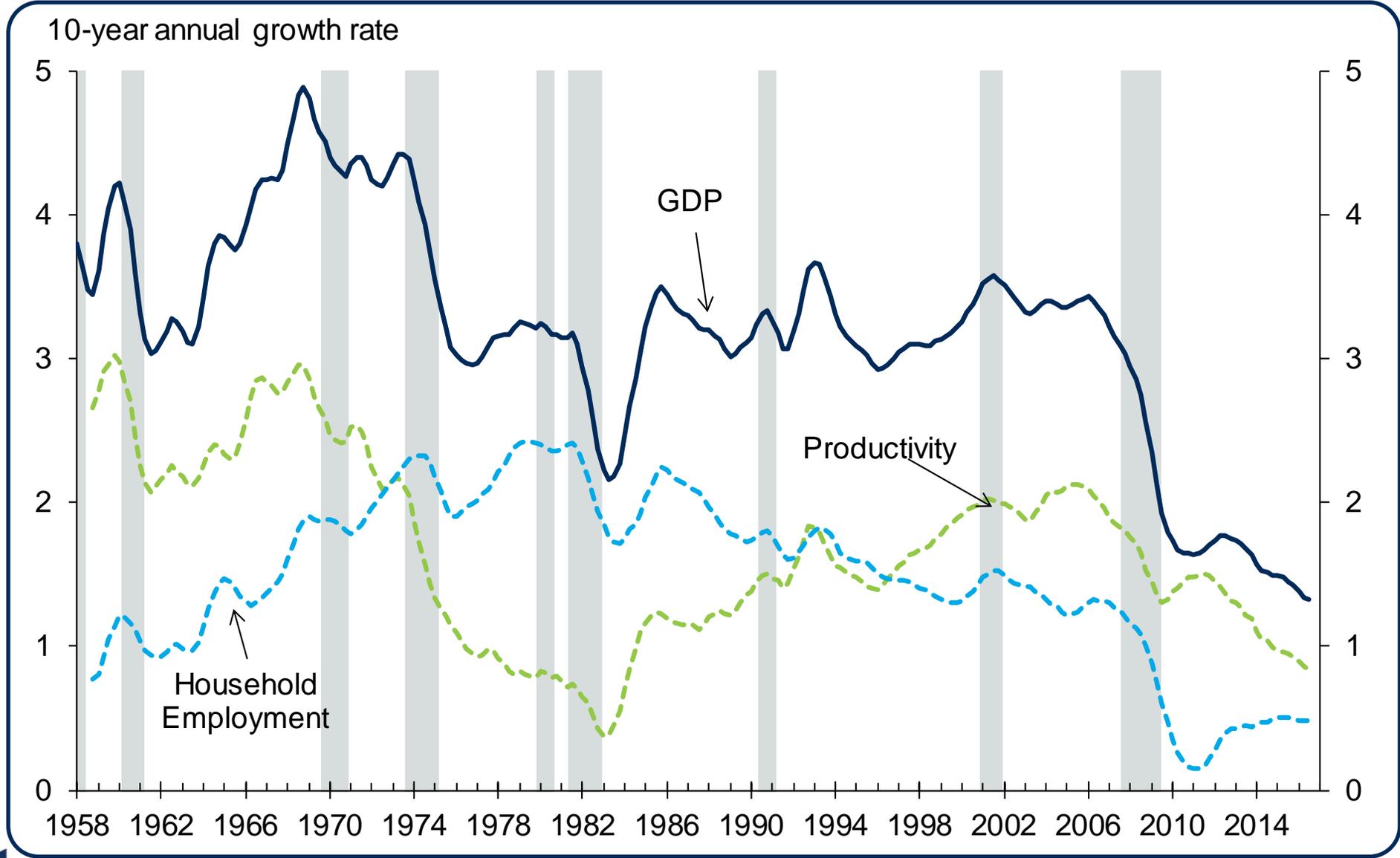
- Population – it only increases so fast
- Labor force participation – not everyone is willing, or able to participate
 - Retirees, homemakers, infirm, unskilled, etc.
- Economists generally think that long-run labor force growth changes very slowly and cannot be influenced by monetary policy.
- Thus, setting an explicit “Maximum Employment” goal is not feasible, nor desirable

Productivity

How much “stuff” can a worker produce?

- Worker productivity is output per worker.
- Factors that influence worker productivity include:
 - Technological innovations (e.g. computing, communications)
 - Industrial organization (e.g. structure of firms and markets)
 - Level of education of the workforce
 - Regulations
- Economists generally think that long-run (average) productivity changes very slowly and cannot be influenced by monetary policy

Decomposition of Real GDP



Note: Productivity is calculated as real GDP per employee, from the Household Survey.

Monetary Policy Goals

- Price Stability

Starting in January 2012, the Fed set an explicit inflation goal of **two percent growth** over the long run – this goal has been reinstated every January.

- Maximum Employment

No explicit goal set:

“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.”

Factors include population growth, labor force participation, and productivity

The “Real Economy”

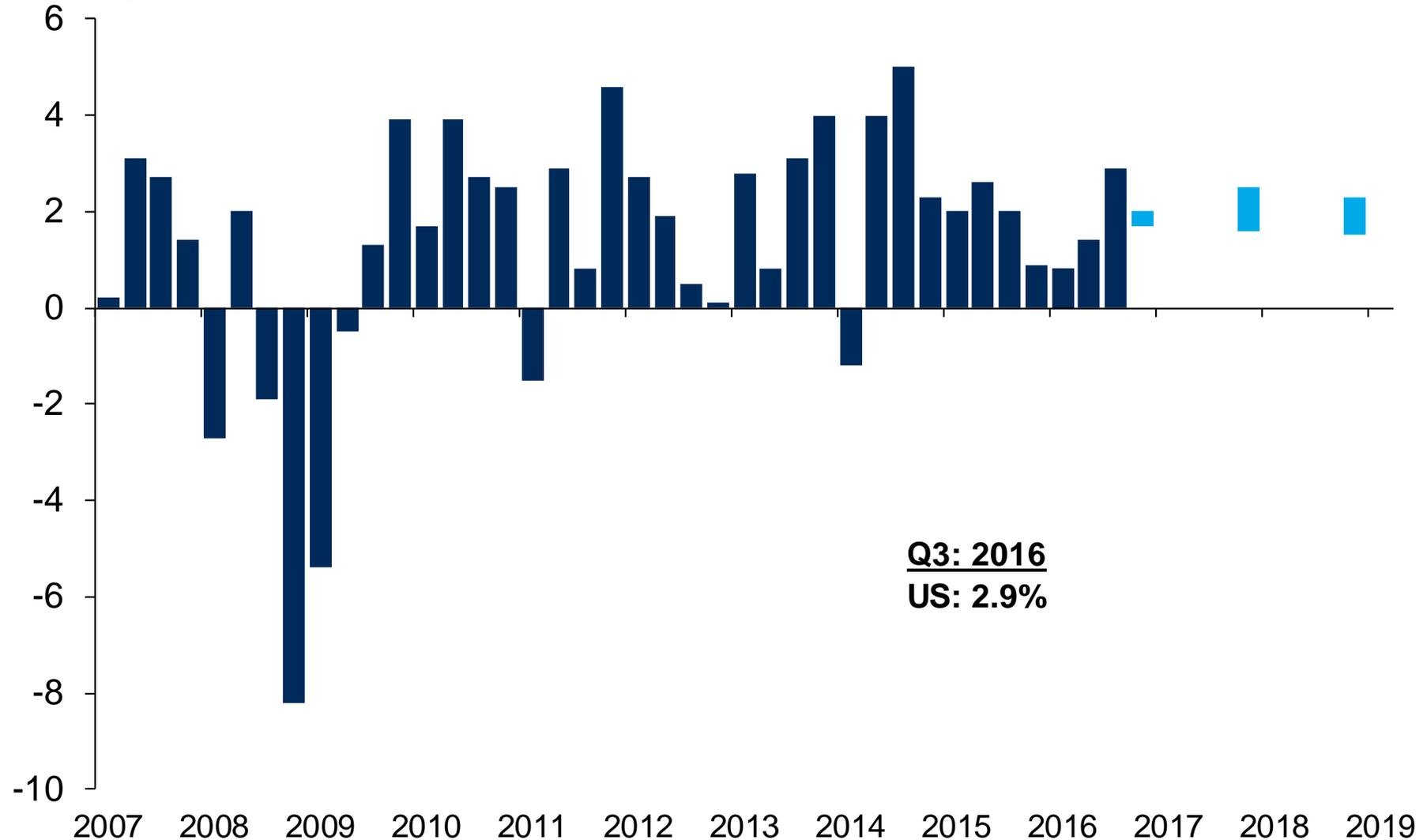
FOMC Statement – November 2, 2016

Information received since the Federal Open Market Committee met in September indicates that the **labor market has continued to strengthen and growth of economic activity has picked up from the modest pace seen in the first half of this year.**

Although the unemployment rate is little changed in recent months, job gains have been solid. **Household spending has been rising moderately but business fixed investment has remained soft. Inflation has increased somewhat since earlier this year but is still below the Committee's 2 percent longer-run objective,** partly reflecting earlier declines in energy prices and in prices of non-energy imports. Market-based measures of inflation compensation have moved up but remain low; most survey-based measures of longer-term inflation expectations are little changed, on balance, in recent months.

Real Gross Domestic Product

% Change, SAAR

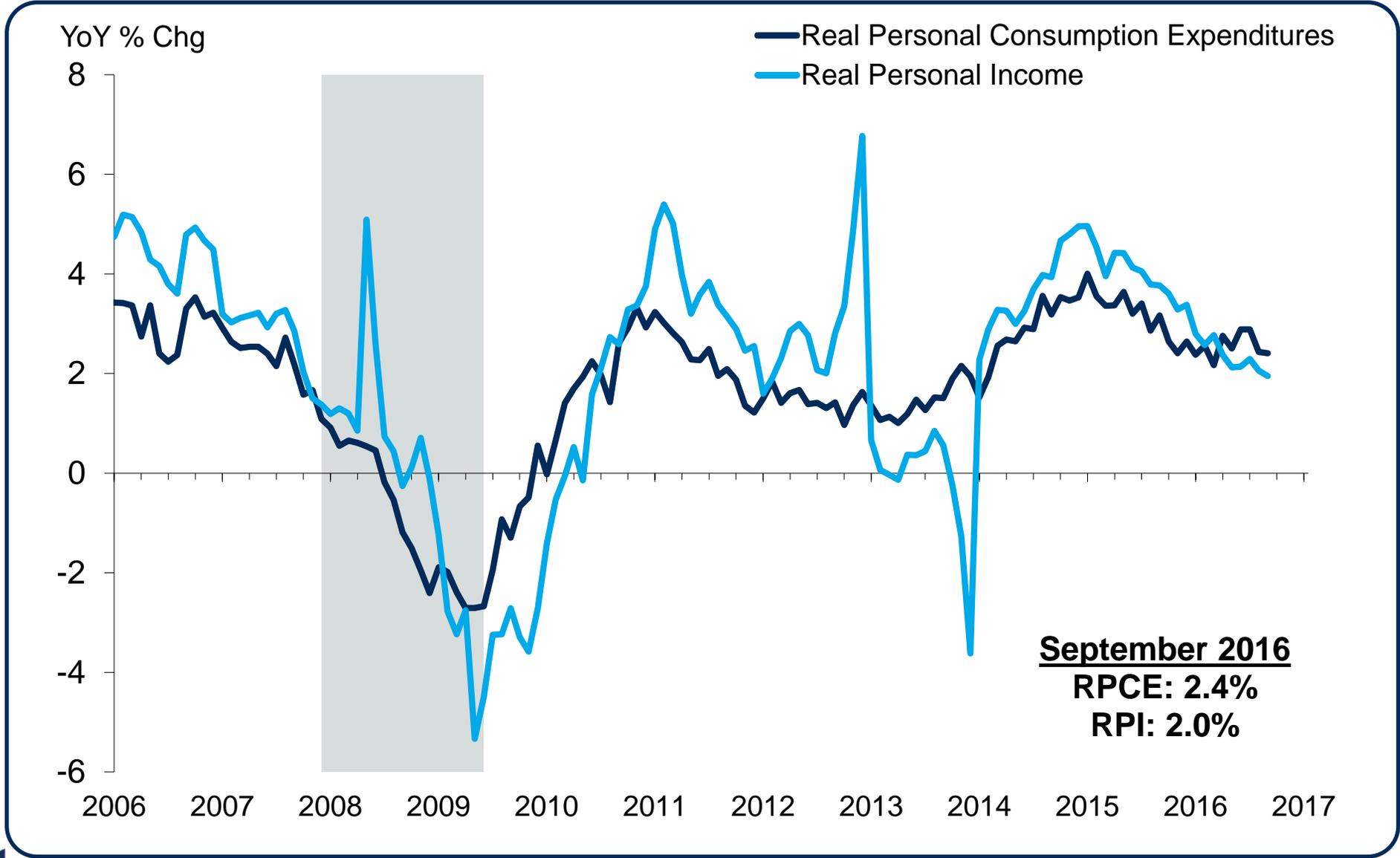


Q3: 2016
US: 2.9%

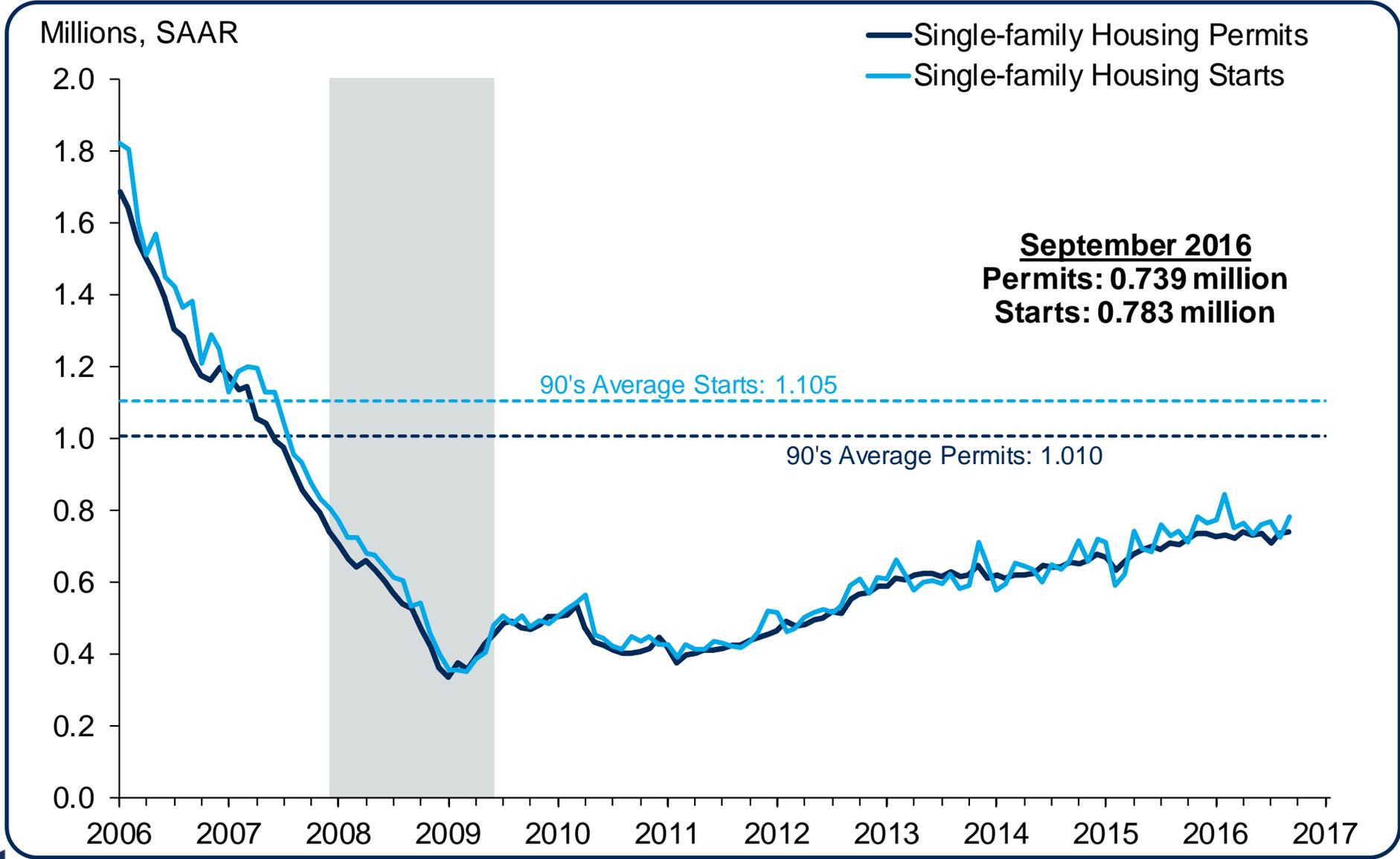
Note: Projection is the range from the September 2016 Summary of Economic Projections. Projections of change in real gross domestic product (GDP) are from the fourth quarter of the previous year to the fourth quarter of the year indicated.

Source: Bureau of Economic Analysis via Haver Analytics & Federal Reserve Board

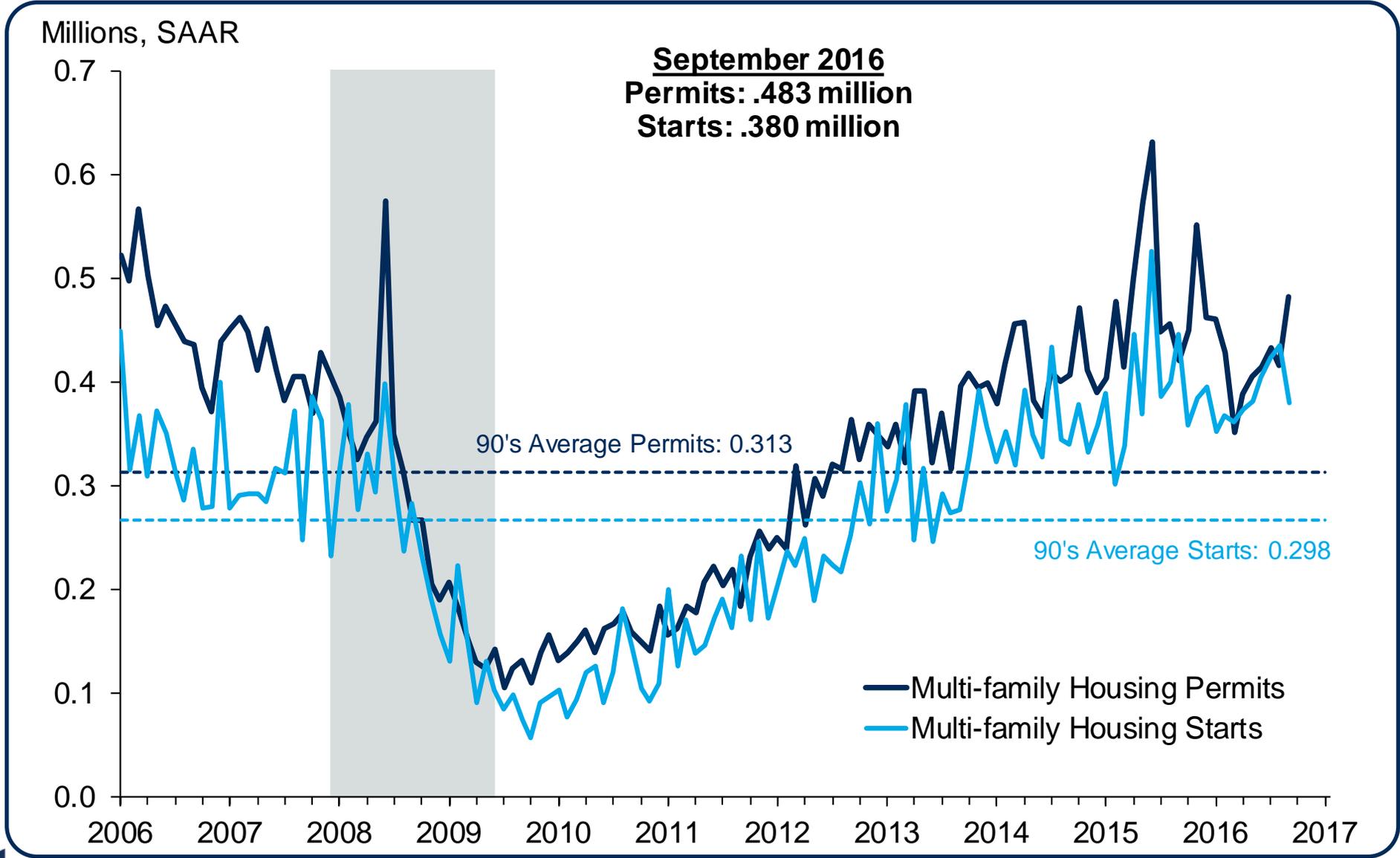
Disposable Personal Income & Expenditures



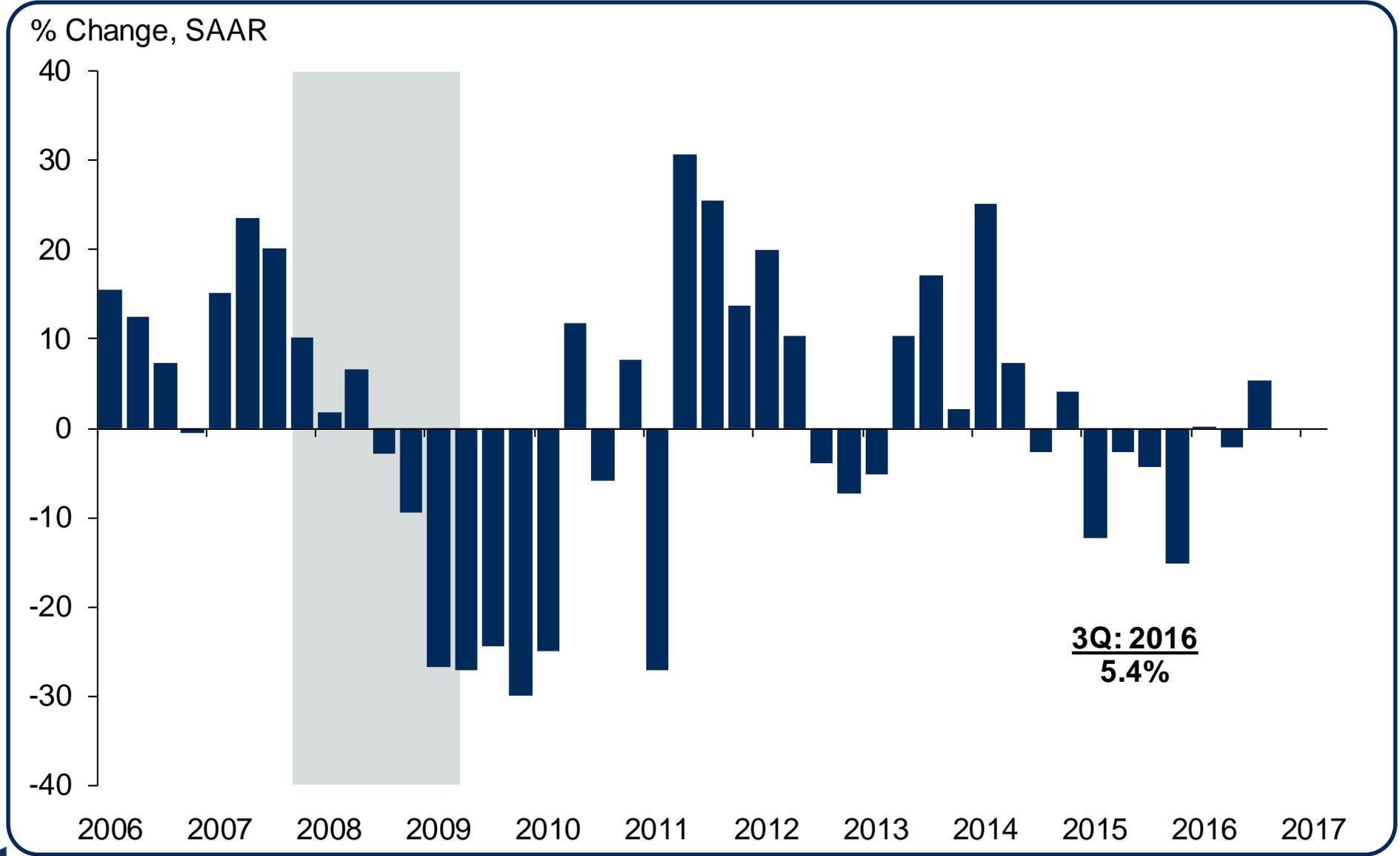
Private Single-Family Housing Starts & Permits



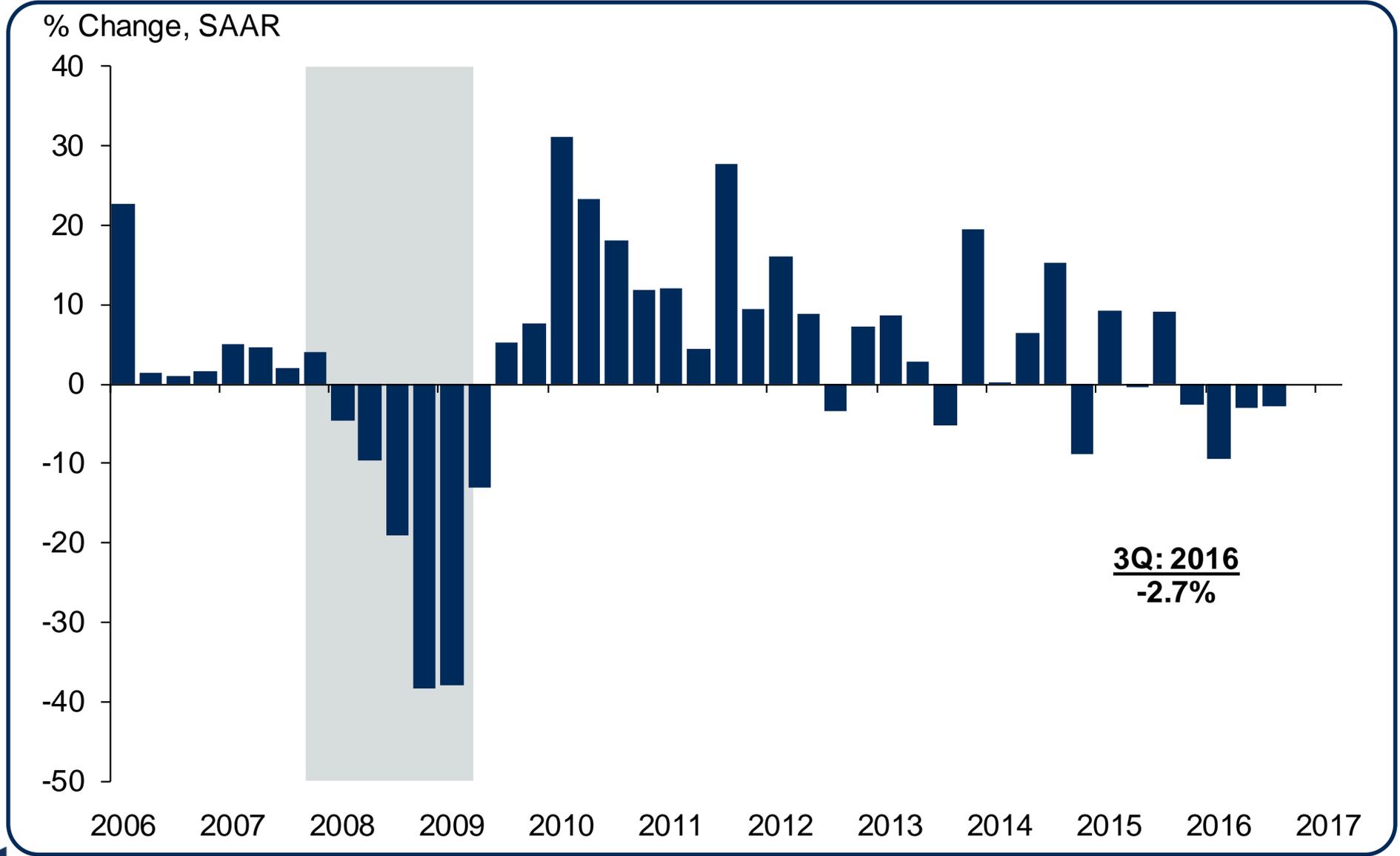
Private Multi-Family Housing Starts & Permits



Real Investment in Nonresidential Structures

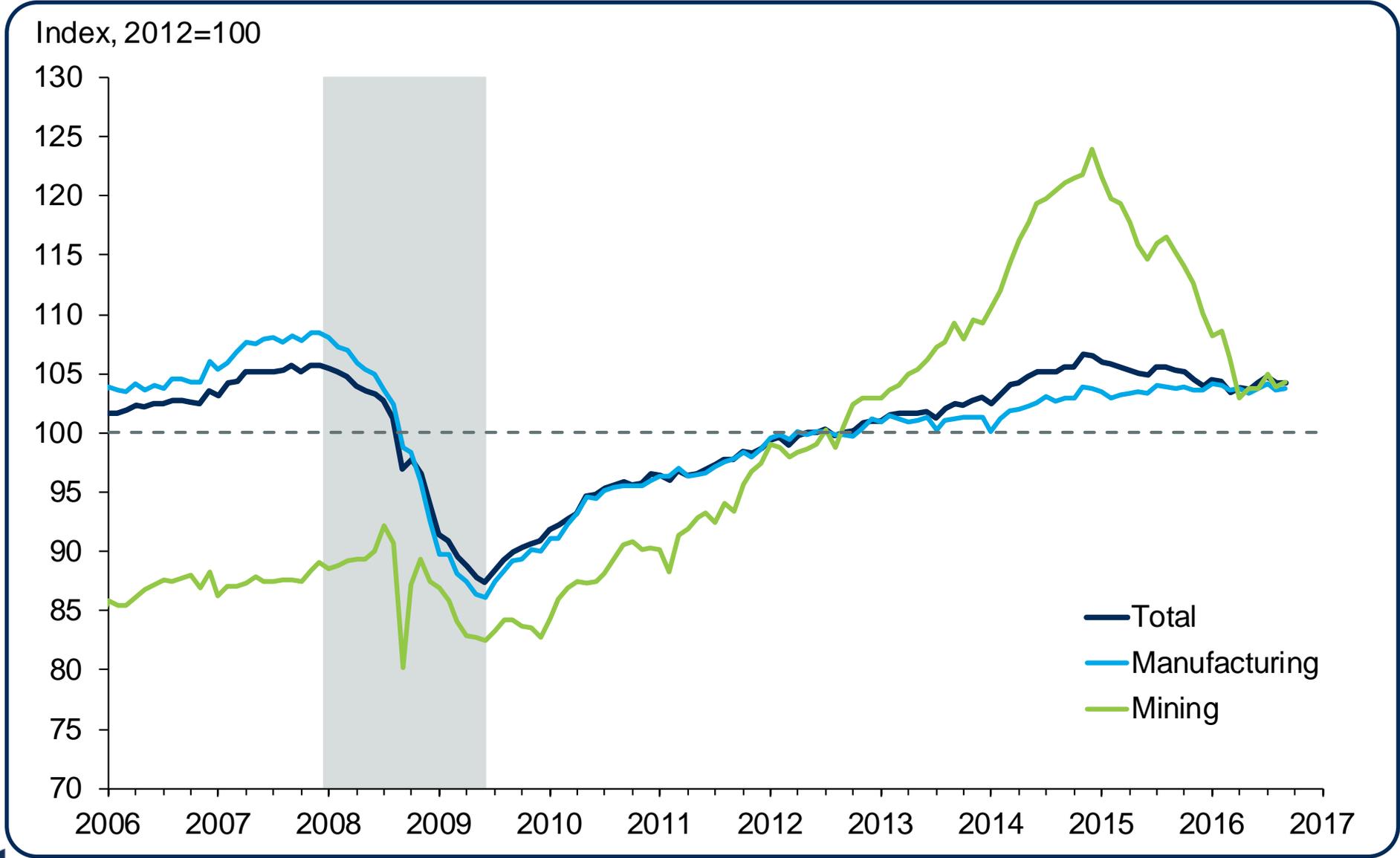


Real Investment in Equipment

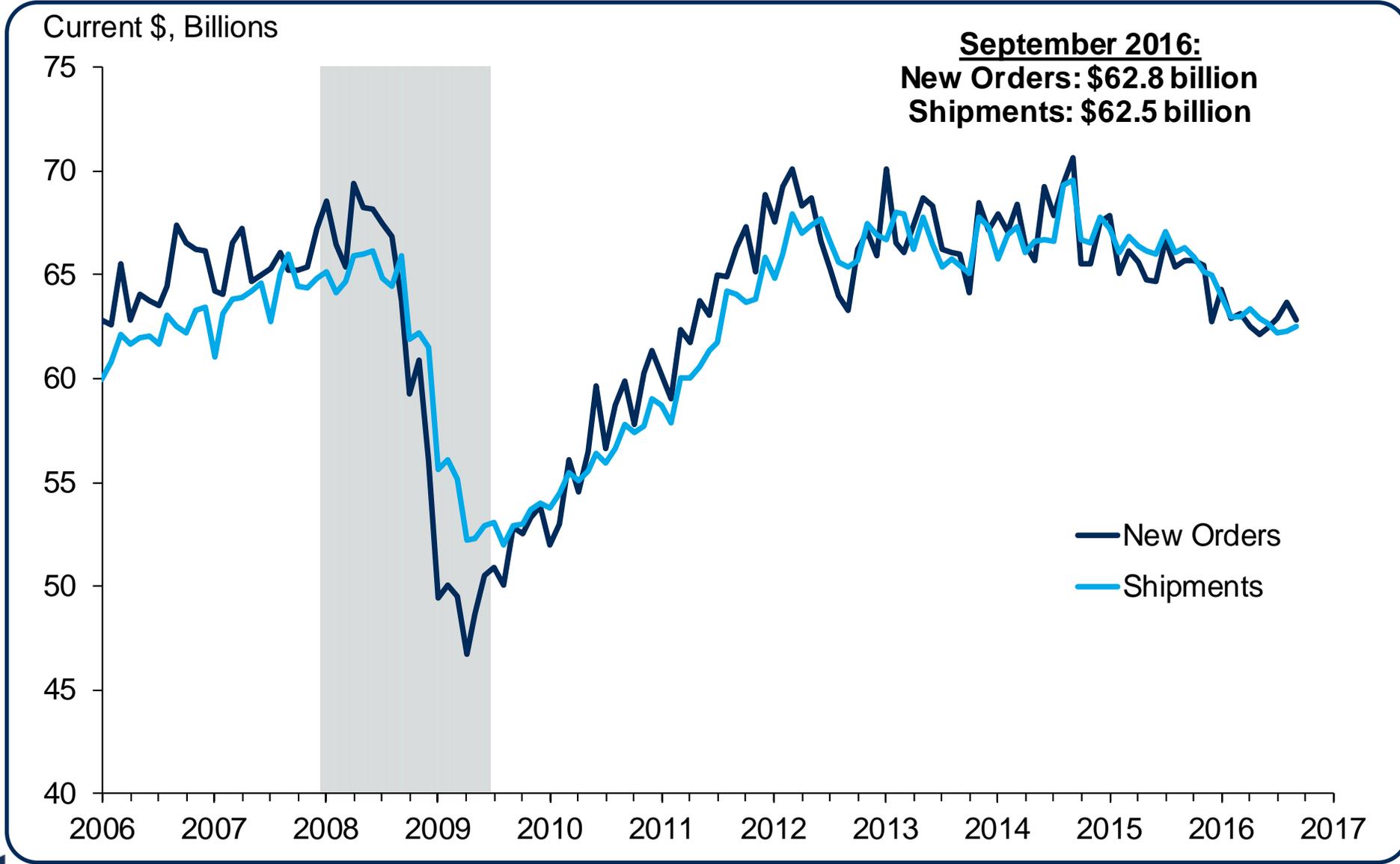


3Q: 2016
-2.7%

Industrial Production

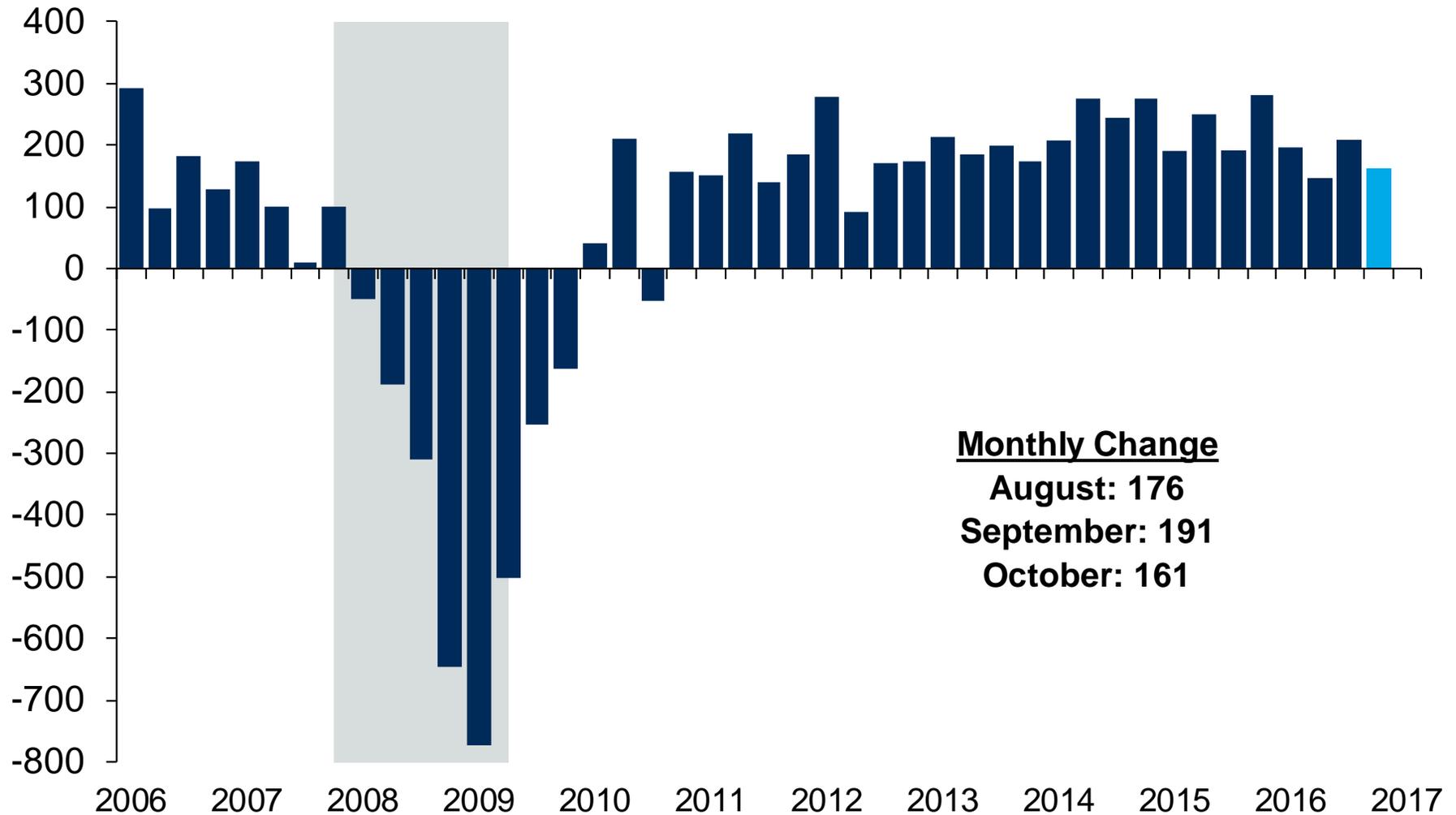


Core Capital Goods



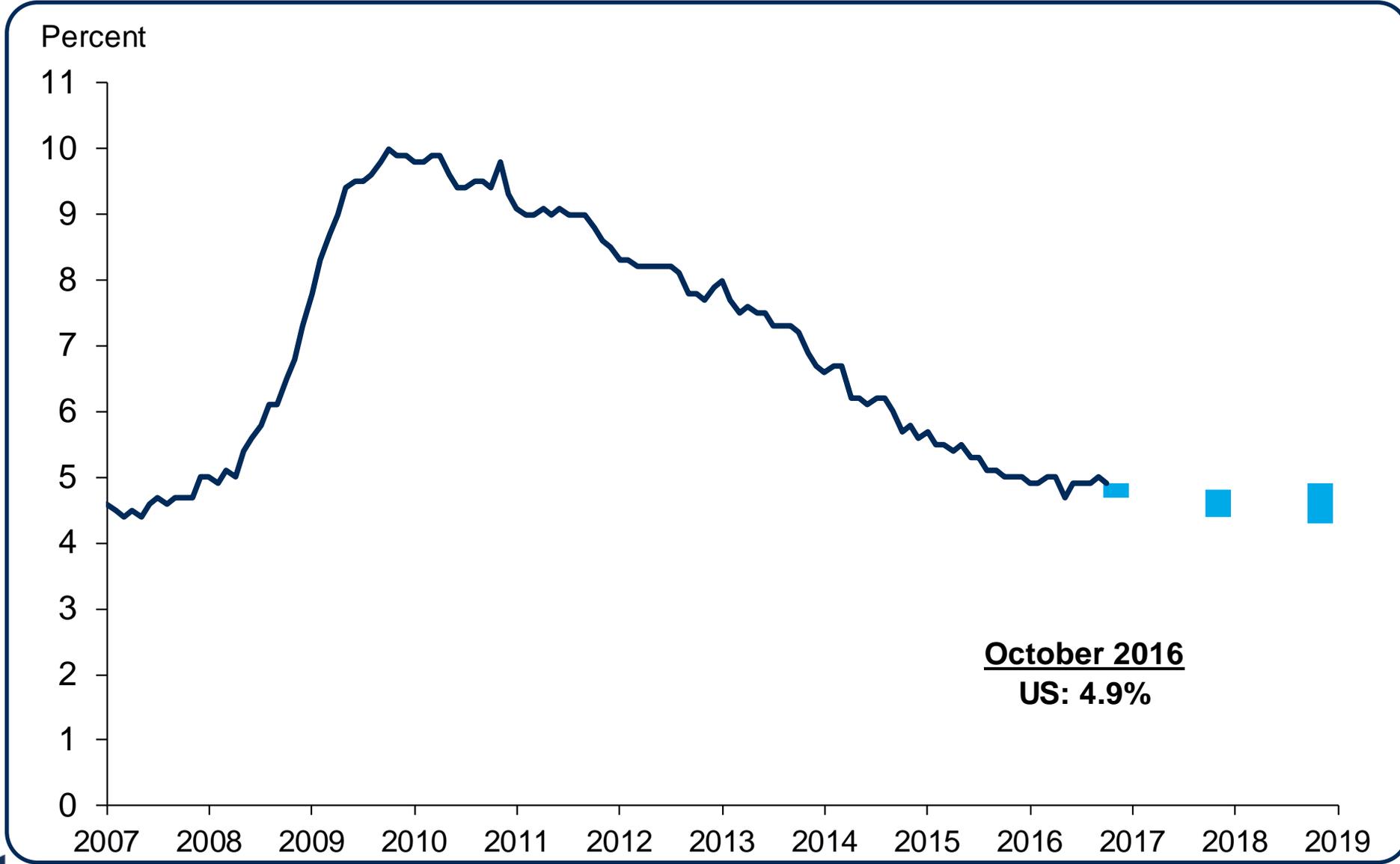
Nonfarm Payroll Employment

Average Monthly Change, Thous.



Monthly Change
August: 176
September: 191
October: 161

Unemployment Rate

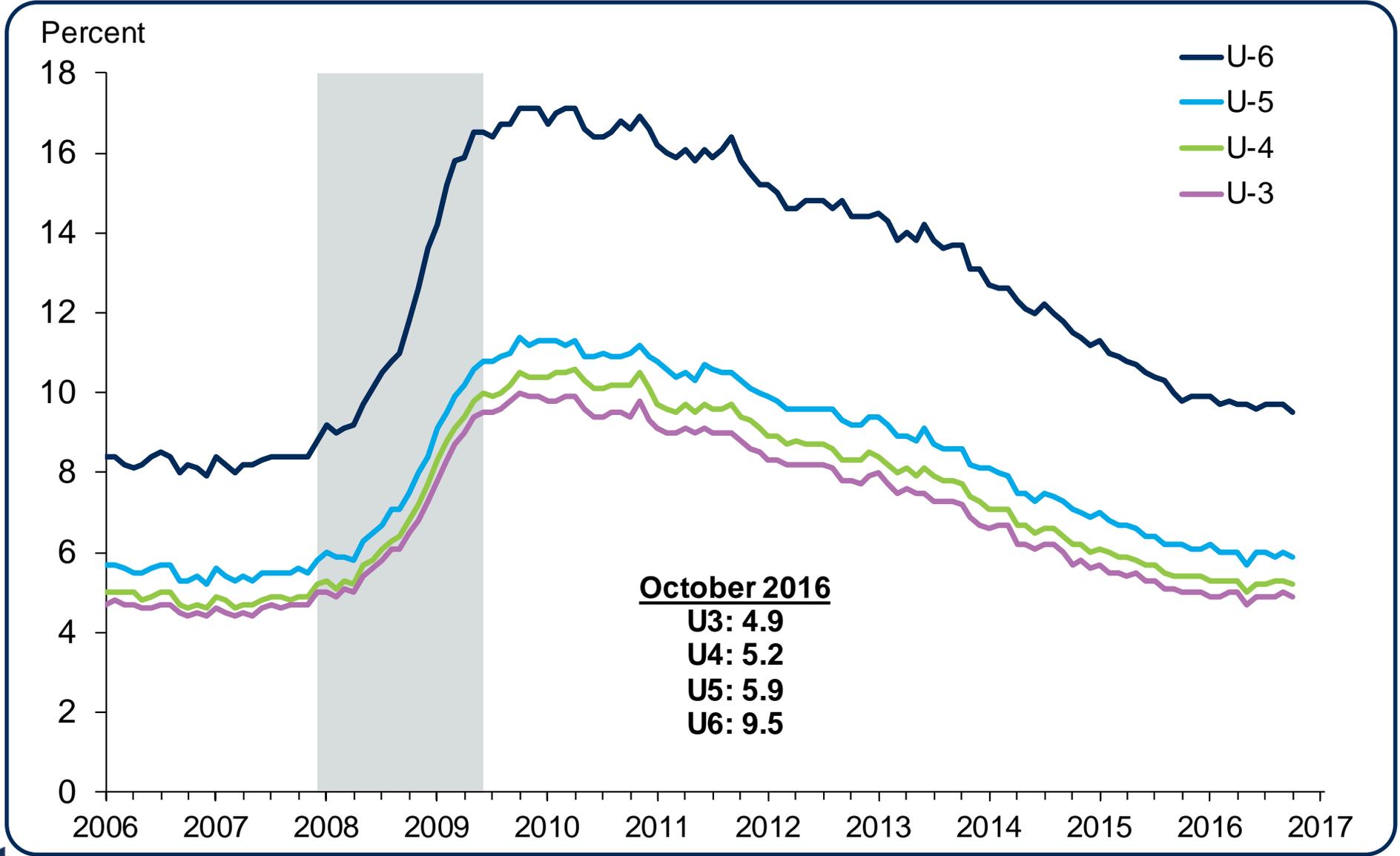


October 2016
US: 4.9%

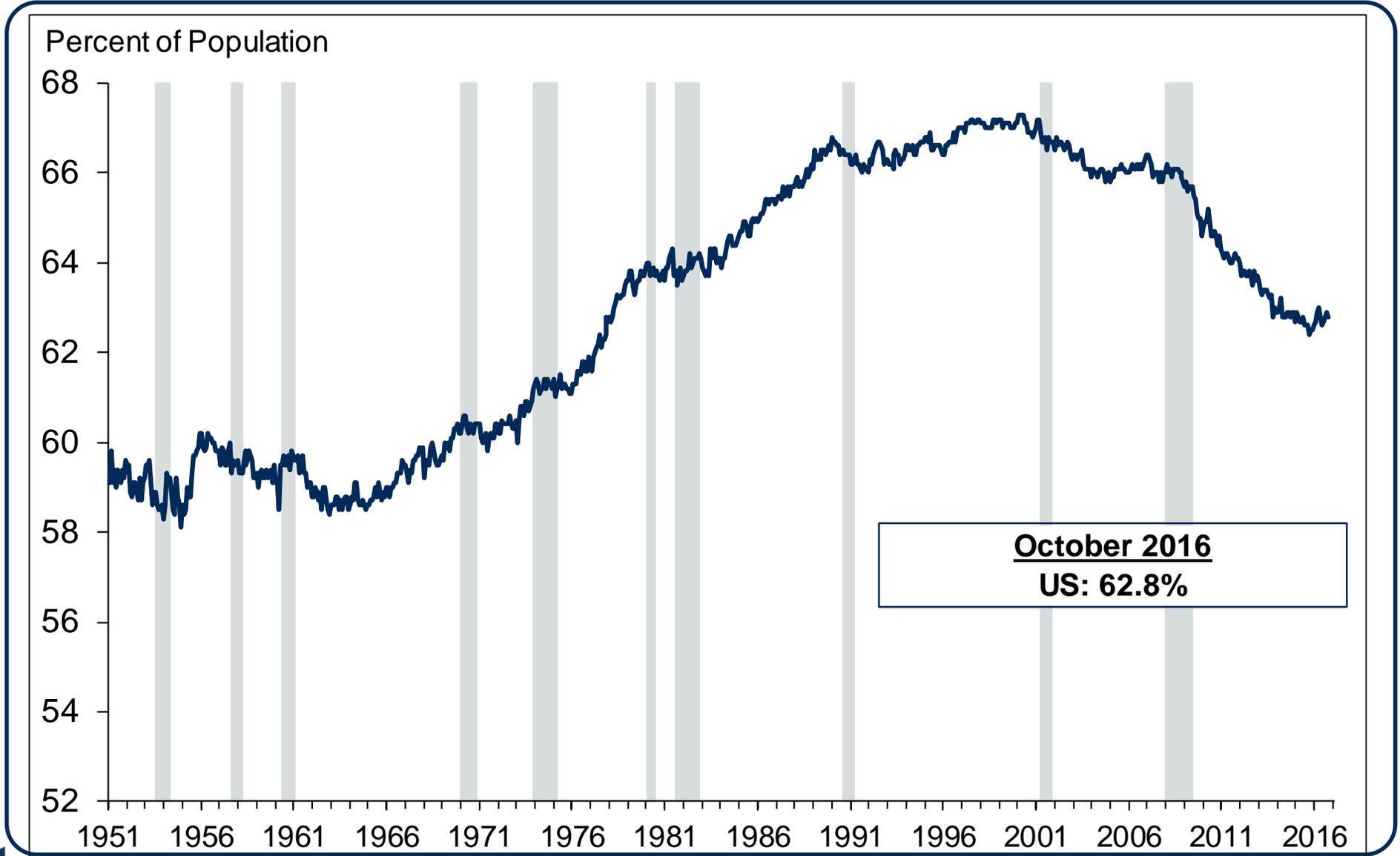
Notes: FOMC projection is the range for the Q4 levels, from the September 2016 meeting.

Source: Bureau of Labor Statistics & Board of Governors via Haver Analytics

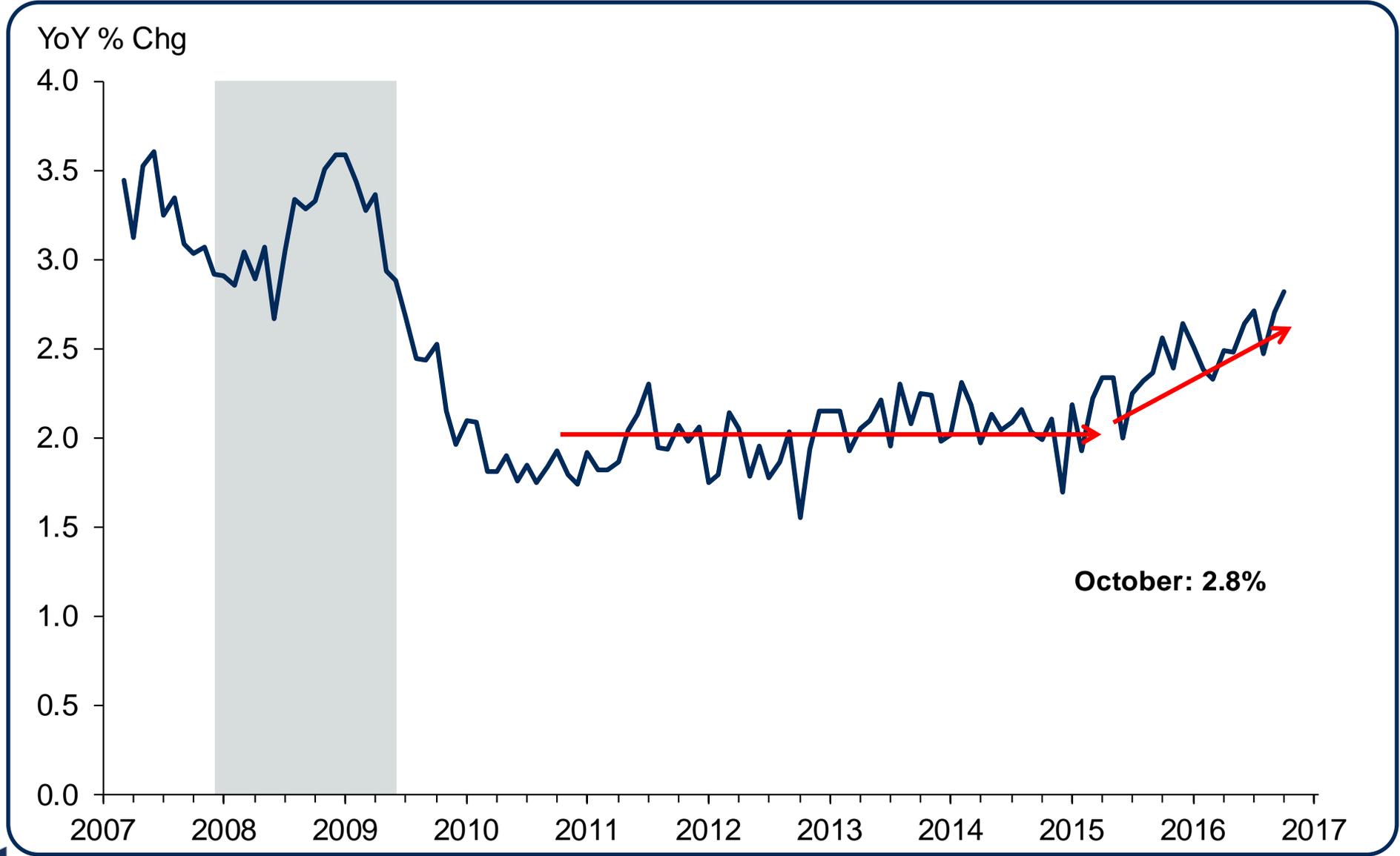
Measures of Labor Utilization



Labor Force Participation

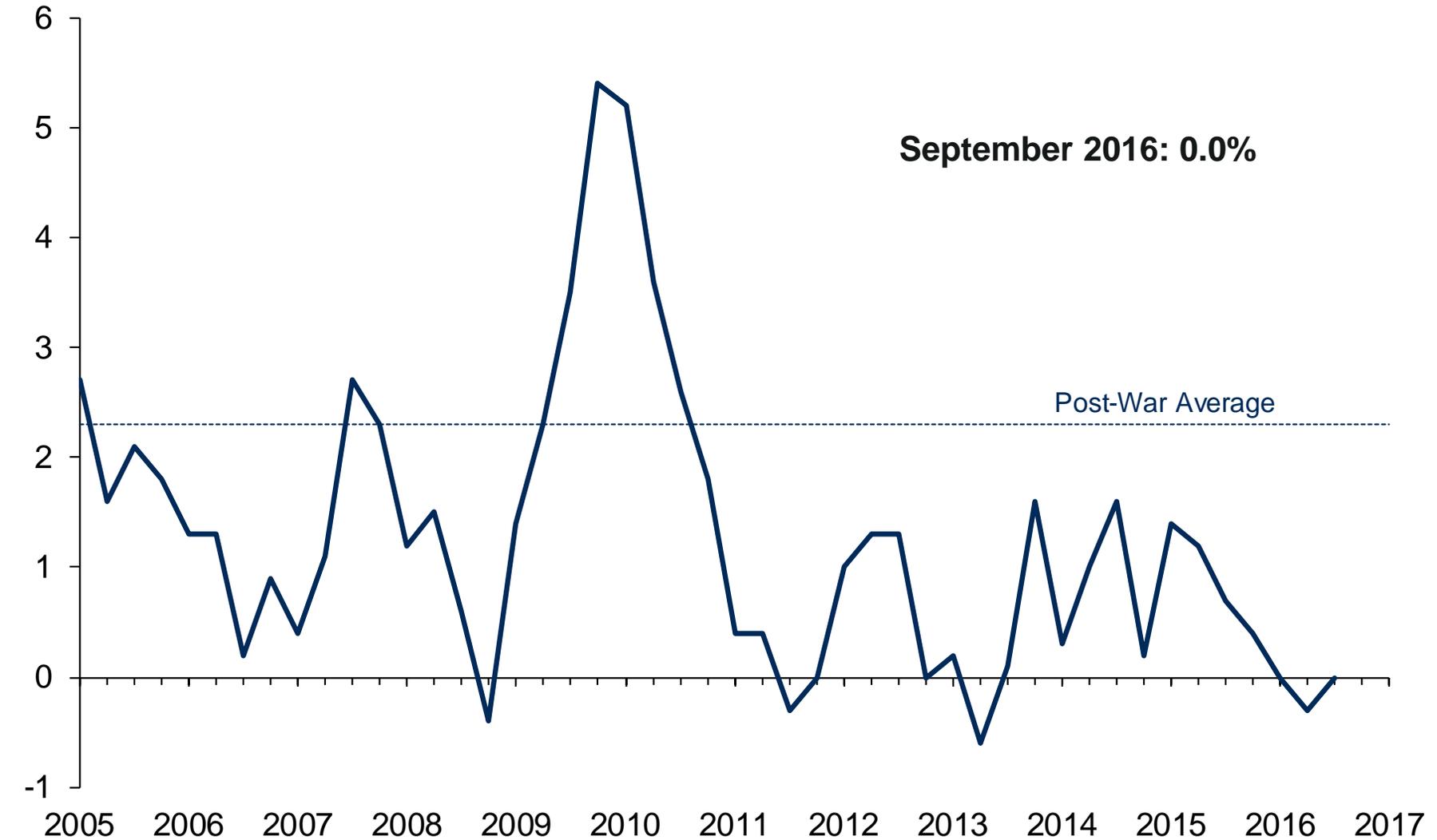


Average Hourly Earnings



Labor Productivity, Nonfarm Business

YoY % Chg

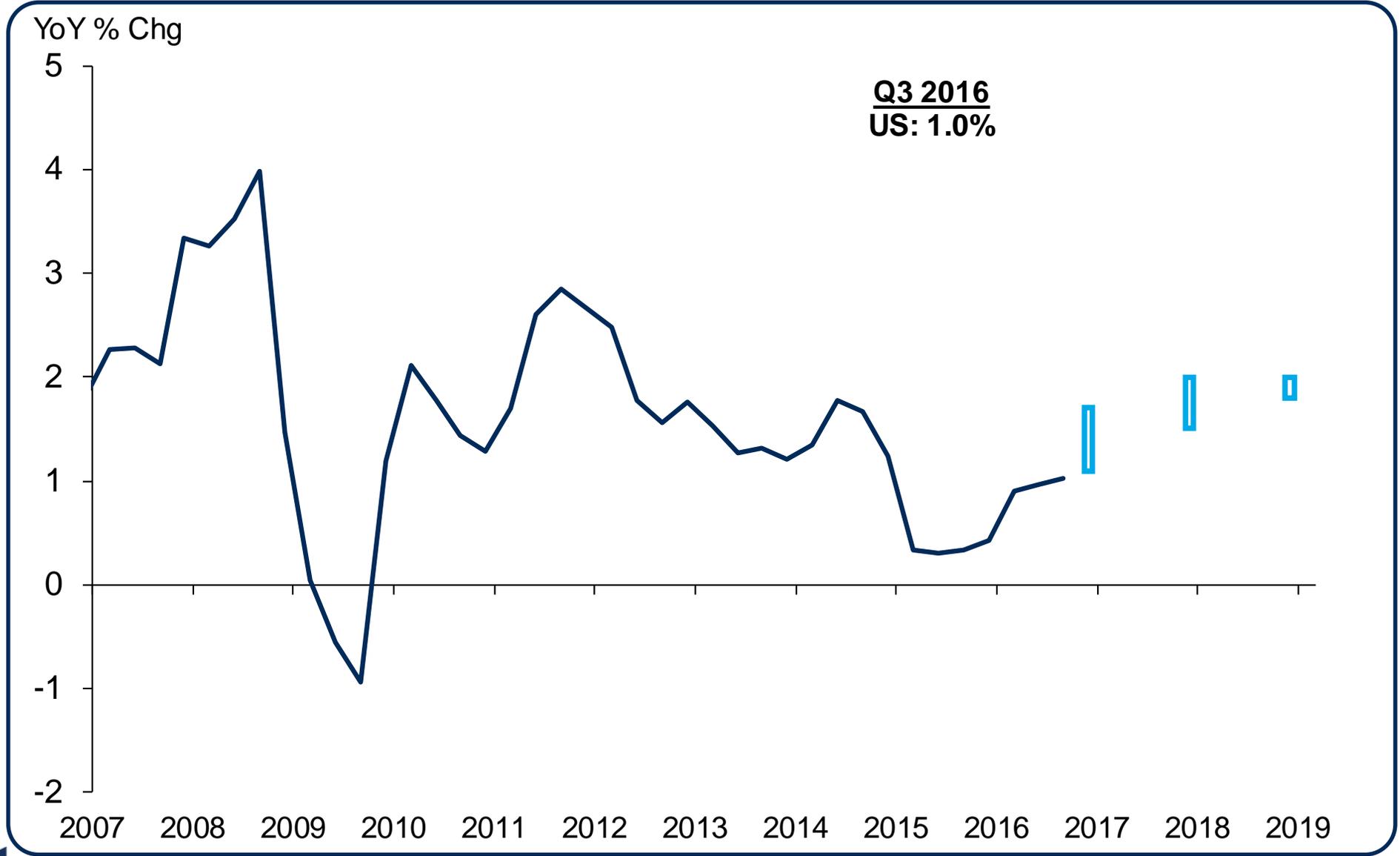


September 2016: 0.0%

Post-War Average

Inflation

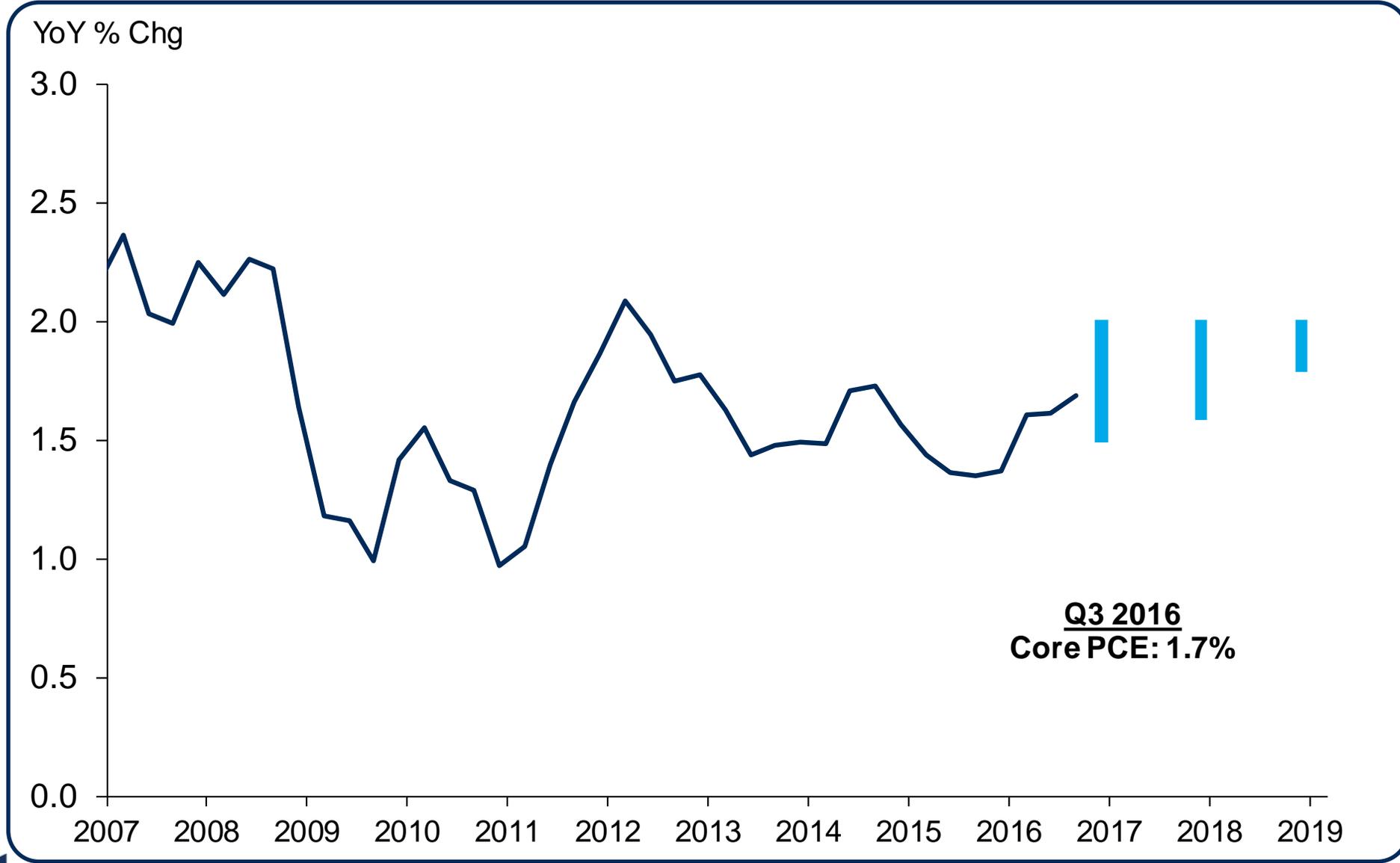
Personal Consumption Expenditure Price Index



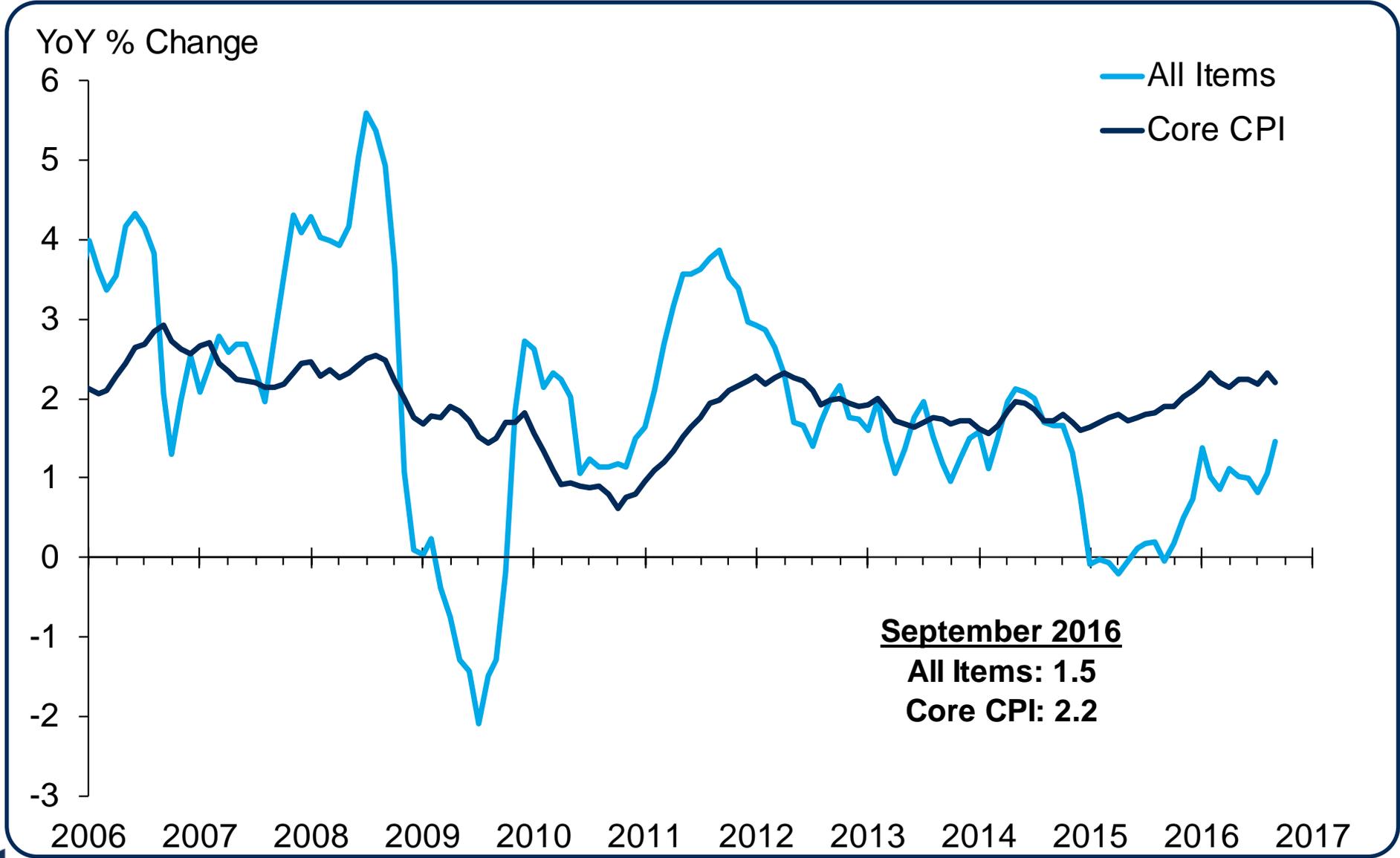
Notes: FOMC projection is the range for Q4/Q4 percent changes, from the September 2016 meeting.

Source: Bureau of Economic Analysis & Board of Governors via Haver Analytics

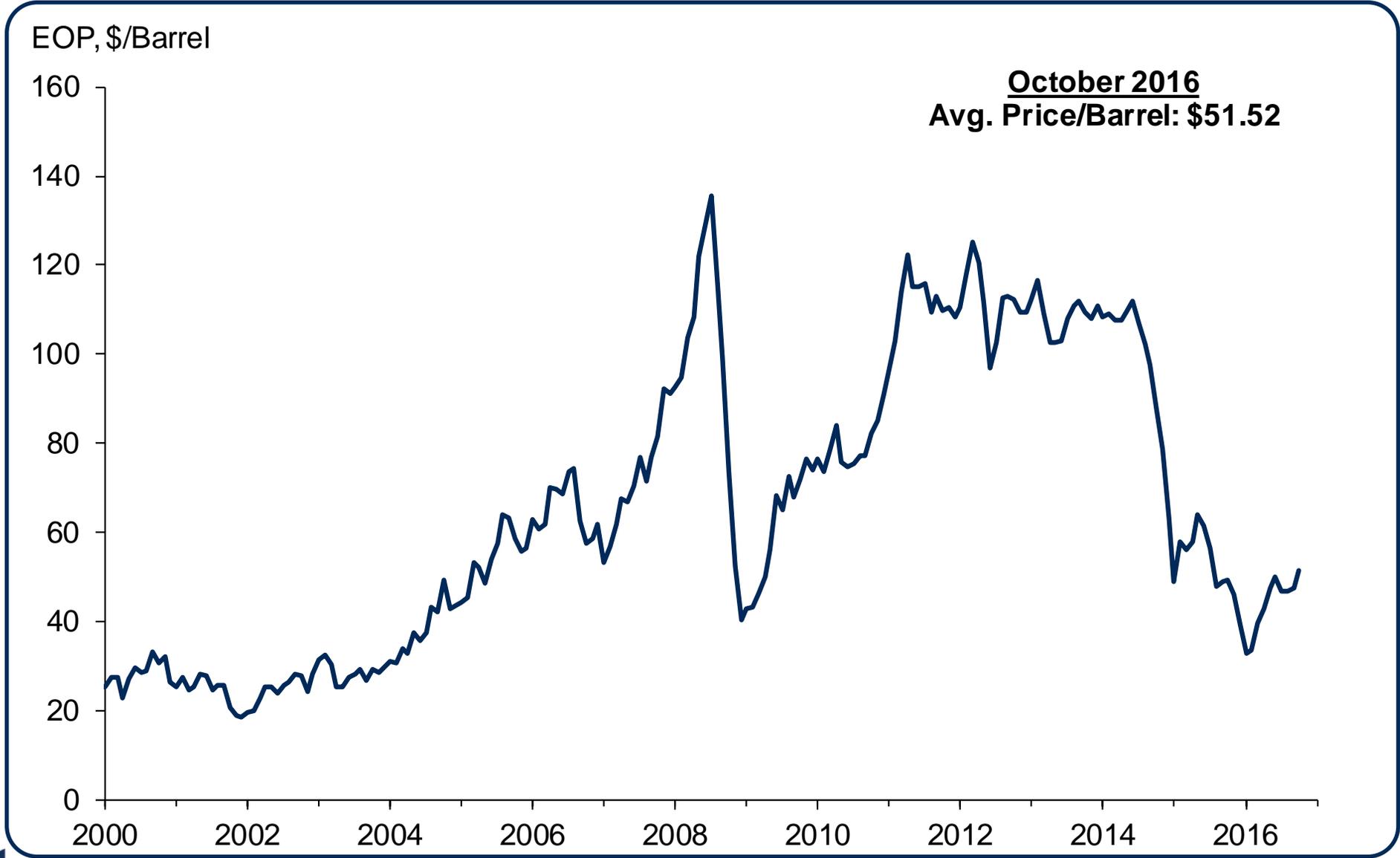
Core Personal Consumption Expenditure Price Index



Consumer Price Indexes



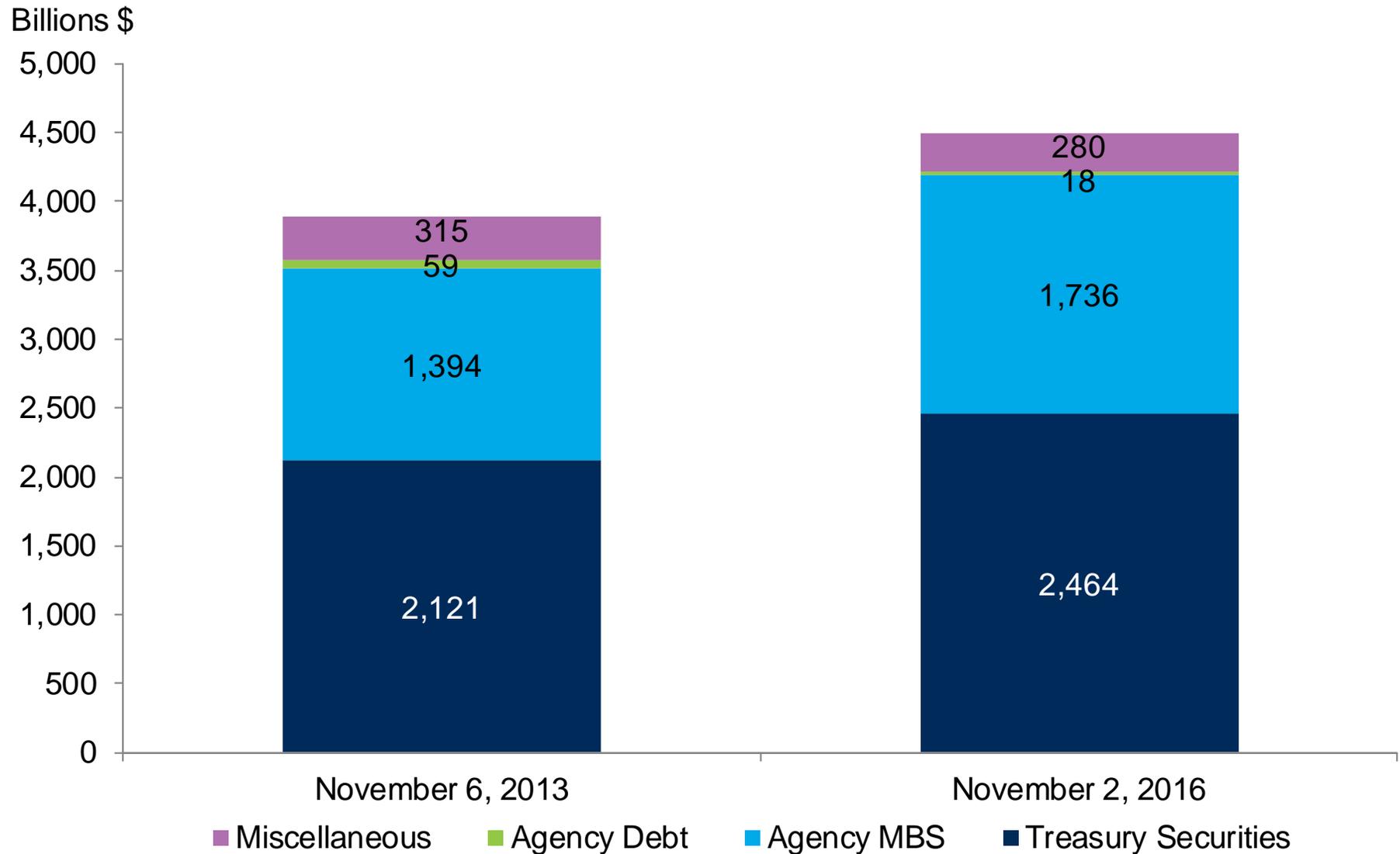
Crude Oil Prices



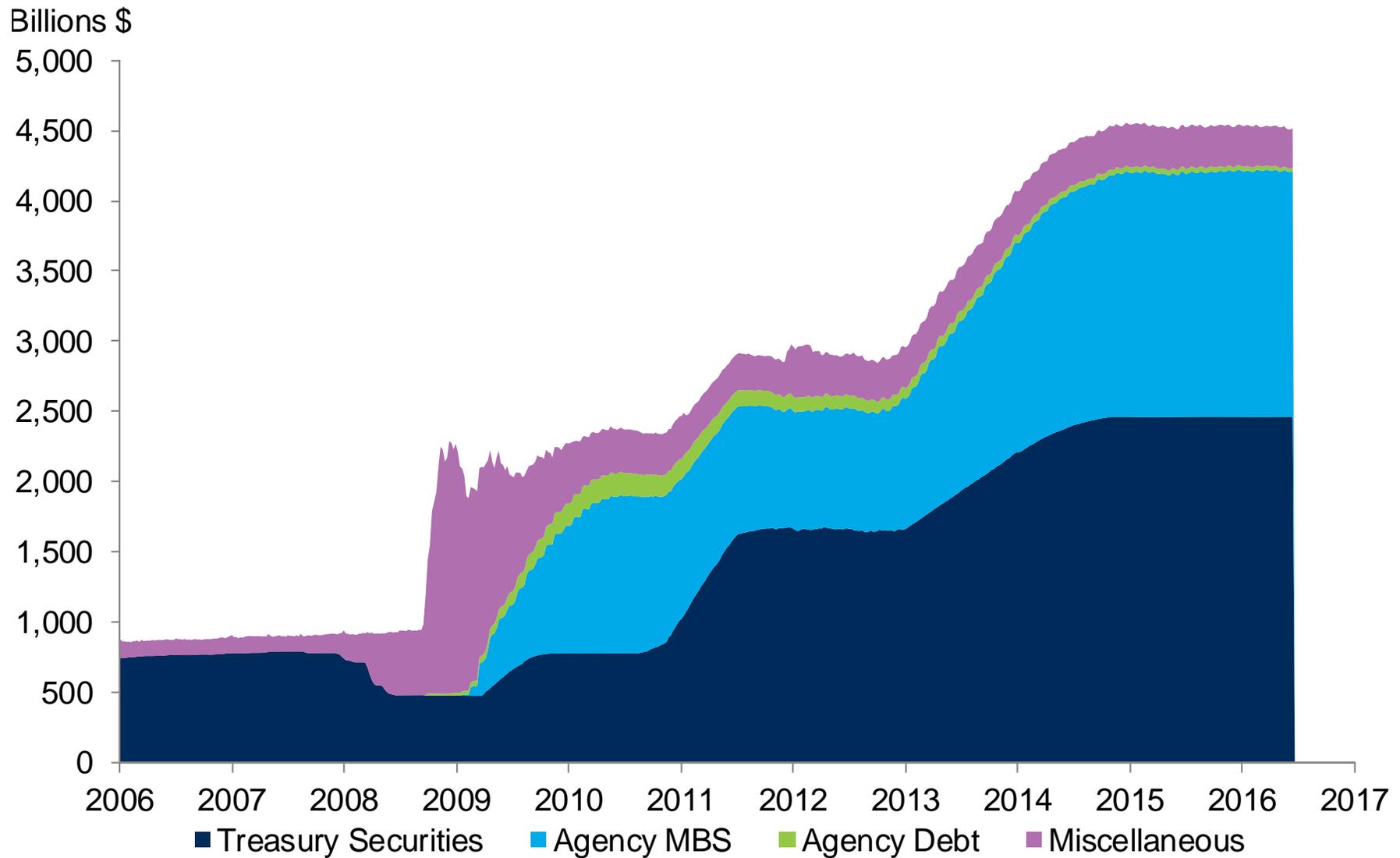
October 2016
Avg. Price/Barrel: \$51.52

Monetary Policy

Federal Reserve System Assets



Federal Reserve System Assets

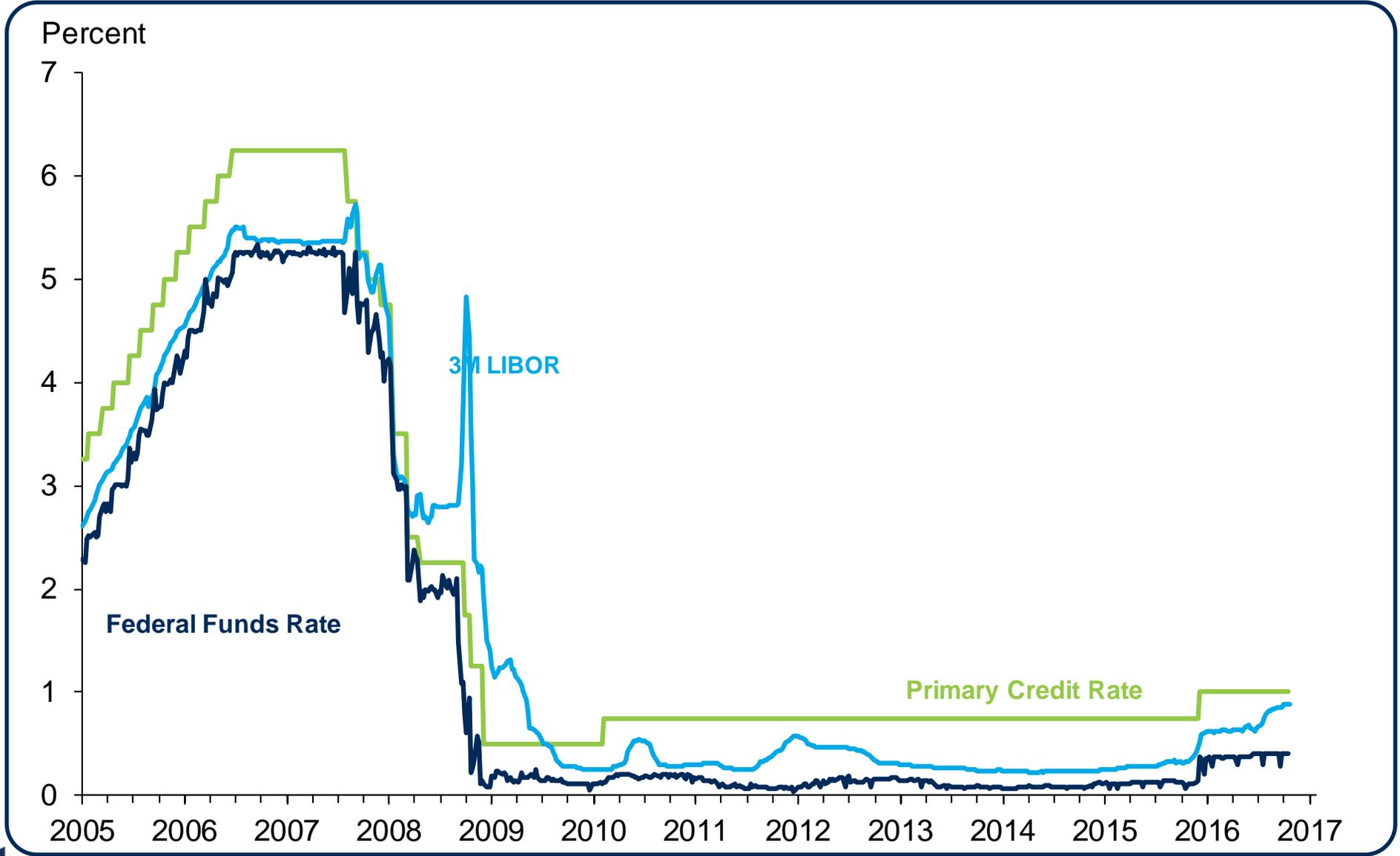


FOMC Statement – November 2, 2016

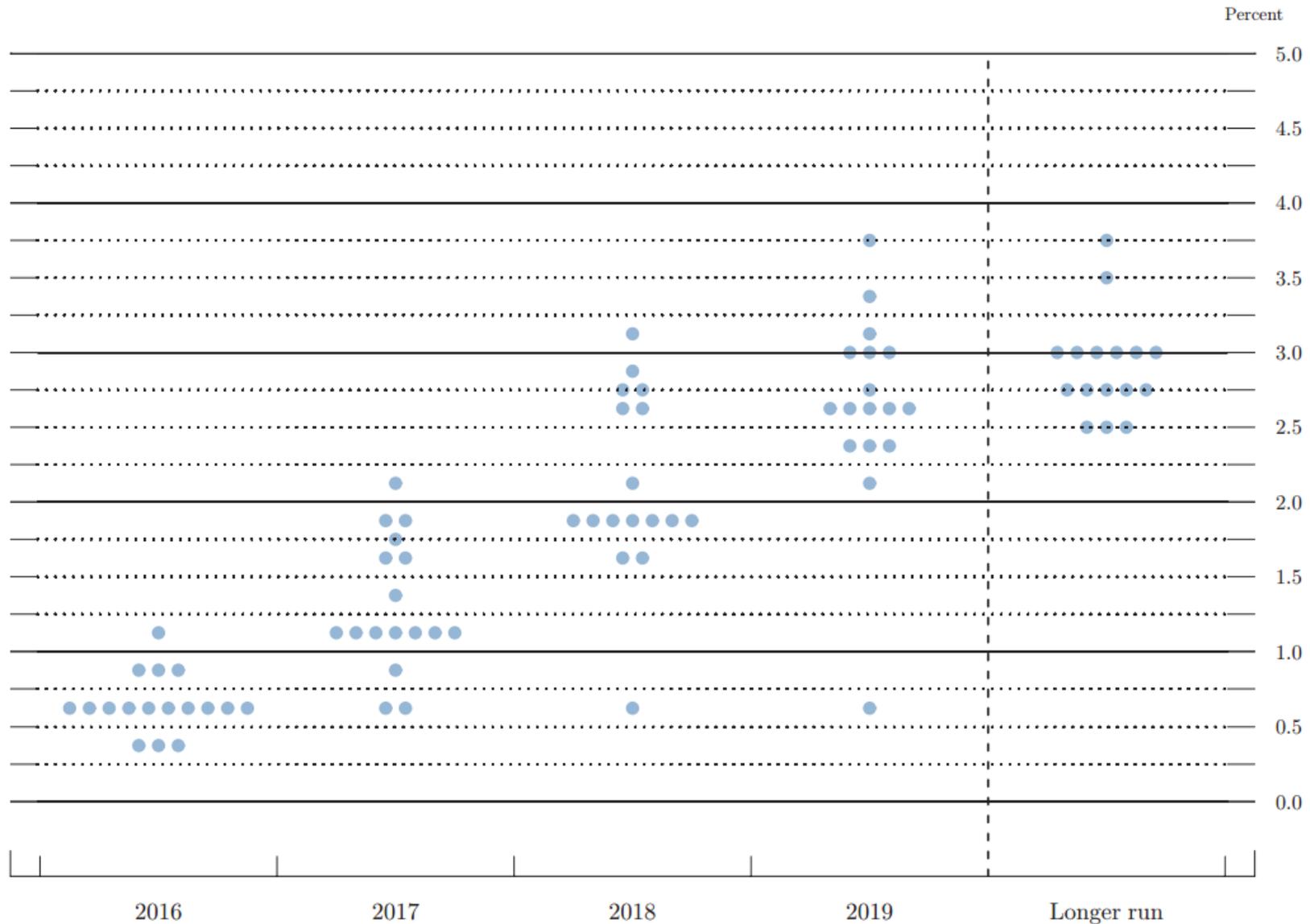
....The Committee currently expects that, with gradual adjustments in the stance of monetary policy, **economic activity will expand at a moderate pace and labor market conditions will strengthen somewhat further. Inflation is expected to rise to 2 percent over the medium term as the transitory effects of past declines in energy and import prices dissipate and the labor market strengthens further.** Near-term risks to the economic outlook appear roughly balanced. The Committee continues to closely monitor inflation indicators and global economic and financial developments.

Against this backdrop, **the Committee decided to maintain the target range for the federal funds rate at 1/4 to 1/2 percent.** The stance of monetary policy remains accommodative, thereby supporting further improvement in labor market conditions and a return to 2 percent inflation.

Monetary Policy Instruments

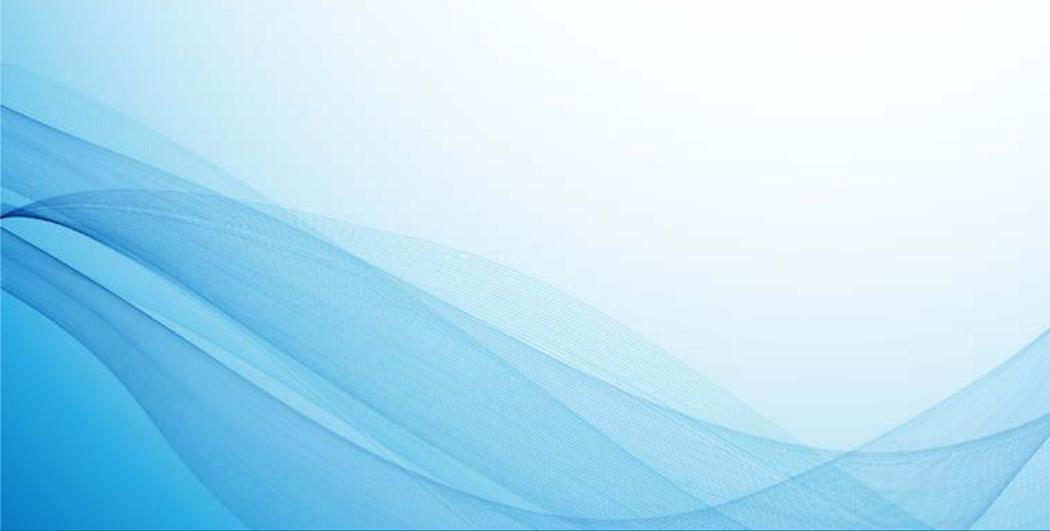


FOMC Projections: Federal Funds Rate



Note: Each dot in the chart represents the value of an FOMC participant's judgment of the midpoint of the appropriate target range (or the appropriate target level) for the federal funds rate at the end of the calendar year. Projections made for the September 2016 meeting.

Source: Board of Governors



The views expressed here are those of the author, and do not necessarily represent those of the Federal Reserve Bank of Richmond or the Federal Reserve System.