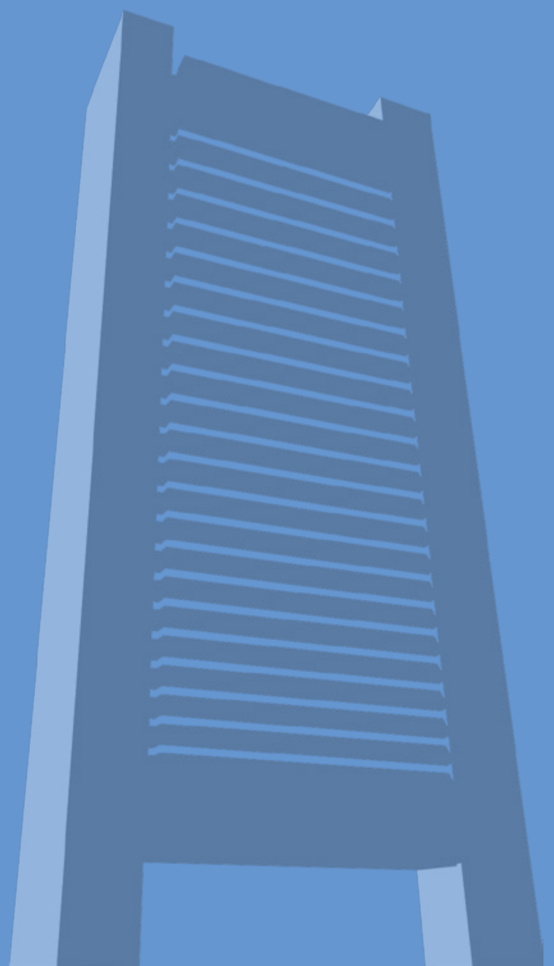
FEDERAL RESERVE BANK OF BOSTON™

EMBARGOED UNTIL WEDNESDAY, MARCH 29, 2017 AT 11:30 A.M.; OR UPON DELIVERY



The Case for Gradual but Regular Monetary Policy Normalization

Eric S. Rosengren
President & CEO
Federal Reserve Bank of Boston

March 29, 2017

The Boston Economic Club
Hosted by the Federal Reserve Bank of Boston
Boston, Massachusetts

bostonfed.org

March Rate Increase by FOMC

- The committee had previously increased the interest rate target range just twice in this tightening cycle – in December 2015 and in December 2016
- Term “gradual” is not synonymous with once a year just before Christmas
- I view four increases this year as fully consistent with comments from FOMC participants stating that the path of normalizing rates will be gradual
- Clearly slower than the previous tightening cycle that began in June of 2004

The Default Should Be Gradual Normalization

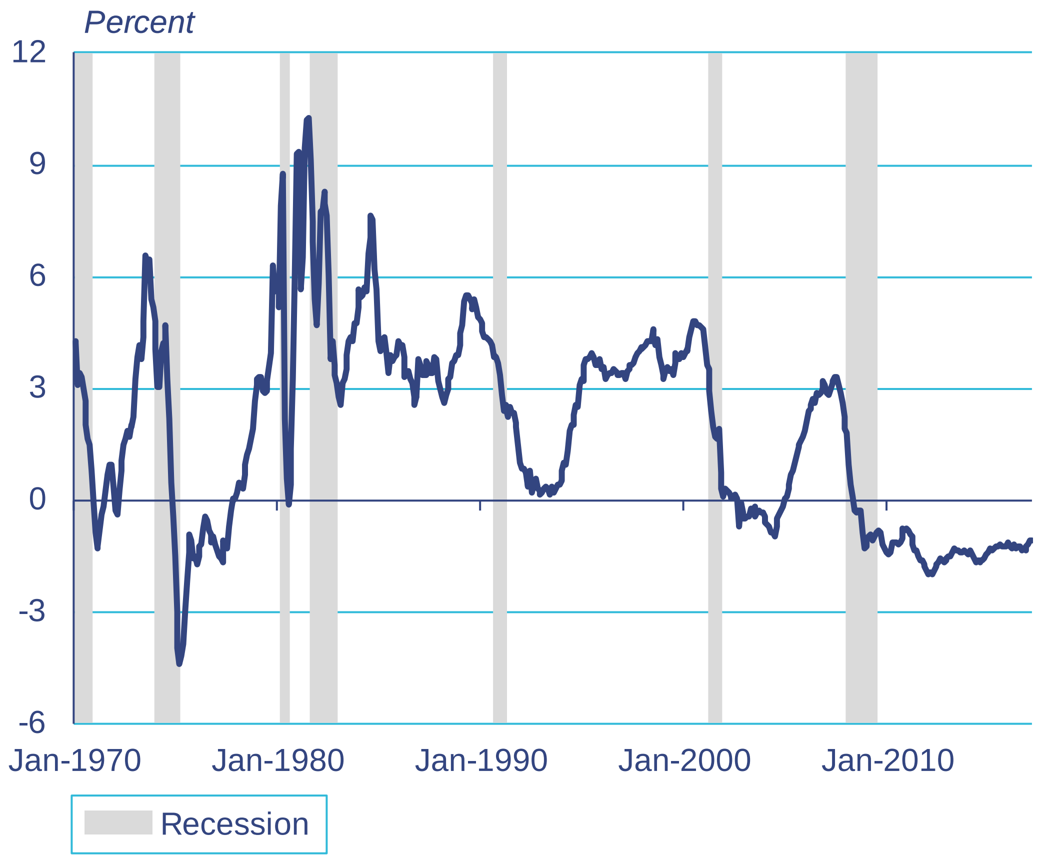
- An increase at *every other* FOMC meeting over the course of this year could and should be the committee's default
- At present, the perception seems to be that the outcome of each meeting depends on nuances of each incoming data release (with the base case being no change in rates)
- A somewhat different stance for policy: expect to tighten at every other meeting unless incoming data are materially inconsistent with the forecast
- This would still be fully data-dependent, not a preset path, as it would hinge on incoming data

Why a Gradual but More Regular Move to Normalization is Now Appropriate

- Improved “starting” conditions – near both elements of the Fed’s dual mandate
- Still have a federal funds rate that is less than 1 percent, while inflation is approaching 2 percent
- It *is* unusual to still have negative real interest rates late in a recovery when the economy is close to full employment and nearing the inflation target

Figure 1: Real Federal Funds Effective Rate

January 1970 - February 2017

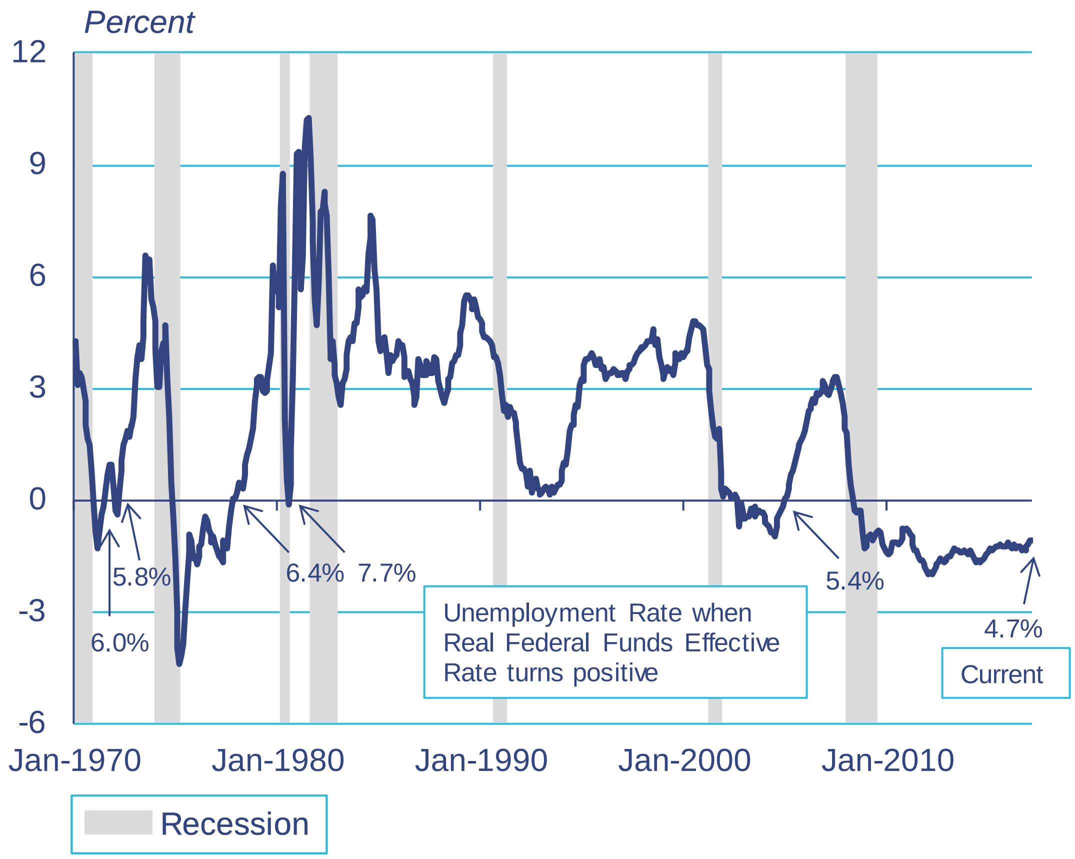


Note: The real federal funds effective rate is calculated by subtracting the core PCE inflation rate from the nominal federal funds effective rate. A core PCE inflation rate of 1.7% is assumed for February.

Source: Federal Reserve Board, BEA, NBER, Haver Analytics

Figure 2: Real Federal Funds Effective Rate

January 1970 - February 2017

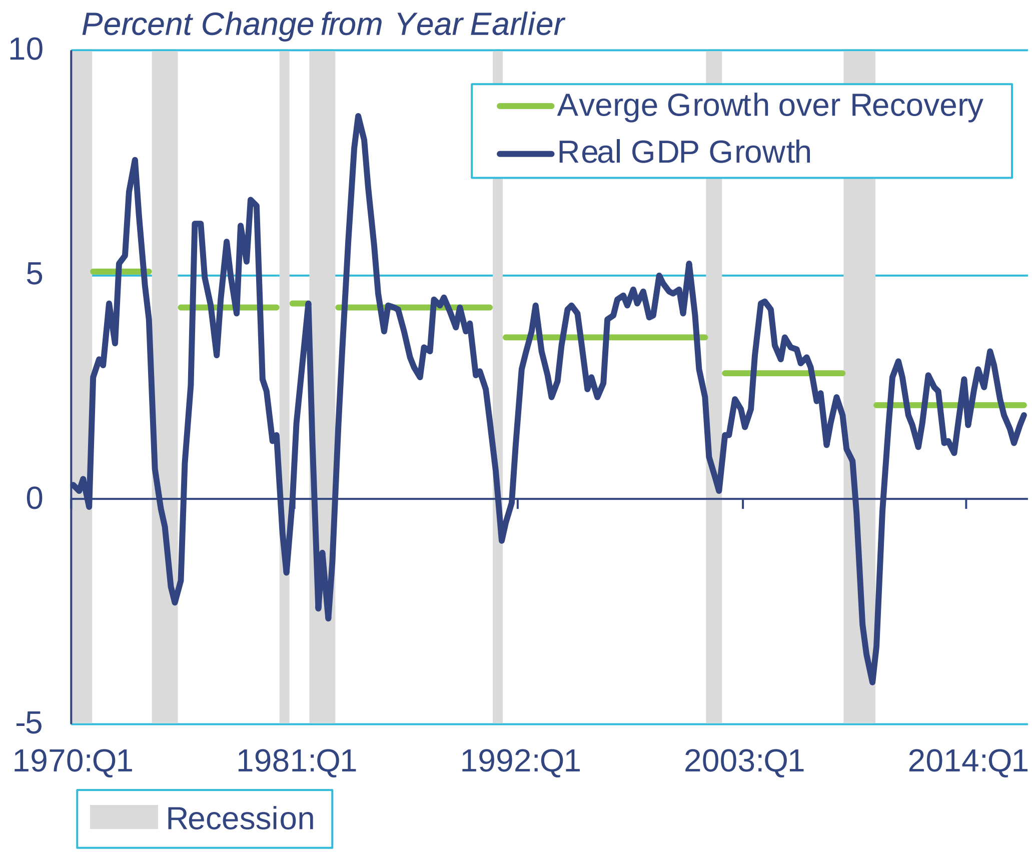


Note: The real federal funds effective rate is calculated by subtracting the core PCE inflation rate from the nominal federal funds effective rate. A core PCE inflation rate of 1.7% is assumed for February.

Source: Federal Reserve Board, BEA, NBER, Haver Analytics

Figure 3: Real GDP Growth

1970:Q1 - 2016:Q4

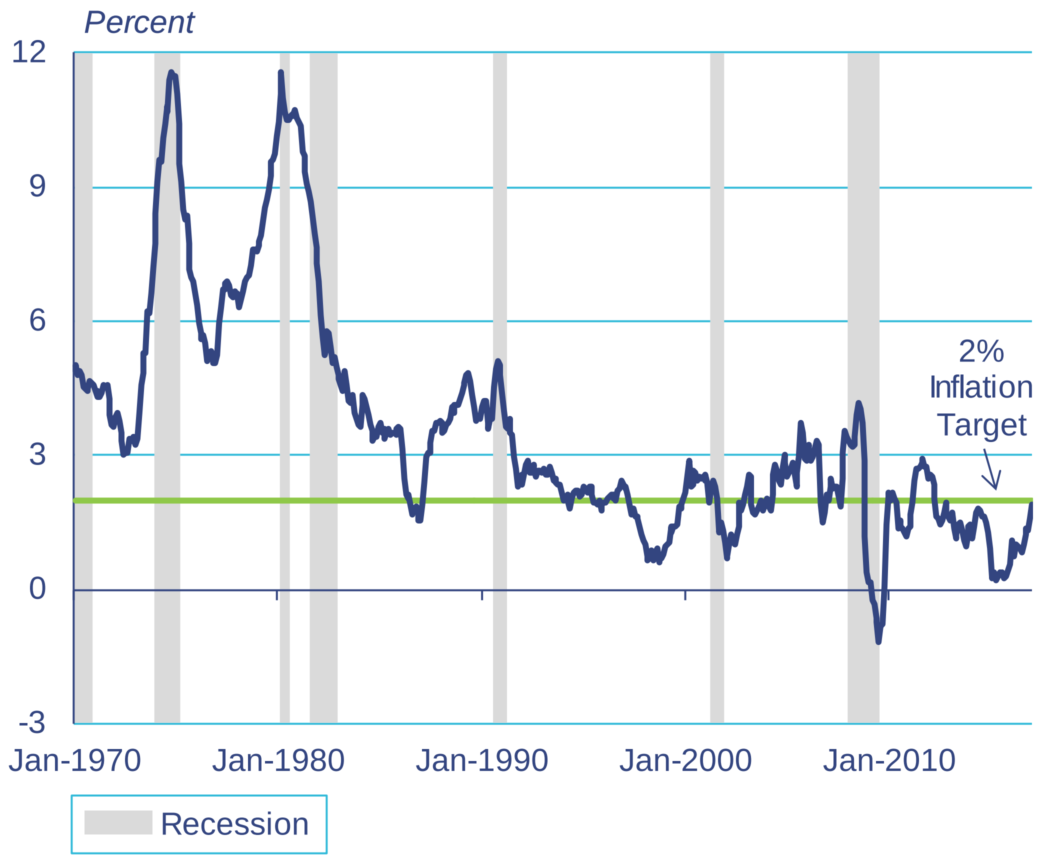


Note: Real GDP growth is displayed on a year-over-year basis to smooth the series. The average growth over recovery is calculated as the average annual growth in real GDP from the previous trough to the peak.

Source: BEA, NBER, Haver Analytics

Figure 4: Inflation Rate: Change in Personal Consumption Expenditures (PCE) Price Index

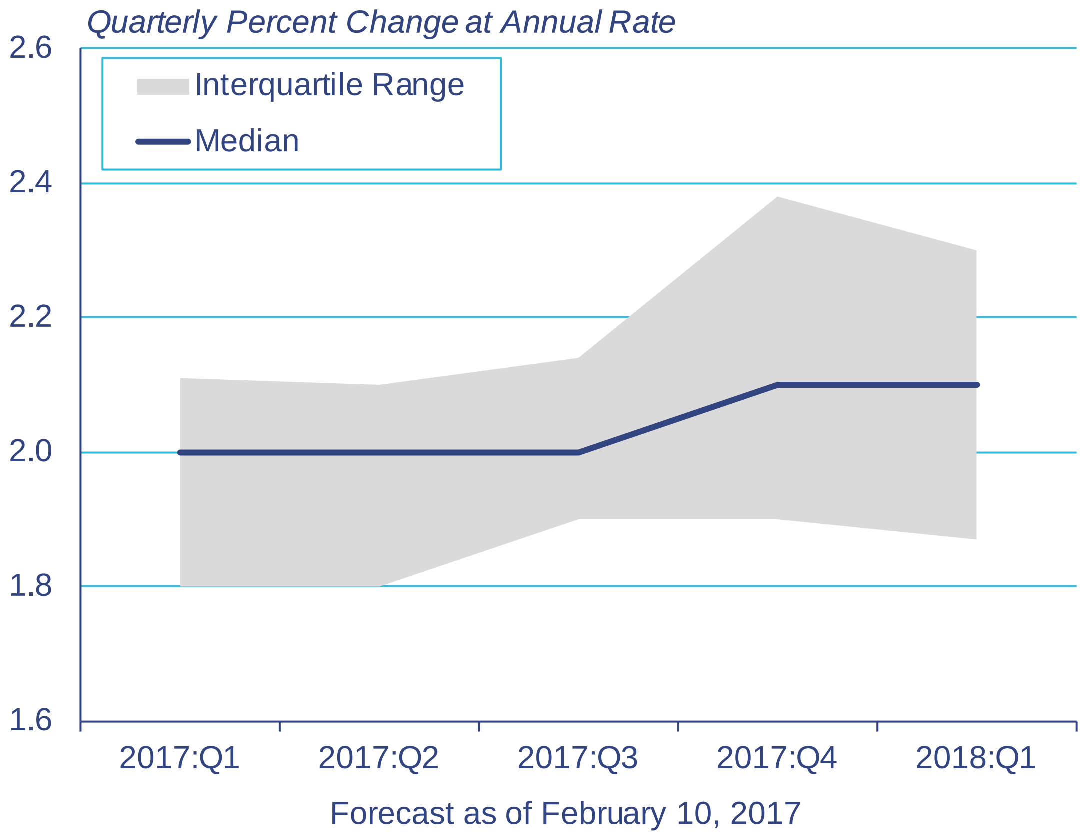
January 1970 - January 2017



Source: BEA, NBER, Haver Analytics

Figure 5: Survey of Professional Forecasters: Median Inflation Rate Forecast

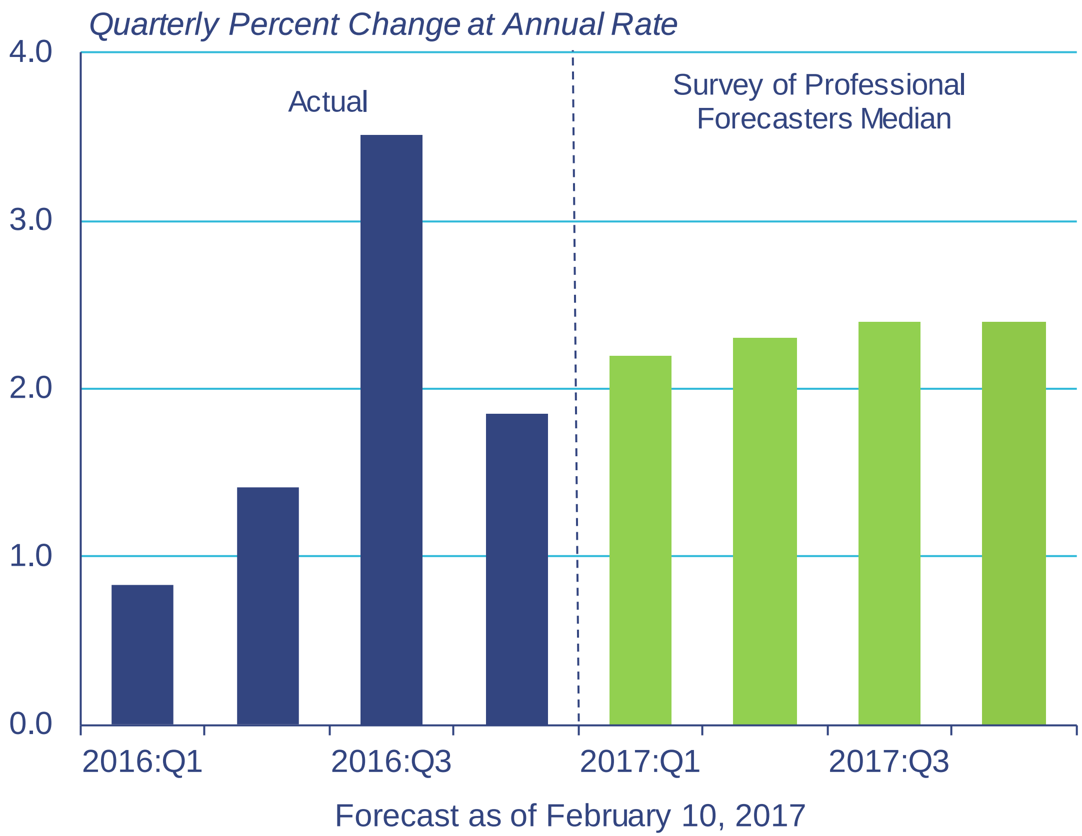
2017:Q1 - 2018:Q1



Source: Federal Reserve Bank of Philadelphia, Survey of Professional Forecasters; Haver Analytics

Figure 6: Real GDP Growth: Actual and Forecast

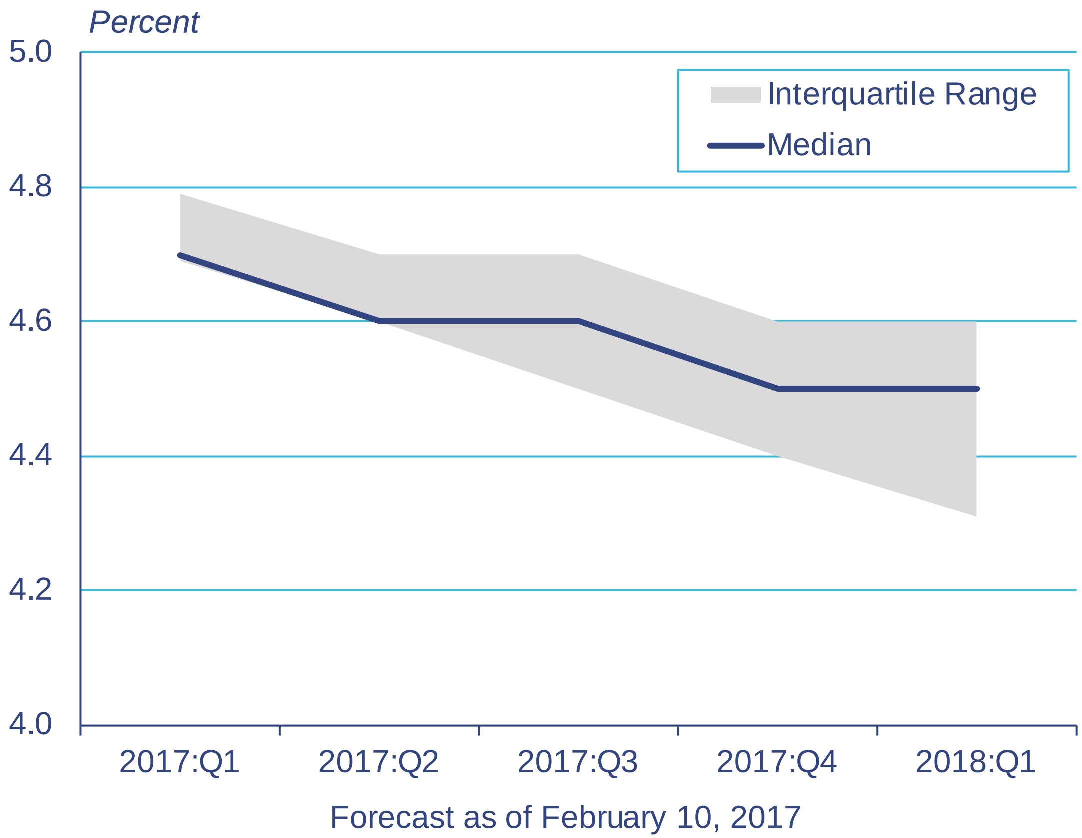
2016:Q1 - 2017:Q4



Source: BEA; Federal Reserve Bank of Philadelphia, Survey of Professional Forecasters; Haver Analytics

Figure 7: Survey of Professional Forecasters: Median Civilian Unemployment Rate Forecast

2017:Q1 - 2018:Q1



Source: Federal Reserve Bank of Philadelphia, Survey of Professional Forecasters; Haver Analytics

Figure 8: Unemployment Rate Forecast from the Summary of Economic Projections

2017:Q4 - 2019:Q4 and the Longer Run

Civilian Unemployment Rate (Percent)											
Median				Central Tendency				Range			
2017	2018	2019	Longer Run	2017	2018	2019	Longer Run	2017	2018	2019	Longer Run
4.5	4.5	4.5	4.7	4.5 - 4.6	4.3 - 4.6	4.3 - 4.7	4.7 - 5.0	4.4 - 4.7	4.2 - 4.7	4.1 - 4.8	4.5 - 5.0

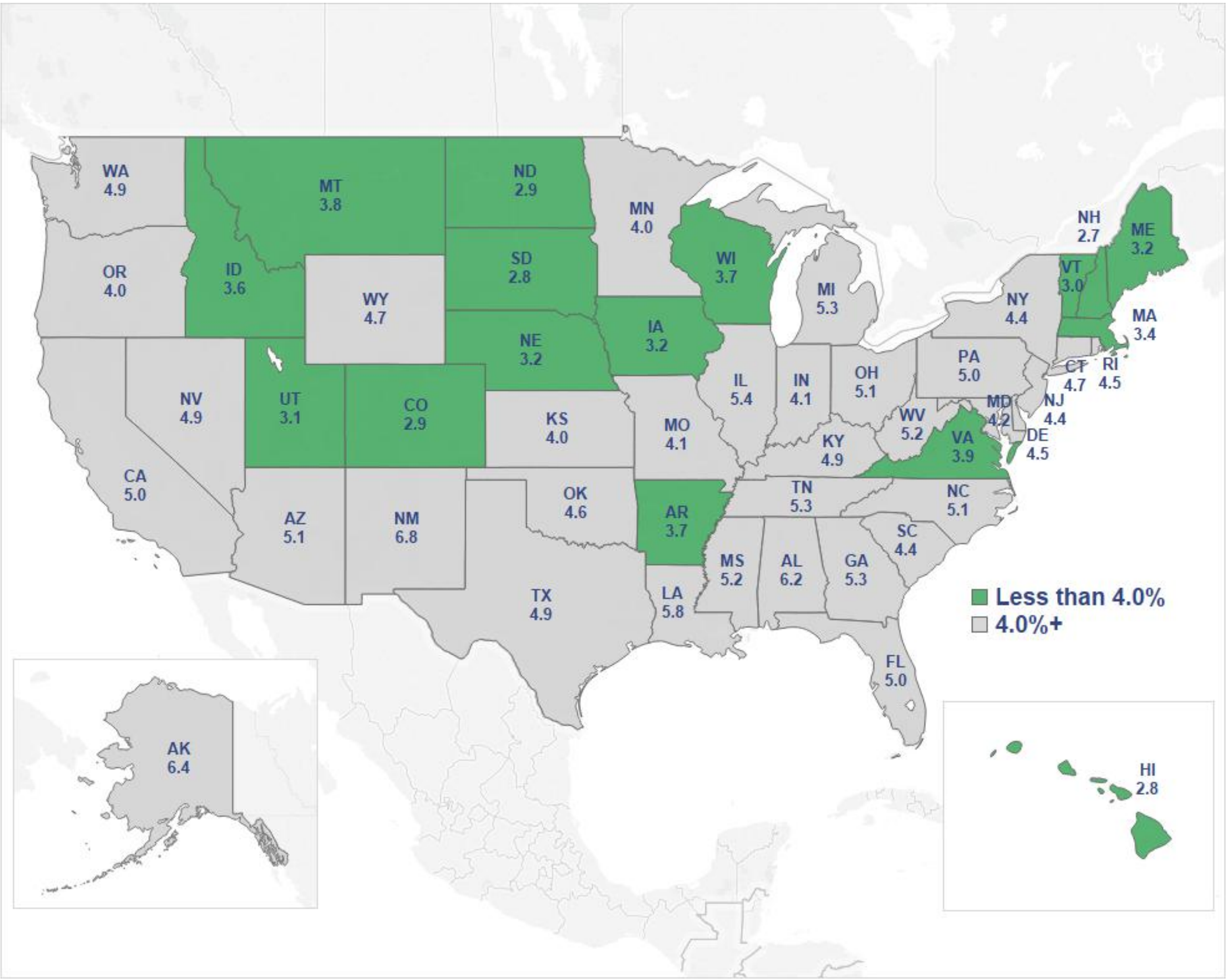
Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Longer-run projections represent each participant's assessment of the rate to which the unemployment rate would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy.

Forecast as of March 15, 2017

Source: FOMC, Summary of Economic Projections (SEP)

Figure 9: Civilian Unemployment Rate by State

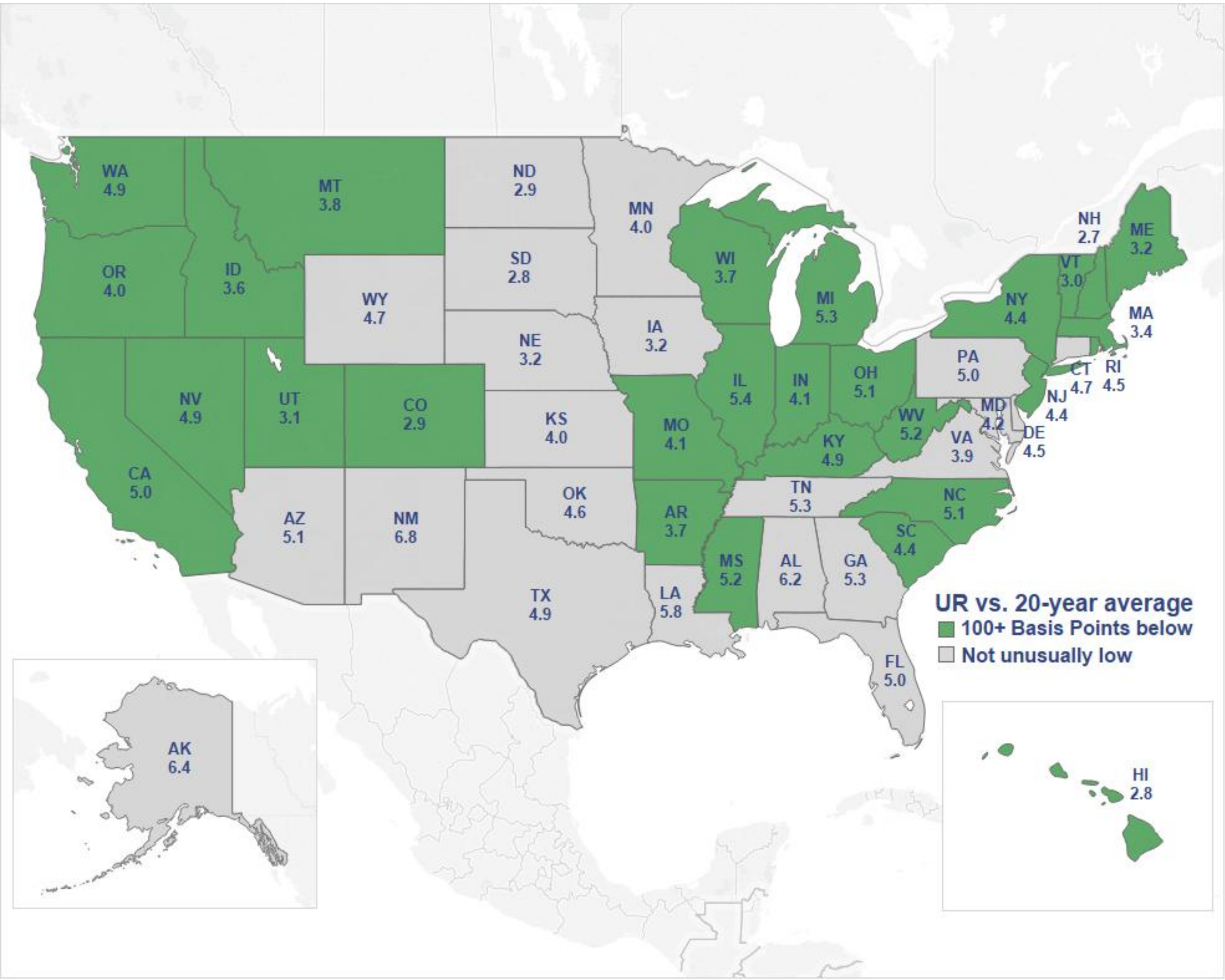
February 2017



Source: BLS, Haver Analytics

Figure 10: Civilian Unemployment Rate by State

February 2017

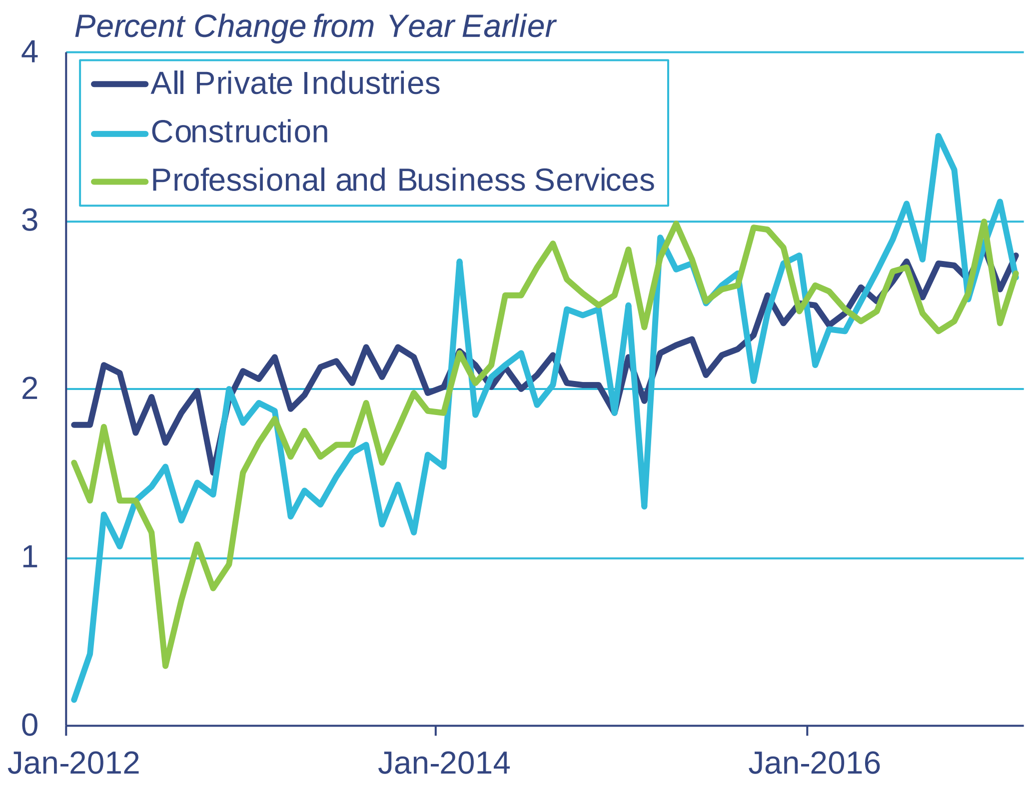


Note: The 20-year average is calculated using the most recent 240 months, March 1997 through February 2017.

Source: BLS, Haver Analytics

Figure 11: Wage Growth for Private Industry Workers and for Selected Industries

January 2012 - February 2017

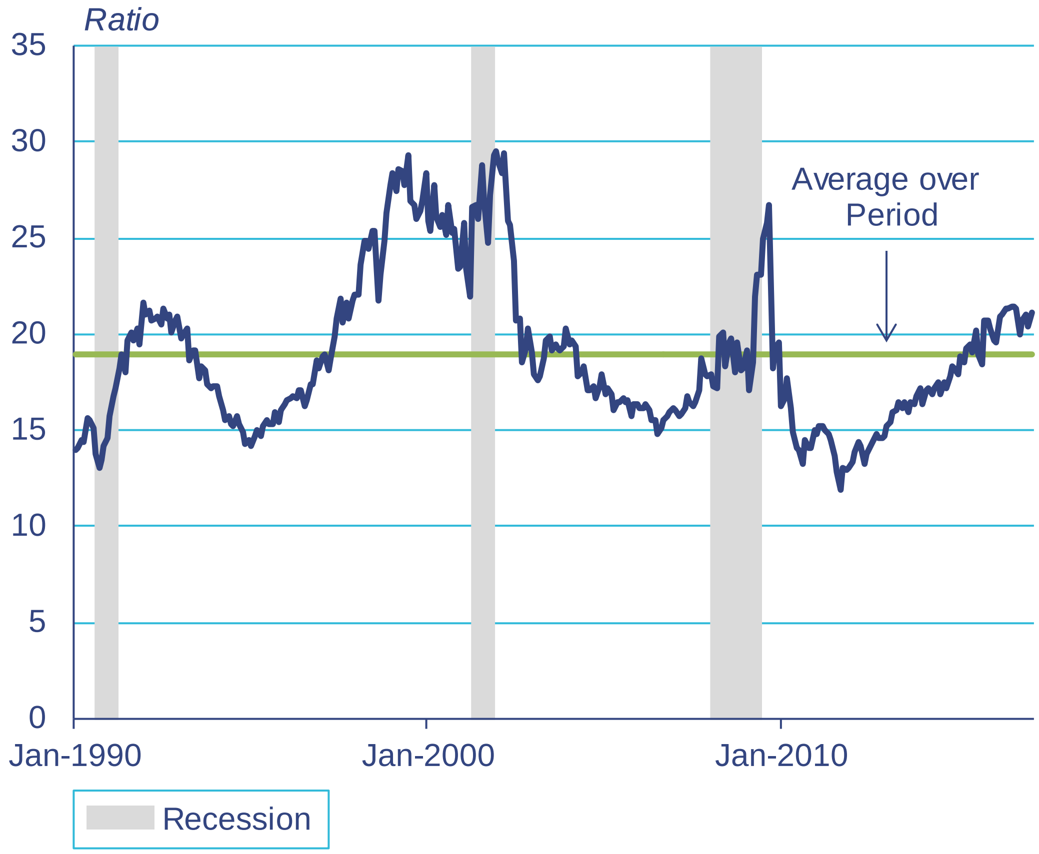


Note: Wage growth is calculated as the change in average hourly earnings.

Source: BLS, Haver Analytics

Figure 12: S&P 500 Composite Price to Operating Earnings Ratio

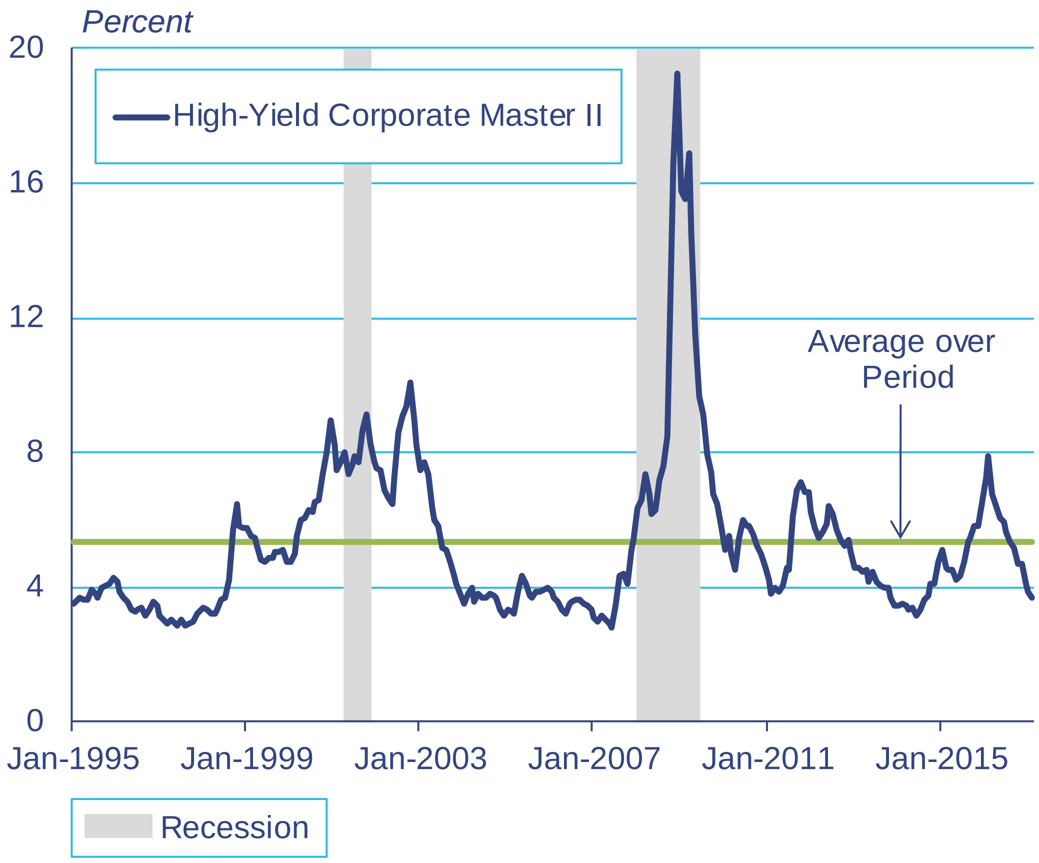
January 1990 - February 2017



Source: S&P, NBER, Haver Analytics

Figure 13: High-Yield Corporate Bond Spread over 10-Year U.S. Treasury Yield

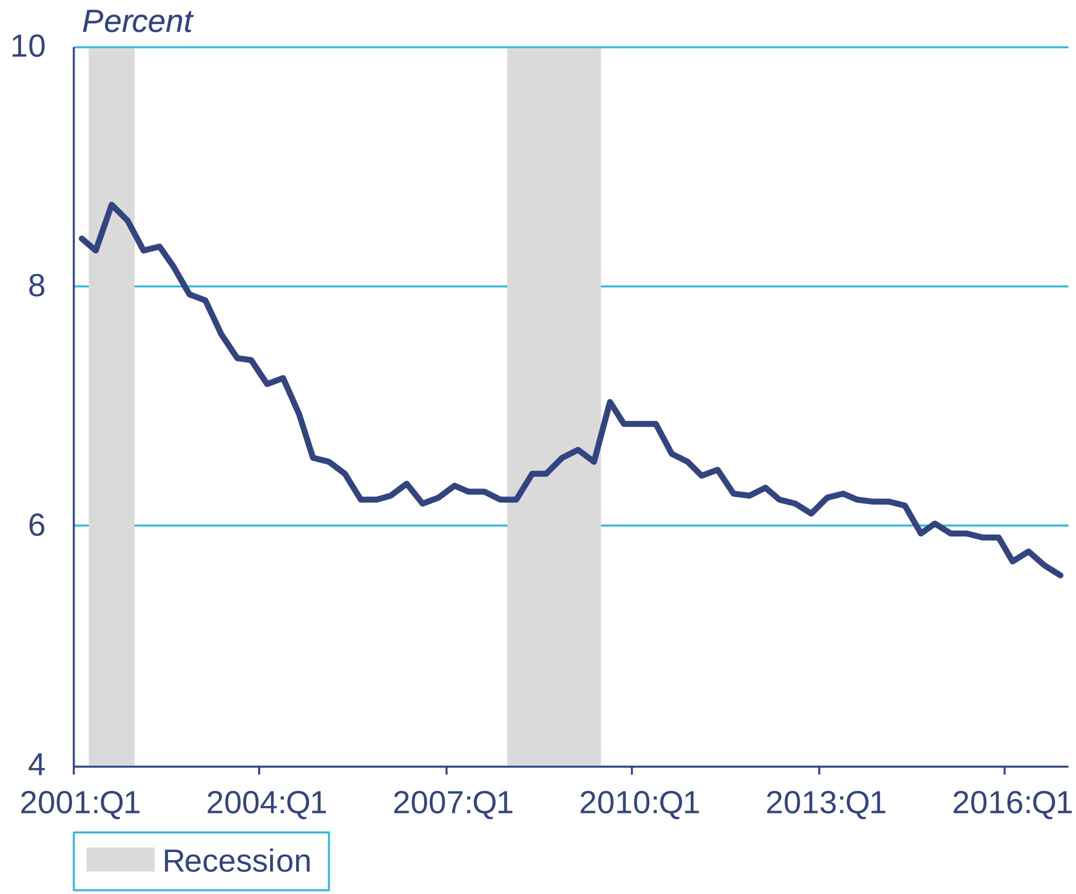
January 1995 - February 2017



Source: BofA Merrill Lynch, NBER, Haver Analytics

Figure 14: Apartment Capitalization Rate

2001:Q1 - 2016:Q4



Note: The capitalization or "cap" rate is the ratio of net operating income produced by a property to the price paid for the property, calculated at the time of a transaction. Based on properties of $2.5 million or more.

Source: Real Capital Analytics, NBER, Haver Analytics

Concluding Observations

- Recent economic reports have been consistent with continued steady improvement in the economy
  - Payroll employment growing: by 235,000 in most recent jobs report
  - The unemployment rate declining: by 0.1 percentage points, to 4.7 percent (my estimate of full employment)
  - Increase in average hourly earnings of 2.8 percent
- Forecasters expect achievement of the 2 percent inflation target this year

Concluding Observations (Continued)

- I believe it is likely to be appropriate for the FOMC to raise rates at a *more regular* – though *still gradual* – pace
- I consider it appropriate to move the nominal rate – gradually but more regularly – so the real rate becomes less negative
- It is important to avoid creating an over-hot economy that could require a more rapid tightening of monetary policy – which would place at risk the economic improvements seen to date