EMBARGOED UNTIL TUESDAY, MARCH 5, 2019, AT 7:35 A.M.; OR UPON DELIVERY

Federal Reserve
Bank of Boston®

Risk Management in Monetary Policymaking

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Economic Uncertainties – Risks to the Outlook

- The fourth quarter of 2018 featured significant volatility:
  - Domestic and international stocks fell
  - Stock volatility rose
  - Oil prices fell
  - Treasury rates fell
  - Credit spreads widened
  - Caused some analysts to highlight higher recession probabilities
- Since the start of 2019:
  - Many financial markets have recovered
  - A budget agreement avoided an extended government shutdown
- Significant risks remain unresolved:
  - Slowing in China and Europe
  - Possible trade issues
  - Potential for messy Brexit
  - Problems at some European banks

Risk Management Approach to Monetary Policy

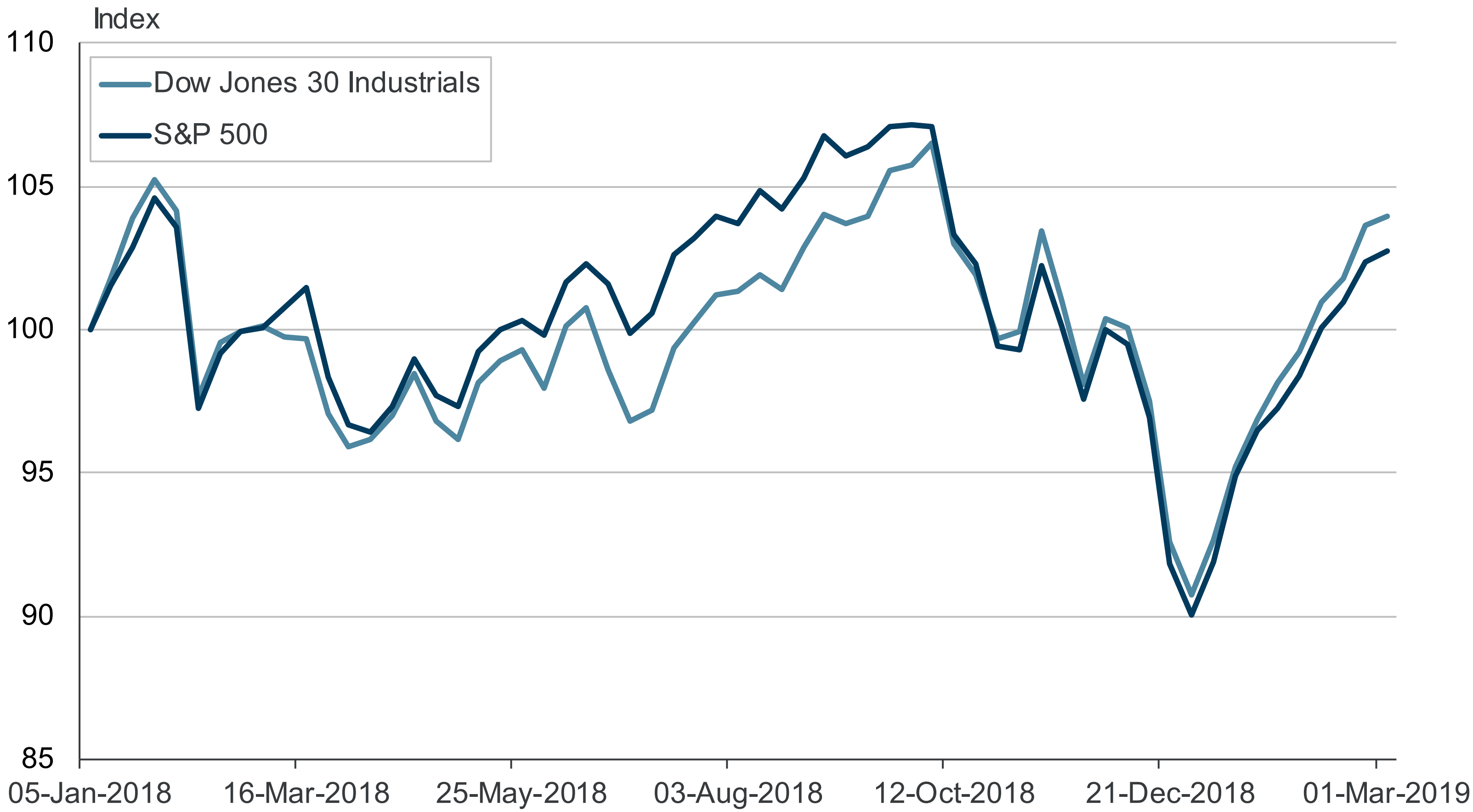
- Baseline outlook remains relatively good
  - Expect economic growth somewhat above 2 percent
  - Expect inflation to end 2019 close to 2 percent target
  - Labor markets likely to tighten somewhat further
- Still downside risks
  - Economy slowing from nearly 3 percent last year
    - Diminishing fiscal stimulus
    - Effects of four increases in short-term rates
  - Risk that slowdown in rest of world could dampen U.S. growth more than currently expecting
- Overheating risks seem less pressing at this juncture
  - Financial market volatility has tempered investor ebullience
  - Inflation currently a little below the Federal Reserve’s target

Implications for Monetary Policy

- Federal Reserve should remain patient
  - Expect reasonably strong economy
  - Overheating not an immediate problem; inflation well behaved
  - Evaluate if downside risks become more acute
- Monetary policy is currently appropriate given balance of risks

Figure 1: U.S. Stock Price Indices

January 5, 2018 - March 1, 2019

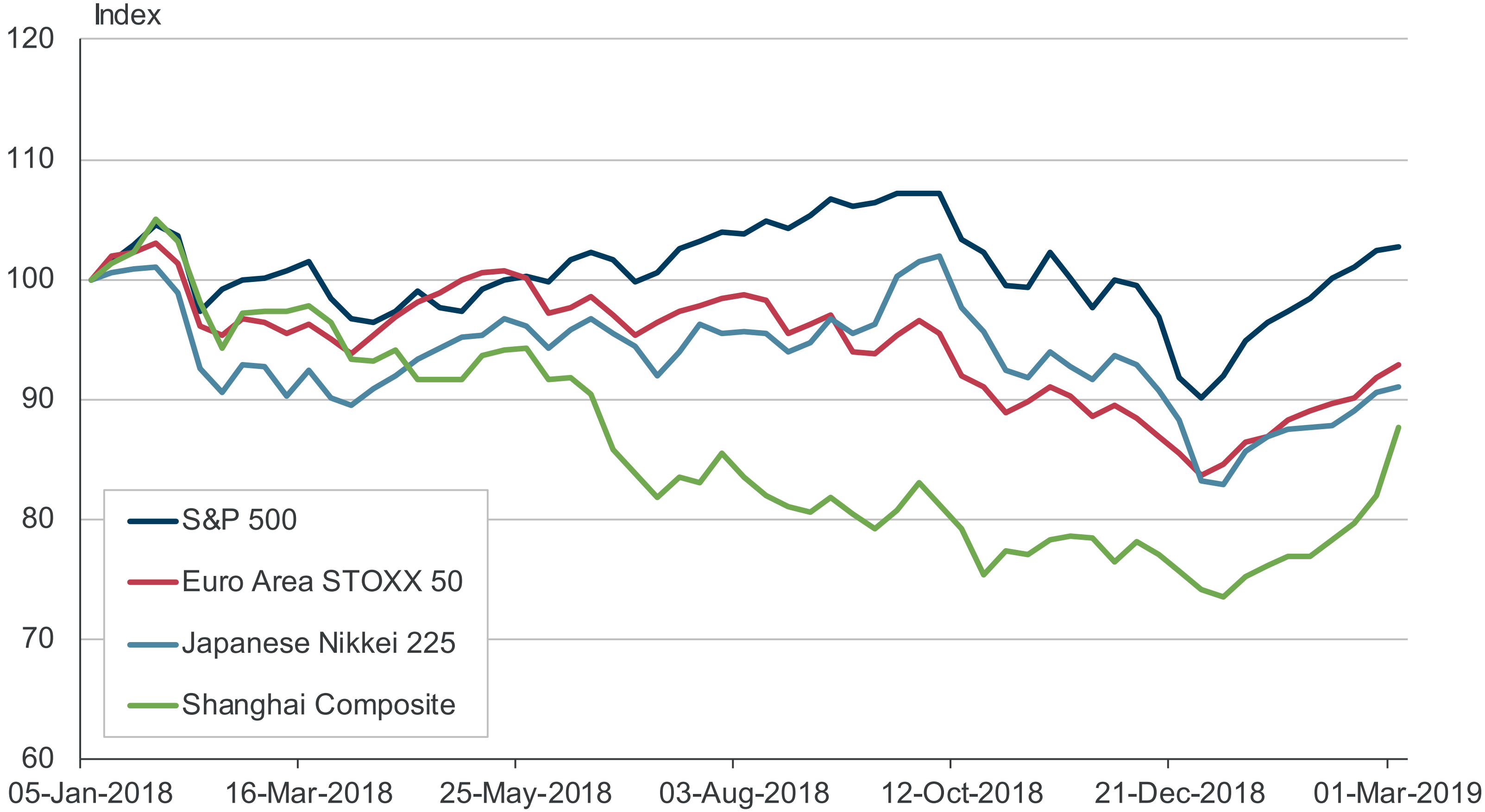


Note: Index level January 5, 2018=100. Weekly averages.

Source: DJ, S&P, WSJ, Haver Analytics

Figure 2: International Stock Price Indices

January 5, 2018 - March 1, 2019

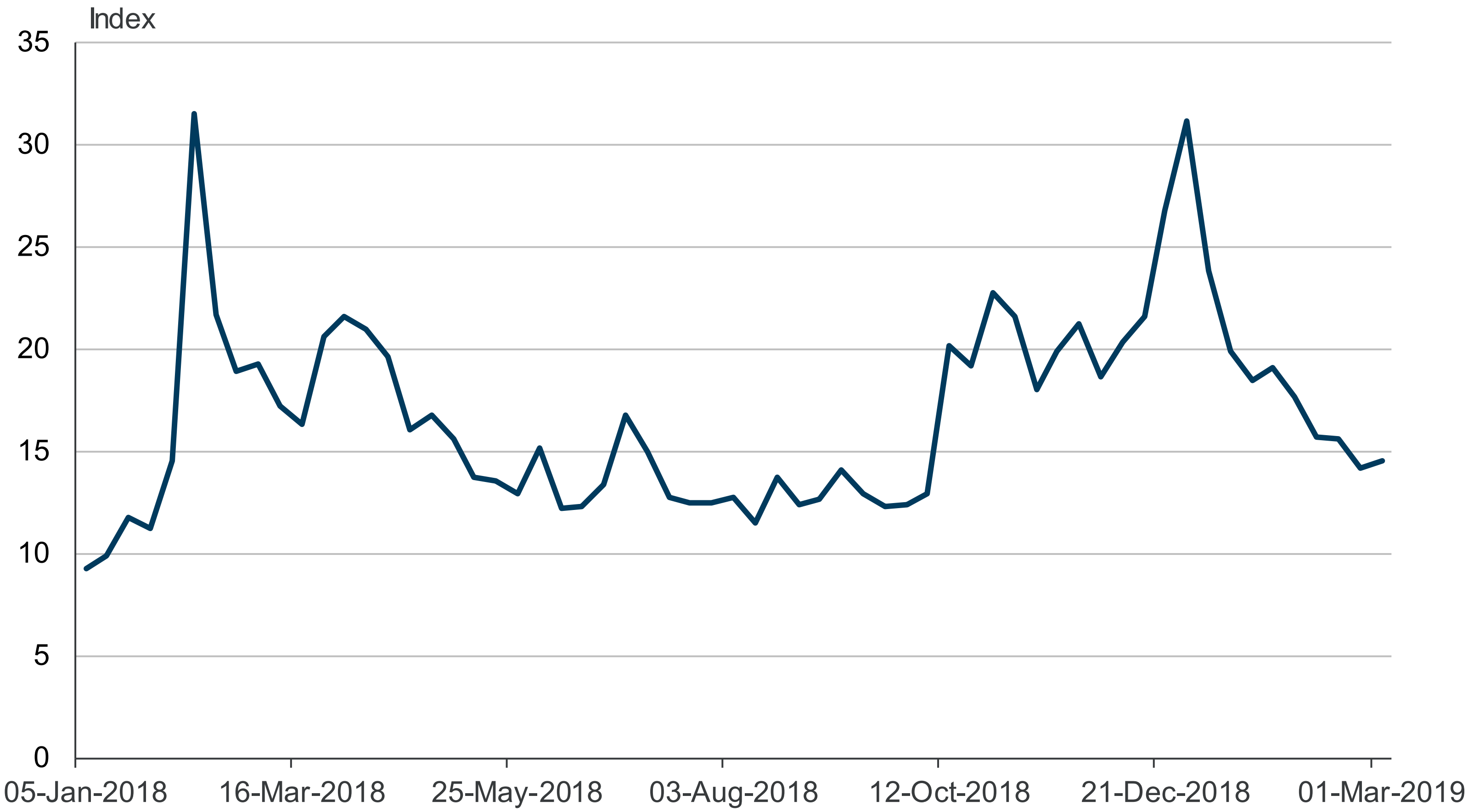


Note: Index level January 5, 2018=100. Weekly averages.

Source: S&P, FT, STOXX, Bloomberg Finance L.P., Haver Analytics

Figure 3: CBOE Market Volatility Index (VIX)

January 5, 2018 - March 1, 2019

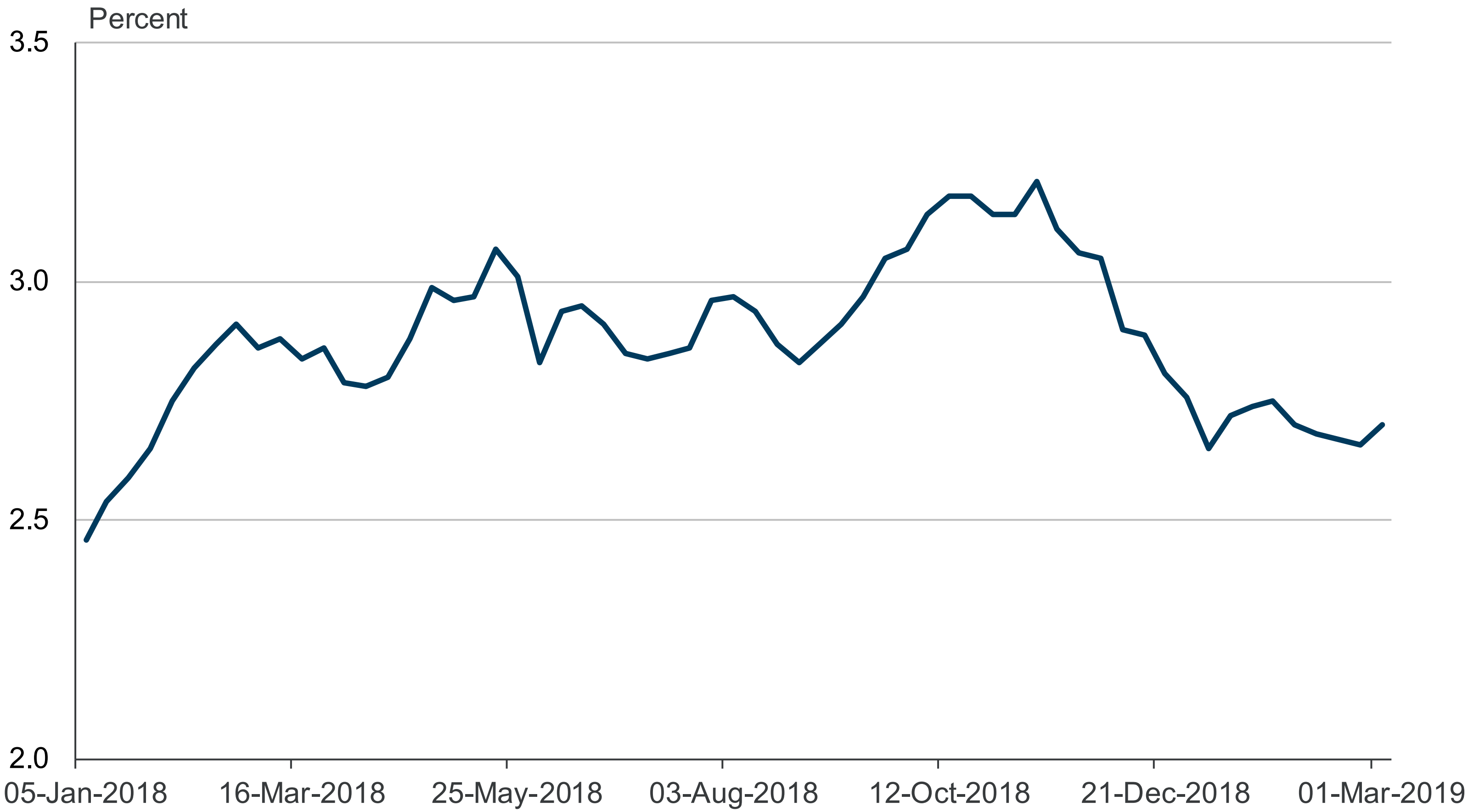


Note: Weekly averages.

Source: CBOE, WSJ, Haver Analytics

Figure 4: Ten-Year Treasury Yield

January 5, 2018 - March 1, 2019

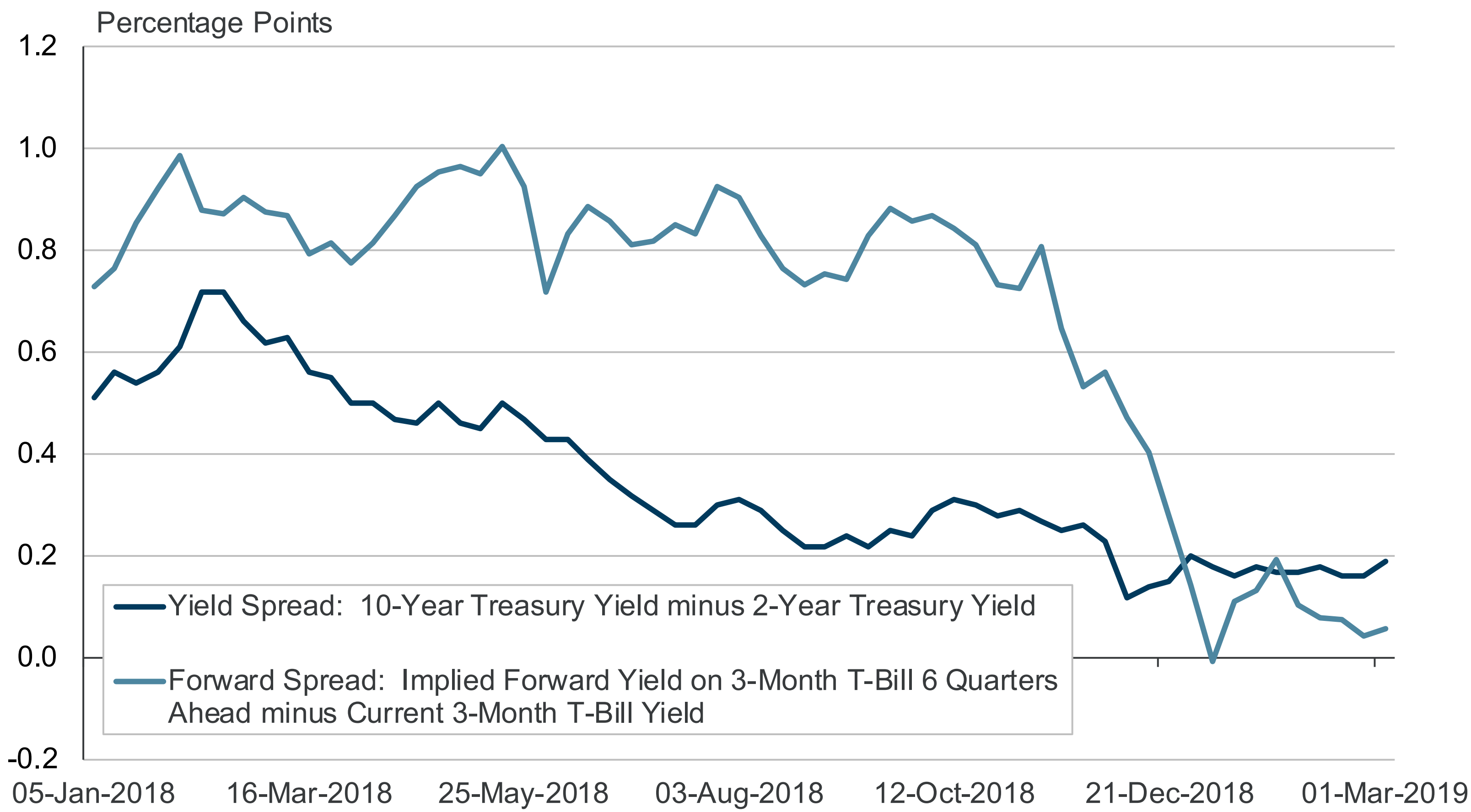


Note: Weekly averages.

Source: Federal Reserve Board, Haver Analytics

Figure 5: Long-Term Yield Spread and Near-Term Forward Spread

January 5, 2018 - March 1, 2019

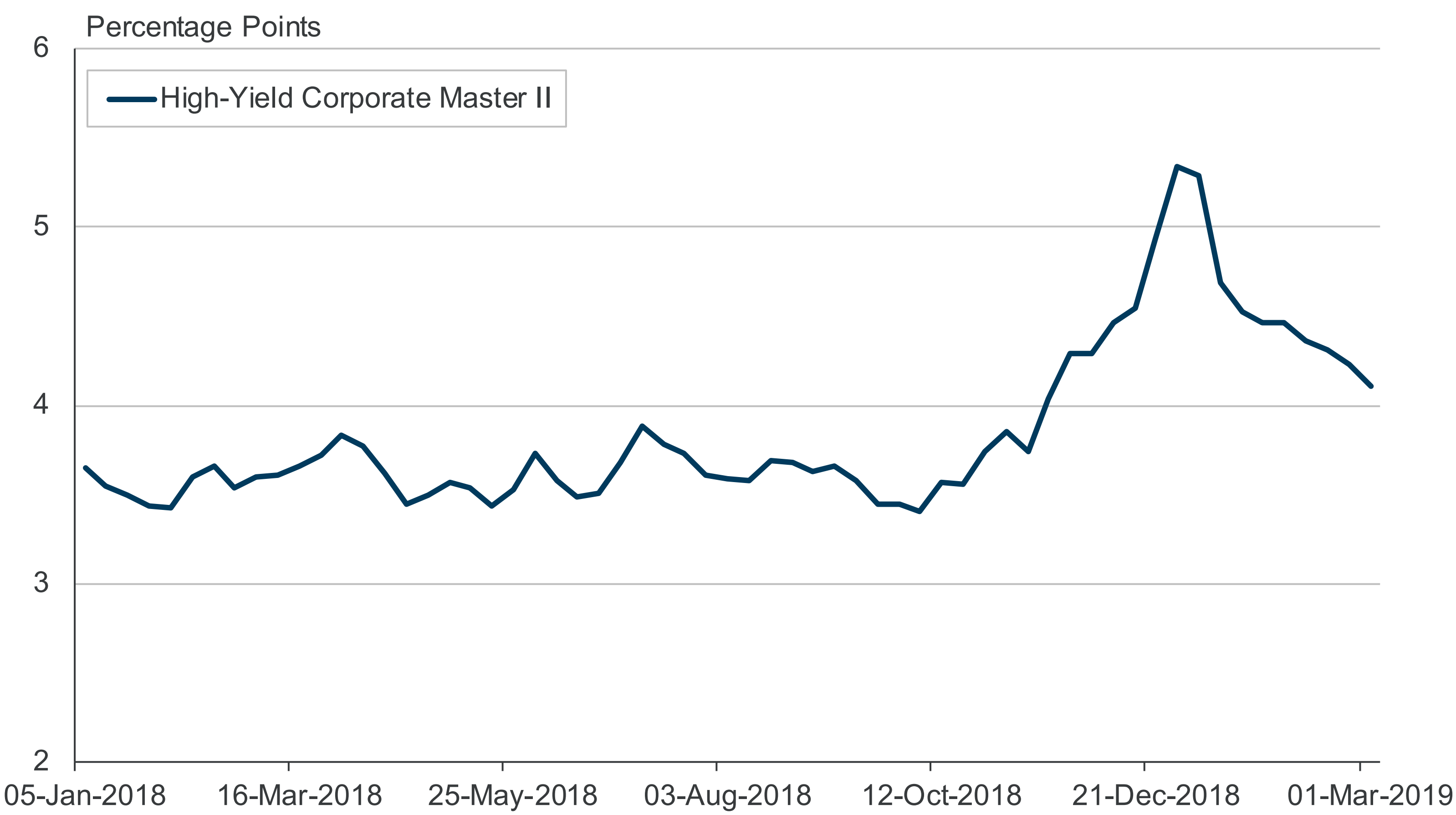


Note: Weekly averages. Near-term forward spread based on Engstrom and Sharpe methodology as outlined in "The Near-Term Forward Yield Spread as a Leading Indicator: A Less Distorted Mirror."

Source: Federal Reserve Board, Haver Analytics

Figure 6: High-Yield Corporate Bond Spread over Ten-Year U.S. Treasury Yield

January 5, 2018 - March 1, 2019

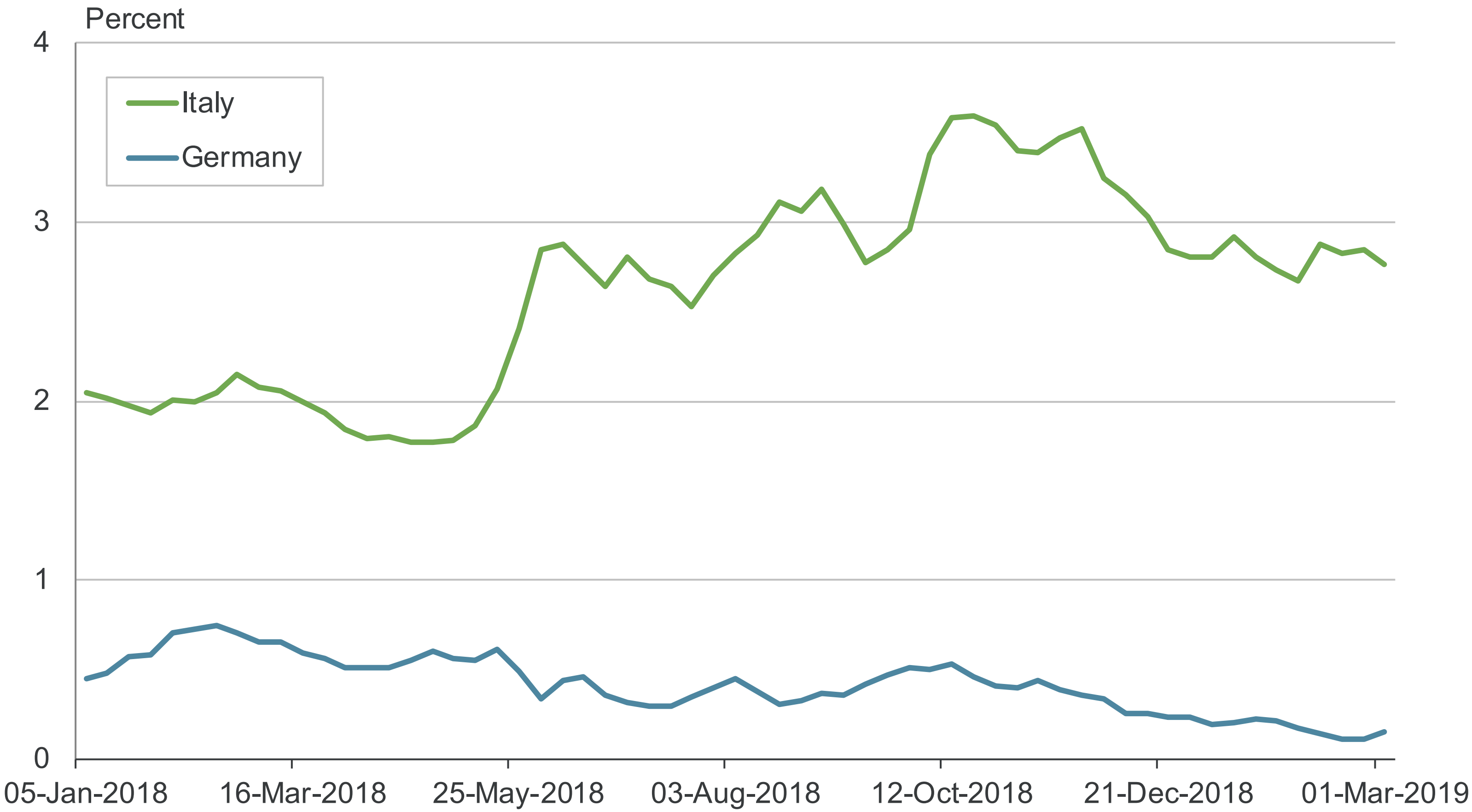


Note: Weekly averages.

Source: ICE/BofA Merrill Lynch, Federal Reserve Board, Haver Analytics

Figure 7: Ten-Year Government Bond Yields

January 5, 2018 - March 1, 2019



Note: Weekly averages.

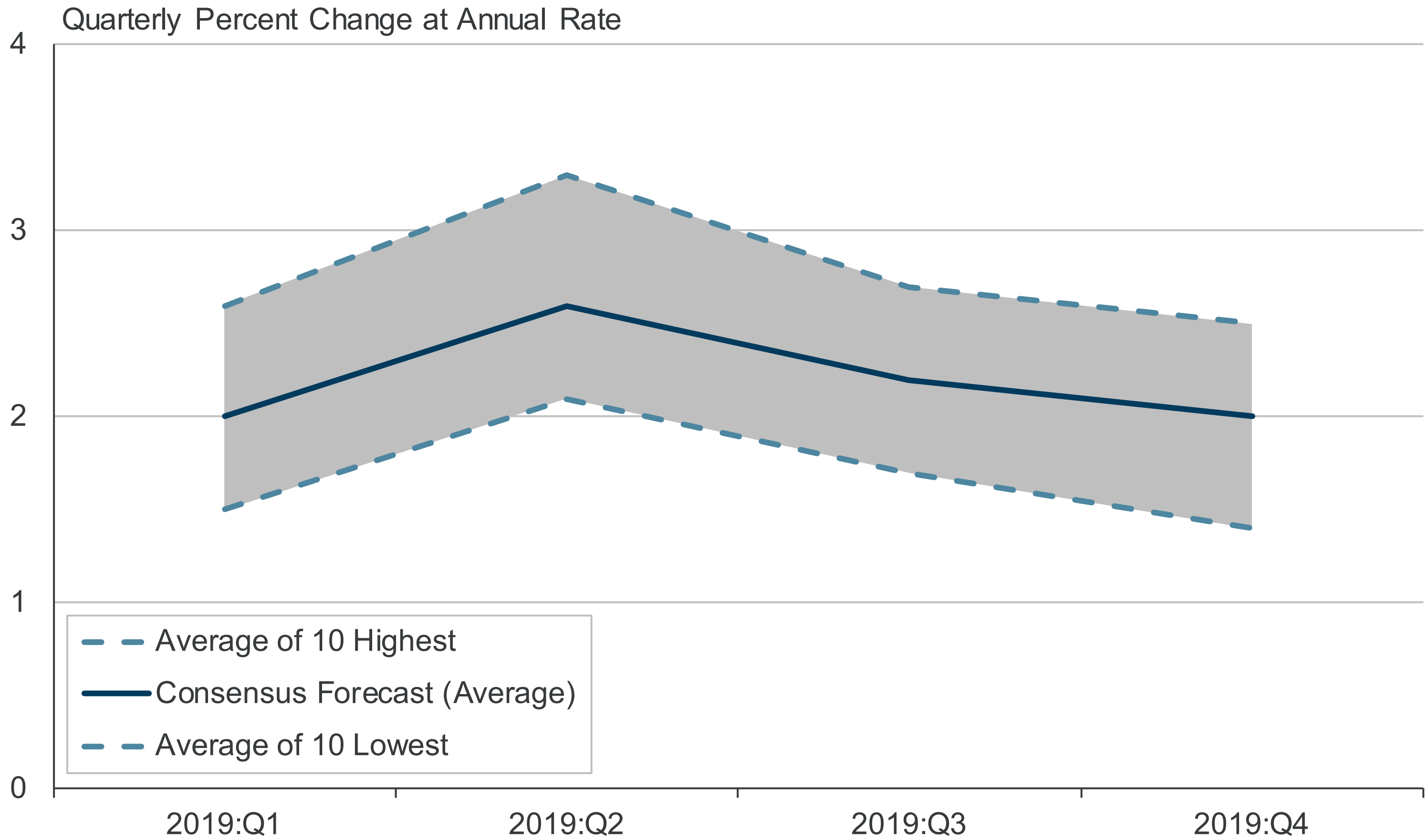
Source: Reuters, Haver Analytics

Markets Still Pricing In Somewhat Elevated Risk

- Domestic stocks have partially recovered and volatility is lower
- Foreign stocks and debt markets still reflective of downside risks
- These heightened risks are an important reason for policy patience

Figure 8: Blue Chip Forecast for Real GDP Growth

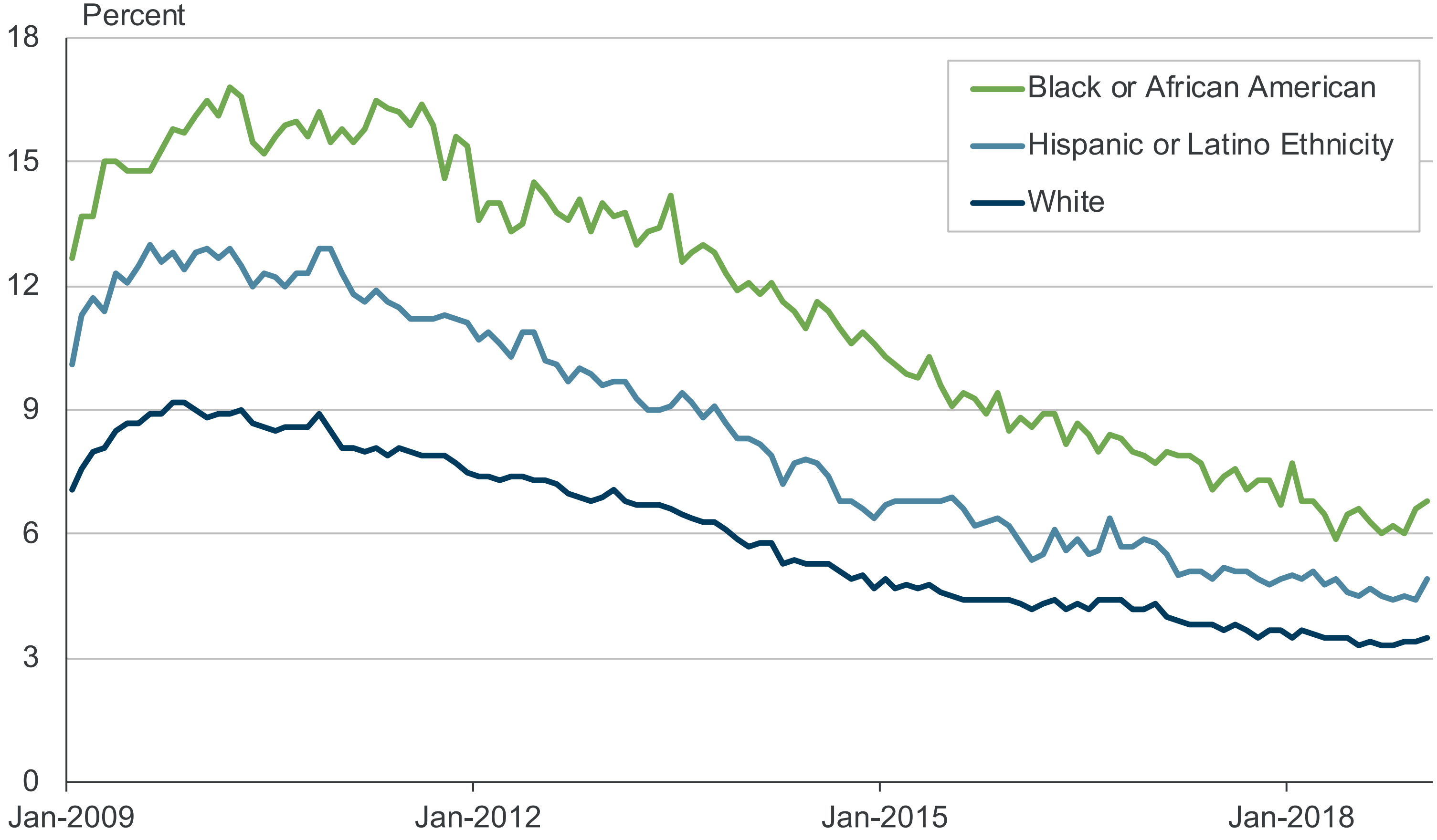
2019:Q1 - 2019:Q4



Source: Blue Chip Economic Indicators, February 10, 2019

Figure 9: Unemployment Rate by Race and Ethnicity

January 2009 - January 2019



Note: Persons whose ethnicity is identified as Hispanic or Latino may be of any race.

Source: BLS, Haver Analytics

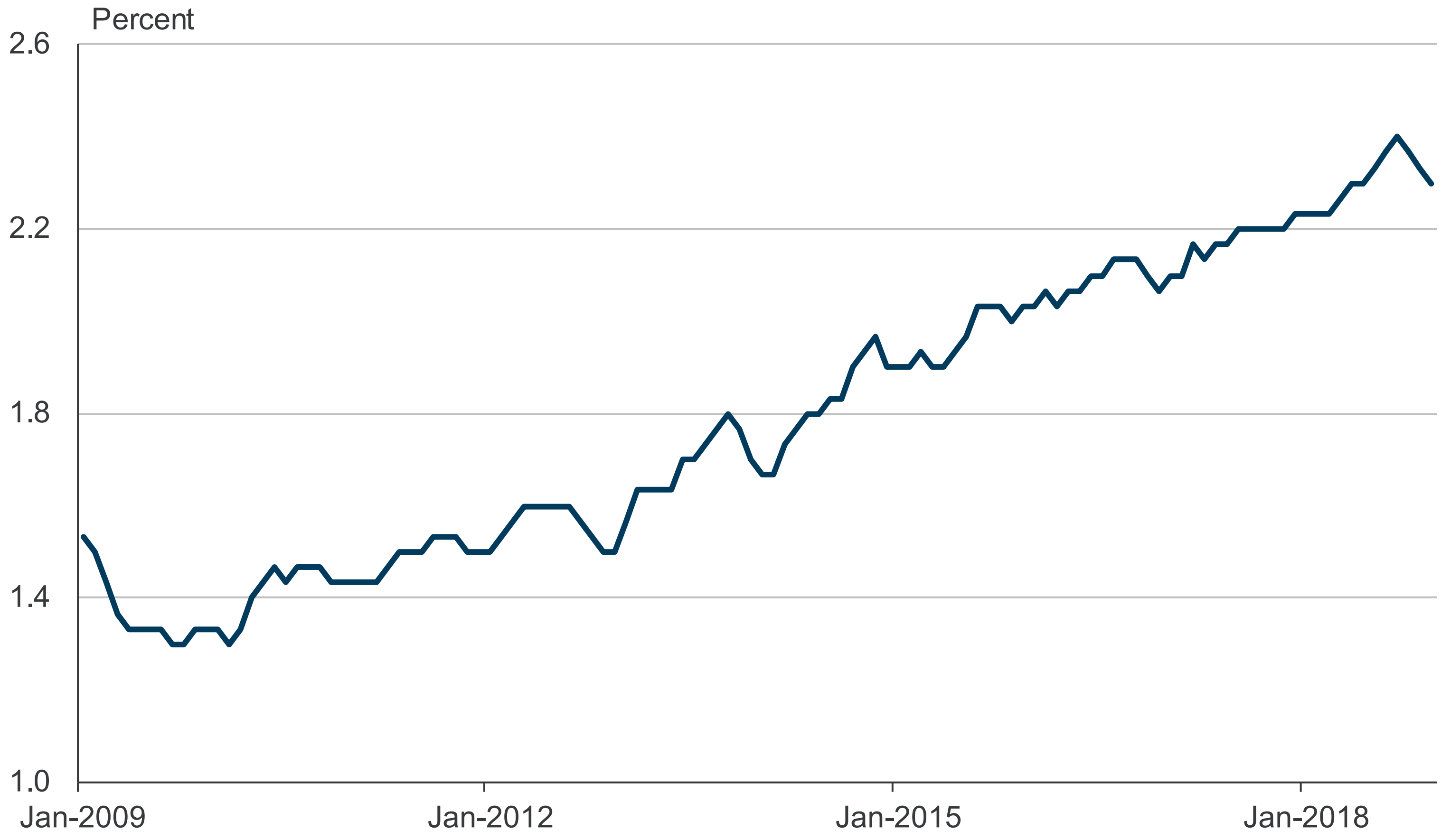
Figure 10: Initial Claims for Unemployment Insurance

January 3, 2009 - February 23, 2019

Note: Four-week moving average.

Source: U.S. Department of Labor, Haver Analytics

Figure 11: The Quits Rate
January 2009 - December 2018

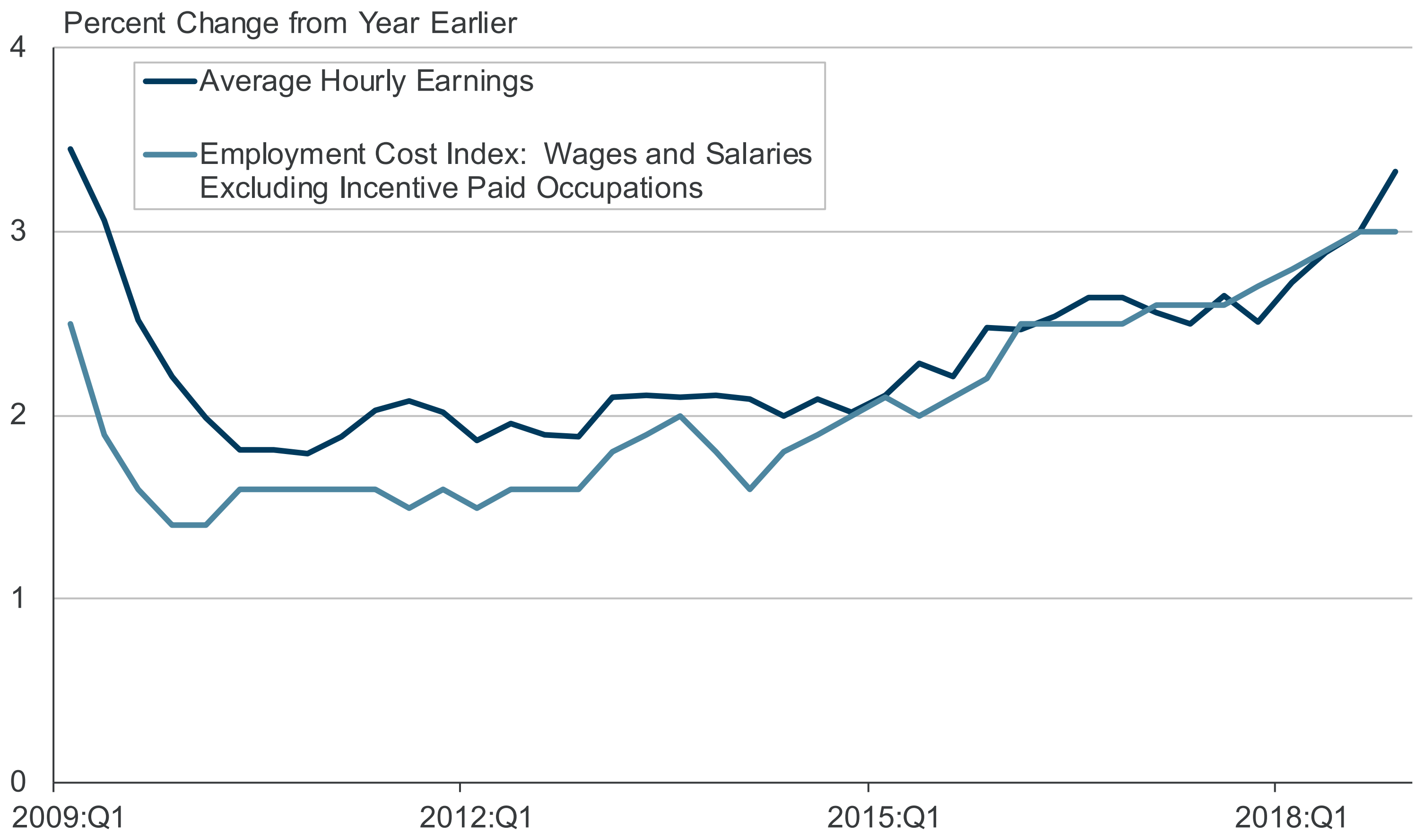


Note: The quits rate is the number of quits during the entire month as a percent of total employment. Pictured above is the three-month moving average.

Source: BLS, Haver Analytics

Figure 12: Wage Growth for Private Industry Workers

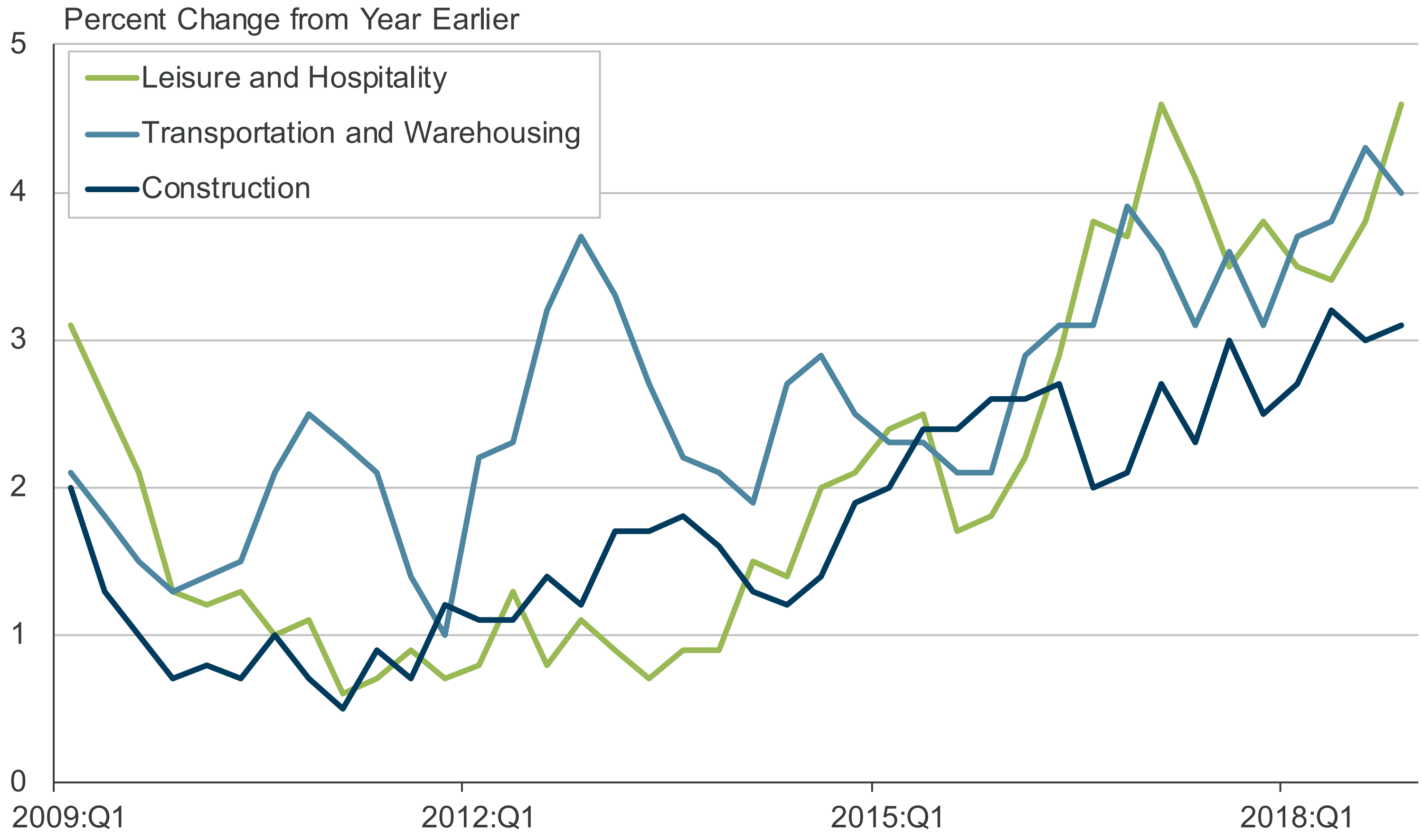
2009:Q1 - 2018:Q4



Source: BLS, Haver Analytics

Figure 13: Employment Cost Index: Wages and Salaries for Private Industry Workers in Selected Industries

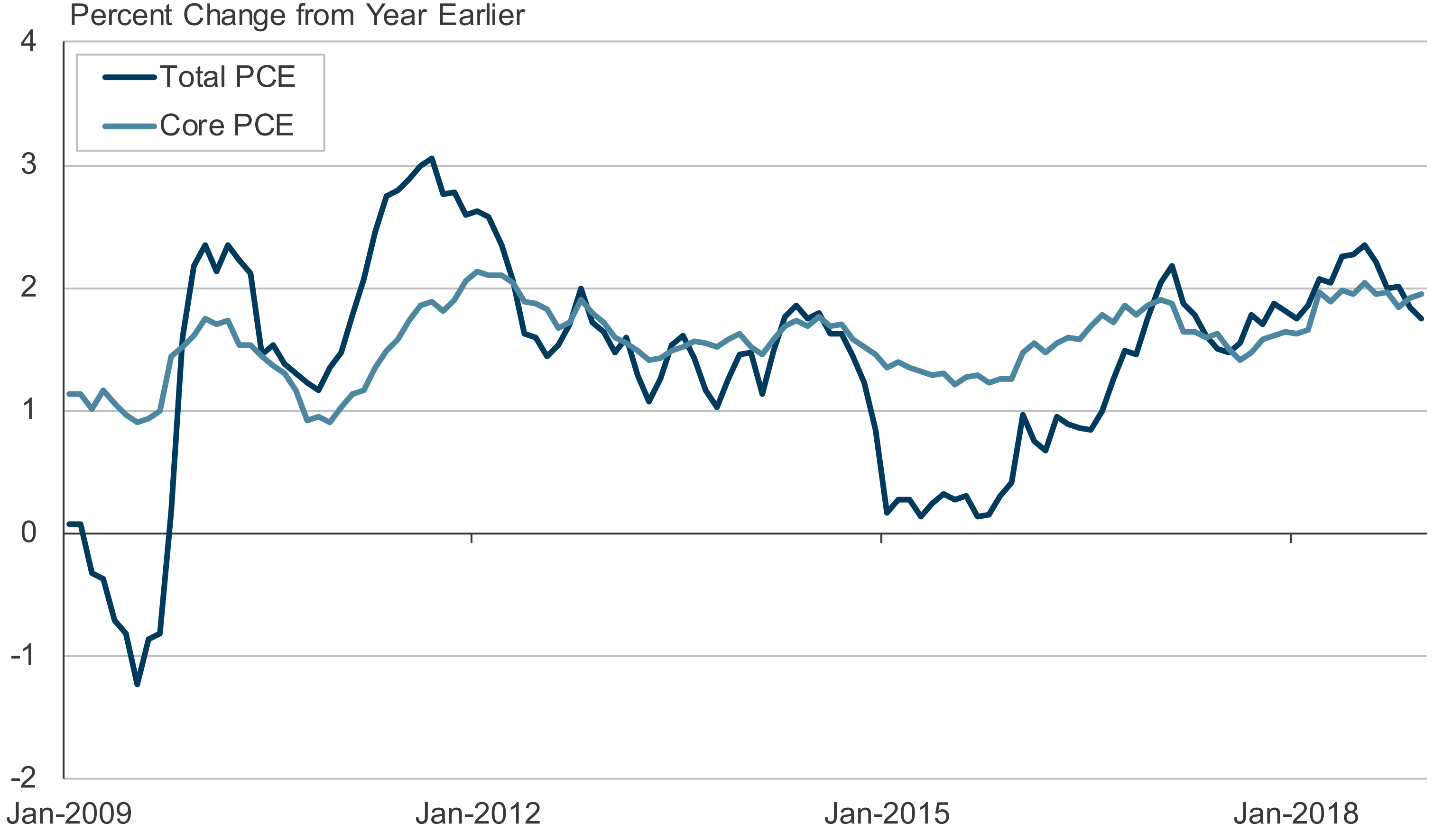
2009:Q1 - 2018:Q4



Source: BLS, Haver Analytics

Figure 14: Inflation Rate: Change in Personal Consumption Expenditures (PCE) Price Indices

January 2009 - December 2018

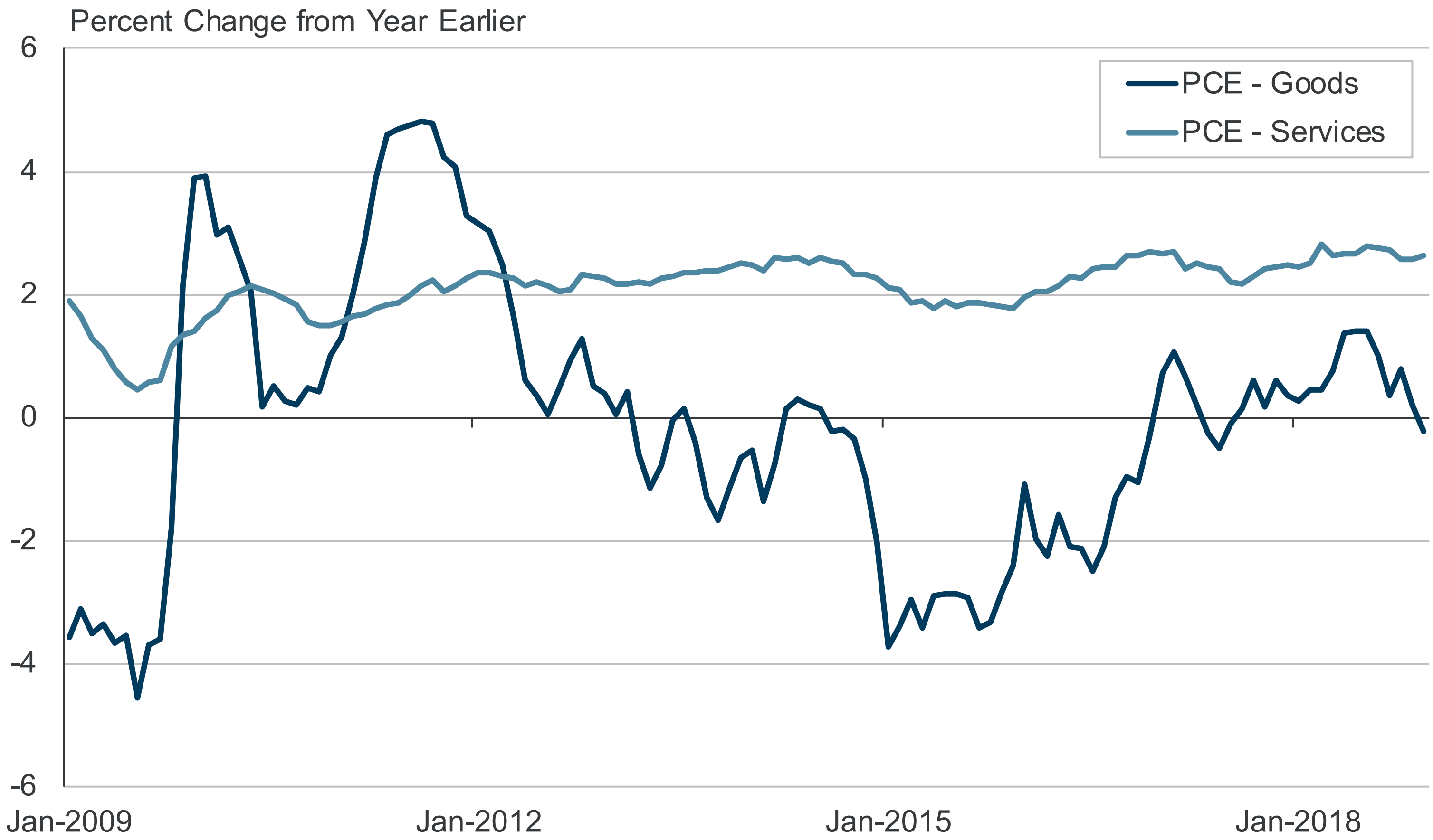


Note: Core PCE excludes food and energy.

Source: BEA, Haver Analytics

Figure 15: Inflation Rate: Change in Personal Consumption Expenditures (PCE) Price Indices for Goods and Services

January 2009 - December 2018



Source: BEA, Haver Analytics

Concluding Observations

- Modal forecast still favorable for growth, inflation, and labor markets
  - Financial markets have improved from the end of last year
  - Little evidence of overheating
- Downside risks to that outlook have increased, and still seem elevated
  - Weak December retails sales among signs that economy may be slowing more than anticipated
  - Some mark-down in private-sector forecasts for first quarter
  - Downside risks reflected in markets, especially foreign stocks and all debt markets
- Monetary policy should be patient
  - Data still delayed from government shutdown
  - It may be several FOMC meetings before policymakers have a clearer read on whether risks become a reality
  - Fortunately, with less ebullience in financial markets and no immediate signs of inflation, patience is prudent