



Exploring the Economy's Progress and Outlook

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bostonfed.org

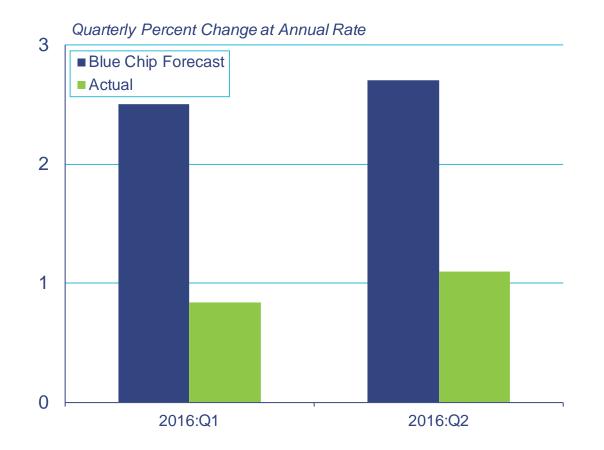
Economic Context

- Economic headwinds from overseas have raised concerns about global growth
 - China slowdown concerns
 - ► U.K. Brexit vote
 - IMF downgraded global growth forecast
- But the U.S. economy has remained fairly resilient
 - Approaching full employment unemployment at 4.9 percent
 - Core PCE inflation 1.6 percent gradually increasing towards the Federal Reserve's 2 percent target

Recent Data

- Payroll employment grew by 151,000 jobs in August
 - Slower than expected
 - Average of 232,000 over the past 3 months is quite strong for this stage of the economic cycle; 204,000 per month over the last 12 months
- In contrast, real GDP growth disappointing in the first half of this year – averaging around 1 percent
 - Final sales removes inventory effects grew 1.8 percent
 - Expect strong domestic demand and inventory growth will lead to stronger Q3

Figure 1: Real GDP Growth: Blue Chip Consensus Forecast as of December 2015 vs Actual 2016:Q1 and 2016:Q2



Source: BEA; Blue Chip Economic Indicators, December 10, 2015; Haver Analytics

Figure 2: Growth in Real GDP and Real Final Sales 2016:Q1 and 2016:Q2

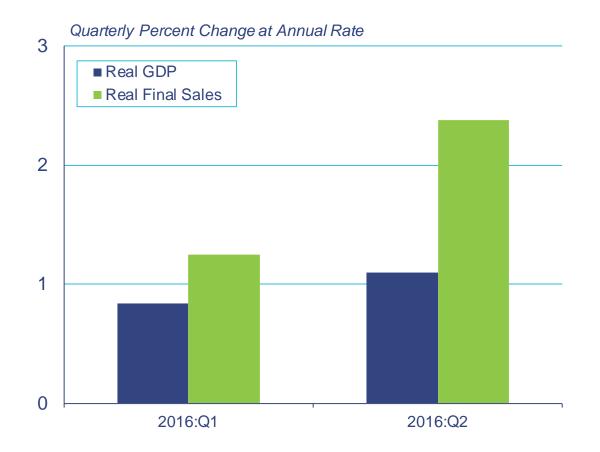


Figure 3: Growth in Real GDP and Real Final Sales to Domestic Purchasers 2014:Q3 - 2016:Q2

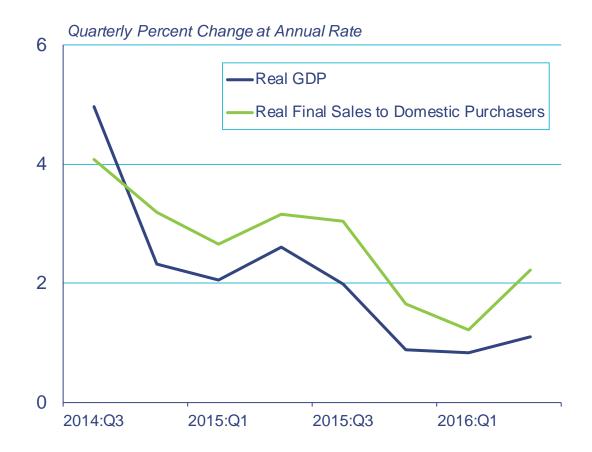
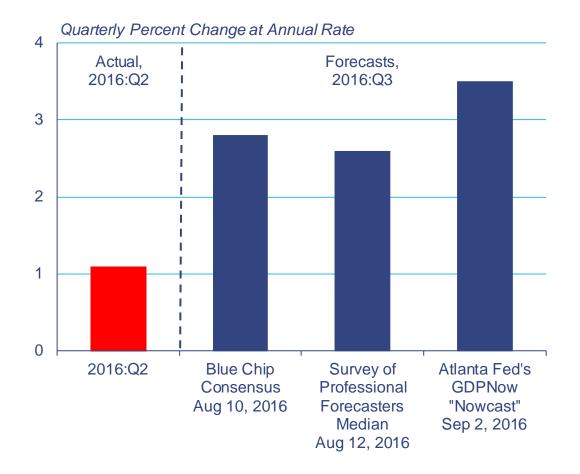


Figure 4: Forecasts of Real GDP Growth 2016:Q3



Source: BEA; Blue Chip Economic Indicators, August 10, 2016; Federal Reserve Bank of Philadelphia, Survey of Professional Forecasters, August 12, 2016; Federal Reserve Bank of Atlanta, GDPNow, September 2, 2016

Expect Stronger Real GDP Growth in Second Half

- In the first half of year, real GDP growth was held down by inventory drawdown and the weak foreign sector
- Most forecasters expect third quarter real GDP growth well above 2 percent
- Expect inventory accumulation and continued strong consumption in the second half – underlying domestic strength is likely to be sufficient to engender continued improvement

Figure 5: Change in Payroll Employment August 2015 - August 2016

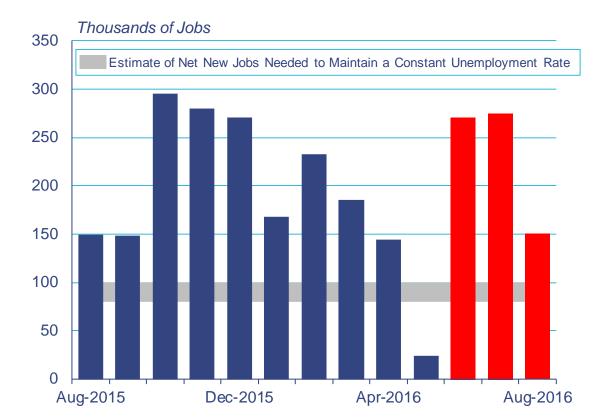
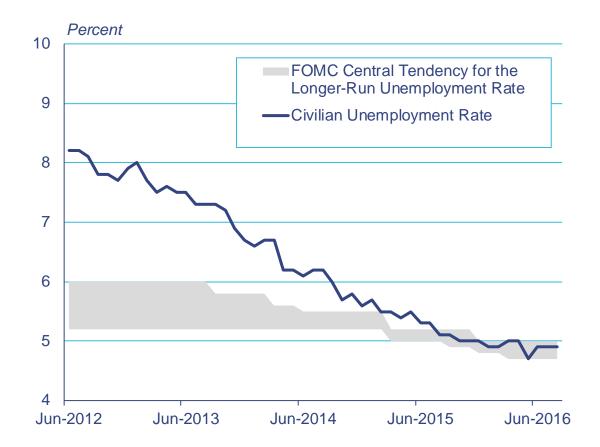


Figure 6: Civilian Unemployment Rate and FOMC Projections for Full Employment June 2012 - August 2016



Note: The central tendency excludes the three highest and three lowest projections in each period. As the forecasts are only quarterly, the same central tendency is assumed for the two months following the forecast month.

Source: BLS; FOMC, Summary of Economic Projections; NBER; Haver Analytics

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Figure 7: Blue Chip Forecast for the Unemployment Rate

Forecast as of August 2016

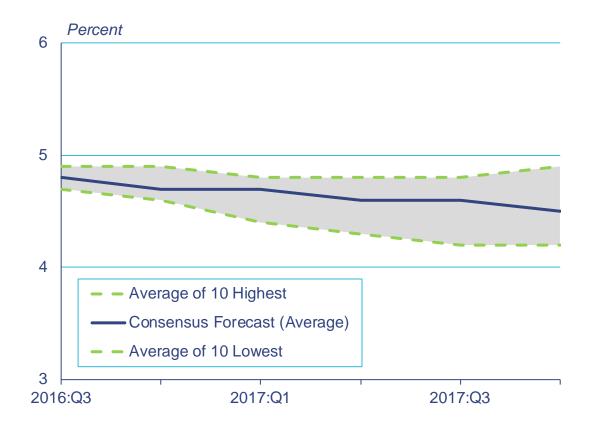
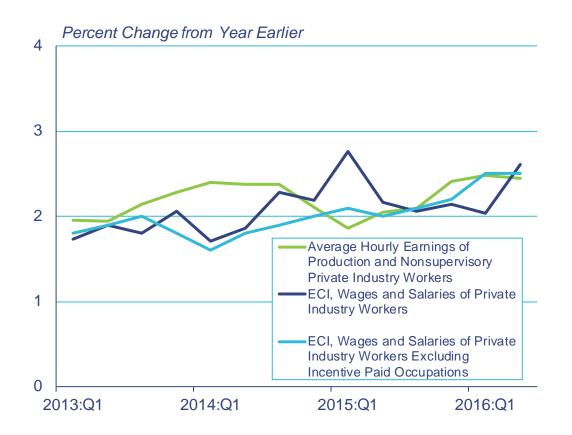


Figure 8: Average Hourly Earnings and Wages and Salaries of Private Industry Workers 2013:Q1 - 2016:Q2

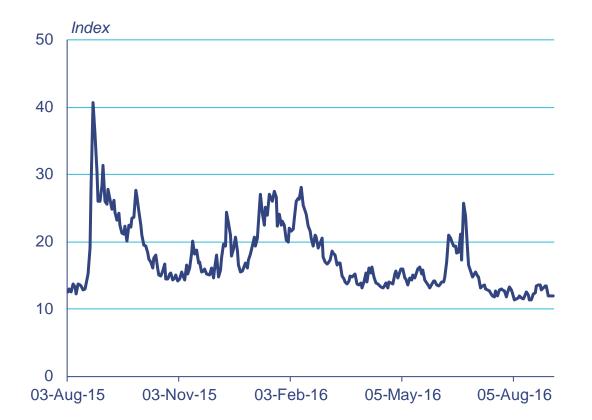


Employment Overview

- Payroll employment has been relatively strong given the current stage of the business cycle
- Overall, the labor market has continued to tighten and most forecasters expect the unemployment rate to fall further
- Currently we are at or close to the estimates of full employment held by FOMC participants
- Modest evidence of wages and salaries gradually trending up

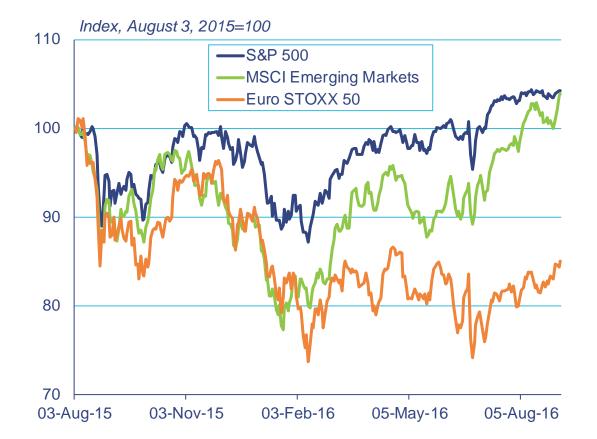
Figure 9: CBOE Market Volatility Index: VIX

August 3, 2015 - September 7, 2016





August 3, 2015 - September 7, 2016





- Despite earlier concerns with China's economic growth and the Brexit vote in the U.K., volatility is relatively low
- Most stock markets, including emerging markets, have been rising
- Market indicators have so far provided little evidence of *outsized* risks
 - Potential concern with fragile global economies does not seem to be strongly priced into financial assets, at least to date



Figure 11: Unemployment Rate and Federal Funds Effective Rate

January 1966 - August 2016

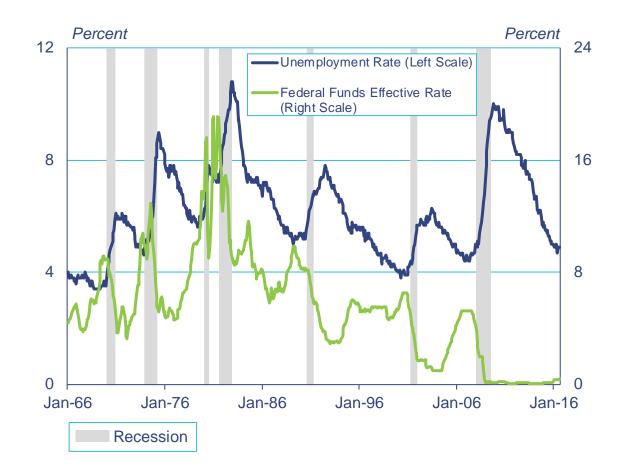
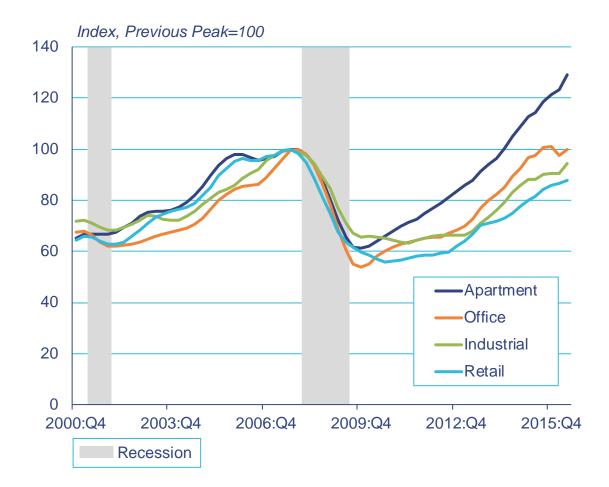


Figure 12: U.S. Real Commercial Property Price Indices by Property Type 2000:Q4 - 2016:Q2



Note: Indices are adjusted for inflation using the GDP deflator. Indices are repeat-sales based. Source: Real Capital Analytics, BEA, NBER, Haver Analytics

Important to Note the Upside Risks

- An overheated economy would pose risks to maintaining full employment over time
 - Difficult, historically, to slow the economy to a sustainable rate without going too far and causing a recession
 - Delays in tightening early in the cycle could lead to conditions that require more rapid increases in interest rates later in the cycle – risking a more pronounced slowing in growth and rise in unemployment
- Asset markets, such as commercial real estate, could become too ebullient

Concluding Observations

- Federal Reserve policymakers have taken a very patient approach to monetary policy normalization
- Want to avoid risk of overheating the economy and overshooting what is sustainable
- If we want to ensure that we remain at full employment, gradual tightening is likely to be appropriate
- A failure to continue on the path of gradual removal of accommodation could shorten, rather than lengthen, the duration of this recovery