Labor Market

Private Nonfarm Payroll Employment
(change, thousands)

Unemployment and Participation Rates
(percent)

Oct-2013

Unemployment Rate (percent of labor force)
Participation Rate (percent of population 16 and over)
Retail Sales and Housing

**Personal Consumption Expenditures**
(percent change, annual rate)

<table>
<thead>
<tr>
<th>Year</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>0.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>16.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>15.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Housing Starts and Home Price Index**
(millions of units, annual rate; Q1-2000=100)

- Single Family Housing Starts
- CoreLogic Home Price Index

- August 2013: 0.2%
- September 2013: 0.3%
- October 2013: 0.5%

- Retail control: 16.0%
- Motor vehicles: 15.2%

Q3-2013
### Near-Term Forecasts

<table>
<thead>
<tr>
<th></th>
<th>2013:Q3</th>
<th>2013:Q4</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Blue Chip (11/10)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>2.8&lt;sup&gt;1&lt;/sup&gt;</td>
<td>1.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Unemployment</td>
<td>7.3</td>
<td>7.2</td>
<td>7.2</td>
</tr>
<tr>
<td><strong>Macroadvisers (11/21)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>3.3</td>
<td>1.3</td>
<td>2.0</td>
</tr>
</tbody>
</table>

1. BEA Advance estimate
<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP(^1)</strong></td>
<td>2.05</td>
<td>3.05</td>
<td>3.25</td>
<td>3.05</td>
</tr>
<tr>
<td></td>
<td>(2.0, 2.3)</td>
<td>(2.9, 3.1)</td>
<td>(3.0, 3.5)</td>
<td>(2.5, 3.3)</td>
</tr>
<tr>
<td><strong>Unemployment(^2)</strong></td>
<td>7.25</td>
<td>6.65</td>
<td>6.05</td>
<td>5.65</td>
</tr>
<tr>
<td></td>
<td>(7.1, 7.3)</td>
<td>(6.4, 6.8)</td>
<td>(5.9, 6.2)</td>
<td>(5.4, 5.9)</td>
</tr>
<tr>
<td><strong>PCE(^1)</strong></td>
<td>1.15</td>
<td>1.55</td>
<td>1.95</td>
<td>1.95</td>
</tr>
<tr>
<td></td>
<td>(1.1, 1.2)</td>
<td>(1.3, 1.8)</td>
<td>(1.6, 2.0)</td>
<td>(1.7, 2.0)</td>
</tr>
</tbody>
</table>

Pseudo medians. Central tendency in parentheses.

1. Percent change, Q4 to Q4
2. Fourth-quarter average
Inflation

PCE Price Index
(12-month percent change)

Total
Core

FOMC Long-Run Target*
FOMC Forecasts*

*“Median” of Q4-toQ4 forecasts made by the FOMC participants, September 2013
Inflation in Other Advanced Economies

Consumer Price Index
(12-month percent change)

- Euro Area
- U.K.
- Japan

Sep-2013
10-Year Treasury Rates

Chairman’s JEC Testimony | June FOMC Speech | Chairman’s NBER Speech | September FOMC | October FOMC

Jan - Nov 2013

20-Nov-2013
Fed Funds Expectations

Fed Funds Rate (percent)

Central Tendency of FOMC Long-Run Projections

May 21 Market Expectations

September 10 Market Expectations

October 2013 Expectations

November 20 Market Expectations

History
FG and FOMC “Appropriate” Policy Rates

Source: Interest rate forecasts are from the September 18, 2013 FOMC Summary of Economic Projections; market expectations from OIS futures
Survey of Primary Dealers: LSAP Expectations

Jan - Oct-13 | Dec-13 | Jan-14 | Mar-14 | Apr-14 | Jun-14 | Jul-14 | Sep-14 | Oct-14
Monetary Policy – Asset Purchases

Federal Reserve Asset Purchases
(Bils. $)

- Green: Agency MBS ($1,399.5 bil.)
- Red: Agency Debt ($59.1 bil.)
- Blue: Treas. Sec. ($2,131.7 bil.)

Total Purchases: $3590.3 bil.
Appendix
5 - 10 Year Inflation Expectations

TIPS Inflation Compensation
(percent)

University of Michigan Median Inflation
(percent)

5-10 yr ahead

5-Year

20-Nov-2013

Nov-2013
Financial Conditions

Financial Conditions Index Adjusted for Economic Conditions
(deviation from trend; percent of banks tightening standards on C&I loans)

Shading corresponds with NBER recessions.

15-Nov-2013W
Fewer Underwater Homeowners

Single Family Homes with Mortgages in Negative Equity
(millions of units)
Labor Force Participation Rate (percent)

Actual Trend

1987 '90 '93 '96 '99 '02 '05 '08 '11 '14 '17 '20

Labor Force Participation Is Trending Down
Some Optimal Control Monetary Policies
Source: English, Lopez-Salido, and Tetlow (2013)

Figure 4
Optimal policies versus the inertial Taylor (1999) rule
(Baseline conditions)

Federal funds rate

- Inertial Taylor rule
- Optimal (commitment)
- Optimal (discretion)

Core PCE inflation (4Q)

Civilian unemployment rate

Output gap
**Option 2: Large Scale Asset Purchases (LSAP)**

- **LSAP I (11/08):** $600 bill agency debt/MBS

- **LSAP Ia (3/09):** $850 bill agency debt/MBS; $300 bill Treas.

- **LSAP II (11/10):** $600 bill Treas.

- **MEP (9/11):** Exchange $400 bill short-term for $400 bill long-term Treas.

- **MEP extension (6/12):** Extend MEP through end of 2012

- **LSAP III (9/12):** $40 bill per month MBS, no fixed end date -- “until labor market outlook improved substantially”

- **LSAP IIIa (12/12):** $40 bill per month MBS and $45 bill per month long-term Treas; no fixed end date
Long-Term Rates Down Significantly

- 10-Year Treasury
- Conventional 30-Year Mortgages
- 48-Month New Car Loans
- BBB Corporate Bonds

08-Nov-2013W
Empirical Facts about Term Premia

Chart 2. Decomposition of 10-Year Treasury Yield

Monthly

- Expected average inflation rate
- Expected average real short rate
- Term premium

Note: Decomposition of 10-year zero-coupon Treasury yield based on the term structure model of D'Amico, Kim, and Wei (2010).
Source: Federal Reserve Board; Barclays PLC; staff calculations.

Inflation in Other Advanced Economies

Consumer Price Index Excluding Food and Energy
(12-month percent change)

Euro Area
U.K.
Japan

Sep-2013