

Prefatory Note

The attached document represents the most complete and accurate version available based on original files from the FOMC Secretariat at the Board of Governors of the Federal Reserve System.

Please note that some material may have been redacted from this document if that material was received on a confidential basis. Redacted material is indicated by occasional gaps in the text or by gray boxes around non-text content. All redacted passages are exempt from disclosure under applicable provisions of the Freedom of Information Act.

Class II FOMC – Restricted (FR)

Report to the FOMC on Economic Conditions and Monetary Policy



Book A

Economic and Financial Conditions: Current Situation and Outlook

June 12, 2013

Prepared for the Federal Open Market Committee
by the staff of the Board of Governors of the Federal Reserve System

Revisions to the Staff Projection since the Previous SEP

The FOMC last published its Summary of Economic Projections (SEP) following the March FOMC meeting. The table below summarizes revisions to the staff economic projection since the March Tealbook.

The staff projection for real GDP growth is essentially the same as in the March Tealbook. However, the projection for the unemployment rate is revised down significantly, primarily the result of the revisions we made in this Tealbook to our estimates of the natural rate of unemployment. Taking into account those revisions to the natural rate, the projection for the unemployment *gap* is about unrevised over the medium term, with the gap narrowing to about ½ percentage point by the end of 2015.

The staff projection for inflation has revised down this year relative to the March projection, reflecting the surprisingly low incoming data. However, as we view this surprise as mostly reflecting transitory factors, our projection for inflation in 2014 and 2015, at 1½ percent, is also essentially unrevised from March.

With the revised unemployment projection, the unemployment rate now crosses the FOMC's 6½ percent threshold in early 2015, and the policy rule that governs our assumption for the federal funds rate calls for the rate to lift off from the effective lower bound in the second quarter of 2015, two quarters earlier than in the March Tealbook. The federal funds rate therefore ends 2015 about 75 basis points higher than in March.

Staff Economic Projections Compared with the March Tealbook

| Variable | 2012 | 2013 | | 2013 | 2014 | 2015 | Longer run |
|---------------------------------|------|------|-----|------|------|------|------------|
| | | H1 | H2 | | | | |
| Real GDP ¹ | 1.7 | 2.0 | 2.9 | 2.5 | 3.4 | 3.6 | 2.3 |
| March Tealbook | 1.7 | 2.3 | 2.8 | 2.5 | 3.2 | 3.6 | 2.3 |
| Unemployment rate ² | 7.8 | 7.5 | 7.3 | 7.3 | 6.6 | 5.8 | 5.2 |
| March Tealbook | 7.8 | 7.7 | 7.5 | 7.5 | 7.1 | 6.3 | 5.2 |
| PCE inflation ¹ | 1.6 | .4 | 1.3 | .9 | 1.4 | 1.6 | 2.0 |
| March Tealbook | 1.6 | 1.1 | 1.5 | 1.3 | 1.5 | 1.6 | 2.0 |
| Core PCE inflation ¹ | 1.5 | 1.0 | 1.4 | 1.2 | 1.6 | 1.8 | n.a. |
| March Tealbook | 1.5 | 1.5 | 1.7 | 1.6 | 1.7 | 1.7 | n.a. |
| Federal funds rate ² | .16 | .12 | .13 | .13 | .13 | 1.04 | 4.00 |
| March Tealbook | .16 | .13 | .13 | .13 | .13 | .30 | 4.00 |
| Memo: | | | | | | | |
| Federal funds rate, | | | | | | | |
| end of period | .13 | .13 | .13 | .13 | .13 | 1.25 | 4.00 |
| March Tealbook | .13 | .13 | .13 | .13 | .13 | .50 | 4.00 |

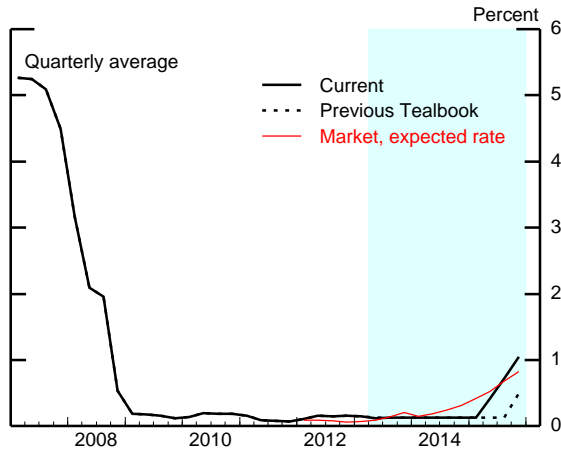
1. Percent change from final quarter of preceding period to final quarter of period indicated.

2. Percent, final quarter of period indicated.

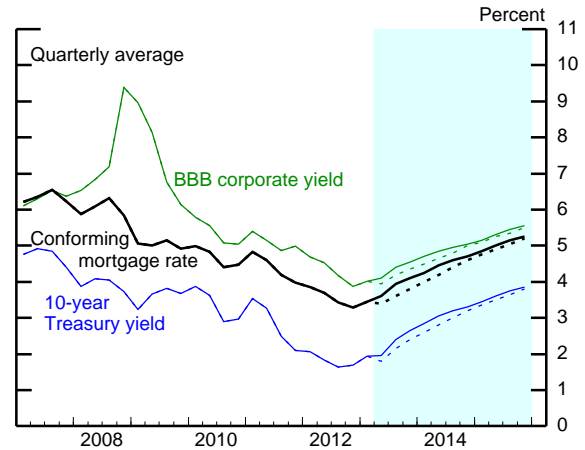
n.a. Not available.

Key Background Factors underlying the Baseline Staff Projection

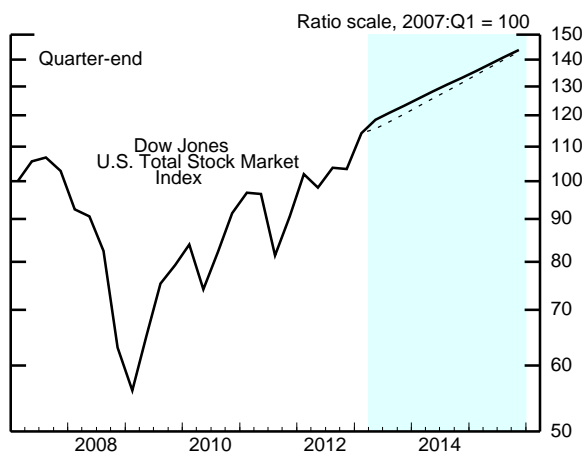
Federal Funds Rate



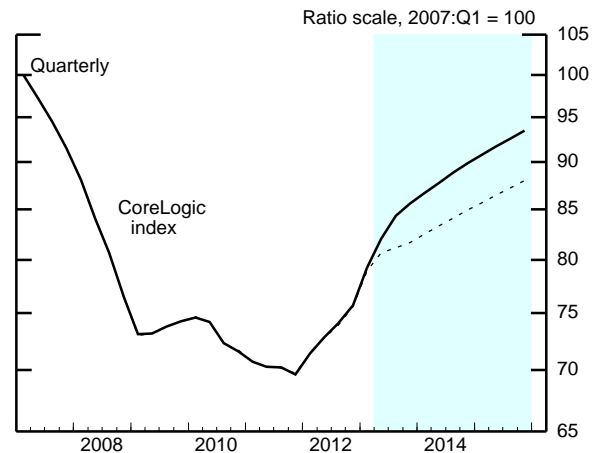
Long-Term Interest Rates



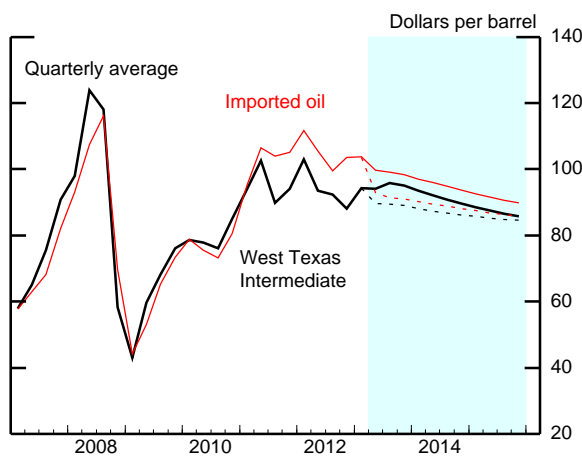
Equity Prices



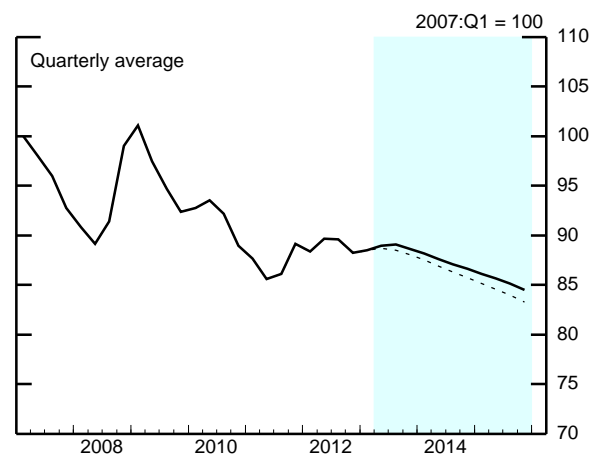
House Prices



Crude Oil Prices



Broad Real Dollar



Summary of the Near-Term Outlook

(Percent change at annual rate except as noted)

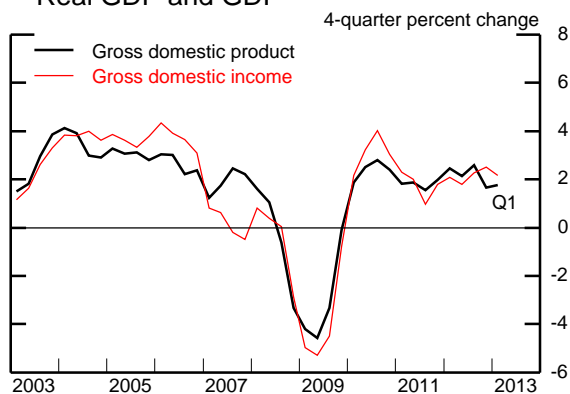
| Measure | 2013:Q1 | | 2013:Q2 | | 2013:Q3 | |
|--|-------------------|------------------|-------------------|------------------|-------------------|------------------|
| | Previous Tealbook | Current Tealbook | Previous Tealbook | Current Tealbook | Previous Tealbook | Current Tealbook |
| Real GDP | 3.1 | 2.2 | 1.5 | 1.8 | 2.4 | 2.5 |
| Private domestic final purchases | 2.8 | 3.1 | 3.1 | 2.6 | 3.7 | 3.7 |
| Personal consumption expenditures | 2.8 | 3.1 | 2.3 | 2.1 | 2.6 | 3.1 |
| Residential investment | 16.4 | 13.3 | 22.0 | 18.6 | 15.8 | 13.9 |
| Business fixed investment | -.3 | .9 | 4.1 | 2.4 | 8.2 | 5.7 |
| Government purchases | -2.3 | -4.8 | -4.5 | -3.4 | -4.9 | -3.8 |
| <i>Contributions to change in real GDP</i> | | | | | | |
| Inventory investment ¹ | 1.4 | .7 | -.5 | .0 | .5 | .1 |
| Net exports ¹ | -.1 | -.2 | .3 | .2 | -.2 | .0 |
| Unemployment Rate² | 7.7 | 7.7 | 7.6 | 7.5 | 7.5 | 7.4 |
| PCE Chain Price Index | .9 | 1.0 | -.2 | -.1 | 1.6 | 1.2 |
| Ex. food and energy | 1.2 | 1.3 | 1.4 | .8 | 1.7 | 1.3 |

1. Percentage points.

2. Percent.

Recent Nonfinancial Developments (1)

Real GDP and GDI



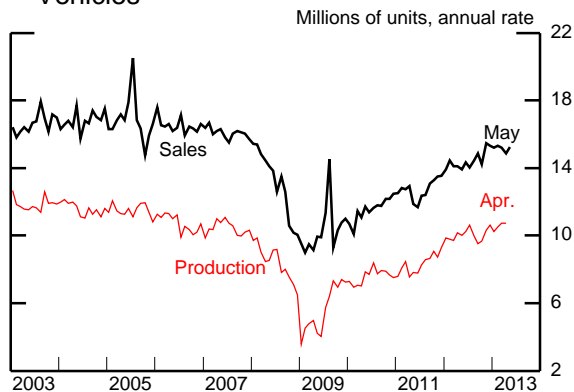
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Manufacturing IP ex. Motor Vehicles and Parts



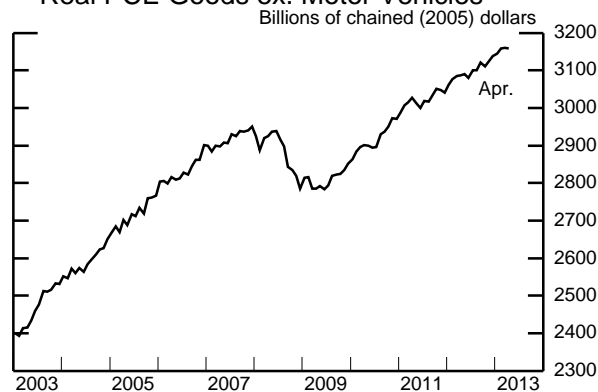
Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Sales and Production of Light Motor Vehicles



Source: Ward's Auto Infobank.

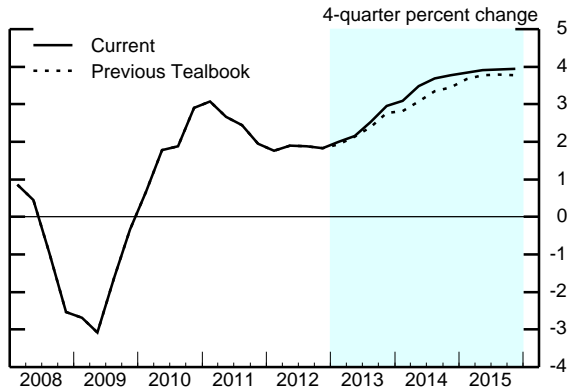
Real PCE Goods ex. Motor Vehicles



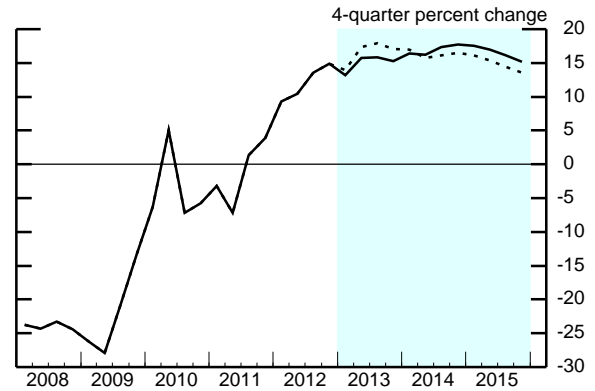
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Components of Final Demand

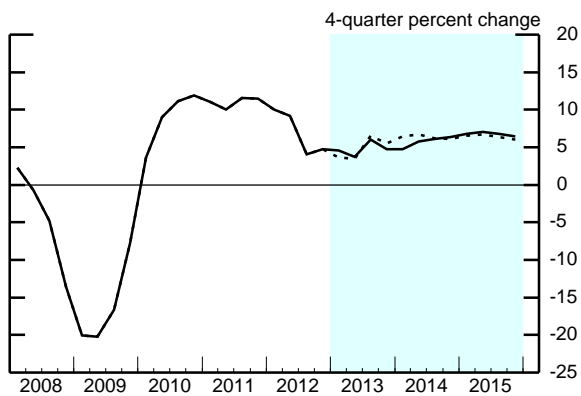
Personal Consumption Expenditures



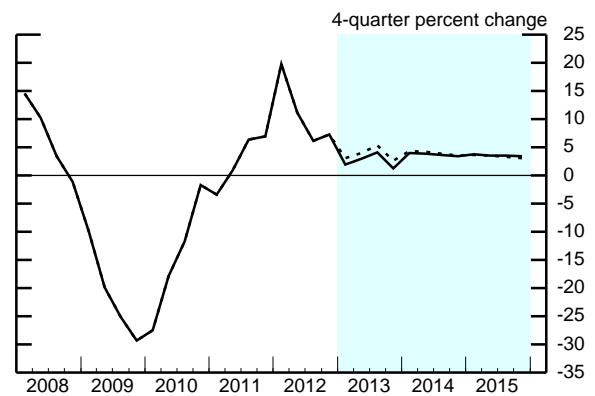
Residential Investment



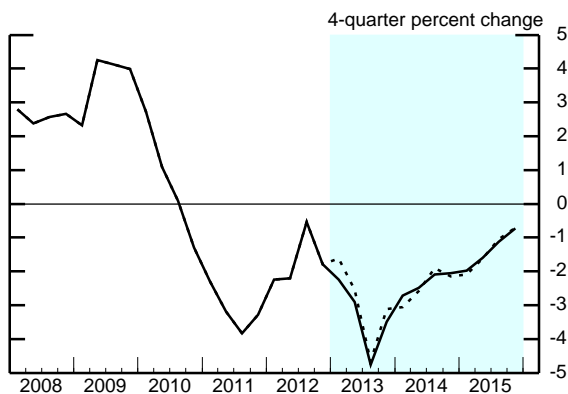
Equipment and Software



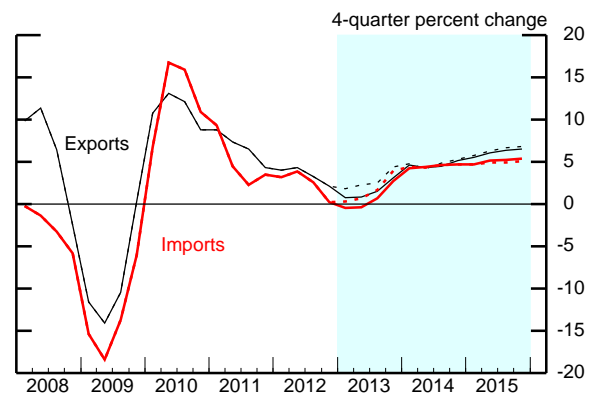
Nonresidential Structures



Government Consumption & Investment



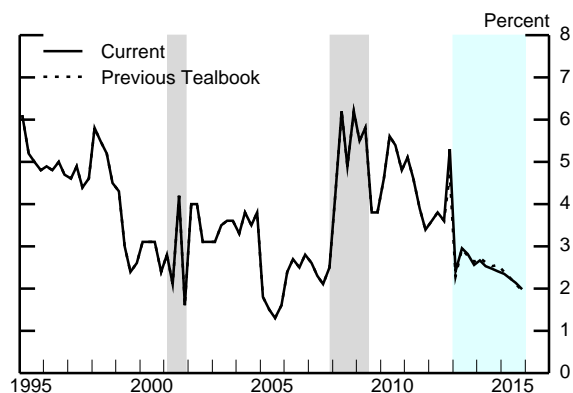
Exports and Imports



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

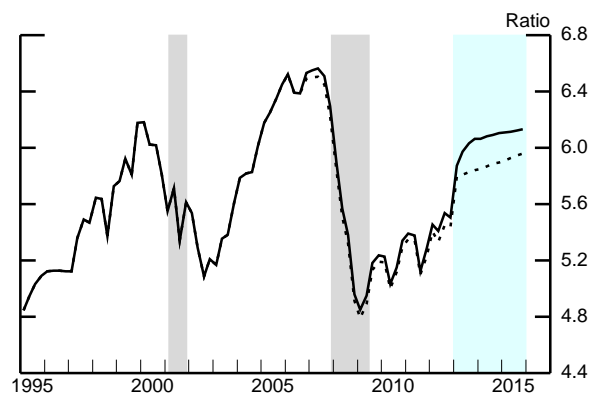
Aspects of the Medium-Term Projection

Personal Saving Rate



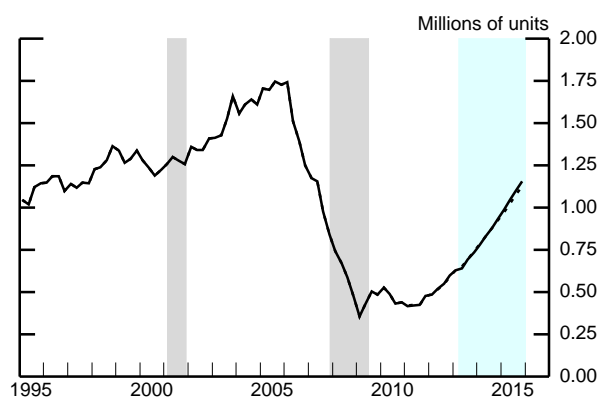
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Wealth-to-Income Ratio



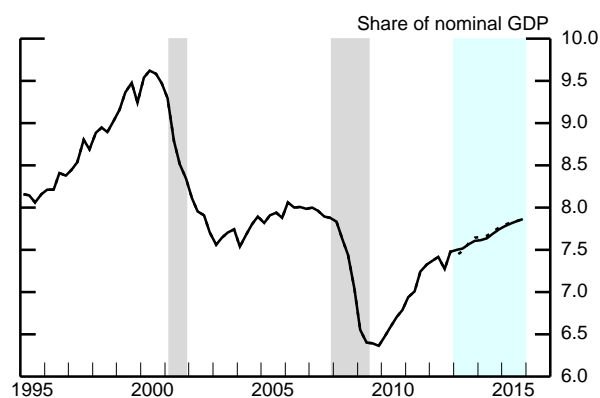
Note: Household net worth as a ratio to disposable personal income.
Source: For net worth, Federal Reserve Board, flow of funds data; for income, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



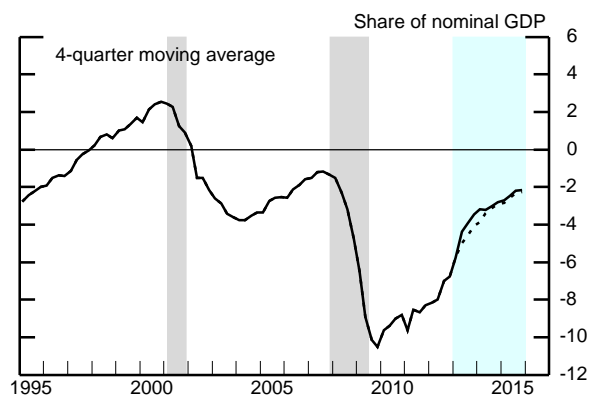
Source: U.S. Census Bureau.

Equipment and Software Spending



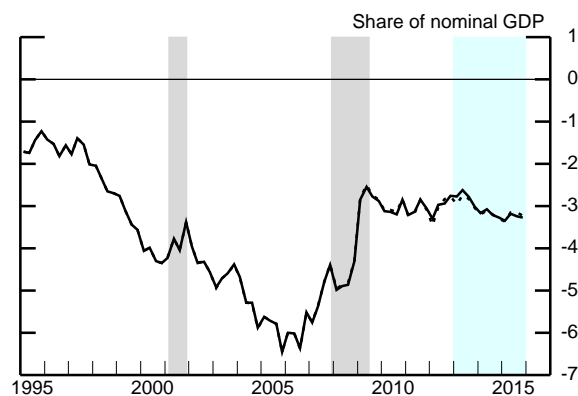
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Federal Surplus/Deficit



Source: *Monthly Treasury Statement*.

Current Account Surplus/Deficit



Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

Decomposition of Potential GDP
(Percent change, Q4 to Q4, except as noted)

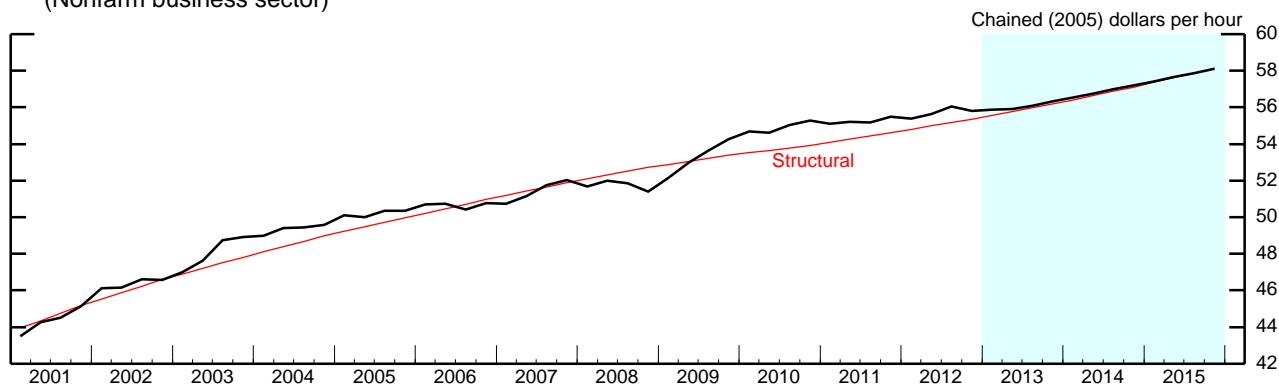
| Measure | 1974-1995 | 1996-2000 | 2001-2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|-----------|-----------|-----------|------|------|------|------|------|
| Potential real GDP | 3.0 | 3.4 | 2.1 | 1.6 | 1.9 | 2.0 | 2.1 | 2.1 |
| Previous Tealbook | 3.0 | 3.4 | 2.1 | 1.5 | 1.8 | 1.9 | 2.1 | 2.1 |
| <i>Selected contributions¹</i> | | | | | | | | |
| Structural labor productivity | 1.4 | 2.6 | 2.1 | 1.3 | 1.4 | 1.5 | 1.7 | 1.7 |
| Previous Tealbook | 1.4 | 2.6 | 2.1 | 1.3 | 1.4 | 1.5 | 1.7 | 1.8 |
| Capital deepening | .7 | 1.5 | .7 | .2 | .4 | .5 | .6 | .7 |
| Previous Tealbook | .7 | 1.5 | .7 | .3 | .4 | .5 | .6 | .8 |
| Multifactor productivity | .5 | .8 | 1.2 | .9 | .9 | .9 | .9 | .9 |
| Previous Tealbook | .5 | .8 | 1.2 | .9 | .9 | .9 | .9 | .9 |
| Structural hours | 1.5 | 1.0 | .6 | .6 | .7 | .7 | .6 | .6 |
| Previous Tealbook | 1.5 | 1.0 | .6 | .5 | .6 | .6 | .6 | .6 |
| Labor force participation | .4 | .0 | -.3 | -.4 | -.3 | -.4 | -.3 | -.3 |
| Previous Tealbook | .4 | .0 | -.3 | -.4 | -.3 | -.3 | -.3 | -.3 |
| Memo: | | | | | | | | |
| GDP gap ² | -2.4 | 1.9 | -4.0 | -3.6 | -3.9 | -3.4 | -2.2 | -.8 |
| Previous Tealbook | -2.4 | 1.9 | -4.0 | -3.5 | -3.7 | -3.1 | -1.9 | -.6 |

Note: For multiyear periods, the percent change is the annual average from Q4 of the year preceding the first year shown to Q4 of the last year shown.

1. Percentage points.

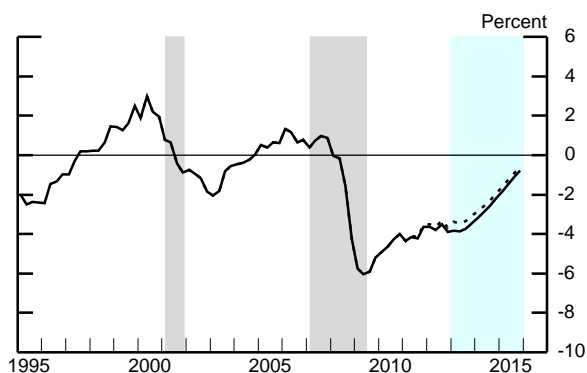
2. Percent difference between actual and potential GDP in the final quarter of the period indicated. A negative number indicates that the economy is operating below potential.

Structural and Actual Labor Productivity
(Nonfarm business sector)



Source: U.S. Department of Labor, Bureau of Labor Statistics; Bureau of Economic Analysis; staff assumptions.

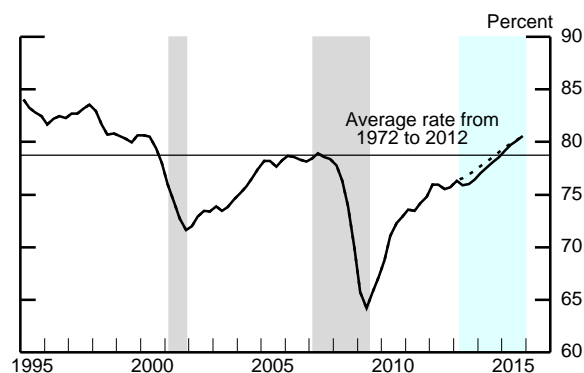
GDP Gap



Note: The GDP gap is the percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.

Source: U.S. Dept. of Commerce, BEA; staff assumptions.

Manufacturing Capacity Utilization Rate



Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

The Outlook for the Labor Market
(Percent change from final quarter of preceding period at annual rate)

| Measure | 2012 | 2013 | 2013 | | 2014 | 2015 |
|---|------|------|------|------|------|------|
| | | | H1 | H2 | | |
| Output per hour, nonfarm business | .6 | .9 | .3 | 1.5 | 1.6 | 1.6 |
| Previous Tealbook | .7 | .9 | .7 | 1.2 | 1.6 | 1.6 |
| Nonfarm private employment ¹ | 189 | 183 | 190 | 175 | 218 | 265 |
| Previous Tealbook | 189 | 170 | 166 | 175 | 220 | 265 |
| Labor force participation rate ² | 63.7 | 63.4 | 63.4 | 63.4 | 63.3 | 63.3 |
| Previous Tealbook | 63.7 | 63.5 | 63.5 | 63.5 | 63.4 | 63.4 |
| Civilian unemployment rate ² | 7.8 | 7.3 | 7.5 | 7.3 | 6.6 | 5.8 |
| Previous Tealbook | 7.8 | 7.4 | 7.6 | 7.4 | 6.9 | 6.2 |

1. Thousands, average monthly changes.

2. Percent, average for the final quarter in the period.

Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Inflation Projections
(Percent change at annual rate from final quarter of preceding period)

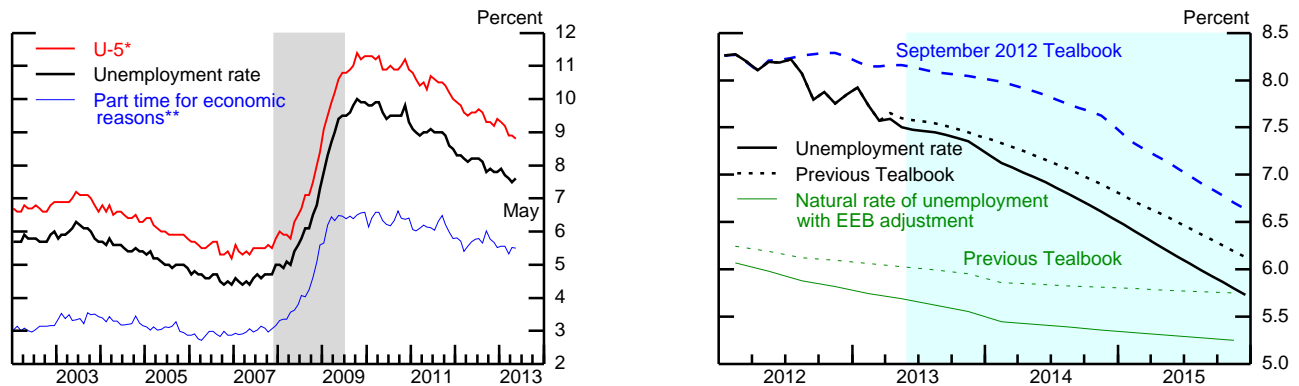
| Measure | 2012 | 2013 | 2013 | | 2014 | 2015 |
|---|------|------|-------|-----|------|------|
| | | | H1 | H2 | | |
| PCE chain-weighted price index | 1.6 | .9 | .4 | 1.3 | 1.4 | 1.6 |
| Previous Tealbook | 1.6 | 1.0 | .3 | 1.6 | 1.5 | 1.6 |
| Food and beverages | 1.1 | 1.2 | 1.2 | 1.1 | .9 | 1.4 |
| Previous Tealbook | 1.1 | 1.1 | 1.1 | 1.1 | 1.0 | 1.5 |
| Energy | 3.2 | -5.0 | -9.1 | -.8 | -.9 | -.9 |
| Previous Tealbook | 3.2 | -6.6 | -14.2 | 1.6 | -.3 | -.7 |
| Excluding food and energy | 1.5 | 1.2 | 1.0 | 1.4 | 1.6 | 1.8 |
| Previous Tealbook | 1.5 | 1.5 | 1.3 | 1.6 | 1.7 | 1.8 |
| Prices of core goods imports ¹ | .1 | -.1 | -.4 | .2 | 1.4 | 1.5 |
| Previous Tealbook | .1 | .5 | .3 | .6 | 1.6 | 1.6 |

1. Core goods imports exclude computers, semiconductors, oil, and natural gas.

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Labor Market Developments and Outlook

Measures of Labor Underutilization



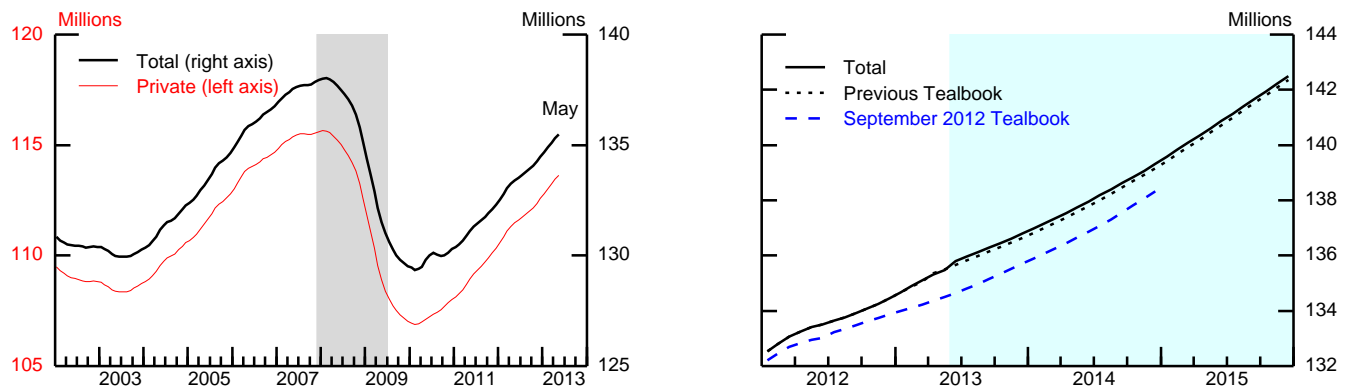
* U-5 measures total unemployed plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.

** Percent of Current Population Survey employment.

EEB Extended and emergency unemployment benefits.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

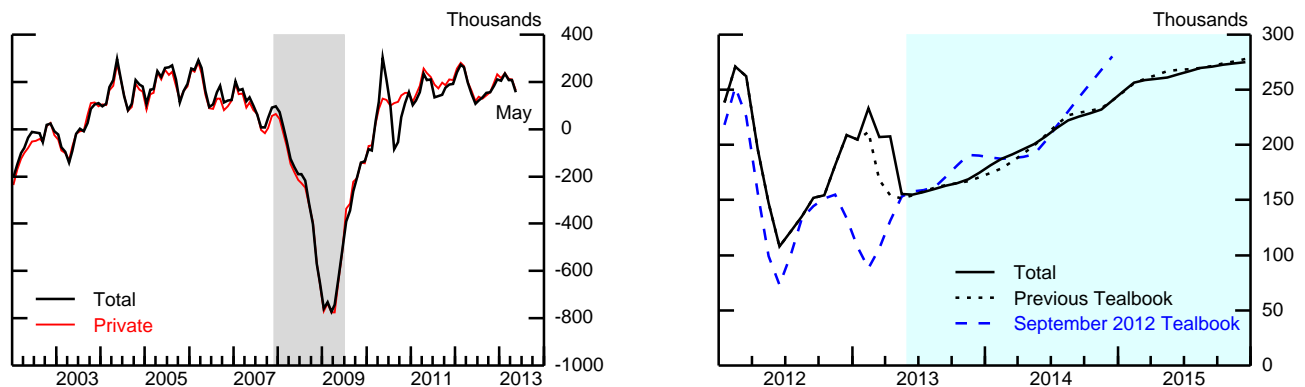
Level of Payroll Employment*



* 3-month moving averages in history; average levels in each quarter during the forecast period.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Change in Payroll Employment*



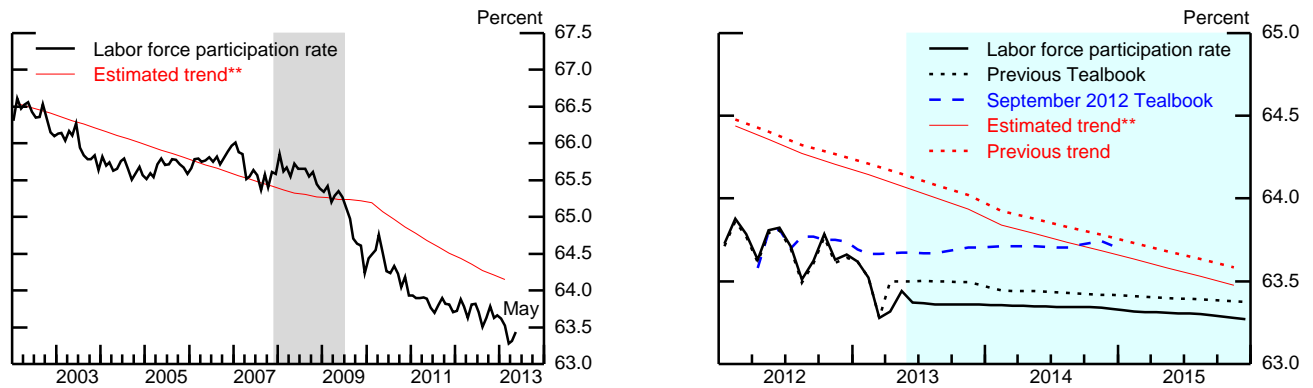
* 3-month moving averages in history; average monthly changes in each quarter during the forecast period.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Note: In September 2012, judgmental projections were prepared through 2015 for the Summary of Economic Projections variables, including the unemployment rate, while projections for other variables, including the labor force participation rate and payroll employment, were prepared only through 2014. This exhibit therefore reports a 2015 projection from the September 2012 Tealbook only for the unemployment rate.

Labor Market Developments and Outlook (2)

Labor Force Participation Rate*

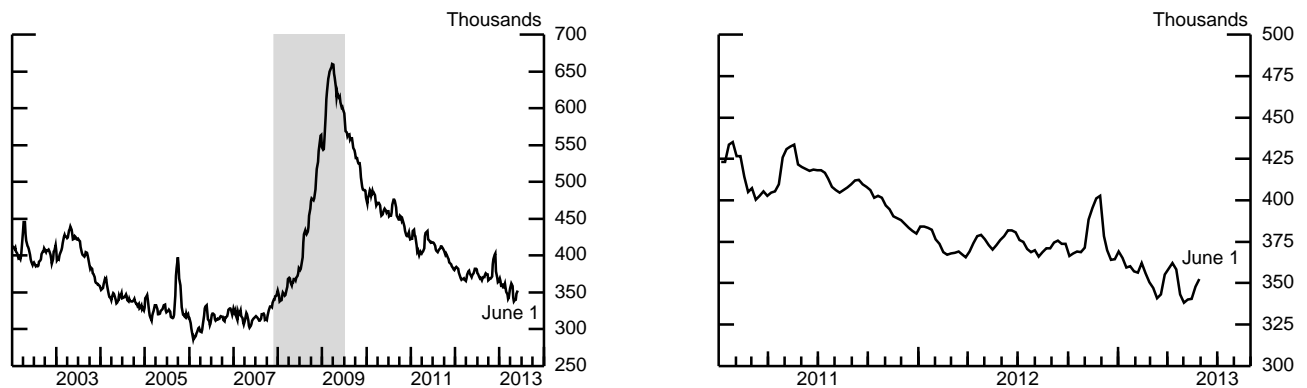


* Published data adjusted by staff to account for changes in population weights.

** Includes staff estimate of the effect of extended and emergency unemployment benefits.

Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

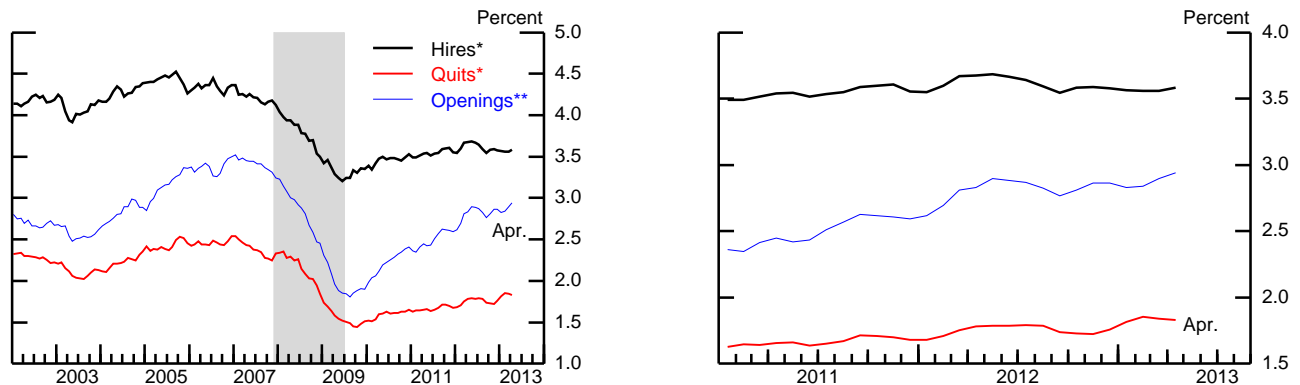
Initial Unemployment Insurance Claims*



* 4-week moving average.

Source: U.S. Department of Labor, Employment and Training Administration.

Private Hires, Quits, and Job Openings



* Percent of private nonfarm payroll employment, 3-month moving average.

** Percent of private nonfarm payroll employment plus unfilled jobs, 3-month moving average.

Source: Job Openings and Labor Turnover Survey.

Labor Market Data and Projections

| Indicator | Aug. 2012 ¹ | Projection for 2013:Q4 in the Tealbook dated: | | | |
|---|---------------------------|---|-----------|------------------------|------------------------|
| | | Sept. 2012 | Dec. 2012 | Mar. 2013 ² | June 2013 ² |
| Unemployment rate (percent) | 8.1 | 8.0 | 7.8 | 7.5 | 7.3 |
| Labor force participation rate (percent) | 63.5 | 63.7 | 63.7 | 63.6 | 63.4 |
| <i>Monthly change in payroll employment (thousands, three-month averages)</i> | | | | | |
| Total | 94 | 188 | 168 | 173 | 170 |
| Private | 109 | 189 | 169 | 179 | 180 |
| Level of total payroll employment (millions) | 133.3 | 135.5 | 135.7 | 136.6 | 136.6 |
| Total hours worked (percent change) ³ | 1.0 | 2.1 | 1.8 | 2.0 | 2.2 |
| Total hours worked (billions) ³ | 184.6 | 187.8 | 188.5 | 190.5 | 190.3 |

1. The figures for August 2012 refer to data as originally published in the September employment situation release along with the staff's real-time translation of those data into hours worked. These were the latest available data at the time of the September FOMC meeting.

2. Projections of payrolls and hours worked include the effects of the benchmark revision to the payroll survey.

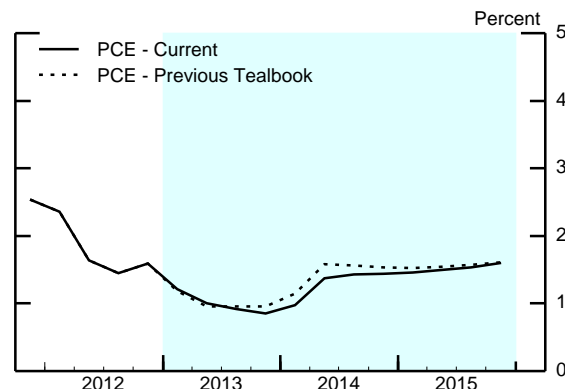
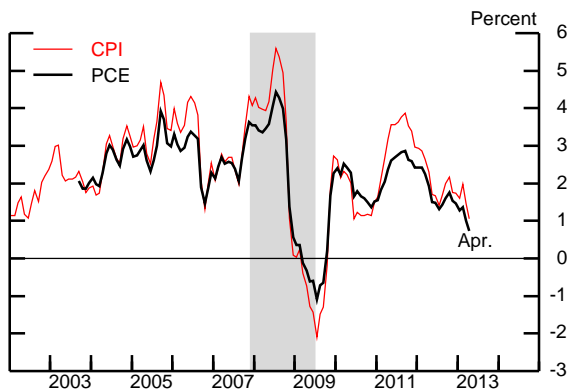
3. Total hours worked are aggregate hours in the nonfarm business sector. Because that series is available only on a quarterly basis, the August 2012 figures refer to the quarterly percent change and level in 2012:Q3. The percent changes and levels in hours are at annual rates.

Source: U.S. Dept. of Labor, Bureau of Labor Statistics; staff projections.

Inflation Developments and Outlook

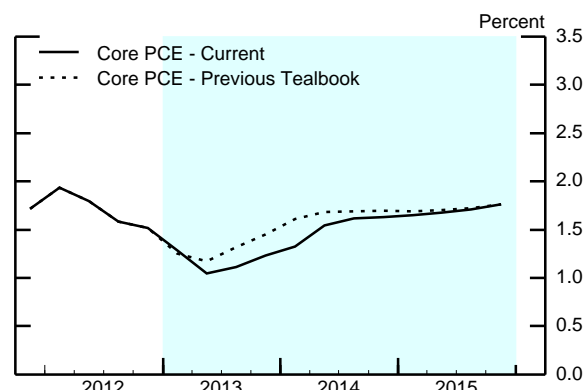
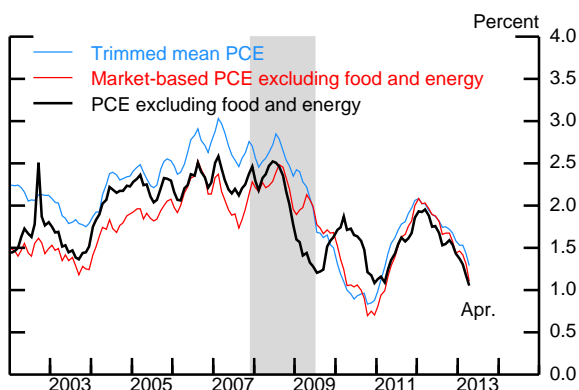
(Percent change from year-earlier period)

Headline Consumer Price Inflation



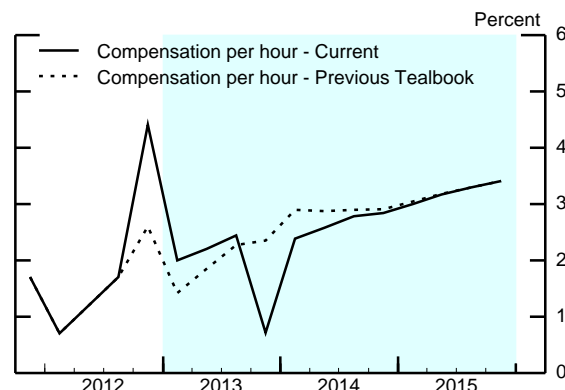
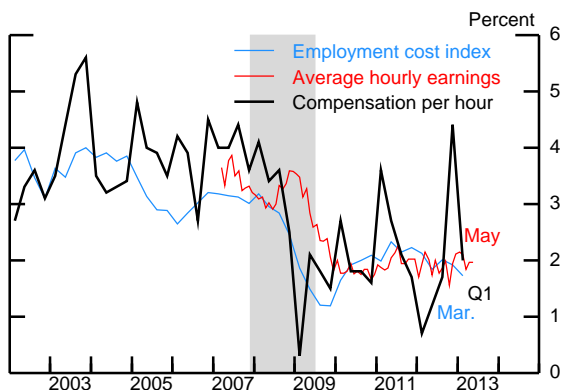
Source: For CPI, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Measures of Underlying PCE Price Inflation



Source: For trimmed mean PCE, Federal Reserve Bank of Dallas; otherwise, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Labor Cost Growth (Private Industry)



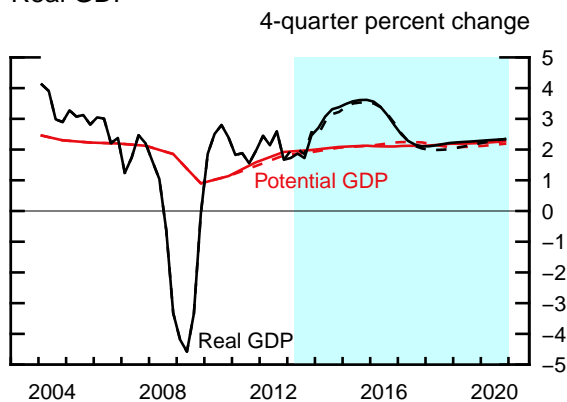
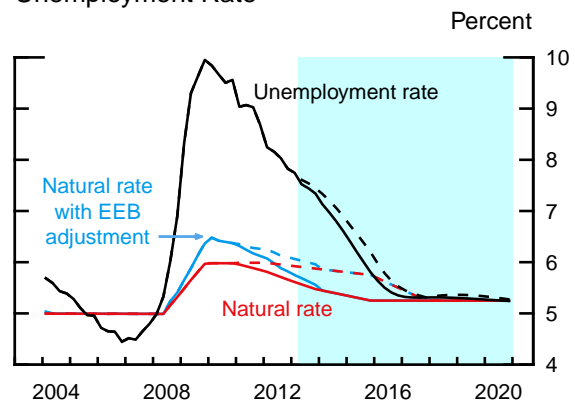
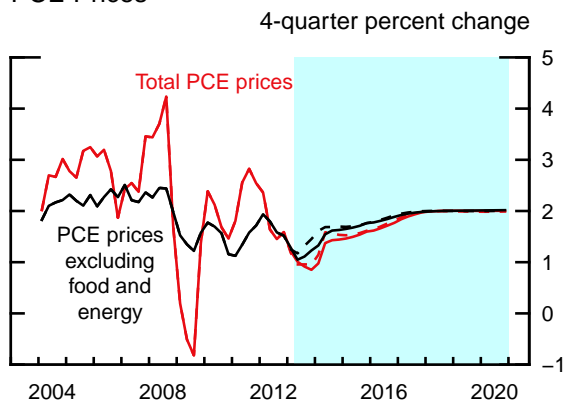
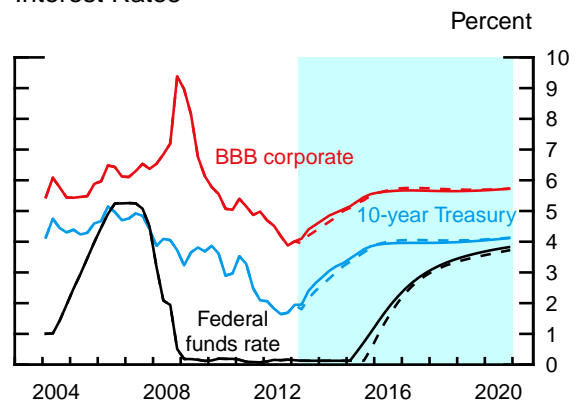
Note: Compensation per hour value for 2013:Q1 is a staff estimate.
Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

The Long-Term Outlook

(Percent change, Q4 to Q4, except as noted)

| Measure | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Longer run |
|---|------|------|------|------|------|------|------------|
| Real GDP | 1.7 | 2.5 | 3.4 | 3.6 | 2.8 | 2.1 | 2.3 |
| Previous Tealbook | 1.7 | 2.6 | 3.2 | 3.5 | 2.9 | 2.0 | 2.3 |
| Civilian unemployment rate ¹ | 7.8 | 7.3 | 6.6 | 5.8 | 5.3 | 5.3 | 5.2 |
| Previous Tealbook | 7.8 | 7.4 | 6.9 | 6.2 | 5.5 | 5.3 | 5.2 |
| PCE prices, total | 1.6 | .9 | 1.4 | 1.6 | 1.8 | 2.0 | 2.0 |
| Previous Tealbook | 1.6 | 1.0 | 1.5 | 1.6 | 1.8 | 2.0 | 2.0 |
| Core PCE prices | 1.5 | 1.2 | 1.6 | 1.8 | 1.9 | 2.0 | 2.0 |
| Previous Tealbook | 1.5 | 1.5 | 1.7 | 1.8 | 1.9 | 2.0 | 2.0 |
| Federal funds rate ¹ | .2 | .1 | .1 | 1.0 | 2.2 | 3.0 | 4.0 |
| Previous Tealbook | .2 | .1 | .1 | .5 | 2.0 | 2.9 | 4.0 |
| 10-year Treasury yield ¹ | 1.7 | 2.7 | 3.3 | 3.9 | 4.0 | 4.0 | 4.8 |
| Previous Tealbook | 1.7 | 2.4 | 3.2 | 3.8 | 4.0 | 4.0 | 4.8 |

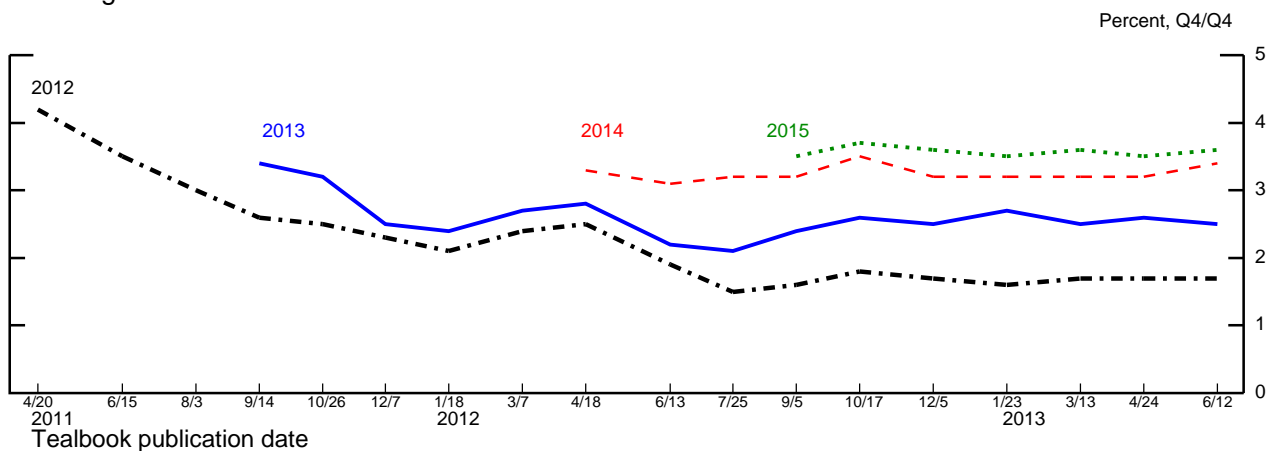
1. Percent, average for the final quarter of the period.

Real GDP**Unemployment Rate****PCE Prices****Interest Rates**

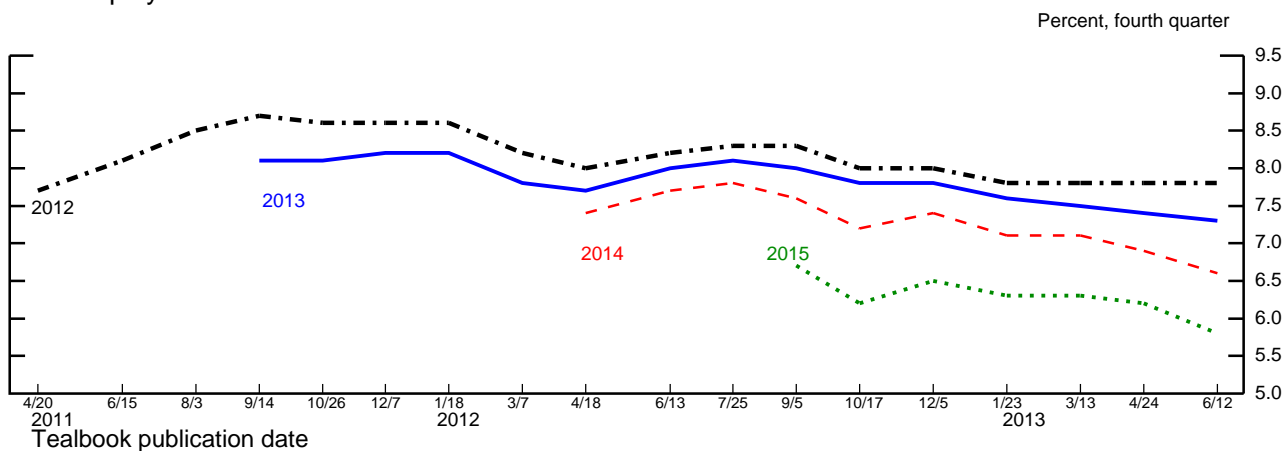
Note: In each panel, shading represents the projection period, and dashed lines are the previous Tealbook.

Evolution of the Staff Forecast

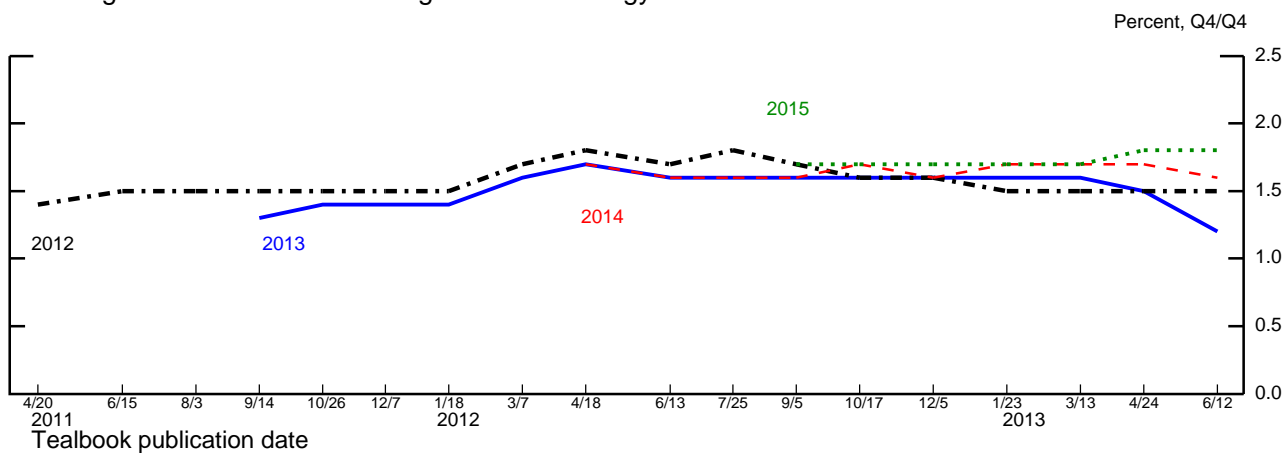
Change in Real GDP



Unemployment Rate

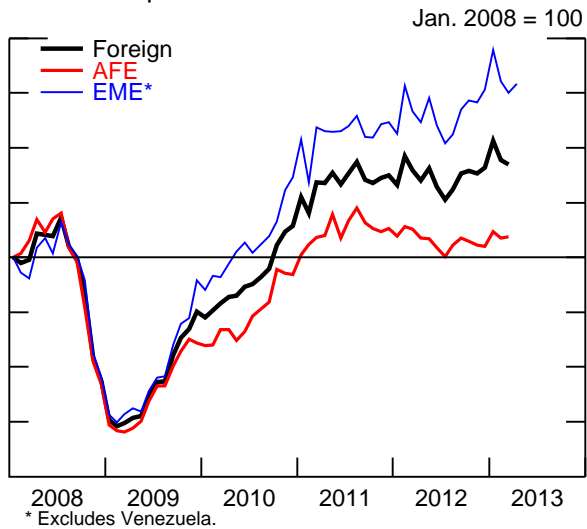


Change in PCE Prices excluding Food and Energy

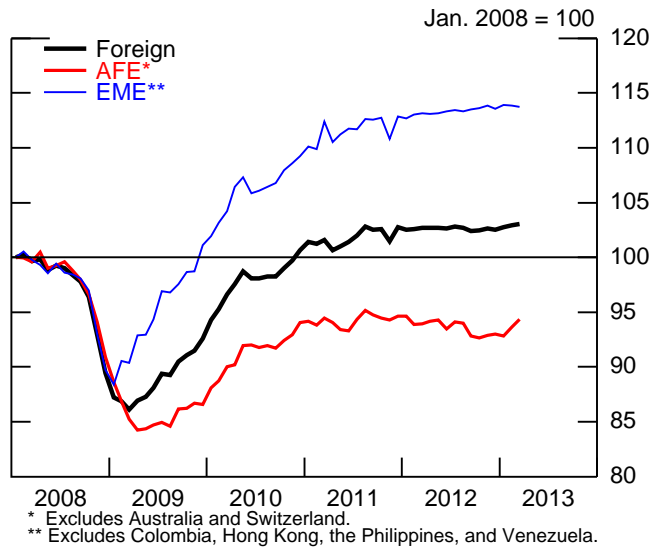


Recent Foreign Indicators

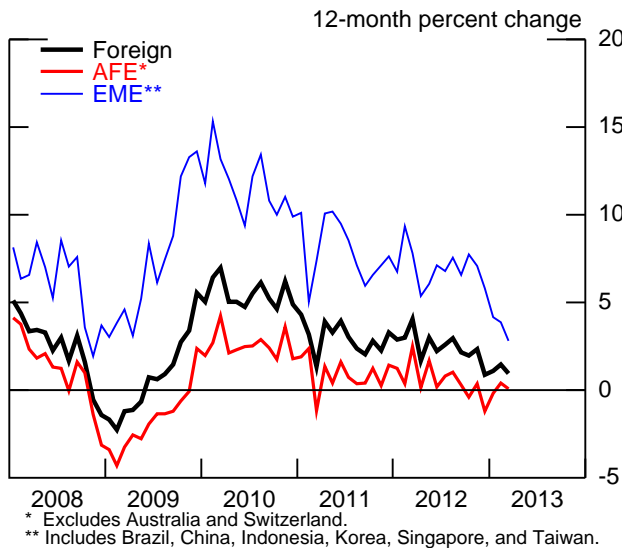
Nominal Exports



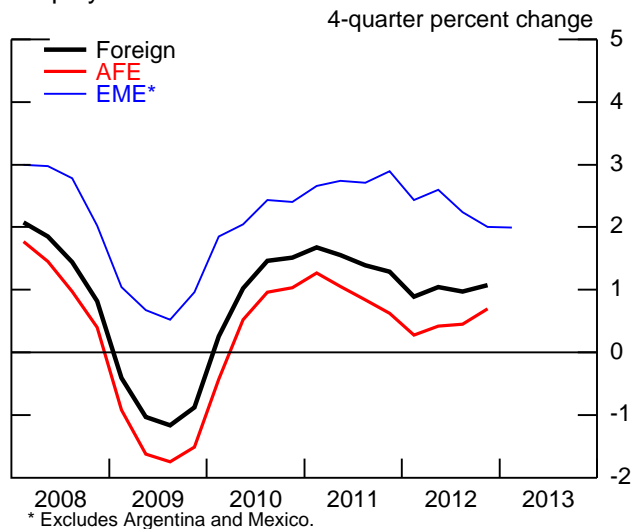
Industrial Production



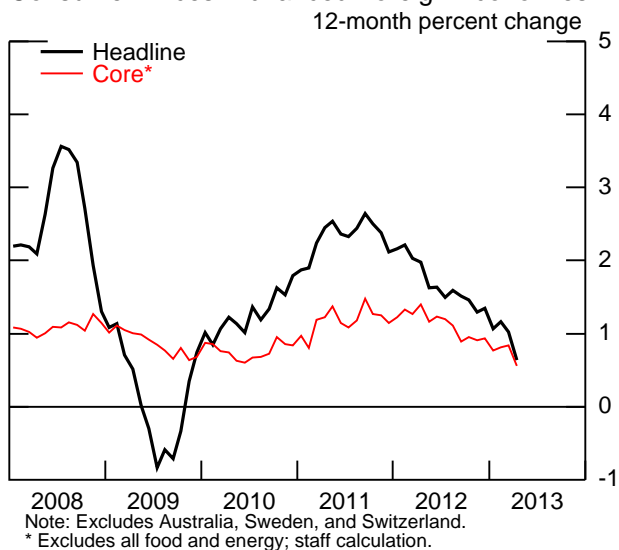
Retail Sales



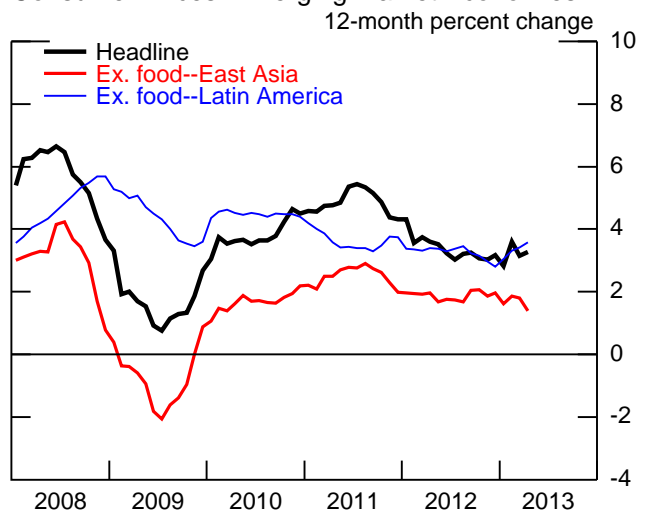
Employment



Consumer Prices: Advanced Foreign Economies



Consumer Prices: Emerging Market Economies



Source: Haver Analytics and CEIC.

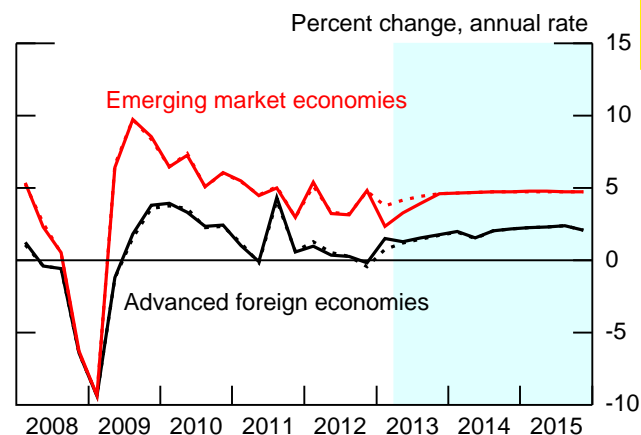
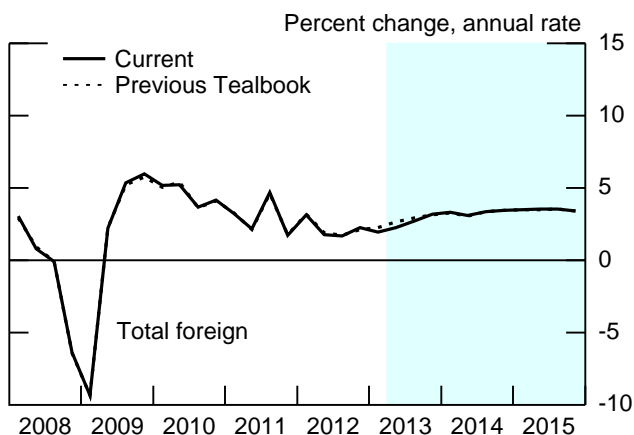
The Foreign Outlook

(Percent change, annual rate)

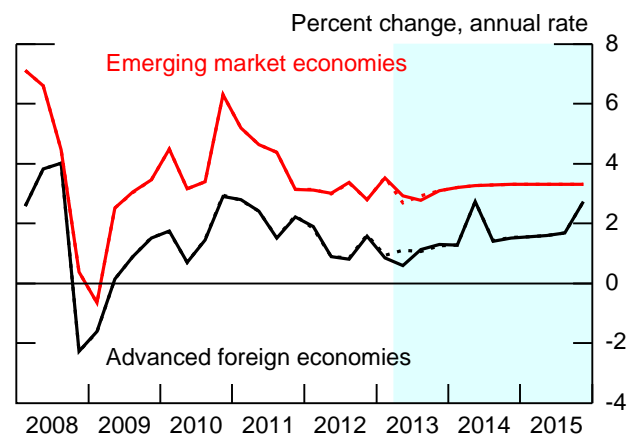
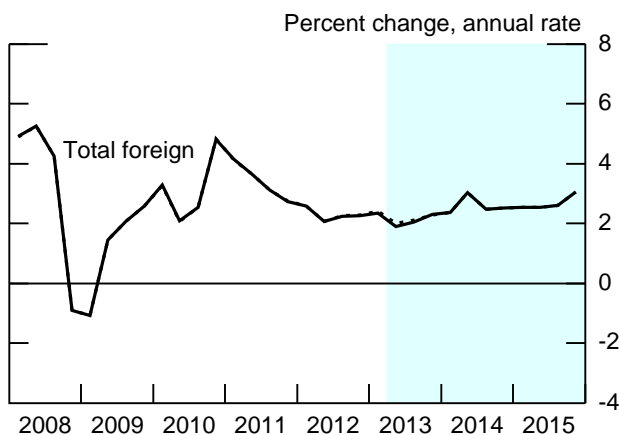
| | 2012 | | | 2013 | | | 2014 | 2015 |
|----------------------------|------|-----|-----|------|-----|-----|------|------|
| | H1 | Q3 | Q4 | Q1 | Q2 | H2 | | |
| Real GDP | | | | | | | | |
| Total foreign | 2.5 | 1.7 | 2.3 | 2.0 | 2.3 | 3.0 | 3.3 | 3.5 |
| Previous Tealbook | 2.6 | 1.7 | 2.1 | 2.3 | 2.7 | 3.0 | 3.3 | 3.5 |
| Advanced foreign economies | .7 | .3 | -.2 | 1.5 | 1.3 | 1.7 | 2.0 | 2.3 |
| Previous Tealbook | .9 | .3 | -.4 | .8 | 1.2 | 1.6 | 1.9 | 2.3 |
| Emerging market economies | 4.3 | 3.2 | 4.8 | 2.4 | 3.3 | 4.3 | 4.7 | 4.8 |
| Previous Tealbook | 4.2 | 3.2 | 4.8 | 3.8 | 4.2 | 4.5 | 4.7 | 4.8 |
| Consumer Prices | | | | | | | | |
| Total foreign | 2.3 | 2.2 | 2.3 | 2.3 | 1.9 | 2.2 | 2.6 | 2.7 |
| Previous Tealbook | 2.3 | 2.3 | 2.3 | 2.4 | 2.0 | 2.2 | 2.6 | 2.7 |
| Advanced foreign economies | 1.4 | .8 | 1.6 | .8 | .6 | 1.2 | 1.7 | 1.9 |
| Previous Tealbook | 1.4 | .8 | 1.6 | .9 | 1.1 | 1.2 | 1.7 | 1.9 |
| Emerging market economies | 3.1 | 3.4 | 2.8 | 3.5 | 2.9 | 2.9 | 3.3 | 3.3 |
| Previous Tealbook | 3.1 | 3.4 | 2.8 | 3.6 | 2.7 | 3.0 | 3.3 | 3.3 |

Note: Annualized percent change from final quarter of preceding period to final quarter of period indicated.

Real GDP



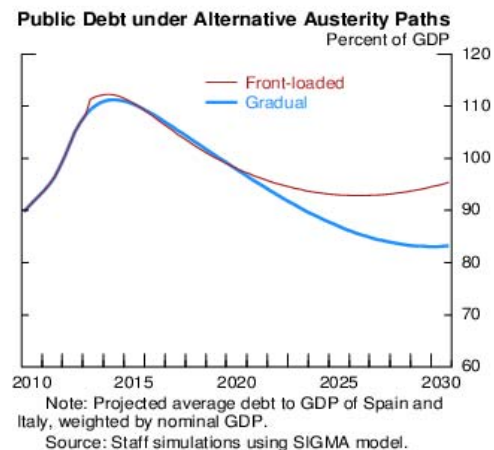
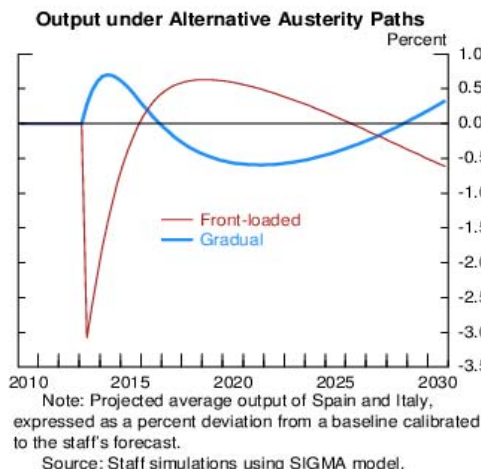
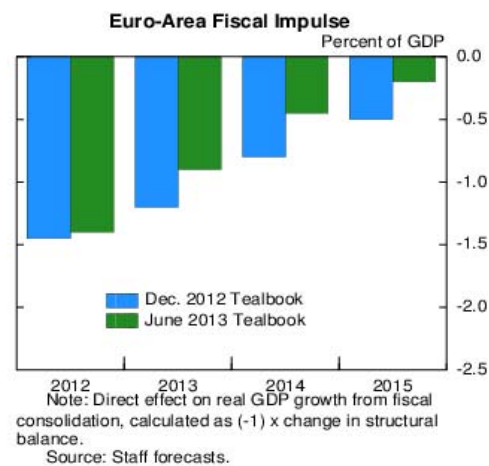
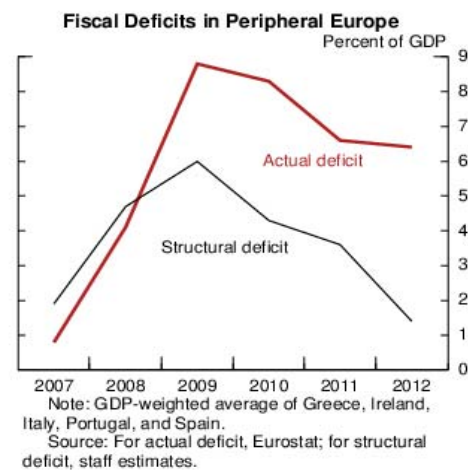
Consumer Prices



Simulations using the Board staff's open-economy model, SIGMA, suggest that for the same cumulative amount of fiscal restraint, front-loaded consolidation depresses the path of output by more than gradual, back-loaded consolidation (see lower-left figure on this page). This is because, with sticky prices and wages, private demand cannot adjust fast enough to offset the effects of abrupt budget cuts in the front-loaded consolidation, producing a very sharp contraction in the short run. Moreover, in the present situation, the effect of the front-loaded consolidation is aggravated because the ECB is constrained by the zero lower bound; conversely, most of the budget cuts under back-loaded consolidation occur once interest rates have risen off their floor, so that the ECB can partially offset the fiscal drag through monetary easing.

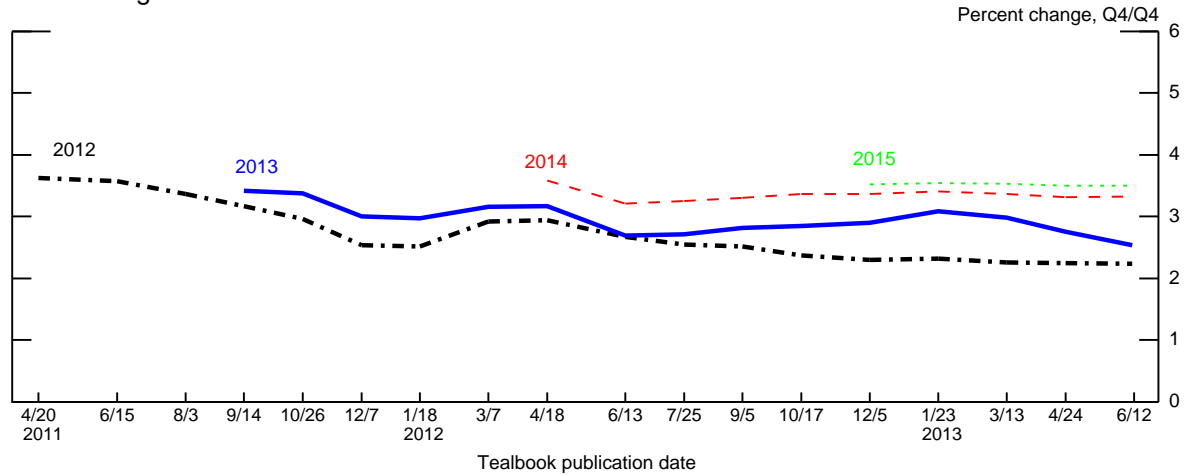
Indeed, the drop in output in the front-loaded consolidation is so severe that the debt-to-GDP ratio does not improve at all in the near term relative to the more gradual consolidation (see lower-right figure). Beyond the near term, the debt-to-GDP ratio in the front-loaded consolidation rises above the back-loaded consolidation because spending cuts taper off at longer horizons in the front-loaded consolidation, whereas they increase in the gradual consolidation.

Consequently, these findings support the notion that too much austerity too soon can be counterproductive, especially if the purpose is to put public debt on a more sustainable path.

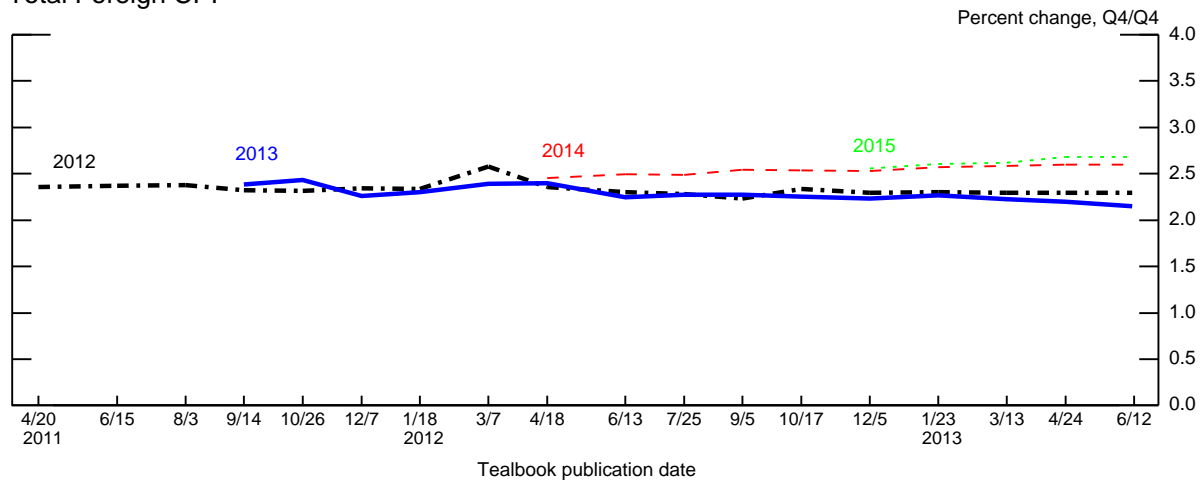


Evolution of Staff's International Forecast

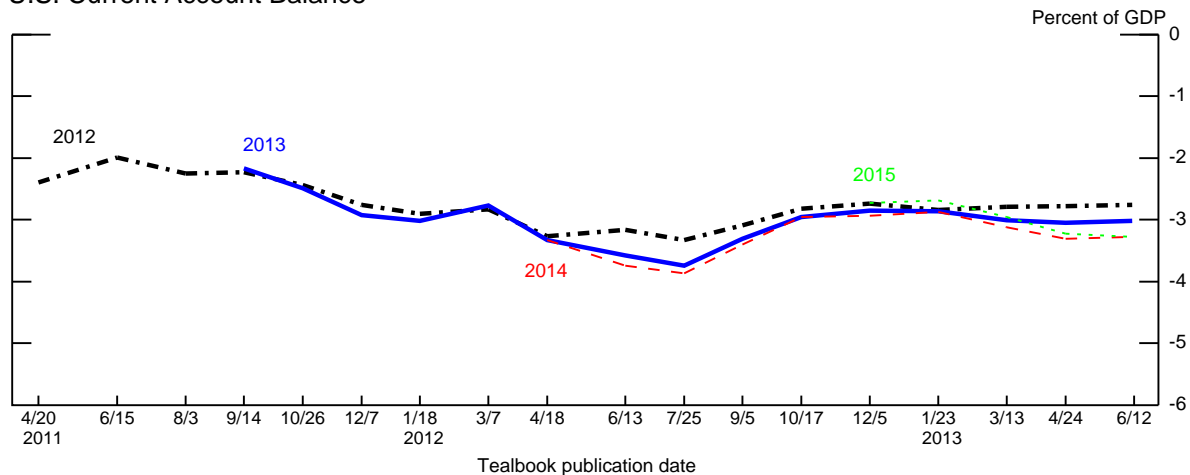
Total Foreign GDP



Total Foreign CPI

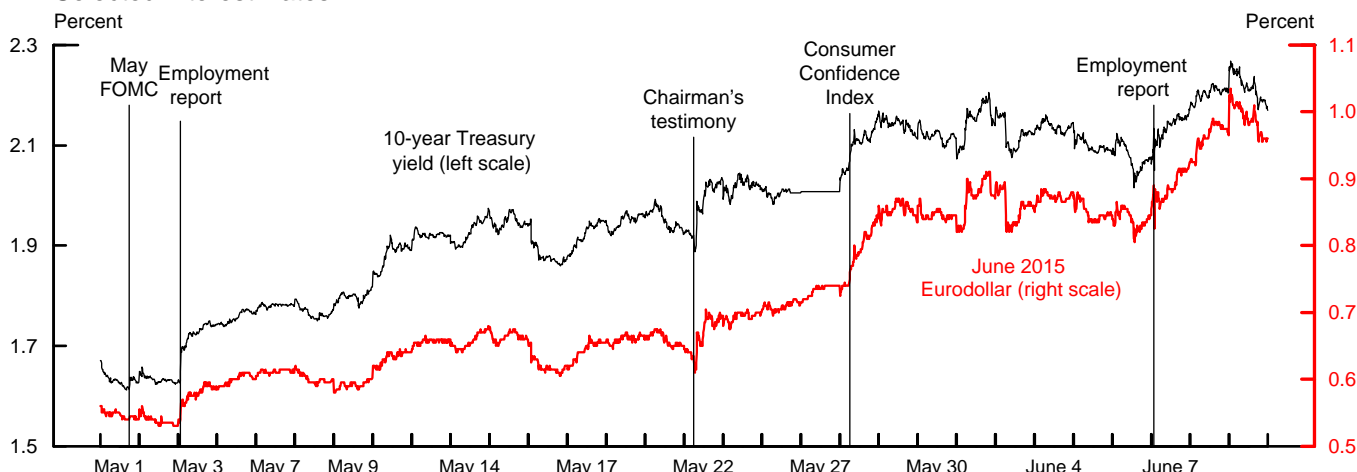


U.S. Current Account Balance



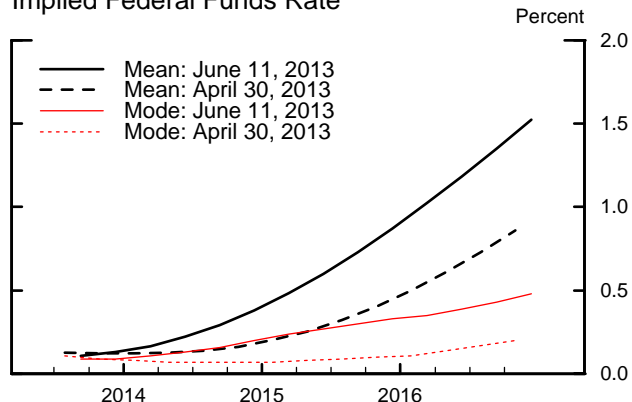
Policy Expectations and Treasury Yields

Selected Interest Rates



Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m. No adjustments for term premiums.
Source: Bloomberg.

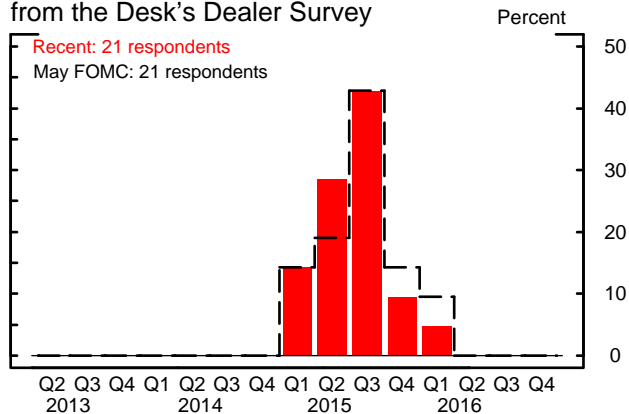
Implied Federal Funds Rate



Note: Mean is estimated using overnight index swap quotes. Mode is estimated from the distribution of federal funds rate implied by interest rate caps. Both include a term premium of zero basis points per month.

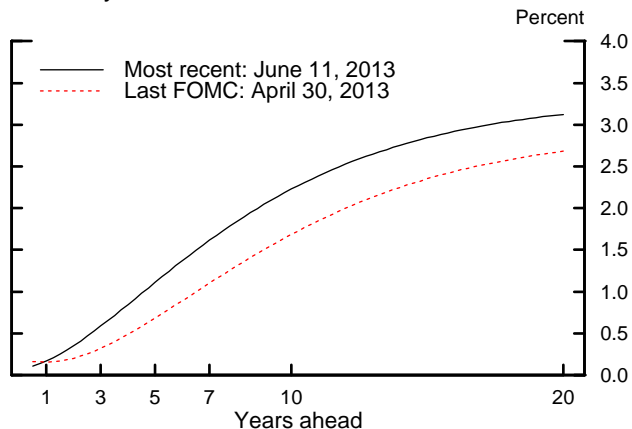
Source: Bloomberg and CME Group.

Distribution of Modal Timing of First Rate Increase from the Desk's Dealer Survey



Source: Desk's dealer survey from June 10, 2013.

Treasury Yield Curve



Note: Smoothed yield curve estimated from off-the-run Treasury coupon securities. Yields shown are those on notional par Treasury securities with semiannual coupons.
Source: Federal Reserve Board.

Inflation Compensation



Note: Estimates based on smoothed nominal and inflation-indexed Treasury yield curves.

* Adjusted for lagged indexation of Treasury inflation-protected securities (carry effect).

Source: Barclays PLC and staff estimates.

Alternative Scenarios

(Percent change, annual rate, from end of preceding period except as noted)

| Measure and scenario | 2013 | | 2014 | 2015 | 2016-17 |
|---------------------------------------|------|-----|------|------|---------|
| | H1 | H2 | | | |
| <i>Real GDP</i> | | | | | |
| Extended Tealbook baseline | 2.0 | 2.9 | 3.4 | 3.6 | 2.4 |
| Housing-led recovery | 2.2 | 3.4 | 4.3 | 4.3 | 2.0 |
| Boom-bust | 3.2 | 4.8 | 4.8 | -1.2 | 1.8 |
| Headwinds | 2.0 | 2.0 | 2.2 | 2.3 | 2.6 |
| Low inflation | 2.0 | 3.0 | 2.7 | 2.6 | 3.0 |
| Prolonged European recession | 2.0 | 2.4 | 2.6 | 3.5 | 2.4 |
| Stronger dollar | 2.0 | 2.5 | 2.6 | 3.6 | 2.6 |
| <i>Unemployment rate¹</i> | | | | | |
| Extended Tealbook baseline | 7.5 | 7.3 | 6.6 | 5.8 | 5.3 |
| Housing-led recovery | 7.5 | 7.2 | 6.1 | 4.9 | 4.8 |
| Boom-bust | 7.4 | 6.8 | 5.4 | 6.1 | 7.4 |
| Headwinds | 7.5 | 7.4 | 7.3 | 7.1 | 6.4 |
| Low inflation | 7.5 | 7.3 | 6.8 | 6.5 | 5.6 |
| Prolonged European recession | 7.5 | 7.4 | 7.0 | 6.3 | 5.8 |
| Stronger dollar | 7.5 | 7.3 | 7.0 | 6.3 | 5.6 |
| <i>Total PCE prices</i> | | | | | |
| Extended Tealbook baseline | .4 | 1.3 | 1.4 | 1.6 | 1.9 |
| Housing-led recovery | .4 | 1.3 | 1.5 | 1.7 | 2.2 |
| Boom-bust | .4 | 1.4 | 1.6 | 1.9 | 1.6 |
| Headwinds | .4 | 1.3 | 1.3 | 1.3 | 1.3 |
| Low inflation | .6 | 1.0 | .7 | .5 | .6 |
| Prolonged European recession | .4 | .8 | 1.0 | 1.3 | 1.8 |
| Stronger dollar | .2 | .3 | .9 | 1.4 | 1.8 |
| <i>Core PCE prices</i> | | | | | |
| Extended Tealbook baseline | 1.0 | 1.4 | 1.6 | 1.8 | 1.9 |
| Housing-led recovery | 1.0 | 1.4 | 1.7 | 1.9 | 2.2 |
| Boom-bust | 1.0 | 1.5 | 1.8 | 2.1 | 1.6 |
| Headwinds | 1.0 | 1.4 | 1.5 | 1.5 | 1.3 |
| Low inflation | 1.2 | 1.1 | .9 | .7 | .6 |
| Prolonged European recession | 1.0 | 1.2 | 1.3 | 1.6 | 1.7 |
| Stronger dollar | 1.0 | 1.0 | 1.1 | 1.6 | 1.8 |
| <i>Federal funds rate¹</i> | | | | | |
| Extended Tealbook baseline | .1 | .1 | .1 | 1.0 | 3.0 |
| Housing-led recovery | .1 | .1 | .4 | 2.3 | 4.3 |
| Boom-bust | .1 | .1 | 1.4 | 2.0 | .5 |
| Headwinds | .1 | .1 | .1 | .1 | .2 |
| Low inflation | .1 | .1 | .1 | .1 | .9 |
| Prolonged European recession | .1 | .1 | .1 | .4 | 2.4 |
| Stronger dollar | .1 | .1 | .1 | .6 | 2.5 |

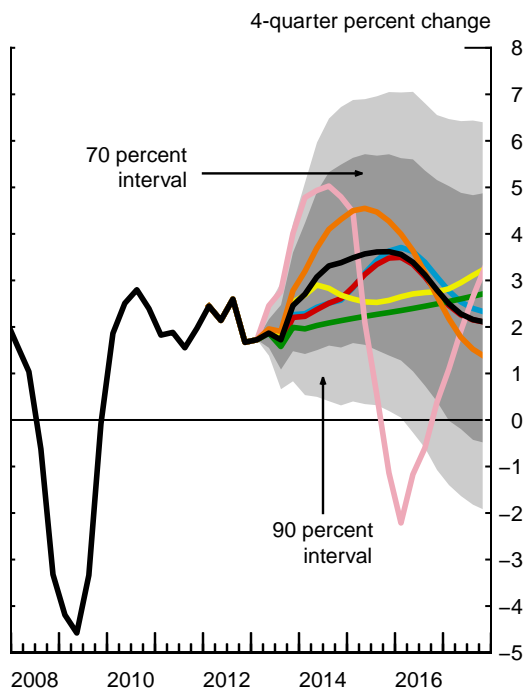
1. Percent, average for the final quarter of the period.

Forecast Confidence Intervals and Alternative Scenarios

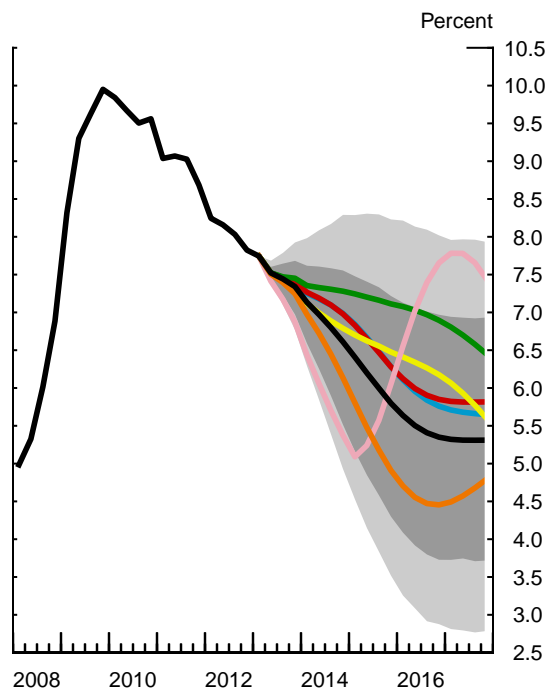
Confidence Intervals Based on FRB/US Stochastic Simulations

- Extended Tealbook baseline
- Headwinds
- Prolonged European recession
- Housing-led recovery
- Low inflation
- Stronger dollar
- Boom-bust

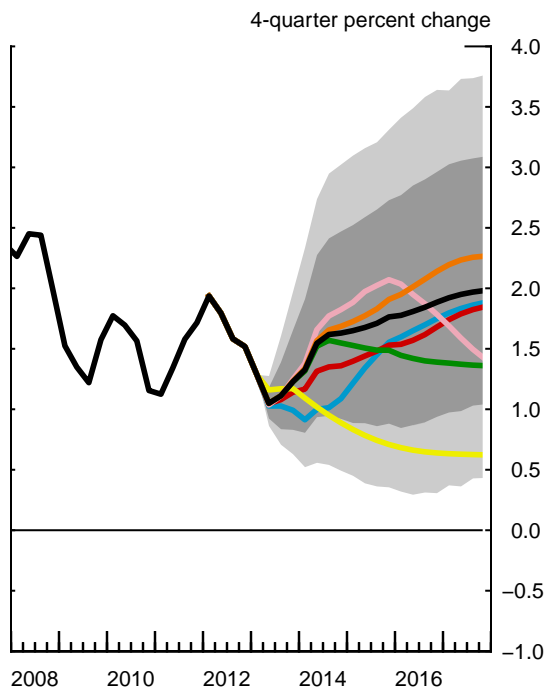
Real GDP



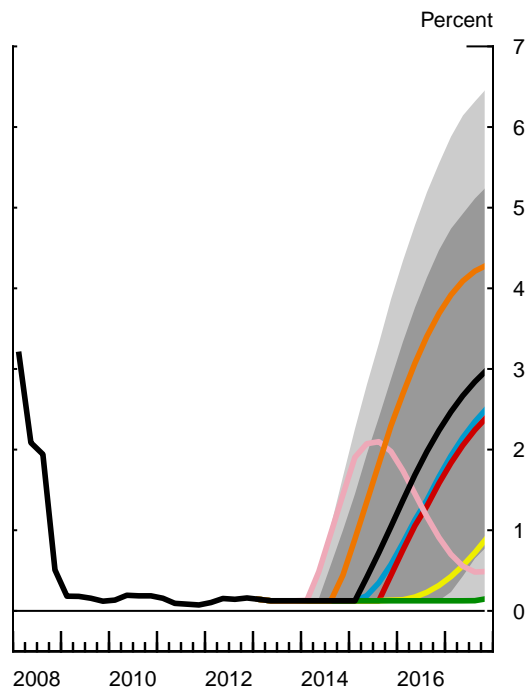
Unemployment Rate



PCE Prices excluding Food and Energy



Federal Funds Rate



**Selected Tealbook Projections and 70 Percent Confidence Intervals Derived
from Historical Tealbook Forecast Errors and FRB/US Simulations**

| Measure | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---------|---------|---------|---------|---------|
| <i>Real GDP</i> (percent change, Q4 to Q4) | | | | | |
| Projection | 2.5 | 3.4 | 3.6 | 2.8 | 2.1 |
| Confidence interval | | | | | |
| Tealbook forecast errors | 1.2–3.7 | 1.4–5.3 | ... | ... | ... |
| FRB/US stochastic simulations | 1.5–3.6 | 1.6–5.5 | 1.4–5.7 | .4–5.2 | -.5–4.9 |
| <i>Civilian unemployment rate</i> (percent, Q4) | | | | | |
| Projection | 7.3 | 6.6 | 5.8 | 5.3 | 5.3 |
| Confidence interval | | | | | |
| Tealbook forecast errors | 6.8–7.8 | 5.8–7.4 | ... | ... | ... |
| FRB/US stochastic simulations | 7.0–7.7 | 5.5–7.6 | 4.3–7.2 | 3.7–7.0 | 3.7–6.9 |
| <i>PCE prices, total</i> (percent change, Q4 to Q4) | | | | | |
| Projection | .9 | 1.4 | 1.6 | 1.8 | 2.0 |
| Confidence interval | | | | | |
| Tealbook forecast errors | .1–1.6 | .2–2.7 | ... | ... | ... |
| FRB/US stochastic simulations | .2–1.6 | .5–2.5 | .5–2.8 | .6–3.0 | .8–3.3 |
| <i>PCE prices excluding food and energy</i> (percent change, Q4 to Q4) | | | | | |
| Projection | 1.2 | 1.6 | 1.8 | 1.9 | 2.0 |
| Confidence interval | | | | | |
| Tealbook forecast errors | .8–1.7 | .9–2.3 | ... | ... | ... |
| FRB/US stochastic simulations | .8–1.7 | .9–2.5 | .9–2.7 | .9–3.0 | 1.0–3.1 |
| <i>Federal funds rate</i> (percent, Q4) | | | | | |
| Projection | .1 | .1 | 1.0 | 2.2 | 3.0 |
| Confidence interval | | | | | |
| FRB/US stochastic simulations | .1–.1 | .1–1.0 | .1–2.9 | .1–4.5 | .8–5.3 |

Note: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969–2012 set of model equation residuals.

Intervals derived from Tealbook forecast errors are based on projections made from 1979–2012, except for PCE prices excluding food and energy, where the sample is 1981–2012.

... Not applicable. The Tealbook forecast horizon has typically extended about 2 years.

Alternative Projections
(Percent change, Q4 to Q4, except as noted)

| Measure and projection | 2012 | | 2013 | | 2014 | |
|---------------------------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|
| | Previous Tealbook | Current Tealbook | Previous Tealbook | Current Tealbook | Previous Tealbook | Current Tealbook |
| <i>Real GDP</i> | | | | | | |
| Staff | 1.7 | 1.7 | 2.6 | 2.5 | 3.2 | 3.4 |
| FRB/US | 1.7 | 1.7 | 1.9 | 2.1 | 2.4 | 3.3 |
| EDO | 1.7 | 1.7 | 3.3 | 2.5 | 3.0 | 2.9 |
| Blue Chip | 1.7 | 1.7 | 2.4 | 2.3 | 2.9 | 2.8 |
| <i>Unemployment rate¹</i> | | | | | | |
| Staff | 7.8 | 7.8 | 7.4 | 7.3 | 6.9 | 6.6 |
| FRB/US | 7.8 | 7.8 | 7.8 | 7.5 | 7.7 | 7.3 |
| EDO | 7.8 | 7.8 | 7.4 | 7.5 | 7.2 | 7.3 |
| Blue Chip | 7.8 | 7.8 | 7.5 | 7.4 | 7.0 | 6.9 |
| <i>Total PCE prices</i> | | | | | | |
| Staff | 1.6 | 1.6 | 1.0 | .9 | 1.5 | 1.4 |
| FRB/US | 1.6 | 1.6 | .7 | .8 | 1.0 | 1.1 |
| EDO | 1.6 | 1.6 | 1.1 | .8 | 1.4 | 1.4 |
| Blue Chip ² | 1.9 | 1.9 | 2.0 | 1.5 | 2.2 | 2.2 |
| <i>Core PCE prices</i> | | | | | | |
| Staff | 1.5 | 1.5 | 1.5 | 1.2 | 1.7 | 1.6 |
| FRB/US | 1.5 | 1.5 | 1.3 | 1.2 | 1.2 | 1.3 |
| EDO | 1.5 | 1.5 | 1.2 | 1.1 | 1.4 | 1.4 |
| Blue Chip | ... | ... | ... | ... | ... | ... |
| <i>Federal funds rate¹</i> | | | | | | |
| Staff | .2 | .2 | .1 | .1 | .1 | .1 |
| FRB/US | .2 | .2 | .1 | .1 | .1 | .1 |
| EDO | .2 | .2 | .9 | .7 | 1.8 | 1.6 |
| Blue Chip ³ | .1 | .1 | .1 | .1 | .3 | .2 |

Note: Blue Chip forecast completed on June 10, 2013.

1. Percent, average for Q4.

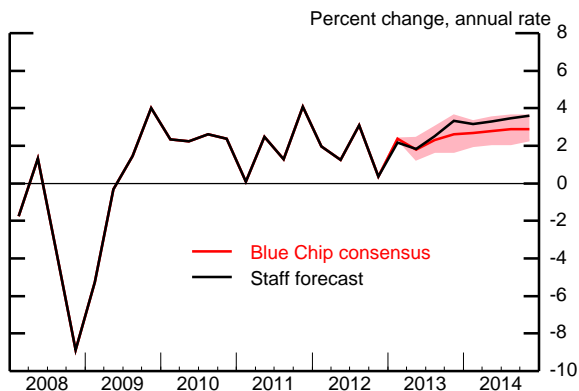
2. Consumer price index.

3. Treasury bill rate.

... Not applicable. The Blue Chip forecast typically extends about 2 years.

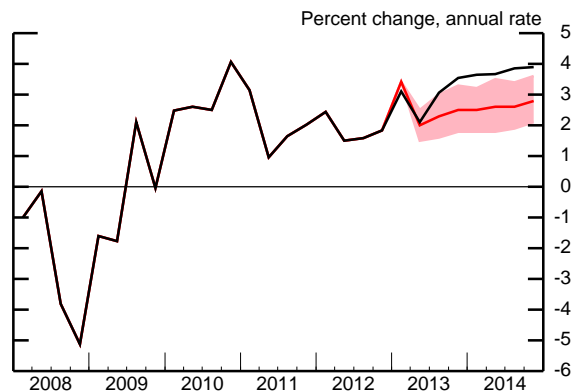
Tealbook Forecast Compared with Blue Chip (Blue Chip survey released June 10, 2013)

Real GDP

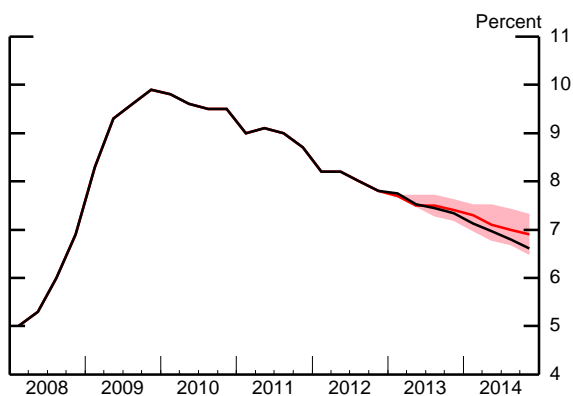


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

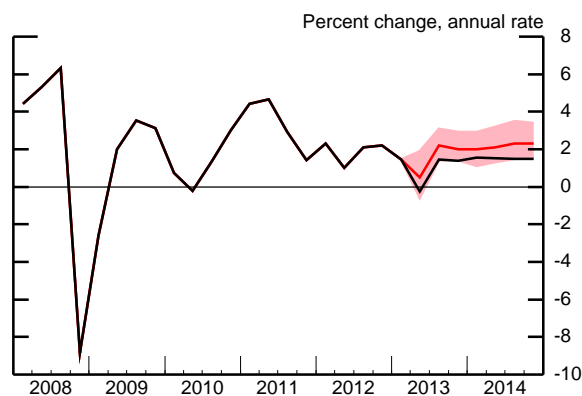
Real PCE



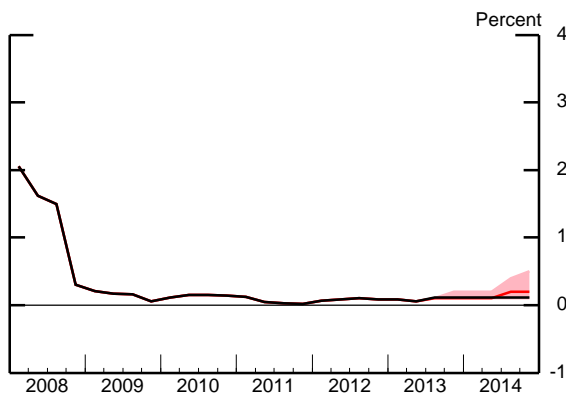
Unemployment Rate



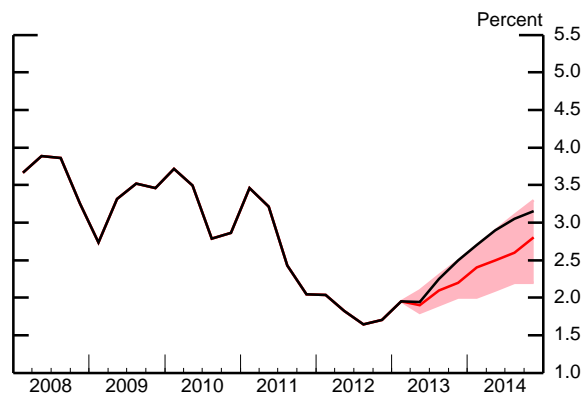
Consumer Price Index



Treasury Bill Rate



10-Year Treasury Yield



Note: The yield is for on-the-run Treasury securities. Over the forecast period, the staff's projected yield is assumed to be 15 basis points below the off-the-run yield.

Assessment of Key Macroeconomic Risks (1)**Probability of Inflation Events**

(4 quarters ahead—2014:Q2)

| Probability that the 4-quarter change in total PCE prices will be ... | Staff | FRB/US | EDO | BVAR |
|---|-------|--------|-----|------|
| <i>Greater than 3 percent</i> | | | | |
| Current Tealbook | .05 | .04 | .09 | .01 |
| Previous Tealbook | .03 | .01 | .10 | .06 |
| <i>Less than 1 percent</i> | | | | |
| Current Tealbook | .31 | .40 | .36 | .43 |
| Previous Tealbook | .42 | .57 | .32 | .18 |

Probability of Unemployment Events

(4 quarters ahead—2014:Q2)

| Probability that the unemployment rate will ... | Staff | FRB/US | EDO | BVAR |
|---|-------|--------|-----|------|
| <i>Increase by 1 percentage point</i> | | | | |
| Current Tealbook | .01 | .05 | .19 | .01 |
| Previous Tealbook | .02 | .06 | .19 | .01 |
| <i>Decrease by 1 percentage point</i> | | | | |
| Current Tealbook | .24 | .06 | .24 | .22 |
| Previous Tealbook | .17 | .04 | .24 | .20 |

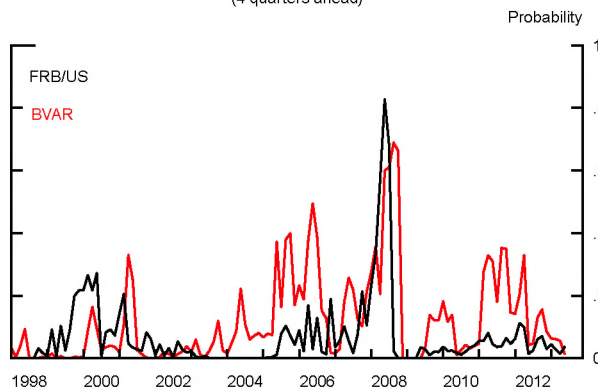
Probability of Near-Term Recession

| Probability that real GDP declines in each of 2013:Q3 and 2013:Q4 | Staff | FRB/US | EDO | BVAR | Factor Model |
|---|-------|--------|-----|------|--------------|
| Current Tealbook | .02 | .03 | .04 | .04 | .11 |
| Previous Tealbook | .03 | .06 | .04 | .03 | .16 |

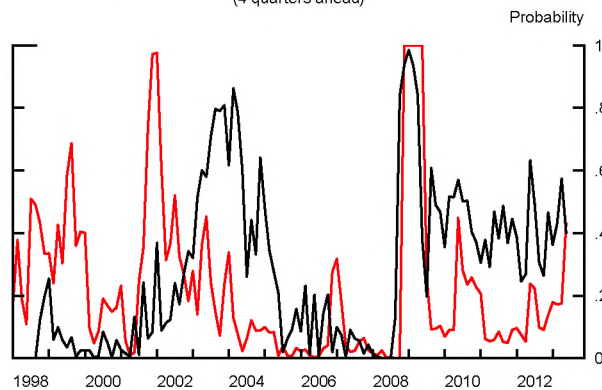
Note: "Staff" represents Tealbook forecast errors applied to the Tealbook baseline; baselines for FRB/US, BVAR, EDO, and the factor model are generated by those models themselves, up to the current-quarter estimate. The current quarter is taken as data from the staff estimate for the second Tealbook in each quarter, otherwise the preceding quarter is taken as the latest historical observation.

Assessment of Key Macroeconomic Risks (2)

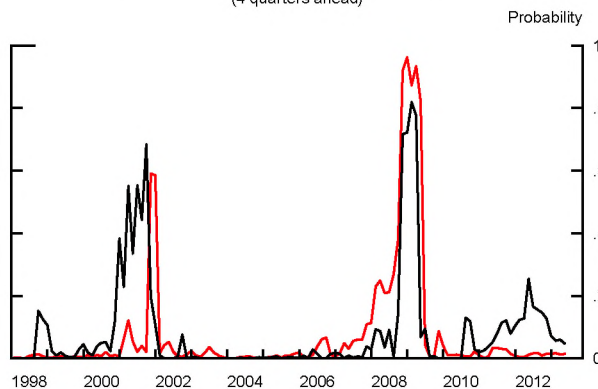
Probability that Total PCE Inflation Is above 3 Percent
(4 quarters ahead)



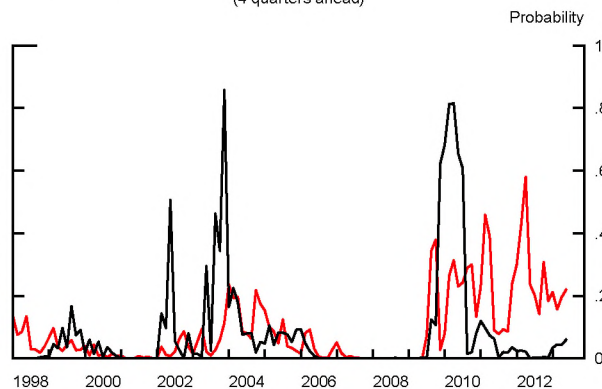
Probability that Total PCE Inflation Is below 1 Percent
(4 quarters ahead)



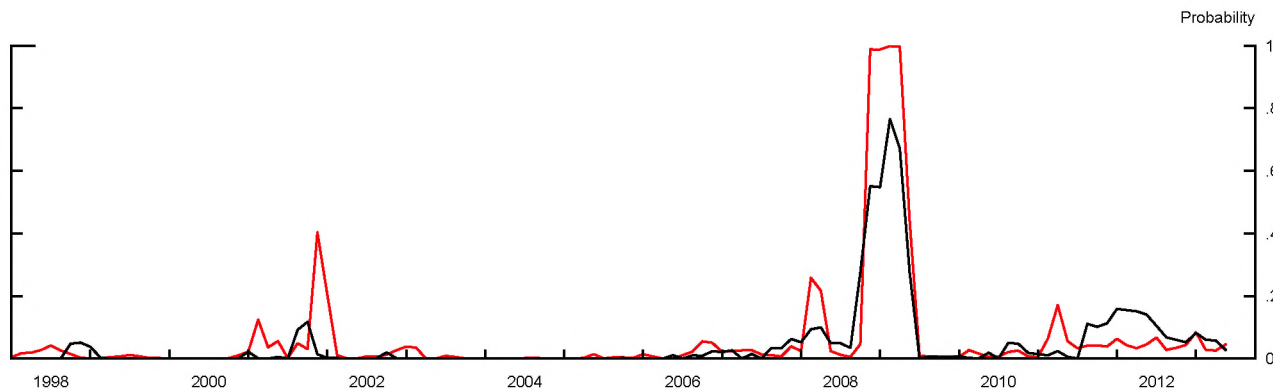
Probability that the Unemployment Rate Increases 1 ppt
(4 quarters ahead)



Probability that the Unemployment Rate Decreases 1 ppt
(4 quarters ahead)



Probability that Real GDP Declines in each of the Next Two Quarters



Note: See notes on facing page. Recession and inflation probabilities for FRB/US and the BVAR are real-time estimates. See Robert J. Tetlow and Brian Ironside (2007), "Real-Time Model Uncertainty in the United States: The Fed, 1996–2003," *Journal of Money and Banking*, vol. 39 (October), pp. 1533–61.

Changes in GDP, Prices, and Unemployment
(Percent, annual rate except as noted)

| Interval | Nominal GDP | | Real GDP | | PCE price index | | Core PCE price index | | Unemployment rate ¹ | |
|---------------------------------|-------------|----------|----------|----------|-----------------|----------|----------------------|----------|--------------------------------|----------|
| | 04/24/13 | 06/12/13 | 04/24/13 | 06/12/13 | 04/24/13 | 06/12/13 | 04/24/13 | 06/12/13 | 04/24/13 | 06/12/13 |
| <i>Quarterly</i> | | | | | | | | | | |
| 2012:Q1 | 4.2 | 4.2 | 2.0 | 2.0 | 2.5 | 2.5 | 2.2 | 2.2 | 8.2 | 8.2 |
| Q2 | 2.8 | 2.8 | 1.3 | 1.3 | .7 | .7 | 1.7 | 1.7 | 8.2 | 8.2 |
| Q3 | 5.9 | 5.9 | 3.1 | 3.1 | 1.6 | 1.6 | 1.1 | 1.1 | 8.0 | 8.0 |
| Q4 | 1.3 | 1.3 | .4 | .4 | 1.6 | 1.6 | 1.0 | 1.0 | 7.8 | 7.8 |
| 2013:Q1 | 4.4 | 3.4 | 3.1 | 2.2 | .9 | 1.0 | 1.2 | 1.3 | 7.7 | 7.7 |
| Q2 | 2.2 | 2.1 | 1.5 | 1.8 | -2 | -1 | 1.4 | .8 | 7.6 | 7.5 |
| Q3 | 4.2 | 3.9 | 2.4 | 2.5 | 1.6 | 1.2 | 1.7 | 1.3 | 7.5 | 7.4 |
| Q4 | 4.9 | 4.8 | 3.2 | 3.3 | 1.6 | 1.3 | 1.6 | 1.5 | 7.4 | 7.3 |
| 2014:Q1 | 4.7 | 4.8 | 2.9 | 3.2 | 1.6 | 1.5 | 1.8 | 1.7 | 7.3 | 7.1 |
| Q2 | 4.8 | 4.9 | 3.1 | 3.3 | 1.5 | 1.4 | 1.7 | 1.6 | 7.2 | 7.0 |
| Q3 | 5.0 | 5.0 | 3.4 | 3.5 | 1.5 | 1.4 | 1.7 | 1.6 | 7.1 | 6.8 |
| Q4 | 5.1 | 5.2 | 3.5 | 3.6 | 1.5 | 1.4 | 1.6 | 1.6 | 6.9 | 6.6 |
| <i>Two-quarter²</i> | | | | | | | | | | |
| 2012:Q2 | 3.5 | 3.5 | 1.6 | 1.6 | 1.6 | 1.6 | 2.0 | 2.0 | -5 | -5 |
| Q4 | 3.6 | 3.6 | 1.7 | 1.7 | 1.6 | 1.6 | 1.1 | 1.1 | -4 | -4 |
| 2013:Q2 | 3.3 | 2.7 | 2.3 | 2.0 | .3 | .4 | 1.3 | 1.0 | -2 | -3 |
| Q4 | 4.6 | 4.4 | 2.8 | 2.9 | 1.6 | 1.3 | 1.6 | 1.4 | -2 | -2 |
| 2014:Q2 | 4.7 | 4.9 | 3.0 | 3.2 | 1.6 | 1.5 | 1.7 | 1.7 | -2 | -3 |
| Q4 | 5.1 | 5.1 | 3.5 | 3.5 | 1.5 | 1.4 | 1.6 | 1.6 | -3 | -4 |
| <i>Four-quarter³</i> | | | | | | | | | | |
| 2011:Q4 | 4.0 | 4.0 | 2.0 | 2.0 | 2.5 | 2.5 | 1.7 | 1.7 | -8 | -8 |
| 2012:Q4 | 3.5 | 3.5 | 1.7 | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | -9 | -9 |
| 2013:Q4 | 3.9 | 3.5 | 2.6 | 2.5 | 1.0 | .9 | 1.5 | 1.2 | -4 | -5 |
| 2014:Q4 | 4.9 | 5.0 | 3.2 | 3.4 | 1.5 | 1.4 | 1.7 | 1.6 | -5 | -7 |
| 2015:Q4 | 5.2 | 5.4 | 3.5 | 3.6 | 1.6 | 1.6 | 1.8 | 1.8 | -7 | -8 |
| <i>Annual</i> | | | | | | | | | | |
| 2011 | 4.0 | 4.0 | 1.8 | 1.8 | 2.4 | 2.4 | 1.4 | 1.4 | 8.9 | 8.9 |
| 2012 | 4.0 | 4.0 | 2.2 | 2.2 | 1.8 | 1.8 | 1.7 | 1.7 | 8.1 | 8.1 |
| 2013 | 3.5 | 3.2 | 2.1 | 1.9 | 1.0 | 1.0 | 1.3 | 1.2 | 7.6 | 7.5 |
| 2014 | 4.6 | 4.6 | 2.9 | 3.1 | 1.5 | 1.3 | 1.7 | 1.5 | 7.1 | 6.9 |
| 2015 | 5.2 | 5.2 | 3.5 | 3.6 | 1.6 | 1.5 | 1.7 | 1.7 | 6.5 | 6.1 |

1. Level, except for two-quarter and four-quarter intervals.

2. Percent change from two quarters earlier; for unemployment rate, change is in percentage points.

3. Percent change from four quarters earlier; for unemployment rate, change is in percentage points.

Changes in Real Gross Domestic Product and Related Items

(Percent, annual rate except as noted)

| Item | 2012 | | | | 2013 | | | | 2014 | | | | 2012 ¹ | 2013 ¹ | 2014 ¹ | 2015 ¹ |
|--|-------------------|-------------------|-------------------|----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Q2 | Q3 | Q4 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | |
| | | | | | | | | | | | | | | | | |
| Real GDP <i>Previous Tealbook</i> | 1.3 1.3 | 3.1 3.1 | .4 .4 | | 2.2 3.1 | 1.8 1.5 | 2.5 2.4 | 3.3 3.2 | 3.2 2.9 | 3.3 3.1 | 3.5 3.4 | 3.6 3.5 | 1.7 1.7 | 2.5 2.6 | 3.4 3.2 | 3.6 3.5 |
| Final sales <i>Previous Tealbook</i> | 1.7 | 2.4 | 1.9 | | 1.5 | 1.8 | 2.4 | 3.0 | 2.8 | 3.2 | 3.5 | 3.8 | 2.1 | 2.2 | 3.3 | 3.8 |
| Priv. dom. final purch. <i>Previous Tealbook</i> | 1.7 1.9 1.9 | 2.4 1.5 1.5 | 1.9 3.6 3.6 | | 1.8 3.1 2.8 | 2.0 2.6 3.1 | 2.0 3.7 3.7 | 3.2 4.2 4.2 | 2.4 4.2 3.6 | 2.9 4.4 4.0 | 3.4 4.7 4.5 | 3.6 4.7 4.5 | 2.1 2.6 2.6 | 2.2 3.4 3.5 | 3.1 4.5 4.2 | 3.7 4.6 4.4 |
| Personal cons. expend. <i>Previous Tealbook</i> | 1.5 1.5 | 1.6 1.6 | 1.8 1.8 | | 3.1 2.8 | 2.1 2.3 | 3.1 2.6 | 3.6 3.3 | 3.6 3.0 | 3.7 3.4 | 3.8 3.7 | 3.9 3.8 | 1.8 1.8 | 3.0 2.8 | 3.8 3.5 | 3.9 3.8 |
| Durables | -2 | 8.9 | 13.6 | | 8.4 | 4.4 | 8.8 | 8.9 | 9.9 | 9.4 | 9.3 | 9.4 | 8.3 | 7.6 | 9.5 | 8.6 |
| Nondurables | .6 | 1.2 | .1 | | 2.5 | 1.2 | 2.9 | 2.8 | 2.8 | 3.0 | 3.1 | 3.1 | .9 | 2.3 | 3.0 | 3.2 |
| Services | 2.1 | .6 | .6 | | 2.4 | 2.0 | 2.2 | 2.9 | 2.9 | 3.0 | 3.2 | 3.2 | 1.1 | 2.4 | 3.1 | 3.4 |
| Residential investment <i>Previous Tealbook</i> | 8.5 8.5 | 13.5 13.5 | 17.6 17.6 | | 13.3 16.4 | 18.6 22.0 | 13.9 15.8 | 15.3 14.0 | 17.8 16.3 | 17.8 17.0 | 18.3 17.3 | 17.1 15.3 | 14.9 14.9 | 15.3 17.0 | 17.8 16.5 | 15.2 13.6 |
| Business fixed invest. <i>Previous Tealbook</i> | 3.6 | -1.8 | 13.2 | | .9 | 2.4 | 5.7 | 6.0 | 4.0 | 5.1 | 6.3 | 6.5 | 5.4 | 3.7 | 5.5 | 5.5 |
| Equipment & software <i>Previous Tealbook</i> | 3.6 | -1.8 | 13.2 | | -3 | 4.1 | 8.2 | 7.0 | 4.2 | 4.6 | 6.1 | 6.3 | 5.4 | 4.7 | 5.3 | 5.2 |
| Nonres. structures <i>Previous Tealbook</i> | 4.8 4.8 | -2.6 -2.6 | 11.8 11.8 | | 4.6 1.1 | 1.6 4.2 | 6.2 9.3 | 6.6 7.7 | 4.7 4.8 | 5.6 5.1 | 7.4 7.1 | 7.6 7.3 | 4.7 4.7 | 4.7 5.5 | 6.3 6.1 | 6.4 6.0 |
| Net exports ² <i>Previous Tealbook</i> ² | .6 .6 | .0 .0 | 16.7 16.7 | | -7.9 -3.8 | 4.5 3.8 | 4.4 5.5 | 4.7 5.2 | 2.2 2.7 | 4.1 3.5 | 3.7 3.9 | 3.8 4.0 | 7.3 7.3 | 1.3 2.6 | 3.4 3.5 | 3.4 3.1 |
| Exports | -407 | -395 | -385 | | -391 | -382 | -382 | -388 | -401 | -401 | -402 | -399 | -401 | -386 | -401 | -401 |
| Imports | -407 | -395 | -385 | | -389 | -380 | -387 | -392 | -399 | -399 | -401 | -398 | -401 | -387 | -399 | -390 |
| Gov't. cons. & invest. <i>Previous Tealbook</i> | 5.3 2.8 | 1.9 -6 | -2.8 -4.2 | | -1.2 .1 | 5.7 3.0 | 4.6 3.7 | 3.4 4.0 | 4.7 6.2 | 4.4 3.7 | 5.4 4.6 | 5.9 4.3 | 2.1 .2 | 3.1 2.7 | 5.1 4.7 | 6.5 5.4 |
| Federal | -7 | 3.9 | -7.0 | | -4.8 | -3.4 | -3.8 | -2.0 | -1.6 | -2.5 | -2.3 | -1.8 | -1.8 | -3.5 | -2.1 | -7 |
| Defense | -7 | 3.9 | -7.0 | | -2.3 | -4.5 | -4.9 | -7 | -2.1 | -2.5 | -2.2 | -1.7 | -1.8 | -3.1 | -2.1 | -7 |
| Nondefense | -2 | 9.5 | -14.8 | | -8.7 | -7.9 | -9.0 | -4.8 | -4.3 | -6.6 | -6.0 | -5.1 | -2.8 | -7.6 | -5.5 | -3.8 |
| State & local | -2 | 12.9 | -22.1 | | -12.1 | -7.8 | -10.7 | -3.8 | -3.9 | -8.0 | -6.6 | -6.1 | -5.0 | -8.6 | -6.2 | -4.1 |
| Change in bus. inventories ² <i>Previous Tealbook</i> ² | -4 -1.0 | 3.0 .3 | 1.7 -1.5 | | -2.1 -2.1 | -8.1 -5 | -5.8 -4 | -6.8 -2 | -4.9 .0 | -4.0 .0 | -5.0 .0 | -3.3 .1 | 1.5 -1.1 | -5.7 -8 | -4.3 .0 | -3.3 1.0 |
| Nonfarm ² | 41 | 60 | 13 | | 37 | 38 | 42 | 52 | 63 | 66 | 64 | 59 | 43 | 42 | 63 | 49 |
| Farm ² | 41 | 60 | 13 | | 61 | 44 | 58 | 59 | 73 | 80 | 81 | 79 | 43 | 56 | 78 | 70 |
| | 53 | 88 | 35 | | 29 | 30 | 34 | 44 | 57 | 61 | 59 | 54 | 60 | 34 | 58 | 48 |
| | -8 | -19 | -15 | | 8 | 8 | 8 | 8 | 6 | 5 | 5 | 5 | -11 | 8 | 6 | 1 |

1. Change from fourth quarter of previous year to fourth quarter of year indicated.

2. Billions of chained (2005) dollars.

Changes in Real Gross Domestic Product and Related Items
(Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

| Item | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|--|----------------|----------------|----------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Real GDP <i>Previous Tealbook</i> | 2.4 2.4 | 2.2 2.2 | -3.3 -3.3 | -1 -1 | 2.4 2.4 | 2.0 2.0 | 1.7 1.7 | 2.5 2.6 | 3.4 3.2 | 3.6 3.5 |
| Final sales <i>Previous Tealbook</i> | 2.8 2.8 | 2.4 2.4 | -2.6 -2.6 | -5 -5 | 1.7 1.7 | 1.7 1.7 | 2.1 2.1 | 2.2 2.2 | 3.3 3.1 | 3.8 3.7 |
| Priv. dom. final purch. <i>Previous Tealbook</i> | 2.4 2.4 | 1.2 1.2 | -4.5 -4.5 | -2.8 -2.8 | 3.2 3.2 | 2.9 2.9 | 2.6 2.6 | 3.4 3.5 | 4.5 4.2 | 4.6 4.4 |
| Personal cons. expend. <i>Previous Tealbook</i> | 3.2 3.2 | 1.7 1.7 | -2.5 -2.5 | -3 -3 | 2.9 2.9 | 1.9 1.9 | 1.8 1.8 | 3.0 2.8 | 3.8 3.5 | 3.9 3.8 |
| Durables | 7.0 | 4.6 | -13.0 | 3.0 | 9.5 | 5.9 | 8.3 | 7.6 | 9.5 | 8.6 |
| Nondurables | 2.9 | .8 | -3.1 | .4 | 3.0 | 1.4 | .9 | 2.3 | 3.0 | 3.2 |
| Services | 2.6 | 1.4 | -.5 | -1.1 | 1.9 | 1.5 | 1.1 | 2.4 | 3.1 | 3.4 |
| Residential investment <i>Previous Tealbook</i> | -15.7 -15.7 | -20.7 -20.7 | -24.4 -24.4 | -13.3 -13.3 | -5.7 -5.7 | 3.9 3.9 | 14.9 14.9 | 15.3 17.0 | 17.8 16.5 | 15.2 13.6 |
| Business fixed invest. <i>Previous Tealbook</i> | 7.8 7.8 | 7.9 7.9 | -9.4 -9.4 | -15.7 -15.7 | 7.7 7.7 | 10.2 10.2 | 5.4 5.4 | 3.7 4.7 | 5.5 5.3 | 5.5 5.2 |
| Equipment & software <i>Previous Tealbook</i> | 6.0 6.0 | 3.9 3.9 | -13.6 -13.6 | -7.8 -7.8 | 11.9 11.9 | 11.4 11.4 | 4.7 4.7 | 4.7 5.5 | 6.3 6.1 | 6.4 6.0 |
| Nontres. structures <i>Previous Tealbook</i> | 13.0 13.0 | 17.3 17.3 | -1.2 -1.2 | -29.4 -29.4 | -1.8 -1.8 | 6.9 6.9 | 7.3 7.3 | 1.3 2.6 | 3.4 3.5 | 3.4 3.1 |
| Net exports ¹ <i>Previous Tealbook</i> ¹ | -729 -729 | -649 -649 | -495 -495 | -355 -355 | -420 -420 | -408 -408 | -401 -401 | -386 -387 | -401 -399 | -401 -390 |
| Exports | 10.2 | 10.1 | -2.5 | .3 | 8.8 | 4.3 | 2.1 | 3.1 | 5.1 | 6.5 |
| Imports | 4.1 | .8 | -5.9 | -6.1 | 10.9 | 3.5 | .2 | 2.7 | 4.7 | 5.4 |
| Gov't. cons. & invest. <i>Previous Tealbook</i> | 1.5 1.5 | 1.9 1.9 | 2.7 2.7 | 4.0 4.0 | -1.3 -1.3 | -3.3 -3.3 | -1.8 -1.8 | -3.5 -3.1 | -2.1 -2.1 | -.7 -.7 |
| Federal | 2.2 | 3.1 | 8.8 | 5.1 | 2.3 | -4.2 | -2.8 | -7.6 | -5.5 | -3.8 |
| Defense | 4.4 | 2.6 | 9.8 | 4.1 | 1.0 | -4.0 | -5.0 | -8.6 | -6.2 | -4.1 |
| Nondefense | -2.3 | 4.2 | 6.8 | 7.2 | 5.2 | -4.6 | 1.5 | -5.7 | -4.3 | -3.3 |
| State & local | 1.2 | 1.2 | -.9 | 3.3 | -3.6 | -2.7 | -1.1 | -.8 | .0 | 1.0 |
| Change in bus. inventories ¹ <i>Previous Tealbook</i> ¹ | 59 59 | 28 28 | -36 -36 | -139 -139 | 51 51 | 31 31 | 43 43 | 42 56 | 63 78 | 49 70 |
| Nonfarm ¹ | 63 | 29 | -38 | -138 | 58 | 36 | 60 | 34 | 58 | 48 |
| Farm ¹ | -4 | -1 | 1 | -1 | -6 | -4 | -11 | 8 | 6 | 1 |

1. Billions of chained (2005) dollars.

Contributions to Changes in Real Gross Domestic Product
(Percentage points, annual rate except as noted)

| Item | 2012 | | | 2013 | | | | 2014 | | | | 2012 ¹ | 2013 ¹ | 2014 ¹ | 2015 ¹ |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | |
| Real GDP <i>Previous Tealbook</i> | 1.3 1.3 | 3.1 3.1 | .4 .4 | 2.2 3.1 | 1.8 1.5 | 2.5 2.4 | 3.3 3.2 | 3.2 2.9 | 3.3 3.1 | 3.5 3.4 | 3.6 3.5 | 1.7 1.7 | 2.5 2.6 | 3.4 3.2 | 3.6 3.5 |
| Final sales <i>Previous Tealbook</i> | 1.7 | 2.4 | 1.9 | 1.5 | 1.8 | 2.4 | 3.0 | 2.8 | 3.2 | 3.5 | 3.8 | 2.1 | 2.2 | 3.3 | 3.8 |
| Priv. dom. final purch. <i>Previous Tealbook</i> | 1.7 1.6 1.6 | 2.4 1.3 1.3 | 1.9 3.0 3.0 | 1.8 2.6 2.4 | 2.0 2.2 2.6 | 2.0 3.1 3.1 | 3.2 3.6 3.5 | 2.4 3.5 3.0 | 2.9 3.7 3.4 | 3.4 4.0 3.8 | 3.6 4.0 3.8 | 2.1 2.2 2.2 | 2.2 2.9 2.9 | 3.1 3.8 3.5 | 3.7 3.9 3.7 |
| Personal cons. expend. <i>Previous Tealbook</i> | 1.1 1.1 | 1.1 1.1 | 1.3 1.3 | 2.2 2.0 | 1.5 1.6 | 2.2 1.9 | 2.5 2.4 | 2.6 2.1 | 2.6 2.4 | 2.7 2.6 | 2.8 2.7 | 1.3 1.3 | 2.1 2.0 | 2.7 2.4 | 2.8 2.7 |
| Durables | .0 | .7 | 1.0 | .6 | .3 | .7 | .7 | .8 | .7 | .7 | .8 | .6 | .6 | .8 | .7 |
| Nondurables | .1 | .2 | .0 | .4 | .2 | .5 | .4 | .4 | .5 | .5 | .5 | .1 | .4 | .5 | .5 |
| Services | 1.0 | .3 | .3 | 1.1 | .9 | 1.0 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | .5 | 1.1 | 1.4 | 1.6 |
| Residential investment <i>Previous Tealbook</i> | .2 .2 | .3 .3 | .4 .4 | .3 .4 | .5 .5 | .4 .4 | .4 .4 | .5 .5 | .5 .5 | .6 .5 | .5 .5 | .3 .3 | .4 .4 | .5 .5 | .5 .5 |
| Business fixed invest. <i>Previous Tealbook</i> | .4 .4 | -.2 -.2 | 1.3 1.3 | .1 .0 | .3 .4 | .6 .8 | .6 .7 | .4 .4 | .5 .5 | .7 .7 | .7 .7 | .6 .6 | .4 .5 | .6 .6 | .6 .6 |
| Equipment & software <i>Previous Tealbook</i> | .4 .4 | -.2 -.2 | .8 .8 | .3 .1 | .1 .3 | .5 .7 | .5 .6 | .4 .4 | .4 .4 | .6 .5 | .6 .5 | .3 .3 | .4 .4 | .5 .5 | .5 .5 |
| Nonres. structures <i>Previous Tealbook</i> | .0 .0 | .0 .0 | .5 .5 | -.2 -.1 | .1 .1 | .1 .2 | .1 .2 | .1 .1 | .1 .1 | .1 .1 | .1 .1 | .2 .2 | .0 .1 | .1 .1 | .1 .1 |
| Net exports <i>Previous Tealbook</i> | .2 .2 | .4 .4 | .3 .3 | -.2 -.1 | .2 .3 | .0 -.2 | -.2 -.2 | -.4 -.2 | .0 .0 | .0 .0 | .1 .1 | .3 .3 | .0 -.1 | -.1 -.1 | .0 .1 |
| Exports | .7 | .3 | -.4 | -.2 | .8 | .6 | .5 | .6 | .6 | .7 | .8 | .3 | .4 | .7 | .9 |
| Imports | -.5 | .1 | .7 | .0 | -.5 | -.6 | -.7 | -.1 | -.6 | -.8 | -.7 | .0 | -.5 | -.8 | -.9 |
| Gov't. cons. & invest. <i>Previous Tealbook</i> | -.1 -.1 | .8 .8 | -.1 -.1 | -.9 -.4 | -.7 -.9 | -.7 -.9 | -.4 -.1 | -.3 -.4 | -.4 -.4 | -.4 -.4 | -.3 -.3 | -.4 -.4 | -.7 -.6 | -.4 -.4 | -.1 -.1 |
| Federal | .0 | .7 | -.1 | -.7 | -.6 | -.7 | -.3 | -.3 | -.4 | -.4 | -.3 | -.2 | -.6 | -.4 | -.2 |
| Defense | .0 | .6 | -.1 | -.6 | -.4 | -.5 | -.2 | -.2 | -.4 | -.3 | -.3 | -.3 | -.4 | -.3 | -.2 |
| Nondefense | .0 | .1 | .0 | -.1 | -.2 | -.1 | -.2 | -.1 | -.1 | -.1 | -.1 | .0 | -.1 | -.1 | -.1 |
| State & local | -.1 | .0 | -.2 | -.2 | -.1 | .0 | .0 | .0 | .0 | .0 | .0 | -.1 | -.1 | .0 | .1 |
| Change in bus. inventories <i>Previous Tealbook</i> | -.5 -.5 | .7 .7 | -.1 -.1 | .7 1.4 | .0 -.5 | .1 .5 | .3 .0 | .3 .4 | .1 .2 | -.1 .0 | -.2 .0 | -.4 -.4 | .3 .3 | .1 .2 | -.2 -.2 |
| Nonfarm | -.3 | 1.1 | -.1 | -.2 | .0 | .1 | .3 | .4 | .1 | -.1 | -.2 | -.3 | .1 | .1 | -.1 |
| Farm | -.2 | -.4 | .1 | .9 | .0 | .0 | .0 | -.1 | .0 | .0 | .0 | -.1 | .2 | .0 | .0 |

1. Change from fourth quarter of previous year to fourth quarter of year indicated.

Changes in Prices and Costs
(Percent, annual rate except as noted)

| Item | 2012 | | | 2013 | | | | 2014 | | | | 2012 ¹ | 2013 ¹ | 2014 ¹ | 2015 ¹ |
|--|----------------|--------------|--------------|--------------|----------------|------------|------------|------------|------------|------------|------------|-------------------|-------------------|-------------------|-------------------|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | |
| | | | | | | | | | | | | | | | |
| GDP chain-wt. price index <i>Previous Tealbook</i> | 1.6 1.6 | 2.7 2.7 | 1.0 1.0 | 1.2 1.3 | .2 .7 | 1.3 1.7 | 1.5 1.7 | 1.6 1.8 | 1.6 1.7 | 1.5 1.6 | 1.5 1.5 | 1.8 1.8 | 1.0 1.3 | 1.6 1.6 | 1.7 1.6 |
| PCE chain-wt. price index <i>Previous Tealbook</i> | .7 .7 | 1.6 1.6 | 1.6 1.6 | 1.0 .9 | -.1 -.2 | 1.2 1.6 | 1.3 1.6 | 1.5 1.6 | 1.4 1.5 | 1.4 1.5 | 1.4 1.5 | 1.6 1.6 | .9 1.0 | 1.4 1.5 | 1.6 1.6 |
| Energy <i>Previous Tealbook</i> | -13.6 -13.6 | 10.5 10.5 | 9.9 9.9 | -3.7 -3.8 | -14.1 -23.4 | -.9 .6 | -.8 2.6 | -.4 .5 | -.8 -.4 | -.1 -.7 | -.1 -.7 | 3.2 3.2 | -5.0 -6.6 | -.9 -.3 | -.9 -.7 |
| Food <i>Previous Tealbook</i> | .7 .7 | .6 .6 | 1.8 1.8 | 1.3 1.3 | 1.1 1.0 | 1.3 1.3 | .9 .9 | .7 .8 | .8 .9 | 1.0 1.1 | 1.2 1.2 | 1.1 1.1 | 1.2 1.1 | .9 1.0 | 1.4 1.5 |
| Ex. food & energy <i>Previous Tealbook</i> | 1.7 1.7 | 1.1 1.1 | 1.0 1.0 | 1.3 1.2 | .8 1.4 | 1.3 1.7 | 1.5 1.6 | 1.7 1.8 | 1.6 1.7 | 1.6 1.7 | 1.6 1.6 | 1.5 1.5 | 1.2 1.5 | 1.6 1.7 | 1.8 1.8 |
| Ex. food & energy, market based <i>Previous Tealbook</i> | 1.8 1.8 | 1.3 1.3 | .9 .9 | 1.6 1.6 | .4 1.2 | 1.2 1.6 | 1.4 1.4 | 1.6 1.7 | 1.5 1.6 | 1.5 1.6 | 1.4 1.5 | 1.6 1.6 | 1.1 1.5 | 1.5 1.6 | 1.7 1.7 |
| CPI <i>Previous Tealbook</i> | 1.0 1.0 | 2.1 2.1 | 2.2 2.2 | 1.4 1.4 | -.2 -.6 | 1.4 1.6 | 1.4 1.7 | 1.6 1.7 | 1.5 1.6 | 1.5 1.6 | 1.5 1.6 | 1.9 1.9 | 1.0 1.0 | 1.5 1.6 | 1.7 1.7 |
| Ex. food & energy <i>Previous Tealbook</i> | 2.4 2.4 | 1.6 1.6 | 1.7 1.7 | 2.1 2.1 | 1.3 1.9 | 1.7 1.7 | 1.7 1.7 | 1.9 1.9 | 1.8 1.9 | 1.8 1.9 | 1.8 1.8 | 1.9 1.9 | 1.7 1.8 | 1.8 1.9 | 2.0 2.0 |
| EEL, hourly compensation ² <i>Previous Tealbook</i> ² | 2.1 2.1 | 1.7 1.7 | 1.7 2.1 | 1.4 2.2 | 2.4 2.4 | 2.5 2.5 | 2.5 2.5 | 2.6 2.7 | 2.6 2.7 | 2.7 2.7 | 2.7 2.8 | 1.9 1.9 | 2.2 2.4 | 2.6 2.7 | 3.0 3.0 |
| Nonfarm business sector Output per hour <i>Previous Tealbook</i> | 1.7 1.7 | 3.1 3.1 | -1.7 -1.5 | .3 1.8 | .2 -.5 | 1.5 1.1 | 1.6 1.2 | 1.6 1.4 | 1.6 1.6 | 1.6 1.6 | 1.5 1.6 | .6 .7 | .9 .9 | 1.6 1.6 | 1.6 1.6 |
| Compensation per hour <i>Previous Tealbook</i> | 1.2 1.2 | 1.2 1.2 | 9.9 2.6 | -3.8 .7 | 2.0 2.9 | 2.1 2.8 | 2.7 2.9 | 2.8 2.9 | 2.8 2.9 | 2.9 3.0 | 3.0 3.0 | 4.4 2.6 | .7 2.4 | 2.8 2.9 | 3.4 3.4 |
| Unit labor costs <i>Previous Tealbook</i> | -.5 -.5 | -1.9 -1.9 | 11.8 4.6 | -4.1 -1.1 | 1.8 3.4 | .6 1.7 | 1.1 1.8 | 1.1 1.4 | 1.2 1.2 | 1.3 1.3 | 1.4 1.3 | 3.8 2.1 | -.2 1.4 | 1.3 1.3 | 1.7 1.8 |
| Core goods imports chain-wt. price index ³ <i>Previous Tealbook</i> ³ | 1.2 1.2 | -2.3 -2.3 | 1.7 1.7 | .2 .7 | -1.1 -.1 | -.2 .3 | .5 .9 | 1.0 1.2 | 1.4 1.6 | 1.7 1.9 | 1.4 1.6 | .1 .1 | -.1 .5 | 1.4 1.6 | 1.5 1.6 |

1. Change from fourth quarter of previous year to fourth quarter of year indicated.
2. Private-industry workers.
3. Core goods imports exclude computers, semiconductors, oil, and natural gas.

Greensheets

Changes in Prices and Costs

(Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

| Item | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|--|--------------|--------------|--------------|--------------|------------|--------------|------------|--------------|------------|------------|
| GDP chain-wt. price index <i>Previous Tealbook</i> | 2.9 2.9 | 2.6 2.6 | 2.1 2.1 | .5 .5 | 1.8 1.8 | 2.0 2.0 | 1.8 1.8 | 1.0 1.3 | 1.6 1.6 | 1.7 1.6 |
| PCE chain-wt. price index <i>Previous Tealbook</i> | 1.9 1.9 | 3.5 3.5 | 1.7 1.7 | 1.4 1.4 | 1.5 1.5 | 2.5 2.5 | 1.6 1.6 | .9 1.0 | 1.4 1.5 | 1.6 1.6 |
| Energy <i>Previous Tealbook</i> | -3.7 -3.7 | 19.3 19.3 | -8.8 -8.8 | 2.7 2.7 | 6.5 6.5 | 11.9 11.9 | 3.2 3.2 | -5.0 -6.6 | -9 -3 | -9 -7 |
| Food <i>Previous Tealbook</i> | 1.7 1.7 | 4.7 4.7 | 7.0 7.0 | -1.7 -1.7 | 1.3 1.3 | 5.1 5.1 | 1.1 1.1 | 1.2 1.1 | .9 1.0 | 1.4 1.5 |
| Ex. food & energy <i>Previous Tealbook</i> | 2.3 2.3 | 2.4 2.4 | 2.0 2.0 | 1.6 1.6 | 1.2 1.2 | 1.7 1.7 | 1.5 1.5 | 1.2 1.5 | 1.6 1.7 | 1.8 1.8 |
| Ex. food & energy, market based <i>Previous Tealbook</i> | 2.2 2.2 | 2.1 2.1 | 2.2 2.2 | 1.7 1.7 | .7 .7 | 1.9 1.9 | 1.6 1.6 | 1.1 1.5 | 1.5 1.6 | 1.7 1.7 |
| CPI <i>Previous Tealbook</i> | 2.0 2.0 | 4.0 4.0 | 1.6 1.6 | 1.5 1.5 | 1.2 1.2 | 3.3 3.3 | 1.9 1.9 | 1.0 1.0 | 1.5 1.6 | 1.7 1.7 |
| Ex. food & energy <i>Previous Tealbook</i> | 2.7 2.7 | 2.3 2.3 | 2.0 2.0 | 1.7 1.7 | .6 .6 | 2.2 2.2 | 1.9 1.9 | 1.7 1.8 | 1.8 1.9 | 2.0 2.0 |
| ECL, hourly compensation ¹ <i>Previous Tealbook</i> ¹ | 3.2 3.2 | 3.0 3.0 | 2.4 2.4 | 1.2 1.2 | 2.1 2.1 | 2.2 2.2 | 1.9 1.9 | 2.2 2.4 | 2.6 2.7 | 3.0 3.0 |
| Nonfarm business sector Output per hour <i>Previous Tealbook</i> | .8 .8 | 2.4 2.4 | -1.2 -1.2 | 5.6 5.6 | 1.9 1.9 | .4 .4 | .6 .7 | .9 .9 | 1.6 1.6 | 1.6 1.6 |
| Compensation per hour <i>Previous Tealbook</i> | 4.5 4.5 | 3.6 3.6 | 2.5 2.5 | 1.5 1.5 | 1.6 1.6 | 1.7 1.7 | 4.4 2.6 | .7 2.4 | 2.8 2.9 | 3.4 3.4 |
| Unit labor costs <i>Previous Tealbook</i> | 3.6 3.6 | 1.1 1.1 | 3.7 3.7 | -3.9 -3.9 | -2 -2 | 1.3 1.3 | 3.8 2.1 | -2 1.4 | 1.3 1.3 | 1.7 1.8 |
| Core goods imports chain-wt. price index ² <i>Previous Tealbook</i> ² | 2.5 2.5 | 2.9 2.9 | 3.7 3.7 | -1.7 -1.7 | 2.7 2.7 | 4.3 4.3 | .1 .1 | -1 .5 | 1.4 1.6 | 1.5 1.6 |

1. Private-industry workers.

2. Core goods imports exclude computers, semiconductors, oil, and natural gas.

Other Macroeconomic Indicators

| Item | 2012 | | | 2013 | | | | 2014 | | | | 2012 ¹ | 2013 ¹ | 2014 ¹ | 2015 ¹ |
|---|--------|--------|--------|------|------|------|------|------|------|------|------|-------------------|-------------------|-------------------|-------------------|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | |
| | | | | | | | | | | | | | | | |
| <i>Employment and production</i> | | | | | | | | | | | | | | | |
| Nonfarm payroll employment ² | .5 | .4 | .5 | .6 | .5 | .5 | .5 | .5 | .6 | .6 | .7 | 2.2 | 2.2 | 2.5 | 3.1 |
| Unemployment rate ³ | 8.2 | 8.0 | 7.8 | 7.7 | 7.5 | 7.4 | 7.3 | 7.1 | 7.0 | 6.8 | 6.6 | 7.8 | 7.3 | 6.6 | 5.8 |
| <i>Previous Tealbook³</i> | 8.2 | 8.0 | 7.8 | 7.7 | 7.6 | 7.5 | 7.4 | 7.3 | 7.2 | 7.1 | 6.9 | 7.8 | 7.4 | 6.9 | 6.2 |
| Natural rate of unemployment ³ | 5.8 | 5.7 | 5.7 | 5.6 | 5.6 | 5.5 | 5.5 | 5.4 | 5.4 | 5.4 | 5.4 | 5.7 | 5.5 | 5.4 | 5.3 |
| <i>Previous Tealbook³</i> | 6.0 | 6.0 | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | 5.8 | 5.8 | 5.8 | 5.9 | 5.9 | 5.8 | 5.8 |
| GDP gap ⁴ | -3.8 | -3.5 | -3.9 | -3.8 | -3.9 | -3.8 | -3.4 | -3.2 | -2.9 | -2.6 | -2.2 | -3.9 | -3.4 | -2.2 | -8 |
| <i>Previous Tealbook⁴</i> | -3.6 | -3.3 | -3.7 | -3.4 | -3.5 | -3.4 | -3.1 | -2.9 | -2.6 | -2.3 | -1.9 | -3.7 | -3.1 | -1.9 | -6 |
| Industrial production ⁵ | 2.9 | .3 | 2.6 | 4.4 | .7 | 4.3 | 4.7 | 5.4 | 4.7 | 4.5 | 4.2 | 2.8 | 3.5 | 4.7 | 4.3 |
| <i>Previous Tealbook⁵</i> | 2.9 | .3 | 2.3 | 5.0 | 4.2 | 4.7 | 4.0 | 4.5 | 4.5 | 4.3 | 4.1 | 2.7 | 4.5 | 4.4 | 4.0 |
| Manufacturing industr. prod. ⁵ | 1.6 | -.5 | 2.5 | 5.0 | -.6 | 2.8 | 4.0 | 5.2 | 4.7 | 4.6 | 4.6 | 2.9 | 2.8 | 4.8 | 4.7 |
| <i>Previous Tealbook⁵</i> | 1.6 | -.5 | 2.3 | 5.3 | 3.0 | 3.8 | 3.8 | 4.3 | 4.5 | 4.3 | 4.4 | 2.8 | 4.0 | 4.4 | 4.3 |
| Capacity utilization rate - mfg. ³ | 75.9 | 75.5 | 75.7 | 76.3 | 75.9 | 76.0 | 76.4 | 77.0 | 77.6 | 78.1 | 78.6 | 75.7 | 76.4 | 78.6 | 80.6 |
| <i>Previous Tealbook³</i> | 75.9 | 75.5 | 75.7 | 76.3 | 76.6 | 76.9 | 77.3 | 77.7 | 78.2 | 78.6 | 79.0 | 75.7 | 77.3 | 79.0 | 80.6 |
| Housing starts ⁶ | .7 | .8 | .9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.3 | 1.3 | 1.4 | .8 | 1.0 | 1.3 | 1.6 |
| Light motor vehicle sales ⁶ | 14.1 | 14.5 | 15.0 | 15.3 | 15.2 | 15.3 | 15.5 | 15.7 | 15.9 | 16.1 | 16.3 | 14.4 | 15.3 | 16.0 | 16.6 |
| <i>Income and saving</i> | | | | | | | | | | | | | | | |
| Nominal GDP ⁵ | 2.8 | 5.9 | 1.3 | 3.4 | 2.1 | 3.9 | 4.8 | 4.8 | 4.9 | 5.0 | 5.2 | 3.5 | 3.5 | 5.0 | 5.4 |
| Real disposable pers. income ⁵ | 2.2 | .7 | 8.9 | -8.4 | 4.5 | 2.6 | 2.5 | 4.1 | 3.2 | 3.6 | 3.6 | 3.8 | .2 | 3.6 | 3.5 |
| <i>Previous Tealbook⁵</i> | 2.2 | .7 | 6.2 | -6.7 | 5.1 | 2.0 | 2.8 | 3.4 | 3.0 | 3.4 | 3.9 | 3.2 | .7 | 3.4 | 3.2 |
| Personal saving rate ³ | 3.8 | 3.6 | 5.3 | 2.4 | 3.0 | 2.8 | 2.6 | 2.7 | 2.5 | 2.5 | 2.4 | 5.3 | 2.6 | 2.4 | 2.0 |
| <i>Previous Tealbook³</i> | 3.8 | 3.6 | 4.7 | 2.3 | 2.9 | 2.8 | 2.6 | 2.7 | 2.6 | 2.5 | 2.6 | 4.7 | 2.6 | 2.6 | 2.0 |
| Corporate profits ⁷ | 4.7 | 9.9 | 9.6 | -8.4 | -1.0 | 4.7 | 4.3 | .7 | 2.6 | 4.7 | 6.0 | 3.1 | -.2 | 3.5 | 2.4 |
| Profit share of GNP ³ | 12.1 | 12.3 | 12.5 | 12.1 | 12.0 | 12.1 | 12.1 | 12.0 | 11.9 | 11.9 | 11.9 | 12.5 | 12.1 | 11.9 | 11.6 |
| Net federal saving ⁸ | -1,115 | -1,087 | -1,036 | -783 | -541 | -608 | -678 | -598 | -585 | -582 | -577 | -1,074 | -652 | -585 | -507 |
| Net state & local savings ⁸ | -124 | -140 | -125 | -117 | -90 | -86 | -75 | -74 | -49 | -40 | -28 | -129 | -92 | -48 | 6 |
| Gross national saving rate ³ | 12.3 | 12.3 | 13.6 | 13.5 | 14.3 | 14.4 | 14.5 | 14.5 | 14.6 | 14.7 | 14.8 | 13.6 | 14.5 | 14.8 | 15.2 |
| Net national saving rate ³ | -.4 | -.3 | 1.2 | 1.3 | 3.4 | 2.8 | 2.2 | 2.2 | 2.4 | 2.4 | 2.5 | 1.2 | 2.2 | 2.5 | 3.0 |

1. Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise indicated.

2. Change, millions.

3. Percent; annual values are for the fourth quarter of the year indicated.

4. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential. Annual values are for the fourth quarter of the year indicated.

5. Percent change, annual rate.

6. Level, millions; annual values are annual averages.

7. Percent change, annual rate, with inventory valuation and capital consumption adjustments.

8. Billions of dollars; annual values are annual averages.

Other Macroeconomic Indicators
(Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

| Item | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|------|------|-------|--------|--------|--------|--------|------|------|------|
| <i>Employment and production</i> | | | | | | | | | | |
| Nonfarm payroll employment ¹ | 2.1 | 1.2 | -2.8 | -5.6 | .8 | 2.0 | 2.2 | 2.2 | 2.5 | 3.1 |
| Unemployment rate ² | 4.5 | 4.8 | 6.9 | 9.9 | 9.5 | 8.7 | 7.8 | 7.3 | 6.6 | 5.8 |
| <i>Previous Tealbook²</i> | 4.5 | 4.8 | 6.9 | 9.9 | 9.5 | 8.7 | 7.8 | 7.4 | 6.9 | 6.2 |
| Natural rate of unemployment ² | 5.0 | 5.0 | 5.3 | 6.0 | 6.0 | 5.8 | 5.7 | 5.5 | 5.4 | 5.3 |
| <i>Previous Tealbook²</i> | 5.0 | 5.0 | 5.3 | 6.0 | 6.0 | 6.0 | 5.9 | 5.9 | 5.8 | 5.8 |
| GDP gap ³ | .8 | .9 | -4.3 | -5.2 | -4.0 | -3.6 | -3.9 | -3.4 | -2.2 | -8 |
| <i>Previous Tealbook³</i> | .8 | .9 | -4.3 | -5.2 | -4.0 | -3.5 | -3.7 | -3.1 | -1.9 | -6 |
| Industrial production ⁴ | 2.1 | 2.7 | -8.9 | -5.5 | 6.2 | 3.3 | 2.8 | 3.5 | 4.7 | 4.3 |
| <i>Previous Tealbook⁴</i> | 2.1 | 2.7 | -8.9 | -5.5 | 6.2 | 3.3 | 2.7 | 4.5 | 4.4 | 4.0 |
| Manufacturing industr. prod. ⁴ | 1.7 | 2.9 | -11.6 | -6.1 | 6.4 | 3.3 | 2.9 | 2.8 | 4.8 | 4.7 |
| <i>Previous Tealbook⁴</i> | 1.7 | 2.9 | -11.6 | -6.1 | 6.4 | 3.3 | 2.8 | 4.0 | 4.4 | 4.3 |
| Capacity utilization rate - mfg. ² | 78.1 | 78.4 | 69.9 | 67.2 | 72.9 | 74.8 | 75.7 | 76.4 | 78.6 | 80.6 |
| <i>Previous Tealbook²</i> | 78.1 | 78.4 | 69.9 | 67.2 | 72.9 | 74.8 | 75.7 | 77.3 | 79.0 | 80.6 |
| Housing starts ⁵ | 1.8 | 1.4 | .9 | .6 | .6 | .6 | .8 | 1.0 | 1.3 | 1.6 |
| Light motor vehicle sales ⁵ | 16.5 | 16.1 | 13.1 | 10.4 | 11.5 | 12.7 | 14.4 | 15.3 | 16.0 | 16.6 |
| <i>Income and saving</i> | | | | | | | | | | |
| Nominal GDP ⁴ | 5.3 | 4.9 | -1.2 | .4 | 4.3 | 4.0 | 3.5 | 3.5 | 5.0 | 5.4 |
| Real disposable pers. income ⁴ | 4.6 | 1.6 | 1.0 | -3.0 | 3.5 | .3 | 3.8 | .2 | 3.6 | 3.5 |
| <i>Previous Tealbook⁴</i> | 4.6 | 1.6 | 1.0 | -3.0 | 3.5 | .3 | 3.2 | .7 | 3.4 | 3.2 |
| Personal saving rate ² | 2.8 | 2.5 | 6.2 | 3.8 | 4.8 | 3.4 | 5.3 | 2.6 | 2.4 | 2.0 |
| <i>Previous Tealbook²</i> | 2.8 | 2.5 | 6.2 | 3.8 | 4.8 | 3.4 | 4.7 | 2.6 | 2.6 | 2.0 |
| Corporate profits ⁶ | 3.7 | -8.1 | -33.5 | 57.0 | 17.3 | 9.2 | 3.1 | -2 | 3.5 | 2.4 |
| Profit share of GNP ² | 11.6 | 10.1 | 6.8 | 10.7 | 12.0 | 12.5 | 12.5 | 12.1 | 11.9 | 11.6 |
| Net federal saving ⁷ | -204 | -245 | -613 | -1,229 | -1,308 | -1,237 | -1,074 | -652 | -585 | -507 |
| Net state & local saving ⁷ | 51 | 12 | -72 | -113 | -90 | -102 | -129 | -92 | -48 | 6 |
| Gross national saving rate ² | 16.5 | 13.9 | 12.6 | 11.0 | 12.1 | 12.4 | 13.6 | 14.5 | 14.8 | 15.2 |
| Net national saving rate ² | 4.4 | 1.7 | -6 | -2.3 | -6 | -3 | 1.2 | 2.2 | 2.5 | 3.0 |

1. Change, millions.

2. Percent; values are for the fourth quarter of the year indicated.

3. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.

Values are for the fourth quarter of the year indicated.

4. Percent change.

5. Level, millions; values are annual averages.

6. Percent change, with inventory valuation and capital consumption adjustments.

7. Billions of dollars; values are annual averages.

Staff Projections of Federal Sector Accounts and Related Items
(Billions of dollars except as noted)

| Item | Fiscal year | | | | 2012 | | | | 2013 | | | | 2014 | | | |
|---|-------------------|--------|--------|--------|-----------------|-----------------|-----------------|-----------------|-----------------|--------|--------|--------|--------|--------|--------|--------|
| | 2012 ^a | 2013 | 2014 | 2015 | Q1 ^a | Q2 ^a | Q3 ^a | Q4 ^a | Q1 ^a | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Unified budget | | | | | | | | | | | | | | | | |
| Receipts ¹ | 2,449 | 2,804 | 3,028 | 3,270 | 509 | 760 | 625 | 616 | 581 | 897 | 710 | 676 | 633 | 952 | 768 | 741 |
| Outlays ¹ | 3,538 | 3,435 | 3,531 | 3,656 | 966 | 885 | 810 | 909 | 888 | 807 | 831 | 897 | 901 | 875 | 857 | 933 |
| Surplus/deficit ¹ | -1,089 | -632 | -503 | -387 | -457 | -125 | -185 | -293 | -307 | 90 | -121 | -221 | -269 | 76 | -90 | -192 |
| <i>Previous Tealbook</i> | -1,087 | -735 | -522 | -408 | -457 | -125 | -185 | -293 | -307 | -9 | -126 | -221 | -280 | 64 | -85 | -194 |
| On-budget | -1,151 | -668 | -524 | -396 | -458 | -187 | -160 | -311 | -303 | 35 | -90 | -245 | -251 | 28 | -56 | -213 |
| Off-budget | 62 | 37 | 21 | 9 | 1 | 62 | -25 | 17 | -4 | 54 | -30 | 24 | -18 | 48 | -33 | 21 |
| Means of financing: | | | | | | | | | | | | | | | | |
| Borrowing | 1,152 | 561 | 859 | 507 | 398 | 198 | 230 | 314 | 336 | -80 | -9 | 507 | 278 | -46 | 120 | 222 |
| Cash decrease | -27 | 1 | 15 | 0 | 42 | -48 | 6 | -7 | 14 | -16 | 10 | -6 | 20 | 0 | 0 | 0 |
| Other ² | -36 | 70 | -371 | -120 | 17 | -25 | -51 | -13 | -43 | 6 | 120 | -281 | -30 | -30 | -30 | -30 |
| Cash operating balance, end of period | 85 | 85 | 70 | 70 | 43 | 91 | 85 | 93 | 79 | 95 | 85 | 90 | 70 | 70 | 70 | 70 |
| NIPA federal sector | | | | | | | | | | | | | | | | |
| Receipts | 2,633 | 3,001 | 3,187 | 3,407 | 2,665 | 2,659 | 2,673 | 2,736 | 2,947 | 3,192 | 3,128 | 3,072 | 3,187 | 3,224 | 3,264 | 3,309 |
| Expenditures | 3,744 | 3,743 | 3,797 | 3,940 | 3,724 | 3,775 | 3,761 | 3,772 | 3,730 | 3,733 | 3,736 | 3,750 | 3,785 | 3,809 | 3,846 | 3,886 |
| Consumption expenditures | 1,062 | 1,020 | 972 | 937 | 1,056 | 1,055 | 1,086 | 1,042 | 1,032 | 1,014 | 993 | 985 | 978 | 967 | 956 | 948 |
| Defense | 709 | 665 | 634 | 608 | 703 | 701 | 728 | 682 | 672 | 661 | 645 | 643 | 639 | 630 | 623 | 616 |
| Nondefense | 353 | 355 | 338 | 329 | 352 | 354 | 358 | 360 | 360 | 353 | 348 | 342 | 339 | 337 | 333 | 331 |
| Other spending | 2,682 | 2,723 | 2,826 | 3,003 | 2,668 | 2,720 | 2,674 | 2,730 | 2,698 | 2,719 | 2,744 | 2,764 | 2,806 | 2,842 | 2,891 | 2,939 |
| Current account surplus | -1,111 | -742 | -611 | -533 | -1,059 | -1,115 | -1,087 | -1,036 | -783 | -541 | -608 | -678 | -598 | -585 | -582 | -577 |
| Gross investment | 156 | 146 | 132 | 122 | 152 | 156 | 155 | 155 | 146 | 142 | 139 | 136 | 134 | 131 | 128 | 125 |
| Gross saving less gross investment ³ | -1,126 | -742 | -592 | -499 | -1,071 | -1,130 | -1,100 | -1,048 | -783 | -537 | -600 | -665 | -582 | -565 | -557 | -548 |
| Fiscal indicators⁴ | | | | | | | | | | | | | | | | |
| High-employment (HEB) surplus/deficit | -922.1 | -518.0 | -413.3 | -396.0 | -869.8 | -925.3 | -907.7 | -837.0 | -556.2 | -308.7 | -370.3 | -449.4 | -398.5 | -397.0 | -408.3 | -417.5 |
| Change in HEB, percent of potential GDP | -1.1 | -2.6 | -7 | -2 | -8 | .3 | -2 | -5 | -1.7 | -1.5 | .4 | .4 | -.3 | .0 | .0 | .0 |
| Fiscal impetus (FI), percent of GDP | -7 | -1.4 | -8 | -4 | -7 | -6 | .3 | -1.5 | -2.0 | -1.2 | -1.3 | -.9 | -.9 | -.9 | -.7 | -.5 |
| <i>Previous Tealbook</i> | -7 | -1.3 | -8 | -4 | -7 | -6 | .3 | -1.5 | -1.6 | -1.4 | -1.5 | -.6 | -1.0 | -.9 | -.6 | -.4 |

1. Budget receipts, outlays, and surplus/deficit include corresponding social security (OASDI) categories. The OASDI surplus and the Postal Service surplus are excluded from the on-budget and shown separately as off-budget, as classified under current law.

2. Other means of financing are checks issued less checks paid, accrued items, and changes in other financial assets and liabilities.

3. Gross saving is the current account surplus plus consumption of fixed capital of the general government as well as government enterprises.

4. HEB is gross saving less gross investment (NIPA) of the federal government in current dollars, with cyclically sensitive receipts and outlays adjusted to the staff's measure of potential output and the natural rate of unemployment. The sign on Change in HEB, as a percent of nominal potential GDP, is reversed. FI is the weighted difference of discretionary changes in federal spending and taxes in chained (2005) dollars, scaled by real GDP. The FI estimates are calendar year contributions to Q4/Q4 real GDP growth. Also, for FI and the change in HEB, positive values indicate aggregate demand stimulus. Quarterly figures for change in HEB and FI are not at annual rates.

a. Actual.

Foreign Real GDP and Consumer Prices: Selected Countries
(Quarterly percent changes at an annual rate)

| Measure and country | 2012 | | | | 2013 | | | | Projected-----2014 | | | |
|------------------------------------|------|-----|------|-----|------|-----|------|-----|--------------------|-----|------|-----|
| | 2012 | | 2013 | | 2013 | | 2013 | | 2014 | | 2014 | |
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Real GDP¹ | | | | | | | | | | | | |
| Total foreign | 3.2 | 1.8 | 1.7 | 2.3 | 2.0 | 2.3 | 2.7 | 3.2 | 3.3 | 3.1 | 3.4 | 3.5 |
| <i>Previous Tealbook</i> | 3.2 | 1.9 | 1.7 | 2.1 | 2.3 | 2.7 | 2.9 | 3.2 | 3.3 | 3.1 | 3.4 | 3.5 |
| Advanced foreign economies | 1.0 | .4 | .3 | -.2 | 1.5 | 1.3 | 1.6 | 1.8 | 2.0 | 1.6 | 2.1 | 2.2 |
| Canada | .8 | 1.6 | .8 | .9 | 2.5 | 2.0 | 2.2 | 2.2 | 2.4 | 2.6 | 2.7 | 2.7 |
| Japan | 4.8 | -.6 | -.3 | 1.2 | 4.1 | 3.2 | 2.8 | 2.9 | 3.7 | 2.3 | 1.0 | 1.1 |
| United Kingdom | -.3 | -.1 | 3.8 | -.1 | 1.3 | 1.0 | 1.4 | 1.8 | 2.0 | 2.2 | 2.4 | 2.5 |
| Euro area | -.2 | -.8 | -.5 | -.2 | -.8 | -.3 | .2 | .8 | 1.0 | 1.2 | 1.4 | 1.6 |
| Germany | 2.5 | .7 | .9 | -.7 | .3 | 1.2 | 1.3 | 1.4 | 1.6 | 1.7 | 1.9 | 2.0 |
| Emerging market economies | 5.4 | 3.3 | 3.2 | 4.8 | 2.4 | 3.3 | 3.9 | 4.6 | 4.7 | 4.7 | 4.7 | 4.8 |
| Asia | 6.0 | 3.8 | 4.8 | 6.4 | 3.1 | 4.2 | 5.0 | 5.7 | 5.6 | 5.7 | 5.7 | 5.8 |
| Korea | 3.3 | 1.2 | -.2 | 1.1 | 3.5 | 3.0 | 3.5 | 3.9 | 4.0 | 4.1 | 4.2 | 4.3 |
| China | 7.0 | 6.5 | 8.4 | 9.5 | 6.5 | 6.5 | 7.5 | 8.3 | 8.0 | 8.0 | 8.0 | 8.0 |
| Latin America | 5.0 | 2.8 | 1.4 | 3.3 | 1.7 | 2.4 | 2.9 | 3.7 | 3.8 | 3.8 | 3.8 | 3.8 |
| Mexico | 5.8 | 3.0 | 1.4 | 2.7 | 1.8 | 2.2 | 2.8 | 3.8 | 4.0 | 4.0 | 3.9 | 3.9 |
| Brazil | .5 | 1.3 | 1.2 | 2.6 | 2.2 | 2.8 | 3.4 | 3.5 | 3.6 | 3.6 | 3.8 | 3.8 |
| Consumer prices² | | | | | | | | | | | | |
| Total foreign | 2.6 | 2.1 | 2.2 | 2.3 | 2.3 | 1.9 | 2.1 | 2.3 | 2.4 | 3.0 | 2.5 | 2.5 |
| <i>Previous Tealbook</i> | 2.6 | 2.1 | 2.3 | 2.3 | 2.4 | 2.0 | 2.1 | 2.3 | 2.4 | 3.0 | 2.5 | 2.5 |
| Advanced foreign economies | 1.9 | .9 | .8 | 1.6 | .8 | .6 | 1.1 | 1.3 | 1.3 | 2.7 | 1.4 | 1.5 |
| Canada | 2.0 | .2 | .1 | 1.4 | 1.6 | 1.0 | 1.4 | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 |
| Japan | 1.2 | -.7 | -.1 | .0 | -.4 | .3 | .3 | .4 | .5 | 8.7 | .7 | .9 |
| United Kingdom | 1.7 | 1.4 | 3.1 | 4.3 | 2.2 | 1.0 | 2.1 | 2.9 | 1.8 | 1.7 | 1.7 | 2.9 |
| Euro area | 2.5 | 2.3 | 2.0 | 2.3 | .7 | .4 | 1.2 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 |
| Germany | 2.2 | 1.6 | 2.0 | 2.2 | 1.4 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.9 |
| Emerging market economies | 3.1 | 3.0 | 3.4 | 2.8 | 3.5 | 2.9 | 2.8 | 3.1 | 3.2 | 3.3 | 3.3 | 3.3 |
| Asia | 2.4 | 3.2 | 2.4 | 2.4 | 3.5 | 1.9 | 2.5 | 3.0 | 3.1 | 3.1 | 3.2 | 3.2 |
| Korea | 1.6 | 1.2 | 1.0 | 3.1 | .4 | 1.4 | 2.5 | 2.8 | 3.0 | 3.0 | 3.0 | 3.1 |
| China | 2.0 | 2.5 | 1.7 | 2.0 | 3.5 | 2.0 | 2.2 | 2.8 | 2.9 | 3.0 | 3.0 | 3.0 |
| Latin America | 5.1 | 2.6 | 5.7 | 3.7 | 3.8 | 5.4 | 3.4 | 3.4 | 3.6 | 3.7 | 3.7 | 3.7 |
| Mexico | 5.2 | 2.4 | 5.7 | 3.1 | 3.5 | 5.6 | 3.1 | 3.1 | 3.3 | 3.4 | 3.4 | 3.4 |
| Brazil | 4.0 | 3.8 | 7.3 | 7.5 | 6.9 | 4.3 | 5.4 | 5.5 | 5.5 | 5.4 | 5.4 | 5.4 |

¹ Foreign GDP aggregates calculated using shares of U.S. exports.

² Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

Foreign Real GDP and Consumer Prices: Selected Countries
(Percent change, Q4 to Q4)

| Measure and country | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | -----Projected----- | | |
|------------------------------------|------|------|------|------|------|------|---------------------|------|------|
| | | | | | | | 2013 | 2014 | 2015 |
| Real GDP¹ | | | | | | | | | |
| Total foreign | 4.3 | -7 | .9 | 4.6 | 3.0 | 2.2 | 2.5 | 3.3 | 3.5 |
| <i>Previous Tealbook</i> | 4.3 | -7 | .8 | 4.6 | 3.0 | 2.2 | 2.8 | 3.3 | 3.5 |
| Advanced foreign economies | 2.4 | -1.6 | -1.3 | 3.0 | 1.5 | .4 | 1.5 | 2.0 | 2.3 |
| Canada | 2.3 | .1 | -1.4 | 3.6 | 2.4 | 1.0 | 2.2 | 2.6 | 2.6 |
| Japan | 1.6 | -4.8 | -5 | 3.5 | .0 | .4 | 3.2 | .9 | 1.0 |
| United Kingdom | 3.8 | -4.6 | -9 | 1.5 | 1.1 | .2 | 1.4 | 2.3 | 2.6 |
| Euro area | 2.3 | -2.1 | -2.2 | 2.2 | .7 | -1.0 | .0 | 1.3 | 2.0 |
| Germany | 2.4 | -1.9 | -2.2 | 4.2 | 1.9 | .3 | 1.0 | 1.8 | 2.4 |
| Emerging market economies | 6.7 | .4 | 3.6 | 6.2 | 4.5 | 4.2 | 3.6 | 4.7 | 4.8 |
| Asia | 8.9 | .8 | 8.1 | 7.8 | 4.9 | 5.2 | 4.5 | 5.7 | 5.8 |
| Korea | 5.8 | -3.2 | 6.3 | 5.0 | 3.4 | 1.4 | 3.5 | 4.1 | 4.5 |
| China | 13.7 | 7.7 | 11.3 | 9.7 | 8.8 | 7.8 | 7.2 | 8.0 | 7.8 |
| Latin America | 4.4 | -3 | -8 | 4.5 | 3.9 | 3.1 | 2.7 | 3.8 | 3.8 |
| Mexico | 3.5 | -1.1 | -2.2 | 4.1 | 3.9 | 3.2 | 2.7 | 3.9 | 3.8 |
| Brazil | 6.6 | .9 | 5.3 | 5.3 | 1.4 | 1.4 | 3.0 | 3.7 | 4.0 |
| Consumer prices² | | | | | | | | | |
| Total foreign | 3.7 | 3.3 | 1.2 | 3.2 | 3.4 | 2.3 | 2.1 | 2.6 | 2.7 |
| <i>Previous Tealbook</i> | 3.7 | 3.3 | 1.2 | 3.2 | 3.4 | 2.3 | 2.2 | 2.6 | 2.7 |
| Advanced foreign economies | 2.2 | 2.0 | .2 | 1.7 | 2.2 | 1.3 | 1.0 | 1.7 | 1.9 |
| Canada | 2.5 | 1.8 | .8 | 2.2 | 2.7 | .9 | 1.4 | 1.7 | 1.8 |
| Japan | .5 | 1.1 | -2.0 | -2 | -.3 | -.2 | .1 | 2.6 | 2.5 |
| United Kingdom | 2.1 | 3.9 | 2.2 | 3.4 | 4.6 | 2.7 | 2.1 | 2.0 | 2.0 |
| Euro area | 2.9 | 2.3 | .4 | 2.0 | 2.9 | 2.3 | .9 | 1.3 | 1.7 |
| Germany | 3.1 | 1.7 | .3 | 1.6 | 2.6 | 2.0 | 1.6 | 1.8 | 1.9 |
| Emerging market economies | 5.1 | 4.6 | 2.1 | 4.3 | 4.3 | 3.1 | 3.1 | 3.3 | 3.3 |
| Asia | 5.5 | 3.6 | 1.2 | 4.3 | 4.5 | 2.6 | 2.7 | 3.1 | 3.2 |
| Korea | 3.4 | 4.5 | 2.4 | 3.2 | 4.0 | 1.7 | 1.8 | 3.0 | 3.2 |
| China | 6.7 | 2.5 | .6 | 4.6 | 4.6 | 2.1 | 2.6 | 3.0 | 3.0 |
| Latin America | 4.2 | 6.6 | 3.9 | 4.4 | 4.0 | 4.3 | 4.0 | 3.7 | 3.7 |
| Mexico | 3.8 | 6.2 | 4.0 | 4.3 | 3.5 | 4.1 | 3.8 | 3.4 | 3.4 |
| Brazil | 4.3 | 6.3 | 4.3 | 5.6 | 6.7 | 5.6 | 5.5 | 5.4 | 5.4 |

¹ Foreign GDP aggregates calculated using shares of U.S. exports.² Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

U.S. Current Account

Quarterly Data

| | 2012 | | | | 2013 | | | | Projected-----2014 | | | |
|-------------------------------------|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| | Billions of dollars, s.a.a.r. | | | | | | | | | | | |
| U.S. current account balance | -512.5 | -464.0 | -466.5 | -437.5 | -445.1 | -421.5 | -453.5 | -495.0 | -527.4 | -517.5 | -547.2 | -565.3 |
| <i>Previous Tealbook</i> | -535.1 | -473.4 | -449.8 | -441.7 | -474.6 | -442.1 | -463.7 | -503.4 | -532.9 | -524.1 | -546.4 | -571.7 |
| Current account as percent of GDP | -3.3 | -3.0 | -3.0 | -2.8 | -2.8 | -2.6 | -2.8 | -3.0 | -3.2 | -3.1 | -3.2 | -3.3 |
| <i>Previous Tealbook</i> | -3.5 | -3.0 | -2.8 | -2.8 | -3.0 | -2.7 | -2.8 | -3.1 | -3.2 | -3.1 | -3.2 | -3.3 |
| Net goods & services | -571.8 | -541.2 | -516.1 | -509.5 | -494.6 | -472.8 | -486.4 | -507.5 | -526.6 | -504.9 | -515.8 | -523.5 |
| Investment income, net | 197.8 | 216.0 | 194.1 | 217.1 | 196.5 | 192.6 | 177.5 | 159.2 | 144.4 | 128.7 | 113.2 | 104.9 |
| Direct, net | 283.4 | 291.8 | 271.2 | 307.9 | 274.9 | 269.6 | 257.1 | 249.9 | 244.7 | 239.0 | 234.4 | 236.2 |
| Portfolio, net | -85.6 | -75.8 | -77.1 | -90.8 | -78.4 | -77.0 | -79.5 | -90.7 | -100.3 | -110.3 | -121.2 | -131.3 |
| Other income and transfers, net | -138.5 | -138.8 | -144.5 | -145.1 | -146.9 | -141.3 | -144.6 | -146.7 | -145.2 | -141.3 | -144.6 | -146.7 |

Annual Data

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|-----------------------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | -----Projected----- | | | | | | | | |
| | Billions of dollars | | | | | | | | |
| U.S. current account balance | -712.6 | -681.1 | -386.4 | -446.6 | -462.9 | -470.1 | -453.8 | -539.3 | -581.8 |
| Previous Tealbook | -710.3 | -677.1 | -381.9 | -442.0 | -465.9 | -475.0 | -470.9 | -543.8 | -576.7 |
| Current account as percent of GDP | -5.1 | -4.8 | -2.8 | -3.1 | -3.1 | -3.0 | -2.8 | -3.2 | -3.3 |
| Previous Tealbook | -5.1 | -4.7 | -2.7 | -3.0 | -3.1 | -3.0 | -2.9 | -3.2 | -3.2 |
| Net goods & services | -699.1 | -702.3 | -383.7 | -499.4 | -556.8 | -534.7 | -490.3 | -517.7 | -525.8 |
| Investment income, net | 111.1 | 157.8 | 127.6 | 191.0 | 235.0 | 206.2 | 181.5 | 122.8 | 87.5 |
| Direct, net | 244.6 | 284.3 | 253.0 | 297.9 | 321.7 | 288.6 | 262.9 | 238.6 | 251.5 |
| Portfolio, net | -133.5 | -126.5 | -125.4 | -106.9 | -86.7 | -82.3 | -81.4 | -115.8 | -164.0 |
| Other income and transfers, net | -124.7 | -136.6 | -130.3 | -138.2 | -141.1 | -141.7 | -144.9 | -144.5 | -143.4 |

Class I FOMC – Restricted Controlled (FR)

Report to the FOMC on Economic Conditions and Monetary Policy



Book B Monetary Policy: Strategies and Alternatives

June 13, 2013

Prepared for the Federal Open Market Committee
by the staff of the Board of Governors of the Federal Reserve System

Policy Rules and the Staff Projection

Near-Term Prescriptions of Selected Policy Rules

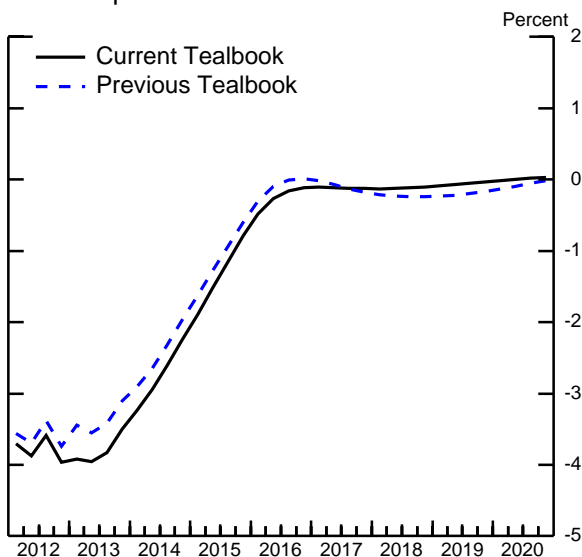
| | Constrained Policy | | Unconstrained Policy | |
|----------------------------------|--------------------|-------------|----------------------|--------------|
| | 2013Q3 | 2013Q4 | 2013Q3 | 2013Q4 |
| Taylor (1993) rule | 0.76 | 1.11 | 0.76 | 1.11 |
| <i>Previous Tealbook</i> | 1.28 | 1.65 | 1.28 | 1.65 |
| Taylor (1999) rule | 0.13 | 0.13 | -1.11 | -0.61 |
| <i>Previous Tealbook</i> | 0.13 | 0.13 | -0.40 | -0.13 |
| Inertial Taylor (1999) rule | 0.13 | 0.13 | -0.06 | -0.14 |
| <i>Previous Tealbook outlook</i> | 0.13 | 0.13 | 0.05 | 0.06 |
| Outcome-based rule | 0.13 | 0.13 | -0.05 | -0.06 |
| <i>Previous Tealbook outlook</i> | 0.13 | 0.25 | 0.09 | 0.25 |
| First-difference rule | 0.38 | 0.78 | 0.38 | 0.78 |
| <i>Previous Tealbook outlook</i> | 0.40 | 0.78 | 0.40 | 0.78 |
| Nominal income targeting rule | 0.13 | 0.13 | -0.75 | -1.32 |
| <i>Previous Tealbook outlook</i> | 0.13 | 0.13 | -0.53 | -0.93 |

Memo: Equilibrium and Actual Real Federal Funds Rate

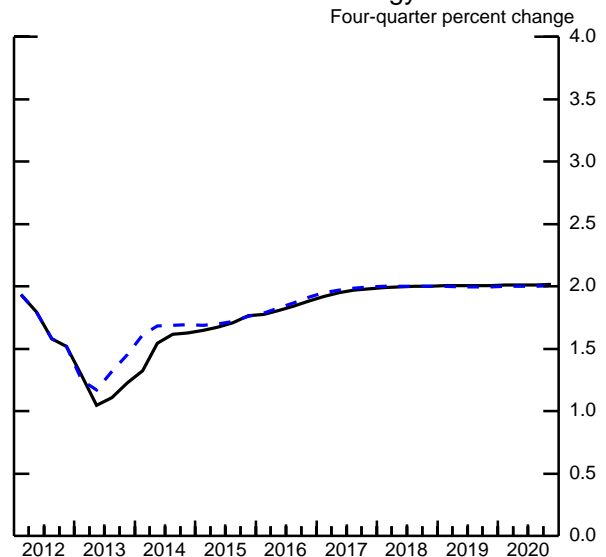
| | Current Tealbook | <i>Previous Tealbook</i> |
|---|---------------------|------------------------------|
| Tealbook-consistent FRB/US r^* estimate | -1.38 | -1.54 |
| Actual real federal funds rate | -1.15 | -1.12 |

Key Elements of the Staff Projection

GDP Gap



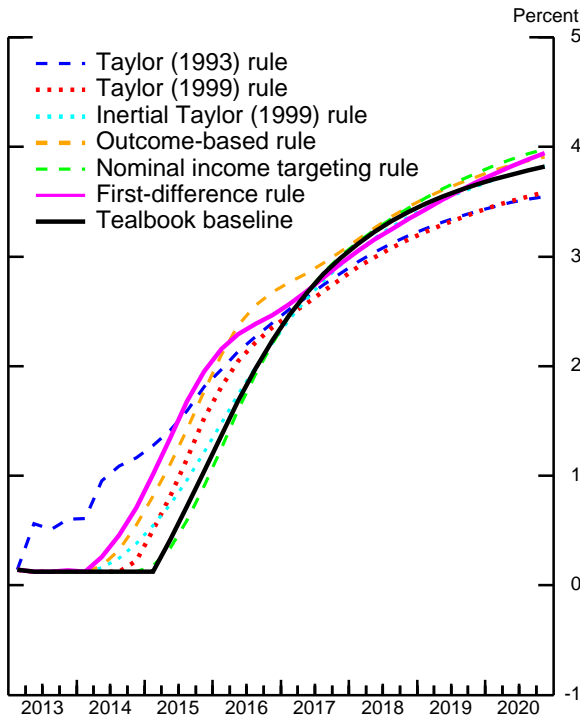
PCE Prices ex. Food and Energy



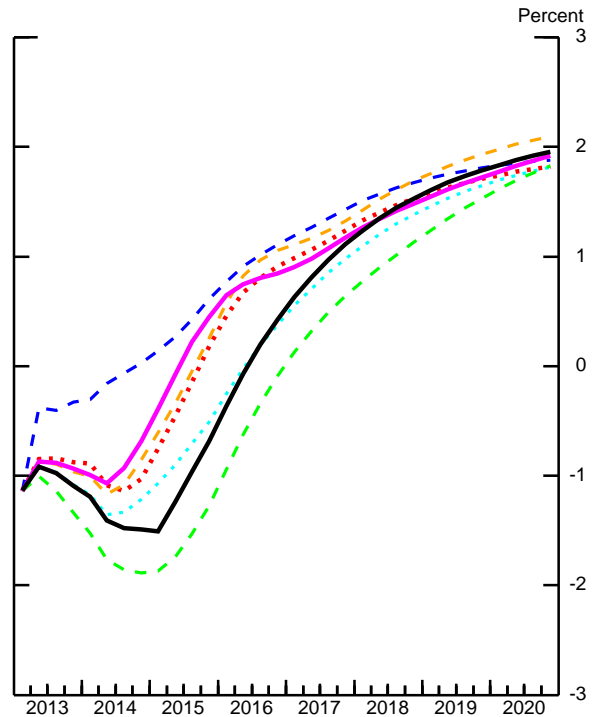
Note: For rules that have the lagged policy rate as a right-hand-side variable, the lines denoted "Previous Tealbook outlook" report rule prescriptions based on the previous Tealbook's staff outlook, but jumping off from the average value for the policy rate thus far in the quarter.

Policy Rule Simulations without Thresholds

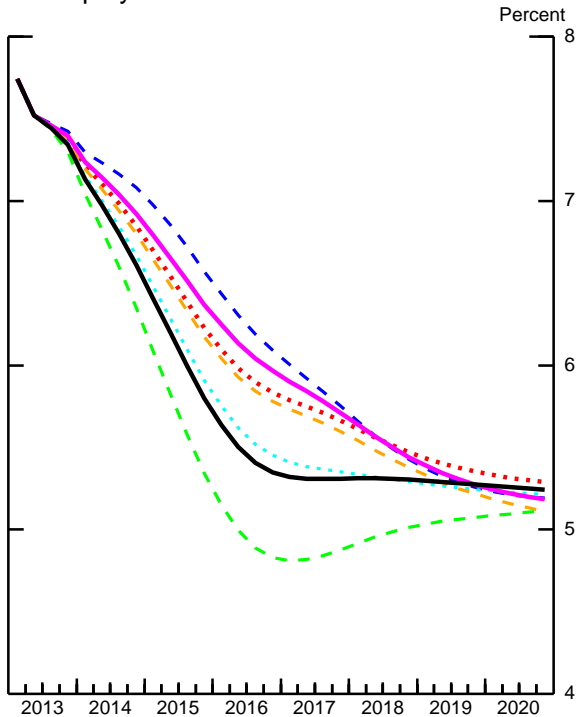
Nominal Federal Funds Rate



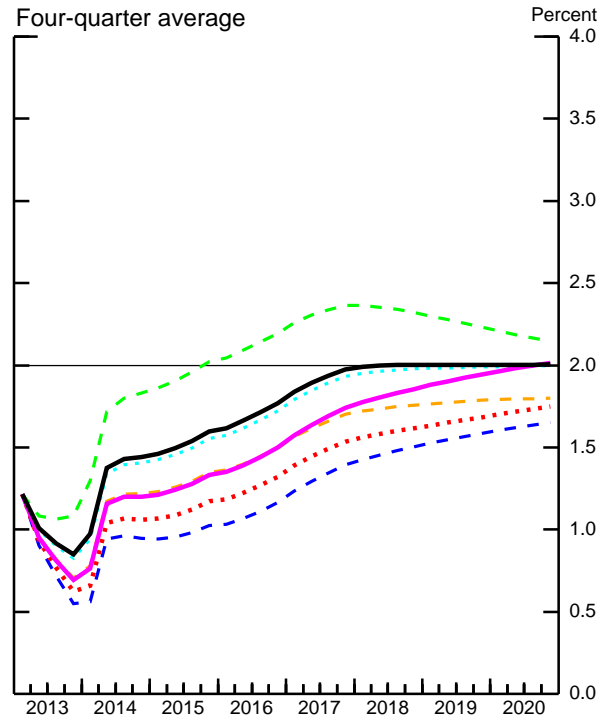
Real Federal Funds Rate



Unemployment Rate



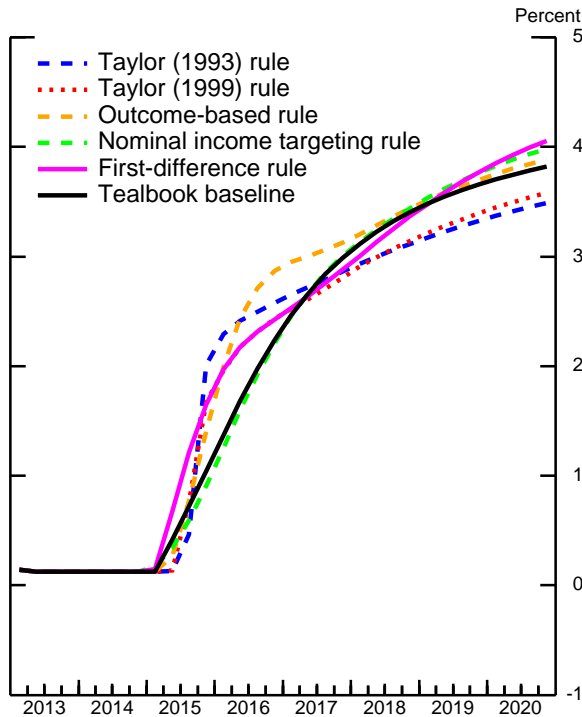
PCE Inflation
Four-quarter average



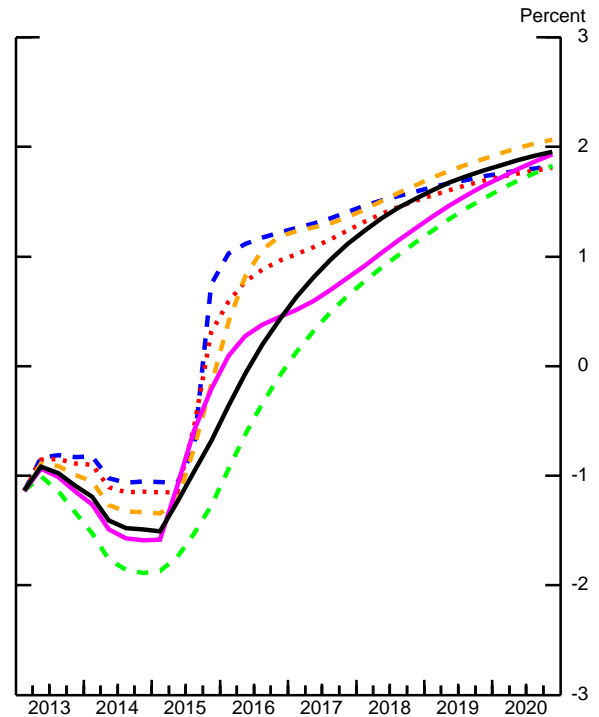
Note: The policy rule simulations in this exhibit are based on rules that respond to core inflation. This choice of rule specification was made in light of the tendency for current and near-term core inflation rates to outperform headline inflation rates as predictors of the medium-term behavior of headline inflation.

Policy Rule Simulations with Thresholds

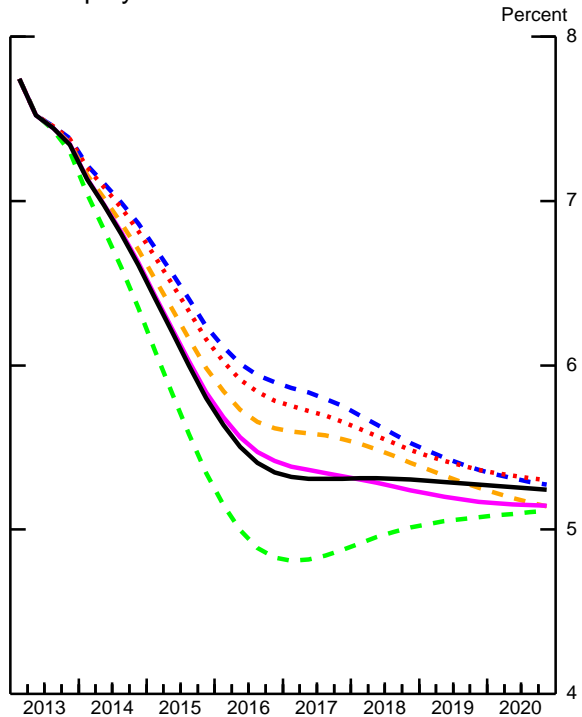
Nominal Federal Funds Rate



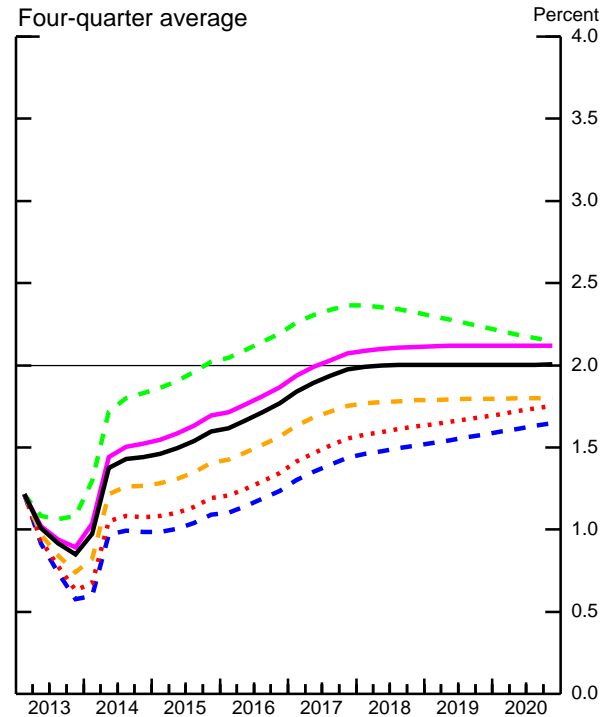
Real Federal Funds Rate



Unemployment Rate



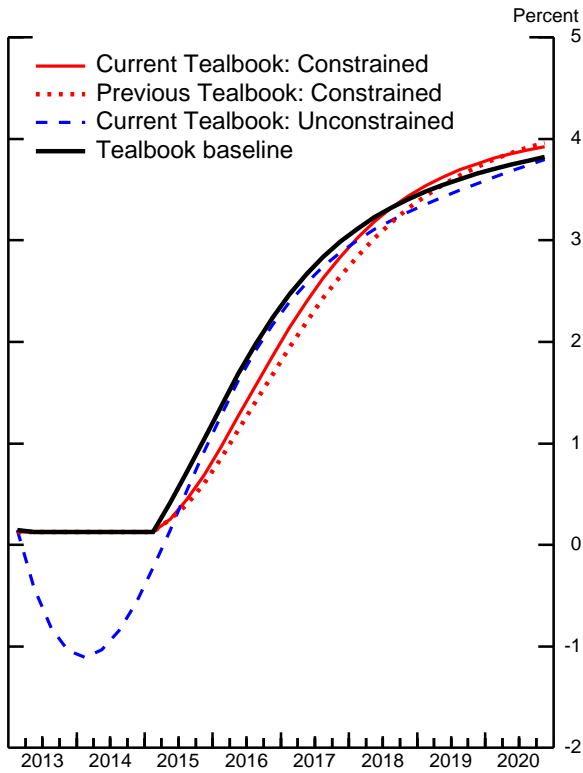
PCE Inflation
Four-quarter average



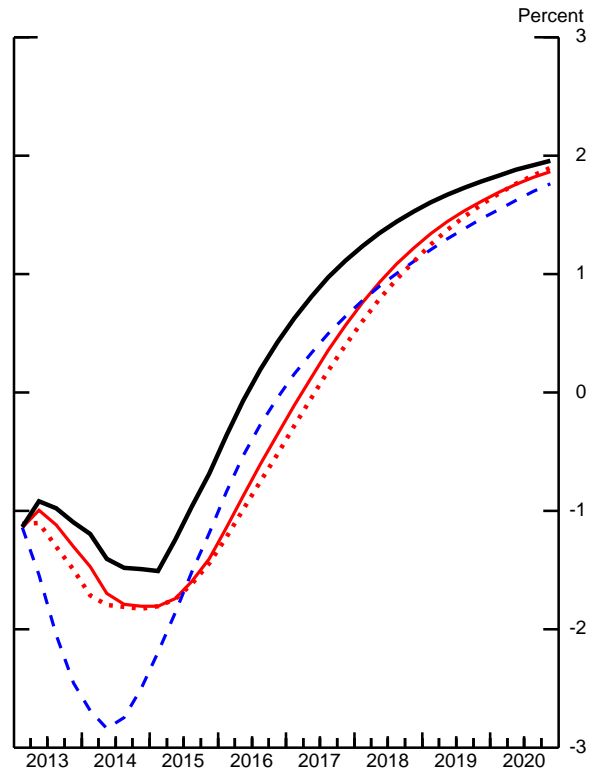
Note: The policy rule simulations in this exhibit are based on rules that respond to core inflation. This choice of rule specification was made in light of the tendency for current and near-term core inflation rates to outperform headline inflation rates as predictors of the medium-term behavior of headline inflation.

Constrained vs. Unconstrained Optimal Control Policy

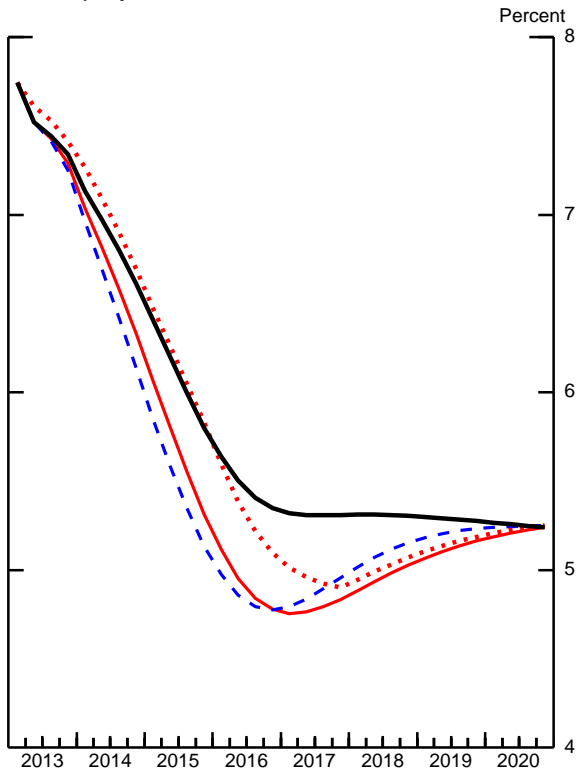
Nominal Federal Funds Rate



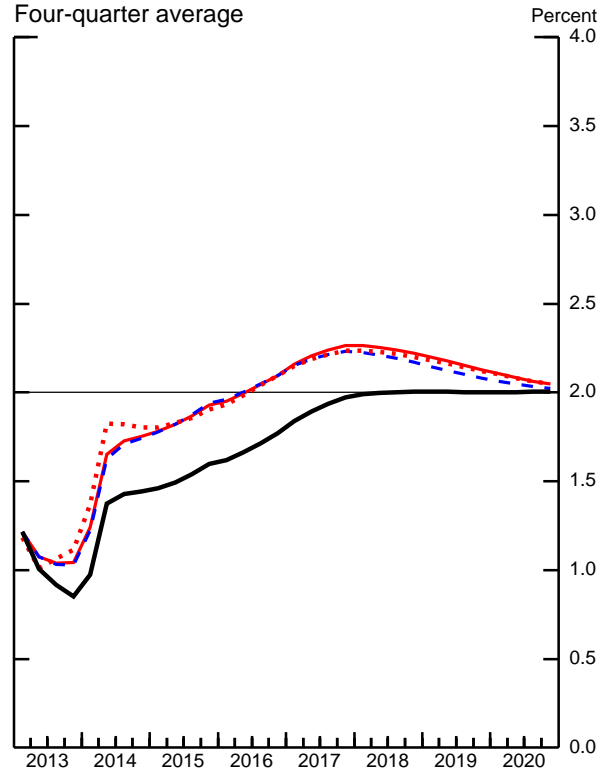
Real Federal Funds Rate



Unemployment Rate



PCE Inflation
Four-quarter average



Outcomes under Alternative Policies without Thresholds
(Percent change, annual rate, from end of preceding period except as noted)

| Measure and scenario | 2012 | | | | | |
|---|------|------|------|------|------|------|
| | H2 | 2013 | 2014 | 2015 | 2016 | 2017 |
| <i>Real GDP</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.7 | 2.5 | 3.4 | 3.6 | 2.8 | 2.1 |
| Taylor (1993) | 1.7 | 2.1 | 2.5 | 3.1 | 2.9 | 2.6 |
| Taylor (1999) | 1.7 | 2.3 | 2.9 | 3.3 | 2.7 | 2.4 |
| Inertial Taylor (1999) | 1.7 | 2.4 | 3.3 | 3.5 | 2.8 | 2.2 |
| Outcome based | 1.7 | 2.3 | 3.0 | 3.3 | 2.7 | 2.4 |
| First difference | 1.7 | 2.2 | 2.8 | 3.2 | 2.8 | 2.5 |
| Nominal income targeting | 1.7 | 2.6 | 3.9 | 4.0 | 2.9 | 2.0 |
| Constrained optimal control | 1.7 | 2.7 | 3.9 | 4.0 | 2.9 | 1.9 |
| <i>Unemployment rate²</i> | | | | | | |
| Extended Tealbook baseline ¹ | 7.8 | 7.3 | 6.6 | 5.8 | 5.4 | 5.3 |
| Taylor (1993) | 7.8 | 7.4 | 7.1 | 6.6 | 6.1 | 5.8 |
| Taylor (1999) | 7.8 | 7.4 | 6.8 | 6.2 | 5.8 | 5.7 |
| Inertial Taylor (1999) | 7.8 | 7.4 | 6.7 | 5.9 | 5.5 | 5.4 |
| Outcome based | 7.8 | 7.4 | 6.8 | 6.2 | 5.8 | 5.6 |
| First difference | 7.8 | 7.4 | 6.9 | 6.4 | 6.0 | 5.7 |
| Nominal income targeting | 7.8 | 7.3 | 6.3 | 5.3 | 4.8 | 4.9 |
| Constrained optimal control | 7.8 | 7.3 | 6.3 | 5.3 | 4.8 | 4.8 |
| <i>Total PCE prices</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.6 | 0.9 | 1.4 | 1.6 | 1.8 | 2.0 |
| Taylor (1993) | 1.6 | 0.6 | 0.9 | 1.0 | 1.2 | 1.4 |
| Taylor (1999) | 1.6 | 0.6 | 1.1 | 1.2 | 1.3 | 1.5 |
| Inertial Taylor (1999) | 1.6 | 0.8 | 1.4 | 1.6 | 1.7 | 1.9 |
| Outcome based | 1.6 | 0.7 | 1.2 | 1.3 | 1.5 | 1.7 |
| First difference | 1.6 | 0.7 | 1.2 | 1.3 | 1.5 | 1.7 |
| Nominal income targeting | 1.6 | 1.1 | 1.8 | 2.0 | 2.2 | 2.4 |
| Constrained optimal control | 1.6 | 1.0 | 1.8 | 1.9 | 2.1 | 2.3 |
| <i>Core PCE prices</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.1 | 1.2 | 1.6 | 1.8 | 1.9 | 2.0 |
| Taylor (1993) | 1.1 | 0.9 | 1.1 | 1.2 | 1.3 | 1.4 |
| Taylor (1999) | 1.1 | 1.0 | 1.2 | 1.3 | 1.4 | 1.5 |
| Inertial Taylor (1999) | 1.1 | 1.2 | 1.6 | 1.7 | 1.8 | 1.9 |
| Outcome based | 1.1 | 1.1 | 1.4 | 1.5 | 1.6 | 1.7 |
| First difference | 1.1 | 1.1 | 1.4 | 1.5 | 1.6 | 1.8 |
| Nominal income targeting | 1.1 | 1.5 | 2.0 | 2.2 | 2.3 | 2.4 |
| Constrained optimal control | 1.1 | 1.4 | 1.9 | 2.1 | 2.2 | 2.3 |
| <i>Federal funds rate²</i> | | | | | | |
| Extended Tealbook baseline ¹ | 0.2 | 0.1 | 0.1 | 1.0 | 2.2 | 3.0 |
| Taylor (1993) | 0.2 | 0.6 | 1.2 | 1.8 | 2.4 | 2.8 |
| Taylor (1999) | 0.2 | 0.1 | 0.2 | 1.5 | 2.4 | 2.8 |
| Inertial Taylor (1999) | 0.2 | 0.1 | 0.4 | 1.2 | 2.2 | 2.9 |
| Outcome based | 0.2 | 0.1 | 0.6 | 1.8 | 2.7 | 3.0 |
| First difference | 0.2 | 0.1 | 0.7 | 2.0 | 2.5 | 2.9 |
| Nominal income targeting | 0.2 | 0.1 | 0.1 | 0.9 | 2.2 | 3.0 |
| Constrained optimal control | 0.2 | 0.1 | 0.1 | 0.7 | 1.9 | 2.8 |

1. Policy in the Tealbook baseline keeps the federal funds rate at its effective lower bound of 12.5 basis points as long as the unemployment rate is above 6.5 percent and projected one-year-ahead inflation is less than 2.5 percent. Once either threshold is crossed, the federal funds rate follows the prescription of the inertial Taylor (1999) rule.

2. Percent, average for the final quarter of the period.

Outcomes under Alternative Policies with Thresholds¹
(Percent change, annual rate, from end of preceding period except as noted)

| Measure and scenario | 2012 | | | | | |
|---|------|------|------|------|------|------|
| | H2 | 2013 | 2014 | 2015 | 2016 | 2017 |
| <i>Real GDP</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.7 | 2.5 | 3.4 | 3.6 | 2.8 | 2.1 |
| Taylor (1993) | 1.7 | 2.3 | 2.9 | 3.3 | 2.6 | 2.3 |
| Taylor (1999) | 1.7 | 2.3 | 3.0 | 3.4 | 2.6 | 2.3 |
| Outcome based | 1.7 | 2.4 | 3.2 | 3.4 | 2.6 | 2.2 |
| First difference | 1.7 | 2.5 | 3.4 | 3.6 | 2.8 | 2.2 |
| Nominal income targeting | 1.7 | 2.6 | 3.9 | 4.0 | 2.9 | 2.0 |
| Constrained optimal control | 1.7 | 2.7 | 3.9 | 4.0 | 2.9 | 1.9 |
| <i>Unemployment rate²</i> | | | | | | |
| Extended Tealbook baseline ¹ | 7.8 | 7.3 | 6.6 | 5.8 | 5.4 | 5.3 |
| Taylor (1993) | 7.8 | 7.4 | 6.9 | 6.2 | 5.9 | 5.8 |
| Taylor (1999) | 7.8 | 7.4 | 6.8 | 6.2 | 5.8 | 5.7 |
| Outcome based | 7.8 | 7.4 | 6.7 | 6.0 | 5.6 | 5.6 |
| First difference | 7.8 | 7.3 | 6.6 | 5.8 | 5.4 | 5.3 |
| Nominal income targeting | 7.8 | 7.3 | 6.3 | 5.3 | 4.8 | 4.9 |
| Constrained optimal control | 7.8 | 7.3 | 6.3 | 5.3 | 4.8 | 4.8 |
| <i>Total PCE prices</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.6 | 0.9 | 1.4 | 1.6 | 1.8 | 2.0 |
| Taylor (1993) | 1.6 | 0.6 | 1.0 | 1.1 | 1.2 | 1.4 |
| Taylor (1999) | 1.6 | 0.6 | 1.1 | 1.2 | 1.3 | 1.6 |
| Outcome based | 1.6 | 0.7 | 1.3 | 1.4 | 1.6 | 1.8 |
| First difference | 1.6 | 0.9 | 1.5 | 1.7 | 1.9 | 2.1 |
| Nominal income targeting | 1.6 | 1.1 | 1.8 | 2.0 | 2.2 | 2.4 |
| Constrained optimal control | 1.6 | 1.0 | 1.8 | 1.9 | 2.1 | 2.3 |
| <i>Core PCE prices</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.1 | 1.2 | 1.6 | 1.8 | 1.9 | 2.0 |
| Taylor (1993) | 1.1 | 0.9 | 1.2 | 1.2 | 1.3 | 1.4 |
| Taylor (1999) | 1.1 | 1.0 | 1.3 | 1.4 | 1.5 | 1.6 |
| Outcome based | 1.1 | 1.1 | 1.5 | 1.6 | 1.7 | 1.8 |
| First difference | 1.1 | 1.3 | 1.7 | 1.9 | 2.0 | 2.1 |
| Nominal income targeting | 1.1 | 1.5 | 2.0 | 2.2 | 2.3 | 2.4 |
| Constrained optimal control | 1.1 | 1.4 | 1.9 | 2.1 | 2.2 | 2.3 |
| <i>Federal funds rate²</i> | | | | | | |
| Extended Tealbook baseline ¹ | 0.2 | 0.1 | 0.1 | 1.0 | 2.2 | 3.0 |
| Taylor (1993) | 0.2 | 0.1 | 0.1 | 2.0 | 2.6 | 2.8 |
| Taylor (1999) | 0.2 | 0.1 | 0.1 | 1.7 | 2.4 | 2.8 |
| Outcome based | 0.2 | 0.1 | 0.1 | 1.4 | 2.9 | 3.1 |
| First difference | 0.2 | 0.1 | 0.1 | 1.7 | 2.4 | 2.9 |
| Nominal income targeting | 0.2 | 0.1 | 0.1 | 0.9 | 2.2 | 3.0 |
| Constrained optimal control | 0.2 | 0.1 | 0.1 | 0.7 | 1.9 | 2.8 |

1. With the exception of constrained optimal control, monetary policy is specified to keep the federal funds rate at its effective lower bound of 12.5 basis points as long as the unemployment rate is above 6.5 percent and projected one-year-ahead inflation is less than 2.5 percent. Once either of these thresholds is crossed, the federal funds rate follows the prescriptions of the specified rule. Policy in the Tealbook baseline also uses these threshold conditions and switches to the inertial Taylor (1999) rule once either of these thresholds is crossed.

2. Percent, average for the final quarter of the period.

| M2 Monetary Aggregate Projections (Percent change, annual rate; seasonally adjusted) ¹ | | |
|--|-------|------|
| <i>Monthly</i> | | |
| 2013: | June | 4.6 |
| | July | 3.9 |
| | Aug. | 3.9 |
| | Sept. | 3.9 |
| | Oct. | 1.5 |
| | Nov. | 1.5 |
| | Dec. | 1.5 |
| 2014: | Jan. | 2.8 |
| | Feb. | 2.8 |
| | Mar. | 2.8 |
| | Apr. | 2.3 |
| | May | 2.3 |
| <i>Quarterly</i> | | |
| 2013: | Q2 | 4.3 |
| | Q3 | 4.0 |
| | Q4 | 2.3 |
| 2014: | Q1 | 2.3 |
| | Q2 | 2.5 |
| | Q3 | 2.6 |
| | Q4 | 2.7 |
| 2015: | Q1 | -0.4 |
| | Q2 | -2.1 |
| | Q3 | -1.3 |
| | Q4 | -0.3 |
| <i>Annual</i> | | |
| | 2013 | 3.9 |
| | 2014 | 2.5 |
| | 2015 | -1.0 |

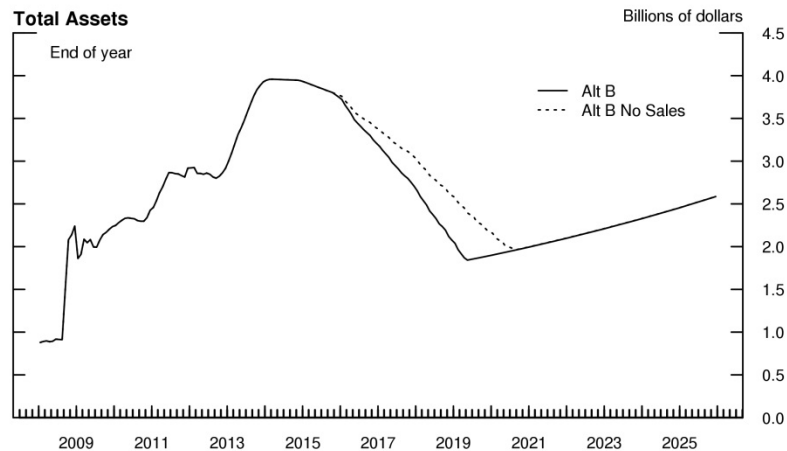
Note: This forecast is consistent with nominal GDP and interest rates in the Tealbook forecast. Actual data through June 3, 2013; projections thereafter.

1. Growth rates are computed from period averages with the exception of annual growth rates which are the change from fourth quarter of previous year to fourth quarter of year indicated.

Alternative B without Agency MBS Sales

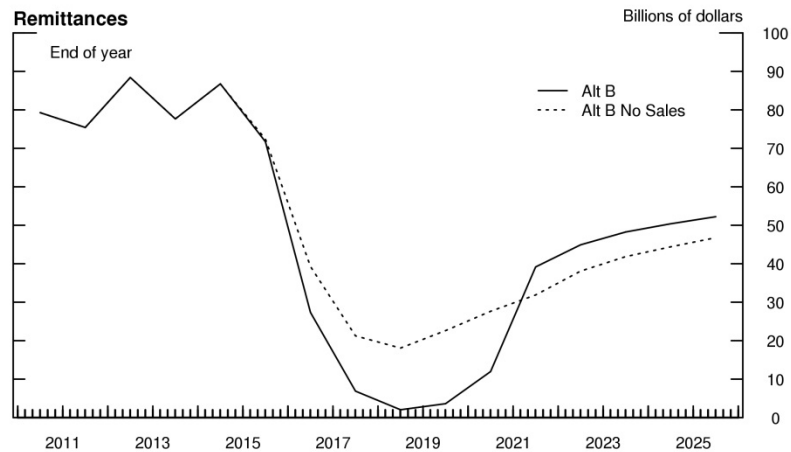
The balance sheet projection for Alternative B assumes agency MBS are sold over five years, consistent with the June 2011 exit strategy principles. In this box, we present a projection for the balance sheet under Alternative B that compares the staff's standard exit strategy assumptions with the assumption that agency MBS holdings decline only through passive redemptions.¹

With no sales of agency MBS, payments of principal on both agency and Treasury securities are projected to reduce SOMA holdings by approximately \$300 billion per year from 2015 to 2020. This passive decline in securities holdings is a bit slower than in Alternative B, implying that the size of the balance sheet normalizes in mid-2020, a year later than in the baseline scenario, as shown in the chart below. Without sales of agency MBS, SOMA holdings of agency MBS are projected to decline to about \$500 billion by the end of the projection period in 2025, but might not fall to zero until 30 years after purchases end depending on the pace of principal payments.

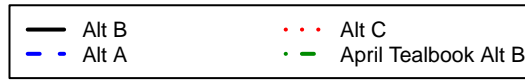


¹ See the memo titled "Update on Balance Sheet and Income Projections under Alternative Normalization Strategies" by Kunal Gooriah, Jeff Huther, Jane Ihrig, Beth Klee, Deborah Leonard, and Zeynep Senyuz (sent to the Committee on June 7, 2013) for additional balance sheet and income projections associated with a no agency MBS sales scenario.

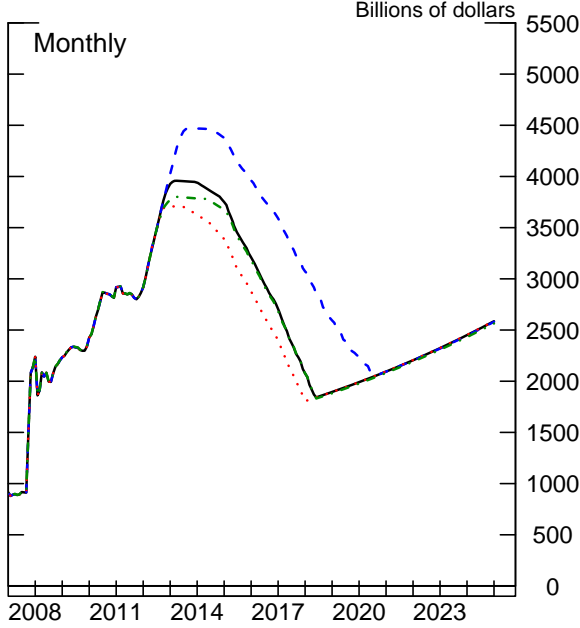
By not selling agency MBS, realized capital losses are eliminated, but the less rapid normalization of the balance sheet implies that interest expense on reserve balances is higher in many years than in Alternative B. On net, Federal Reserve net income is higher than under Alternative B because the elimination of realized losses more than offsets the increase in interest expense. Under the no MBS sales scenario, annual remittances to the Treasury trough at \$18 billion in 2018, noticeably higher than the near zero trough for remittances projected in Alternative B, shown in the figure below. On net, not selling agency MBS generates about \$45 billion more in cumulative remittances between 2009 and 2025 than if agency MBS were sold over five years.



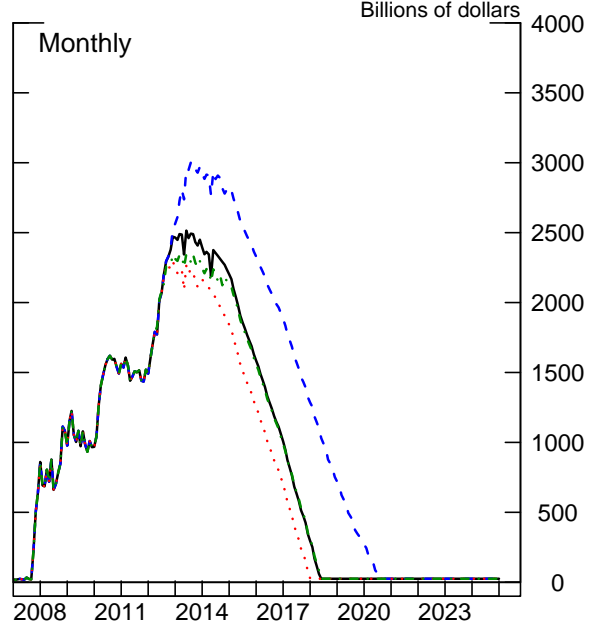
Total Assets and Selected Balance Sheet Items



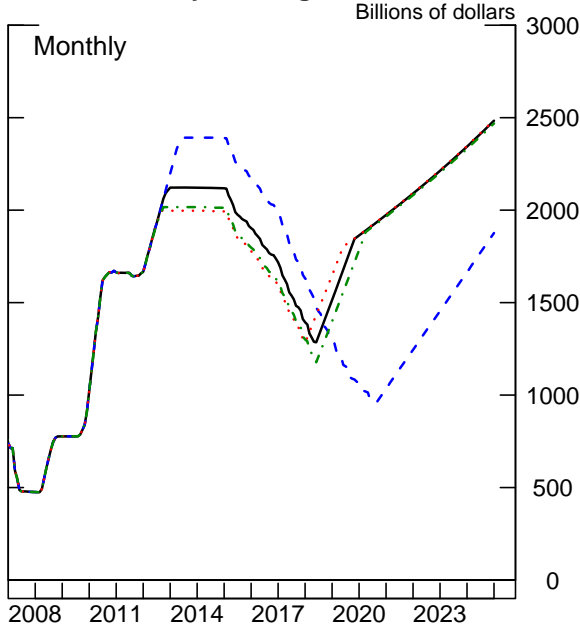
Total Assets



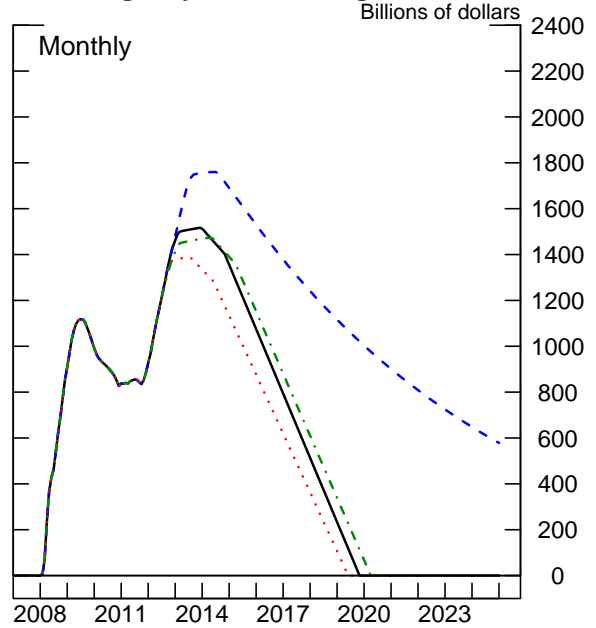
Reserve Balances



SOMA Treasury Holdings

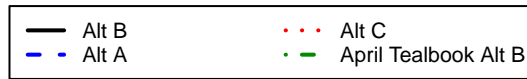


SOMA Agency MBS Holdings

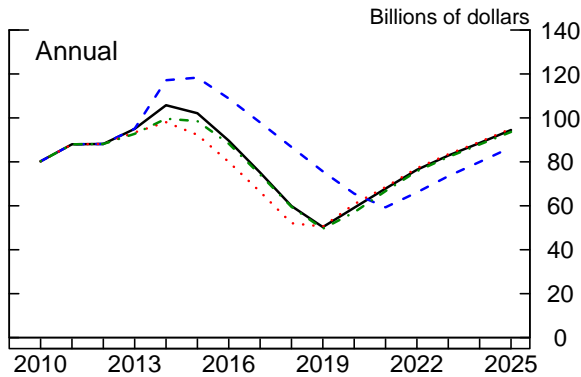


Projections

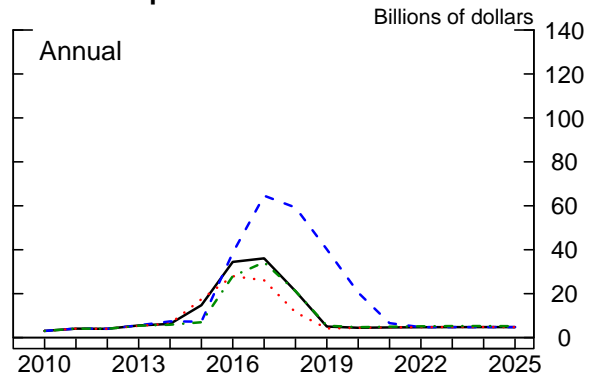
Income Projections



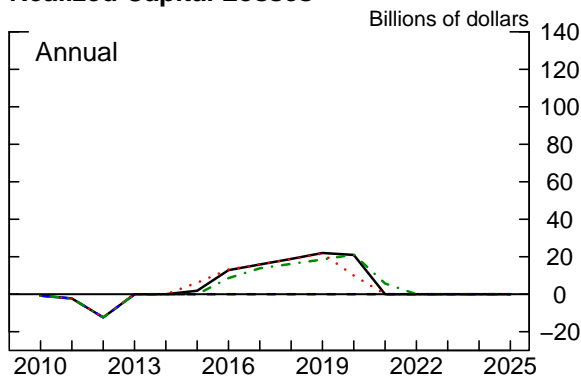
Interest Income



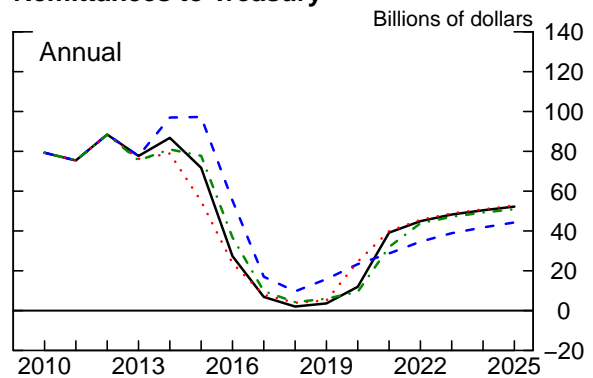
Interest Expense



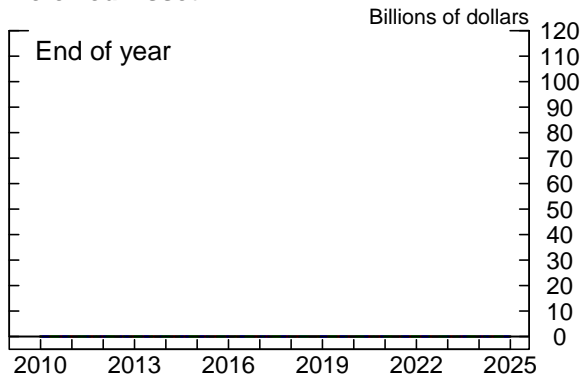
Realized Capital Losses



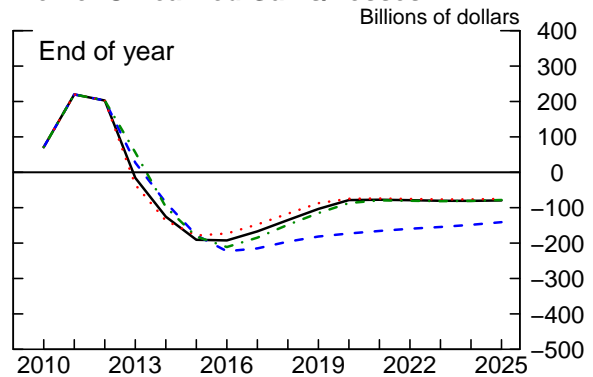
Remittances to Treasury



Deferred Asset



Memo: Unrealized Gains/Losses



| Alternative Projections for the Monetary Base | | | | |
|--|---------------|---------------|---------------|------------------------|
| Percent change, annual rate; not seasonally adjusted | | | | |
| Date | Alternative A | Alternative B | Alternative C | April Alternative B |
| <i>Monthly</i> | | | | |
| 2012: Dec | 13.7 | 13.7 | 13.7 | 13.7 |
| 2013: Jan | 21.5 | 21.5 | 21.5 | 21.5 |
| Feb | 37.1 | 37.1 | 37.1 | 37.1 |
| Mar | 42.6 | 42.6 | 42.6 | 42.6 |
| Apr | 35.8 | 35.8 | 35.8 | 29.2 |
| May | 9.3 | 9.3 | 9.3 | 48.7 |
| Jun | 6.2 | 6.2 | 6.2 | 51.7 |
| Jul | 39.7 | 39.2 | 37.0 | 23.1 |
| Aug | 46.5 | 46.0 | 41.5 | 33.8 |
| <i>Quarterly</i> | | | | |
| 2012: Q4 | -0.5 | -0.5 | -0.5 | -0.5 |
| 2013: Q1 | 25.1 | 25.1 | 25.1 | 25.1 |
| Q2 | 28.7 | 28.7 | 28.7 | 41.3 |
| Q3 | 29.5 | 29.3 | 26.0 | 35.7 |
| Q4 | 29.8 | 25.1 | 9.4 | 15.3 |
| 2014: Q1 | 27.5 | 8.6 | -1.9 | 4.4 |
| Q2 | 21.9 | -1.1 | -2.5 | 0.7 |
| Q3 | 15.0 | 5.8 | 4.7 | 2.4 |
| <i>Annual</i> ¹ | | | | |
| 2012 | 0.3 | 0.3 | 0.3 | 0.3 |
| 2013 | 31.4 | 29.9 | 24.2 | 32.6 |
| 2014 | 16.3 | 2.4 | -1.7 | 1.3 |
| 2015 | -1.6 | -2.7 | -5.3 | -1.2 |
| 2016 | -8.7 | -15.5 | -16.5 | -13.0 |
| 2017 | -10.6 | -17.9 | -19.2 | -16.6 |
| 2018 | -16.1 | -26.8 | -28.8 | -24.0 |
| 2019 | -18.8 | -16.8 | -1.4 | -15.8 |
| 2020 | -18.2 | 5.1 | 5.2 | 4.5 |
| 2021 | -11.7 | 5.2 | 5.2 | 4.6 |
| 2022 | 5.0 | 5.1 | 5.2 | 4.6 |
| 2023 | 5.0 | 5.1 | 5.1 | 4.5 |
| 2024 | 5.0 | 5.0 | 5.0 | 4.4 |
| 2025 | 5.0 | 5.0 | 5.0 | 4.4 |

1. Percent change from fourth quarter of previous year to fourth quarter of period indicated.

Alternative Projections for the 10-Year Treasury Term Premium Effect

| Date | Alternative A | Alternative B | Alternative C | April Alternative B |
|------|---------------|---------------|---------------|------------------------|
|------|---------------|---------------|---------------|------------------------|

Basis Points

Quarterly Averages

| | | | | |
|----------|------|------|-----|------|
| 2013: Q2 | -135 | -102 | -90 | -114 |
| Q3 | -133 | -100 | -87 | -101 |
| Q4 | -130 | -94 | -82 | -91 |
| 2014: Q1 | -125 | -89 | -76 | -86 |
| Q2 | -120 | -83 | -71 | -80 |
| Q3 | -115 | -78 | -66 | -75 |
| Q4 | -109 | -72 | -61 | -70 |
| 2015: Q1 | -104 | -67 | -56 | -65 |
| Q2 | -98 | -62 | -51 | -60 |
| Q3 | -93 | -57 | -47 | -56 |
| Q4 | -88 | -52 | -43 | -51 |
| 2016: Q4 | -70 | -36 | -29 | -36 |
| 2017: Q4 | -55 | -24 | -20 | -24 |
| 2018: Q4 | -43 | -17 | -15 | -17 |
| 2019: Q4 | -34 | -14 | -13 | -13 |
| 2020: Q4 | -27 | -13 | -12 | -12 |
| 2021: Q4 | -22 | -12 | -11 | -11 |
| 2022: Q4 | -18 | -10 | -9 | -9 |
| 2023: Q4 | -14 | -8 | -7 | -7 |
| 2024: Q4 | -11 | -6 | -6 | -5 |
| 2025: Q4 | -8 | -4 | -4 | -4 |

Projections

Federal Reserve Balance Sheet End-of-Year Projections -- Alternative B

Billions of dollars

| | <u>May 31, 2013</u> | <u>2013</u> | <u>2015</u> | <u>2017</u> | <u>2019</u> | <u>2021</u> | <u>2023</u> | <u>2025</u> |
|---|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Total assets | 3,390 | 3,927 | 3,750 | 2,707 | 1,894 | 2,093 | 2,322 | 2,586 |
| Selected assets | | | | | | | | |
| Liquidity programs for financial firms | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary, secondary, and seasonal credit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Central bank liquidity swaps | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Term Asset-Backed Securities Loan Facility (TALF) | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Securities held outright | 3,124 | 3,642 | 3,507 | 2,517 | 1,750 | 1,973 | 2,212 | 2,484 |
| U.S. Treasury securities | 1,888 | 2,122 | 2,118 | 1,718 | 1,514 | 1,973 | 2,212 | 2,484 |
| Agency debt securities | 71 | 57 | 33 | 4 | 2 | 0 | 0 | 0 |
| Agency mortgage-backed securities | 1,165 | 1,462 | 1,356 | 795 | 234 | 0 | 0 | 0 |
| Net portfolio holdings of TALF LLC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unamortized premiums | 201 | 216 | 182 | 128 | 83 | 58 | 48 | 40 |
| Unamortized discounts | -2 | -4 | -3 | -2 | -2 | -2 | -1 | -1 |
| Total other assets | 62 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Total liabilities | 3,335 | 3,864 | 3,667 | 2,597 | 1,749 | 1,901 | 2,068 | 2,249 |
| Selected liabilities | | | | | | | | |
| Federal Reserve notes in circulation | 1,148 | 1,189 | 1,340 | 1,465 | 1,600 | 1,753 | 1,920 | 2,101 |
| Reverse repurchase agreements | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Deposits with Federal Reserve Banks | 2,084 | 2,566 | 2,219 | 1,024 | 41 | 41 | 41 | 41 |
| Reserve balances held by depository institutions | 2,016 | 2,465 | 2,203 | 1,008 | 25 | 25 | 25 | 25 |
| U.S. Treasury, General Account | 35 | 90 | 5 | 5 | 5 | 5 | 5 | 5 |
| Other Deposits | 33 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Interest on Federal Reserve Notes due to U.S. Treasury | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total capital | 55 | 63 | 83 | 110 | 146 | 192 | 255 | 337 |

Projections

Source: Federal Reserve H.4.1 statistical releases and staff calculations.

Note: Components may not sum to totals due to rounding.

Federal Reserve Balance Sheet End-of-Year Projections -- Alternative A

Billions of dollars

| | <u>May 31, 2013</u> | <u>2013</u> | <u>2015</u> | <u>2017</u> | <u>2019</u> | <u>2021</u> | <u>2023</u> | <u>2025</u> |
|---|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Total assets | 3,390 | 4,025 | 4,377 | 3,591 | 2,594 | 2,093 | 2,319 | 2,580 |
| Selected assets | | | | | | | | |
| Liquidity programs for financial firms | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary, secondary, and seasonal credit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Central bank liquidity swaps | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Term Asset-Backed Securities Loan Facility (TALF) | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Securities held outright | 3,124 | 3,734 | 4,114 | 3,373 | 2,412 | 1,938 | 2,181 | 2,457 |
| U.S. Treasury securities | 1,888 | 2,197 | 2,390 | 1,989 | 1,294 | 1,034 | 1,454 | 1,876 |
| Agency debt securities | 71 | 57 | 33 | 4 | 2 | 2 | 2 | 2 |
| Agency mortgage-backed securities | 1,165 | 1,480 | 1,691 | 1,379 | 1,116 | 901 | 725 | 579 |
| Net portfolio holdings of TALF LLC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unamortized premiums | 201 | 220 | 204 | 158 | 121 | 95 | 77 | 61 |
| Unamortized discounts | -2 | -3 | -4 | -4 | -3 | -3 | -2 | -2 |
| Total other assets | 62 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Total liabilities | 3,335 | 3,962 | 4,294 | 3,481 | 2,448 | 1,901 | 2,064 | 2,244 |
| Selected liabilities | | | | | | | | |
| Federal Reserve notes in circulation | 1,148 | 1,189 | 1,340 | 1,471 | 1,604 | 1,752 | 1,916 | 2,095 |
| Reverse repurchase agreements | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Deposits with Federal Reserve Banks | 2,084 | 2,665 | 2,844 | 1,900 | 736 | 41 | 41 | 41 |
| Reserve balances held by depository institutions | 2,016 | 2,564 | 2,828 | 1,884 | 720 | 25 | 25 | 25 |
| U.S. Treasury, General Account | 35 | 90 | 5 | 5 | 5 | 5 | 5 | 5 |
| Other Deposits | 33 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Interest on Federal Reserve Notes due to U.S. Treasury | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total capital | 55 | 63 | 83 | 110 | 146 | 192 | 255 | 337 |

Source: Federal Reserve H.4.1 statistical releases and staff calculations.

Note: Components may not sum to totals due to rounding.

Federal Reserve Balance Sheet End-of-Year Projections -- Alternative C

Billions of dollars

| | <u>May 31, 2013</u> | <u>2013</u> | <u>2015</u> | <u>2017</u> | <u>2019</u> | <u>2021</u> | <u>2023</u> | <u>2025</u> |
|---|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Total assets | 3,390 | 3,709 | 3,389 | 2,397 | 1,894 | 2,095 | 2,325 | 2,589 |
| Selected assets | | | | | | | | |
| Liquidity programs for financial firms | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary, secondary, and seasonal credit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Central bank liquidity swaps | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Term Asset-Backed Securities Loan Facility (TALF) | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Securities held outright | 3,124 | 3,432 | 3,160 | 2,218 | 1,756 | 1,976 | 2,215 | 2,487 |
| U.S. Treasury securities | 1,888 | 1,997 | 1,993 | 1,593 | 1,647 | 1,976 | 2,215 | 2,487 |
| Agency debt securities | 71 | 57 | 33 | 4 | 2 | 0 | 0 | 0 |
| Agency mortgage-backed securities | 1,165 | 1,378 | 1,134 | 621 | 107 | 0 | 0 | 0 |
| Net portfolio holdings of TALF LLC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unamortized premiums | 201 | 206 | 167 | 117 | 75 | 56 | 47 | 38 |
| Unamortized discounts | -2 | -3 | -2 | -1 | -1 | -1 | -1 | -1 |
| Total other assets | 62 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Total liabilities | 3,335 | 3,646 | 3,306 | 2,287 | 1,749 | 1,903 | 2,070 | 2,252 |
| Selected liabilities | | | | | | | | |
| Federal Reserve notes in circulation | 1,148 | 1,189 | 1,340 | 1,465 | 1,601 | 1,755 | 1,923 | 2,105 |
| Reverse repurchase agreements | 94 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Deposits with Federal Reserve Banks | 2,084 | 2,349 | 1,859 | 716 | 41 | 41 | 41 | 41 |
| Reserve balances held by depository institutions | 2,016 | 2,248 | 1,843 | 700 | 25 | 25 | 25 | 25 |
| U.S. Treasury, General Account | 35 | 90 | 5 | 5 | 5 | 5 | 5 | 5 |
| Other Deposits | 33 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Interest on Federal Reserve Notes due to U.S. Treasury | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total capital | 55 | 63 | 83 | 110 | 146 | 192 | 255 | 337 |

Projections

Source: Federal Reserve H.4.1 statistical releases and staff calculations.

Note: Components may not sum to totals due to rounding.