

Prefatory Note

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Class II FOMC – Restricted (FR)

Report to the FOMC on Economic Conditions and Monetary Policy



Book A

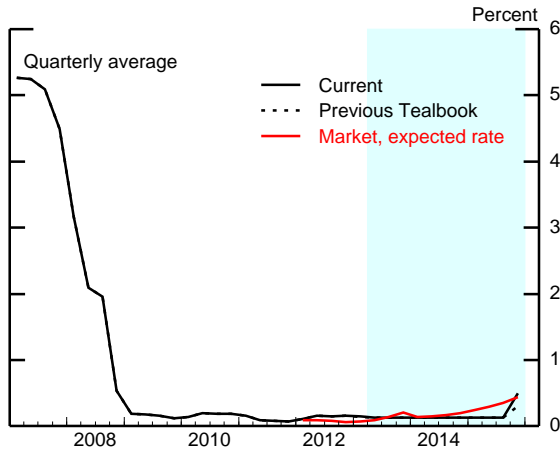
Economic and Financial Conditions: Current Situation and Outlook

April 24, 2013

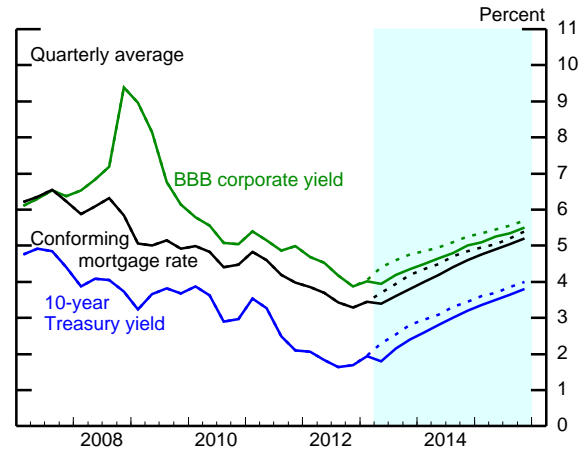
Prepared for the Federal Open Market Committee
by the staff of the Board of Governors of the Federal Reserve System

Key Background Factors underlying the Baseline Staff Projection

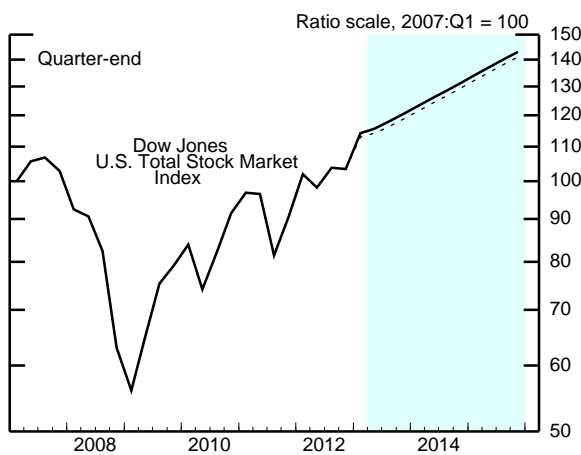
Federal Funds Rate



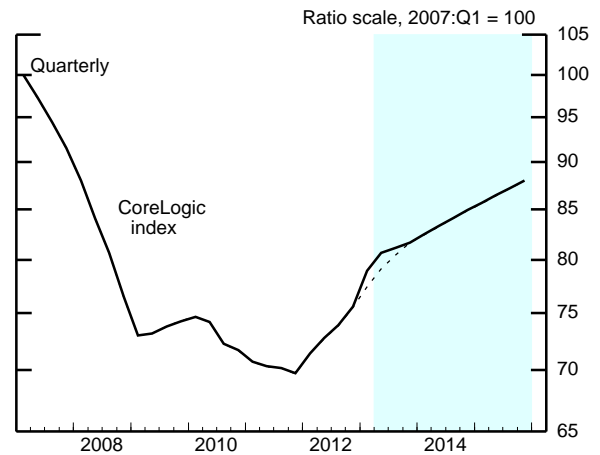
Long-Term Interest Rates



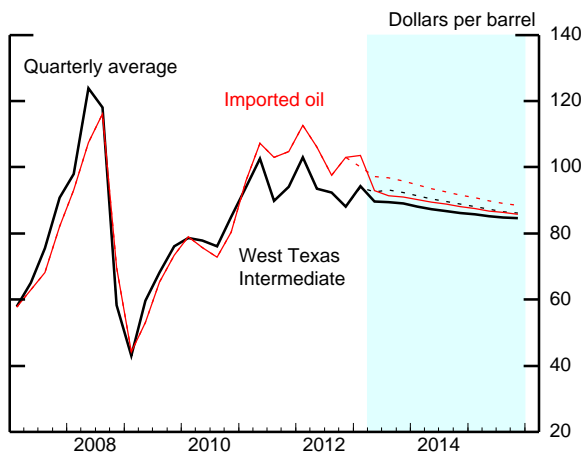
Equity Prices



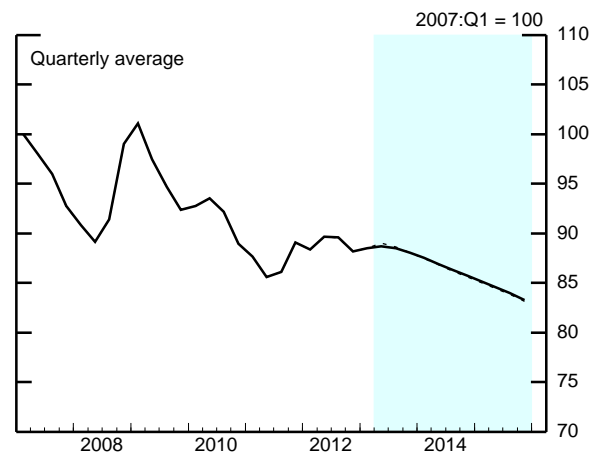
House Prices



Crude Oil Prices



Broad Real Dollar

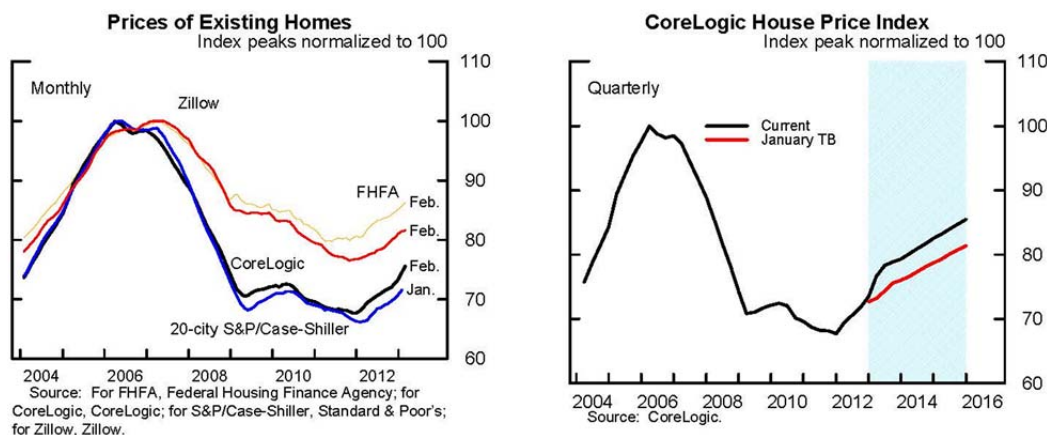


House Prices

The major national house price indexes, which are shown in the lower-left figure, have risen 6 to 11 percent since the beginning of 2012. The recovery of house prices has been broad based geographically, with 90 percent of local markets having experienced price gains over the year ending in February.

Both supply and demand factors have contributed to the rise in house prices over the past year. With regard to supply, a below-average number of homes have been on the market for sale, reflecting both the relatively low level of new home construction and a decrease in the flow of distressed properties being listed for sale. At the same time, historically low mortgage interest rates and improving macroeconomic conditions have strengthened the demand for housing. Moreover, in contrast to previous housing recoveries, demand has been supported by sizable purchases of homes among corporate investors using substantial cash financing and reportedly intending to rent out single-family homes on a large scale. Staff estimates suggest that these investors accounted for about one-half of last year's increase in home sales. Accordingly, the recent increases in house prices have occurred in an environment where access to mortgage credit has remained tight and aggregate mortgage lending has not expanded.

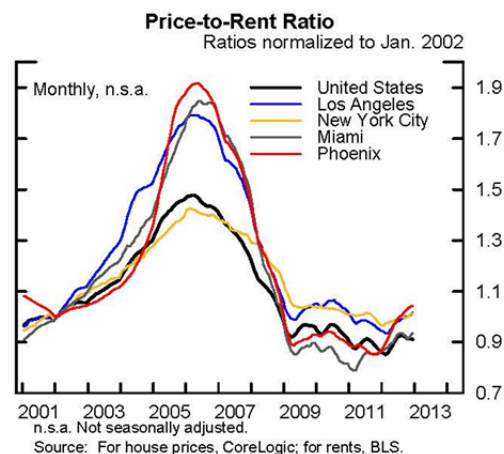
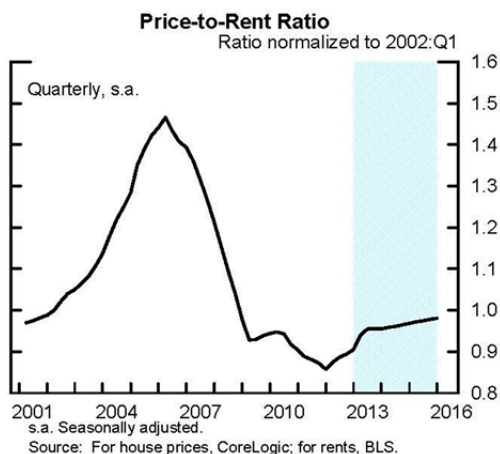
The bottom-right figure presents our current forecast for house prices, which has been revised up significantly since the January Tealbook in response to evidence that a more durable housing recovery has taken hold. We expect the strength in house prices to continue through the end of this year, resulting in an 8 percent increase for 2013 as a whole, but we expect the pace of appreciation to slow to about 4 percent per year in 2014 and 2015. Factors contributing to the projected deceleration include: (1) a reduction in housing affordability associated with the staff's projection that mortgage interest rates will rise to more than 5 percent by 2015, (2) an anticipated decline in corporate investor activity as higher house prices reduce the expected investment returns on housing, and (3) a projected rise in the pace of new construction. By the end of 2015, we expect nominal house prices to still be 15 percent below their 2006 peak.



Among the many risks attending our house price forecast, we see two as particularly important. On the downside, the way in which the remaining inventory of seriously delinquent loans will be liquidated remains uncertain. In states with nonjudicial foreclosure processes, lenders have been able to complete large volumes of foreclosures and corporate investors have been quite willing to purchase foreclosed properties and rehabilitate them for the rental market. In contrast, an outsized “shadow” inventory remains in states requiring judicial foreclosure proceedings, and these properties could enter the market in the next year or two. If this inventory is released to the market faster than investors and other home buyers are willing to absorb it, the additional supply of homes for sale could exert significant downward pressure on house prices in those areas. On the upside, very tight mortgage underwriting is likely masking strong underlying demand for housing. If so, a faster-than-expected improvement in the availability of credit could accommodate much of this underlying demand, thereby boosting house prices more than in our baseline projection.

One additional risk to our house price forecast is that housing could be overvalued currently, in which case prices could fall below our projection even if fundamentals improve over the medium term. However, a nationwide measure of house prices relative to rents (shown in the bottom-left figure), which provides one measure of house prices relative to housing’s current fundamental value, suggests no such overvaluation. This ratio plunged in 2007 and 2008 and has moved about sideways, on net, since then. Our forecasts for house prices and rents imply that the price-to-rent ratio will just edge up through the end of 2015, remaining near levels seen in the early 2000s.

Currently, rapid home price appreciation appears to be fairly localized, as nominal house prices have increased more than 10 percent in only about one in five large metro areas. Moreover, even in those markets where home prices have increased rapidly, the increases do not seem outsized with respect to rising nominal rents. Indeed, as shown in the bottom-right figure, price-to-rent ratios in markets with fast house price growth recently, such as Phoenix and Miami, have increased somewhat but remain close to the levels seen in the early 2000s.



Summary of the Near-Term Outlook
(Percent change at annual rate except as noted)

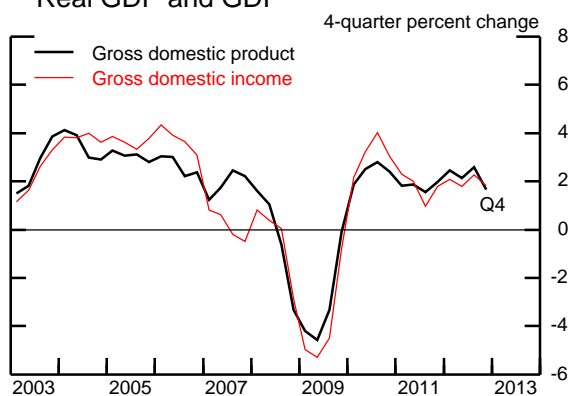
| Measure | 2012:Q4 | | 2013:Q1 | | 2013:Q2 | |
|--|-------------------|------------------|-------------------|------------------|-------------------|------------------|
| | Previous Tealbook | Current Tealbook | Previous Tealbook | Current Tealbook | Previous Tealbook | Current Tealbook |
| Real GDP | .6 | .4 | 2.8 | 3.1 | 1.8 | 1.5 |
| Private domestic final purchases | 3.7 | 3.6 | 2.4 | 2.8 | 3.4 | 3.1 |
| Personal consumption expenditures | 2.0 | 1.8 | 2.1 | 2.8 | 2.5 | 2.3 |
| Residential investment | 17.8 | 17.6 | 17.7 | 16.4 | 22.8 | 22.0 |
| Business fixed investment | 12.8 | 13.2 | .6 | -.3 | 5.0 | 4.1 |
| Government purchases | -6.8 | -7.0 | -1.1 | -2.3 | -4.6 | -4.5 |
| <i>Contributions to change in real GDP</i> | | | | | | |
| Inventory investment ¹ | -1.4 | -1.5 | 1.1 | 1.4 | -.5 | -.5 |
| Net exports ¹ | .3 | .3 | .0 | -.1 | .3 | .3 |
| Unemployment Rate² | 7.8 | 7.8 | 7.8 | 7.7 | 7.7 | 7.6 |
| PCE Chain Price Index | 1.5 | 1.6 | 1.1 | .9 | 1.1 | -.2 |
| Ex. food and energy | .9 | 1.0 | 1.4 | 1.2 | 1.6 | 1.4 |

1. Percentage points.

2. Percent.

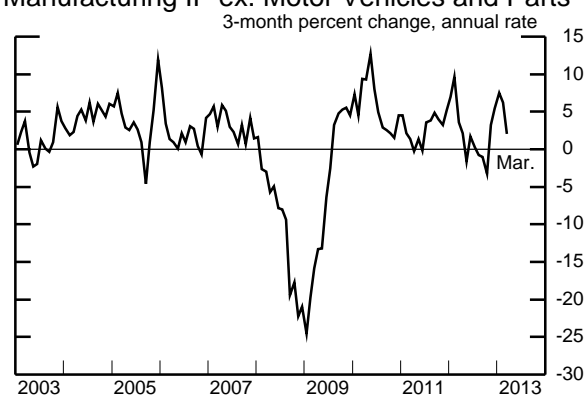
Recent Nonfinancial Developments (1)

Real GDP and GDI



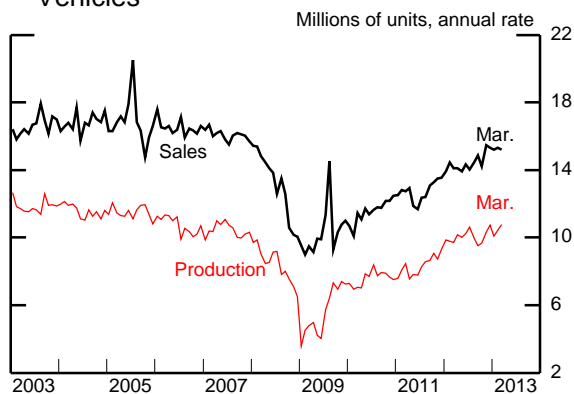
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Manufacturing IP ex. Motor Vehicles and Parts



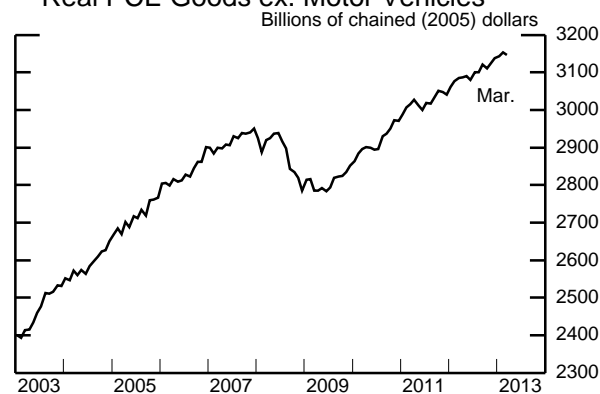
Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Sales and Production of Light Motor Vehicles



Source: Ward's Auto Infobank.

Real PCE Goods ex. Motor Vehicles



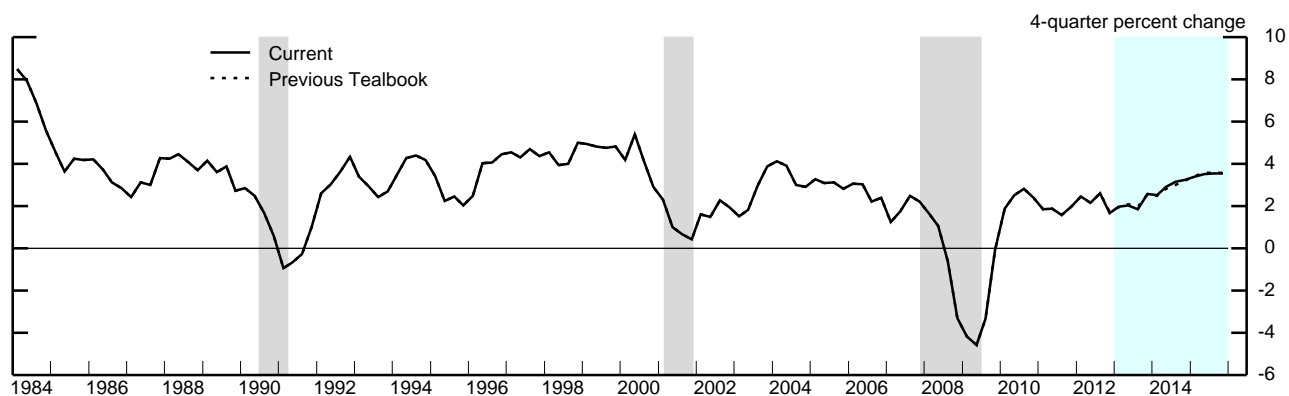
Note: Figures for January, February, and March 2013 are staff estimates based on available source data.

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

Projections of Real GDP and Related Components
(Percent change at annual rate from final quarter
of preceding period except as noted)

| Measure | 2012 | 2013 | 2013 | | 2014 | 2015 |
|--|------------|------------|------------|------------|------------|------------|
| | | | H1 | H2 | | |
| Real GDP | 1.7 | 2.6 | 2.3 | 2.8 | 3.2 | 3.5 |
| Previous Tealbook | 1.7 | 2.5 | 2.3 | 2.8 | 3.2 | 3.6 |
| Final sales | 2.1 | 2.2 | 1.9 | 2.6 | 3.1 | 3.7 |
| Previous Tealbook | 2.1 | 2.3 | 2.0 | 2.6 | 3.0 | 3.7 |
| Personal consumption expenditures | 1.8 | 2.8 | 2.6 | 3.0 | 3.5 | 3.8 |
| Previous Tealbook | 1.9 | 2.5 | 2.3 | 2.6 | 3.3 | 3.7 |
| Residential investment | 14.9 | 17.0 | 19.2 | 14.9 | 16.5 | 13.6 |
| Previous Tealbook | 15.0 | 18.7 | 20.2 | 17.2 | 13.9 | 14.0 |
| Nonresidential structures | 7.3 | 2.6 | -1 | 5.3 | 3.5 | 3.1 |
| Previous Tealbook | 7.2 | 1.2 | -4.2 | 7.0 | 3.3 | 3.1 |
| Equipment and software | 4.7 | 5.5 | 2.6 | 8.5 | 6.1 | 6.0 |
| Previous Tealbook | 4.7 | 6.4 | 5.7 | 7.2 | 5.6 | 6.3 |
| Federal purchases | -2.8 | -7.4 | -7.9 | -6.8 | -5.7 | -3.9 |
| Previous Tealbook | -2.8 | -5.4 | -6.6 | -4.1 | -5.3 | -3.4 |
| State and local purchases | -1.1 | -.4 | -.4 | -.3 | .0 | 1.1 |
| Previous Tealbook | -1.0 | -.2 | -.4 | .0 | .3 | 1.1 |
| Exports | 2.1 | 4.3 | 5.1 | 3.6 | 5.3 | 6.8 |
| Previous Tealbook | 2.1 | 4.3 | 4.9 | 3.7 | 5.4 | 6.9 |
| Imports | .2 | 3.9 | 3.8 | 4.1 | 4.7 | 5.0 |
| Previous Tealbook | .2 | 3.7 | 3.2 | 4.1 | 4.5 | 5.0 |
| Contributions to change in real GDP (percentage points) | | | | | | |
| Inventory change | -.4 | .3 | .4 | .3 | .2 | -.2 |
| Previous Tealbook | -.4 | .3 | .3 | .2 | .2 | -.2 |
| Net exports | .3 | -.1 | .1 | -.2 | -.1 | .1 |
| Previous Tealbook | .3 | .0 | .1 | -.2 | .0 | .1 |

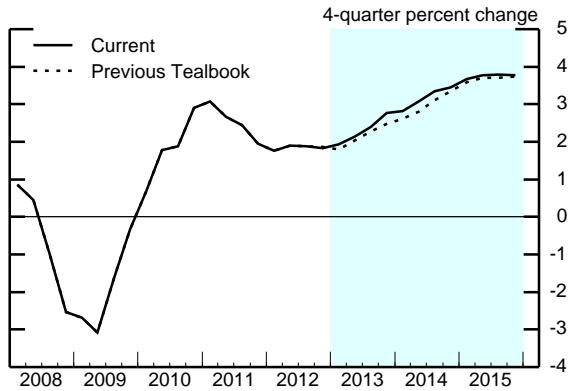
Real GDP



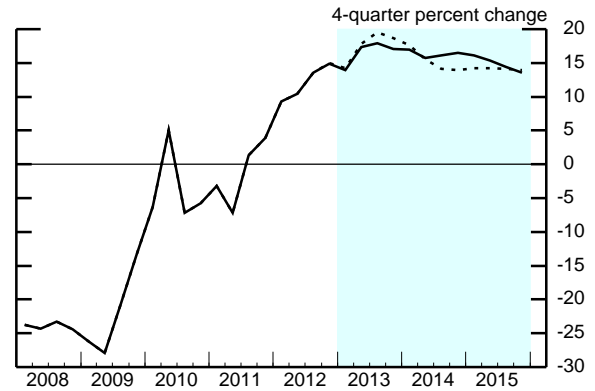
Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Components of Final Demand

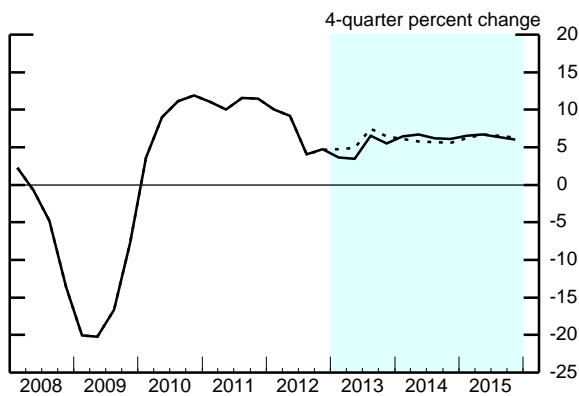
Personal Consumption Expenditures



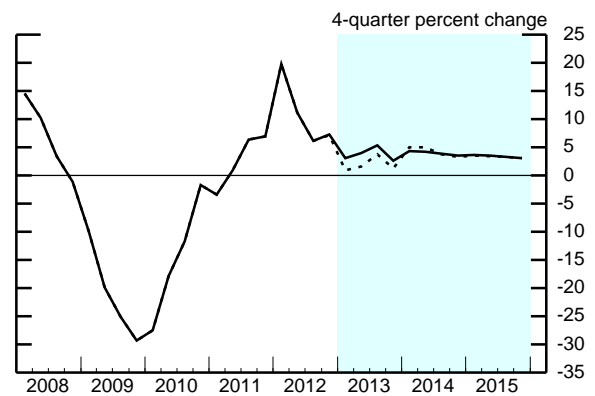
Residential Investment



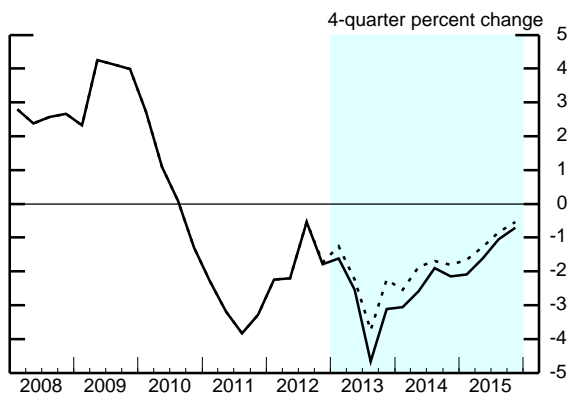
Equipment and Software



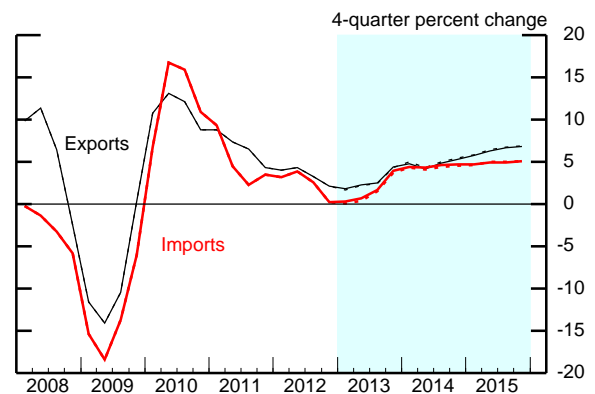
Nonresidential Structures



Government Consumption & Investment



Exports and Imports



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

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 | .7 | .9 | .7 | 1.2 | 1.6 | 1.6 |
| Previous Tealbook | .7 | .9 | .4 | 1.4 | 1.8 | 1.7 |
| Nonfarm private employment ¹ | 189 | 170 | 166 | 175 | 220 | 265 |
| Previous Tealbook | 189 | 183 | 186 | 180 | 210 | 256 |
| Labor force participation rate ² | 63.7 | 63.5 | 63.5 | 63.5 | 63.4 | 63.4 |
| Previous Tealbook | 63.7 | 63.6 | 63.6 | 63.6 | 63.5 | 63.4 |
| Civilian unemployment rate ² | 7.8 | 7.4 | 7.6 | 7.4 | 6.9 | 6.2 |
| Previous Tealbook | 7.8 | 7.5 | 7.7 | 7.5 | 7.1 | 6.3 |

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)

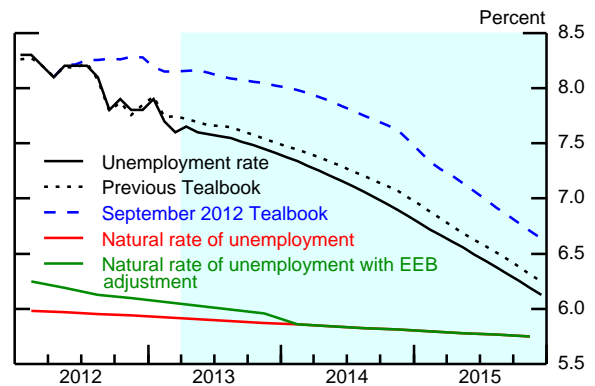
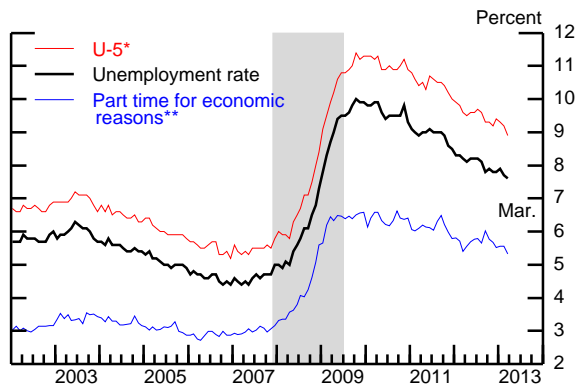
| Measure | 2012 | 2013 | 2013 | | 2014 | 2015 |
|---|------|------|-------|------|------|------|
| | | | H1 | H2 | | |
| PCE chain-weighted price index | 1.6 | 1.0 | .3 | 1.6 | 1.5 | 1.6 |
| Previous Tealbook | 1.6 | 1.3 | 1.1 | 1.5 | 1.5 | 1.6 |
| Food and beverages | 1.1 | 1.1 | 1.1 | 1.1 | 1.0 | 1.5 |
| Previous Tealbook | 1.1 | 1.9 | 2.3 | 1.4 | 1.1 | 1.5 |
| Energy | 3.2 | -6.6 | -14.2 | 1.6 | -.3 | -.7 |
| Previous Tealbook | 3.2 | -3.7 | -6.1 | -1.3 | -1.2 | -.8 |
| Excluding food and energy | 1.5 | 1.5 | 1.3 | 1.6 | 1.7 | 1.8 |
| Previous Tealbook | 1.5 | 1.6 | 1.5 | 1.7 | 1.7 | 1.7 |
| Prices of core goods imports ¹ | .1 | .5 | .3 | .6 | 1.6 | 1.6 |
| Previous Tealbook | .1 | 1.0 | 1.1 | 1.0 | 1.5 | 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



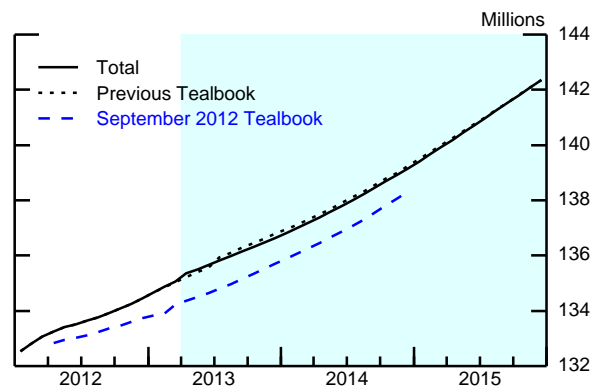
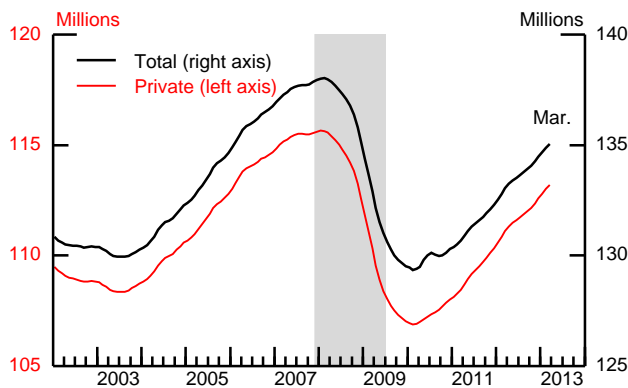
* U-5 measures total unemployed plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.

** Percent of Current Population Survey employment.

EEB Extended and emergency unemployment benefits.

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

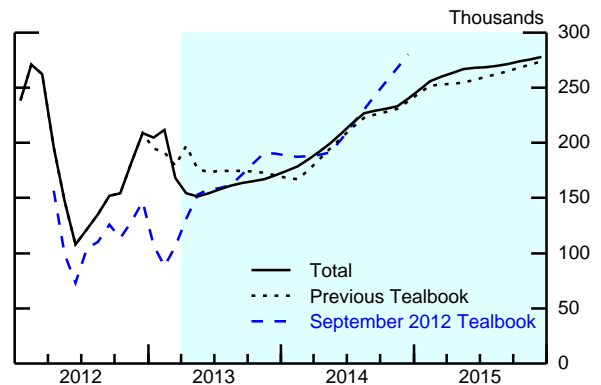
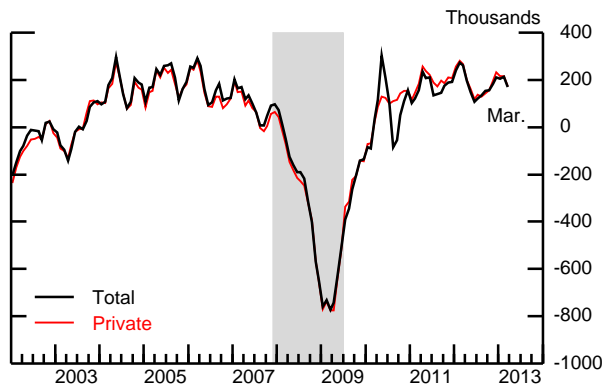
Level of Payroll Employment*



* 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*



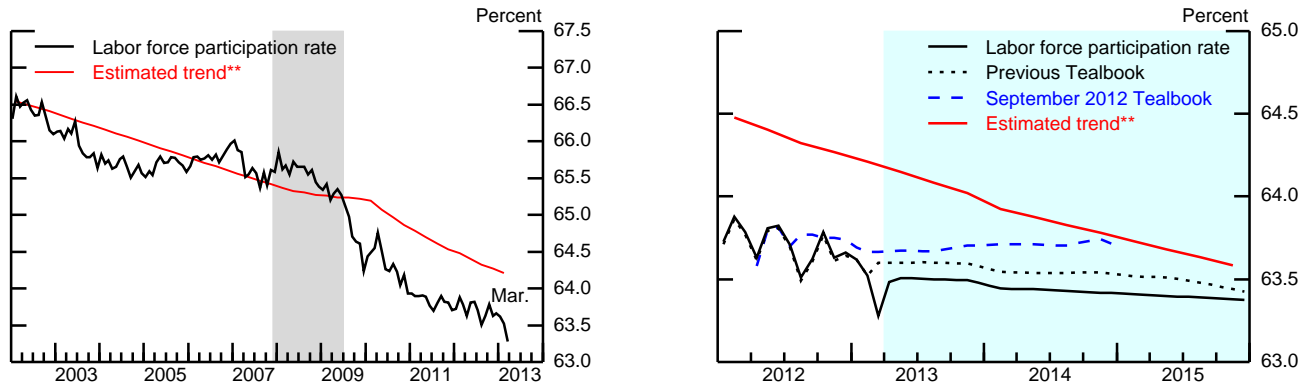
* 3-month moving averages in history; average monthly changes in each quarter during the forecast period.

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*

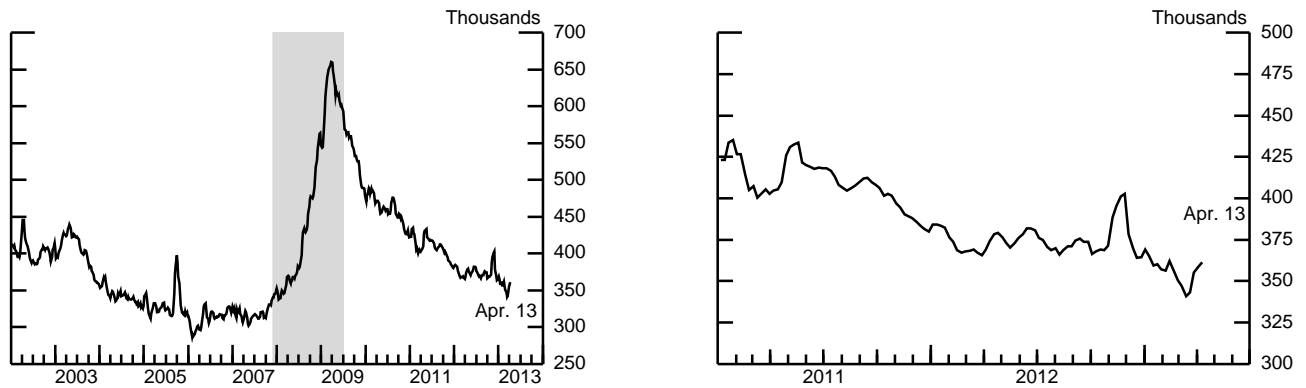


* Published data adjusted by staff to account for changes in population weights.

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

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

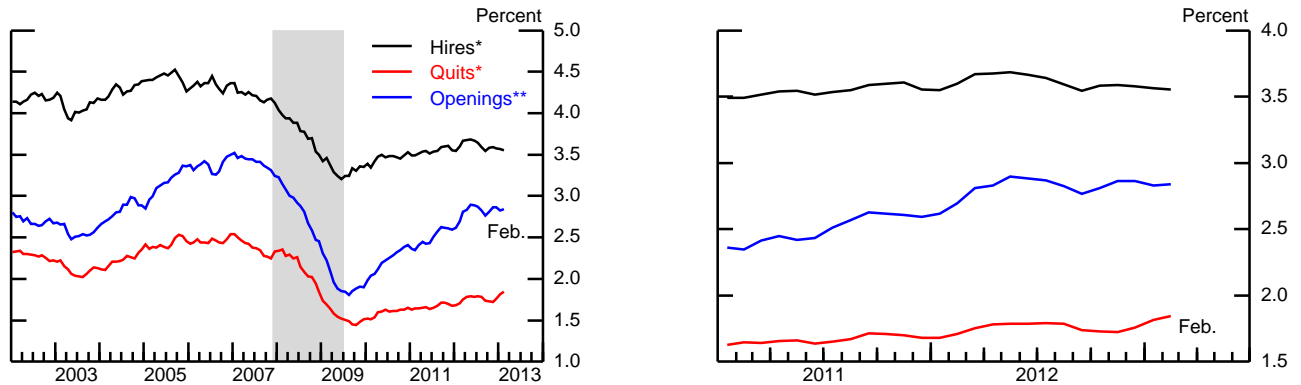
Initial Unemployment Insurance Claims*



* 4-week moving average.

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

Private Hires, Quits, and Job Openings



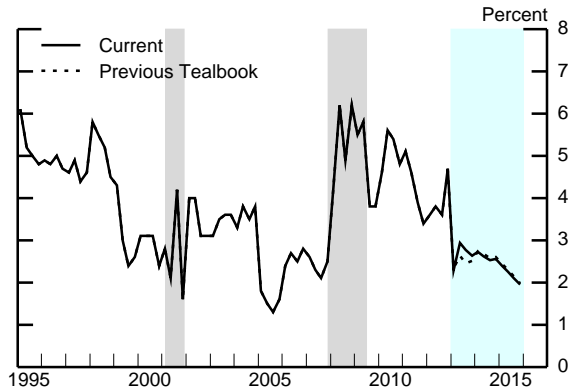
* Percent of private nonfarm payroll employment, 3-month moving average.

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

Source: Job Openings and Labor Turnover Survey.

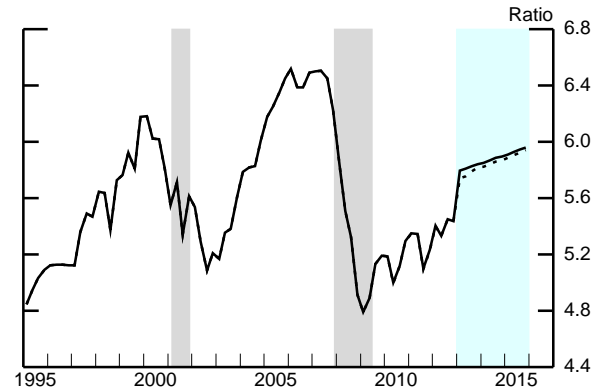
Aspects of the Medium-Term Projection

Personal Saving Rate



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

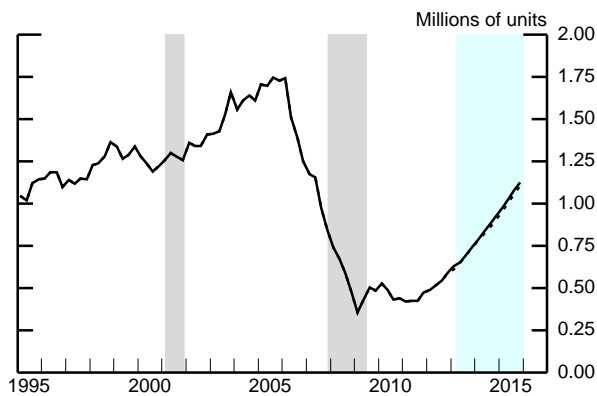
Wealth-to-Income Ratio



Note: Household net worth as a ratio to disposable personal income.

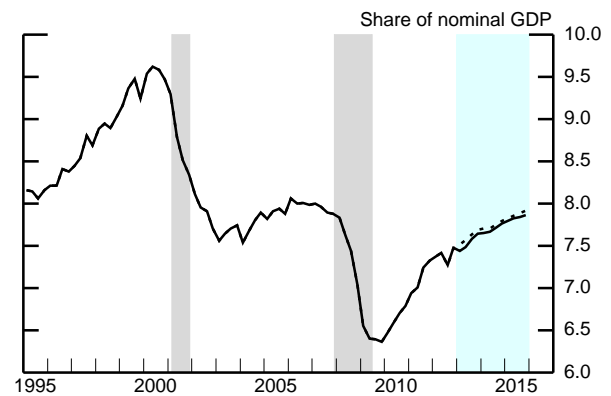
Source: For net worth, Federal Reserve Board, flow of funds data; for income, Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



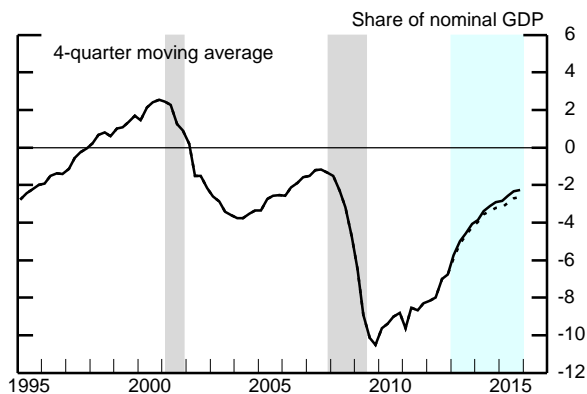
Source: U.S. Census Bureau.

Equipment and Software Spending



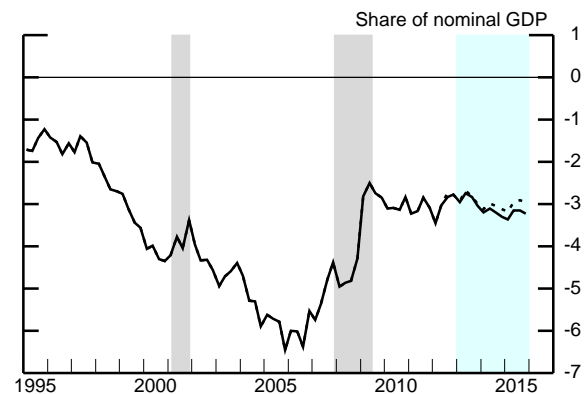
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

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)

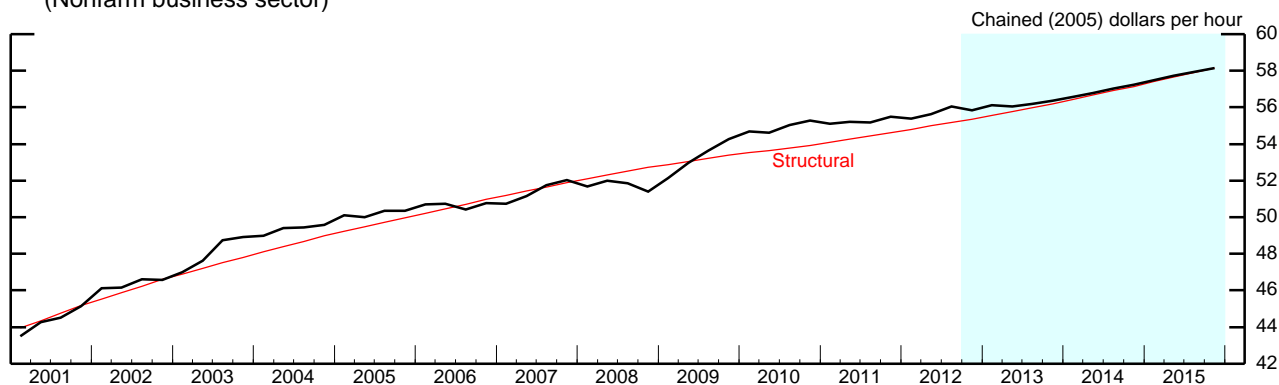
| Measure | 1974-1995 | 1996-2000 | 2001-2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|-----------|-----------|-----------|------|------|------|------|------|
| Potential real GDP | 3.0 | 3.4 | 2.2 | 1.5 | 1.8 | 1.9 | 2.1 | 2.1 |
| Previous Tealbook | 3.0 | 3.4 | 2.2 | 1.5 | 1.8 | 1.9 | 2.1 | 2.1 |
| <i>Selected contributions¹</i> | | | | | | | | |
| Structural labor productivity | 1.4 | 2.6 | 2.1 | 1.3 | 1.4 | 1.5 | 1.7 | 1.8 |
| Previous Tealbook | 1.4 | 2.6 | 2.1 | 1.3 | 1.4 | 1.5 | 1.7 | 1.8 |
| Capital deepening | .7 | 1.5 | .7 | .3 | .4 | .5 | .6 | .8 |
| Previous Tealbook | .7 | 1.5 | .7 | .4 | .5 | .6 | .7 | .8 |
| Multifactor productivity | .5 | .8 | 1.2 | .9 | .9 | .9 | .9 | .9 |
| Previous Tealbook | .5 | .8 | 1.2 | .8 | .8 | .8 | .9 | .9 |
| Structural hours | 1.5 | 1.0 | .6 | .5 | .6 | .6 | .6 | .6 |
| Previous Tealbook | 1.5 | 1.0 | .6 | .5 | .6 | .6 | .6 | .6 |
| Labor force participation | .4 | .0 | -.3 | -.4 | -.3 | -.3 | -.3 | -.3 |
| Previous Tealbook | .4 | .0 | -.3 | -.4 | -.3 | -.3 | -.3 | -.3 |
| Memo: | | | | | | | | |
| GDP gap ² | -2.4 | 1.9 | -4.0 | -3.5 | -3.7 | -3.1 | -1.9 | -.6 |
| Previous Tealbook | -2.4 | 1.9 | -4.2 | -3.8 | -3.9 | -3.3 | -2.2 | -.8 |

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.

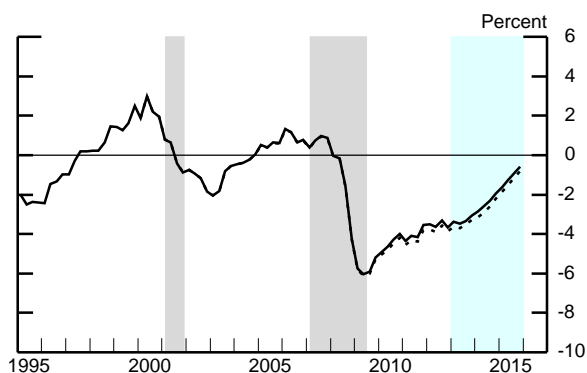
2. Percent difference between actual and potential GDP in the final quarter of the period indicated. A negative number indicates that the economy is operating below potential.

Structural and Actual Labor Productivity
(Nonfarm business sector)



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

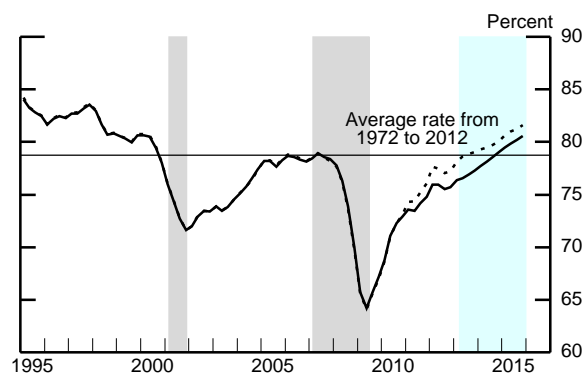
GDP Gap



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



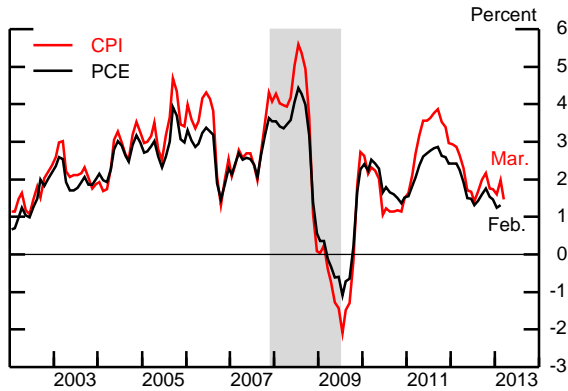
Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

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

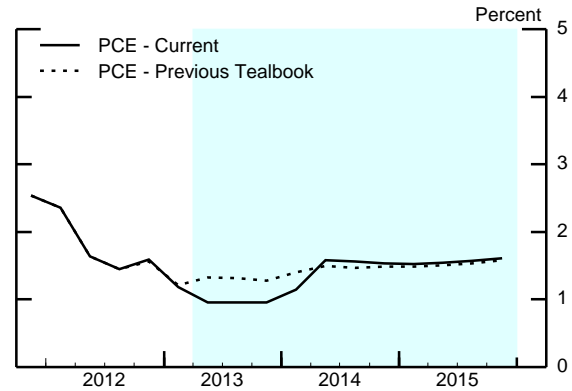
Inflation Developments and Outlook

(Percent change from year-earlier period)

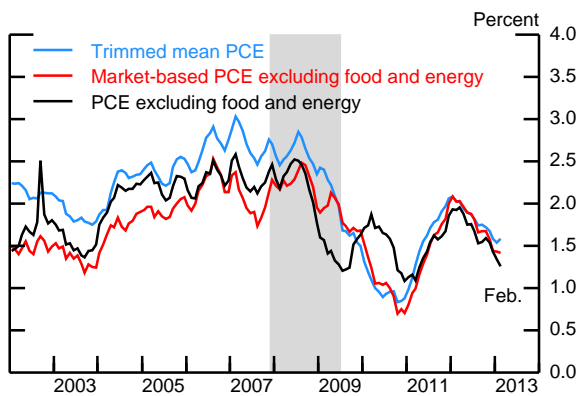
Headline Consumer Price Inflation



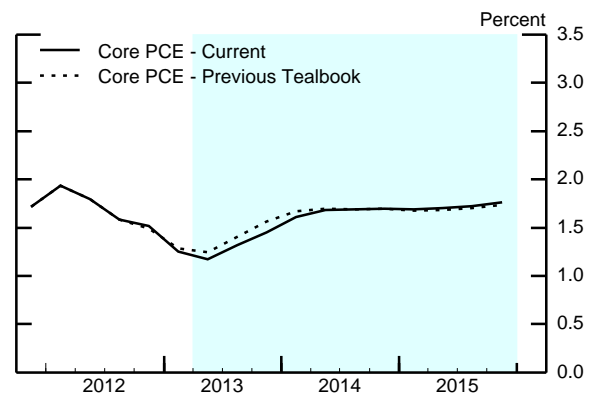
Source: For CPI, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.



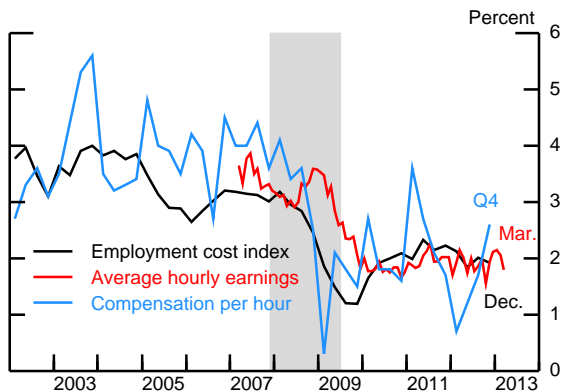
Measures of Underlying PCE Price Inflation



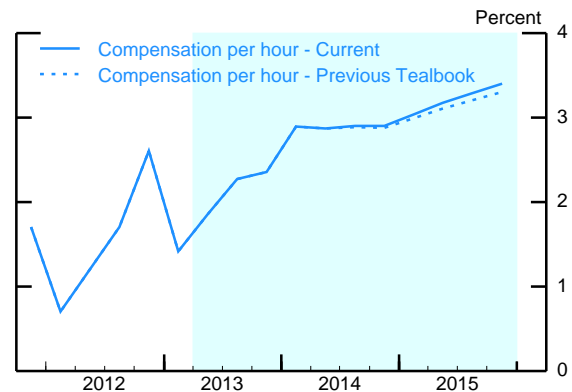
Source: For trimmed mean PCE, Federal Reserve Bank of Dallas; otherwise, U.S. Dept. of Commerce, Bureau of Economic Analysis.



Labor Cost Growth (Private Industry)



Note: Compensation per hour value for 2012:Q4 is a staff estimate.
Source: U.S. Dept. of Labor, Bureau of Labor Statistics.



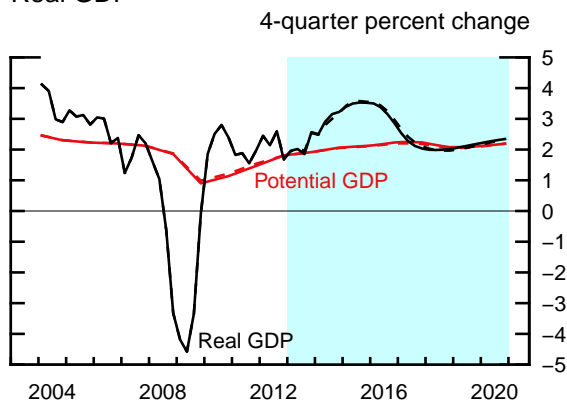
The Long-Term Outlook

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

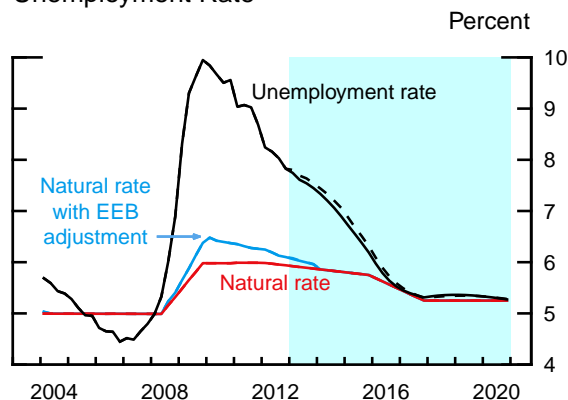
| Measure | 2013 | 2014 | 2015 | 2016 | 2017 | Longer run |
|---|------|------|------|------|------|------------|
| Real GDP | 2.6 | 3.2 | 3.5 | 2.9 | 2.0 | 2.3 |
| Previous Tealbook | 2.5 | 3.2 | 3.6 | 3.0 | 2.1 | 2.3 |
| Civilian unemployment rate ¹ | 7.4 | 6.9 | 6.2 | 5.5 | 5.3 | 5.2 |
| Previous Tealbook | 7.5 | 7.1 | 6.3 | 5.6 | 5.3 | 5.2 |
| PCE prices, total | 1.0 | 1.5 | 1.6 | 1.8 | 2.0 | 2.0 |
| Previous Tealbook | 1.3 | 1.5 | 1.6 | 1.8 | 2.0 | 2.0 |
| Core PCE prices | 1.5 | 1.7 | 1.8 | 1.9 | 2.0 | 2.0 |
| Previous Tealbook | 1.6 | 1.7 | 1.7 | 1.9 | 2.0 | 2.0 |
| Federal funds rate ¹ | .1 | .1 | .5 | 2.0 | 2.9 | 4.0 |
| Previous Tealbook | .1 | .1 | .3 | 1.8 | 2.8 | 4.0 |
| 10-year Treasury yield ¹ | 2.4 | 3.2 | 3.8 | 4.0 | 4.0 | 4.8 |
| Previous Tealbook | 2.8 | 3.5 | 4.0 | 4.2 | 4.2 | 4.8 |

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

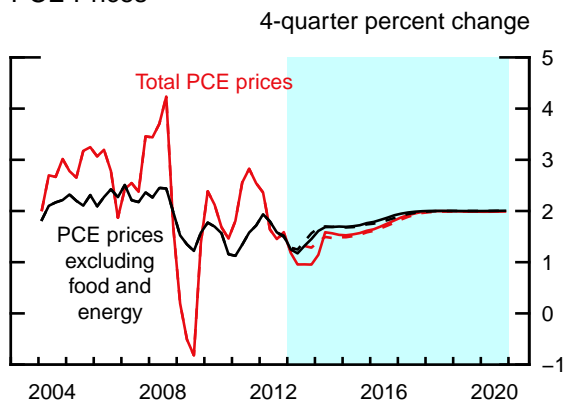
Real GDP



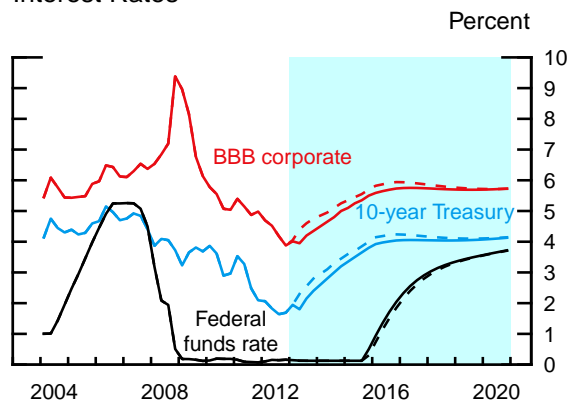
Unemployment Rate



PCE Prices



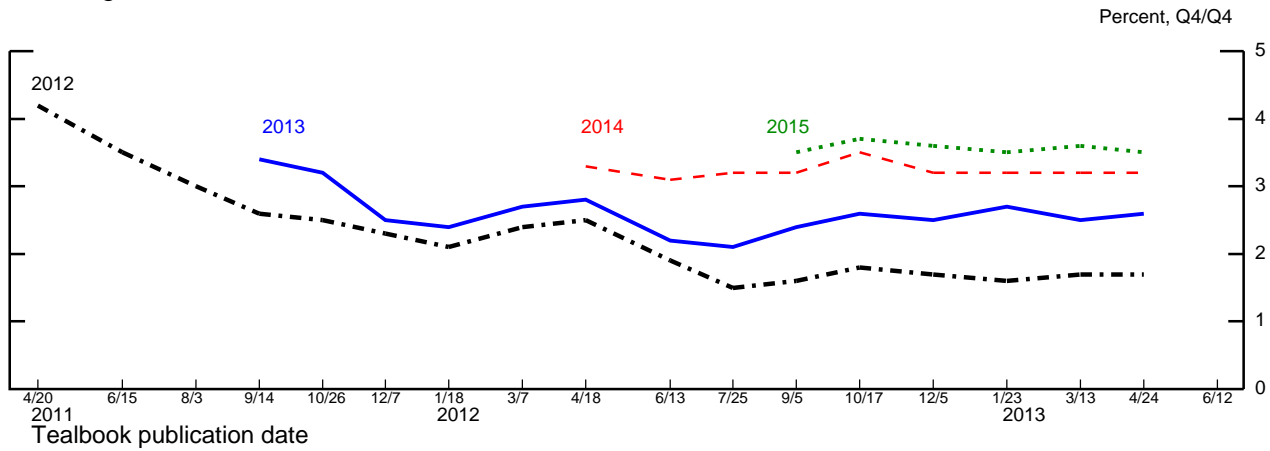
Interest Rates



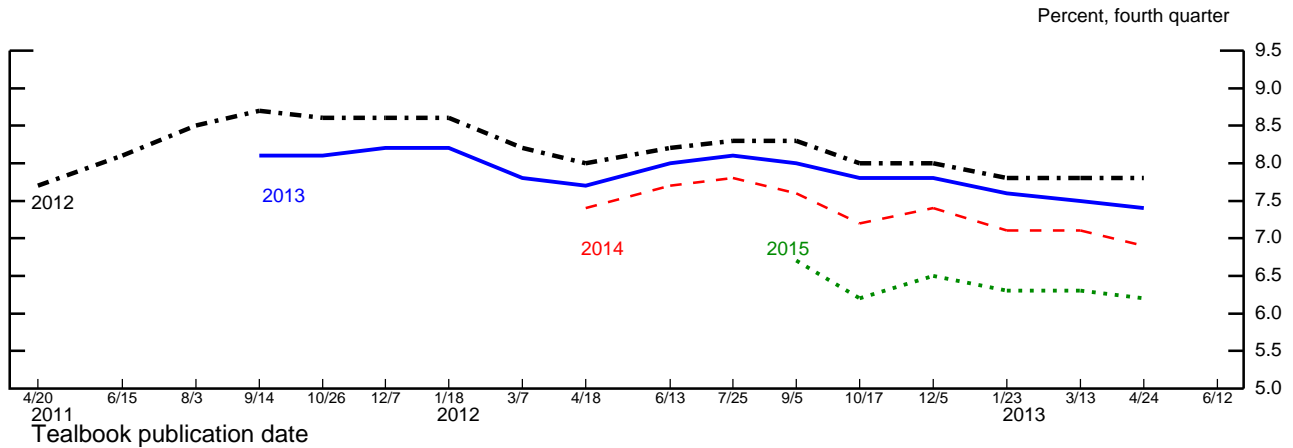
Note: In each panel, shading represents the projection period, and dashed lines are the previous Tealbook.

Evolution of the Staff Forecast

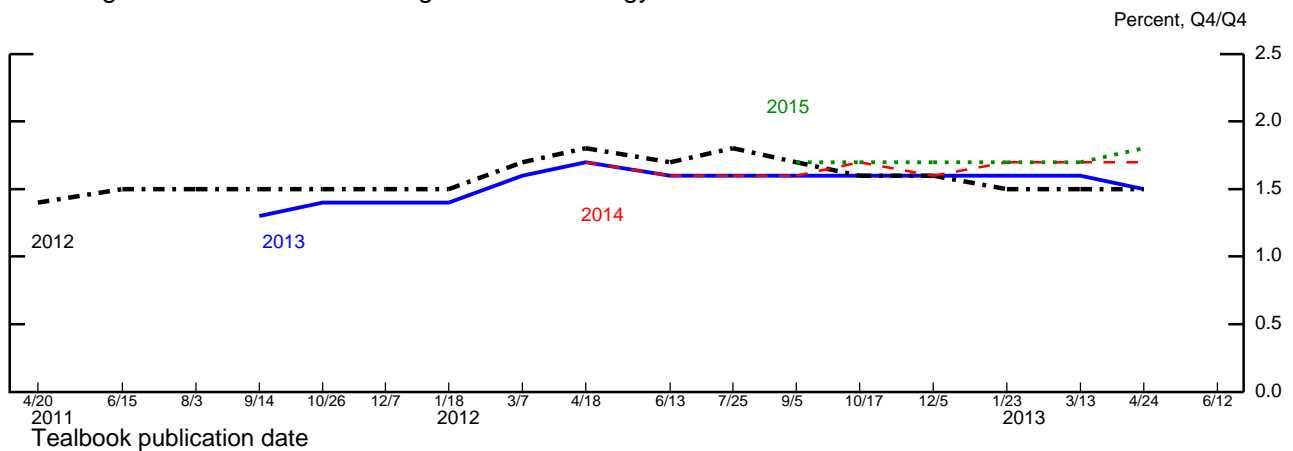
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy



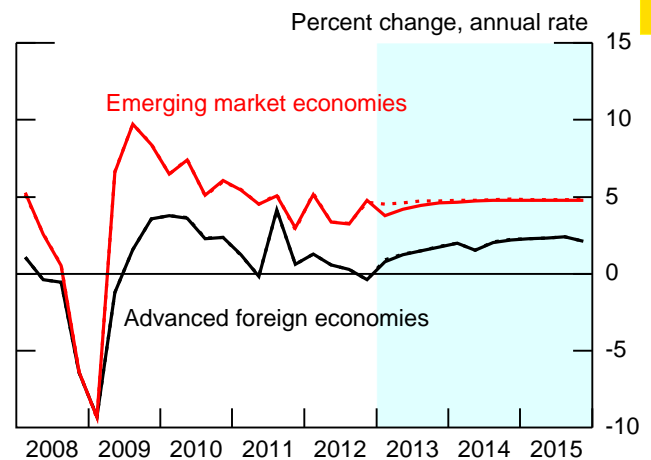
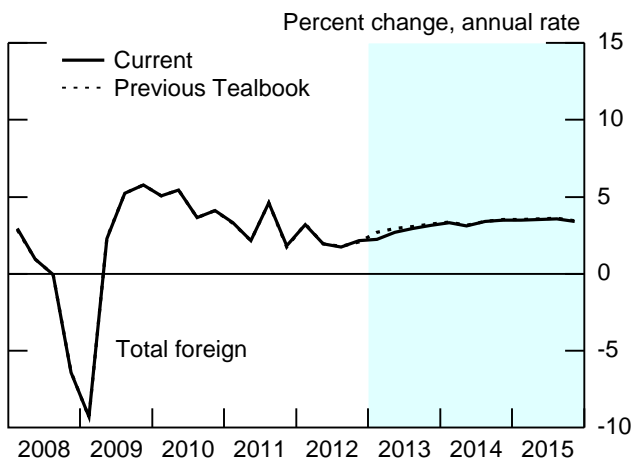
The Foreign Outlook

(Percent change, annual rate)

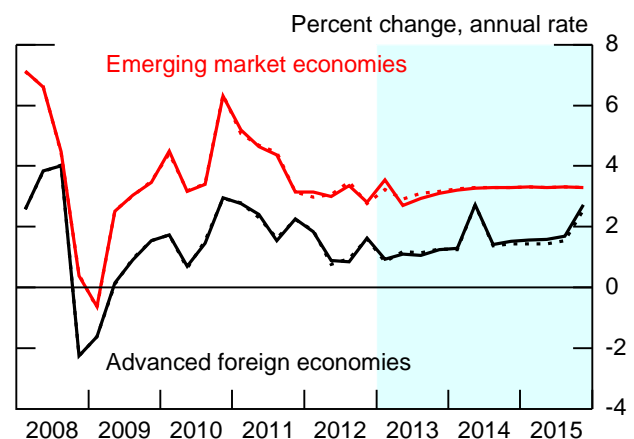
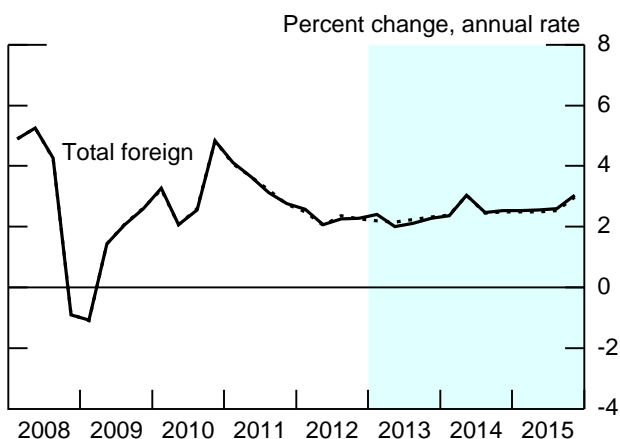
| | 2012 | | | 2013 | | | 2014 | 2015 |
|----------------------------|------|-----|-----|------|-----|-----|------|------|
| | H1 | Q3 | Q4 | Q1 | Q2 | H2 | | |
| Real GDP | | | | | | | | |
| Total foreign | 2.6 | 1.7 | 2.1 | 2.3 | 2.7 | 3.0 | 3.3 | 3.5 |
| Previous Tealbook | 2.6 | 1.8 | 2.1 | 2.7 | 2.9 | 3.2 | 3.4 | 3.5 |
| Advanced foreign economies | .9 | .3 | -.4 | .8 | 1.2 | 1.6 | 1.9 | 2.3 |
| Previous Tealbook | .9 | .3 | -.4 | .9 | 1.3 | 1.6 | 2.0 | 2.3 |
| Emerging market economies | 4.2 | 3.2 | 4.8 | 3.8 | 4.2 | 4.5 | 4.7 | 4.8 |
| Previous Tealbook | 4.3 | 3.3 | 4.6 | 4.5 | 4.6 | 4.7 | 4.8 | 4.8 |
| Consumer Prices | | | | | | | | |
| Total foreign | 2.3 | 2.3 | 2.3 | 2.4 | 2.0 | 2.2 | 2.6 | 2.7 |
| Previous Tealbook | 2.3 | 2.4 | 2.3 | 2.2 | 2.2 | 2.3 | 2.6 | 2.6 |
| Advanced foreign economies | 1.4 | .8 | 1.6 | .9 | 1.1 | 1.2 | 1.7 | 1.9 |
| Previous Tealbook | 1.3 | .9 | 1.6 | .8 | 1.2 | 1.2 | 1.7 | 1.7 |
| Emerging market economies | 3.1 | 3.4 | 2.8 | 3.6 | 2.7 | 3.0 | 3.3 | 3.3 |
| Previous Tealbook | 3.0 | 3.5 | 2.8 | 3.2 | 2.9 | 3.1 | 3.3 | 3.3 |

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

Real GDP

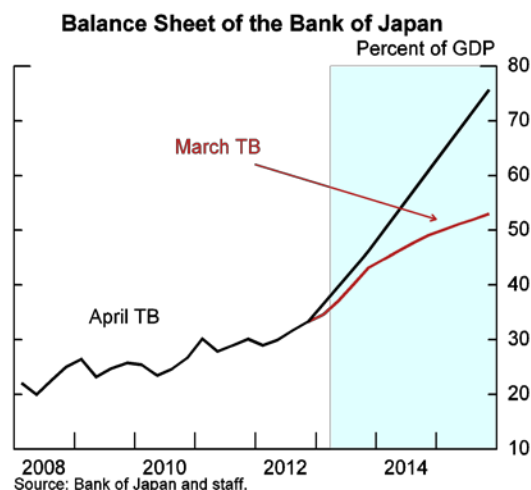
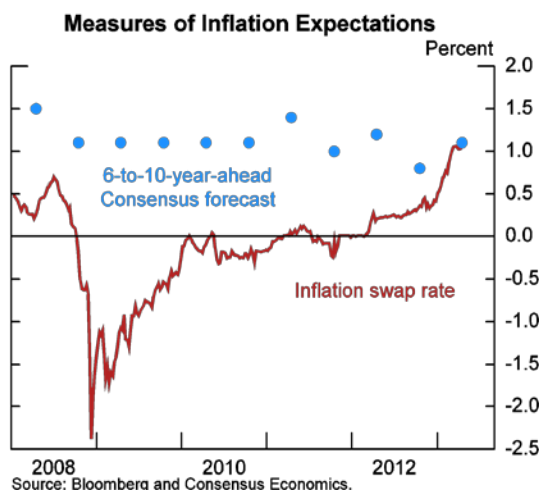
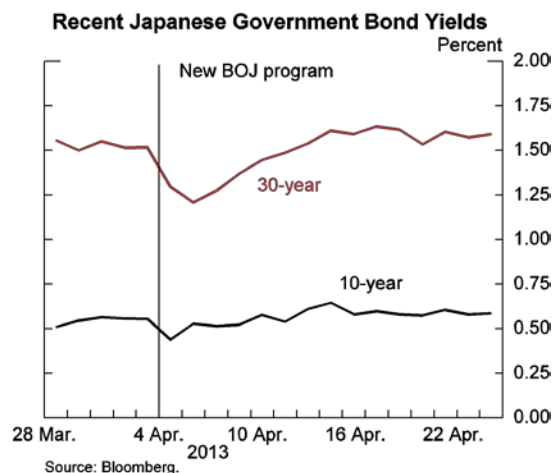
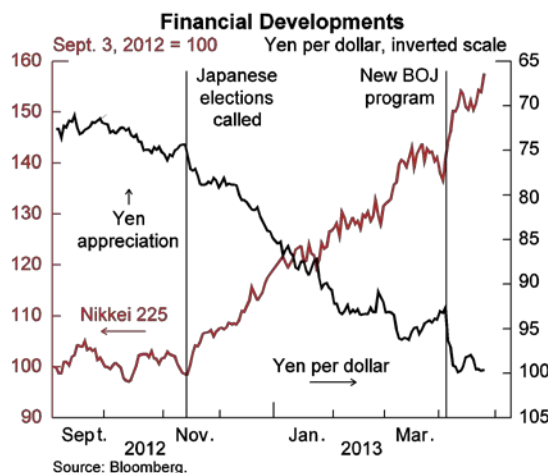


Consumer Prices



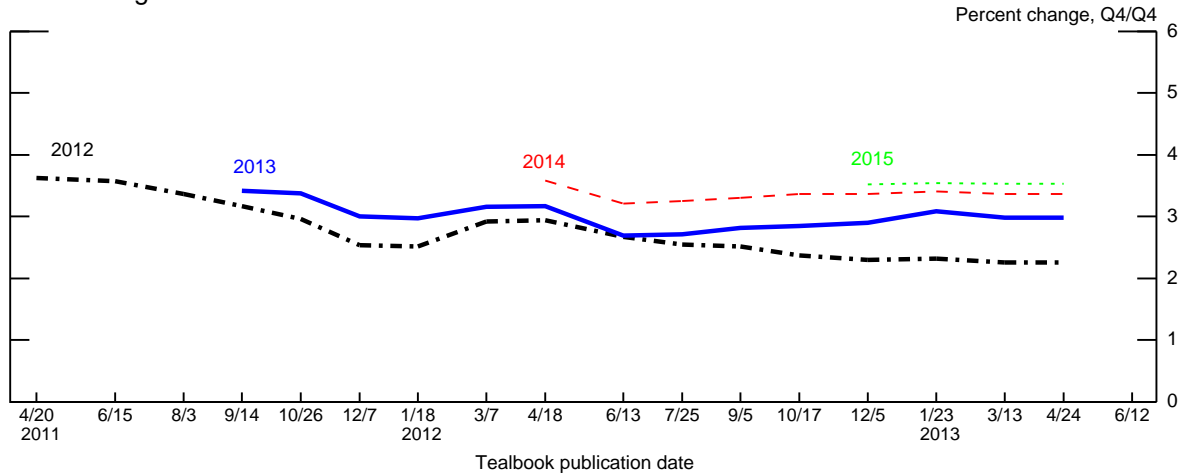
We considered two different approaches to gauge the effects of the BOJ's new program on inflation. First, we assumed that future asset purchases by the BOJ would have similar effects on inflation to those of the Fed's large-scale asset purchase program. In this case, inflation would rise slightly more than 1 percentage point. However, this exercise presumes that the term premium on 10-year JGBs declines 200 basis points, which seems questionable given the already low level of Japanese interest rates. Alternatively, we used the staff's SIGMA model to examine the effects of the improvements in Japanese financial conditions observed since mid-November. Specifically, we assumed a 25 percent real depreciation of the yen and a 50 percent increase in equity wealth, while leaving the term premium unchanged. The model predicts an increase in inflation of about 1½ percentage points over a year, largely owing to the effect of the lower yen on import prices. Although these estimates are necessarily tenuous, we take some comfort that both approaches yield broadly similar predictions.

Informed by these results, we now project that inflation—net of the effects of two planned consumption rate hikes—will gradually increase from about zero in early 2013 to 1¼ percent by the end of 2015. Likewise, the combination of monetary expansion and fiscal stimulus planned by the Abe administration pushes projected GDP growth to an annual average of 1½ percent over the 2013–15 period, compared with the just-below 1 percent pace we were anticipating late last year. This markup leads to a considerably more rapid narrowing of Japan's output gap.

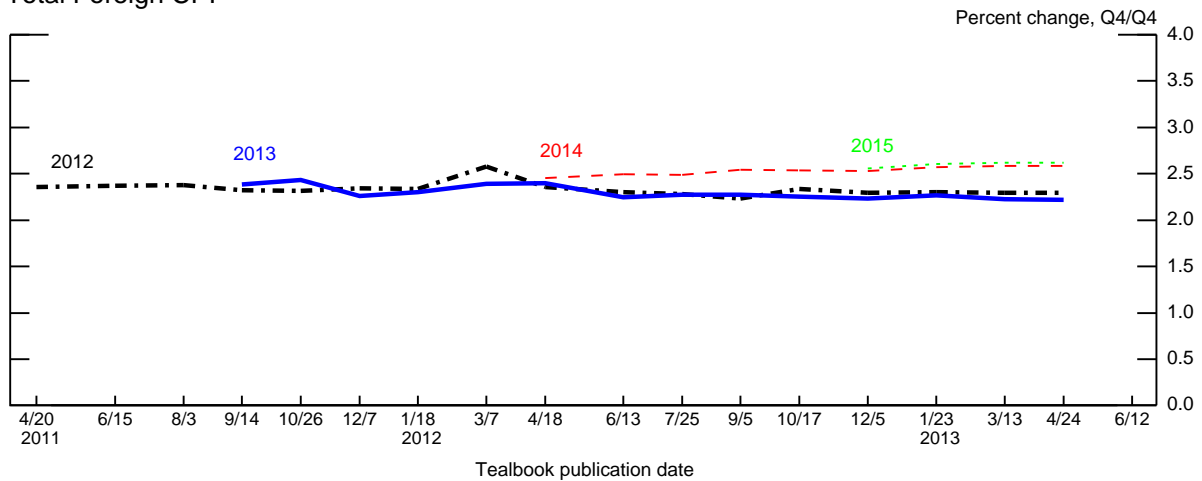


Evolution of Staff's International Forecast

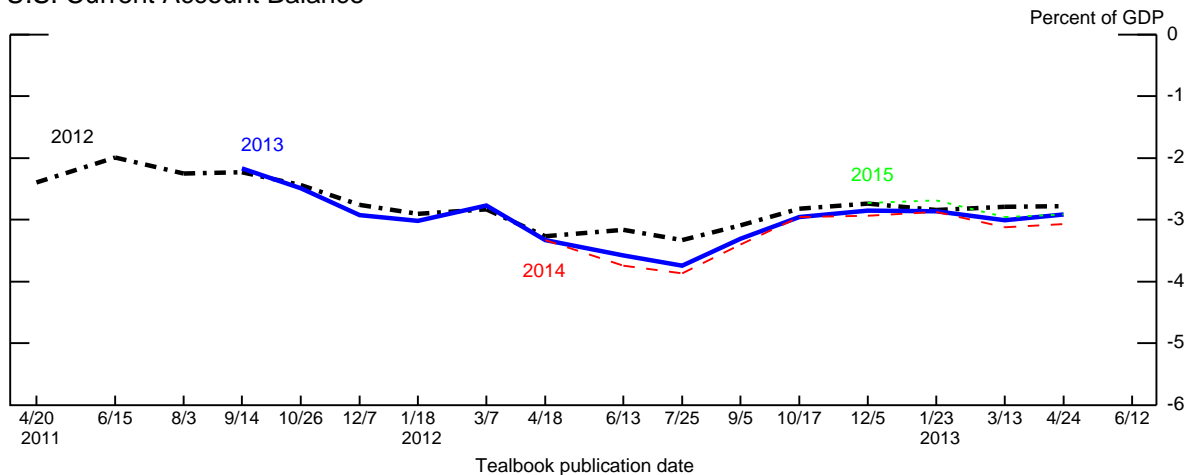
Total Foreign GDP



Total Foreign CPI

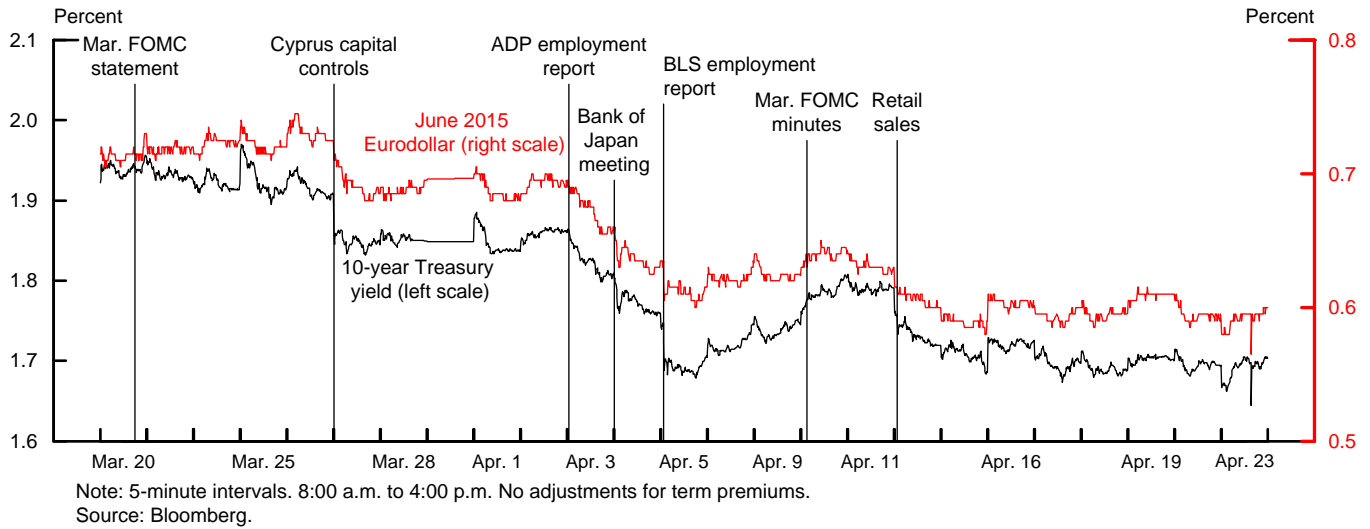


U.S. Current Account Balance

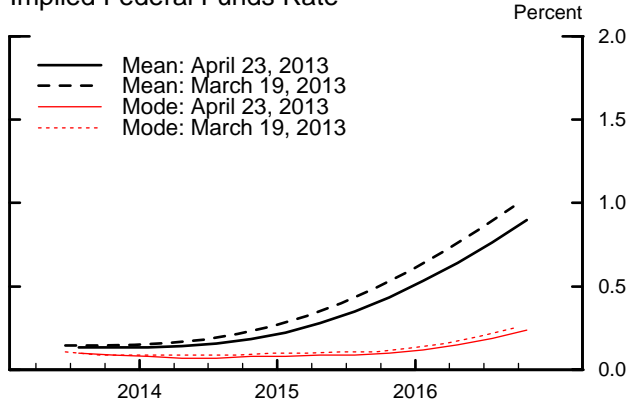


Policy Expectations and Treasury Yields

Selected Interest Rates



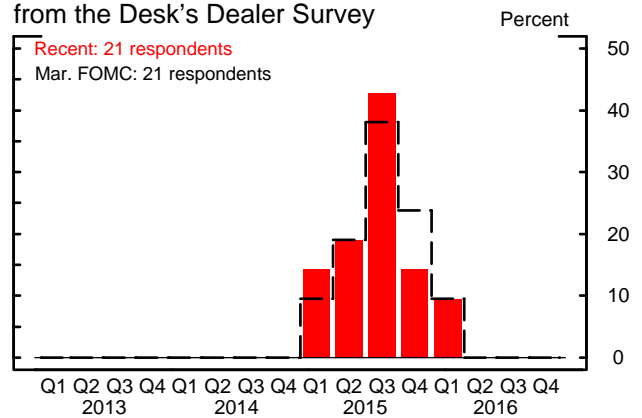
Implied Federal Funds Rate



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.

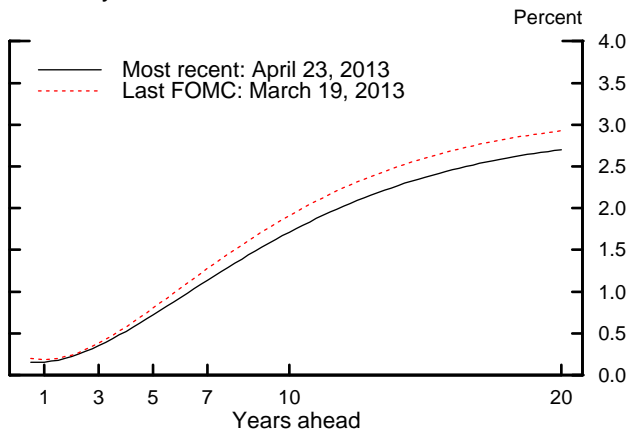
Source: Bloomberg and CME Group.

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



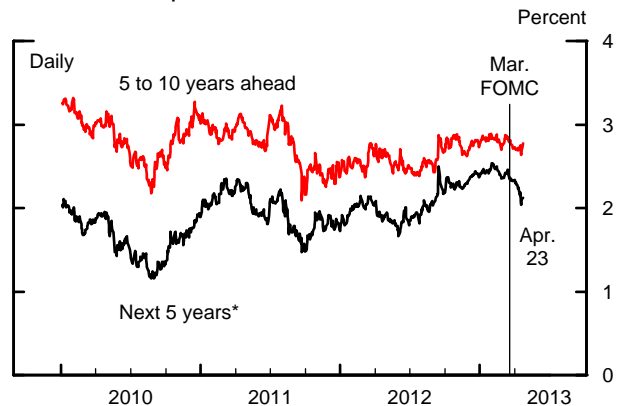
Source: Desk's dealer survey from April 22, 2013.

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 the indexation-lag (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 | 2.3 | 2.8 | 3.2 | 3.5 | 2.4 |
| Weak recovery | 2.2 | 2.6 | 2.4 | 2.3 | 2.6 |
| Housing-led recovery | 2.5 | 3.5 | 4.4 | 4.3 | 1.5 |
| Boom with adverse side effects | 2.5 | 3.5 | 4.5 | 4.6 | 1.7 |
| Lower natural rate | 2.3 | 2.7 | 3.1 | 3.4 | 2.1 |
| Supply-side damage | 2.3 | 2.6 | 2.9 | 2.8 | 1.3 |
| Prolonged European recession | 2.2 | 2.2 | 2.3 | 3.4 | 2.5 |
| Hard landing in China | 2.2 | 2.0 | 2.7 | 3.7 | 2.7 |
| <i>Unemployment rate¹</i> | | | | | |
| Extended Tealbook baseline | 7.6 | 7.4 | 6.9 | 6.2 | 5.3 |
| Weak recovery | 7.6 | 7.4 | 7.2 | 7.0 | 6.0 |
| Housing-led recovery | 7.6 | 7.3 | 6.2 | 5.0 | 5.0 |
| Boom with adverse side effects | 7.6 | 7.3 | 6.2 | 4.9 | 4.6 |
| Lower natural rate | 7.6 | 7.2 | 6.7 | 5.9 | 5.5 |
| Supply-side damage | 7.6 | 7.3 | 6.5 | 5.7 | 5.6 |
| Prolonged European recession | 7.6 | 7.5 | 7.3 | 6.8 | 5.8 |
| Hard landing in China | 7.6 | 7.5 | 7.3 | 6.6 | 5.5 |
| <i>Total PCE prices</i> | | | | | |
| Extended Tealbook baseline | .3 | 1.6 | 1.5 | 1.6 | 1.9 |
| Weak recovery | .3 | 1.4 | 1.2 | 1.3 | 1.6 |
| Housing-led recovery | .3 | 1.6 | 1.6 | 1.8 | 2.2 |
| Boom with adverse side effects | .4 | 1.8 | 1.8 | 2.0 | 2.6 |
| Lower natural rate | .3 | 1.5 | 1.4 | 1.5 | 1.8 |
| Supply-side damage | .3 | 1.6 | 1.5 | 1.6 | 1.8 |
| Prolonged European recession | .2 | 1.1 | 1.1 | 1.3 | 1.8 |
| Hard landing in China | .0 | .7 | 1.1 | 1.6 | 2.0 |
| <i>Core PCE prices</i> | | | | | |
| Extended Tealbook baseline | 1.3 | 1.6 | 1.7 | 1.8 | 2.0 |
| Weak recovery | 1.3 | 1.4 | 1.4 | 1.5 | 1.7 |
| Housing-led recovery | 1.3 | 1.6 | 1.8 | 2.0 | 2.3 |
| Boom with adverse side effects | 1.4 | 1.8 | 2.0 | 2.2 | 2.7 |
| Lower natural rate | 1.3 | 1.5 | 1.6 | 1.7 | 1.9 |
| Supply-side damage | 1.3 | 1.6 | 1.7 | 1.8 | 1.9 |
| Prolonged European recession | 1.3 | 1.4 | 1.4 | 1.6 | 1.9 |
| Hard landing in China | 1.3 | 1.3 | 1.4 | 1.7 | 2.0 |
| <i>Federal funds rate¹</i> | | | | | |
| Extended Tealbook baseline | .1 | .1 | .1 | .5 | 2.9 |
| Weak recovery | .1 | .1 | .1 | .1 | .8 |
| Housing-led recovery | .1 | .1 | .2 | 2.5 | 4.3 |
| Boom with adverse side effects | .1 | .1 | .3 | 2.8 | 5.2 |
| Lower natural rate | .1 | .1 | .1 | 1.1 | 2.8 |
| Supply-side damage | .1 | .1 | .1 | 1.8 | 3.0 |
| Prolonged European recession | .1 | .1 | .1 | .1 | 2.3 |
| Hard landing in China | .1 | .1 | .1 | .1 | 2.6 |

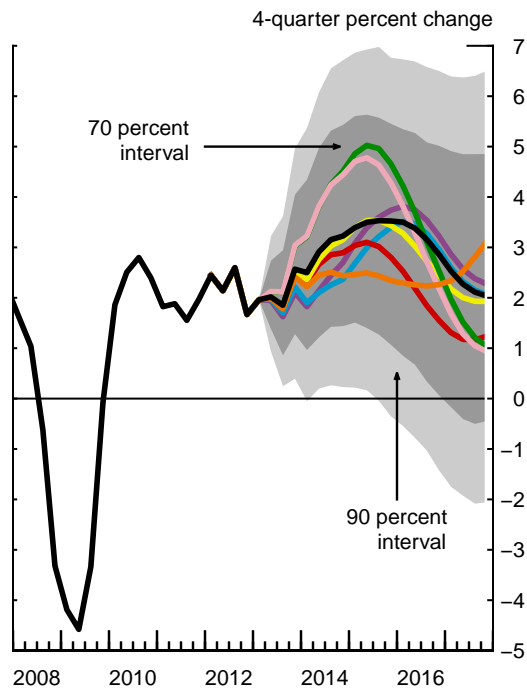
1. Percent, average for the final quarter of the period.

Forecast Confidence Intervals and Alternative Scenarios

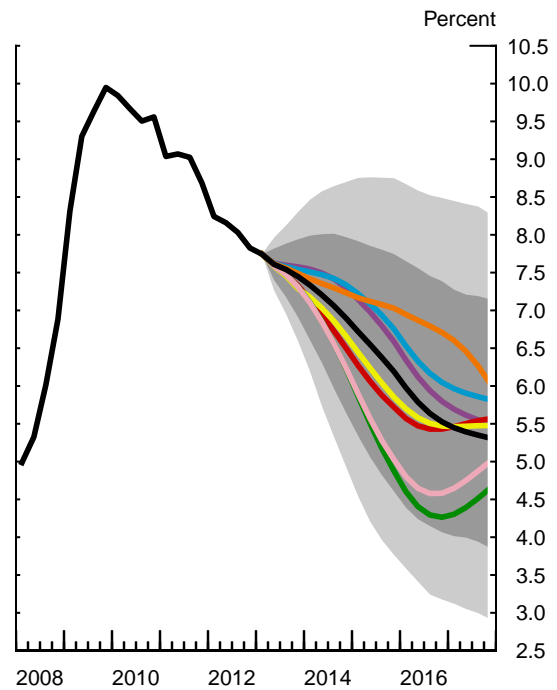
Confidence Intervals Based on FRB/US Stochastic Simulations

- | | | |
|----------------------------|--------------------------------|------------------------------|
| Extended Tealbook baseline | Boom with adverse side effects | Prolonged European recession |
| Weak recovery | Lower natural rate | Hard landing in China |
| Housing-led recovery | Supply-side damage | |

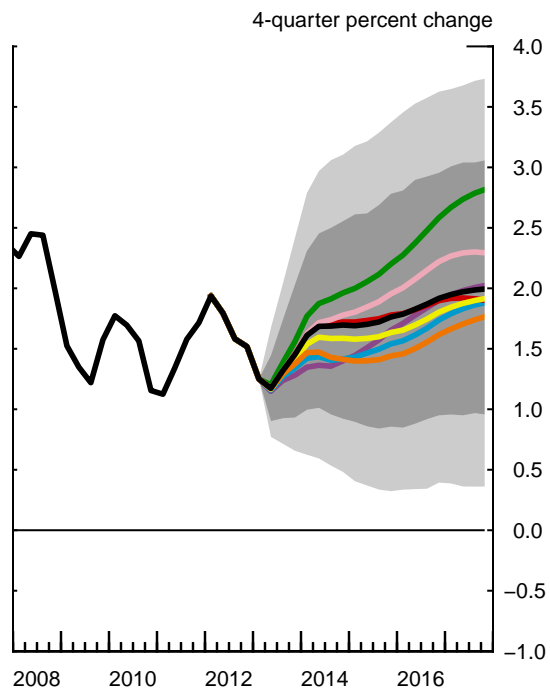
Real GDP



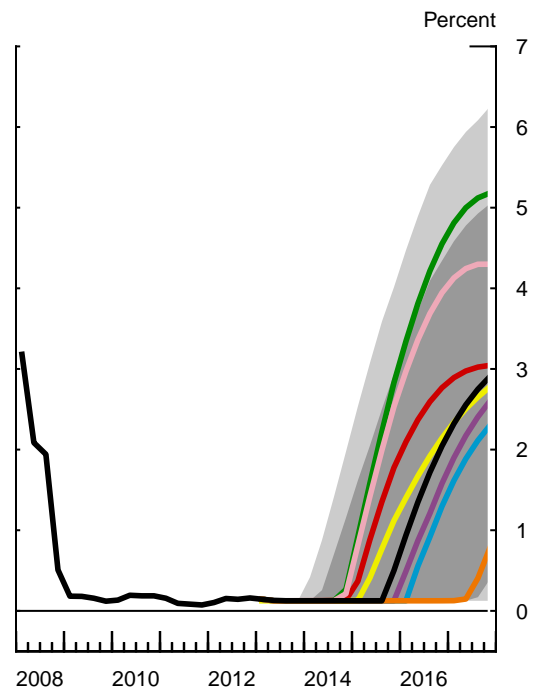
Unemployment Rate



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 | 2.6 | 3.2 | 3.5 | 2.9 | 2.0 |
| Confidence interval | | | | | |
| Tealbook forecast errors | 1.3–3.8 | 1.3–5.2 | ... | ... | ... |
| FRB/US stochastic simulations | 1.3–4.0 | 1.4–5.4 | 1.1–5.5 | .1–5.0 | -.4–4.9 |
| <i>Civilian unemployment rate</i> (percent, Q4) | | | | | |
| Projection | 7.4 | 6.9 | 6.2 | 5.5 | 5.3 |
| Confidence interval | | | | | |
| Tealbook forecast errors | 6.9–7.9 | 6.1–7.7 | ... | ... | ... |
| FRB/US stochastic simulations | 6.9–7.9 | 5.6–8.0 | 4.6–7.7 | 4.1–7.4 | 3.9–7.1 |
| <i>PCE prices, total</i> (percent change, Q4 to Q4) | | | | | |
| Projection | 1.0 | 1.5 | 1.6 | 1.8 | 2.0 |
| Confidence interval | | | | | |
| Tealbook forecast errors | .2–1.7 | .3–2.8 | ... | ... | ... |
| FRB/US stochastic simulations | .2–1.8 | .6–2.7 | .5–2.8 | .6–3.1 | .8–3.2 |
| <i>PCE prices excluding food and energy</i> (percent change, Q4 to Q4) | | | | | |
| Projection | 1.5 | 1.7 | 1.8 | 1.9 | 2.0 |
| Confidence interval | | | | | |
| Tealbook forecast errors | 1.0–1.9 | 1.0–2.4 | ... | ... | ... |
| FRB/US stochastic simulations | .9–2.0 | .9–2.6 | .9–2.8 | 1.0–3.0 | 1.0–3.1 |
| <i>Federal funds rate</i> (percent, Q4) | | | | | |
| Projection | .1 | .1 | .5 | 2.0 | 2.9 |
| Confidence interval | | | | | |
| FRB/US stochastic simulations | .1–.1 | .1–1.2 | .1–2.9 | .1–4.3 | .4–5.0 |

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 | 2.5 | 2.6 | 3.2 | 3.2 |
| FRB/US | 1.7 | 1.7 | 1.8 | 1.9 | 2.3 | 2.4 |
| EDO | 1.7 | 1.7 | 3.0 | 3.3 | 3.0 | 3.0 |
| Blue Chip | 1.6 | 1.7 | 2.3 | 2.4 | 2.8 | 2.9 |
| <i>Unemployment rate¹</i> | | | | | | |
| Staff | 7.8 | 7.8 | 7.5 | 7.4 | 7.1 | 6.9 |
| FRB/US | 7.8 | 7.8 | 7.8 | 7.8 | 7.7 | 7.7 |
| EDO | 7.8 | 7.8 | 7.5 | 7.4 | 7.3 | 7.2 |
| Blue Chip | 7.8 | 7.8 | 7.6 | 7.5 | 7.1 | 7.0 |
| <i>Total PCE prices</i> | | | | | | |
| Staff | 1.6 | 1.6 | 1.3 | 1.0 | 1.5 | 1.5 |
| FRB/US | 1.6 | 1.6 | 1.1 | .7 | 1.0 | 1.0 |
| EDO | 1.6 | 1.6 | 1.3 | 1.1 | 1.5 | 1.4 |
| Blue Chip ² | 1.9 | 1.9 | 1.9 | 2.0 | 2.2 | 2.2 |
| <i>Core PCE prices</i> | | | | | | |
| Staff | 1.5 | 1.5 | 1.6 | 1.5 | 1.7 | 1.7 |
| FRB/US | 1.5 | 1.5 | 1.4 | 1.3 | 1.2 | 1.2 |
| EDO | 1.5 | 1.5 | 1.4 | 1.2 | 1.5 | 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 | 1.0 | .9 | 1.9 | 1.8 |
| Blue Chip ³ | .1 | .1 | .1 | .1 | .3 | .3 |

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

1. Percent, average for Q4.

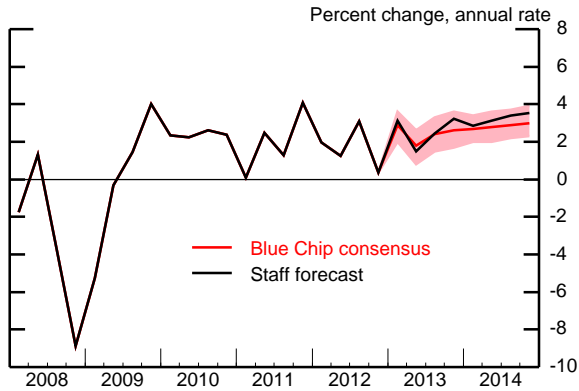
2. Consumer price index.

3. Treasury bill rate.

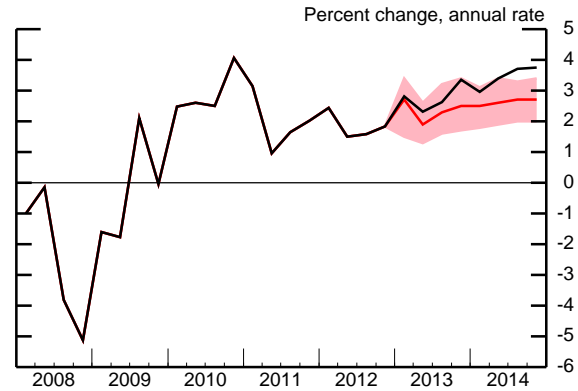
... Not applicable. The Blue Chip forecast typically extends about 2 years.

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

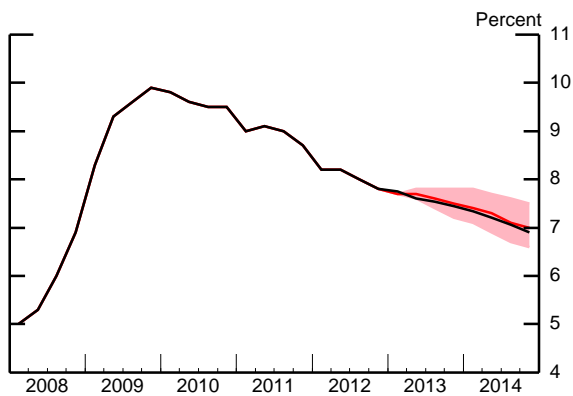
Real GDP



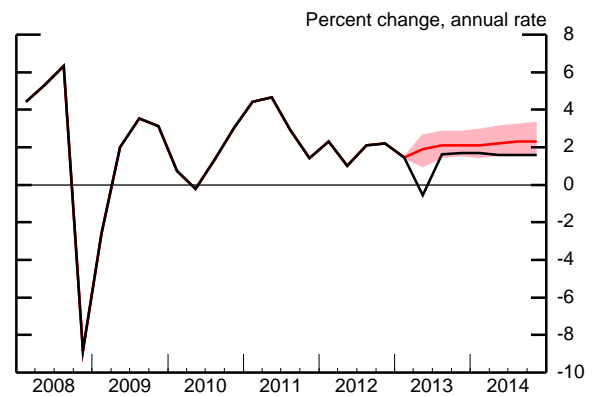
Real PCE



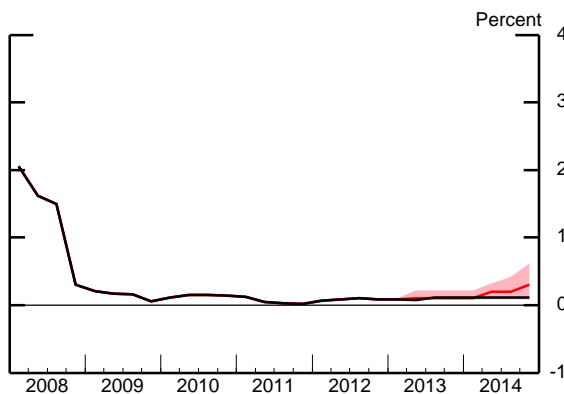
Unemployment Rate



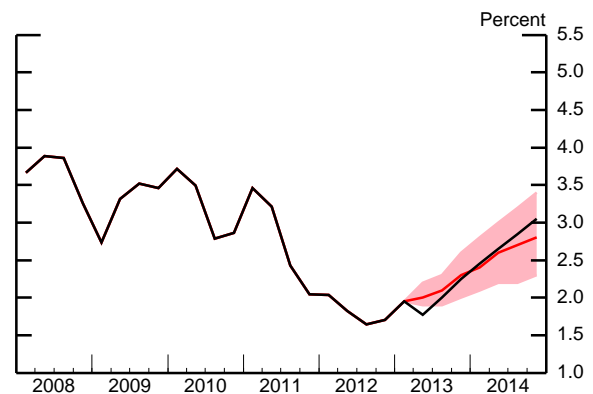
Consumer Price Index



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:Q1)

| 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 | .03 | .01 | .10 | .06 |
| Previous Tealbook | .05 | .03 | .11 | .06 |
| <i>Less than 1 percent</i> | | | | |
| Current Tealbook | .42 | .57 | .32 | .18 |
| Previous Tealbook | .30 | .43 | .30 | .17 |

Probability of Unemployment Events

(4 quarters ahead—2014:Q1)

| Probability that the unemployment rate will ... | Staff | FRB/US | EDO | BVAR |
|---|-------|--------|-----|------|
| <i>Increase by 1 percentage point</i> | | | | |
| Current Tealbook | .02 | .06 | .19 | .01 |
| Previous Tealbook | .02 | .06 | .19 | .02 |
| <i>Decrease by 1 percentage point</i> | | | | |
| Current Tealbook | .17 | .04 | .24 | .20 |
| Previous Tealbook | .15 | .04 | .25 | .16 |

Probability of Near-Term Recession

| Probability that real GDP declines in each of 2013:Q2 and 2013:Q3 | Staff | FRB/US | EDO | BVAR | Factor Model |
|---|-------|--------|-----|------|--------------|
| Current Tealbook | .03 | .06 | .04 | .03 | .16 |
| Previous Tealbook | .04 | .06 | .05 | .03 | .11 |

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.

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 | |
|---------------------------------|-------------|----------|----------|----------|-----------------|----------|----------------------|----------|--------------------------------|----------|
| | 03/13/13 | 04/24/13 | 03/13/13 | 04/24/13 | 03/13/13 | 04/24/13 | 03/13/13 | 04/24/13 | 03/13/13 | 04/24/13 |
| <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 | 1.5 | 1.3 | .6 | .4 | 1.5 | 1.6 | .9 | 1.0 | 7.8 | 7.8 |
| 2013:Q1 | 4.2 | 4.4 | 2.8 | 3.1 | 1.1 | .9 | 1.4 | 1.2 | 7.8 | 7.7 |
| Q2 | 3.3 | 2.2 | 1.8 | 1.5 | 1.1 | -.2 | 1.6 | 1.4 | 7.7 | 7.6 |
| Q3 | 4.2 | 4.2 | 2.7 | 2.4 | 1.6 | 1.6 | 1.7 | 1.7 | 7.6 | 7.5 |
| Q4 | 4.4 | 4.9 | 3.0 | 3.2 | 1.4 | 1.6 | 1.6 | 1.6 | 7.5 | 7.4 |
| 2014:Q1 | 4.2 | 4.7 | 2.6 | 2.9 | 1.6 | 1.6 | 1.8 | 1.8 | 7.4 | 7.3 |
| Q2 | 4.6 | 4.8 | 3.0 | 3.1 | 1.5 | 1.5 | 1.7 | 1.7 | 7.3 | 7.2 |
| Q3 | 5.0 | 5.0 | 3.5 | 3.4 | 1.5 | 1.5 | 1.7 | 1.7 | 7.2 | 7.1 |
| Q4 | 5.2 | 5.1 | 3.7 | 3.5 | 1.4 | 1.5 | 1.6 | 1.6 | 7.1 | 6.9 |
| <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 | 3.7 | 3.6 | 1.8 | 1.7 | 1.5 | 1.6 | 1.0 | 1.1 | -.4 | -.4 |
| 2013:Q2 | 3.8 | 3.3 | 2.3 | 2.3 | 1.1 | .3 | 1.5 | 1.3 | -.1 | -.2 |
| Q4 | 4.3 | 4.6 | 2.8 | 2.8 | 1.5 | 1.6 | 1.7 | 1.6 | -.2 | -.2 |
| 2014:Q2 | 4.4 | 4.7 | 2.8 | 3.0 | 1.5 | 1.6 | 1.7 | 1.7 | -.2 | -.2 |
| Q4 | 5.1 | 5.1 | 3.6 | 3.5 | 1.5 | 1.5 | 1.6 | 1.6 | -.2 | -.3 |
| <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 | 3.6 | 3.5 | 1.7 | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | -.9 | -.9 |
| 2013:Q4 | 4.0 | 3.9 | 2.5 | 2.6 | 1.3 | 1.0 | 1.6 | 1.5 | -.3 | -.4 |
| 2014:Q4 | 4.8 | 4.9 | 3.2 | 3.2 | 1.5 | 1.5 | 1.7 | 1.7 | -.4 | -.5 |
| 2015:Q4 | 5.2 | 5.2 | 3.6 | 3.5 | 1.6 | 1.6 | 1.7 | 1.8 | -.8 | -.7 |
| <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 | 4.1 | 4.0 | 2.2 | 2.2 | 1.8 | 1.8 | 1.7 | 1.7 | 8.1 | 8.1 |
| 2013 | 3.7 | 3.5 | 2.1 | 2.1 | 1.3 | 1.0 | 1.4 | 1.3 | 7.7 | 7.6 |
| 2014 | 4.4 | 4.6 | 2.9 | 2.9 | 1.5 | 1.5 | 1.7 | 1.7 | 7.3 | 7.1 |
| 2015 | 5.1 | 5.2 | 3.5 | 3.5 | 1.5 | 1.6 | 1.7 | 1.7 | 6.6 | 6.5 |

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 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Real GDP <i>Previous Tealbook</i> | 1.3 1.3 | 3.1 3.1 | .4 .6 | | 3.1 2.8 | 1.5 1.8 | 2.4 2.7 | 3.2 3.0 | | 2.9 2.6 | 3.1 3.0 | 3.4 3.5 | 3.5 3.7 | 1.7 1.7 | 2.6 2.5 | 3.2 3.2 | 3.5 3.6 |
| Final sales <i>Previous Tealbook</i> | 1.7 | 2.4 | 1.9 | | 1.8 | 2.0 | 2.0 | 3.2 | | 2.4 | 2.9 | 3.4 | 3.6 | 2.1 | 2.2 | 3.1 | 3.7 |
| Priv. dom. final purch. <i>Previous Tealbook</i> | 1.7 1.9 1.9 | 2.4 1.5 1.5 | 2.0 3.6 3.7 | | 1.7 2.8 2.4 | 2.3 3.1 3.4 | 2.4 3.7 3.7 | 2.8 4.2 3.6 | | 2.1 3.6 3.2 | 2.9 4.0 3.7 | 3.4 4.5 4.4 | 3.5 4.5 4.3 | 2.1 2.6 2.7 | 2.3 3.5 3.3 | 3.0 4.2 3.9 | 3.7 4.4 4.4 |
| Personal cons. expend. <i>Previous Tealbook</i> | 1.5 1.5 | 1.6 1.6 | 1.8 2.0 | | 2.8 2.1 | 2.3 2.5 | 2.6 2.5 | 3.3 2.7 | | 3.0 2.7 | 3.4 3.2 | 3.7 3.8 | 3.8 3.7 | 1.8 1.9 | 2.8 2.5 | 3.5 3.3 | 3.8 3.7 |
| Durables | -2 | 8.9 | 13.6 | | 7.1 | 4.6 | 7.9 | 8.8 | | 9.0 | 8.9 | 9.0 | 8.9 | 8.3 | 7.1 | 9.0 | 8.7 |
| Nondurables | .6 | 1.2 | .1 | | 2.3 | 2.3 | 1.7 | 2.5 | | 2.1 | 2.7 | 3.0 | 3.0 | .9 | 2.2 | 2.7 | 3.0 |
| Services | 2.1 | .6 | .6 | | 2.3 | 1.9 | 2.1 | 2.7 | | 2.2 | 2.7 | 3.0 | 3.1 | 1.1 | 2.2 | 2.8 | 3.2 |
| Residential investment <i>Previous Tealbook</i> | 8.5 8.5 | 13.5 13.5 | 17.6 17.8 | | 16.4 17.7 | 22.0 22.8 | 15.8 20.1 | 14.0 14.4 | | 16.3 13.4 | 17.0 14.4 | 17.3 14.4 | 15.3 13.4 | 14.9 15.0 | 17.0 18.7 | 16.5 13.9 | 13.6 14.0 |
| Business fixed invest. <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 |
| Equipment & software <i>Previous Tealbook</i> | 3.6 | -1.8 | 12.8 | | .6 | 5.0 | 7.6 | 6.7 | | 3.7 | 4.0 | 6.0 | 6.1 | 5.4 | 4.9 | 5.0 | 5.4 |
| Nonres. structures <i>Previous Tealbook</i> | 4.8 4.8 | -2.6 -2.6 | 11.8 11.4 | | 1.1 5.7 | 4.2 5.6 | 9.3 7.3 | 7.7 7.1 | | 4.8 4.3 | 5.1 4.3 | 7.1 6.9 | 7.3 7.0 | 4.7 4.7 | 5.5 6.4 | 6.1 5.6 | 6.0 6.3 |
| Net exports ² <i>Previous Tealbook</i> ² | .6 .6 | .0 .0 | 16.7 16.3 | | -3.8 -11.3 | 3.8 3.4 | 5.5 8.5 | 5.2 5.6 | | 2.7 2.4 | 3.5 3.3 | 3.9 3.7 | 4.0 3.9 | 7.3 7.2 | 2.6 1.2 | 3.5 3.3 | 3.1 3.1 |
| Exports | -407 | -395 | -385 | | -389 | -380 | -387 | -392 | | -399 | -399 | -401 | -398 | -401 | -387 | -399 | -390 |
| Imports | -407 | -395 | -385 | | -387 | -376 | -383 | -387 | | -390 | -388 | -389 | -387 | -401 | -383 | -389 | -377 |
| Gov't. cons. & invest. <i>Previous Tealbook</i> | 5.3 2.8 | 1.9 -6 | -2.8 -4.2 | | 3.0 3.3 | 7.2 4.2 | 2.7 3.6 | 4.5 4.6 | | 4.8 5.2 | 4.6 3.9 | 5.6 4.8 | 6.2 4.7 | 2.1 .2 | 4.3 3.9 | 5.3 4.7 | 6.8 5.0 |
| Federal | -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 |
| Defense | -7 | 3.9 | -6.8 | | -1.1 | -4.6 | -2.3 | -8 | | -2.4 | -1.8 | -1.7 | -1.3 | -1.7 | -2.2 | -1.8 | -5 |
| Nondefense | -2 | 9.5 | -14.8 | | -4.9 | -10.8 | -11.9 | -1.4 | | -5.5 | -6.6 | -5.9 | -4.8 | -2.8 | -7.4 | -5.7 | -3.9 |
| State & local | -2 | 12.9 | -22.1 | | -5.7 | -10.1 | -12.6 | -2.9 | | -7.0 | -7.4 | -6.4 | -5.6 | -5.0 | -7.9 | -6.6 | -4.2 |
| Change in bus. inventories ² <i>Previous Tealbook</i> ² | -4 -1.0 | 3.0 .3 | 1.7 -1.5 | | -3.3 -.6 | -11.9 -2 | -10.7 -.3 | 1.5 -.3 | | -2.7 .0 | -5.1 .0 | -5.1 .0 | -3.5 .1 | 1.5 -1.1 | -6.3 -.4 | -4.1 .0 | -3.5 1.1 |
| Nonfarm ² | 41 | 60 | 13 | | 61 | 44 | 58 | 59 | | 73 | 80 | 81 | 79 | 43 | 56 | 78 | 70 |
| Farm ² | 41 | 60 | 18 | | 58 | 43 | 48 | 54 | | 67 | 73 | 74 | 82 | 44 | 51 | 74 | 73 |
| | 53 | 88 | 35 | | 54 | 37 | 51 | 52 | | 68 | 75 | 76 | 74 | 60 | 49 | 73 | 68 |
| | -8 | -19 | -15 | | 7 | 7 | 7 | 7 | | 5 | 5 | 5 | 5 | -11 | 7 | 5 | 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 | 2.4 | 2.2 | -3.3 | -1 | 2.4 | 2.0 | 1.7 | 2.6 | 3.2 | 3.5 |
| <i>Previous Tealbook</i> | 2.4 | 2.2 | -3.3 | -1 | 2.4 | 2.0 | 1.7 | 2.5 | 3.2 | 3.6 |
| Final sales | 2.8 | 2.4 | -2.6 | -5 | 1.7 | 1.7 | 2.1 | 2.2 | 3.1 | 3.7 |
| <i>Previous Tealbook</i> | 2.8 | 2.4 | -2.6 | -5 | 1.7 | 1.7 | 2.1 | 2.3 | 3.0 | 3.7 |
| Priv. dom. final purch. | 2.4 | 1.2 | -4.5 | -2.8 | 3.2 | 2.9 | 2.6 | 3.5 | 4.2 | 4.4 |
| <i>Previous Tealbook</i> | 2.4 | 1.2 | -4.5 | -2.8 | 3.2 | 2.9 | 2.7 | 3.3 | 3.9 | 4.4 |
| Personal cons. expend. | 3.2 | 1.7 | -2.5 | -3 | 2.9 | 1.9 | 1.8 | 2.8 | 3.5 | 3.8 |
| <i>Previous Tealbook</i> | 3.2 | 1.7 | -2.5 | -3 | 2.9 | 1.9 | 1.9 | 2.5 | 3.3 | 3.7 |
| Durables | 7.0 | 4.6 | -13.0 | 3.0 | 9.5 | 5.9 | 8.3 | 7.1 | 9.0 | 8.7 |
| Nondurables | 2.9 | .8 | -3.1 | .4 | 3.0 | 1.4 | .9 | 2.2 | 2.7 | 3.0 |
| Services | 2.6 | 1.4 | -.5 | -1.1 | 1.9 | 1.5 | 1.1 | 2.2 | 2.8 | 3.2 |
| Residential investment | -15.7 | -20.7 | -24.4 | -13.3 | -5.7 | 3.9 | 14.9 | 17.0 | 16.5 | 13.6 |
| <i>Previous Tealbook</i> | -15.7 | -20.7 | -24.4 | -13.3 | -5.7 | 3.9 | 15.0 | 18.7 | 13.9 | 14.0 |
| Business fixed invest. | 7.8 | 7.9 | -9.4 | -15.7 | 7.7 | 10.2 | 5.4 | 4.7 | 5.3 | 5.2 |
| <i>Previous Tealbook</i> | 7.8 | 7.9 | -9.4 | -15.7 | 7.7 | 10.2 | 5.4 | 4.9 | 5.0 | 5.4 |
| Equipment & software | 6.0 | 3.9 | -13.6 | -7.8 | 11.9 | 11.4 | 4.7 | 5.5 | 6.1 | 6.0 |
| <i>Previous Tealbook</i> | 6.0 | 3.9 | -13.6 | -7.8 | 11.9 | 11.4 | 4.7 | 6.4 | 5.6 | 6.3 |
| Nontres. structures | 13.0 | 17.3 | -1.2 | -29.4 | -1.8 | 6.9 | 7.3 | 2.6 | 3.5 | 3.1 |
| <i>Previous Tealbook</i> | 13.0 | 17.3 | -1.2 | -29.4 | -1.8 | 6.9 | 7.2 | 1.2 | 3.3 | 3.1 |
| Net exports¹ | -729 | -649 | -495 | -355 | -420 | -408 | -401 | -387 | -399 | -390 |
| <i>Previous Tealbook¹</i> | -729 | -649 | -495 | -355 | -420 | -408 | -401 | -383 | -389 | -377 |
| Exports | 10.2 | 10.1 | -2.5 | .3 | 8.8 | 4.3 | 2.1 | 4.3 | 5.3 | 6.8 |
| Imports | 4.1 | .8 | -5.9 | -6.1 | 10.9 | 3.5 | .2 | 3.9 | 4.7 | 5.0 |
| Gov't. cons. & invest. | 1.5 | 1.9 | 2.7 | 4.0 | -1.3 | -3.3 | -1.8 | -3.1 | -2.1 | -.7 |
| <i>Previous Tealbook</i> | 1.5 | 1.9 | 2.7 | 4.0 | -1.3 | -3.3 | -1.7 | -2.2 | -1.8 | -.5 |
| Federal | 2.2 | 3.1 | 8.8 | 5.1 | 2.3 | -4.2 | -2.8 | -7.4 | -5.7 | -3.9 |
| Defense | 4.4 | 2.6 | 9.8 | 4.1 | 1.0 | -4.0 | -5.0 | -7.9 | -6.6 | -4.2 |
| Nondefense | -2.3 | 4.2 | 6.8 | 7.2 | 5.2 | -4.6 | 1.5 | -6.3 | -4.1 | -3.5 |
| State & local | 1.2 | 1.2 | -.9 | 3.3 | -3.6 | -2.7 | -1.1 | -.4 | .0 | 1.1 |
| Change in bus. inventories¹ | 59 | 28 | -36 | -139 | 51 | 31 | 43 | 56 | 78 | 70 |
| <i>Previous Tealbook¹</i> | 59 | 28 | -36 | -139 | 51 | 31 | 44 | 51 | 74 | 73 |
| Nonfarm¹ | 63 | 29 | -38 | -138 | 58 | 36 | 60 | 49 | 73 | 68 |
| Farm¹ | -4 | -1 | 1 | -1 | -6 | -4 | -11 | 7 | 5 | 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 .6 | 3.1 2.8 | 1.5 1.8 | 2.4 2.7 | 3.2 3.0 | 2.9 2.6 | 3.1 3.0 | 3.4 3.5 | 3.5 3.7 | 1.7 1.7 | 2.6 2.5 | 3.2 3.2 | 3.5 3.6 |
| Final sales <i>Previous Tealbook</i> | 1.7 | 2.4 | 1.9 | 1.8 | 2.0 | 2.0 | 3.2 | 2.4 | 2.9 | 3.4 | 3.6 | 2.1 | 2.2 | 3.1 | 3.7 |
| Priv. dom. final purch. <i>Previous Tealbook</i> | 1.7 | 2.4 | 2.0 | 1.7 | 2.2 | 2.4 | 2.8 | 2.1 | 2.9 | 3.4 | 3.5 | 2.1 | 2.3 | 3.0 | 3.7 |
| | 1.6 | 1.3 | 3.0 | 2.4 | 2.6 | 3.1 | 3.5 | 3.0 | 3.4 | 3.8 | 3.8 | 2.2 | 2.9 | 3.5 | 3.7 |
| | 1.6 | 1.3 | 3.0 | 2.0 | 2.8 | 3.1 | 3.0 | 2.7 | 3.1 | 3.7 | 3.7 | 2.2 | 2.8 | 3.3 | 3.7 |
| Personal cons. expend. <i>Previous Tealbook</i> | 1.1 | 1.1 | 1.3 | 2.0 | 1.6 | 1.9 | 2.4 | 2.1 | 2.4 | 2.6 | 2.7 | 1.3 | 2.0 | 2.4 | 2.7 |
| Durables | 1.1 | 1.1 | 1.4 | 1.5 | 1.8 | 1.8 | 1.9 | 1.9 | 2.3 | 2.7 | 2.6 | 1.3 | 1.8 | 2.4 | 2.6 |
| Nondurables | .0 | .7 | 1.0 | .5 | .4 | .6 | .7 | .7 | .7 | .7 | .7 | .6 | .6 | .7 | .7 |
| Services | 1.1 | 2.2 | .0 | .4 | .4 | .3 | .4 | .3 | .4 | .5 | .5 | 1.1 | .4 | .4 | .5 |
| | 1.0 | .3 | .3 | 1.1 | .9 | 1.0 | 1.3 | 1.1 | 1.3 | 1.4 | 1.5 | .5 | 1.1 | 1.3 | 1.5 |
| Residential investment <i>Previous Tealbook</i> | .2 | .3 | .4 | .4 | .5 | .4 | .4 | .5 | .5 | .5 | .5 | .3 | .4 | .5 | .5 |
| | .2 | .3 | .4 | .4 | .6 | .5 | .4 | .4 | .4 | .4 | .4 | .3 | .5 | .4 | .5 |
| Business fixed invest. <i>Previous Tealbook</i> | .4 | -.2 | 1.3 | .0 | .4 | .8 | .7 | .4 | .5 | .7 | .7 | .6 | .5 | .6 | .6 |
| Equipment & software | .4 | -.2 | 1.2 | .1 | .5 | .8 | .7 | .4 | .4 | .6 | .6 | .5 | .5 | .5 | .6 |
| <i>Previous Tealbook</i> | .4 | -.2 | .8 | .4 | .3 | .7 | .6 | .4 | .4 | .5 | .5 | .3 | .4 | .5 | .5 |
| | .4 | -.2 | .8 | .4 | .4 | .5 | .5 | .3 | .3 | .5 | .5 | .3 | .5 | .4 | .5 |
| Nonres. structures <i>Previous Tealbook</i> | .0 | .0 | .5 | -.1 | .1 | .2 | .2 | .1 | .1 | .1 | .1 | .2 | .1 | .1 | .1 |
| | .0 | .0 | .4 | -.4 | .1 | .2 | .2 | .1 | .1 | .1 | .1 | .2 | .0 | .1 | .1 |
| Net exports <i>Previous Tealbook</i> | .2 | .4 | .3 | -.1 | .3 | -.2 | -.2 | -.2 | .0 | .0 | .1 | .3 | -.1 | -.1 | .1 |
| Exports | .2 | .4 | .3 | .0 | .3 | -.2 | -.1 | -.1 | .0 | .0 | .0 | .3 | .0 | .0 | .1 |
| Imports | .7 | .3 | -.4 | .4 | 1.0 | .4 | .6 | .7 | .6 | .8 | .8 | .3 | .6 | .7 | .9 |
| | -.5 | .1 | .7 | -.6 | -.7 | -.6 | -.8 | -.9 | -.7 | -.8 | -.8 | .0 | -.7 | -.8 | -.9 |
| Gov't. cons. & invest. <i>Previous Tealbook</i> | -.1 | .8 | -1.4 | -.4 | -.9 | -.9 | -.1 | -.4 | -.4 | -.4 | -.3 | -.4 | -.6 | -.4 | -.1 |
| Federal | -.1 | .8 | -1.4 | -.2 | -.9 | -.4 | -.1 | -.4 | -.3 | -.3 | -.2 | -.3 | -.4 | -.3 | -.1 |
| Defense | .0 | .7 | -1.2 | -.4 | -.8 | -.9 | -.1 | -.4 | -.4 | -.4 | -.3 | -.2 | -.6 | -.4 | -.2 |
| Nondefense | .0 | .6 | -1.3 | -.3 | -.5 | -.6 | -.1 | -.3 | -.3 | -.3 | -.2 | -.3 | -.4 | -.3 | -.2 |
| State & local | .0 | .1 | .0 | -.1 | -.3 | -.3 | .0 | -.1 | -.1 | -.1 | -.1 | .0 | -.2 | -.1 | -.1 |
| | -.1 | .0 | -.2 | -.1 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | -.1 | .0 | .0 | .1 |
| Change in bus. inventories <i>Previous Tealbook</i> | -.5 | .7 | -1.5 | 1.4 | -.5 | .5 | .0 | .4 | .2 | .0 | .0 | -.4 | .3 | .2 | -.2 |
| Nonfarm | -.5 | .7 | -1.4 | 1.1 | -.5 | .2 | .2 | .4 | .2 | .1 | .2 | -.4 | .3 | .2 | -.2 |
| Farm | -.3 | 1.1 | -1.7 | .6 | -.6 | .5 | .0 | .5 | .2 | .0 | .0 | -.3 | .1 | .2 | -.1 |
| | -.2 | -.4 | .1 | .7 | .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 .9 | 1.3 1.4 | .7 1.5 | 1.7 1.5 | 1.7 1.4 | 1.8 1.6 | 1.7 1.5 | 1.6 1.5 | 1.5 1.5 | 1.8 1.8 | 1.3 1.5 | 1.6 1.5 | 1.6 1.6 |
| PCE chain-wt. price index <i>Previous Tealbook</i> | .7 .7 | 1.6 1.6 | 1.6 1.5 | .9 1.1 | -2 1.1 | 1.6 1.6 | 1.6 1.4 | 1.6 1.6 | 1.5 1.5 | 1.5 1.5 | 1.4 1.4 | 1.6 1.6 | 1.0 1.3 | 1.5 1.5 | 1.6 1.6 |
| Energy <i>Previous Tealbook</i> | -13.6 -13.6 | 10.5 10.5 | 9.9 9.9 | -3.8 -4.7 | -23.4 -7.5 | .6 -1.2 | 2.6 -1.4 | .5 -1.3 | -4 -1.3 | -7 -1.2 | -7 -1.0 | 3.2 3.2 | -6.6 -3.7 | -3 -1.2 | -7 -8 |
| Food <i>Previous Tealbook</i> | .7 .7 | .6 .6 | 1.8 1.8 | 1.3 2.0 | 1.0 2.6 | 1.3 1.9 | .9 1.0 | .8 .9 | .9 1.0 | 1.1 1.1 | 1.2 1.2 | 1.1 1.1 | 1.1 1.9 | 1.0 1.1 | 1.5 1.5 |
| Ex. food & energy <i>Previous Tealbook</i> | 1.7 1.7 | 1.1 1.1 | 1.0 .9 | 1.2 1.4 | 1.4 1.6 | 1.7 1.7 | 1.6 1.6 | 1.8 1.8 | 1.7 1.7 | 1.7 1.7 | 1.6 1.6 | 1.5 1.5 | 1.5 1.6 | 1.7 1.7 | 1.8 1.7 |
| Ex. food & energy, market based <i>Previous Tealbook</i> | 1.8 1.8 | 1.3 1.3 | .9 .9 | 1.6 1.6 | 1.2 1.4 | 1.6 1.6 | 1.4 1.4 | 1.7 1.7 | 1.6 1.6 | 1.6 1.6 | 1.5 1.5 | 1.6 1.6 | 1.5 1.5 | 1.6 1.6 | 1.7 1.6 |
| CPI <i>Previous Tealbook</i> | 1.0 1.0 | 2.1 2.1 | 2.2 2.2 | 1.4 1.4 | -.6 1.1 | 1.6 1.5 | 1.7 1.4 | 1.7 1.6 | 1.6 1.5 | 1.6 1.5 | 1.6 1.5 | 1.9 1.9 | 1.0 1.4 | 1.6 1.5 | 1.7 1.6 |
| Ex. food & energy <i>Previous Tealbook</i> | 2.4 2.4 | 1.6 1.6 | 1.7 1.7 | 2.1 2.1 | 1.9 1.8 | 1.7 1.7 | 1.7 1.7 | 1.9 1.9 | 1.9 1.9 | 1.9 1.9 | 1.8 1.8 | 1.9 1.9 | 1.8 1.8 | 1.9 1.9 | 2.0 1.9 |
| ECL, hourly compensation ² <i>Previous Tealbook</i> ² | 2.1 2.1 | 1.7 1.7 | 2.1 2.1 | 2.2 2.2 | 2.4 2.4 | 2.5 2.5 | 2.5 2.5 | 2.7 2.7 | 2.7 2.7 | 2.7 2.7 | 2.8 2.7 | 1.9 1.9 | 2.4 2.4 | 2.7 2.7 | 3.0 2.9 |
| Nonfarm business sector Output per hour <i>Previous Tealbook</i> | 1.7 1.7 | 3.1 3.1 | -1.5 -1.4 | 1.8 .9 | -.5 -1 | 1.1 1.4 | 1.2 1.4 | 1.4 1.2 | 1.6 1.7 | 1.6 2.0 | 1.6 2.1 | .7 .7 | .9 .9 | 1.6 1.8 | 1.6 1.7 |
| Compensation per hour <i>Previous Tealbook</i> | 1.2 1.2 | 1.2 1.2 | 2.6 2.6 | .7 .7 | 2.9 2.9 | 2.8 2.8 | 2.9 2.9 | 2.9 2.9 | 2.9 2.9 | 3.0 2.9 | 3.0 2.9 | 2.6 2.6 | 2.4 2.4 | 2.9 2.9 | 3.4 3.3 |
| Unit labor costs <i>Previous Tealbook</i> | -.5 -.5 | -1.9 -1.9 | 4.6 4.6 | -1.1 -2 | 3.4 3.1 | 1.7 1.4 | 1.8 1.5 | 1.4 1.6 | 1.2 1.1 | 1.3 .9 | 1.3 .8 | 2.1 2.1 | 1.4 1.5 | 1.3 1.1 | 1.8 1.6 |
| 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 | .7 1.8 | -.1 .4 | .3 .7 | .9 1.2 | 1.2 1.3 | 1.6 1.5 | 1.9 1.8 | 1.6 1.5 | .1 .1 | .5 1.0 | 1.6 1.5 | 1.6 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 | 2.6 | 2.1 | .5 | 1.8 | 2.0 | 1.8 | 1.3 | 1.6 | 1.6 |
| PCE chain-wt. price index <i>Previous Tealbook</i> | 2.9 | 2.6 | 2.1 | .5 | 1.8 | 2.0 | 1.8 | 1.5 | 1.5 | 1.6 |
| Energy <i>Previous Tealbook</i> | 1.9 | 3.5 | 1.7 | 1.4 | 1.5 | 2.5 | 1.6 | 1.0 | 1.5 | 1.6 |
| Food <i>Previous Tealbook</i> | 1.9 | 3.5 | 1.7 | 1.4 | 1.5 | 2.5 | 1.6 | 1.3 | 1.5 | 1.6 |
| Ex. food & energy <i>Previous Tealbook</i> | -3.7 | 19.3 | -8.8 | 2.7 | 6.5 | 11.9 | 3.2 | -6.6 | -3 | -7 |
| Ex. food & energy, market based <i>Previous Tealbook</i> | -3.7 | 19.3 | -8.8 | 2.7 | 6.5 | 11.9 | 3.2 | -3.7 | -1.2 | -8 |
| | 1.7 | 4.7 | 7.0 | -1.7 | 1.3 | 5.1 | 1.1 | 1.1 | 1.0 | 1.5 |
| | 1.7 | 4.7 | 7.0 | -1.7 | 1.3 | 5.1 | 1.1 | 1.9 | 1.1 | 1.5 |
| | 2.3 | 2.4 | 2.0 | 1.6 | 1.2 | 1.7 | 1.5 | 1.5 | 1.7 | 1.8 |
| | 2.3 | 2.4 | 2.0 | 1.6 | 1.2 | 1.7 | 1.5 | 1.6 | 1.7 | 1.7 |
| | 2.2 | 2.1 | 2.2 | 1.7 | .7 | 1.9 | 1.6 | 1.5 | 1.6 | 1.7 |
| | 2.2 | 2.1 | 2.2 | 1.7 | .7 | 1.9 | 1.6 | 1.5 | 1.6 | 1.6 |
| CPI <i>Previous Tealbook</i> | 2.0 | 4.0 | 1.6 | 1.5 | 1.2 | 3.3 | 1.9 | 1.0 | 1.6 | 1.7 |
| Ex. food & energy <i>Previous Tealbook</i> | 2.0 | 4.0 | 1.6 | 1.5 | 1.2 | 3.3 | 1.9 | 1.4 | 1.5 | 1.6 |
| | 2.7 | 2.3 | 2.0 | 1.7 | .6 | 2.2 | 1.9 | 1.8 | 1.9 | 2.0 |
| | 2.7 | 2.3 | 2.0 | 1.7 | .6 | 2.2 | 1.9 | 1.8 | 1.9 | 1.9 |
| ECL, hourly compensation ¹ <i>Previous Tealbook</i> ¹ | 3.2 | 3.0 | 2.4 | 1.2 | 2.1 | 2.2 | 1.9 | 2.4 | 2.7 | 3.0 |
| | 3.2 | 3.0 | 2.4 | 1.2 | 2.1 | 2.2 | 1.9 | 2.4 | 2.7 | 2.9 |
| Nonfarm business sector Output per hour <i>Previous Tealbook</i> | .8 | 2.4 | -1.2 | 5.6 | 1.9 | .4 | .7 | .9 | 1.6 | 1.6 |
| | .8 | 2.4 | -1.2 | 5.6 | 1.9 | .4 | .7 | .9 | 1.8 | 1.7 |
| Compensation per hour <i>Previous Tealbook</i> | 4.5 | 3.6 | 2.5 | 1.5 | 1.6 | 1.7 | 2.6 | 2.4 | 2.9 | 3.4 |
| Unit labor costs <i>Previous Tealbook</i> | 4.5 | 3.6 | 2.5 | 1.5 | 1.6 | 1.7 | 2.6 | 2.4 | 2.9 | 3.3 |
| | 3.6 | 1.1 | 3.7 | -3.9 | -2 | 1.3 | 2.1 | 1.4 | 1.3 | 1.8 |
| | 3.6 | 1.1 | 3.7 | -3.9 | -2 | 1.3 | 2.1 | 1.5 | 1.1 | 1.6 |
| Core goods imports chain-wt. price index ² <i>Previous Tealbook</i> ² | 2.5 | 2.9 | 3.7 | -1.7 | 2.7 | 4.3 | .1 | .5 | 1.6 | 1.6 |
| | 2.5 | 2.9 | 3.7 | -1.7 | 2.7 | 4.3 | .1 | 1.0 | 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 | 2.0 | 2.5 | 3.2 |
| Unemployment rate ³ | 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 |
| <i>Previous Tealbook³</i> | 8.2 | 8.0 | 7.8 | | 7.8 | 7.7 | 7.6 | 7.5 | 7.4 | 7.3 | 7.2 | 7.1 | 7.8 | 7.5 | 7.1 | 6.3 |
| Natural rate of unemployment ³ | 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 |
| <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 | -3.6 | -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 |
| <i>Previous Tealbook⁴</i> | -3.9 | -3.6 | -3.9 | | -3.7 | -3.7 | -3.5 | -3.3 | -3.2 | -2.9 | -2.6 | -2.2 | -3.9 | -3.3 | -2.2 | -8 |
| Industrial production ⁵ | 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 |
| <i>Previous Tealbook⁵</i> | 2.4 | .5 | 2.7 | | 5.5 | 6.1 | 4.7 | 3.8 | 3.6 | 3.7 | 3.9 | 4.1 | 2.8 | 5.0 | 3.8 | 4.3 |
| Manufacturing industr. prod. ⁵ | 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 |
| <i>Previous Tealbook⁵</i> | .8 | -8 | 2.3 | | 6.9 | 4.6 | 3.4 | 3.2 | 3.6 | 3.5 | 3.7 | 4.1 | 2.9 | 4.5 | 3.7 | 4.7 |
| Capacity utilization rate - mfg. ³ | 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 |
| <i>Previous Tealbook³</i> | 77.5 | 77.0 | 77.2 | | 78.1 | 78.6 | 78.9 | 79.1 | 79.3 | 79.5 | 79.7 | 80.1 | 77.2 | 79.1 | 80.1 | 81.6 |
| Housing starts ⁶ | .7 | .8 | .9 | | 1.0 | 1.0 | 1.1 | 1.2 | 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 | 15.3 | 15.4 | 15.5 | 15.8 | 15.9 | 16.1 | 16.3 | 14.4 | 15.4 | 16.0 | 16.6 |
| <i>Income and saving</i> | | | | | | | | | | | | | | | | |
| Nominal GDP ⁵ | 2.8 | 5.9 | 1.3 | | 4.4 | 2.2 | 4.2 | 4.9 | 4.7 | 4.8 | 5.0 | 5.1 | 3.5 | 3.9 | 4.9 | 5.2 |
| Real disposable pers. income ⁵ | 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 |
| <i>Previous Tealbook⁵</i> | 2.2 | .7 | 6.2 | | -7.2 | 3.8 | 1.9 | 3.0 | 3.7 | 3.1 | 3.3 | 3.8 | 3.2 | .3 | 3.5 | 3.1 |
| Personal saving rate ³ | 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 |
| <i>Previous Tealbook³</i> | 3.8 | 3.6 | 4.7 | | 2.3 | 2.6 | 2.5 | 2.5 | 2.7 | 2.7 | 2.6 | 2.6 | 4.7 | 2.5 | 2.6 | 2.0 |
| Corporate profits ⁷ | 4.7 | 9.9 | 9.6 | | 10.5 | -.7 | 4.3 | 2.0 | 1.0 | 3.2 | 5.8 | 5.6 | 3.1 | 3.9 | 3.9 | 2.3 |
| Profit share of GNP ³ | 12.1 | 12.3 | 12.5 | | 12.7 | 12.6 | 12.6 | 12.5 | 12.4 | 12.4 | 12.4 | 12.5 | 12.5 | 12.5 | 12.5 | 12.1 |
| Net federal saving ⁸ | -1,115 | -1,087 | -1,067 | | -801 | -778 | -737 | -717 | -621 | -611 | -606 | -612 | -1,082 | -758 | -612 | -521 |
| Net state & local saving ⁸ | -124 | -140 | -125 | | -116 | -104 | -96 | -87 | -91 | -69 | -62 | -53 | -129 | -101 | -69 | -24 |
| Gross national saving rate ³ | 12.3 | 12.3 | 13.0 | | 13.8 | 14.3 | 14.5 | 14.6 | 14.7 | 14.8 | 14.9 | 15.0 | 13.0 | 14.6 | 15.0 | 15.4 |
| Net national saving rate ³ | -.4 | -.3 | .4 | | 1.5 | 2.0 | 2.2 | 2.2 | 2.4 | 2.5 | 2.6 | 2.7 | .4 | 2.2 | 2.7 | 3.1 |

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 | 2.0 | 2.5 | 3.2 |
| Unemployment rate ² | 4.5 | 4.8 | 6.9 | 9.9 | 9.5 | 8.7 | 7.8 | 7.4 | 6.9 | 6.2 |
| <i>Previous Tealbook²</i> | 4.5 | 4.8 | 6.9 | 9.9 | 9.5 | 8.7 | 7.8 | 7.5 | 7.1 | 6.3 |
| Natural rate of unemployment ² | 5.0 | 5.0 | 5.3 | 6.0 | 6.0 | 6.0 | 5.9 | 5.9 | 5.8 | 5.8 |
| <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 | -3.5 | -3.7 | -3.1 | -1.9 | -.6 |
| <i>Previous Tealbook³</i> | .8 | .8 | -4.3 | -5.3 | -4.2 | -3.8 | -3.9 | -3.3 | -2.2 | -.8 |
| Industrial production ⁴ | 2.1 | 2.7 | -8.9 | -5.5 | 6.2 | 3.3 | 2.7 | 4.5 | 4.4 | 4.0 |
| <i>Previous Tealbook⁴</i> | 2.1 | 2.5 | -9.0 | -5.7 | 6.3 | 4.1 | 2.8 | 5.0 | 3.8 | 4.3 |
| Manufacturing industr. prod. ⁴ | 1.7 | 2.9 | -11.6 | -6.1 | 6.4 | 3.3 | 2.8 | 4.0 | 4.4 | 4.3 |
| <i>Previous Tealbook⁴</i> | 1.8 | 2.8 | -11.8 | -6.5 | 6.5 | 4.2 | 2.9 | 4.5 | 3.7 | 4.7 |
| Capacity utilization rate - mfg. ² | 78.1 | 78.4 | 69.9 | 67.2 | 72.9 | 74.8 | 75.7 | 77.3 | 79.0 | 80.6 |
| <i>Previous Tealbook²</i> | 78.2 | 78.2 | 69.7 | 67.0 | 73.1 | 76.1 | 77.2 | 79.1 | 80.1 | 81.6 |
| 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 | 15.4 | 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 | 3.9 | 4.9 | 5.2 |
| Real disposable pers. income ⁴ | 4.6 | 1.6 | 1.0 | -3.0 | 3.5 | .3 | 3.2 | .7 | 3.4 | 3.2 |
| <i>Previous Tealbook⁴</i> | 4.6 | 1.6 | 1.0 | -3.0 | 3.5 | .3 | 3.2 | .3 | 3.5 | 3.1 |
| Personal saving rate ² | 2.8 | 2.5 | 6.2 | 3.8 | 4.8 | 3.4 | 4.7 | 2.6 | 2.6 | 2.0 |
| <i>Previous Tealbook²</i> | 2.8 | 2.5 | 6.2 | 3.8 | 4.8 | 3.4 | 4.7 | 2.5 | 2.6 | 2.0 |
| Corporate profits ⁶ | 3.7 | -8.1 | -33.5 | 57.0 | 17.3 | 9.2 | 3.1 | 3.9 | 3.9 | 2.3 |
| Profit share of GNP ² | 11.6 | 10.1 | 6.8 | 10.7 | 12.0 | 12.5 | 12.5 | 12.5 | 12.5 | 12.1 |
| Net federal saving ⁷ | -204 | -245 | -613 | -1,229 | -1,308 | -1,237 | -1,082 | -758 | -612 | -521 |
| Net state & local saving ⁷ | 51 | 12 | -72 | -113 | -90 | -102 | -129 | -101 | -69 | -24 |
| Gross national saving rate ² | 16.5 | 13.9 | 12.6 | 11.0 | 12.1 | 12.4 | 13.0 | 14.6 | 15.0 | 15.4 |
| Net national saving rate ² | 4.4 | 1.7 | -.6 | -2.3 | -.6 | -.3 | .4 | 2.2 | 2.7 | 3.1 |

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 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Unified budget | | | | | | | | | | | | | | | | |
| Receipts ¹ | 2,450 | 2,763 | 3,005 | 3,252 | 509 | 760 | 625 | 616 | 581 | 859 | 707 | 678 | 622 | 938 | 767 | 743 |
| Outlays ¹ | 3,537 | 3,498 | 3,528 | 3,660 | 966 | 885 | 810 | 909 | 888 | 867 | 834 | 898 | 903 | 874 | 852 | 937 |
| Surplus/deficit ¹ | -1,087 | -735 | -522 | -408 | -457 | -125 | -185 | -293 | -307 | -9 | -126 | -221 | -280 | 64 | -85 | -194 |
| <i>Previous Tealbook</i> | | | | | | | | | | | | | | | | |
| On-budget | -1,089 | -757 | -566 | -476 | -457 | -125 | -185 | -293 | -333 | -6 | -124 | -228 | -293 | 52 | -97 | -209 |
| Off-budget | -1,149 | -763 | -535 | -409 | -458 | -187 | -160 | -311 | -303 | -57 | -93 | -243 | -260 | 18 | -50 | -213 |
| | 62 | 28 | 13 | 1 | 1 | 62 | -25 | 17 | -4 | 48 | -33 | 22 | -20 | 46 | -35 | 19 |
| Means of financing | | | | | | | | | | | | | | | | |
| Borrowing | 1,152 | 824 | 627 | 528 | 398 | 198 | 230 | 314 | 336 | -8 | 181 | 236 | 310 | -34 | 115 | 224 |
| Cash decrease | -27 | 1 | 15 | 0 | 42 | -48 | 6 | -7 | 14 | -15 | 10 | 15 | 0 | 0 | 0 | 0 |
| Other ² | -38 | -90 | -120 | -120 | 17 | -25 | -51 | -13 | -43 | 31 | -65 | -30 | -30 | -30 | -30 | -30 |
| Cash operating balance, end of period | 85 | 85 | 70 | 70 | 43 | 91 | 85 | 93 | 79 | 95 | 85 | 70 | 70 | 70 | 70 | 70 |
| NIPA federal sector | | | | | | | | | | | | | | | | |
| Receipts | 2,633 | 2,908 | 3,172 | 3,400 | 2,665 | 2,659 | 2,673 | 2,705 | 2,943 | 2,975 | 3,007 | 3,044 | 3,176 | 3,213 | 3,255 | 3,297 |
| Expenditures | 3,744 | 3,753 | 3,811 | 3,954 | 3,724 | 3,775 | 3,761 | 3,772 | 3,744 | 3,753 | 3,744 | 3,762 | 3,797 | 3,824 | 3,861 | 3,909 |
| Consumption expenditures | 1,062 | 1,018 | 969 | 934 | 1,056 | 1,055 | 1,086 | 1,042 | 1,037 | 1,012 | 982 | 985 | 976 | 964 | 953 | 946 |
| Defense | 709 | 668 | 633 | 607 | 703 | 701 | 728 | 682 | 679 | 665 | 646 | 645 | 637 | 628 | 622 | 616 |
| Nondefense | 353 | 350 | 336 | 327 | 352 | 354 | 358 | 360 | 358 | 347 | 337 | 339 | 339 | 335 | 332 | 330 |
| Other spending | 2,682 | 2,735 | 2,841 | 3,020 | 2,668 | 2,720 | 2,674 | 2,730 | 2,707 | 2,742 | 2,762 | 2,777 | 2,821 | 2,860 | 2,907 | 2,963 |
| Current account surplus | -1,111 | -846 | -639 | -554 | -1,059 | -1,115 | -1,087 | -1,067 | -801 | -778 | -737 | -717 | -621 | -611 | -606 | -612 |
| Gross investment | 156 | 150 | 135 | 125 | 152 | 156 | 155 | 155 | 153 | 147 | 143 | 140 | 137 | 134 | 131 | 129 |
| Gross saving less gross investment ³ | -1,126 | -850 | -625 | -525 | -1,071 | -1,130 | -1,100 | -1,079 | -809 | -780 | -733 | -710 | -609 | -595 | -586 | -588 |
| Fiscal indicators⁴ | | | | | | | | | | | | | | | | |
| High-employment (HEB) surplus/deficit | -932.7 | -652.4 | -469.1 | -437.1 | -879.3 | -937.1 | -921.6 | -886.3 | -609.5 | -580.7 | -533.2 | -526.0 | -448.4 | -447.0 | -454.9 | -475.2 |
| Change in HEB, percent of potential GDP | -1.0 | -1.9 | -1.2 | -3 | -8 | .3 | -2 | -3 | -1.7 | -2 | -3 | -1 | -5 | .0 | .0 | .1 |
| Fiscal impetus (FI), percent of GDP | -7 | -1.3 | -8 | -4 | -7 | -6 | .3 | -1.5 | -1.6 | -1.4 | -1.5 | -6 | -1.0 | -9 | -6 | -4 |
| <i>Previous Tealbook</i> | -7 | -1.1 | -7 | -3 | -7 | -6 | .3 | -1.5 | -1.4 | -1.3 | -1.0 | -6 | -1.0 | -8 | -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 surplus 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 | | | | Projected-----2014 | | | |
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Real GDP ¹ | | | | | | | | | | | | |
| Total foreign | 3.2 | 1.9 | 1.7 | 2.1 | 2.3 | 2.7 | 2.9 | 3.2 | 3.3 | 3.1 | 3.4 | 3.5 |
| <i>Previous Tealbook</i> | 3.2 | 1.9 | 1.8 | 2.1 | 2.7 | 2.9 | 3.1 | 3.2 | 3.4 | 3.1 | 3.4 | 3.5 |
| Advanced foreign economies | 1.3 | .6 | .3 | -.4 | .8 | 1.2 | 1.5 | 1.7 | 2.0 | 1.5 | 2.0 | 2.2 |
| Canada | 1.2 | 1.9 | .7 | .6 | 1.5 | 1.8 | 2.0 | 2.1 | 2.2 | 2.4 | 2.6 | 2.7 |
| Japan | 6.1 | -.9 | -3.7 | .2 | 2.1 | 2.7 | 2.8 | 2.9 | 3.7 | -2.3 | 1.0 | 1.1 |
| United Kingdom | -.3 | -1.5 | 3.8 | -1.2 | .3 | .8 | 1.4 | 1.8 | 2.0 | 2.2 | 2.4 | 2.5 |
| Euro area | -.3 | -.6 | -.3 | -2.3 | -.8 | -.2 | .3 | .8 | 1.0 | 1.2 | 1.4 | 1.6 |
| Germany | 2.0 | 1.1 | .9 | -2.3 | .4 | .9 | 1.1 | 1.4 | 1.6 | 1.7 | 1.9 | 2.0 |
| Emerging market economies | 5.2 | 3.3 | 3.2 | 4.8 | 3.8 | 4.2 | 4.4 | 4.6 | 4.7 | 4.7 | 4.8 | 4.8 |
| Asia | 5.9 | 3.9 | 4.7 | 6.1 | 4.4 | 5.0 | 5.3 | 5.6 | 5.7 | 5.7 | 5.7 | 5.8 |
| Korea | 3.3 | 1.2 | -.2 | 1.1 | 2.9 | 3.4 | 3.7 | 3.9 | 4.0 | 4.1 | 4.2 | 4.3 |
| China | 7.0 | 6.5 | 8.4 | 9.5 | 6.5 | 7.3 | 7.8 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| Latin America | 4.5 | 2.9 | 1.7 | 3.5 | 3.2 | 3.4 | 3.6 | 3.7 | 3.7 | 3.8 | 3.8 | 3.9 |
| Mexico | 5.3 | 3.1 | 1.5 | 3.1 | 3.2 | 3.6 | 3.8 | 3.8 | 3.8 | 3.9 | 3.9 | 3.9 |
| Brazil | .6 | 1.3 | 1.5 | 2.2 | 2.7 | 3.3 | 3.7 | 3.7 | 3.8 | 3.8 | 4.0 | 4.0 |
| Consumer prices ² | | | | | | | | | | | | |
| Total foreign | 2.6 | 2.1 | 2.3 | 2.3 | 2.4 | 2.0 | 2.1 | 2.3 | 2.4 | 3.0 | 2.5 | 2.5 |
| <i>Previous Tealbook</i> | 2.5 | 2.1 | 2.4 | 2.3 | 2.2 | 2.2 | 2.2 | 2.3 | 2.4 | 3.0 | 2.5 | 2.5 |
| Advanced foreign economies | 1.8 | .9 | .8 | 1.6 | .9 | 1.1 | 1.1 | 1.3 | 1.3 | 2.7 | 1.4 | 1.5 |
| Canada | 2.0 | .2 | .1 | 1.4 | 1.8 | 1.3 | 1.2 | 1.5 | 1.7 | 1.7 | 1.8 | 1.8 |
| Japan | 1.2 | -.7 | -1.5 | .0 | .1 | -.2 | .3 | .4 | .5 | 8.7 | .7 | .9 |
| United Kingdom | 1.6 | 1.4 | 3.2 | 4.4 | 2.0 | 2.2 | 1.8 | 2.9 | 1.8 | 1.7 | 1.7 | 2.9 |
| Euro area | 2.3 | 2.3 | 2.1 | 2.4 | .5 | 1.3 | 1.2 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 |
| Germany | 2.2 | 1.6 | 2.0 | 2.2 | 1.4 | 2.1 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.9 |
| Emerging market economies | 3.1 | 3.0 | 3.4 | 2.8 | 3.6 | 2.7 | 2.9 | 3.1 | 3.2 | 3.3 | 3.3 | 3.3 |
| Asia | 2.4 | 3.2 | 2.4 | 2.4 | 3.5 | 2.2 | 2.8 | 2.9 | 3.0 | 3.1 | 3.2 | 3.2 |
| Korea | 1.6 | 1.2 | 1.0 | 3.1 | .4 | 1.9 | 2.8 | 2.9 | 3.0 | 3.0 | 3.0 | 3.1 |
| China | 2.0 | 2.5 | 1.7 | 2.0 | 3.5 | 1.8 | 2.7 | 2.8 | 2.9 | 3.0 | 3.0 | 3.0 |
| Latin America | 5.1 | 2.6 | 5.7 | 3.7 | 3.8 | 3.8 | 3.2 | 3.5 | 3.7 | 3.7 | 3.7 | 3.7 |
| Mexico | 5.2 | 2.4 | 5.7 | 3.1 | 3.5 | 3.6 | 2.9 | 3.2 | 3.4 | 3.4 | 3.4 | 3.4 |
| Brazil | 4.0 | 3.8 | 7.3 | 7.5 | 6.9 | 5.4 | 5.5 | 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 GDP ¹ | | | | | | | | | |
| Total foreign | 4.3 | -7 | .8 | 4.6 | 3.0 | 2.2 | 2.8 | 3.3 | 3.5 |
| <i>Previous Tealbook</i> | 4.3 | -7 | .8 | 4.6 | 2.9 | 2.3 | 3.0 | 3.4 | 3.5 |
| Advanced foreign economies | 2.4 | -1.6 | -1.5 | 3.0 | 1.4 | .4 | 1.3 | 1.9 | 2.3 |
| Canada | 2.3 | .0 | -1.6 | 3.6 | 2.4 | 1.1 | 1.8 | 2.5 | 2.7 |
| Japan | 1.6 | -4.8 | -6 | 3.5 | -1 | .4 | 2.6 | .9 | 1.0 |
| United Kingdom | 3.8 | -4.6 | -9 | 1.5 | 1.1 | .2 | 1.1 | 2.3 | 2.6 |
| Euro area | 2.4 | -2.1 | -2.3 | 2.2 | .6 | -9 | .0 | 1.3 | 2.0 |
| Germany | 2.4 | -1.9 | -2.2 | 4.2 | 1.9 | .4 | .9 | 1.8 | 2.4 |
| Emerging market economies | 6.7 | .4 | 3.6 | 6.2 | 4.5 | 4.1 | 4.2 | 4.7 | 4.8 |
| Asia | 8.9 | .8 | 8.1 | 7.8 | 5.0 | 5.1 | 5.1 | 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 | 7.4 | 8.0 | 7.8 |
| Latin America | 4.4 | -2 | -8 | 4.5 | 3.9 | 3.1 | 3.5 | 3.8 | 3.8 |
| Mexico | 3.5 | -1.1 | -2.2 | 4.1 | 4.0 | 3.3 | 3.6 | 3.9 | 3.8 |
| Brazil | 6.6 | .9 | 5.3 | 5.4 | 1.4 | 1.4 | 3.3 | 3.9 | 4.0 |
| Consumer prices ² | | | | | | | | | |
| Total foreign | 3.7 | 3.3 | 1.2 | 3.2 | 3.4 | 2.3 | 2.2 | 2.6 | 2.7 |
| <i>Previous Tealbook</i> | 3.7 | 3.3 | 1.2 | 3.2 | 3.4 | 2.3 | 2.2 | 2.6 | 2.6 |
| Advanced foreign economies | 2.2 | 2.0 | .2 | 1.7 | 2.2 | 1.3 | 1.1 | 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 | .2 | 2.6 | 2.5 |
| United Kingdom | 2.1 | 3.9 | 2.2 | 3.4 | 4.6 | 2.7 | 2.2 | 2.0 | 2.0 |
| Euro area | 2.9 | 2.3 | .4 | 2.0 | 2.9 | 2.3 | 1.1 | 1.3 | 1.7 |
| Germany | 3.1 | 1.7 | .3 | 1.6 | 2.6 | 2.0 | 1.7 | 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 | 2.9 | 3.1 | 3.2 |
| Korea | 3.4 | 4.5 | 2.4 | 3.2 | 4.0 | 1.7 | 2.0 | 3.0 | 3.2 |
| China | 6.7 | 2.5 | .6 | 4.6 | 4.6 | 2.1 | 2.7 | 3.0 | 3.0 |
| Latin America | 4.2 | 6.6 | 3.9 | 4.4 | 4.0 | 4.3 | 3.6 | 3.7 | 3.7 |
| Mexico | 3.8 | 6.2 | 4.0 | 4.3 | 3.5 | 4.1 | 3.3 | 3.4 | 3.4 |
| Brazil | 4.3 | 6.3 | 4.3 | 5.6 | 6.7 | 5.6 | 5.8 | 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 | -535.1 | -473.4 | -449.8 | -441.7 | -474.6 | -442.1 | -463.7 | -503.4 | -532.9 | -524.1 | -546.4 | -571.7 |
| <i>Previous Tealbook</i> | -535.4 | -473.4 | -431.4 | -442.2 | -469.2 | -435.3 | -461.6 | -497.0 | -522.1 | -505.3 | -521.2 | -540.1 |
| Current account as percent of GDP | -3.5 | -3.0 | -2.8 | -2.8 | -3.0 | -2.7 | -2.8 | -3.1 | -3.2 | -3.1 | -3.2 | -3.3 |
| <i>Previous Tealbook</i> | -3.5 | -3.0 | -2.7 | -2.8 | -2.9 | -2.7 | -2.8 | -3.0 | -3.1 | -3.0 | -3.1 | -3.1 |
| Net goods & services | -594.4 | -550.6 | -499.4 | -513.7 | -523.2 | -470.5 | -476.5 | -500.8 | -518.4 | -498.1 | -501.4 | -515.2 |
| Investment income, net | 197.8 | 216.0 | 194.1 | 217.1 | 195.4 | 171.3 | 159.1 | 145.6 | 132.3 | 117.0 | 101.1 | 91.8 |
| Direct, net | 283.4 | 291.8 | 271.2 | 307.9 | 274.1 | 247.8 | 233.6 | 228.1 | 222.8 | 216.1 | 210.6 | 212.5 |
| Portfolio, net | -85.6 | -75.8 | -77.1 | -90.8 | -78.7 | -76.5 | -74.5 | -82.5 | -90.5 | -99.2 | -109.4 | -120.7 |
| Other income and transfers, net | -138.5 | -138.8 | -144.5 | -145.1 | -146.8 | -142.9 | -146.2 | -148.3 | -146.8 | -142.9 | -146.2 | -148.3 |

Annual Data

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|-----------------------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | -----Projected----- | | | | | | | | |
| | Billions of dollars | | | | | | | | |
| U.S. current account balance | -710.3 | -677.1 | -381.9 | -442.0 | -465.9 | -475.0 | -470.9 | -543.8 | -576.7 |
| Previous Tealbook | -710.3 | -677.1 | -381.9 | -442.0 | -465.9 | -470.6 | -465.8 | -522.2 | -536.0 |
| Current account as percent of GDP | -5.1 | -4.7 | -2.7 | -3.0 | -3.1 | -3.0 | -2.9 | -3.2 | -3.2 |
| Previous Tealbook | -5.1 | -4.7 | -2.7 | -3.0 | -3.1 | -3.0 | -2.9 | -3.1 | -3.0 |
| Net goods & services | -696.7 | -698.3 | -379.2 | -494.7 | -559.9 | -539.5 | -492.7 | -508.3 | -508.6 |
| Investment income, net | 111.1 | 157.8 | 127.6 | 191.0 | 235.0 | 206.2 | 167.9 | 110.5 | 76.9 |
| Direct, net | 244.6 | 284.3 | 253.0 | 297.9 | 321.7 | 288.6 | 245.9 | 215.5 | 227.7 |
| Portfolio, net | -133.5 | -126.5 | -125.4 | -106.9 | -86.7 | -82.3 | -78.0 | -105.0 | -150.7 |
| Other income and transfers, net | -124.7 | -136.6 | -130.3 | -138.2 | -141.1 | -141.7 | -146.1 | -146.1 | -145.0 |

Class I FOMC – Restricted Controlled (FR)

Report to the FOMC on Economic Conditions and Monetary Policy



Book B Monetary Policy: Strategies and Alternatives

April 25, 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

Strategies

Near-Term Prescriptions of Selected Policy Rules

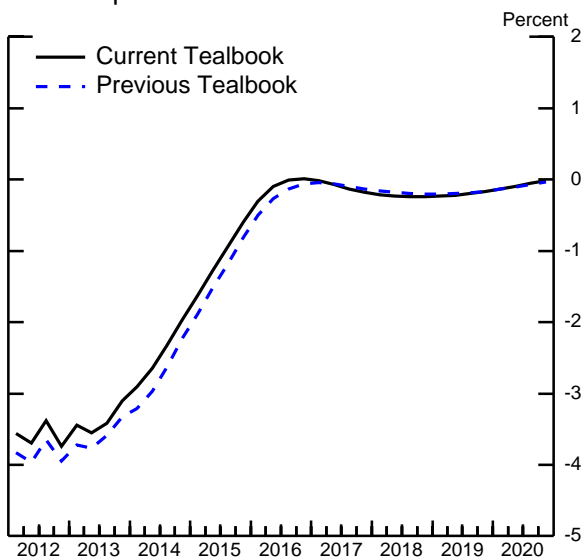
| | Constrained Policy | | Unconstrained Policy | |
|-------------------------------|--------------------|---------------|----------------------|---------------|
| | <u>2013Q2</u> | <u>2013Q3</u> | <u>2013Q2</u> | <u>2013Q3</u> |
| Taylor (1993) rule | 1.00 | 1.28 | 1.00 | 1.28 |
| <i>Previous Tealbook</i> | 1.03 | 1.35 | 1.03 | 1.35 |
| Taylor (1999) rule | 0.13 | 0.13 | -0.74 | -0.40 |
| <i>Previous Tealbook</i> | 0.13 | 0.13 | -0.82 | -0.41 |
| Inertial Taylor (1999) rule | 0.13 | 0.13 | 0.01 | -0.05 |
| <i>Previous Tealbook</i> | 0.13 | 0.13 | 0.00 | -0.07 |
| Outcome-based rule | 0.13 | 0.13 | -0.08 | -0.16 |
| <i>Previous Tealbook</i> | 0.13 | 0.13 | -0.06 | -0.10 |
| First-difference rule | 0.21 | 0.49 | 0.21 | 0.49 |
| <i>Previous Tealbook</i> | 0.22 | 0.46 | 0.22 | 0.46 |
| Nominal income targeting rule | 0.13 | 0.13 | -0.57 | -1.05 |
| <i>Previous Tealbook</i> | 0.13 | 0.13 | -0.55 | -1.01 |

Memo: Equilibrium and Actual Real Federal Funds Rate

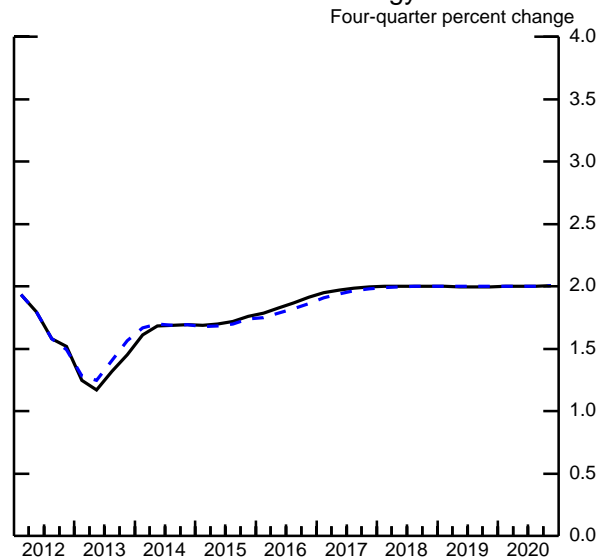
| | Current Tealbook | Current Quarter Estimate as of Previous Tealbook | Previous Tealbook |
|---|---------------------|---|----------------------|
| Tealbook-consistent FRB/US r^* estimate | -1.54 | -1.67 | -1.76 |
| Actual real federal funds rate | -1.12 | | -1.36 |

Key Elements of the Staff Projection

GDP Gap



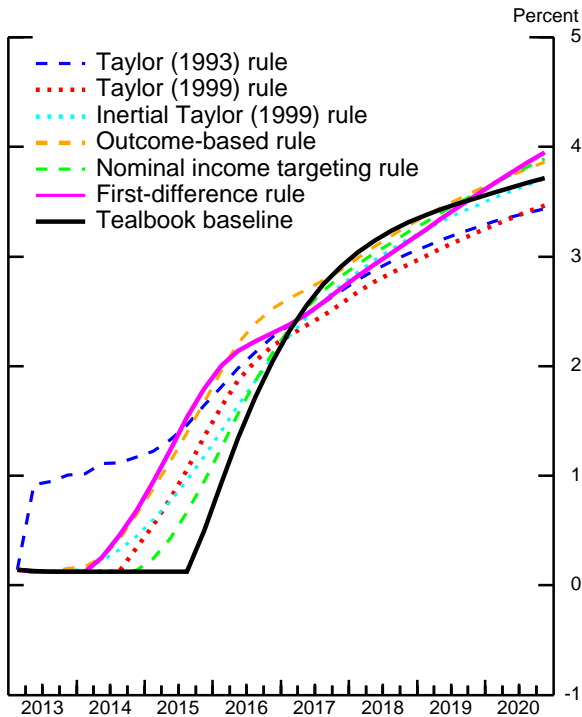
PCE Prices ex. Food and Energy



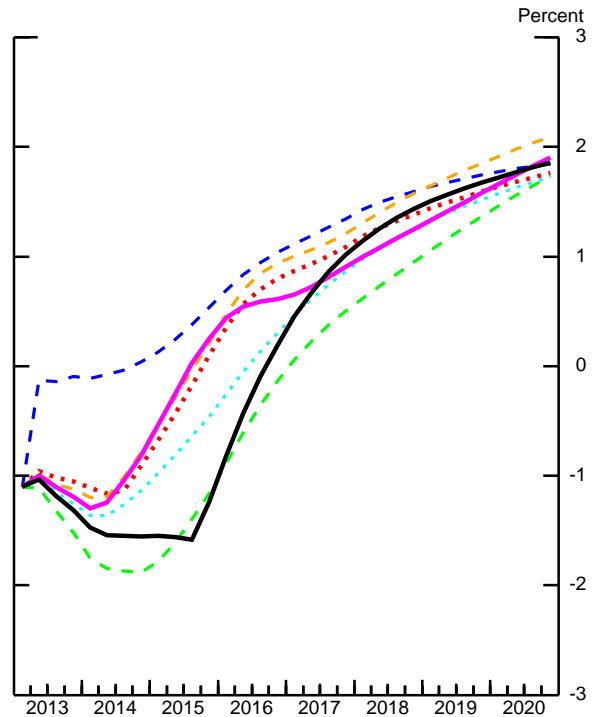
Estimates of r^* may change at the beginning of a quarter even when the staff outlook is unchanged because the twelve-quarter horizon covered by the calculation has rolled forward one quarter. Therefore, whenever the Tealbook is published early in the quarter, the memo includes a third column labeled "Current Quarter Estimate as of Previous Tealbook."

Policy Rule Simulations without Thresholds

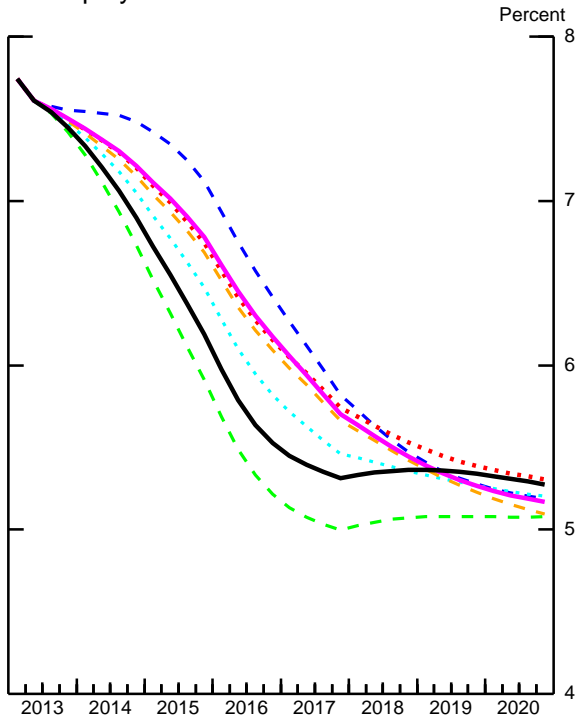
Nominal Federal Funds Rate



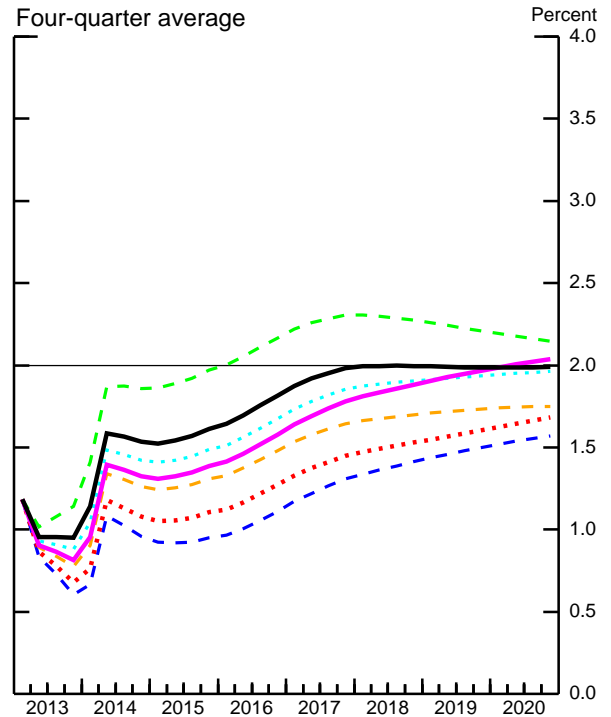
Real Federal Funds Rate



Unemployment Rate



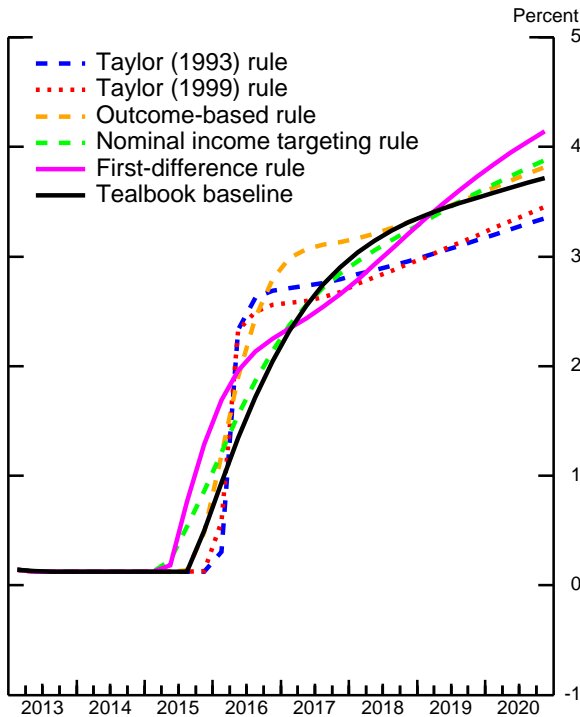
PCE Inflation
Four-quarter average



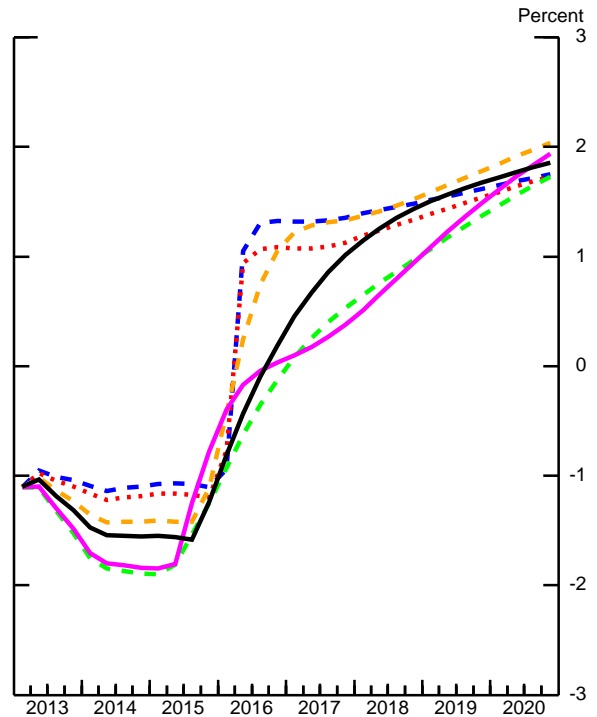
Note: The policy rule simulations in this exhibit are based on rules that respond to core inflation. This choice of rule specification was made in light of the tendency for current and near-term core inflation rates to outperform headline inflation rates as predictors of the medium-term behavior of headline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

Policy Rule Simulations with Thresholds

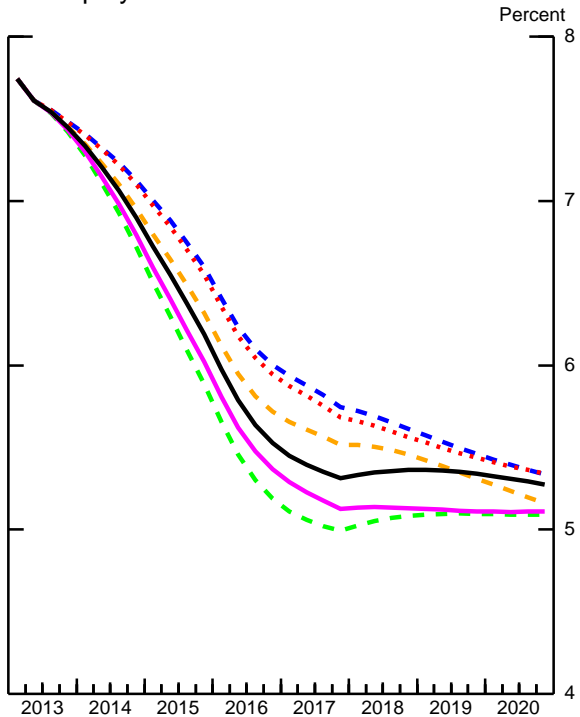
Nominal Federal Funds Rate



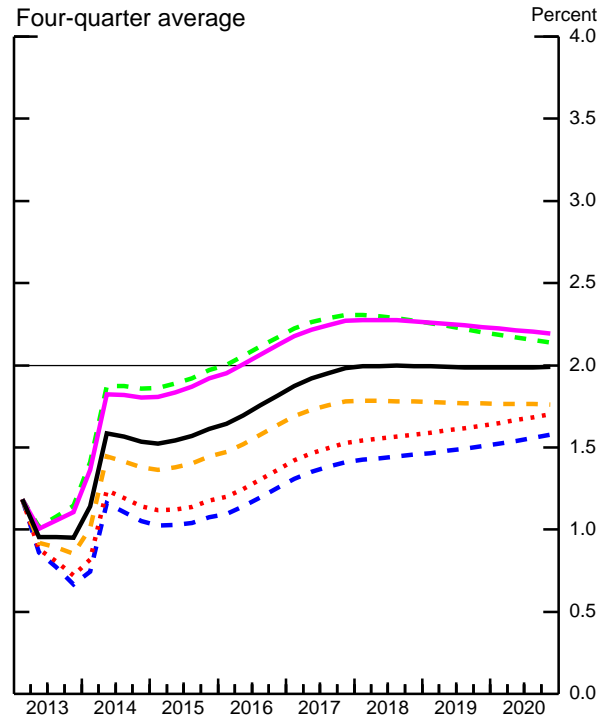
Real Federal Funds Rate



Unemployment Rate



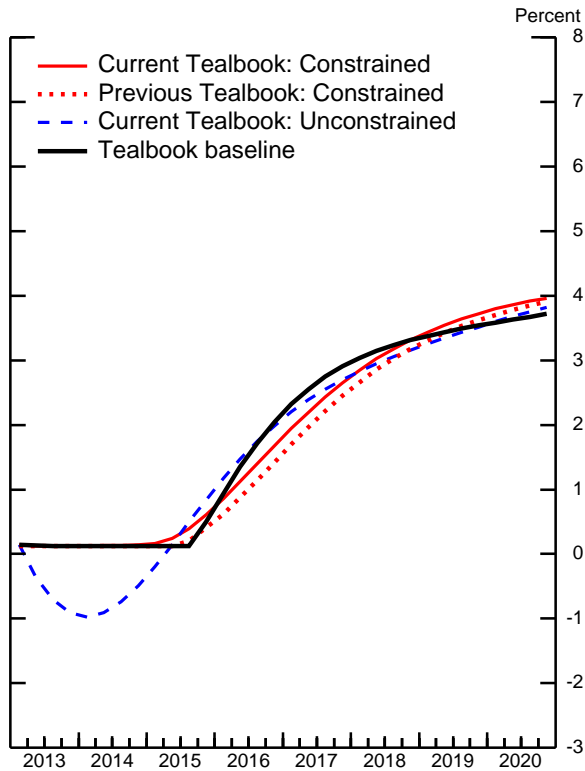
PCE Inflation
Four-quarter average



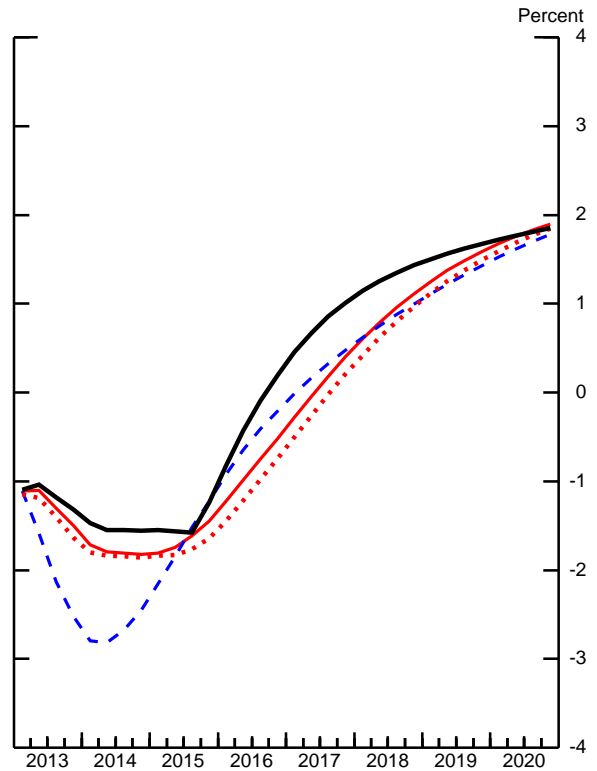
Note: The policy rule simulations in this exhibit are based on rules that respond to core inflation. This choice of rule specification was made in light of the tendency for current and near-term core inflation rates to outperform headline inflation rates as predictors of the medium-term behavior of headline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

Constrained vs. Unconstrained Optimal Control Policy

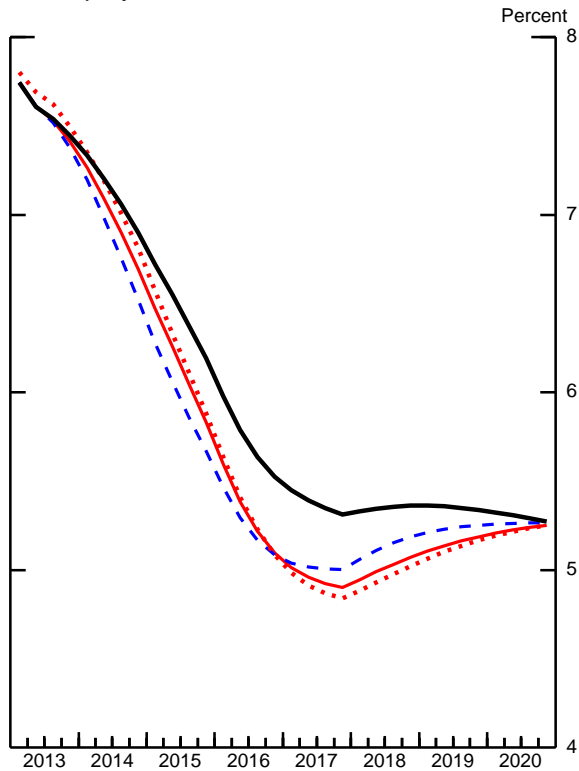
Nominal Federal Funds Rate



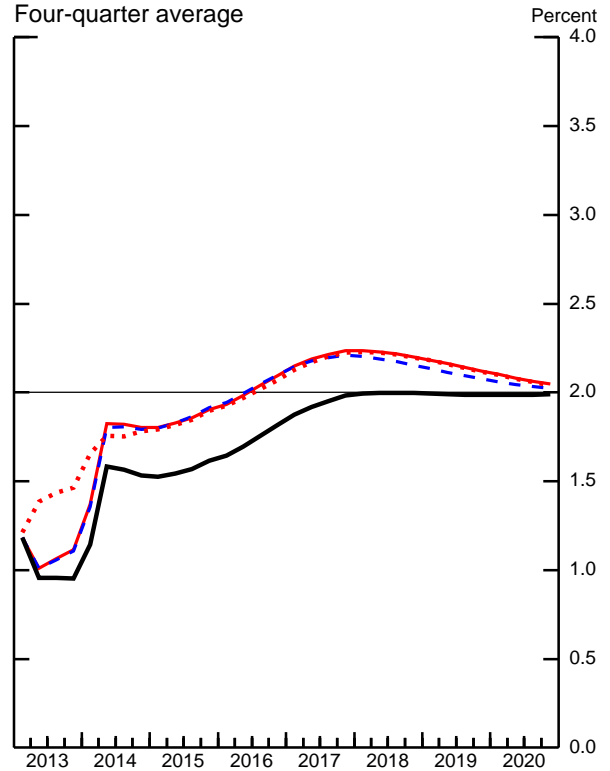
Real Federal Funds Rate



Unemployment Rate

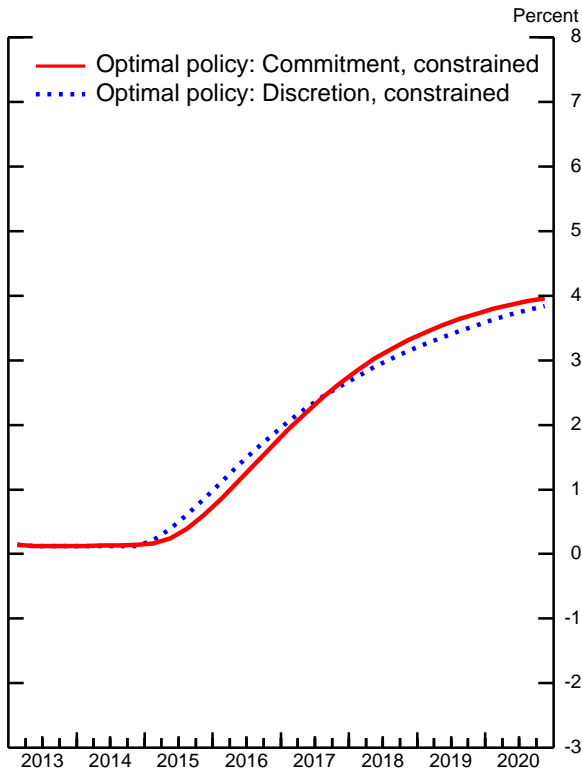


PCE Inflation
Four-quarter average

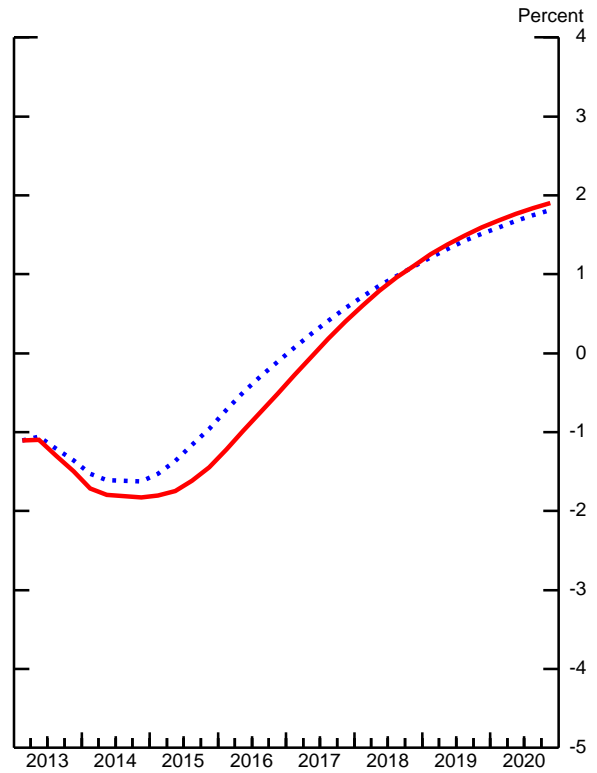


Optimal Control Policy: Commitment vs. Discretion

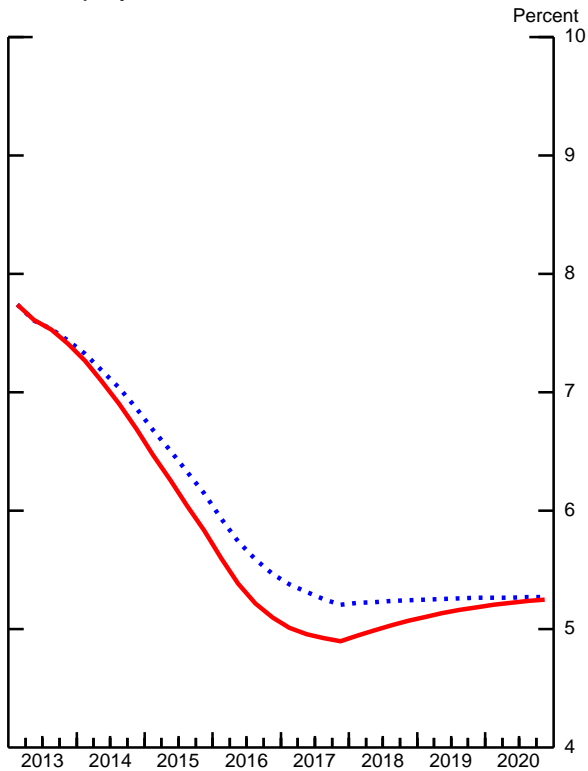
Nominal Federal Funds Rate



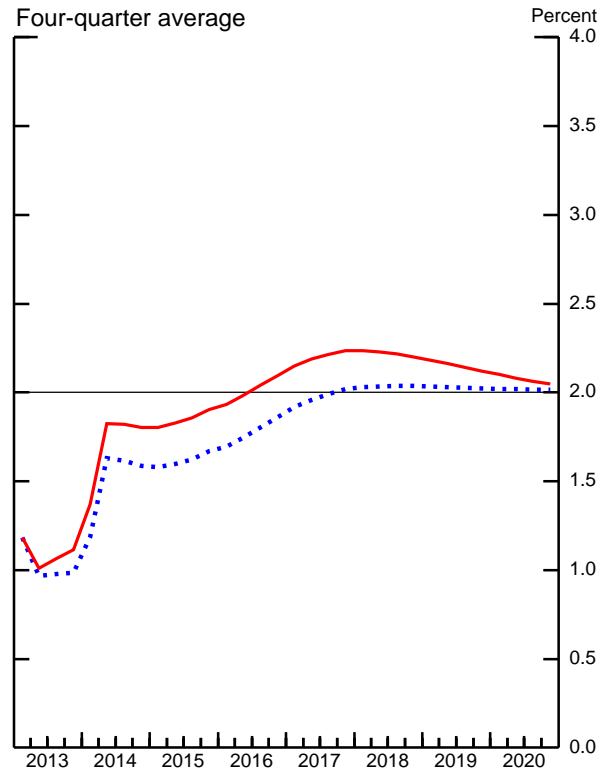
Real Federal Funds Rate



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 | 2.6 | 3.2 | 3.5 | 2.9 | 2.0 |
| Taylor (1993) | 1.7 | 2.1 | 2.2 | 3.0 | 3.0 | 2.7 |
| Taylor (1999) | 1.7 | 2.4 | 2.7 | 3.1 | 2.8 | 2.4 |
| Inertial Taylor (1999) | 1.7 | 2.5 | 2.9 | 3.3 | 2.9 | 2.3 |
| Outcome based | 1.7 | 2.4 | 2.7 | 3.1 | 2.8 | 2.5 |
| First difference | 1.7 | 2.4 | 2.6 | 3.0 | 2.9 | 2.5 |
| Nominal income targeting | 1.7 | 2.7 | 3.5 | 3.7 | 3.0 | 2.1 |
| Constrained optimal control | 1.7 | 2.7 | 3.6 | 3.8 | 3.1 | 2.0 |
| <i>Unemployment rate²</i> | | | | | | |
| Extended Tealbook baseline ¹ | 7.8 | 7.4 | 6.9 | 6.2 | 5.5 | 5.3 |
| Taylor (1993) | 7.8 | 7.6 | 7.5 | 7.1 | 6.4 | 5.8 |
| Taylor (1999) | 7.8 | 7.5 | 7.2 | 6.7 | 6.2 | 5.7 |
| Inertial Taylor (1999) | 7.8 | 7.5 | 7.0 | 6.5 | 5.8 | 5.5 |
| Outcome based | 7.8 | 7.5 | 7.2 | 6.7 | 6.1 | 5.7 |
| First difference | 7.8 | 7.5 | 7.2 | 6.8 | 6.2 | 5.7 |
| Nominal income targeting | 7.8 | 7.4 | 6.7 | 5.9 | 5.2 | 5.0 |
| Constrained optimal control | 7.8 | 7.4 | 6.7 | 5.8 | 5.1 | 4.9 |
| <i>Total PCE prices</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.6 | 1.0 | 1.5 | 1.6 | 1.8 | 2.0 |
| Taylor (1993) | 1.6 | 0.6 | 1.0 | 1.0 | 1.1 | 1.3 |
| Taylor (1999) | 1.6 | 0.7 | 1.1 | 1.1 | 1.3 | 1.5 |
| Inertial Taylor (1999) | 1.6 | 0.9 | 1.4 | 1.5 | 1.7 | 1.9 |
| Outcome based | 1.6 | 0.8 | 1.3 | 1.3 | 1.5 | 1.6 |
| First difference | 1.6 | 0.8 | 1.3 | 1.4 | 1.6 | 1.8 |
| Nominal income targeting | 1.6 | 1.1 | 1.9 | 2.0 | 2.2 | 2.3 |
| Constrained optimal control | 1.6 | 1.1 | 1.8 | 1.9 | 2.1 | 2.2 |
| <i>Core PCE prices</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.1 | 1.5 | 1.7 | 1.8 | 1.9 | 2.0 |
| Taylor (1993) | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.3 |
| Taylor (1999) | 1.1 | 1.2 | 1.2 | 1.3 | 1.4 | 1.5 |
| Inertial Taylor (1999) | 1.1 | 1.4 | 1.6 | 1.6 | 1.8 | 1.9 |
| Outcome based | 1.1 | 1.3 | 1.4 | 1.5 | 1.6 | 1.7 |
| First difference | 1.1 | 1.3 | 1.5 | 1.5 | 1.7 | 1.8 |
| Nominal income targeting | 1.1 | 1.6 | 2.0 | 2.1 | 2.3 | 2.3 |
| Constrained optimal control | 1.1 | 1.6 | 2.0 | 2.1 | 2.2 | 2.2 |
| <i>Federal funds rate²</i> | | | | | | |
| Extended Tealbook baseline ¹ | 0.2 | 0.1 | 0.1 | 0.5 | 2.0 | 2.9 |
| Taylor (1993) | 0.2 | 1.0 | 1.2 | 1.6 | 2.3 | 2.7 |
| Taylor (1999) | 0.2 | 0.1 | 0.3 | 1.4 | 2.2 | 2.6 |
| Inertial Taylor (1999) | 0.2 | 0.1 | 0.4 | 1.2 | 2.1 | 2.7 |
| Outcome based | 0.2 | 0.2 | 0.6 | 1.7 | 2.5 | 2.9 |
| First difference | 0.2 | 0.1 | 0.7 | 1.8 | 2.3 | 2.7 |
| Nominal income targeting | 0.2 | 0.1 | 0.1 | 0.9 | 2.1 | 2.8 |
| Constrained optimal control | 0.2 | 0.1 | 0.1 | 0.6 | 1.7 | 2.7 |

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 | 2.6 | 3.2 | 3.5 | 2.9 | 2.0 |
| Taylor (1993) | 1.7 | 2.4 | 2.8 | 3.2 | 2.7 | 2.1 |
| Taylor (1999) | 1.7 | 2.4 | 2.8 | 3.3 | 2.7 | 2.2 |
| Outcome based | 1.7 | 2.5 | 3.1 | 3.4 | 2.7 | 2.0 |
| First difference | 1.7 | 2.6 | 3.4 | 3.6 | 2.9 | 2.2 |
| Nominal income targeting | 1.7 | 2.7 | 3.6 | 3.7 | 2.9 | 2.0 |
| Constrained optimal control | 1.7 | 2.7 | 3.6 | 3.8 | 3.1 | 2.0 |
| <i>Unemployment rate²</i> | | | | | | |
| Extended Tealbook baseline ¹ | 7.8 | 7.4 | 6.9 | 6.2 | 5.5 | 5.3 |
| Taylor (1993) | 7.8 | 7.5 | 7.1 | 6.6 | 6.0 | 5.7 |
| Taylor (1999) | 7.8 | 7.5 | 7.1 | 6.6 | 5.9 | 5.7 |
| Outcome based | 7.8 | 7.5 | 7.0 | 6.3 | 5.7 | 5.5 |
| First difference | 7.8 | 7.4 | 6.8 | 6.0 | 5.4 | 5.1 |
| Nominal income targeting | 7.8 | 7.4 | 6.7 | 5.9 | 5.2 | 5.0 |
| Constrained optimal control | 7.8 | 7.4 | 6.7 | 5.8 | 5.1 | 4.9 |
| <i>Total PCE prices</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.6 | 1.0 | 1.5 | 1.6 | 1.8 | 2.0 |
| Taylor (1993) | 1.6 | 0.7 | 1.1 | 1.1 | 1.3 | 1.4 |
| Taylor (1999) | 1.6 | 0.7 | 1.1 | 1.2 | 1.4 | 1.5 |
| Outcome based | 1.6 | 0.9 | 1.4 | 1.4 | 1.6 | 1.8 |
| First difference | 1.6 | 1.1 | 1.8 | 1.9 | 2.1 | 2.3 |
| Nominal income targeting | 1.6 | 1.1 | 1.9 | 2.0 | 2.2 | 2.3 |
| Constrained optimal control | 1.6 | 1.1 | 1.8 | 1.9 | 2.1 | 2.2 |
| <i>Core PCE prices</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.1 | 1.5 | 1.7 | 1.8 | 1.9 | 2.0 |
| Taylor (1993) | 1.1 | 1.2 | 1.2 | 1.2 | 1.4 | 1.4 |
| Taylor (1999) | 1.1 | 1.2 | 1.3 | 1.3 | 1.5 | 1.5 |
| Outcome based | 1.1 | 1.4 | 1.5 | 1.6 | 1.7 | 1.8 |
| First difference | 1.1 | 1.6 | 2.0 | 2.1 | 2.2 | 2.3 |
| Nominal income targeting | 1.1 | 1.6 | 2.0 | 2.1 | 2.3 | 2.3 |
| Constrained optimal control | 1.1 | 1.6 | 2.0 | 2.1 | 2.2 | 2.2 |
| <i>Federal funds rate²</i> | | | | | | |
| Extended Tealbook baseline ¹ | 0.2 | 0.1 | 0.1 | 0.5 | 2.0 | 2.9 |
| Taylor (1993) | 0.2 | 0.1 | 0.1 | 0.1 | 2.7 | 2.8 |
| Taylor (1999) | 0.2 | 0.1 | 0.1 | 0.1 | 2.6 | 2.7 |
| Outcome based | 0.2 | 0.1 | 0.1 | 0.5 | 2.8 | 3.1 |
| First difference | 0.2 | 0.1 | 0.1 | 1.3 | 2.3 | 2.7 |
| Nominal income targeting | 0.2 | 0.1 | 0.1 | 0.9 | 2.1 | 2.8 |
| Constrained optimal control | 0.2 | 0.1 | 0.1 | 0.6 | 1.7 | 2.7 |

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.

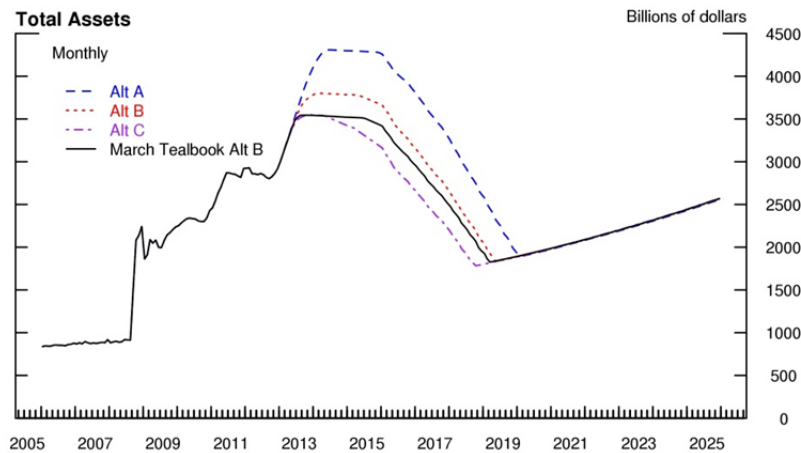
2. Percent, average for the final quarter of the period.

| Growth Rates for M2 | |
|--|--------------------|
| (Percent, seasonally adjusted annual rate) | |
| Monthly Growth Rates | Tealbook Forecast* |
| Jan-13 | 4.3 |
| Feb-13 | -3.1 |
| Mar-13 | 4.0 |
| Apr-13 | 6.5 |
| May-13 | 1.9 |
| Jun-13 | 1.8 |
| Jul-13 | 1.8 |
| Aug-13 | 2.0 |
| Sep-13 | 2.2 |
| Oct-13 | 2.8 |
| Nov-13 | 2.6 |
| Dec-13 | 2.8 |
| Quarterly Growth Rates | |
| 2013 Q1 | 4.7 |
| 2013 Q2 | 3.3 |
| 2013 Q3 | 1.9 |
| 2013 Q4 | 2.6 |
| 2014 Q1 | 2.4 |
| 2014 Q2 | 2.6 |
| 2014 Q3 | 2.8 |
| 2014 Q4 | 2.9 |
| 2015 Q1 | 3.0 |
| 2015 Q2 | 2.9 |
| 2015 Q3 | -0.3 |
| 2015 Q4 | -1.9 |
| Annual Growth Rates | |
| 2012 | 7.5 |
| 2013 | 3.1 |
| 2014 | 2.7 |
| 2015 | 0.9 |

*This forecast is consistent with nominal GDP and interest rates in the Tealbook forecast. Actual data through April 15, 2013; projections thereafter.

BALANCE SHEET AND MONETARY BASE

The staff has prepared three scenarios for the Federal Reserve's balance sheet that correspond to interpretations of Alternatives A, B, and C. All three alternatives include additional asset purchases, though the pace and amount of purchases differ.¹ Alternative B continues purchases at the current pace through June; purchases are then tapered to zero by year-end. Alternative A increases the pace of purchases beginning in May and continues the purchases somewhat longer, while Alternative C decreases the pace and ends purchases earlier. All three alternatives maintain the 0 to ¼ percent target range for the federal funds rate and retain threshold-based forward guidance for the funds rate based on the unemployment rate and the outlook for inflation.



Projections under each scenario are based on assumptions about the trajectory of various components of the balance sheet.² Details of these assumptions, as well as

¹ The Committee is assumed to continue rolling over maturing Treasury securities at auction and reinvesting principal payments from agency MBS and agency debt securities into agency MBS until six months before the first increase in the federal funds rate. The effect of assuming that maturing Treasury securities are rolled over at auction is very modest; as a result of the maturity extension program, there are currently less than \$5 billion of Treasury securities in the SOMA portfolio that mature before January 2016.

² The projections assume that the Committee follows an exit strategy consistent with the principles articulated in the minutes of the June 2011 FOMC meeting. Other strategies, such as not selling MBS or selling short-dated Treasury securities, could be considered. See the memo titled "Possible Revisions to the Committee's Exit Strategy Principles" (by J. Clouse, W. English, J. Faust, E. Klee, L. Logan, and S. Meyer of the Federal Reserve Board and J. Remache and S. Potter of the Federal Reserve Bank of New York) that was sent to the Committee on April 22, 2013, for more on this issue. The implications for the evolution of the balance sheet associated with possible revisions to the exit strategy principles are found in the March 5, 2013, memo by K. Femia, J. Ihrig, J. Kandrak, E. Klee, C. Miller, and J. Remache, titled "Exit Strategy Considerations."

| Growth Rates for the Monetary Base | | | | |
|------------------------------------|---------------|---------------|---------------|------------------------|
| Date | Alternative B | Alternative A | Alternative C | March Alternative B |
| Percent, annual rate | | | | |
| Monthly | | | | |
| Dec-12 | 13.7 | 13.7 | 13.7 | 13.7 |
| Jan-13 | 21.5 | 21.5 | 21.5 | 21.5 |
| Feb-13 | 37.1 | 37.1 | 37.1 | 37.3 |
| Mar-13 | 42.6 | 42.6 | 42.6 | 56.1 |
| Apr-13 | 29.2 | 29.4 | 29.0 | 30.3 |
| May-13 | 48.7 | 50.9 | 45.3 | 36.2 |
| Jun-13 | 51.7 | 56.0 | 44.2 | 51.5 |
| Jul-13 | 23.1 | 30.7 | 14.0 | 17.3 |
| Aug-13 | 33.8 | 45.3 | 21.1 | 17.5 |
| Quarterly | | | | |
| 2012 Q4 | -0.5 | -0.5 | -0.5 | -0.5 |
| 2013 Q1 | 25.1 | 25.1 | 25.1 | 26.7 |
| 2013 Q2 | 41.3 | 42.4 | 39.5 | 41.8 |
| 2013 Q3 | 35.7 | 44.0 | 25.5 | 25.8 |
| 2013 Q4 | 15.3 | 31.5 | 3.6 | -0.1 |
| 2014 Q1 | 4.4 | 20.8 | -2.2 | -1.7 |
| 2014 Q2 | 0.7 | 12.6 | -1.2 | 0.6 |
| 2014 Q3 | 2.4 | 4.7 | -1.5 | 0.8 |
| Annual - Q4 to Q4 | | | | |
| 2012 | 0.3 | 0.3 | 0.3 | 0.3 |
| 2013 | 32.6 | 40.8 | 25.3 | 25.4 |
| 2014 | 1.3 | 9.2 | -1.2 | -0.9 |
| 2015 | -1.2 | -0.8 | -7.1 | -2.0 |
| 2016 | -13.0 | -8.0 | -16.1 | -11.6 |
| 2017 | -16.6 | -14.6 | -18.5 | -16.7 |
| 2018 | -24.0 | -21.5 | -24.6 | -23.8 |
| 2019 | -15.8 | -27.8 | 4.0 | -9.6 |
| 2020 | 4.5 | -5.4 | 4.6 | 4.3 |
| 2021 | 4.6 | 4.4 | 4.7 | 4.5 |
| 2022 | 4.6 | 4.5 | 4.6 | 4.5 |
| 2023 | 4.5 | 4.4 | 4.5 | 4.5 |
| 2024 | 4.4 | 4.4 | 4.4 | 4.4 |
| 2025 | 4.4 | 4.4 | 4.4 | 4.4 |

Note: Not seasonally adjusted.

| 10-Year Treasury Term Premium Effect | | | | |
|--------------------------------------|---------------|---------------|---------------|------------------------|
| Date | Alternative B | Alternative A | Alternative C | March Alternative B |

Basis Points
Quarterly Averages

| | | | | |
|---------|------|------|-----|-----|
| 2013 Q2 | -114 | -123 | -84 | -98 |
| 2013 Q3 | -101 | -119 | -79 | -87 |
| 2013 Q4 | -91 | -114 | -74 | -82 |
| 2014 Q1 | -86 | -109 | -69 | -77 |
| 2014 Q2 | -80 | -103 | -64 | -72 |
| 2014 Q3 | -75 | -97 | -59 | -68 |
| 2014 Q4 | -70 | -91 | -55 | -63 |
| 2015 Q1 | -65 | -85 | -50 | -58 |
| 2015 Q2 | -60 | -80 | -46 | -54 |
| 2015 Q3 | -56 | -74 | -42 | -50 |
| 2015 Q4 | -51 | -69 | -38 | -46 |
| 2016 Q4 | -36 | -50 | -26 | -32 |
| 2017 Q4 | -24 | -34 | -18 | -22 |
| 2018 Q4 | -17 | -24 | -13 | -16 |
| 2019 Q4 | -13 | -17 | -12 | -12 |
| 2020 Q4 | -12 | -14 | -11 | -11 |
| 2021 Q4 | -11 | -13 | -10 | -10 |
| 2022 Q4 | -9 | -11 | -9 | -8 |
| 2023 Q4 | -7 | -8 | -7 | -6 |
| 2024 Q4 | -5 | -6 | -5 | -5 |
| 2025 Q4 | -4 | -5 | -4 | -3 |

Projections

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

Billions of dollars

| | <u>Mar 29, 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 | 3,207 | 3,771 | 3,675 | 2,683 | 1,882 | 2,081 | 2,307 | 2,564 |
| Selected assets | | | | | | | | |
| Liquidity programs for financial firms | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary, secondary, and seasonal credit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Central bank liquidity swaps | 8 | 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 | 2,939 | 3,486 | 3,436 | 2,497 | 1,740 | 1,965 | 2,202 | 2,468 |
| U.S. Treasury securities | 1,796 | 2,017 | 2,013 | 1,611 | 1,398 | 1,965 | 2,202 | 2,468 |
| Agency debt securities | 72 | 57 | 33 | 4 | 2 | 0 | 0 | 0 |
| Agency mortgage-backed securities | 1,071 | 1,412 | 1,390 | 882 | 339 | 0 | 0 | 0 |
| Net portfolio holdings of TALF LLC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total other assets | 257 | 275 | 239 | 186 | 142 | 115 | 105 | 96 |
| Total liabilities | 3,152 | 3,708 | 3,592 | 2,573 | 1,737 | 1,888 | 2,053 | 2,227 |
| Selected liabilities | | | | | | | | |
| Federal Reserve notes in circulation | 1,134 | 1,183 | 1,333 | 1,458 | 1,588 | 1,740 | 1,904 | 2,079 |
| Reverse repurchase agreements | 105 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Deposits with Federal Reserve Banks | 1,900 | 2,414 | 2,148 | 1,005 | 39 | 39 | 39 | 39 |
| Reserve balances held by depository institutions | 1,791 | 2,313 | 2,134 | 991 | 25 | 25 | 25 | 25 |
| U.S. Treasury, General Account | 79 | 93 | 5 | 5 | 5 | 5 | 5 | 5 |
| Other Deposits | 30 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 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>Mar 29, 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 | 3,207 | 4,067 | 4,273 | 3,301 | 1,952 | 2,078 | 2,301 | 2,557 |
| Selected assets | | | | | | | | |
| Liquidity programs for financial firms | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary, secondary, and seasonal credit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Central bank liquidity swaps | 8 | 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 | 2,939 | 3,763 | 4,007 | 3,090 | 1,793 | 1,955 | 2,190 | 2,456 |
| U.S. Treasury securities | 1,796 | 2,227 | 2,331 | 1,926 | 1,236 | 1,955 | 2,190 | 2,456 |
| Agency debt securities | 72 | 57 | 33 | 4 | 2 | 0 | 0 | 0 |
| Agency mortgage-backed securities | 1,071 | 1,478 | 1,643 | 1,160 | 555 | 0 | 0 | 0 |
| Net portfolio holdings of TALF LLC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total other assets | 257 | 295 | 266 | 210 | 159 | 123 | 111 | 100 |
| Total liabilities | 3,152 | 4,004 | 4,190 | 3,191 | 1,807 | 1,885 | 2,047 | 2,220 |
| Selected liabilities | | | | | | | | |
| Federal Reserve notes in circulation | 1,134 | 1,183 | 1,333 | 1,465 | 1,590 | 1,736 | 1,898 | 2,071 |
| Reverse repurchase agreements | 105 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Deposits with Federal Reserve Banks | 1,900 | 2,710 | 2,746 | 1,615 | 114 | 39 | 39 | 39 |
| Reserve balances held by depository institutions | 1,791 | 2,608 | 2,644 | 1,600 | 99 | 25 | 25 | 25 |
| U.S. Treasury, General Account | 79 | 93 | 93 | 5 | 5 | 5 | 5 | 5 |
| Other Deposits | 30 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| Interest on Federal Reserve Notes due to U.S. Treasury | 2 | 0 | 0 | 0 | -7 | 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>Mar 29, 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 | 3,207 | 3,547 | 3,184 | 2,225 | 1,885 | 2,086 | 2,315 | 2,572 |
| Selected assets | | | | | | | | |
| Liquidity programs for financial firms | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary, secondary, and seasonal credit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Central bank liquidity swaps | 8 | 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 | 2,939 | 3,276 | 2,968 | 2,056 | 1,755 | 1,974 | 2,213 | 2,479 |
| U.S. Treasury securities | 1,796 | 1,908 | 1,904 | 1,506 | 1,693 | 1,974 | 2,213 | 2,479 |
| Agency debt securities | 72 | 57 | 33 | 4 | 1 | 0 | 0 | 0 |
| Agency mortgage-backed securities | 1,071 | 1,311 | 1,031 | 546 | 61 | 0 | 0 | 0 |
| Net portfolio holdings of TALF LLC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total other assets | 257 | 261 | 216 | 168 | 130 | 112 | 102 | 93 |
| Total liabilities | 3,152 | 3,484 | 3,101 | 2,115 | 1,739 | 1,894 | 2,060 | 2,235 |
| Selected liabilities | | | | | | | | |
| Federal Reserve notes in circulation | 1,134 | 1,183 | 1,333 | 1,458 | 1,591 | 1,746 | 1,912 | 2,087 |
| Reverse repurchase agreements | 105 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Deposits with Federal Reserve Banks | 1,900 | 2,190 | 1,658 | 547 | 39 | 39 | 39 | 39 |
| Reserve balances held by depository institutions | 1,791 | 2,088 | 1,643 | 533 | 25 | 25 | 25 | 25 |
| U.S. Treasury, General Account | 79 | 93 | 5 | 5 | 5 | 5 | 5 | 5 |
| Other Deposits | 30 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 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.