

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

December 10, 2014

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

Revisions to the Staff Projection since the Previous SEP

The FOMC most recently published its Summary of Economic Projections, or SEP, following the September 2014 FOMC meeting. The table below compares the staff's current economic projection with the one we presented in the September Tealbook.

We have revised our projection for real GDP growth over the next three years slightly lower, on net, since September; the dollar's stronger exchange value is among the factors accounting for this revision. (Working in the opposite direction, equity prices are higher than we expected in September.) The unemployment rate has continued to fall more than we had projected and is now expected to be lower at the end of this year than in the September Tealbook. But given the lower projected pace of GDP growth, the unemployment rate declines more slowly than in September, and by the end of the medium-term projection it is unrevised at 4.9 percent, $\frac{1}{4}$ percentage point below our estimate of the natural rate. (Although the unemployment rate is a bit lower than in the September projection through most of the medium term, our projection for the GDP gap is now a touch weaker than it was in September. The difference is that we have allowed for a little more cyclical weakness in the labor force participation rate. In this environment, we judge unemployment to be understating somewhat the degree of slack in the labor market, and we view the GDP gap as providing a more accurate assessment of resource slack.)

The staff's projection for headline PCE inflation has been revised lower in the near term, reflecting the substantial further drop in oil prices since September. However, given our assumption that longer-run inflation expectations will remain well anchored,

Staff Economic Projections Compared with the September Tealbook

| Variable | 2014 | | 2014 | 2015 | 2016 | 2017 | Longer run |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | H1 | H2 | | | | | |
| Real GDP ¹ September Tealbook | 1.2 1.1 | 3.1 2.9 | 2.2 2.0 | 2.5 2.7 | 2.7 2.9 | 2.2 2.3 | 2.0 2.0 |
| Unemployment rate ² September Tealbook | 6.2 6.2 | 5.7 5.9 | 5.7 5.9 | 5.2 5.4 | 5.0 5.1 | 4.9 4.9 | 5.2 5.2 |
| PCE inflation ¹ September Tealbook | 1.9 1.8 | .6 1.1 | 1.2 1.5 | 1.0 1.5 | 1.7 1.6 | 1.8 1.7 | 2.0 2.0 |
| Core PCE inflation ¹ September Tealbook | 1.6 1.6 | 1.5 1.5 | 1.6 1.5 | 1.5 1.6 | 1.6 1.7 | 1.8 1.8 | n.a. n.a. |
| Federal funds rate ² September Tealbook | .09 .09 | .13 .13 | .13 .13 | .98 1.07 | 2.05 2.25 | 3.03 3.16 | 3.75 3.75 |
| Memo: Federal funds rate, end of period September Tealbook | .13 .13 | .13 .13 | .13 .13 | 1.07 1.17 | 2.14 2.34 | 3.09 3.22 | 3.75 3.75 |
| GDP gap ^{2,3} September Tealbook | -2.2 -2.2 | -1.3 -1.3 | -1.3 -1.3 | -.6 -.4 | .4 .5 | .8 .8 | n.a. n.a. |

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

2. Percent, final quarter of period indicated.

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

n.a. Not available.

these energy price declines are assumed to have only a small and transitory effect on core inflation, and our projection for core is little revised (it is just a touch lower in 2015 and 2016 than it was in September). We project that headline inflation will come back into alignment with core inflation after next year, and we continue to project that inflation will remain below the Committee's 2 percent objective through 2017.

With our forecasts for core inflation and the GDP gap both a shade softer than they were in the September Tealbook, the projected path for the federal funds rate is a bit lower than in September; however, the date of liftoff from the effective lower bound remains unchanged at the second quarter of 2015.

Because FOMC participants are now providing additional information about their expectations of the economic conditions that will exist at the time they anticipate it will first become appropriate to increase the target range for the federal funds rate, we include a second table providing quarterly information from the staff projection. In the second quarter of 2015, our projected quarter of liftoff, we now forecast the unemployment rate to average 5.4 percent, and we project the trailing four-quarter change in real GDP to be 2.8 percent.¹ We project the four-quarter change in core PCE inflation to be 1.5 percent in the second quarter of next year, but because of the energy price declines, the four-quarter change in headline PCE inflation is projected to be only 0.5 percent. (Only in early 2016 do we project the recent energy price declines to fall out of the four-quarter change.)

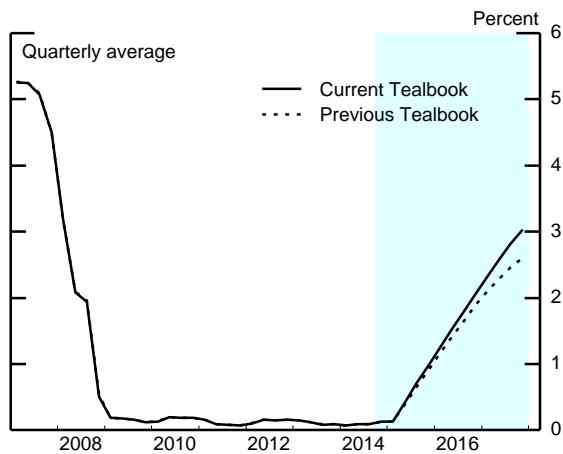
Staff Economic Projections Compared with the September Tealbook, Quarterly

| Variable | 2015 | | | | 2016 | | | |
|--|------------|------------|------------|--------------|--------------|--------------|--------------|--------------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| <i>Four-quarter percent change</i> | | | | | | | | |
| Real GDP September Tealbook | 3.3 3.2 | 2.8 2.7 | 2.4 2.7 | 2.5 2.7 | 2.6 2.7 | 2.7 2.8 | 2.8 2.9 | 2.7 2.9 |
| PCE inflation September Tealbook | .7 1.5 | .5 1.3 | .6 1.4 | 1.0 1.5 | 1.6 1.6 | 1.6 1.6 | 1.6 1.6 | 1.7 1.6 |
| Core PCE inflation September Tealbook | 1.6 1.7 | 1.5 1.6 | 1.5 1.6 | 1.5 1.6 | 1.5 1.7 | 1.6 1.7 | 1.6 1.7 | 1.6 1.7 |
| <i>Percent</i> | | | | | | | | |
| Unemployment rate September Tealbook | 5.5 5.7 | 5.4 5.6 | 5.3 5.5 | 5.2 5.4 | 5.2 5.3 | 5.1 5.3 | 5.1 5.2 | 5.0 5.1 |
| Federal funds rate September Tealbook | .13 .13 | .42 .45 | .71 .76 | .98 1.07 | 1.25 1.37 | 1.52 1.67 | 1.79 1.96 | 2.05 2.25 |
| <i>Memo</i> | | | | | | | | |
| Federal funds rate, end of period September Tealbook | .13 .13 | .52 .55 | .80 .87 | 1.07 1.17 | 1.34 1.47 | 1.61 1.77 | 1.88 2.06 | 2.14 2.34 |

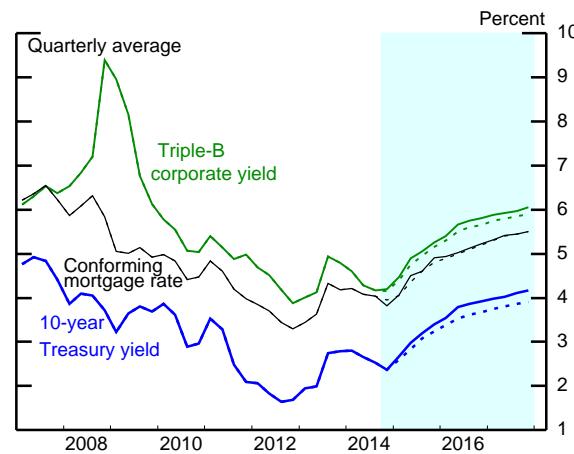
¹ Note that, because the data are published with a lag, some of the data pertaining to the second quarter of 2015 will not be available until after the quarter has ended.

Key Background Factors underlying the Baseline Staff Projection

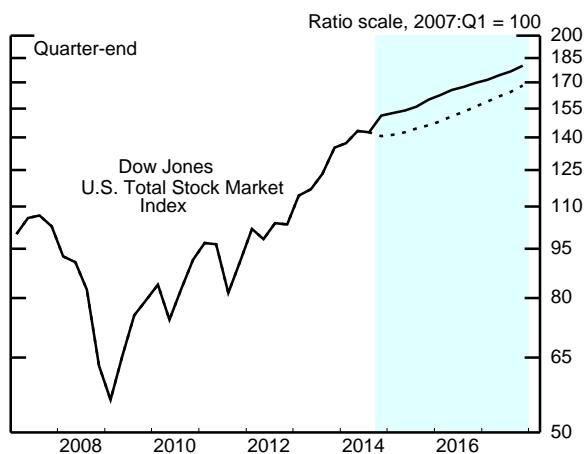
Federal Funds Rate



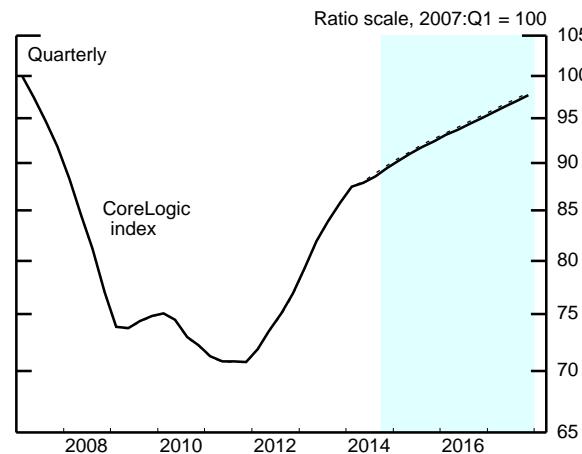
Long-Term Interest Rates



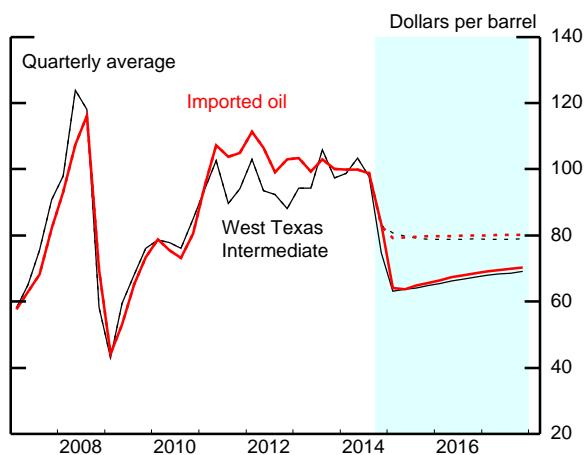
Equity Prices



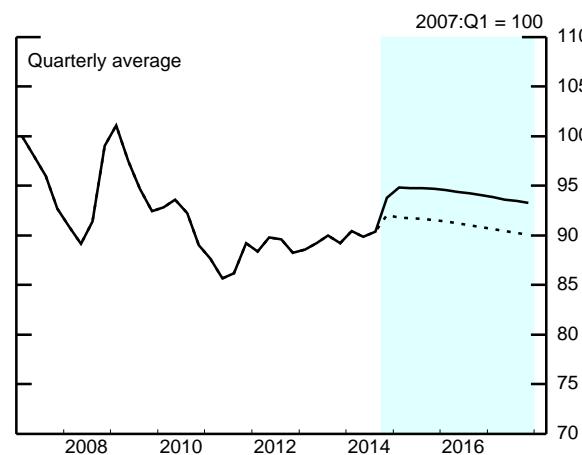
House Prices



Crude Oil Prices



Broad Real Dollar

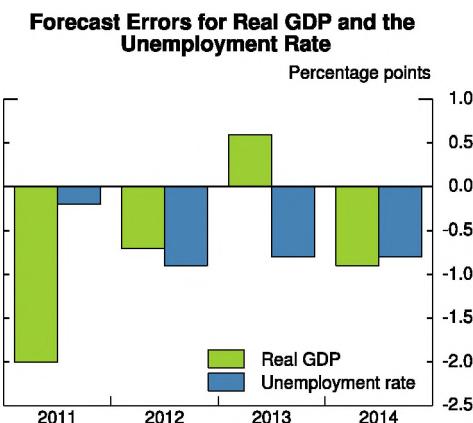


Alternative View: The Unemployment Rate Falls below 5 Percent in 2015

In contrast to the staff's baseline projection that the unemployment rate will decline $\frac{1}{2}$ percentage point in 2015, this discussion presents the view that it will fall considerably faster and end the year below 5 percent.¹ Since mid-2011, the unemployment rate has declined markedly faster than the staff anticipated, even as GDP has largely risen more slowly than we had projected (see figure). This combination of outcomes suggests important changes in the structure of the economy, albeit ones that we do not understand very well. The perspective of this discussion is that, like most other forecasters, the staff has not adjusted its projection methodology or underlying assumptions sufficiently to incorporate potentially new labor market behavior. Consequently, sizable forecast errors have resulted and will likely persist.

At first blush, the staff baseline projection looks quite reasonable. Over the course of 2015, we project GDP growth of $2\frac{1}{2}$ percent, about $\frac{3}{4}$ percentage point above our estimate of its potential rate, and a decline in the unemployment rate of 0.5 percentage point. This projection is quite close to that of the Blue Chip Consensus forecast. However, their forecasts have suffered the same sort of errors as the staff's: Both forecasts for the one-year-ahead unemployment rate have been too pessimistic by roughly $\frac{3}{4}$ percentage point in each of the past three years (see table).

The staff's projection of the unemployment rate is informed by Okun's law, the long-run historical relationship between the unemployment rate relative to its natural rate and real GDP relative to potential GDP. However, while it is commonly used, Okun's law suffers from several weaknesses as a forecasting tool. First, two of the key variables, potential GDP and the natural rate of unemployment, are unobserved yet are thought to be changing over time. Second, some researchers find that the Okun's law coefficients have not been stable over time.² Third,



Note: Year-ahead forecast errors for Q4/Q4 real GDP growth and the unemployment rate in the fourth quarter and assumes current Tealbook forecast is realized.

Year-Ahead Unemployment Rate Forecasts*

| | 2011 | 2012 | 2013 | 2014 | 2015 |
|-----------|------|------|------|------|------|
| A | 8.7 | 7.8 | 7.0 | 5.7 | n.a. |
| Staff | 8.9 | 8.7 | 7.8 | 6.5 | 5.2 |
| Blue Chip | 9.2 | 8.6 | 7.6 | 6.7 | 5.3 |
| Ten high | 9.6 | 9.2 | 8.0 | 7.1 | 5.6 |
| Ten low | 8.8 | 8.1 | 7.3 | 6.4 | 5.0 |

n.a. Not available

*Projections for the fourth quarter of the indicated year made in December of the prior year and assumes current Tealbook forecast is realized.

¹ Prepared by Glenn Follette.

² See, for example, Edward S. Knotek, II (2007), "How Useful Is Okun's Law?" Federal Reserve Bank of Kansas City, Economic Review (Fourth Quarter), pp. 73–103, www.kc.frb.org/publicat/econrev/pdf/4q07knotek.pdf; Michael T. Owyang and Tatevik Sekhposyan (2012), "Okun's Law over the Business Cycle: Was the Great Recession All That Different?" Federal Reserve Bank of St. Louis, *Federal Reserve Bank of St. Louis Review*, vol. 94 (September/October), pp. 399–418,

Summary of the Near-Term Outlook

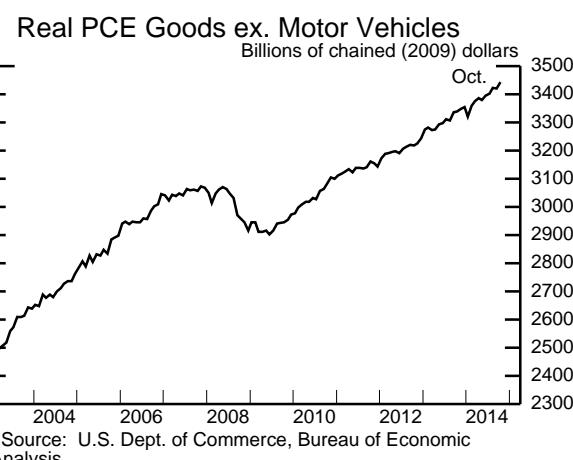
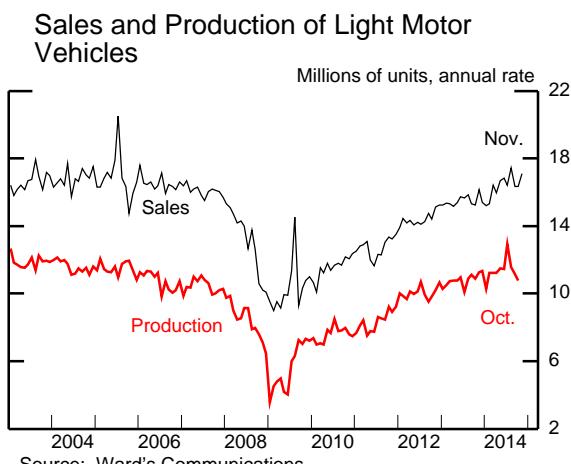
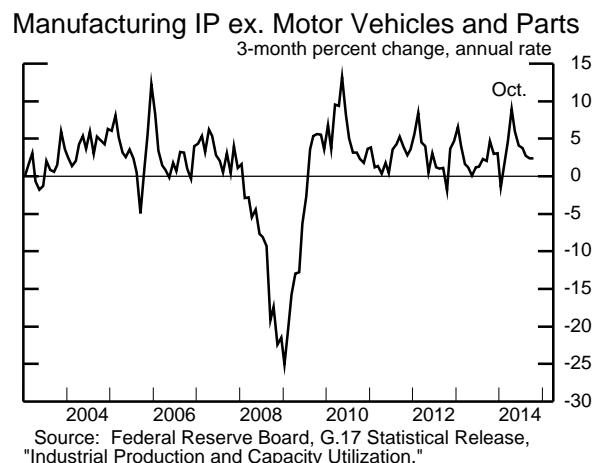
(Percent change at annual rate except as noted)

| Measure | 2014:Q3 | | 2014:Q4 | | 2015:Q1 | |
|--|-------------------|------------------|-------------------|------------------|-------------------|------------------|
| | Previous Tealbook | Current Tealbook | Previous Tealbook | Current Tealbook | Previous Tealbook | Current Tealbook |
| Real GDP | 2.7 | 4.1 | 3.0 | 2.2 | 2.3 | 2.4 |
| Private domestic final purchases | 2.8 | 3.1 | 3.5 | 3.4 | 2.7 | 3.1 |
| Personal consumption expenditures | 1.9 | 2.2 | 3.4 | 3.4 | 3.0 | 3.5 |
| Residential investment | 8.0 | 3.0 | 5.5 | 6.2 | 6.1 | 3.6 |
| Nonres. private fixed investment | 6.7 | 8.0 | 3.7 | 3.0 | .1 | .9 |
| Government purchases | 1.5 | 4.4 | -1.6 | -2.1 | -.2 | -.1 |
| <i>Contributions to change in real GDP</i> | | | | | | |
| Inventory investment ¹ | -.6 | -.1 | .4 | .4 | .2 | -.1 |
| Net exports ¹ | .6 | .8 | -.1 | -.8 | -.2 | -.1 |
| Unemployment rate² | 6.1 | 6.1 | 5.8 | 5.7 | 5.7 | 5.5 |
| PCE chain price index | 1.2 | 1.3 | -.2 | -.1 | .9 | -.6 |
| Ex. food and energy | 1.4 | 1.4 | 1.2 | 1.6 | 1.5 | 1.5 |

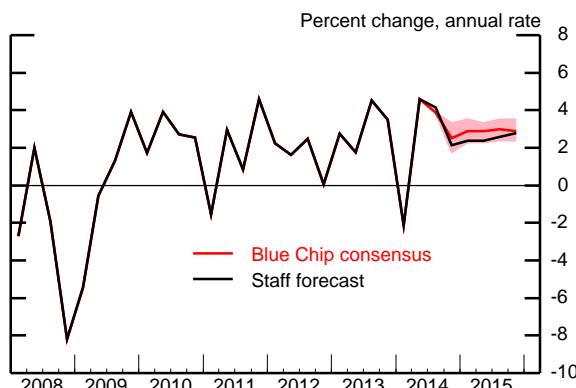
1. Percentage points.

2. Percent.

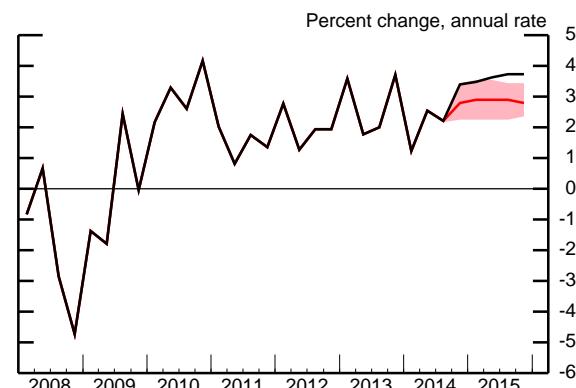
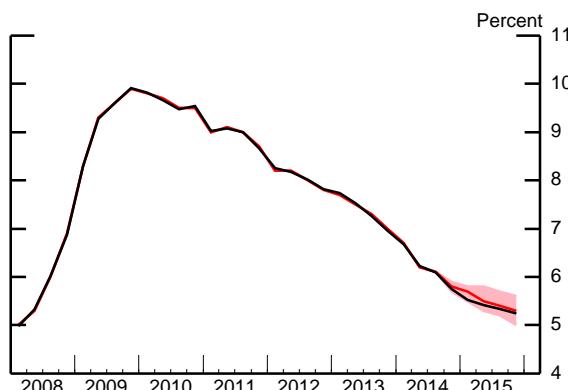
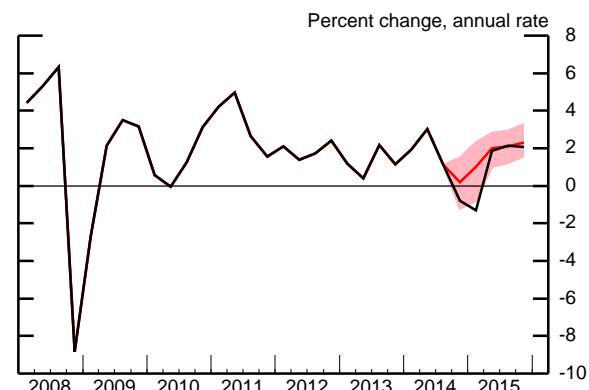
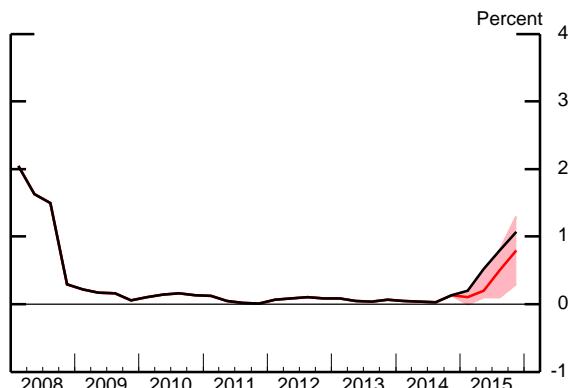
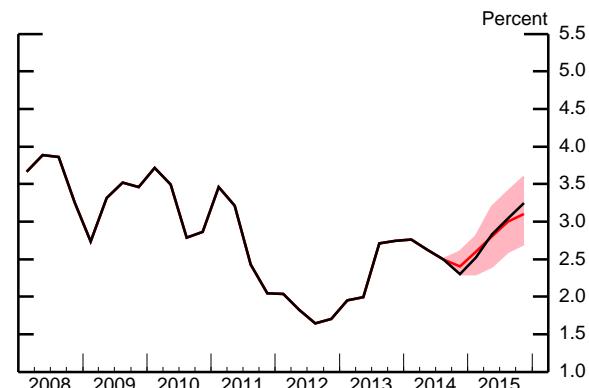
Recent Nonfinancial Developments (1)



Tealbook Forecast Compared with Blue Chip (Blue Chip survey released December 10, 2014)

Real GDP

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

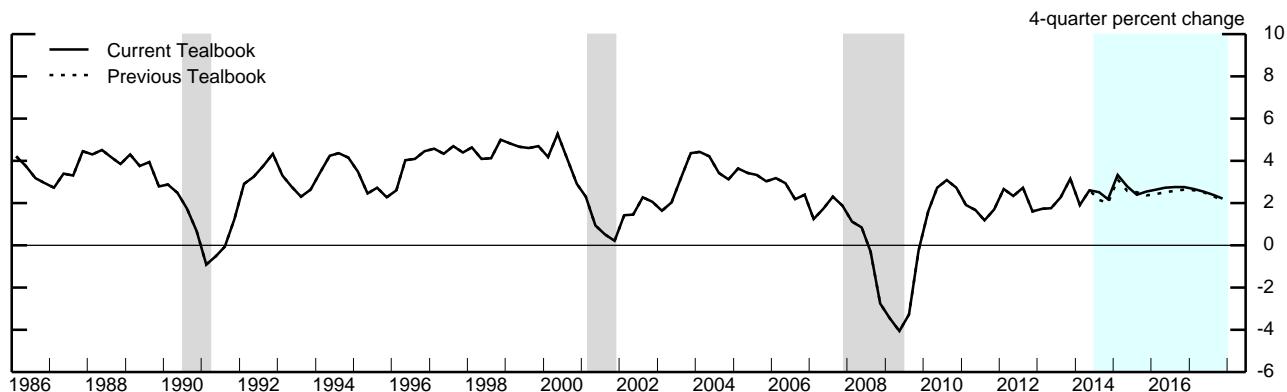
Real PCE**Unemployment Rate****Consumer Price Index****Treasury Bill Rate****10-Year Treasury Yield**

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

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

| Measure | 2014 | 2014 | | 2015 | 2016 | 2017 |
|--|------------|------------|------------|------------|------------|------------|
| | | H1 | H2 | | | |
| Real GDP | 2.2 | 1.2 | 3.1 | 2.5 | 2.7 | 2.2 |
| Previous Tealbook | 2.0 | 1.2 | 2.8 | 2.4 | 2.6 | 2.1 |
| Final sales | 2.0 | 1.1 | 3.0 | 2.5 | 2.8 | 2.6 |
| Previous Tealbook | 2.0 | 1.1 | 2.9 | 2.3 | 2.6 | 2.4 |
| Personal consumption expenditures | 2.3 | 1.9 | 2.8 | 3.6 | 3.3 | 2.7 |
| Previous Tealbook | 2.3 | 1.9 | 2.6 | 3.0 | 2.7 | 2.4 |
| Residential investment | 3.0 | 1.5 | 4.6 | 9.4 | 9.9 | 7.6 |
| Previous Tealbook | 4.1 | 1.5 | 6.7 | 9.5 | 9.7 | 7.3 |
| Nonresidential structures | 4.6 | 7.6 | 1.6 | -3.4 | 1.6 | 1.2 |
| Previous Tealbook | 4.2 | 7.6 | .9 | -2.4 | .6 | .4 |
| Equipment and intangibles | 5.8 | 5.0 | 6.6 | 2.9 | 4.2 | 2.9 |
| Previous Tealbook | 5.7 | 5.0 | 6.5 | 2.7 | 3.6 | 2.6 |
| Federal purchases | .2 | -.5 | .9 | -2.8 | -1.3 | -1.1 |
| Previous Tealbook | -1.3 | -.5 | -2.1 | -3.6 | -1.4 | -1.0 |
| State and local purchases | 1.1 | 1.0 | 1.2 | 1.5 | 1.8 | 2.0 |
| Previous Tealbook | 1.1 | 1.0 | 1.3 | 1.5 | 1.8 | 2.0 |
| Exports | 1.9 | .4 | 3.5 | 2.5 | 3.3 | 4.2 |
| Previous Tealbook | 2.3 | .4 | 4.3 | 3.7 | 4.4 | 5.0 |
| Imports | 4.7 | 6.7 | 2.8 | 4.8 | 5.2 | 3.9 |
| Previous Tealbook | 4.3 | 6.7 | 1.9 | 4.1 | 4.5 | 3.8 |
| Contributions to change in real GDP (percentage points) | | | | | | |
| Inventory change | .2 | .1 | .2 | .0 | -.1 | -.4 |
| Previous Tealbook | .0 | .1 | -.1 | .1 | .1 | -.3 |
| Net exports | -.5 | -1.0 | .0 | -.4 | -.4 | -.1 |
| Previous Tealbook | -.4 | -1.0 | .3 | -.2 | -.1 | .1 |

Real GDP

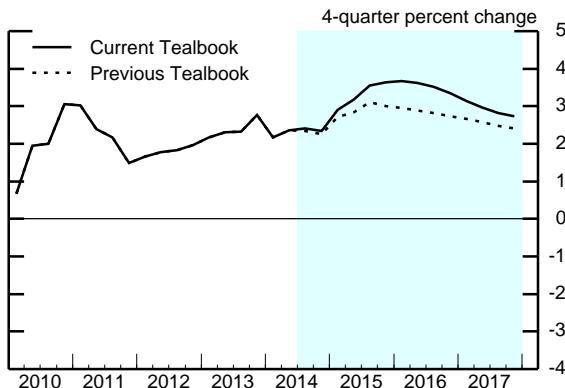


Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

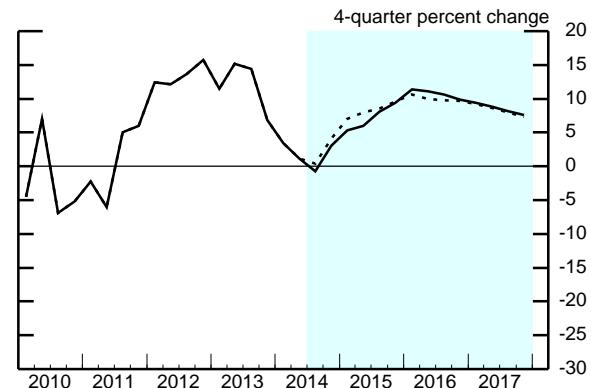
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Components of Final Demand

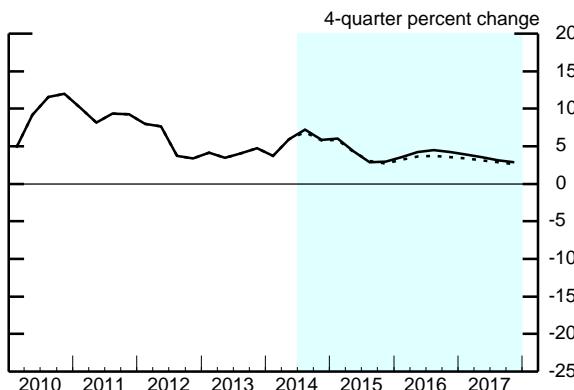
Personal Consumption Expenditures



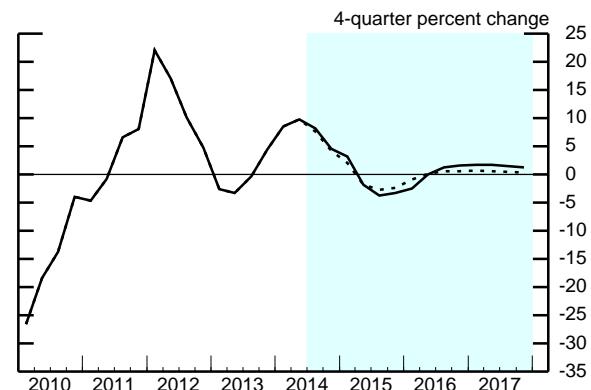
Residential Investment



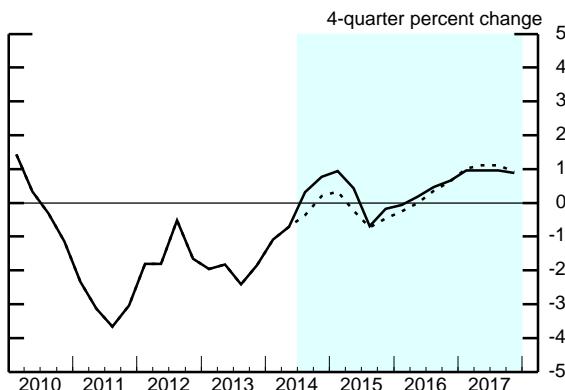
Equipment and Intangibles



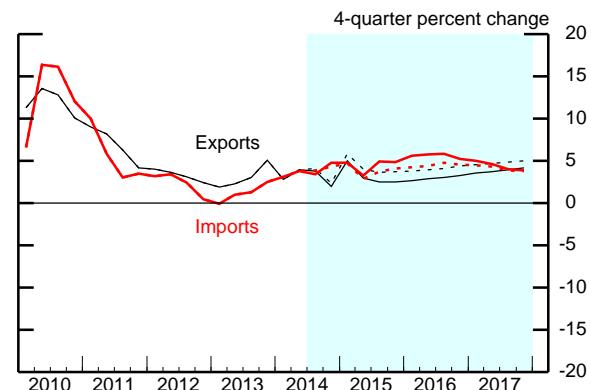
Nonresidential Structures



Government Consumption & Investment

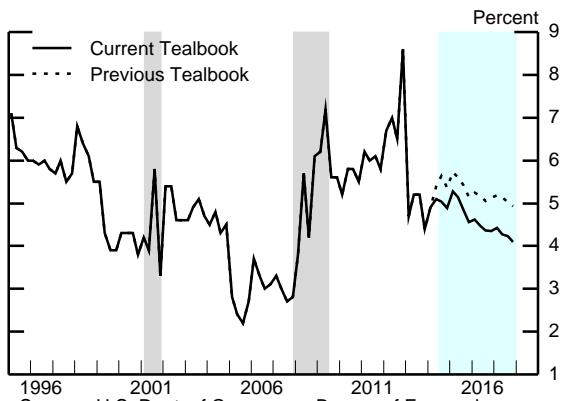


Exports and Imports

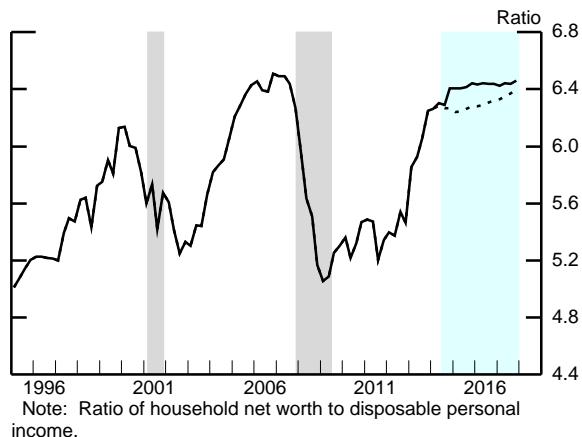


Aspects of the Medium-Term Projection

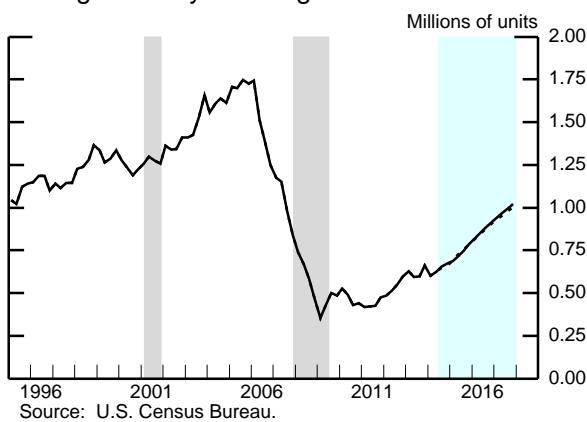
Personal Saving Rate



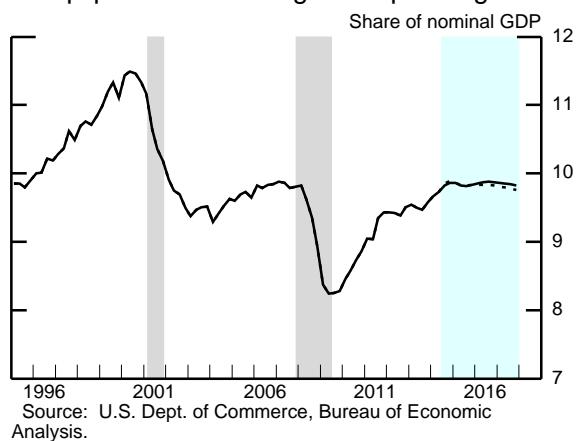
Wealth-to-Income Ratio



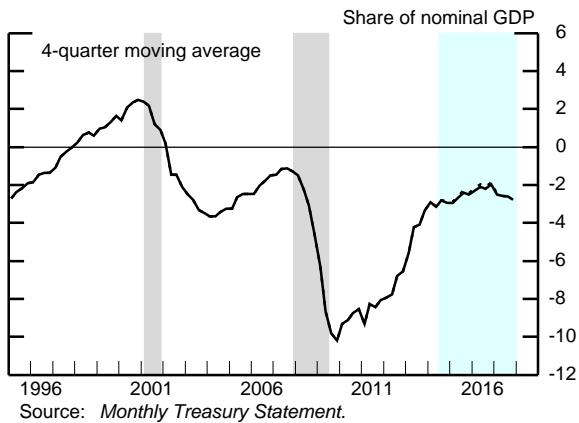
Single-Family Housing Starts



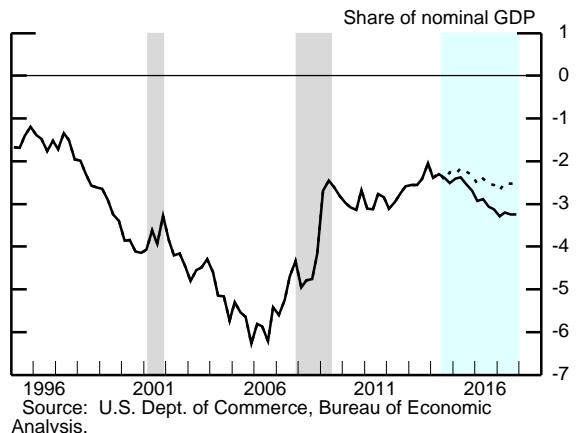
Equipment and Intangibles Spending



Federal Surplus/Deficit



Current Account Surplus/Deficit



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)

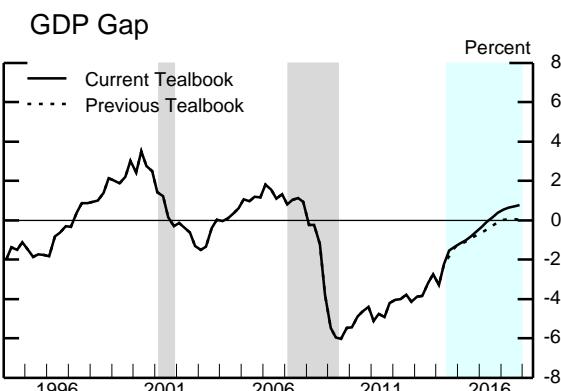
| Measure | 1974-95 | 1996-2000 | 2001-07 | 2008-10 | 2011-13 | 2014 | 2015 | 2016 | 2017 |
|--|---------|-----------|---------|---------|---------|------|------|------|------|
| Potential real GDP | 3.1 | 3.4 | 2.6 | 1.7 | 1.6 | .7 | 1.7 | 1.8 | 1.8 |
| Previous Tealbook | 3.1 | 3.4 | 2.6 | 1.7 | 1.6 | .6 | 1.7 | 1.9 | 2.0 |
| <i>Selected contributions</i> ¹ | | | | | | | | | |
| Structural labor productivity ² | 1.6 | 2.9 | 2.8 | 1.5 | 1.2 | .8 | 1.7 | 1.7 | 1.7 |
| Previous Tealbook | 1.6 | 2.9 | 2.8 | 1.5 | 1.2 | .7 | 1.7 | 1.8 | 1.9 |
| Capital deepening | .7 | 1.5 | .9 | .4 | .4 | .7 | .7 | .8 | .8 |
| Multifactor productivity | .7 | 1.1 | 1.6 | .9 | .7 | .0 | .8 | .8 | .8 |
| Structural hours | 1.5 | 1.0 | .7 | .2 | .7 | .6 | .3 | .3 | .3 |
| Previous Tealbook | 1.5 | 1.0 | .7 | .2 | .6 | .2 | .3 | .3 | .3 |
| Labor force participation | .4 | .0 | -.3 | -.4 | -.5 | -.5 | -.5 | -.5 | -.5 |
| Previous Tealbook | .4 | .0 | -.3 | -.4 | -.5 | -.8 | -.5 | -.5 | -.5 |
| Memo: | | | | | | | | | |
| GDP gap ³ | -1.8 | 2.5 | .9 | -4.4 | -2.8 | -1.3 | -.6 | .4 | .8 |
| Previous Tealbook | -1.8 | 2.5 | .9 | -4.4 | -2.8 | -1.4 | -.8 | -.1 | .0 |

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.

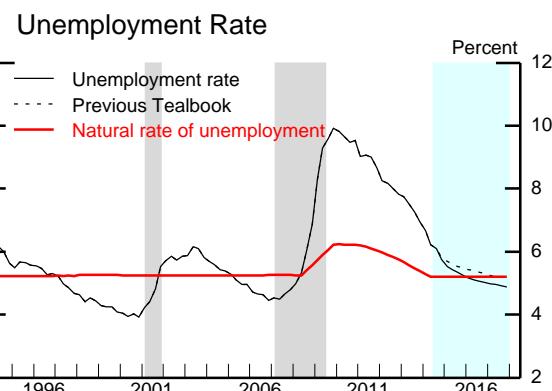
2. Total business sector.

3. 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.

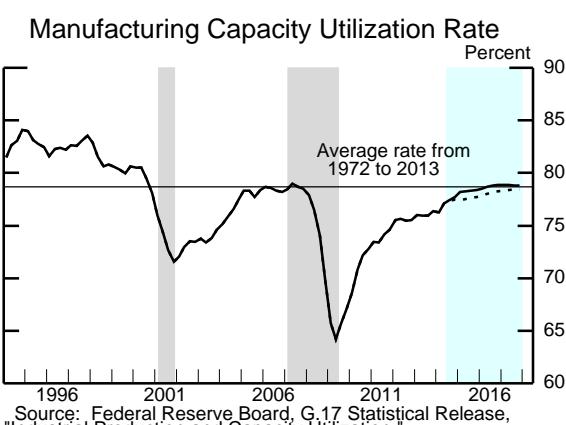


Note: The GDP gap is the percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.

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

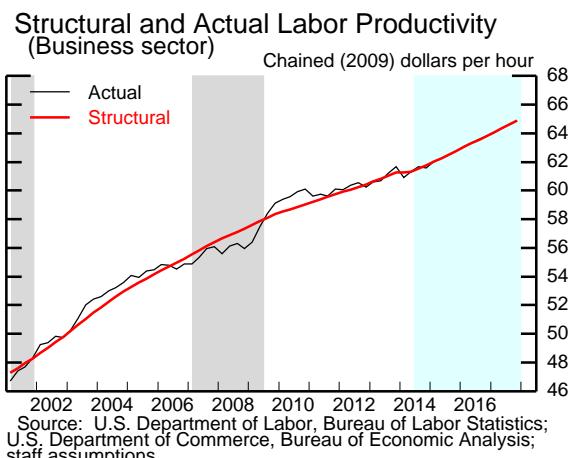


Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.



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.



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

The Outlook for the Labor Market

| Measure | 2014 | 2014 | | 2015 | 2016 | 2017 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| | | H1 | H2 | | | |
| Output per hour, business ¹ Previous Tealbook | | -.1 .0 | -1.1 -1.1 | .8 1.1 | 1.9 1.7 | 1.7 1.8 |
| Nonfarm private employment ² Previous Tealbook | 234 220 | 222 222 | 246 218 | 210 151 | 218 161 | 138 112 |
| Labor force participation rate ³ Previous Tealbook | 62.8 62.7 | 62.8 62.8 | 62.8 62.7 | 62.6 62.6 | 62.5 62.4 | 62.5 62.2 |
| Civilian unemployment rate ³ Previous Tealbook | 5.7 5.8 | 6.2 6.2 | 5.7 5.8 | 5.2 5.5 | 5.0 5.3 | 4.9 5.2 |

1. Percent change from final quarter of preceding period at annual rate.

2. Thousands, average monthly changes.

3. 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)

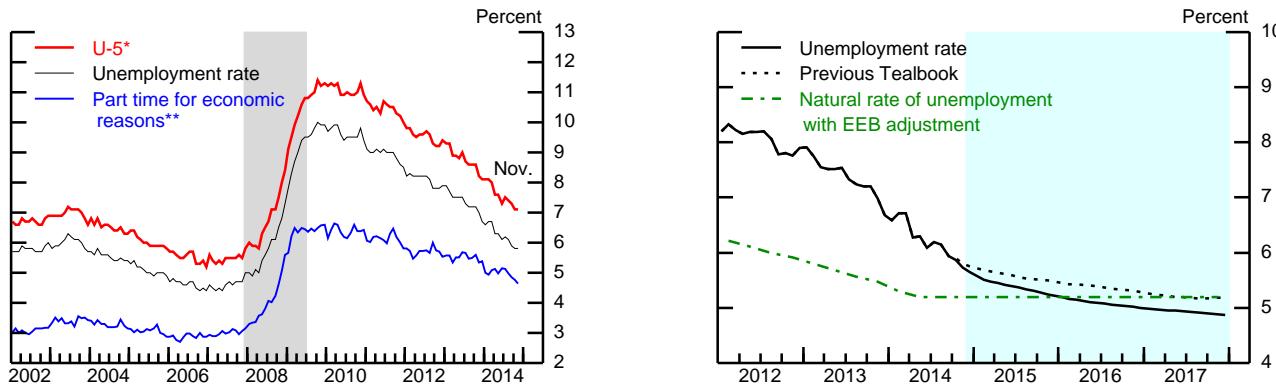
| Measure | 2014 | 2014 | | 2015 | 2016 | 2017 |
|--|--------------|------------|----------------|--------------|------------|------------|
| | | H1 | H2 | | | |
| PCE chain-weighted price index Previous Tealbook | 1.2 1.2 | 1.9 1.9 | .6 .5 | 1.0 1.4 | 1.7 1.6 | 1.8 1.7 |
| Food and beverages Previous Tealbook | 2.6 2.7 | 2.9 2.9 | 2.2 2.5 | 1.3 1.0 | 1.6 1.5 | 1.9 1.8 |
| Energy Previous Tealbook | -6.4 -5.5 | 4.6 4.6 | -16.2 -14.7 | -7.9 -1.1 | 2.8 1.2 | 1.9 .9 |
| Excluding food and energy Previous Tealbook | 1.6 1.5 | 1.6 1.6 | 1.5 1.3 | 1.5 1.5 | 1.6 1.6 | 1.8 1.8 |
| Prices of core goods imports ¹ Previous Tealbook | .4 .6 | 1.5 1.5 | -.5 -.3 | -.3 .4 | 1.3 1.2 | 1.3 1.2 |

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

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

Labor Market Developments and Outlook (1)

Measures of Labor Underutilization



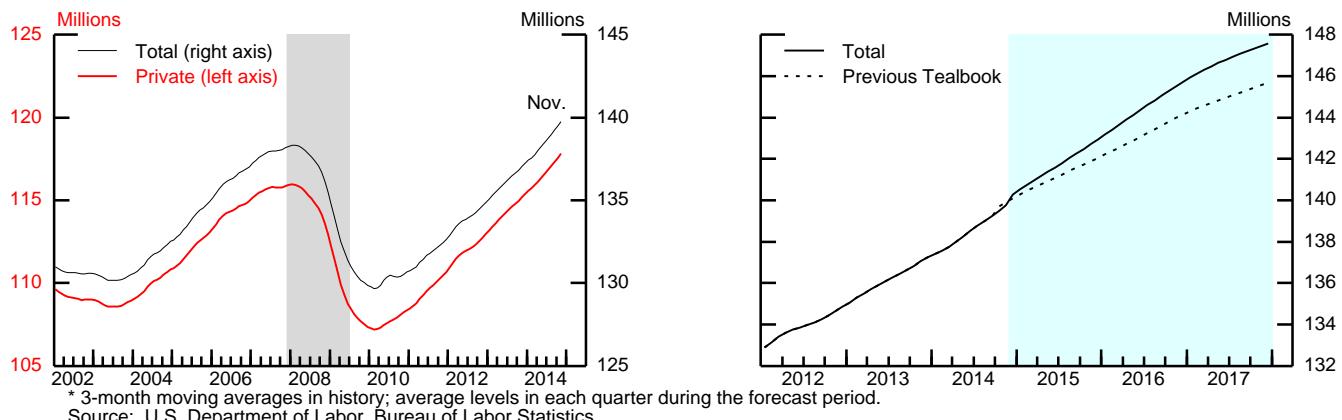
* U-5 measures total unemployed persons plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.

** Percent of Current Population Survey employment.

EEB Extended and emergency unemployment benefits.

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

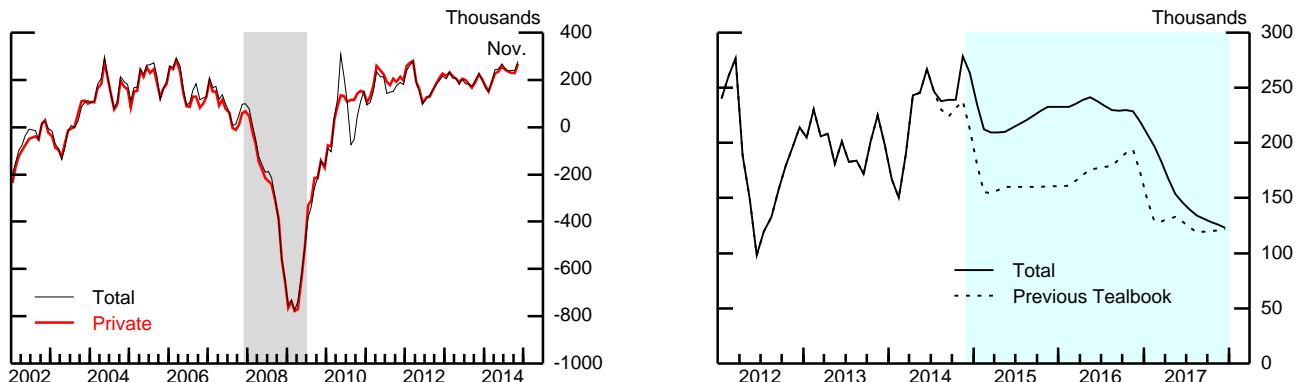
Level of Payroll Employment*



* 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.

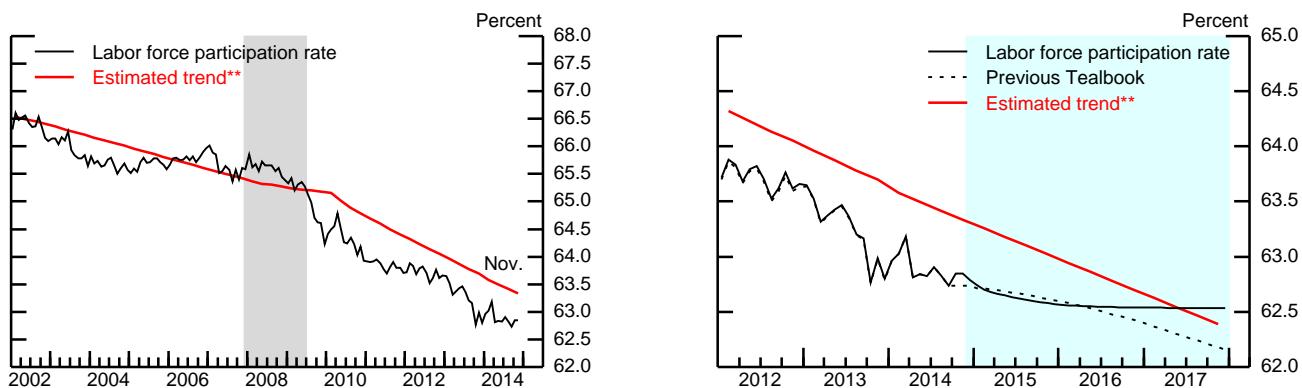
Source: U.S. Department of Labor, Bureau of Labor Statistics.

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.

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

Labor Market Developments and Outlook (2)

Labor Force Participation Rate*

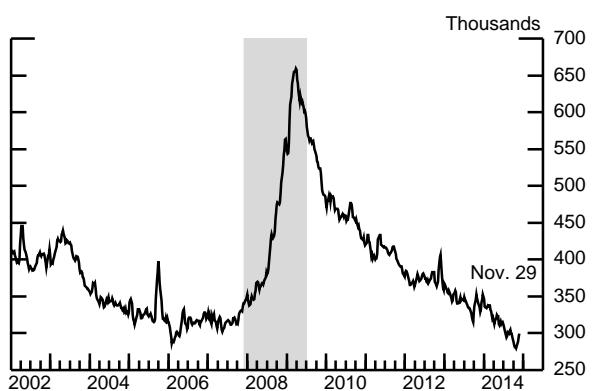


* Published data adjusted by staff to account for changes in population weights.

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

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

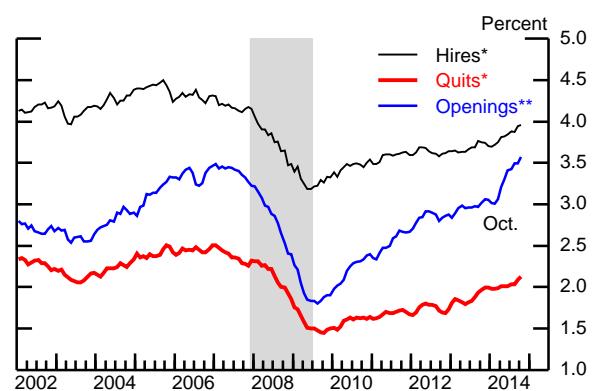
Initial Unemployment Insurance Claims*



* 4-week moving average.

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

Private Hires, Quits, and Job Openings

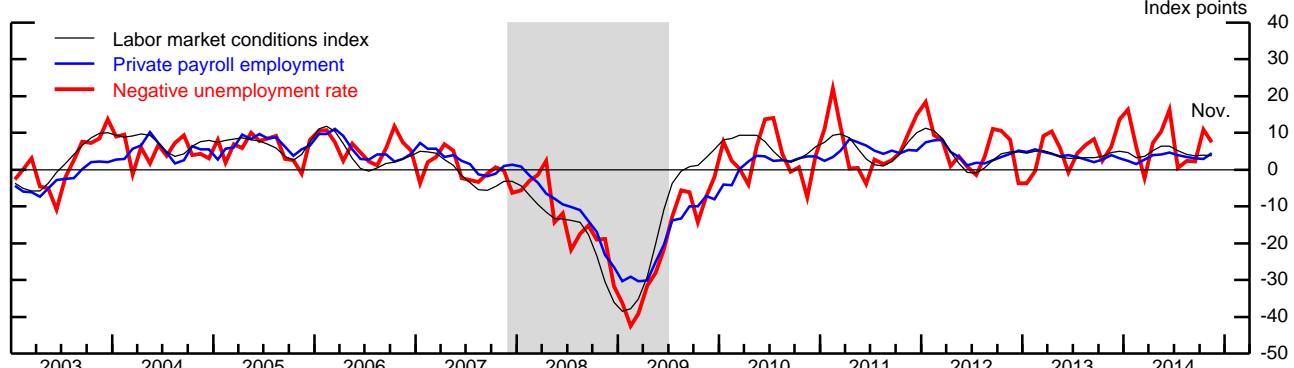


* Percent of private nonfarm payroll employment, 3-month moving average.

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

Source: Job Openings and Labor Turnover Survey.

Change in Labor Market Conditions Index and Selected Indicators*



Note: Labor market conditions index estimated by staff; indexes for unemployment rate and private payroll employment are standardized deviations from estimated trend.

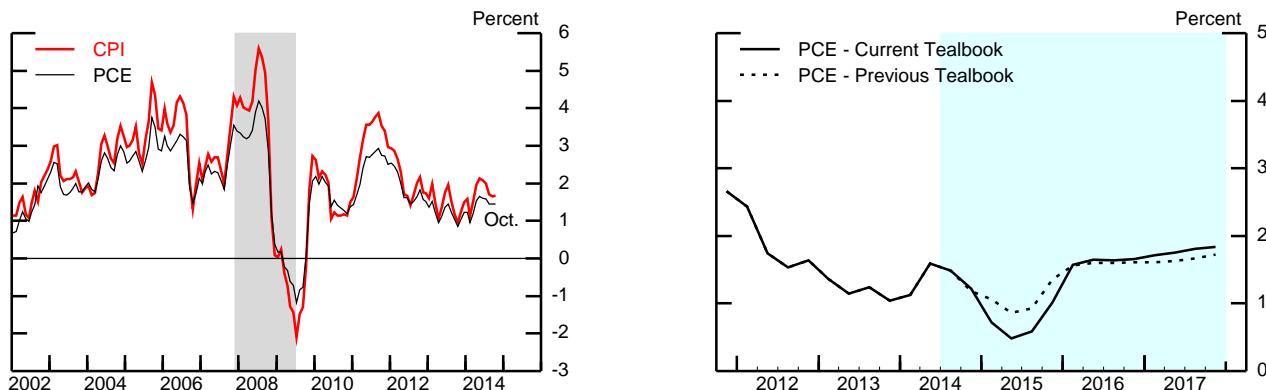
* 3-month moving average.

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

Inflation Developments and Outlook (1)

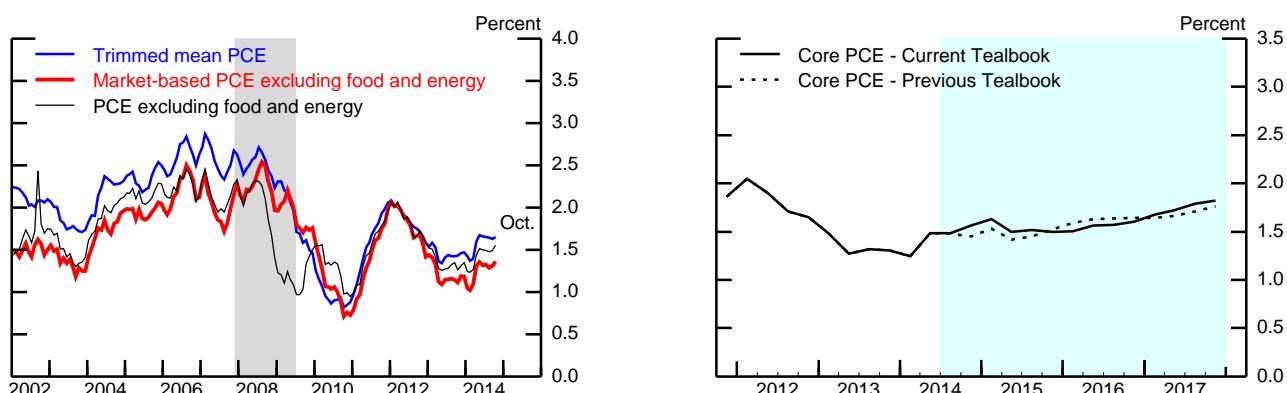
(Percent change from year-earlier period)

Headline Consumer Price Inflation



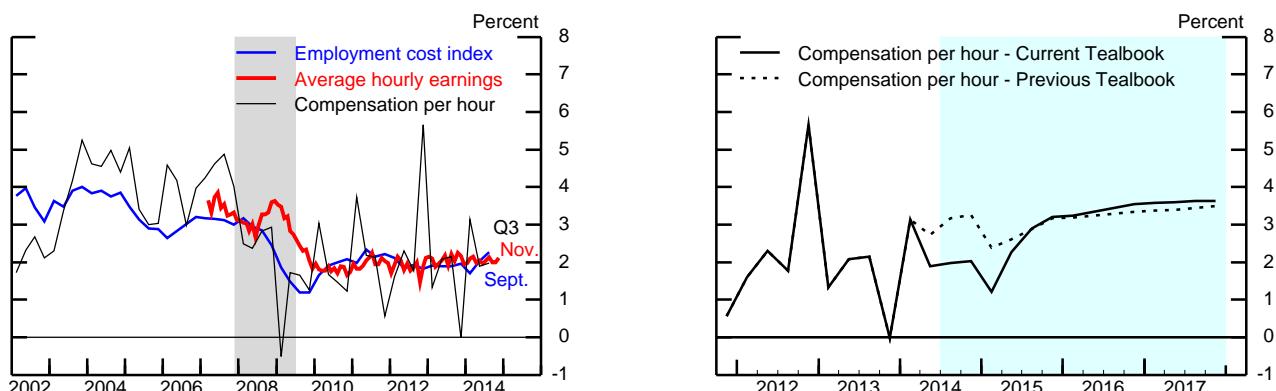
Source: For CPI, U.S. Department of Labor, Bureau of Labor Statistics; for PCE, U.S. Department of Commerce, Bureau of Economic Analysis.

Measures of Underlying PCE Price Inflation



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

Labor Cost Growth



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

Note: Compensation per hour is for the business sector. Average hourly earnings are for the private nonfarm sector. The employment cost index is for the private sector.

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

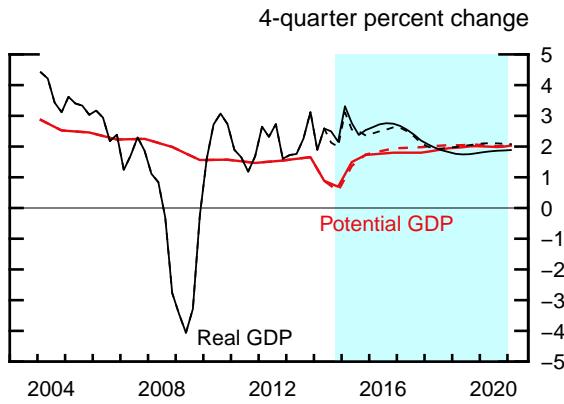
The Long-Term Outlook

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

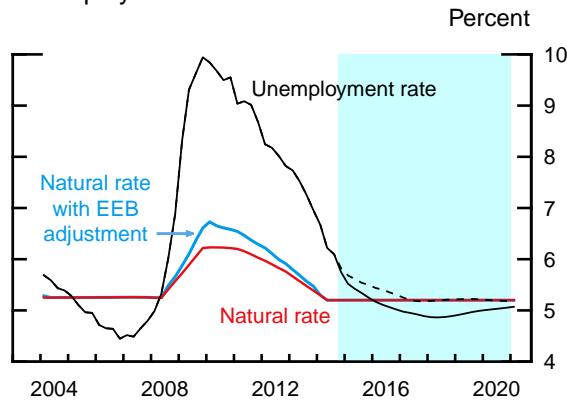
| Measure | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Longer run |
|--|------------|------------|------------|------------|------------|------------|------------|
| Real GDP Previous Tealbook | 2.2 2.0 | 2.5 2.4 | 2.7 2.6 | 2.2 2.1 | 1.8 2.0 | 1.8 2.1 | 2.0 2.0 |
| Civilian unemployment rate ¹ Previous Tealbook | 5.7 5.8 | 5.2 5.5 | 5.0 5.3 | 4.9 5.2 | 4.9 5.2 | 5.0 5.2 | 5.2 5.2 |
| PCE prices, total Previous Tealbook | 1.2 1.2 | 1.0 1.4 | 1.7 1.6 | 1.8 1.7 | 1.9 1.8 | 2.0 1.9 | 2.0 2.0 |
| Core PCE prices Previous Tealbook | 1.6 1.5 | 1.5 1.5 | 1.6 1.6 | 1.8 1.8 | 1.9 1.8 | 2.0 1.9 | 2.0 2.0 |
| Federal funds rate ¹ Previous Tealbook | .1 .1 | 1.0 .9 | 2.1 1.9 | 3.0 2.6 | 3.6 3.0 | 3.8 3.2 | 3.8 3.8 |
| 10-year Treasury yield ¹ Previous Tealbook | 2.4 2.4 | 3.4 3.2 | 3.9 3.7 | 4.2 3.9 | 4.4 4.2 | 4.5 4.3 | 4.6 4.6 |

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

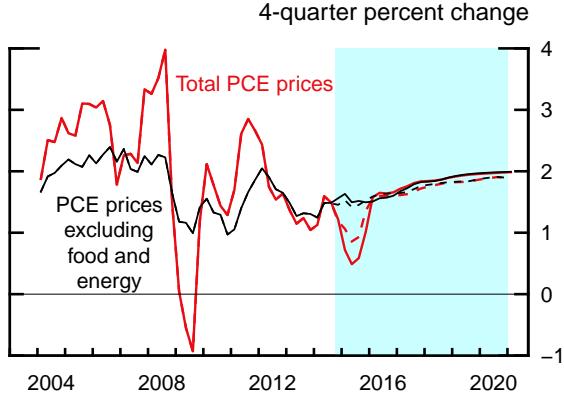
Real GDP



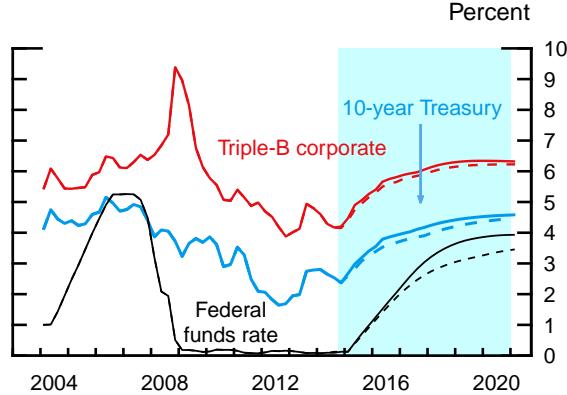
Unemployment Rate



PCE Prices



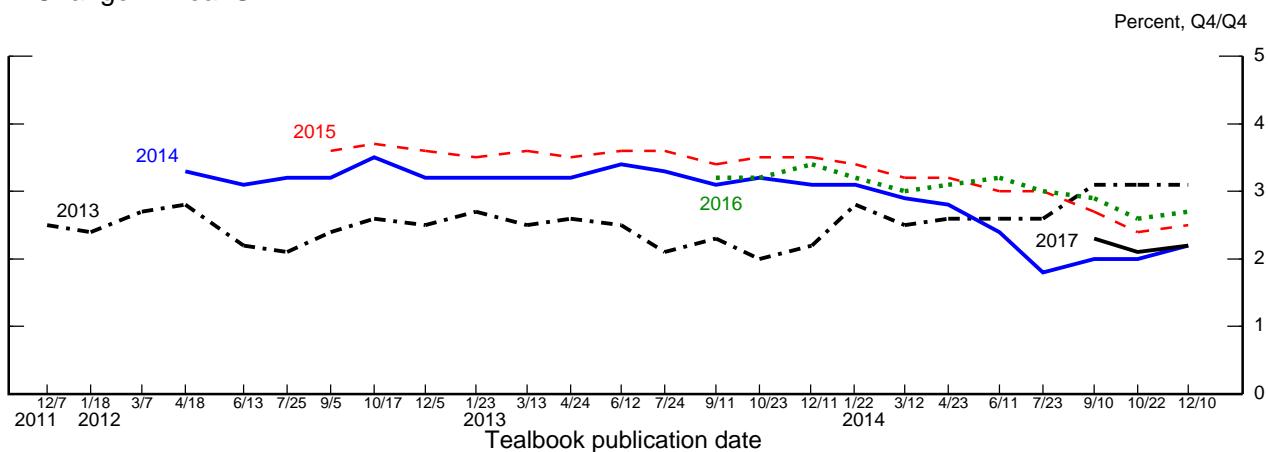
Interest Rates



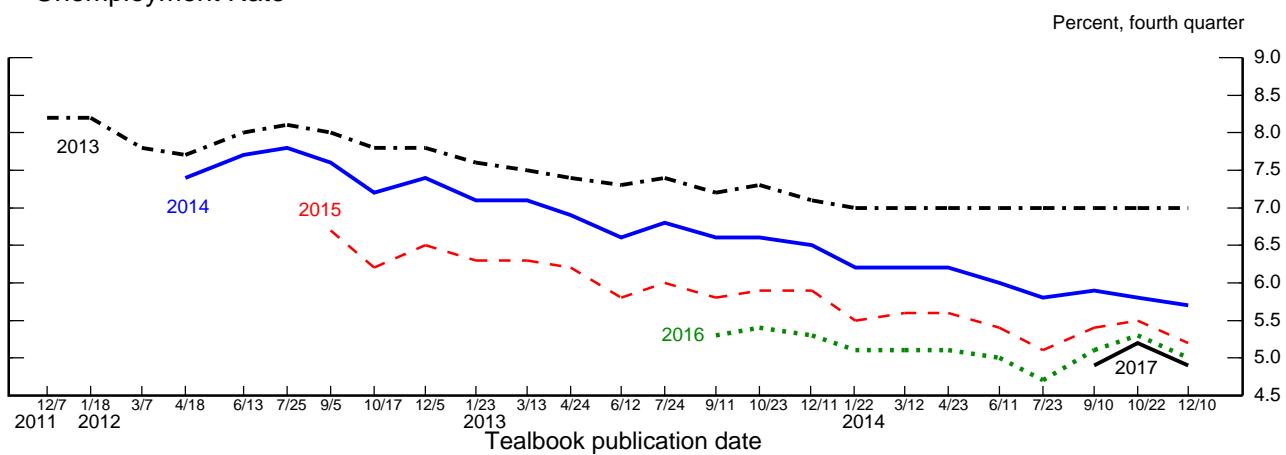
Note: In each panel, shading represents the projection period, and dashed lines are the previous Tealbook.

Evolution of the Staff Forecast

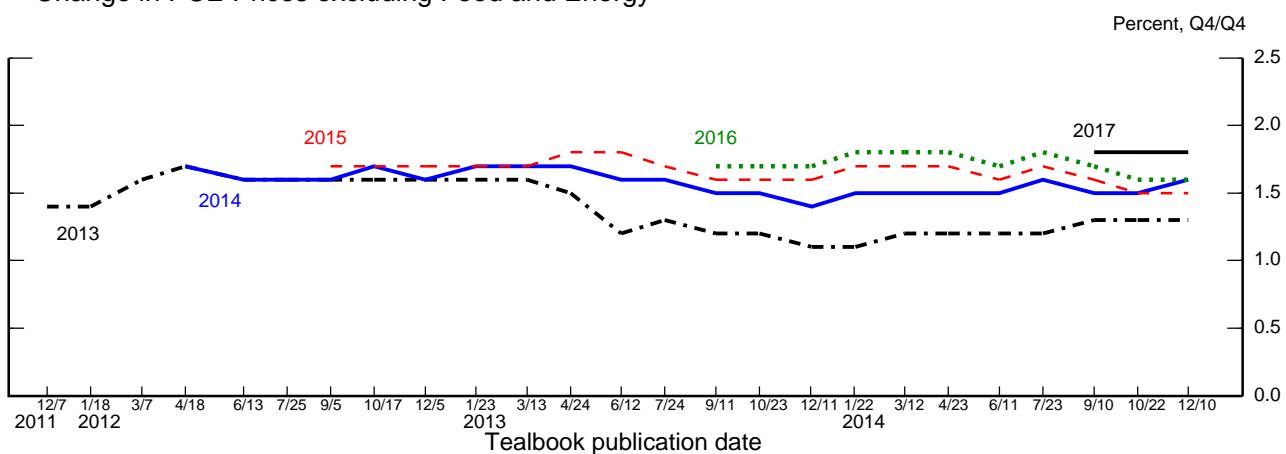
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy



The Foreign GDP Outlook

Real GDP*

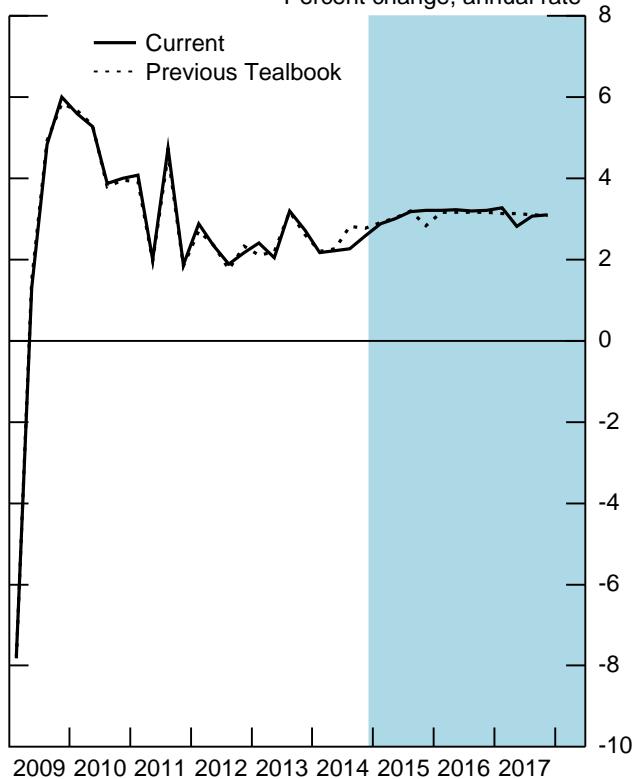
Percent change, annual rate

| | 2014 | | | 2015 | | | 2016 | 2017 |
|--------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | H1 | Q3 | Q4 | Q1 | Q2 | H2 | | |
| 1. Total Foreign | 2.2 | 2.3 | 2.6 | 2.9 | 3.0 | 3.2 | 3.2 | 3.1 |
| <i>Previous Tealbook</i> | 2.2 | 2.8 | 2.8 | 2.9 | 3.0 | 3.0 | 3.2 | 3.1 |
| 2. Advanced Foreign Economies | 1.6 | 1.6 | 1.8 | 2.0 | 2.1 | 2.2 | 2.2 | 1.9 |
| <i>Previous Tealbook</i> | 1.5 | 1.9 | 1.8 | 2.0 | 2.1 | 1.9 | 2.1 | 2.1 |
| 3. Canada | 2.3 | 2.8 | 2.5 | 2.4 | 2.4 | 2.6 | 2.5 | 2.2 |
| 4. Euro Area | 0.8 | 0.6 | 0.7 | 1.2 | 1.6 | 1.7 | 1.9 | 2.0 |
| 5. Japan | -0.6 | -1.9 | 1.8 | 1.7 | 1.5 | 1.5 | 1.3 | -0.3 |
| 6. United Kingdom | 3.4 | 2.8 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.3 |
| 7. Emerging Market Economies | 2.8 | 3.0 | 3.3 | 3.8 | 3.9 | 4.2 | 4.2 | 4.2 |
| <i>Previous Tealbook</i> | 3.0 | 3.7 | 3.7 | 3.9 | 4.0 | 4.1 | 4.2 | 4.1 |
| 8. China | 7.0 | 7.7 | 7.2 | 7.4 | 7.4 | 7.3 | 7.1 | 7.0 |
| 9. Emerging Asia ex. China | 2.8 | 3.9 | 3.6 | 4.4 | 4.4 | 4.5 | 4.5 | 4.3 |
| 10. Mexico | 2.5 | 2.0 | 3.2 | 3.3 | 3.4 | 3.5 | 3.4 | 3.5 |
| 11. Brazil | -1.6 | 0.3 | 1.0 | 1.3 | 1.6 | 1.8 | 2.1 | 2.3 |

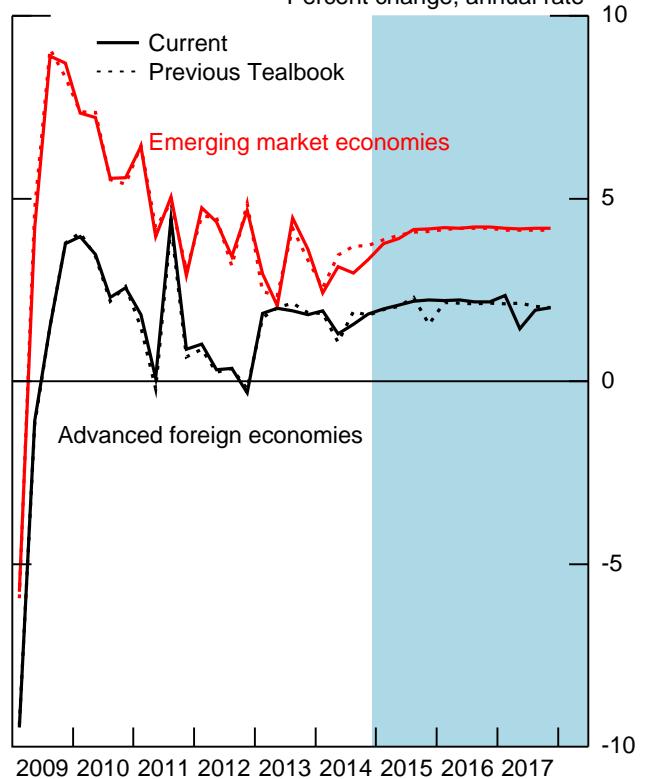
* GDP aggregates weighted by shares of U.S. merchandise exports.

Total Foreign GDP

Percent change, annual rate

**Foreign GDP**

Percent change, annual rate



The Foreign Inflation Outlook

Consumer Prices*

Percent change, annual rate

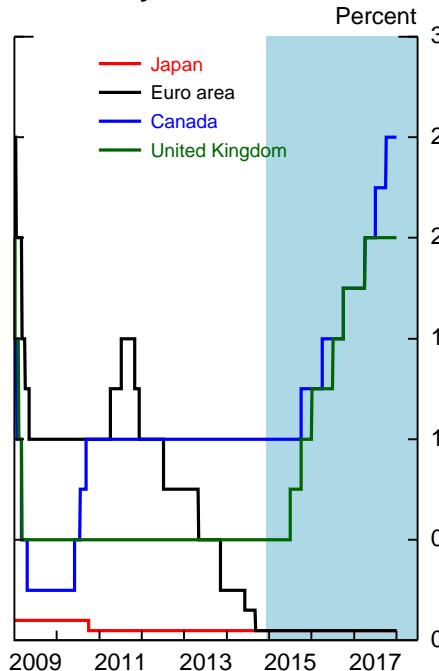
| | 2014 | | | 2015 | | | 2016 | 2017 |
|--------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | H1 | Q3 | Q4 | Q1 | Q2 | H2 | | |
| 1. Total Foreign | 2.5 | 2.1 | 1.6 | 2.0 | 2.3 | 2.5 | 2.6 | 2.7 |
| <i>Previous Tealbook</i> | 2.5 | 2.1 | 1.7 | 2.2 | 2.4 | 2.7 | 2.6 | 2.6 |
| 2. Advanced Foreign Economies | 2.2 | 1.1 | 0.0 | 0.6 | 1.1 | 1.4 | 1.6 | 2.0 |
| <i>Previous Tealbook</i> | 2.2 | 1.1 | 0.3 | 0.8 | 1.2 | 1.9 | 1.6 | 1.7 |
| 3. Canada | 3.3 | 1.3 | 1.2 | 1.0 | 1.4 | 1.7 | 1.8 | 2.0 |
| 4. Euro Area | 0.4 | 0.6 | -0.5 | -0.1 | 0.9 | 1.3 | 1.5 | 1.6 |
| 5. Japan | 4.8 | 1.8 | -0.9 | 1.4 | 0.9 | 1.1 | 1.3 | 2.8 |
| 6. United Kingdom | 1.5 | 1.5 | 0.2 | 1.0 | 1.6 | 1.9 | 1.9 | 2.0 |
| 7. Emerging Market Economies | 2.8 | 2.9 | 2.9 | 3.1 | 3.2 | 3.4 | 3.3 | 3.3 |
| <i>Previous Tealbook</i> | 2.8 | 2.8 | 2.9 | 3.3 | 3.4 | 3.3 | 3.3 | 3.3 |
| 8. China | 1.4 | 2.2 | 1.9 | 2.4 | 2.6 | 3.0 | 3.0 | 3.0 |
| 9. Emerging Asia ex. China | 3.0 | 1.9 | 2.6 | 3.7 | 3.6 | 3.7 | 3.5 | 3.5 |
| 10. Mexico | 4.1 | 4.4 | 4.0 | 3.2 | 3.3 | 3.3 | 3.3 | 3.3 |
| 11. Brazil | 7.0 | 6.2 | 5.9 | 5.6 | 5.6 | 5.6 | 5.4 | 5.4 |

* CPI aggregates weighted by shares of U.S. non-oil imports.

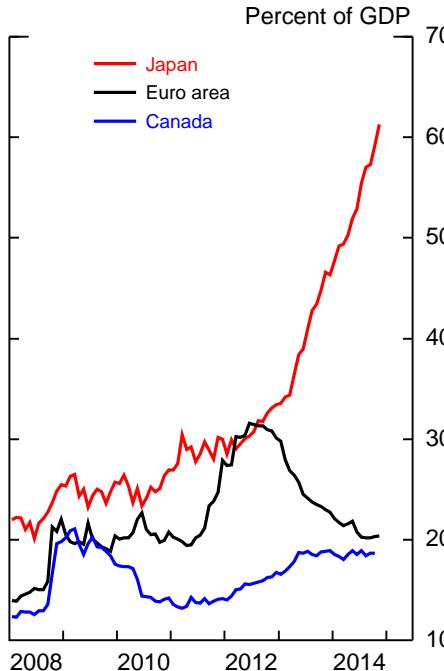
Int'l Econ Devel & Outlook

Foreign Monetary Policy

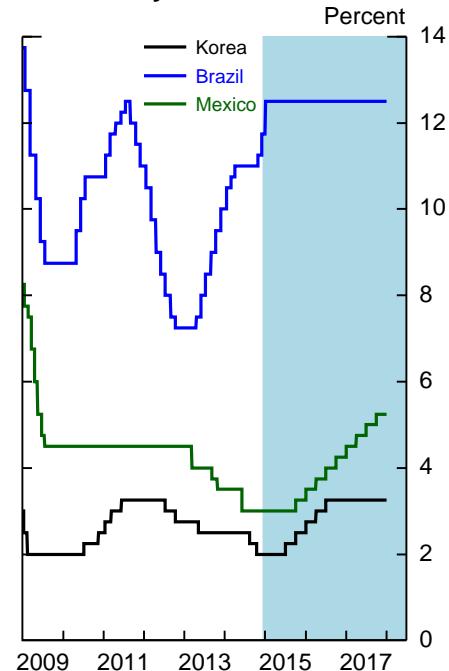
AFE Policy Rates



AFE Central Bank Balance Sheets

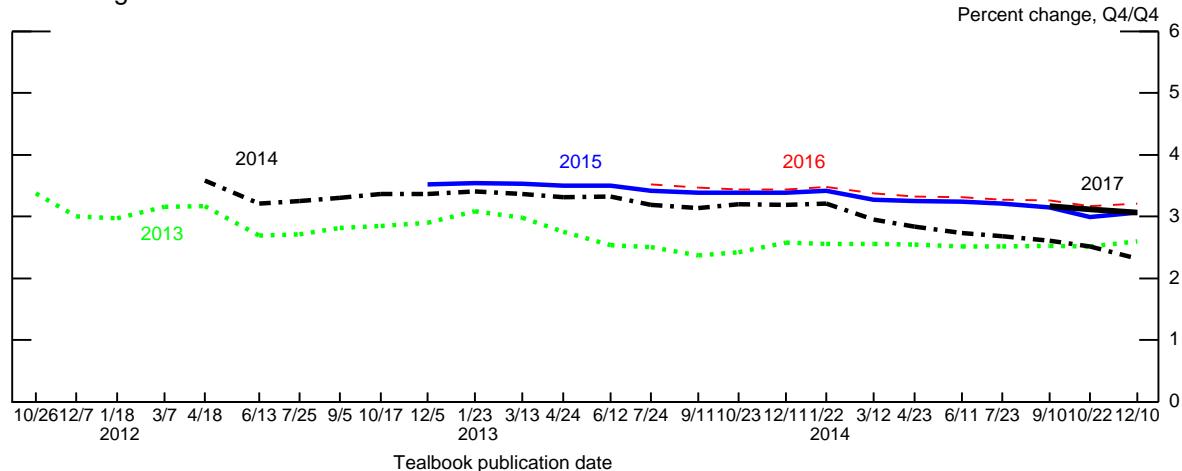


EME Policy Rates

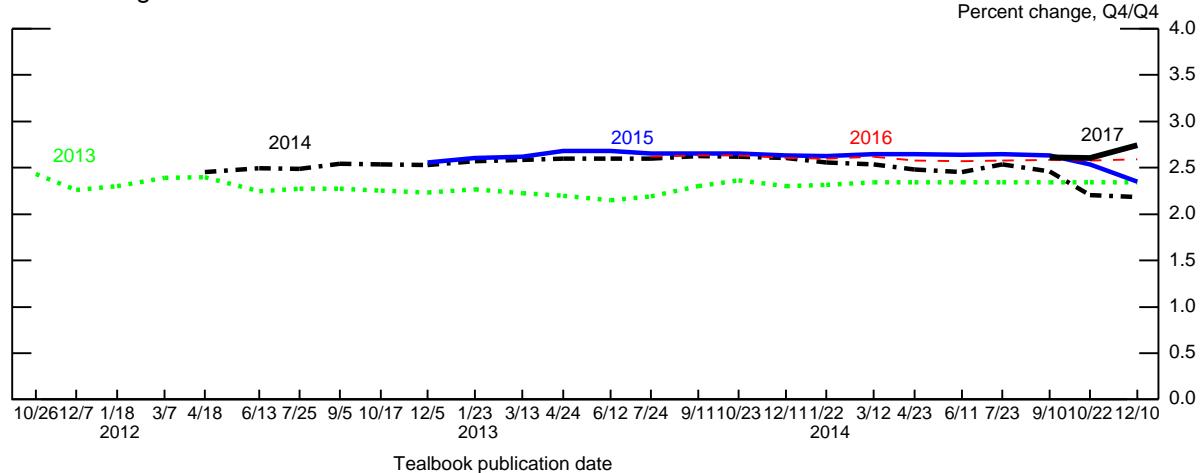


Evolution of Staff's International Forecast

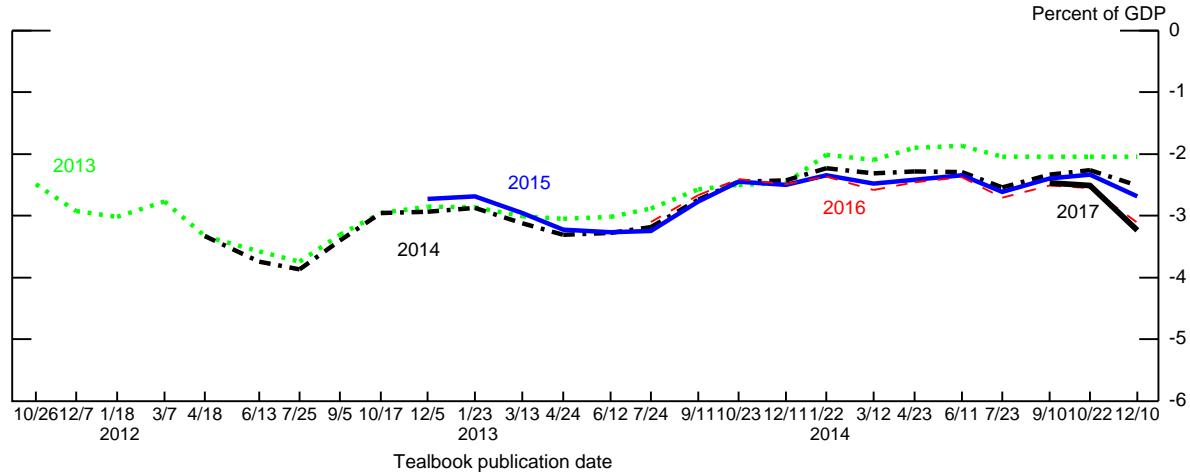
Total Foreign GDP



Total Foreign CPI

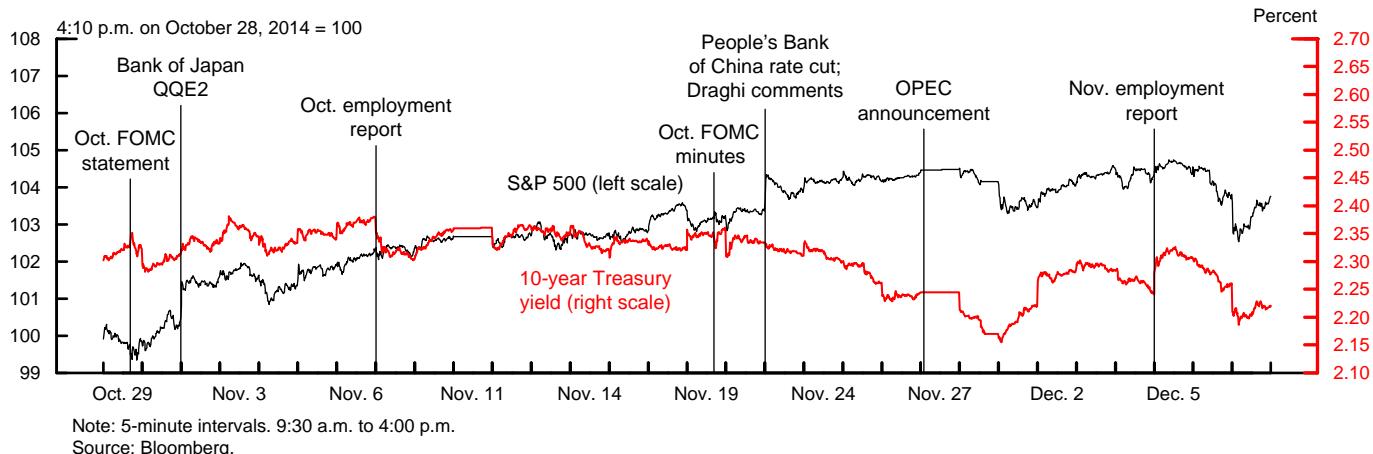


U.S. Current Account Balance

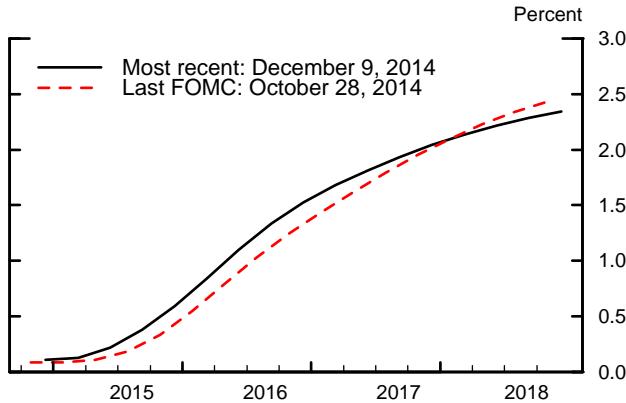


Treasury Yields and Policy Expectations

10-Year Treasury Yield and S&P 500 Index



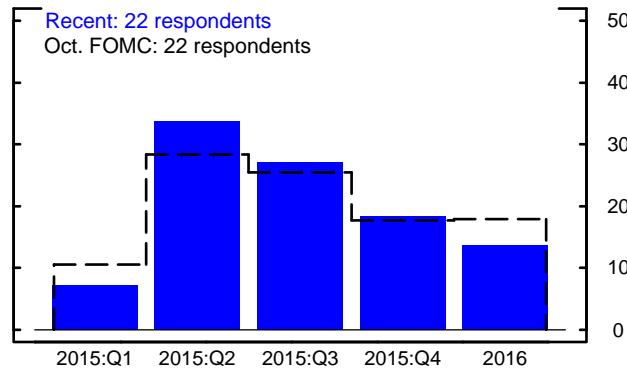
Implied Federal Funds Rate



Note: Path is estimated using overnight index swap quotes with a spline approach and a term premium of zero basis points.

Source: Bloomberg; staff estimation.

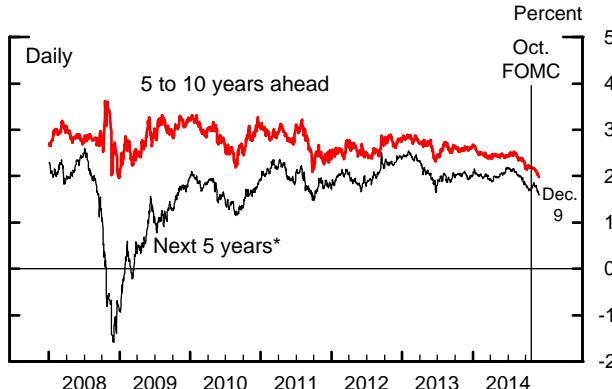
Distribution of Expected Timing of First Rate Increase from the Desk's Primary Dealer Survey



Note: For 2015:Q1, expected timing is before or during that quarter; for 2016, expected timing is during or after that year.

Source: Desk's primary dealer survey from December 8, 2014.

Inflation Compensation

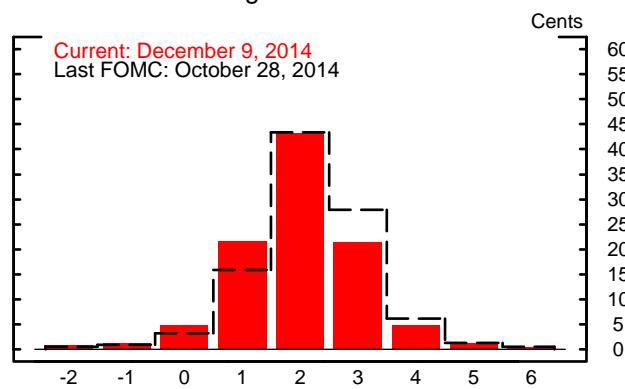


Note: Estimates based on smoothed nominal and inflation-indexed Treasury yield curves.

* Adjusted for lagged indexation of Treasury Inflation-Protected Securities (carry effect).

Source: Barclays PLC; staff estimates.

Cost of Insurance against Inflation Outcomes



Note: Prices of binary options that pay \$1 if annualized cumulative headline CPI inflation over the next 10 years falls within the given range of outcomes. Derived under the assumption that average inflation takes discrete values (e.g., the bar for 3 percent covers roughly the area between 2.5 percent and 3.5 percent).

Source: Barclays PLC; staff estimates.

Alternative Scenarios

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

| Measure and scenario | 2014 | 2015 | 2016 | 2017 | 2018-19 |
|---|------|------|------|------|---------|
| | H2 | | | | |
| <i>Real GDP</i> | | | | | |
| Extended Tealbook baseline | 3.1 | 2.5 | 2.7 | 2.2 | 1.8 |
| Weaker foreign growth and stronger dollar | 3.1 | 2.0 | 2.0 | 2.2 | 2.3 |
| Weaker demand (FRB/US) | 3.1 | 1.9 | 3.1 | 2.5 | 1.9 |
| Weaker demand (EDO) | 3.1 | 1.9 | 3.0 | 2.5 | 1.9 |
| Lower long-term inflation expectations | 3.1 | 2.6 | 3.2 | 3.0 | 1.9 |
| Faster recovery | 3.1 | 3.2 | 3.4 | 2.6 | 1.8 |
| <i>Unemployment rate¹</i> | | | | | |
| Extended Tealbook baseline | 5.7 | 5.2 | 5.0 | 4.9 | 5.0 |
| Weaker foreign growth and stronger dollar | 5.7 | 5.4 | 5.5 | 5.5 | 5.3 |
| Weaker demand (FRB/US) | 5.7 | 5.5 | 5.2 | 4.9 | 4.9 |
| Weaker demand (EDO) | 5.7 | 5.5 | 5.1 | 4.9 | 5.0 |
| Lower long-term inflation expectations | 5.7 | 5.2 | 4.7 | 4.2 | 4.3 |
| Faster recovery | 5.7 | 5.0 | 4.5 | 4.3 | 4.6 |
| <i>Total PCE prices</i> | | | | | |
| Extended Tealbook baseline | .6 | 1.0 | 1.7 | 1.8 | 1.9 |
| Weaker foreign growth and stronger dollar | .5 | .0 | .8 | 1.4 | 2.1 |
| Weaker demand (FRB/US) | .6 | 1.0 | 1.7 | 1.8 | 1.9 |
| Weaker demand (EDO) | .6 | 1.0 | 1.6 | 1.8 | 1.9 |
| Lower long-term inflation expectations | .6 | .9 | 1.4 | 1.6 | 1.9 |
| Faster recovery | .6 | 1.1 | 2.0 | 2.3 | 2.4 |
| <i>Core PCE prices</i> | | | | | |
| Extended Tealbook baseline | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| Weaker foreign growth and stronger dollar | 1.5 | .9 | 1.0 | 1.4 | 1.8 |
| Weaker demand (FRB/US) | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| Weaker demand (EDO) | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| Lower long-term inflation expectations | 1.5 | 1.3 | 1.3 | 1.6 | 1.9 |
| Faster recovery | 1.5 | 1.6 | 1.9 | 2.3 | 2.4 |
| <i>Federal funds rate¹</i> | | | | | |
| Extended Tealbook baseline | .1 | 1.0 | 2.1 | 3.0 | 3.8 |
| Weaker foreign growth and stronger dollar | .1 | .4 | 1.1 | 1.8 | 3.2 |
| Weaker demand (FRB/US) | .1 | .5 | 1.6 | 2.8 | 3.9 |
| Weaker demand (EDO) | .1 | .7 | 1.7 | 2.7 | 3.7 |
| Lower long-term inflation expectations | .1 | .1 | .1 | 1.5 | 4.3 |
| Faster recovery | .1 | 1.2 | 2.7 | 4.1 | 5.2 |

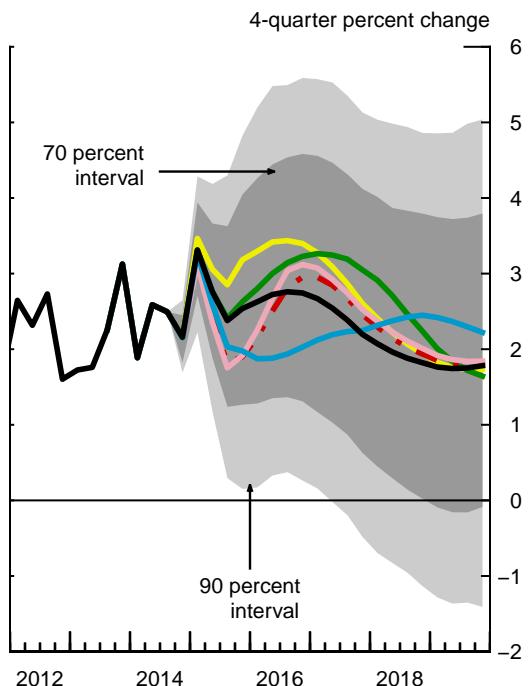
1. Percent, average for the final quarter of the period.

Forecast Confidence Intervals and Alternative Scenarios

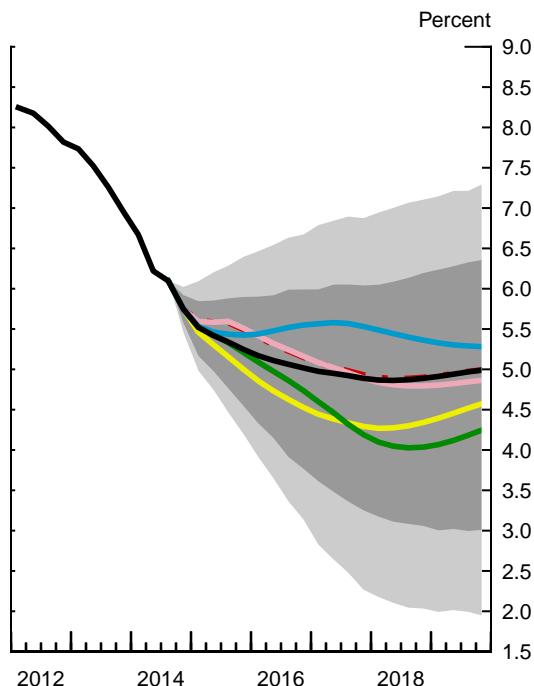
Confidence Intervals Based on FRB/US Stochastic Simulations

| | | |
|---|--------------------------|--|
| ■ Extended Tealbook baseline | ■ Weaker demand (FRB/US) | ■ Lower long-term inflation expectations |
| ■ Weaker foreign growth and stronger dollar | ■ Weaker demand (EDO) | ■ Faster recovery |

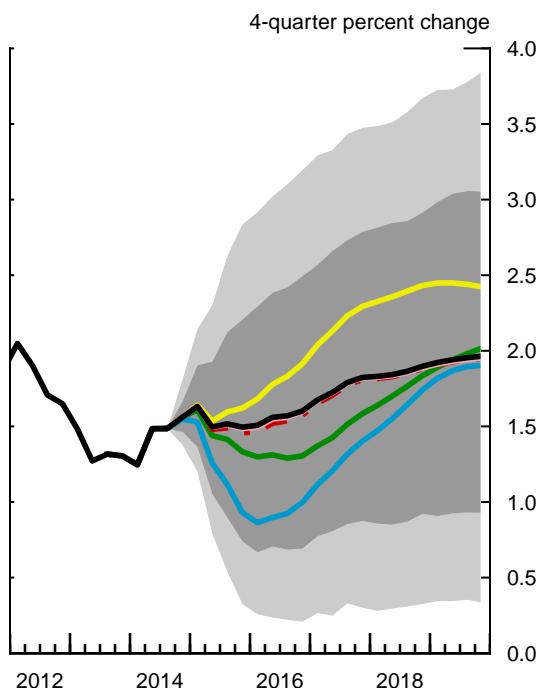
Real GDP



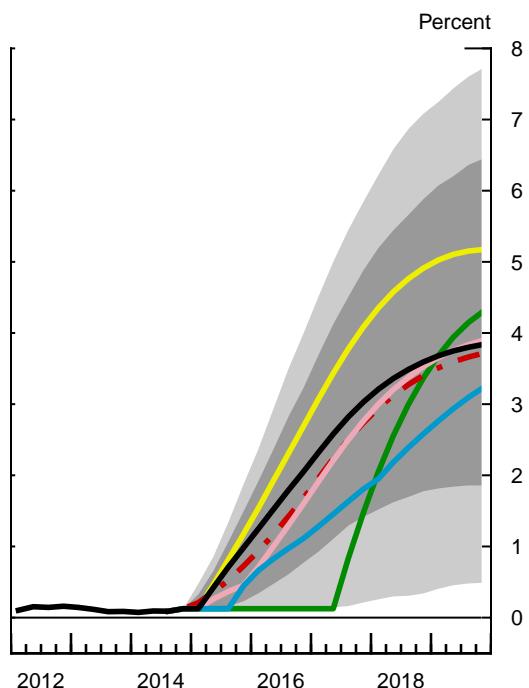
Unemployment Rate



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 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---------|---------|---------|---------|---------|---------|
| <i>Real GDP</i> (percent change, Q4 to Q4) | | | | | | |
| Projection | 2.2 | 2.5 | 2.7 | 2.2 | 1.8 | 1.8 |
| Confidence interval | | | | | | |
| Tealbook forecast errors | 1.6–2.7 | .8–4.2 | .9–4.6 | ... | ... | ... |
| FRB/US stochastic simulations | 1.8–2.4 | 1.3–4.0 | 1.3–4.6 | .6–4.1 | .0–3.8 | -.1–3.8 |
| <i>Civilian unemployment rate</i> (percent, Q4) | | | | | | |
| Projection | 5.7 | 5.2 | 5.0 | 4.9 | 4.9 | 5.0 |
| Confidence interval | | | | | | |
| Tealbook forecast errors | 5.6–5.9 | 4.5–5.9 | 3.8–6.2 | ... | ... | ... |
| FRB/US stochastic simulations | 5.6–5.9 | 4.5–5.9 | 3.8–6.0 | 3.3–6.0 | 3.1–6.2 | 3.0–6.4 |
| <i>PCE prices, total</i> (percent change, Q4 to Q4) | | | | | | |
| Projection | 1.2 | 1.0 | 1.7 | 1.8 | 1.9 | 2.0 |
| Confidence interval | | | | | | |
| Tealbook forecast errors | 1.0–1.4 | -.2–2.2 | .6–2.7 | ... | ... | ... |
| FRB/US stochastic simulations | 1.1–1.4 | .2–1.9 | .6–2.7 | .8–3.0 | .8–3.0 | .8–3.2 |
| <i>PCE prices excluding</i> <i>food and energy</i> (percent change, Q4 to Q4) | | | | | | |
| Projection | 1.6 | 1.5 | 1.6 | 1.8 | 1.9 | 2.0 |
| Confidence interval | | | | | | |
| Tealbook forecast errors | 1.3–1.8 | .9–2.1 | .9–2.4 | ... | ... | ... |
| FRB/US stochastic simulations | 1.5–1.7 | .7–2.2 | .7–2.5 | .9–2.8 | .9–2.9 | .9–3.1 |
| <i>Federal funds rate</i> (percent, Q4) | | | | | | |
| Projection | .1 | 1.0 | 2.1 | 3.0 | 3.6 | 3.8 |
| Confidence interval | | | | | | |
| FRB/US stochastic simulations | .1–1 | .2–1.5 | .8–3.2 | 1.4–4.9 | 1.8–5.9 | 1.9–6.5 |

Note: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969–2013 set of model equation residuals.

Intervals derived from Tealbook forecast errors are based on projections made from 1979 to 2013, except for PCE prices excluding food and energy, where the sample is 1981–2013.

... 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 | 2014 | | 2015 | | 2016 | |
|---------------------------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|
| | September Tealbook | Current Tealbook | September Tealbook | Current Tealbook | September Tealbook | Current Tealbook |
| <i>Real GDP</i> | | | | | | |
| Staff | 2.0 | 2.2 | 2.7 | 2.5 | 2.9 | 2.7 |
| FRB/US | 1.9 | 2.2 | 3.1 | 3.1 | 2.7 | 2.5 |
| EDO | 2.0 | 2.2 | 2.9 | 3.2 | 2.9 | 2.7 |
| Blue Chip | 2.0 | 2.2 | 2.9 | 2.9 | ... | ... |
| <i>Unemployment rate¹</i> | | | | | | |
| Staff | 5.9 | 5.7 | 5.4 | 5.2 | 5.1 | 5.0 |
| FRB/US | 6.1 | 5.7 | 5.5 | 5.3 | 5.2 | 5.2 |
| EDO | 6.3 | 5.7 | 6.2 | 5.9 | 6.2 | 5.9 |
| Blue Chip | 6.0 | 5.8 | 5.5 | 5.3 | ... | ... |
| <i>Total PCE prices</i> | | | | | | |
| Staff | 1.5 | 1.2 | 1.5 | 1.0 | 1.6 | 1.7 |
| FRB/US | 1.5 | 1.2 | 1.5 | 1.2 | 1.5 | 1.6 |
| EDO | 1.7 | 1.2 | 1.7 | 1.6 | 1.8 | 1.8 |
| Blue Chip ² | 2.2 | 1.6 | 2.1 | 1.8 | ... | ... |
| <i>Core PCE prices</i> | | | | | | |
| Staff | 1.5 | 1.6 | 1.6 | 1.5 | 1.7 | 1.6 |
| FRB/US | 1.6 | 1.6 | 1.6 | 1.7 | 1.6 | 1.6 |
| EDO | 1.6 | 1.6 | 1.7 | 1.6 | 1.8 | 1.8 |
| Blue Chip | ... | ... | ... | ... | ... | ... |
| <i>Federal funds rate¹</i> | | | | | | |
| Staff | .1 | .1 | 1.1 | 1.0 | 2.3 | 2.1 |
| FRB/US | .1 | .1 | .8 | 1.0 | 1.4 | 2.1 |
| EDO | .5 | .1 | 1.6 | 1.5 | 2.4 | 2.4 |
| Blue Chip ³ | .1 | .0 | .9 | .8 | ... | ... |

Note: Blue Chip forecast completed on December 10, 2014.

1. Percent, average for Q4.

2. Consumer price index.

3. Treasury bill rate.

... Not applicable. The Blue Chip forecast is not available for core inflation.

Assessment of Key Macroeconomic Risks (1)

Probability of Inflation Events

(4 quarters ahead—2015:Q4)

| 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 | .02 | .03 | .12 | .04 |
| Previous Tealbook | .02 | .02 | .10 | .06 |
| <i>Less than 1 percent</i> | | | | |
| Current Tealbook | .51 | .41 | .27 | .19 |
| Previous Tealbook | .54 | .46 | .30 | .17 |

Probability of Unemployment Events

(4 quarters ahead—2015:Q4)

| Probability that the unemployment rate will ... | Staff | FRB/US | EDO | BVAR |
|---|-------|--------|-----|------|
| <i>Increase by 1 percentage point</i> | | | | |
| Current Tealbook | .02 | .02 | .24 | .01 |
| Previous Tealbook | .02 | .01 | .21 | .01 |
| <i>Decrease by 1 percentage point</i> | | | | |
| Current Tealbook | .23 | .17 | .05 | .37 |
| Previous Tealbook | .27 | .27 | .07 | .30 |

Probability of Near-Term Recession

| Probability that real GDP declines in each of 2015:Q1 and 2015:Q2 | Staff | FRB/US | EDO | BVAR | Factor Model |
|---|-------|--------|-----|------|--------------|
| Current Tealbook | .03 | .03 | .02 | .02 | .03 |
| Previous Tealbook | .04 | .02 | .02 | .02 | .07 |

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. Data for the current quarter are taken from the staff estimate for the second Tealbook in each quarter; if the second Tealbook for the current quarter has not yet been published, the preceding quarter is taken as the latest historical observation.

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

Class II FOMC - Restricted (FR)

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December 10, 2014

| | Nominal GDP | | Real GDP | | PCE price index | | Core PCE price index | | Unemployment rate ¹ | |
|---------------------------------|-------------|----------|----------|----------|-----------------|----------|----------------------|----------|--------------------------------|----------|
| Interval | 10/22/14 | 12/10/14 | 10/22/14 | 12/10/14 | 10/22/14 | 12/10/14 | 10/22/14 | 12/10/14 | 10/22/14 | 12/10/14 |
| <i>Quarterly</i> | | | | | | | | | | |
| 2014:Q1 | .8 | -.8 | -2.1 | -2.1 | 1.4 | 1.4 | 1.2 | 1.2 | 6.7 | 6.7 |
| Q2 | 6.8 | 6.8 | 4.6 | 4.6 | 2.3 | 2.3 | 2.0 | 2.0 | 6.2 | 6.2 |
| Q3 | 4.1 | 5.6 | 2.7 | 4.1 | 1.2 | 1.3 | 1.4 | 1.4 | 6.1 | 6.1 |
| Q4 | 4.2 | 3.6 | 3.0 | 2.2 | -2 | -1 | 1.2 | 1.6 | 5.8 | 5.7 |
| 2015:Q1 | 3.9 | 3.6 | 2.3 | 2.4 | .9 | -.6 | 1.5 | 1.5 | 5.7 | 5.5 |
| Q2 | 4.1 | 4.0 | 2.3 | 2.4 | 1.5 | 1.4 | 1.4 | 1.4 | 5.6 | 5.4 |
| Q3 | 4.2 | 4.4 | 2.4 | 2.6 | 1.5 | 1.7 | 1.6 | 1.5 | 5.5 | 5.3 |
| Q4 | 4.1 | 4.5 | 2.4 | 2.8 | 1.5 | 1.6 | 1.5 | 1.5 | 5.5 | 5.2 |
| 2016:Q1 | 4.5 | 4.6 | 2.5 | 2.8 | 1.7 | 1.6 | 1.7 | 1.5 | 5.4 | 5.2 |
| Q2 | 4.4 | 4.6 | 2.6 | 2.8 | 1.7 | 1.7 | 1.7 | 1.6 | 5.4 | 5.1 |
| Q3 | 4.4 | 4.5 | 2.7 | 2.7 | 1.6 | 1.6 | 1.6 | 1.6 | 5.4 | 5.1 |
| Q4 | 4.4 | 4.5 | 2.7 | 2.7 | 1.5 | 1.7 | 1.6 | 1.7 | 5.3 | 5.0 |
| <i>Two-quarter²</i> | | | | | | | | | | |
| 2014:Q2 | 2.9 | 2.9 | 1.2 | 1.2 | 1.9 | 1.9 | 1.6 | 1.6 | -.8 | -.8 |
| Q4 | 4.2 | 4.6 | 2.8 | 3.1 | .5 | .6 | 1.3 | 1.5 | -.4 | -.5 |
| 2015:Q2 | 4.0 | 3.8 | 2.3 | 2.4 | 1.2 | .4 | 1.5 | 1.5 | -.2 | -.3 |
| Q4 | 4.1 | 4.4 | 2.4 | 2.7 | 1.5 | 1.6 | 1.5 | 1.5 | -.1 | -.2 |
| 2016:Q2 | 4.5 | 4.6 | 2.6 | 2.8 | 1.7 | 1.7 | 1.7 | 1.6 | -.1 | -.1 |
| Q4 | 4.4 | 4.5 | 2.7 | 2.7 | 1.5 | 1.7 | 1.6 | 1.6 | -.1 | -.1 |
| <i>Four-quarter³</i> | | | | | | | | | | |
| 2013:Q4 | 4.6 | 4.6 | 3.1 | 3.1 | 1.0 | 1.0 | 1.3 | 1.3 | -.8 | -.8 |
| 2014:Q4 | 3.5 | 3.8 | 2.0 | 2.2 | 1.2 | 1.2 | 1.5 | 1.6 | -1.2 | -1.3 |
| 2015:Q4 | 4.0 | 4.1 | 2.4 | 2.5 | 1.4 | 1.0 | 1.5 | 1.5 | -.3 | -.5 |
| 2016:Q4 | 4.4 | 4.5 | 2.6 | 2.7 | 1.6 | 1.7 | 1.6 | 1.6 | -.2 | -.2 |
| 2017:Q4 | 4.0 | 4.1 | 2.1 | 2.2 | 1.7 | 1.8 | 1.8 | 1.8 | -.1 | -.1 |
| <i>Annual</i> | | | | | | | | | | |
| 2013 | 3.7 | 3.7 | 2.2 | 2.2 | 1.2 | 1.2 | 1.3 | 1.3 | 7.4 | 7.4 |
| 2014 | 3.7 | 3.9 | 2.1 | 2.3 | 1.3 | 1.4 | 1.4 | 1.4 | 6.2 | 6.2 |
| 2015 | 4.2 | 4.3 | 2.6 | 2.7 | 1.1 | .7 | 1.5 | 1.5 | 5.6 | 5.4 |
| 2016 | 4.3 | 4.5 | 2.5 | 2.7 | 1.6 | 1.6 | 1.6 | 1.6 | 5.4 | 5.1 |
| 2017 | 4.2 | 4.3 | 2.4 | 2.4 | 1.7 | 1.8 | 1.7 | 1.8 | 5.2 | 4.9 |

- 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.

Greensheets
Changes in Real Gross Domestic Product and Related Items
(Percent, annual rate except as noted)

| Item | 2014 | | | 2015 | | | | 2016 | | | | 2017 ¹ | | | |
|---|------|------|-------|------|------|------|------|------|------|------|------|-------------------|-------------------|-------------------|-------------------|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2014 ¹ | 2015 ¹ | 2016 ¹ | 2017 ¹ |
| Real GDP <i>Previous Tealbook</i> | 4.6 | 4.1 | 2.2 | 2.4 | 2.4 | 2.6 | 2.8 | 2.8 | 2.8 | 2.7 | 2.7 | 2.2 | 2.5 | 2.7 | 2.2 |
| Final sales <i>Previous Tealbook</i> | 3.2 | 4.2 | 1.7 | 2.5 | 2.3 | 2.6 | 2.7 | 2.9 | 2.9 | 2.8 | 2.8 | 2.0 | 2.5 | 2.8 | 2.6 |
| Priv. dom. final purch. <i>Previous Tealbook</i> | 3.8 | 3.1 | 3.4 | 2.1 | 2.4 | 2.5 | 2.3 | 2.6 | 2.5 | 2.6 | 2.5 | 2.0 | 2.3 | 2.6 | 2.4 |
| Personal cons. expend. <i>Previous Tealbook</i> | 2.5 | 2.2 | 3.4 | 3.5 | 3.6 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.0 | 2.3 | 2.3 | 3.6 | 3.3 |
| Durables | 2.5 | 1.9 | 3.4 | 3.0 | 3.0 | 2.9 | 2.8 | 2.8 | 2.8 | 2.7 | 2.6 | 2.3 | 2.3 | 3.0 | 2.7 |
| Nondurables | 14.1 | 8.7 | 4.9 | 8.3 | 8.2 | 7.7 | 8.3 | 6.6 | 6.7 | 6.4 | 5.6 | 7.6 | 8.1 | 6.3 | 4.1 |
| Services | .9 | 2.2 | 4.3 | 4.1 | 2.9 | 3.1 | 3.0 | 2.6 | 2.8 | 2.7 | 2.7 | 2.2 | 3.3 | 2.7 | 2.5 |
| Residential investment <i>Previous Tealbook</i> | 8.8 | 3.0 | 6.2 | 3.6 | 11.4 | 11.4 | 11.5 | 11.2 | 10.4 | 9.6 | 8.4 | 3.0 | 9.4 | 9.9 | 7.6 |
| Nonres. priv. fixed invest. <i>Previous Tealbook</i> | 9.7 | 8.0 | 3.0 | .9 | -.3 | 1.8 | 3.6 | 3.8 | 3.9 | 3.7 | 3.1 | 5.5 | 1.5 | 3.6 | 2.5 |
| Equipment & intangibles <i>Previous Tealbook</i> | 8.9 | 9.0 | 4.2 | 2.0 | 1.9 | 3.3 | 4.5 | 4.6 | 4.5 | 4.2 | 3.5 | 5.8 | 2.9 | 4.2 | 2.9 |
| Nonres. structures <i>Previous Tealbook</i> | 8.9 | 7.9 | 5.0 | 1.8 | 2.1 | 3.2 | 3.6 | 3.7 | 3.8 | 3.6 | 3.2 | 5.7 | 2.7 | 3.6 | 2.6 |
| Net exports ² <i>Previous Tealbook</i> ² | -460 | -431 | -461 | -464 | -482 | -503 | -531 | -552 | -572 | -593 | -601 | -450 | -495 | -579 | -616 |
| Exports | -460 | -436 | -440 | -446 | -450 | -455 | -467 | -475 | -480 | -491 | -492 | -446 | -454 | -484 | -489 |
| Imports | 11.1 | 4.5 | 2.4 | 2.3 | 2.5 | 2.6 | 2.7 | 2.9 | 3.1 | 3.4 | 3.7 | 1.9 | 2.5 | 3.3 | 4.2 |
| Gov't. cons. & invest. <i>Previous Tealbook</i> | 1.7 | 4.4 | -2.1 | -.1 | -.3 | -.2 | .0 | .3 | .7 | .9 | .7 | .8 | -.2 | .7 | .9 |
| Federal | 1.7 | 1.5 | -1.6 | -.2 | -.6 | -.5 | -.5 | .6 | .4 | .9 | .6 | .2 | -.5 | .6 | .9 |
| Defense | -.9 | 9.9 | -7.4 | -2.6 | -3.2 | -3.0 | -2.5 | -1.9 | -1.0 | -.7 | -1.4 | .2 | -2.8 | -1.3 | -1.1 |
| Nonddefense | .9 | 16.0 | -10.8 | -2.7 | -3.9 | -3.7 | -2.9 | -3.1 | -1.6 | -.2 | -2.3 | .0 | -3.3 | -2.0 | -1.8 |
| State & local | -3.8 | 4.1 | 1.1 | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.7 | 1.8 | 2.0 | 1.1 | 1.5 | 1.8 | 2.0 |
| Change in priv. inventories ² <i>Previous Tealbook</i> ² | 85 | 82 | 99 | 95 | 99 | 102 | 98 | 93 | 92 | 75 | 99 | 94 | 94 | 60 | 68 |
| | 85 | 61 | 76 | 83 | 82 | 80 | 84 | 82 | 83 | 89 | 95 | 64 | 82 | 87 | 68 |

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

2. Billions of chained (2009) 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 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--|-------|-------|------|------|------|------|------|------|------|------|
| Real GDP <i>Previous Tealbook</i> | -2.8 | .2 | 2.7 | 1.7 | 1.6 | 3.1 | 2.2 | 2.5 | 2.7 | 2.2 |
| Final sales <i>Previous Tealbook</i> | -2.1 | -.4 | 2.0 | 1.5 | 2.1 | 2.6 | 2.0 | 2.5 | 2.8 | 2.6 |
| Priv. dom. final purch. <i>Previous Tealbook</i> | -4.1 | -2.4 | 3.5 | 2.6 | 2.6 | 3.2 | 2.8 | 3.5 | 2.3 | 2.4 |
| Personal cons. expend. <i>Previous Tealbook</i> | -2.0 | -.2 | 3.1 | 1.5 | 2.0 | 2.8 | 2.3 | 3.6 | 3.3 | 2.7 |
| Durables | -12.9 | 2.5 | 9.3 | 4.8 | 7.5 | 5.9 | 7.6 | 8.1 | 6.3 | 2.7 |
| Nondurables | -2.7 | .2 | 3.3 | .4 | 1.0 | 2.5 | 2.2 | 3.3 | 2.7 | 4.1 |
| Services | .3 | -.8 | 2.0 | 1.4 | 1.5 | 2.4 | 1.6 | 3.0 | 3.1 | 2.5 |
| Residential investment <i>Previous Tealbook</i> | -24.3 | -10.8 | -5.2 | 6.0 | 15.8 | 6.9 | 3.0 | 9.4 | 9.9 | 7.6 |
| Nonres. priv. fixed invest. <i>Previous Tealbook</i> | -8.9 | -12.2 | 8.1 | 9.0 | 3.7 | 4.7 | 5.5 | 1.5 | 9.5 | 7.3 |
| Equipment & intangibles <i>Previous Tealbook</i> | -8.9 | -12.2 | 8.1 | 9.0 | 3.7 | 4.7 | 5.4 | 1.5 | 2.9 | 2.1 |
| Nonres. structures <i>Previous Tealbook</i> | -11.8 | -6.0 | 12.0 | 9.2 | 3.3 | 4.8 | 5.8 | 2.9 | 4.2 | 2.9 |
| Net exports ¹ <i>Previous Tealbook</i> | -558 | -395 | -459 | -459 | -452 | -420 | -450 | -495 | -579 | -616 |
| Exports | -558 | -395 | -459 | -459 | -452 | -420 | -446 | -454 | -484 | -489 |
| Imports | -2.8 | .8 | 10.1 | 4.2 | 2.4 | 5.1 | 1.9 | 2.5 | 3.3 | 4.2 |
| Gov't. cons. & invest. <i>Previous Tealbook</i> | 3.3 | 2.3 | -1.1 | -3.0 | -1.7 | -1.9 | .8 | -.2 | .7 | .9 |
| Federal | 3.3 | 2.3 | -1.1 | -3.0 | -1.7 | -1.9 | .2 | -.5 | .6 | .9 |
| Defense | 8.4 | 3.9 | 3.2 | 4.0 | 2.6 | -6.3 | .2 | -2.8 | -1.3 | -1.1 |
| Nondefense | 9.4 | 3.6 | 2.0 | -4.1 | -4.9 | -6.1 | .0 | -3.3 | -2.0 | -1.8 |
| State & local | 6.5 | 4.6 | 5.5 | -3.9 | 1.4 | -6.6 | .5 | -2.0 | 0 | .0 |
| Change in priv. inventories ¹ <i>Previous Tealbook</i> | -34 | -148 | 58 | 38 | 57 | 64 | 75 | 99 | 94 | 60 |
| | -34 | -148 | 58 | 38 | 57 | 64 | 64 | 82 | 87 | 68 |

1. Billions of chained (2009) dollars.

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

Class II FOMC - Restricted (FR)

Authorized for Public Release

December 10, 2014

| Item | 2014 | | | 2015 | | | 2016 | | | 2014 ¹ | | | 2015 ¹ | | | 2016 ¹ | | | |
|---|------|-----|-----|------|-----|-----|------|-----|-----|-------------------|-----|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2014 ¹ | 2015 ¹ | 2016 ¹ | 2017 ¹ | 2014 ¹ | 2015 ¹ | 2016 ¹ | 2017 ¹ |
| Real GDP <i>Previous Tealbook</i> | 4.6 | 4.1 | 2.2 | 2.4 | 2.4 | 2.6 | 2.8 | 2.8 | 2.8 | 2.7 | 2.7 | 2.2 | 2.5 | 2.7 | 2.2 | 2.4 | 2.6 | 2.0 | 2.1 |
| Final sales <i>Previous Tealbook</i> | 3.2 | 4.2 | 1.7 | 2.5 | 2.3 | 2.6 | 2.7 | 2.9 | 2.9 | 2.7 | 2.7 | 2.0 | 2.5 | 2.0 | 2.5 | 2.8 | 2.0 | 2.3 | 2.6 |
| Priv. dom. final purch. <i>Previous Tealbook</i> | 3.2 | 3.3 | 2.6 | 2.1 | 2.4 | 2.5 | 2.3 | 2.6 | 2.6 | 2.5 | 2.6 | 2.0 | 2.3 | 2.0 | 2.6 | 2.3 | 2.3 | 2.6 | 2.4 |
| Personal cons. expend. <i>Previous Tealbook</i> | 1.8 | 1.5 | 2.3 | 2.4 | 2.4 | 2.5 | 2.5 | 2.4 | 2.3 | 2.3 | 2.1 | 1.6 | 2.5 | 2.0 | 2.5 | 2.0 | 1.9 | 1.5 | 1.9 |
| Durables | 1.0 | .6 | .4 | .6 | .6 | .6 | .6 | .5 | .5 | .5 | .4 | .6 | .6 | .6 | .5 | .5 | .5 | .5 | .3 |
| Nondurables | .3 | .3 | .6 | .6 | .4 | .5 | .4 | .4 | .4 | .4 | .4 | .3 | .5 | .4 | .4 | .4 | .4 | .4 | .4 |
| Services | .4 | .6 | 1.3 | 1.1 | 1.4 | 1.5 | 1.5 | 1.6 | 1.4 | 1.4 | 1.3 | .7 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.2 | 1.2 |
| Residential investment <i>Previous Tealbook</i> | .3 | .1 | .2 | .1 | .4 | .4 | .4 | .4 | .4 | .3 | .3 | .1 | .3 | .1 | .3 | .1 | .3 | .3 | .3 |
| Nonres. priv. fixed invest. <i>Previous Tealbook</i> | 1.2 | 1.0 | .4 | .1 | .0 | .2 | .5 | .5 | .5 | .4 | .4 | .7 | .2 | .2 | .5 | .2 | .2 | .2 | .3 |
| Equipment & intangibles <i>Previous Tealbook</i> | .8 | .8 | .5 | .0 | .1 | .3 | .4 | .4 | .4 | .4 | .4 | .3 | .7 | .2 | .4 | .4 | .4 | .4 | .3 |
| Nonres. structures <i>Previous Tealbook</i> | .8 | .8 | .5 | .4 | .2 | .2 | .3 | .4 | .4 | .4 | .4 | .3 | .6 | .3 | .3 | .3 | .3 | .3 | .3 |
| Nonres. inventories <i>Previous Tealbook</i> | .4 | .1 | .0 | -.1 | -.2 | -.1 | -.1 | 0 | 0 | 0 | 0 | .0 | .1 | -.1 | 0 | 0 | 0 | 0 | 0 |
| Net exports <i>Previous Tealbook</i> | -.3 | .8 | -.8 | -.1 | -.4 | -.5 | -.6 | -.5 | -.4 | -.5 | -.2 | -.5 | -.2 | -.4 | -.4 | -.4 | -.4 | -.4 | -.1 |
| Exports | -.3 | .6 | -.1 | -.2 | -.1 | -.1 | -.3 | -.2 | -.1 | -.2 | -.0 | -.4 | -.2 | -.2 | -.2 | -.2 | -.2 | -.1 | -.1 |
| Imports | 1.4 | .6 | .3 | .3 | .3 | .3 | .3 | .4 | .4 | .4 | .5 | .3 | .3 | .3 | .4 | .4 | .4 | .5 | .5 |
| Gov't. cons. & invest. <i>Previous Tealbook</i> | .3 | .8 | -.4 | .0 | -.1 | 0 | 0 | -.1 | 0 | 0 | 0 | .1 | .2 | .1 | .0 | .0 | .1 | .1 | .2 |
| Federal Defense | .3 | .3 | -.3 | .0 | -.1 | -.1 | -.1 | -.1 | -.1 | -.1 | -.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .2 |
| Nondefense | -1 | .7 | -.5 | -.2 | -.2 | -.2 | -.2 | -.1 | -.1 | -.1 | -.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 |
| State & local | .4 | .1 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 |
| Change in priv. inventories <i>Previous Tealbook</i> | 1.4 | -.1 | .4 | -.1 | .1 | 0 | .1 | -.1 | 0 | 0 | 0 | .2 | .2 | .0 | .0 | .0 | .1 | -.1 | -.4 |
| | 1.4 | -.6 | .4 | .2 | .0 | -.1 | .1 | -.1 | 0 | 0 | 0 | .2 | .0 | .1 | .1 | .1 | .1 | -.3 | -.3 |

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)

Class II FOMC - Restricted (FR)

Authorized for Public Release

December 10, 2014

| Item | 2014 | | | | 2015 | | | | 2016 | | | | 2017 ¹ | | | |
|---|------|------|-------|-------|------|-----|-----|-----|------|-----|-----|-------------------|-------------------|-------------------|-------------------|--|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2014 ¹ | 2015 ¹ | 2016 ¹ | 2017 ¹ | |
| GDP chain-wt. price index | 2.1 | 1.4 | 1.3 | 1.2 | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 | 1.7 | 1.7 | 1.5 | 1.5 | 1.8 | 1.9 | |
| <i>Previous Tealbook</i> | 2.1 | 1.4 | 1.2 | 1.6 | 1.7 | 1.7 | 1.6 | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 | 1.6 | 1.7 | 1.8 | |
| PCE chain-wt. price index | 2.3 | 1.3 | -.1 | -.6 | 1.4 | 1.7 | 1.6 | 1.6 | 1.7 | 1.6 | 1.7 | 1.2 | 1.0 | 1.7 | 1.8 | |
| <i>Previous Tealbook</i> | 2.3 | 1.2 | -.2 | .9 | 1.5 | 1.5 | 1.5 | 1.7 | 1.7 | 1.6 | 1.5 | 1.2 | 1.4 | 1.6 | 1.7 | |
| Energy | 5.2 | -4.0 | -26.9 | -34.9 | .9 | 5.2 | 3.9 | 3.2 | 3.0 | 2.8 | 2.3 | -6.4 | -7.9 | 2.8 | 1.9 | |
| <i>Previous Tealbook</i> | 5.2 | -4.1 | -24.0 | -9.8 | 2.1 | 2.1 | 1.6 | 1.2 | 1.2 | 1.0 | 1.0 | -5.5 | -1.1 | 1.2 | .9 | |
| Food | 4.5 | 3.1 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.4 | 1.6 | 1.7 | 1.7 | 2.6 | 1.3 | 1.6 | 1.9 | |
| <i>Previous Tealbook</i> | 4.5 | 3.1 | 2.0 | 1.0 | .9 | 1.0 | 1.2 | 1.4 | 1.5 | 1.5 | 1.5 | 2.7 | 1.0 | 1.5 | 1.8 | |
| Ex. food & energy | 2.0 | 1.4 | 1.6 | 1.5 | 1.4 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.7 | 1.6 | 1.5 | 1.6 | 1.8 | |
| <i>Previous Tealbook</i> | 2.0 | 1.4 | 1.2 | 1.5 | 1.5 | 1.6 | 1.5 | 1.7 | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | 1.6 | 1.8 | |
| Ex. food & energy, market based | 1.8 | 1.3 | 1.4 | 1.5 | 1.4 | 1.5 | 1.5 | 1.5 | 1.7 | 1.6 | 1.7 | 1.4 | 1.5 | 1.6 | 1.8 | |
| <i>Previous Tealbook</i> | 1.8 | 1.4 | 1.2 | 1.5 | 1.5 | 1.6 | 1.5 | 1.8 | 1.7 | 1.6 | 1.6 | 1.3 | 1.5 | 1.6 | 1.8 | |
| CPI | 3.0 | 1.1 | -.8 | -1.3 | 1.8 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 1.3 | 1.2 | 2.1 | 2.2 | |
| <i>Previous Tealbook</i> | 3.0 | 1.1 | -.6 | .9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 | 1.9 | 1.3 | 1.7 | 1.9 | 2.0 | |
| Ex. food & energy | 2.5 | 1.3 | 1.9 | 2.0 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 1.8 | 2.0 | 2.2 | |
| <i>Previous Tealbook</i> | 2.5 | 1.3 | 1.6 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.0 | 2.0 | 1.8 | 2.0 | 2.0 | 2.1 | |
| ECI, hourly compensation ² | 3.4 | 2.7 | 2.8 | 2.8 | 2.8 | 2.8 | 3.4 | 3.3 | 3.3 | 3.3 | 3.1 | 2.4 | 2.8 | 3.3 | 3.4 | |
| <i>Previous Tealbook</i> | 3.4 | 2.3 | 2.5 | 2.8 | 2.7 | 2.7 | 3.3 | 3.1 | 3.1 | 3.1 | 3.1 | 2.3 | 2.7 | 3.1 | 3.3 | |
| Business sector | 2.9 | 2.2 | -.5 | 3.0 | 1.5 | 1.7 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | -.1 | 1.9 | 1.7 | 1.7 | |
| Output per hour | 2.9 | -.3 | 2.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 1.9 | 0 | 1.7 | 1.8 | 1.9 | |
| <i>Previous Tealbook</i> | -1.1 | .6 | 1.9 | 3.5 | 3.1 | 3.1 | 3.1 | 3.7 | 3.5 | 3.5 | 3.5 | 0 | 3.2 | 3.5 | 3.6 | |
| Compensation per hour | 2.2 | 2.0 | 2.0 | 3.4 | 3.1 | 3.1 | 3.1 | 3.5 | 3.3 | 3.3 | 3.3 | 2.0 | 3.2 | 3.3 | 3.5 | |
| <i>Previous Tealbook</i> | -3.9 | -1.6 | 2.4 | .5 | 1.6 | 1.4 | 1.4 | 1.9 | 1.8 | 1.8 | 1.8 | 2.2 | 1.2 | 1.8 | 1.9 | |
| Unit labor costs | -.7 | 2.3 | -.6 | 1.7 | 1.5 | 1.4 | 1.3 | 1.7 | 1.4 | 1.4 | 1.4 | 3.2 | 1.5 | 1.5 | 1.6 | |
| <i>Previous Tealbook</i> | .2 | .5 | -1.5 | -2.8 | -.5 | .9 | 1.1 | 1.2 | 1.3 | 1.3 | 1.2 | .6 | -.3 | 1.3 | 1.3 | |
| Core goods imports chain-wt. price index ³ | .2 | .2 | .5 | -1.1 | -.9 | .6 | .9 | 1.1 | 1.3 | 1.2 | 1.2 | .6 | .4 | 1.2 | 1.2 | |
| <i>Previous Tealbook</i> | | | | | | | | | | | | | | | | |

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 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--|--------------|--------------|------------|--------------|------------|--------------|--------------|--------------|-------------|------------|
| GDP chain-wt. price index <i>Previous Tealbook</i> | 1.9 1.9 | .4 1.8 | 1.8 1.9 | 1.9 1.9 | 1.8 1.8 | 1.4 1.4 | 1.4 1.5 | 1.5 1.5 | 1.8 1.6 | 1.9 1.7 |
| PCE chain-wt. price index <i>Previous Tealbook</i> | 1.5 1.5 | 1.2 1.2 | 1.3 1.3 | 2.7 2.7 | 1.6 1.6 | 1.0 1.0 | 1.2 1.2 | 1.0 1.4 | 1.7 1.6 | 1.8 1.7 |
| Energy <i>Previous Tealbook</i> | -8.2 -8.2 | 2.3 2.3 | 6.4 6.4 | 12.0 12.0 | 2.1 2.1 | -2.6 -2.6 | -6.4 -5.5 | -7.9 -5.5 | 2.8 -1.1 | 1.9 1.2 |
| Food <i>Previous Tealbook</i> | 6.9 6.9 | -1.8 -1.8 | 1.3 1.3 | 5.1 5.1 | 1.2 1.2 | .7 .7 | .7 2.6 | 1.3 1.3 | 1.6 1.6 | 1.9 1.9 |
| Ex. food & energy <i>Previous Tealbook</i> | 1.6 1.6 | 1.4 1.4 | 1.0 1.0 | 1.9 1.9 | 1.6 1.6 | 1.3 1.3 | 1.3 1.5 | 1.6 1.5 | 1.6 1.6 | 1.8 1.8 |
| Ex. food & energy, market based <i>Previous Tealbook</i> | 2.2 2.2 | 1.8 1.8 | .7 .7 | 1.9 1.9 | 1.5 1.5 | 1.2 1.2 | 1.4 1.3 | 1.5 1.5 | 1.6 1.6 | 1.8 1.8 |
| CPI <i>Previous Tealbook</i> | 1.6 1.6 | 1.5 1.5 | 1.2 1.2 | 3.3 3.3 | 1.9 1.9 | 1.2 1.2 | 1.3 1.3 | 1.2 1.2 | 2.1 2.1 | 2.2 2.2 |
| Ex. food & energy <i>Previous Tealbook</i> | 2.0 2.0 | 1.8 1.8 | .6 .6 | 2.2 2.2 | 1.9 1.9 | 1.7 1.7 | 1.8 1.8 | 2.0 2.0 | 2.0 2.0 | 2.2 2.2 |
| ECl, hourly compensation ¹ <i>Previous Tealbook</i> ¹ | 2.4 2.4 | 1.2 1.2 | 2.1 2.1 | 2.2 2.2 | 1.8 1.8 | 2.0 2.0 | 2.4 2.3 | 2.8 2.7 | 3.3 3.1 | 3.4 3.3 |
| Business sector | | | | | | | | | | |
| Output per hour <i>Previous Tealbook</i> | -.2 -.2 | 5.6 5.6 | 1.7 1.7 | .0 0 | .3 .3 | 2.4 2.4 | -.1 .0 | 1.9 1.7 | 1.7 1.8 | 1.7 1.9 |
| Compensation per hour <i>Previous Tealbook</i> | 2.9 2.9 | 1.3 1.3 | 1.2 1.2 | .6 .6 | 5.7 5.7 | .0 .0 | 2.0 3.2 | 3.2 3.2 | 3.5 3.3 | 3.6 3.5 |
| Unit labor costs <i>Previous Tealbook</i> | 3.2 3.2 | -4.2 -4.2 | -4 -4 | .6 .6 | 5.4 5.4 | -2.3 -2.3 | 2.2 3.2 | 1.2 1.5 | 1.8 1.5 | 1.9 1.6 |
| Core goods imports chain-wt. price index ² <i>Previous Tealbook</i> ² | 3.9 3.9 | -1.9 -1.9 | 2.3 2.3 | 4.3 4.3 | .2 .2 | -1.0 -1.0 | .4 .6 | -.3 .4 | 1.3 1.2 | 1.3 1.2 |

1. Private-industry workers.

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

Other Macroeconomic Indicators

| Item | 2014 | | | 2015 | | | 2016 | | | 2014 ^l | 2015 ^l | 2016 ^l | 2017 ^l |
|---|------|------|------|------|------|------|------|------|------|-------------------|-------------------|-------------------|-------------------|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | |
| <i>Employment and production</i> | | | | | | | | | | | | | |
| Nonfarm payroll employment ² | .8 | .7 | .8 | .7 | .6 | .7 | .7 | .7 | .7 | .7 | .7 | 2.8 | 2.8 |
| Unemployment rate ³ | 6.2 | 6.1 | 5.7 | 5.5 | 5.4 | 5.3 | 5.2 | 5.1 | 5.1 | 5.0 | 5.0 | 5.2 | 4.9 |
| <i>Previous Tealbook</i> ³ | 6.2 | 6.1 | 5.8 | 5.7 | 5.6 | 5.5 | 5.4 | 5.4 | 5.4 | 5.3 | 5.3 | 5.5 | 5.2 |
| Natural rate of unemployment ³ | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| <i>Previous Tealbook</i> ³ | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| GDP gap ⁴ | -2.2 | -1.6 | -1.3 | -1.2 | -1.0 | -.8 | -.6 | -.3 | -.1 | .4 | -.3 | .4 | .8 |
| <i>Previous Tealbook</i> ⁴ | -2.2 | -1.8 | -1.4 | -1.2 | -1.1 | -.9 | -.8 | -.6 | -.5 | -.3 | -.1 | -.8 | .0 |
| Industrial production ⁵ | 5.7 | 3.3 | 5.1 | 4.0 | 2.0 | 1.5 | 1.4 | 2.8 | 2.9 | 2.7 | 2.5 | 4.5 | 2.2 |
| <i>Previous Tealbook</i> ⁵ | 5.5 | 3.2 | 4.0 | 2.1 | 3.0 | 2.1 | 1.7 | 3.0 | 2.8 | 2.7 | 2.6 | 4.1 | 2.2 |
| Manufacturing industr. prod. ⁵ | 7.0 | 3.9 | 3.7 | 4.6 | 2.5 | 2.4 | 2.6 | 2.8 | 3.0 | 2.7 | 2.5 | 4.0 | 3.0 |
| <i>Previous Tealbook</i> ⁵ | 6.8 | 3.5 | 3.1 | 1.8 | 2.6 | 2.6 | 2.6 | 2.8 | 2.9 | 2.7 | 2.7 | 3.7 | 2.7 |
| Capacity utilization rate - mfg. ³ | 77.1 | 77.4 | 77.7 | 78.2 | 78.3 | 78.3 | 78.4 | 78.5 | 78.7 | 78.8 | 78.9 | 78.4 | 78.8 |
| <i>Previous Tealbook</i> ³ | 77.1 | 77.3 | 77.5 | 77.4 | 77.5 | 77.6 | 77.7 | 77.8 | 78.0 | 78.2 | 78.3 | 77.5 | 78.4 |
| Housing starts ⁶ | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 | 1.0 | 1.3 |
| Light motor vehicle sales ⁶ | 16.5 | 16.7 | 16.7 | 16.7 | 16.7 | 16.7 | 16.7 | 16.7 | 16.7 | 16.7 | 16.7 | 16.4 | 16.7 |
| <i>Income and saving</i> | | | | | | | | | | | | | |
| Nominal GDP ⁵ | 6.8 | 5.6 | 3.6 | 3.6 | 4.0 | 4.4 | 4.5 | 4.6 | 4.6 | 4.5 | 4.5 | 3.8 | 4.1 |
| Real disposable pers. income ⁵ | 3.1 | 2.3 | 2.7 | 5.3 | 3.0 | 2.3 | 2.6 | 3.8 | 2.8 | 3.0 | 2.9 | 3.3 | 3.1 |
| <i>Previous Tealbook</i> ⁵ | 4.4 | 3.2 | 2.3 | 4.7 | 2.5 | 2.2 | 1.8 | 3.3 | 2.5 | 2.2 | 2.9 | 3.3 | 2.7 |
| Personal saving rate ³ | 5.1 | 5.0 | 4.9 | 5.3 | 5.1 | 4.8 | 4.6 | 4.6 | 4.5 | 4.4 | 4.4 | 4.6 | 4.1 |
| <i>Previous Tealbook</i> ³ | 5.4 | 5.6 | 5.4 | 5.7 | 5.6 | 5.4 | 5.1 | 5.2 | 5.2 | 5.1 | 5.4 | 5.1 | 4.9 |
| Corporate profits ⁷ | 38.3 | 8.8 | -3.5 | -4.3 | .7 | 5.4 | -4.8 | 3.9 | -1.3 | 1.9 | .8 | -.6 | -.8 |
| Profit share of GNP ³ | 12.0 | 12.1 | 11.9 | 11.7 | 11.6 | 11.6 | 11.4 | 11.4 | 11.2 | 11.1 | 11.0 | 11.9 | 11.4 |
| Net federal saving ⁸ | -599 | -621 | -582 | -571 | -569 | -582 | -570 | -619 | -594 | -610 | -630 | -590 | -613 |
| Net state & local saving ⁸ | -227 | -232 | -246 | -226 | -224 | -215 | -209 | -200 | -199 | -196 | -195 | -236 | -218 |
| Gross national saving rate ³ | 17.9 | 18.0 | 17.8 | 18.1 | 18.0 | 17.9 | 17.7 | 17.5 | 17.6 | 17.5 | 17.4 | 17.8 | 17.7 |
| Net national saving rate ³ | 2.9 | 3.2 | 3.0 | 3.3 | 3.2 | 3.0 | 2.7 | 2.6 | 2.6 | 2.5 | 2.4 | 3.0 | 2.7 |

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.

Greensheets

Other Macroeconomic Indicators

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

| Item | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|-------|--------|--------|--------|--------|------|------|------|------|------|
| <i>Employment and production</i> | | | | | | | | | | |
| Nonfarm payroll employment ¹ | -2.8 | -5.6 | .8 | 2.0 | 2.2 | 2.4 | 2.8 | 2.7 | 2.8 | 1.9 |
| Unemployment rate ² | 6.9 | 9.9 | 9.5 | 8.7 | 7.8 | 7.0 | 5.7 | 5.2 | 5.0 | 4.9 |
| <i>Previous Tealbook</i> ² | 6.9 | 9.9 | 9.5 | 8.7 | 7.8 | 7.0 | 5.8 | 5.5 | 5.3 | 5.2 |
| Natural rate of unemployment ² | 5.6 | 6.2 | 6.2 | 6.0 | 5.8 | 5.4 | 5.2 | 5.2 | 5.2 | 5.2 |
| <i>Previous Tealbook</i> ² | 5.6 | 6.2 | 6.2 | 6.0 | 5.8 | 5.4 | 5.2 | 5.2 | 5.2 | 5.2 |
| GDP gap ³ | -3.8 | -5.5 | -4.4 | -4.2 | -4.1 | -2.8 | -1.3 | -6 | .4 | .8 |
| <i>Previous Tealbook</i> ³ | -3.8 | -5.5 | -4.4 | -4.2 | -4.1 | -2.8 | -1.4 | -8 | -1 | .0 |
| Industrial production ⁴ | -8.9 | -5.5 | 6.2 | 3.2 | 3.2 | 3.3 | 4.5 | 2.2 | 2.7 | 2.0 |
| <i>Previous Tealbook</i> ⁴ | -8.9 | -5.5 | 6.2 | 3.2 | 3.2 | 3.3 | 4.1 | 2.2 | 2.7 | 2.0 |
| Manufacturing industr. prod. ⁴ | -11.6 | -6.1 | 6.4 | 3.1 | 3.5 | 2.9 | 4.0 | 3.0 | 2.7 | 2.1 |
| <i>Previous Tealbook</i> ⁴ | -11.6 | -6.1 | 6.4 | 3.1 | 3.5 | 2.9 | 3.7 | 2.4 | 2.8 | 2.2 |
| Capacity utilization rate - mfg. ² | 70.0 | 67.1 | 72.7 | 74.6 | 75.5 | 76.4 | 77.7 | 78.4 | 78.9 | 78.8 |
| <i>Previous Tealbook</i> ² | 70.0 | 67.1 | 72.7 | 74.6 | 75.5 | 76.4 | 77.5 | 77.7 | 78.3 | 78.4 |
| Housing starts ⁵ | .9 | .6 | .6 | .6 | .8 | .9 | 1.0 | 1.2 | 1.3 | 1.5 |
| Light motor vehicle sales ⁵ | 13.1 | 10.4 | 11.5 | 12.7 | 14.4 | 15.5 | 16.4 | 16.7 | 16.7 | 16.6 |
| <i>Income and saving</i> | | | | | | | | | | |
| Nominal GDP ⁴ | -.9 | .1 | 4.6 | 3.6 | 3.5 | 4.6 | 3.8 | 4.1 | 4.5 | 4.1 |
| Real disposable pers. income ⁴ | 1.1 | -.7 | 2.6 | 1.7 | 5.0 | -1.9 | 2.9 | 3.3 | 3.1 | 2.4 |
| <i>Previous Tealbook</i> ⁴ | 1.1 | -.7 | 2.6 | 1.7 | 5.0 | -1.9 | 3.3 | 2.8 | 2.7 | 2.2 |
| Personal saving rate ² | 6.1 | 5.6 | 5.5 | 5.8 | 8.6 | 4.4 | 4.9 | 4.6 | 4.4 | 4.1 |
| <i>Previous Tealbook</i> ² | 6.1 | 5.6 | 5.5 | 5.8 | 8.6 | 4.4 | 5.4 | 5.1 | 5.1 | 4.9 |
| Corporate profits ⁶ | -30.8 | 53.7 | 18.0 | 6.8 | 3.8 | 4.7 | -6 | -8 | 1.3 | 1.2 |
| Profit share of GNP ² | 6.9 | 10.6 | 12.0 | 12.3 | 12.4 | 12.4 | 11.9 | 11.4 | 11.0 | 10.7 |
| Net federal saving ⁷ | -634 | -1,249 | -1,329 | -1,244 | -1,079 | -649 | -590 | -573 | -613 | -680 |
| Net state & local saving ⁷ | -165 | -272 | -237 | -216 | -233 | -225 | -236 | -218 | -198 | -184 |
| Gross national saving rate ² | 14.9 | 14.6 | 15.2 | 16.1 | 17.8 | 17.9 | 17.8 | 17.7 | 17.4 | 17.2 |
| Net national saving rate ² | -1.6 | -1.7 | -.4 | .8 | 2.8 | 3.0 | 3.0 | 2.7 | 2.4 | 2.1 |

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 | | | | 2014 | | | | 2015 | | | | 2016 | | | |
|--|-------------|--------|--------|--------|-----------------|-----------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 2014 | 2015 | 2016 | 2017 | Q1 ^a | Q2 ^a | Q3 ^a | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Unified budget | | | | | | | | | | | | | | | | |
| Receipts | 3,021 | 3,236 | 3,417 | 3,566 | 656 | 938 | 760 | 720 | 680 | 1,020 | 816 | 761 | 718 | 1,080 | 858 | 794 |
| Outlays | 3,505 | 3,667 | 3,830 | 4,076 | 897 | 890 | 878 | 923 | 924 | 933 | 887 | 989 | 926 | 962 | 952 | 984 |
| Surplus/deficit | -484 | -432 | -412 | -510 | -241 | 47 | -117 | -204 | -244 | 87 | -71 | -228 | -208 | 118 | -94 | -190 |
| <i>Previous Tealbook</i> | -483 | -406 | -392 | -509 | -241 | 47 | -117 | -185 | -249 | 92 | -63 | -222 | -203 | 125 | -92 | -185 |
| Means of financing: | | | | | | | | | | | | | | | | |
| Borrowing | 798 | 477 | 532 | 630 | 262 | -46 | 211 | 249 | 217 | -38 | 48 | 258 | 238 | -88 | 124 | 220 |
| Cash decrease | -70 | 88 | 0 | 0 | 20 | 3 | -19 | -52 | 132 | -45 | 53 | 0 | 0 | 0 | 0 | 0 |
| Other ¹ | -243 | -133 | -120 | -120 | -42 | -4 | -75 | 7 | -106 | -4 | -30 | -30 | -30 | -30 | -30 | -30 |
| Cash operating balance, end of period | 158 | 70 | 70 | 70 | 142 | 139 | 158 | 210 | 78 | 123 | 70 | 70 | 70 | 70 | 70 | 70 |
| NIPA federal sector | | | | | | | | | | | | | | | | |
| Receipts | 3,265 | 3,423 | 3,601 | 3,774 | 3,243 | 3,277 | 3,333 | 3,340 | 3,405 | 3,450 | 3,497 | 3,530 | 3,581 | 3,623 | 3,671 | 3,714 |
| Expenditures | 3,845 | 3,999 | 4,199 | 4,439 | 3,803 | 3,875 | 3,954 | 3,922 | 3,976 | 4,019 | 4,079 | 4,100 | 4,200 | 4,217 | 4,281 | 4,344 |
| Consumption expenditures | 963 | 975 | 976 | 992 | 956 | 957 | 988 | 975 | 979 | 975 | 972 | 969 | 977 | 979 | 981 | 981 |
| Defense | 617 | 628 | 626 | 633 | 610 | 610 | 641 | 610 | 628 | 631 | 625 | 624 | 627 | 627 | 628 | 627 |
| Nondefense | 346 | 347 | 350 | 359 | 347 | 345 | 347 | 347 | 348 | 347 | 347 | 346 | 350 | 352 | 353 | 354 |
| Other spending | 2,882 | 3,024 | 3,223 | 3,447 | 2,846 | 2,920 | 2,966 | 2,946 | 2,997 | 3,044 | 3,107 | 3,130 | 3,223 | 3,238 | 3,300 | 3,362 |
| Current account surplus | -580 | -576 | -598 | -665 | -560 | -599 | -621 | -582 | -571 | -569 | -582 | -570 | -619 | -594 | -610 | -630 |
| Gross investment | 256 | 243 | 237 | 237 | 251 | 255 | 253 | 246 | 244 | 242 | 240 | 239 | 237 | 237 | 237 | 236 |
| Gross saving less gross investment ² | -563 | -539 | -548 | -607 | -539 | -580 | -599 | -551 | -536 | -530 | -539 | -524 | -570 | -543 | -557 | -574 |
| Fiscal indicators | | | | | | | | | | | | | | | | |
| High-employment (HEB) surplus/deficit ³ | -405.3 | -475.8 | -541.6 | -650.4 | -343.7 | -429.5 | -489.9 | -460.5 | -467.7 | -477.4 | -497.7 | -498.5 | -552.8 | -542.4 | -573.0 | -605.4 |
| Change in HEB, percent of potential GDP | -1.0 | .3 | .3 | .5 | -.1 | .5 | .3 | -.2 | .0 | .0 | .1 | .0 | .3 | -.1 | .1 | .1 |
| Fiscal impetus (FI), percent of GDP ⁴ | -.1 | .1 | .2 | .2 | -.6 | .0 | .7 | -.4 | -.1 | .1 | .2 | .2 | .1 | .2 | .3 | .2 |
| <i>Previous Tealbook</i> | -.1 | .0 | .2 | .2 | -.5 | .1 | .3 | -.3 | -.0 | .1 | .1 | .1 | .1 | .1 | .2 | .2 |
| Federal purchases | .0 | -2 | -1 | -1 | .0 | -.1 | .7 | -.5 | -.2 | -.2 | -.2 | -.2 | -1 | -1 | 0 | -1 |
| State and local purchases | .1 | .2 | .2 | .2 | -.1 | .4 | .1 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 | .2 |
| Taxes and transfers | -.2 | .1 | .1 | .0 | -.5 | -.3 | -.1 | .0 | -.1 | .2 | .2 | .2 | .0 | .1 | .1 | .1 |

1. Other means of financing include checks issued less checks paid, accrued items, and changes in other financial assets and liabilities.
2. Gross saving is the current account surplus plus consumption of fixed capital of the general government as well as government enterprises.
3. 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. Quarterly figures for change in HEB are not at annual rates.
4. Fiscal impetus measures the contribution to growth of real GDP from fiscal policy actions at the general government level (excluding multiplier effects). It equals the sum of the direct contributions to real GDP growth from changes in federal purchases and state and local purchases, plus the estimated contribution from real consumption and investment that is induced by discretionary policy changes in transfers and taxes.

a Actual.

Greensheets

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

| Measure and country | 2014 | | | | 2015 | | | | Projected 2016 | | | |
|------------------------------------|------|------|------|-----|------|-----|-----|-----|----------------|-----|-----|-----|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Real GDP¹ | | | | | | | | | | | | |
| Total foreign | 2.2 | 2.2 | 2.3 | 2.6 | 2.9 | 3.0 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| <i>Previous Tealbook</i> | 2.2 | 2.3 | 2.8 | 2.8 | 2.9 | 3.0 | 3.2 | 2.8 | 3.2 | 3.2 | 3.2 | 3.2 |
| Advanced foreign economies | 1.9 | 1.3 | 1.6 | 1.8 | 2.0 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| Canada | 1.0 | 3.6 | 2.8 | 2.5 | 2.4 | 2.4 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.5 |
| Japan | 5.8 | -6.7 | -1.9 | 1.8 | 1.7 | 1.5 | 1.5 | 1.4 | 1.3 | 1.3 | 1.2 | 1.4 |
| United Kingdom | 3.0 | 3.7 | 2.8 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.4 | 2.4 |
| Euro area | 1.3 | .3 | .6 | .7 | 1.2 | 1.6 | 1.7 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 |
| Germany | 3.1 | -.3 | .3 | .9 | 1.5 | 1.8 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Emerging market economies | 2.4 | 3.1 | 3.0 | 3.3 | 3.8 | 3.9 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 |
| Asia | 3.8 | 4.8 | 5.3 | 4.9 | 5.5 | 5.5 | 5.5 | 5.6 | 5.5 | 5.5 | 5.5 | 5.5 |
| Korea | 3.8 | 2.0 | 3.7 | 3.9 | 4.3 | 4.3 | 4.3 | 4.3 | 4.2 | 4.2 | 4.2 | 4.2 |
| China | 6.2 | 7.7 | 7.7 | 7.2 | 7.4 | 7.4 | 7.3 | 7.3 | 7.2 | 7.2 | 7.1 | 7.1 |
| Latin America | 1.2 | 1.9 | 1.3 | 2.3 | 2.5 | 2.7 | 3.1 | 3.1 | 3.1 | 3.1 | 3.2 | 3.2 |
| Mexico | 1.4 | 3.6 | 2.0 | 3.2 | 3.3 | 3.4 | 3.5 | 3.5 | 3.4 | 3.4 | 3.5 | 3.5 |
| Brazil | -.7 | -2.4 | .3 | 1.0 | 1.3 | 1.6 | 1.8 | 1.9 | 2.1 | 2.1 | 2.1 | 2.1 |
| <i>Consumer prices²</i> | | | | | | | | | | | | |
| Total foreign | 2.0 | 3.1 | 2.1 | 1.6 | 2.0 | 2.3 | 2.5 | 2.5 | 2.6 | 2.6 | 2.6 | 2.6 |
| <i>Previous Tealbook</i> | 2.0 | 3.1 | 2.1 | 1.7 | 2.2 | 2.4 | 2.5 | 2.5 | 2.6 | 2.6 | 2.6 | 2.6 |
| Advanced foreign economies | 1.1 | 3.3 | 1.1 | .0 | .6 | 1.1 | 1.3 | 1.5 | 1.5 | 1.6 | 1.6 | 1.7 |
| Canada | 2.8 | 3.7 | 1.3 | 1.2 | 1.0 | 1.4 | 1.6 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 |
| Japan | .4 | 9.4 | 1.8 | -.9 | 1.4 | .9 | 1.0 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 |
| United Kingdom | 1.3 | 1.8 | 1.5 | .2 | 1.0 | 1.6 | 1.8 | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 |
| Euro area | .3 | .5 | .6 | -.5 | -.1 | .9 | 1.3 | 1.3 | 1.4 | 1.5 | 1.6 | 1.6 |
| Germany | .2 | .4 | 1.7 | -.3 | .2 | 1.2 | 1.5 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 |
| Emerging market economies | 2.6 | 2.9 | 2.9 | 3.1 | 3.2 | 3.4 | 3.4 | 3.4 | 3.4 | 3.3 | 3.3 | 3.3 |
| Asia | 1.5 | 2.4 | 2.1 | 2.1 | 2.9 | 3.0 | 3.2 | 3.3 | 3.2 | 3.2 | 3.2 | 3.2 |
| Korea | 1.4 | 2.2 | .6 | .6 | 3.0 | 3.0 | 3.2 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| China | .8 | 2.0 | 2.2 | 1.9 | 2.4 | 2.6 | 2.9 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Latin America | 5.3 | 4.3 | 4.9 | 4.5 | 3.7 | 3.8 | 3.8 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Mexico | 4.8 | 3.3 | 4.4 | 4.0 | 3.2 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| Brazil | 6.5 | 7.4 | 6.2 | 5.9 | 5.6 | 5.6 | 5.6 | 5.5 | 5.4 | 5.4 | 5.4 | 5.4 |

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

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

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

Class II FOMC - Restricted (FR)

Authorized for Public Release

December 10, 2014

| Measure and country | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|------------------------------|------|------|------|------|------|------|------|------|------|
| Real GDP¹ | | | | | | | | | |
| Total foreign | .9 | 4.7 | 3.2 | 2.3 | 2.6 | 2.3 | 3.1 | 3.2 | 3.1 |
| <i>Previous Tealbook</i> | 1.0 | 4.7 | 3.1 | 2.3 | 2.5 | 2.5 | 3.0 | 3.2 | 3.7 |
| Advanced foreign economies | -1.4 | 3.1 | 1.8 | .3 | 1.9 | 1.7 | 2.1 | 2.2 | 1.9 |
| Canada | -1.4 | 3.6 | 3.0 | 1.0 | 2.7 | 2.5 | 2.5 | 2.5 | 2.2 |
| Japan | -.6 | 3.5 | .3 | .0 | 2.2 | -.4 | 1.5 | 1.3 | -.3 |
| United Kingdom | -1.5 | 2.2 | 1.5 | .4 | 2.7 | 3.0 | 2.5 | 2.5 | 2.3 |
| Euro area | -2.3 | 2.3 | .6 | -.9 | .4 | .7 | 1.6 | 1.9 | 2.0 |
| Germany | -3.0 | 4.4 | 2.4 | .1 | 1.1 | 1.0 | 1.8 | 2.0 | 1.9 |
| Emerging market economies | 3.8 | 6.4 | 4.6 | 4.3 | 3.3 | 3.0 | 4.0 | 4.2 | 4.2 |
| Asia | 7.8 | 8.0 | 4.9 | 5.6 | 5.2 | 4.7 | 5.5 | 5.5 | 5.3 |
| Korea | 4.9 | 6.1 | 3.0 | 2.1 | 3.6 | 3.3 | 4.3 | 4.2 | 4.0 |
| China | 11.3 | 9.7 | 8.7 | 7.7 | 7.6 | 7.2 | 7.3 | 7.1 | 7.0 |
| Latin America | .0 | 4.7 | 4.0 | 3.3 | 1.5 | 1.7 | 2.8 | 3.1 | 3.2 |
| Mexico | -1.2 | 4.4 | 4.1 | 3.4 | 1.1 | 2.6 | 3.4 | 3.4 | 3.5 |
| Brazil | 5.3 | 5.3 | 1.3 | 1.8 | 2.2 | -.5 | 1.6 | 2.1 | 2.3 |
| Consumer prices ² | | | | | | | | | |
| Total foreign | 1.2 | 3.2 | 3.4 | 2.3 | 2.3 | 2.2 | 2.3 | 2.6 | 2.7 |
| <i>Previous Tealbook</i> | 1.2 | 3.2 | 3.4 | 2.3 | 2.3 | 2.2 | 2.5 | 2.6 | 2.6 |
| Advanced foreign economies | .2 | 1.7 | 2.2 | 1.3 | 1.0 | 1.4 | 1.1 | 1.6 | 2.0 |
| Canada | .8 | 2.2 | 2.7 | .9 | 1.0 | 2.3 | 1.4 | 1.8 | 2.0 |
| Japan | -2.0 | -.3 | -.3 | -2 | 1.4 | 2.6 | 1.1 | 1.3 | 2.8 |
| United Kingdom | 2.2 | 3.4 | 4.6 | 2.6 | 2.1 | 1.2 | 1.6 | 1.9 | 2.0 |
| Euro area | .4 | 2.0 | 2.9 | 2.3 | .8 | .2 | .8 | 1.5 | 1.6 |
| Germany | .3 | 1.6 | 2.6 | 2.0 | 1.3 | .5 | 1.1 | 1.7 | 1.7 |
| Emerging market economies | 2.0 | 4.3 | 4.3 | 3.1 | 3.4 | 2.8 | 3.3 | 3.3 | 3.3 |
| Asia | 1.2 | 4.3 | 4.5 | 2.6 | 3.1 | 2.0 | 3.1 | 3.2 | 3.2 |
| Korea | 2.4 | 3.2 | 3.9 | 1.7 | 1.1 | 1.2 | 3.1 | 3.3 | 3.3 |
| China | .6 | 4.6 | 4.6 | 2.1 | 2.9 | 1.7 | 2.7 | 3.0 | 3.0 |
| Latin America | 3.9 | 4.4 | 4.0 | 4.3 | 4.0 | 4.8 | 3.7 | 3.7 | 3.6 |
| Mexico | 4.0 | 4.3 | 3.5 | 4.1 | 3.7 | 4.1 | 3.3 | 3.3 | 3.3 |
| Brazil | 4.3 | 5.6 | 6.7 | 5.6 | 5.9 | 6.5 | 5.6 | 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**

| | 2014 | | | | 2015 | | | | 2016 | | | |
|-------------------------------------|--------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| | <i>Billions of dollars, s.a.a.r.</i> | | | | | | | | | | | |
| U.S. current account balance | | | | | | | | | | | | |
| <i>Previous Tealbook</i> | -408.5 | -397.9 | -420.2 | -445.6 | -431.3 | -428.3 | -463.5 | -497.3 | -545.4 | -545.6 | -584.8 | -601.8 |
| Current account as percent of GDP | -2.4 | -2.3 | -2.4 | -2.5 | -2.4 | -2.4 | -2.5 | -2.7 | -2.9 | -2.9 | -3.1 | -3.1 |
| <i>Previous Tealbook</i> | -2.4 | -2.3 | -2.4 | -2.3 | -2.3 | -2.2 | -2.2 | -2.3 | -2.5 | -2.4 | -2.5 | -2.6 |
| Net goods & services | -498.1 | -524.9 | -497.3 | -484.0 | -441.7 | -447.3 | -473.0 | -507.1 | -534.3 | -547.9 | -576.8 | -590.1 |
| Investment income, net | 218.2 | 221.7 | 222.5 | 178.4 | 162.5 | 152.3 | 145.5 | 143.4 | 140.9 | 135.7 | 128.0 | 121.9 |
| Direct, net | 292.8 | 286.0 | 286.1 | 241.2 | 228.4 | 229.7 | 233.7 | 244.8 | 256.3 | 266.8 | 275.3 | 285.3 |
| Portfolio, net | -74.6 | -64.3 | -63.6 | -62.8 | -65.9 | -77.4 | -88.2 | -101.4 | -115.3 | -131.1 | -147.3 | -163.4 |
| Other income and transfers, net | -128.5 | -94.7 | -145.4 | -140.0 | -152.1 | -133.4 | -136.0 | -133.6 | -152.1 | -133.4 | -136.0 | -133.6 |
| <i>Annual Data</i> | | | | | | | | | | | | |
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | | | |
| <i>Billions of dollars</i> | | | | | | | | | | | | |
| U.S. current account balance | | | | | | | | | | | | |
| <i>Previous Tealbook</i> | -380.8 | -443.9 | -459.3 | -460.8 | -400.3 | -418.0 | -455.1 | -569.4 | -642.0 | | | |
| Current account as percent of GDP | -2.6 | -3.0 | -3.0 | -2.9 | -2.4 | -2.4 | -2.4 | -2.5 | -3.0 | -3.0 | -3.2 | -3.2 |
| <i>Previous Tealbook</i> | -2.6 | -3.0 | -3.0 | -2.9 | -2.4 | -2.4 | -2.3 | -2.3 | -2.5 | -2.5 | -2.6 | -2.6 |
| Net goods & services | -383.8 | -494.7 | -548.6 | -537.6 | -476.4 | -501.1 | -467.3 | -562.3 | | | | |
| Investment income, net | 132.3 | 185.7 | 229.0 | 211.4 | 208.5 | 210.2 | 150.9 | 131.6 | 105.6 | | | |
| Direct, net | 257.7 | 288.0 | 298.6 | 281.6 | 290.9 | 276.5 | 234.2 | 270.9 | 312.0 | | | |
| Portfolio, net | -125.4 | -102.3 | -69.5 | -70.2 | -82.3 | -66.4 | -83.2 | -139.3 | -206.4 | | | |
| Other income and transfers, net | -129.3 | -135.0 | -139.8 | -134.6 | -132.4 | -127.1 | -138.8 | -138.8 | -138.8 | | | |

Class I FOMC – Restricted Controlled (FR)

Report to the FOMC on Economic Conditions and Monetary Policy



Book B Monetary Policy: Strategies and Alternatives

December 11, 2014

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

Policy Rules and the Staff Projection

Near-Term Prescriptions of Selected Policy Rules

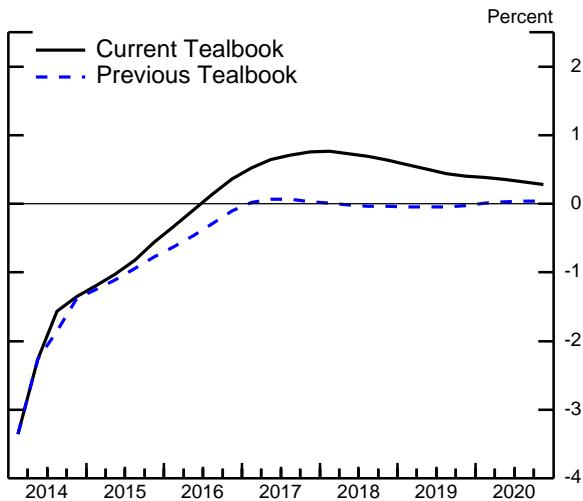
| | <u>2015Q1</u> | <u>2015Q2</u> |
|---|-----------------------|-----------------------|
| Taylor (1993) rule <i>Previous Tealbook</i> | 2.62 2.43 | 2.48 2.33 |
| Taylor (1999) rule <i>Previous Tealbook</i> | 2.03 1.81 | 1.97 1.78 |
| Inertial Taylor (1999) rule <i>Previous Tealbook outlook</i> | 0.41 0.38 | 0.64 0.59 |
| First-difference rule <i>Previous Tealbook outlook</i> | 0.27 0.19 | 0.45 0.29 |
| Nominal income targeting rule <i>Previous Tealbook outlook</i> | -0.24 -0.27 | -0.53 -0.57 |

Memo: Equilibrium and Actual Real Federal Funds Rates

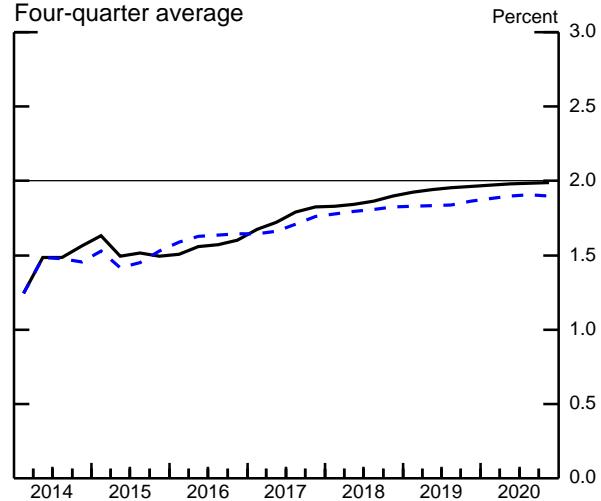
| | Current Tealbook | <i>Previous Tealbook</i> |
|---|---------------------|------------------------------|
| Tealbook-consistent FRB/US r^* estimate | -0.91 | -1.28 |
| Actual real federal funds rate | -1.35 | -1.34 |

Key Elements of the Staff Projection

GDP Gap



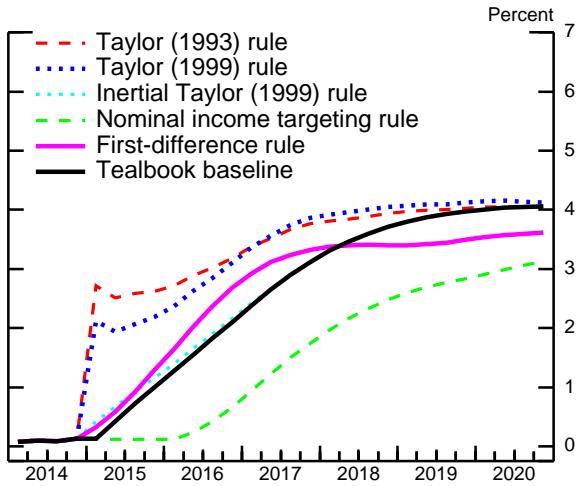
PCE Prices Excluding Food and Energy



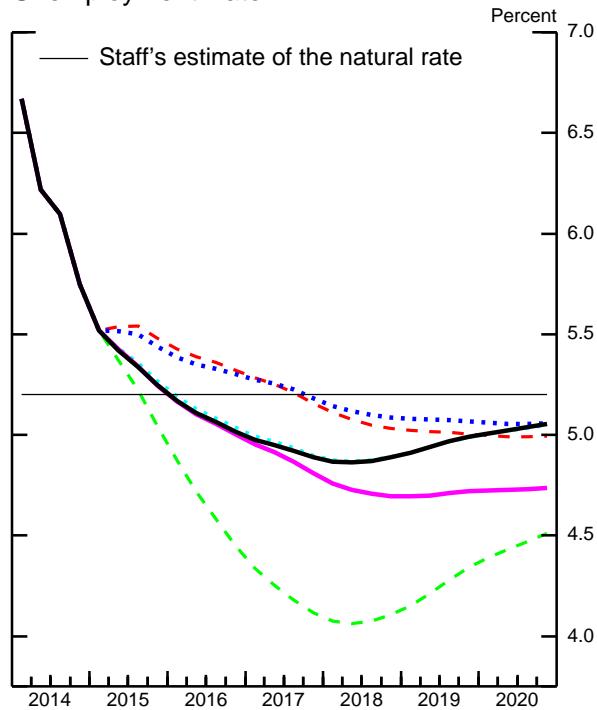
Note: For rules that have the lagged policy rate as a right-hand-side variable, the lines denoted "Previous Tealbook outlook" report rule prescriptions based on the previous Tealbook's staff outlook, but jumping off from the average value for the policy rate thus far in the current quarter.

Policy Rule Simulations

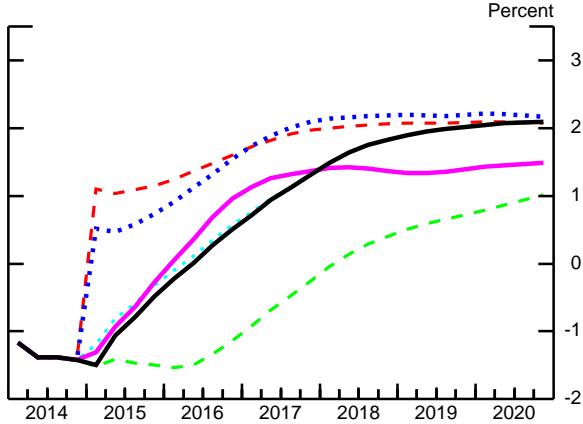
Effective Nominal Federal Funds Rate



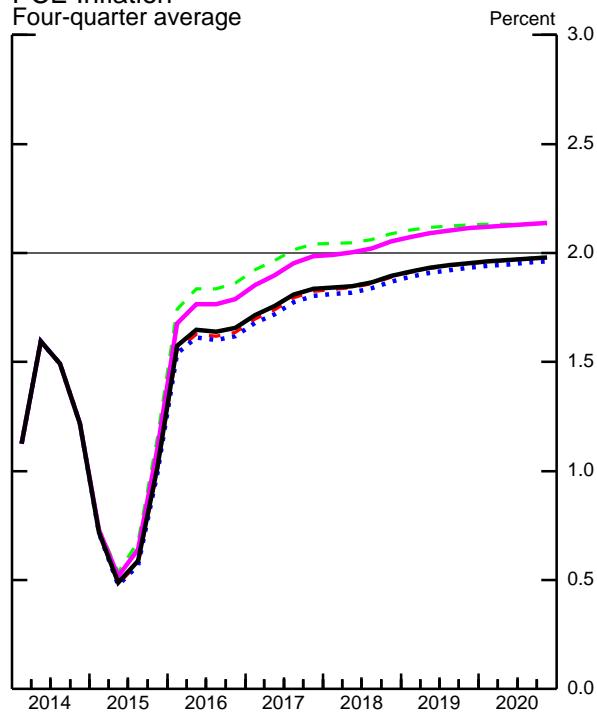
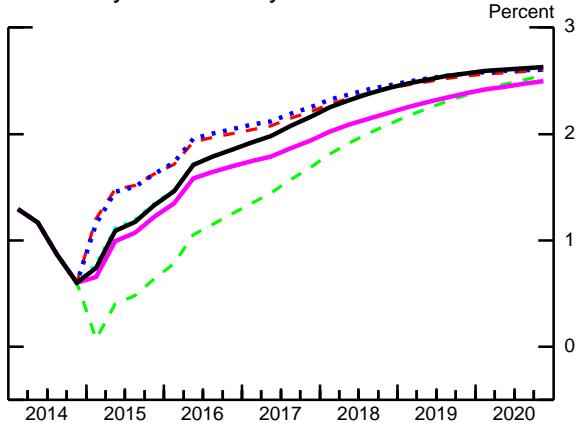
Unemployment Rate



Real Federal Funds Rate

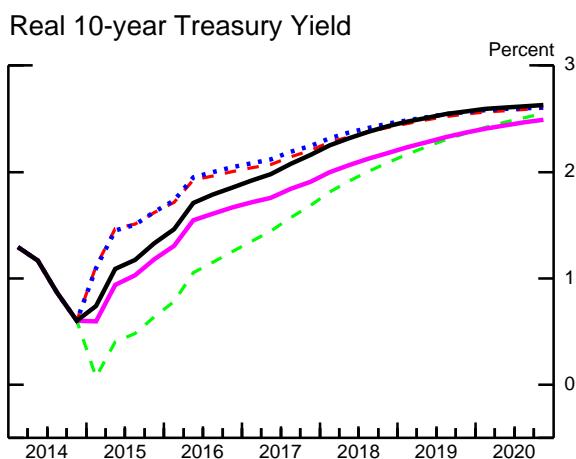
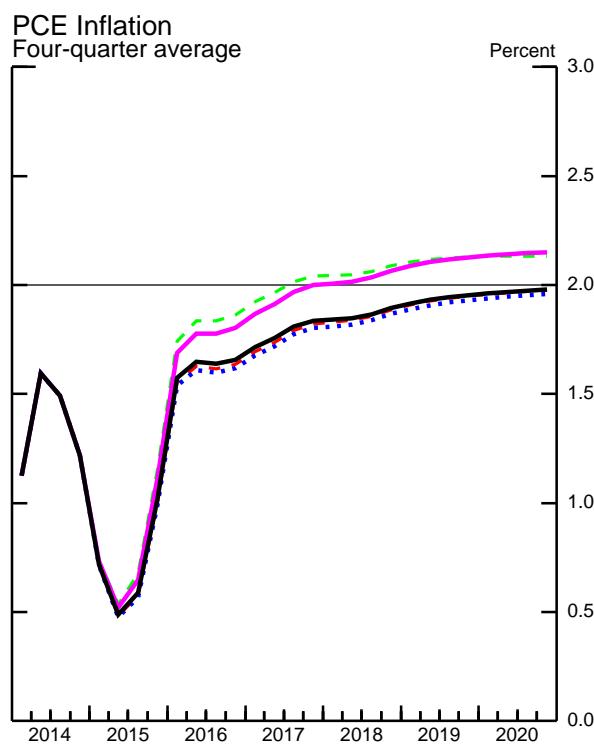
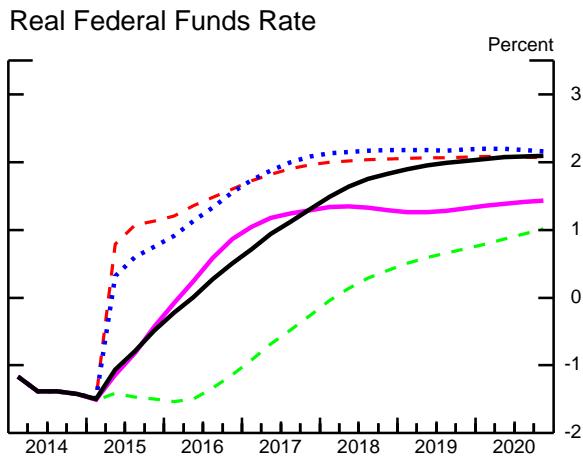
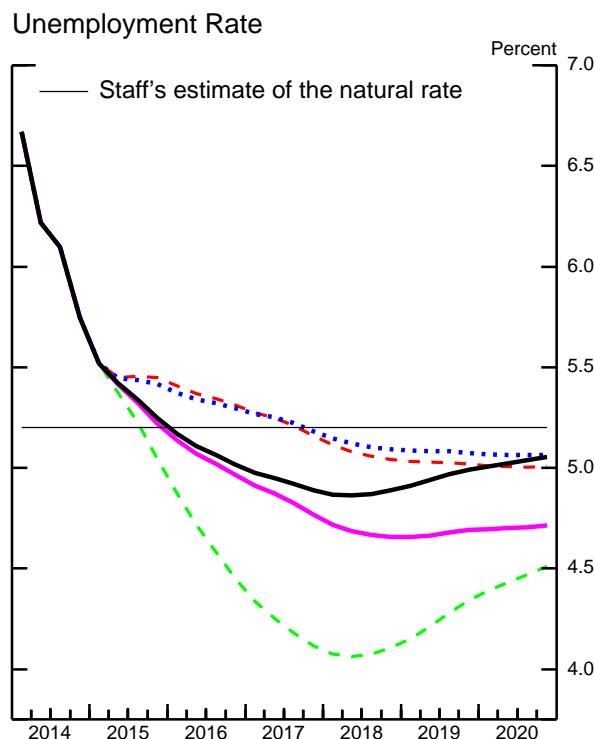
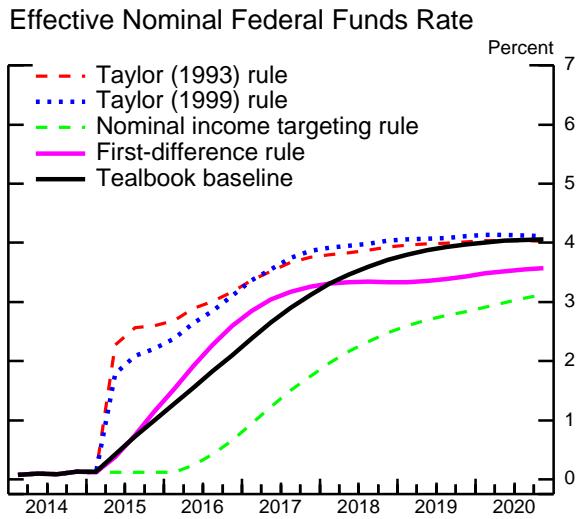
PCE Inflation
Four-quarter average

Real 10-year Treasury Yield



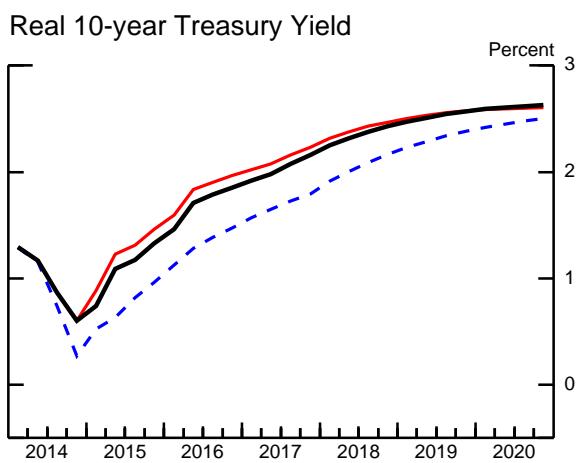
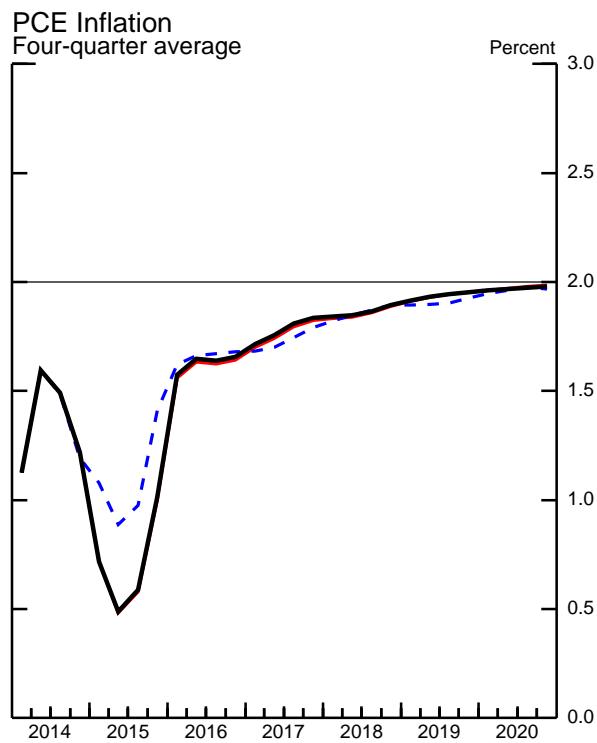
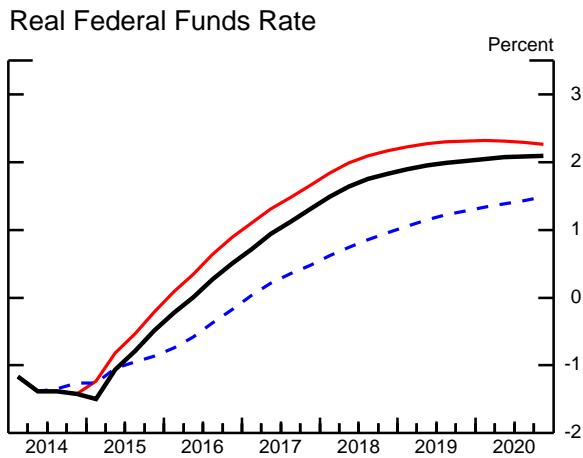
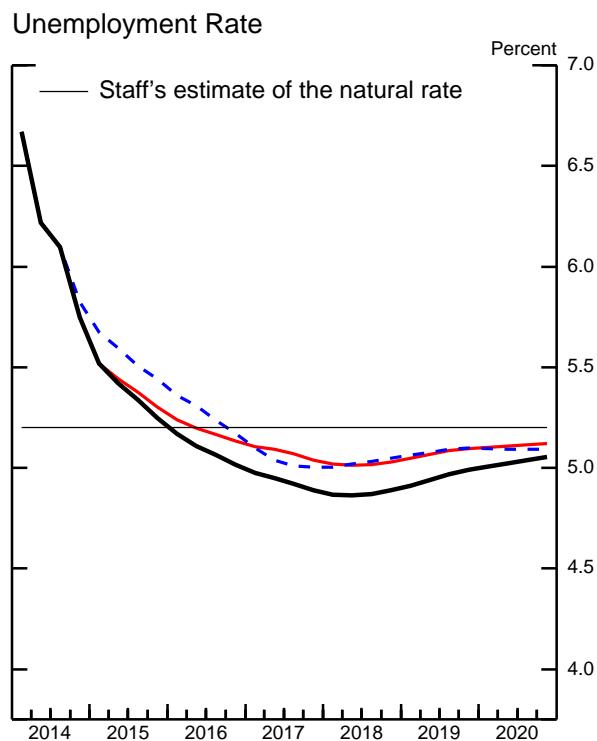
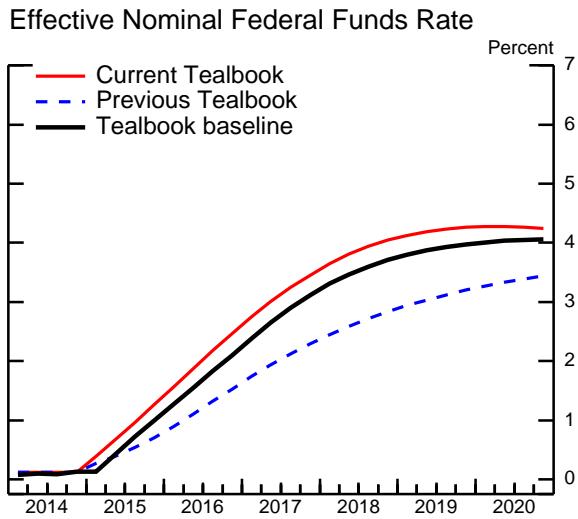
Note: The policy rule simulations in this exhibit are based on rules that respond to core inflation. This choice of rule specification was made in light of the tendency for current and near-term core inflation rates to outperform headline inflation rates as predictors of the medium-term behavior of headline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

Policy Rule Simulations with an Unemployment Rate Threshold



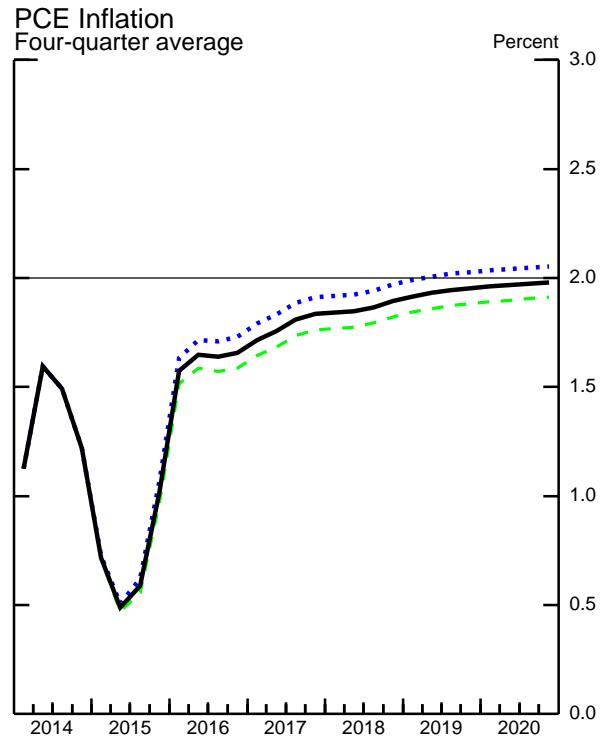
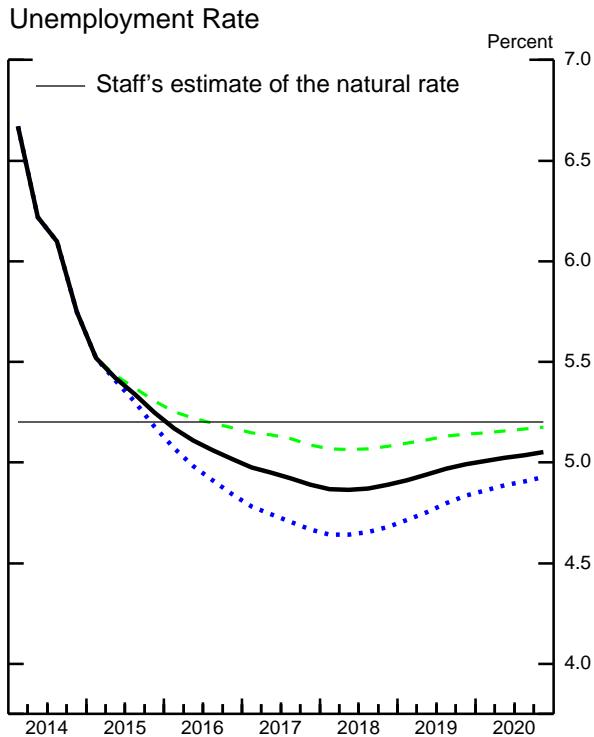
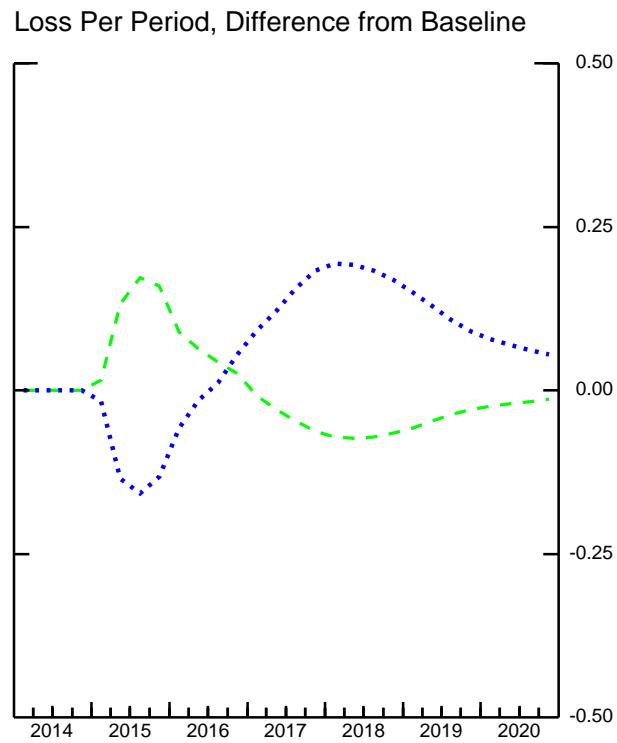
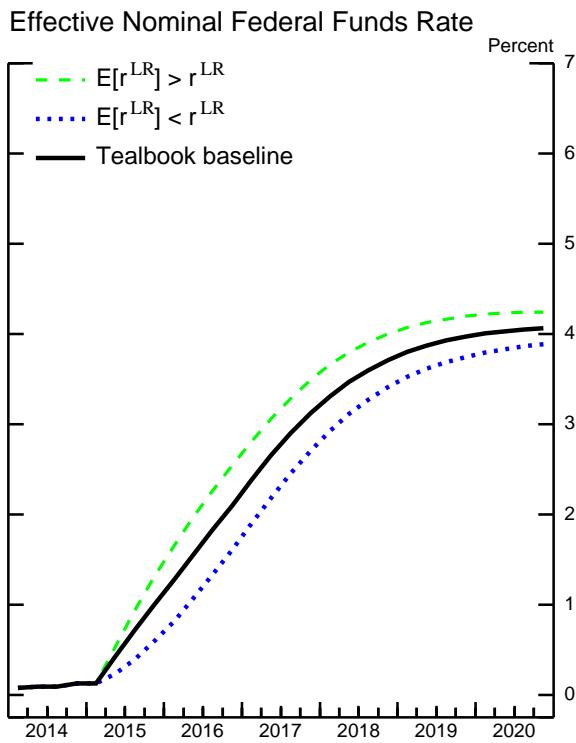
Note: The policy rule simulations in this exhibit keep the federal funds rate at an effective lower bound of 12½ basis points as long as the unemployment rate is 5.6 percent or more. Thereafter, the federal funds rate follows the prescriptions of the specified rule. A value of 5.6 percent was chosen because, in the Tealbook baseline, the unemployment rate crosses that level just before firming begins. In addition, the simulations are based on rules that respond to core inflation.

Optimal Control Policy under Commitment



Policy Rule Simulations with a Misperceived Long-Run Real Federal Funds Rate (Inertial Taylor (1999) Rule)

Strategies



Outcomes under Alternative Policies

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

| Measure and policy | 2014 | | 2015 | 2016 | 2017 | 2018 |
|---|------|-----|------|------|------|------|
| | H1 | H2 | | | | |
| <i>Real GDP</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.2 | 3.1 | 2.5 | 2.7 | 2.2 | 1.8 |
| Taylor (1993) | 1.2 | 3.1 | 2.1 | 2.6 | 2.3 | 2.0 |
| Taylor (1999) | 1.2 | 3.1 | 2.2 | 2.5 | 2.2 | 2.0 |
| Inertial Taylor (1999) | 1.2 | 3.1 | 2.5 | 2.7 | 2.2 | 1.8 |
| First-difference | 1.2 | 3.1 | 2.6 | 2.8 | 2.3 | 2.0 |
| Nominal income targeting | 1.2 | 3.1 | 3.0 | 3.4 | 2.6 | 1.9 |
| Optimal control | 1.2 | 3.1 | 2.4 | 2.6 | 2.1 | 1.8 |
| <i>Unemployment rate²</i> | | | | | | |
| Extended Tealbook baseline ¹ | 6.2 | 5.7 | 5.2 | 5.0 | 4.9 | 4.9 |
| Taylor (1993) | 6.2 | 5.7 | 5.5 | 5.3 | 5.2 | 5.0 |
| Taylor (1999) | 6.2 | 5.7 | 5.4 | 5.3 | 5.2 | 5.1 |
| Inertial Taylor (1999) | 6.2 | 5.7 | 5.3 | 5.0 | 4.9 | 4.9 |
| First-difference | 6.2 | 5.7 | 5.2 | 5.0 | 4.8 | 4.7 |
| Nominal income targeting | 6.2 | 5.7 | 5.0 | 4.5 | 4.1 | 4.1 |
| Optimal control | 6.2 | 5.7 | 5.3 | 5.1 | 5.0 | 5.0 |
| <i>Total PCE prices</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.9 | 0.6 | 1.0 | 1.7 | 1.8 | 1.9 |
| Taylor (1993) | 1.9 | 0.6 | 1.0 | 1.6 | 1.8 | 1.9 |
| Taylor (1999) | 1.9 | 0.6 | 1.0 | 1.6 | 1.8 | 1.9 |
| Inertial Taylor (1999) | 1.9 | 0.6 | 1.0 | 1.7 | 1.8 | 1.9 |
| First-difference | 1.9 | 0.6 | 1.1 | 1.8 | 2.0 | 2.1 |
| Nominal income targeting | 1.9 | 0.6 | 1.1 | 1.9 | 2.0 | 2.1 |
| Optimal control | 1.9 | 0.6 | 1.0 | 1.6 | 1.8 | 1.9 |
| <i>Core PCE prices</i> | | | | | | |
| Extended Tealbook baseline ¹ | 1.6 | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| Taylor (1993) | 1.6 | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| Taylor (1999) | 1.6 | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| Inertial Taylor (1999) | 1.6 | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| First-difference | 1.6 | 1.5 | 1.6 | 1.7 | 2.0 | 2.1 |
| Nominal income targeting | 1.6 | 1.5 | 1.6 | 1.8 | 2.0 | 2.1 |
| Optimal control | 1.6 | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| <i>Effective nominal federal funds rate²</i> | | | | | | |
| Extended Tealbook baseline ¹ | 0.1 | 0.1 | 1.0 | 2.1 | 3.1 | 3.7 |
| Taylor (1993) | 0.1 | 0.1 | 2.6 | 3.2 | 3.8 | 3.9 |
| Taylor (1999) | 0.1 | 0.1 | 2.2 | 3.1 | 3.9 | 4.0 |
| Inertial Taylor (1999) | 0.1 | 0.1 | 1.2 | 2.2 | 3.1 | 3.7 |
| First-difference | 0.1 | 0.1 | 1.3 | 2.7 | 3.3 | 3.4 |
| Nominal income targeting | 0.1 | 0.1 | 0.1 | 0.7 | 1.7 | 2.5 |
| Optimal control | 0.1 | 0.1 | 1.2 | 2.4 | 3.4 | 3.9 |

1. In the Tealbook baseline, the federal funds rate first departs from an effective lower bound of 12½ basis points in the second quarter of 2015. Thereafter, the federal funds rate follows the prescriptions of the inertial Taylor (1999) rule.

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

Outcomes under Alternative Policies, Quarterly

(Four-quarter percentage change, except as noted)

| Measure and policy | 2015 | | | | 2016 | | | |
|---|------|-----|-----|-----|------|-----|-----|-----|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| <i>Real GDP</i> | | | | | | | | |
| Extended Tealbook baseline ¹ | 3.3 | 2.8 | 2.4 | 2.5 | 2.6 | 2.7 | 2.8 | 2.7 |
| Taylor (1993) | 3.3 | 2.6 | 2.1 | 2.1 | 2.1 | 2.4 | 2.5 | 2.6 |
| Taylor (1999) | 3.3 | 2.6 | 2.1 | 2.2 | 2.2 | 2.4 | 2.5 | 2.5 |
| Inertial Taylor (1999) | 3.3 | 2.7 | 2.4 | 2.5 | 2.6 | 2.7 | 2.7 | 2.7 |
| First-difference | 3.3 | 2.8 | 2.4 | 2.6 | 2.7 | 2.8 | 2.8 | 2.8 |
| Nominal income targeting | 3.3 | 2.9 | 2.7 | 3.0 | 3.3 | 3.4 | 3.5 | 3.4 |
| Optimal control | 3.3 | 2.7 | 2.3 | 2.4 | 2.5 | 2.6 | 2.6 | 2.6 |
| <i>Unemployment rate²</i> | | | | | | | | |
| Extended Tealbook baseline ¹ | 5.5 | 5.4 | 5.3 | 5.2 | 5.2 | 5.1 | 5.1 | 5.0 |
| Taylor (1993) | 5.5 | 5.5 | 5.5 | 5.5 | 5.4 | 5.4 | 5.4 | 5.3 |
| Taylor (1999) | 5.5 | 5.5 | 5.5 | 5.4 | 5.4 | 5.4 | 5.3 | 5.3 |
| Inertial Taylor (1999) | 5.5 | 5.4 | 5.4 | 5.3 | 5.2 | 5.1 | 5.1 | 5.0 |
| First-difference | 5.5 | 5.4 | 5.3 | 5.2 | 5.2 | 5.1 | 5.1 | 5.0 |
| Nominal income targeting | 5.5 | 5.4 | 5.2 | 5.0 | 4.9 | 4.7 | 4.6 | 4.5 |
| Optimal control | 5.5 | 5.4 | 5.4 | 5.3 | 5.2 | 5.2 | 5.2 | 5.1 |
| <i>Total PCE prices</i> | | | | | | | | |
| Extended Tealbook baseline ¹ | 0.7 | 0.5 | 0.6 | 1.0 | 1.6 | 1.6 | 1.6 | 1.7 |
| Taylor (1993) | 0.7 | 0.5 | 0.6 | 1.0 | 1.6 | 1.6 | 1.6 | 1.6 |
| Taylor (1999) | 0.7 | 0.5 | 0.6 | 1.0 | 1.5 | 1.6 | 1.6 | 1.6 |
| Inertial Taylor (1999) | 0.7 | 0.5 | 0.6 | 1.0 | 1.6 | 1.6 | 1.6 | 1.7 |
| First-difference | 0.7 | 0.5 | 0.6 | 1.1 | 1.7 | 1.8 | 1.8 | 1.8 |
| Nominal income targeting | 0.7 | 0.5 | 0.7 | 1.1 | 1.7 | 1.8 | 1.8 | 1.9 |
| Optimal control | 0.7 | 0.5 | 0.6 | 1.0 | 1.6 | 1.6 | 1.6 | 1.6 |
| <i>Core PCE prices</i> | | | | | | | | |
| Extended Tealbook baseline ¹ | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 |
| Taylor (1993) | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 |
| Taylor (1999) | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 |
| Inertial Taylor (1999) | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 |
| First-difference | 1.6 | 1.5 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 |
| Nominal income targeting | 1.7 | 1.5 | 1.6 | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 |
| Optimal control | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 |
| <i>Effective nominal federal funds rate²</i> | | | | | | | | |
| Extended Tealbook baseline ¹ | 0.1 | 0.4 | 0.7 | 1.0 | 1.3 | 1.6 | 1.8 | 2.1 |
| Taylor (1993) | 2.7 | 2.5 | 2.6 | 2.6 | 2.7 | 2.9 | 3.0 | 3.2 |
| Taylor (1999) | 2.1 | 1.9 | 2.1 | 2.2 | 2.4 | 2.6 | 2.8 | 3.1 |
| Inertial Taylor (1999) | 0.4 | 0.7 | 0.9 | 1.2 | 1.4 | 1.7 | 1.9 | 2.2 |
| First-difference | 0.3 | 0.6 | 0.9 | 1.3 | 1.7 | 2.0 | 2.4 | 2.7 |
| Nominal income targeting | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.4 | 0.7 |
| Optimal control | 0.4 | 0.7 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 | 2.4 |

1. In the Tealbook baseline, the federal funds rate first departs from an effective lower bound of 12½ basis points in the second quarter of 2015. Thereafter, the federal funds rate follows the prescriptions of the inertial Taylor (1999) rule.

2. Percent, average for the quarter.

Outcomes under Alternative Policies with an Unemployment Rate Threshold¹

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

| Measure and policy | 2014 | | 2015 | 2016 | 2017 | 2018 |
|---|------|-----|------|------|------|------|
| | H1 | H2 | | | | |
| <i>Real GDP</i> | | | | | | |
| Extended Tealbook baseline | 1.2 | 3.1 | 2.5 | 2.7 | 2.2 | 1.8 |
| Taylor (1993) | 1.2 | 3.1 | 2.2 | 2.5 | 2.2 | 2.0 |
| Taylor (1999) | 1.2 | 3.1 | 2.2 | 2.5 | 2.2 | 2.0 |
| First-difference | 1.2 | 3.1 | 2.6 | 2.8 | 2.3 | 2.0 |
| Nominal income targeting | 1.2 | 3.1 | 3.0 | 3.4 | 2.6 | 1.9 |
| Optimal control | 1.2 | 3.1 | 2.4 | 2.6 | 2.1 | 1.8 |
| <i>Unemployment rate²</i> | | | | | | |
| Extended Tealbook baseline | 6.2 | 5.7 | 5.2 | 5.0 | 4.9 | 4.9 |
| Taylor (1993) | 6.2 | 5.7 | 5.5 | 5.3 | 5.2 | 5.0 |
| Taylor (1999) | 6.2 | 5.7 | 5.4 | 5.3 | 5.2 | 5.1 |
| First-difference | 6.2 | 5.7 | 5.2 | 5.0 | 4.8 | 4.7 |
| Nominal income targeting | 6.2 | 5.7 | 5.0 | 4.5 | 4.1 | 4.1 |
| Optimal control | 6.2 | 5.7 | 5.3 | 5.1 | 5.0 | 5.0 |
| <i>Total PCE prices</i> | | | | | | |
| Extended Tealbook baseline | 1.9 | 0.6 | 1.0 | 1.7 | 1.8 | 1.9 |
| Taylor (1993) | 1.9 | 0.6 | 1.0 | 1.6 | 1.8 | 1.9 |
| Taylor (1999) | 1.9 | 0.6 | 1.0 | 1.6 | 1.8 | 1.9 |
| First-difference | 1.9 | 0.6 | 1.1 | 1.8 | 2.0 | 2.1 |
| Nominal income targeting | 1.9 | 0.6 | 1.1 | 1.9 | 2.0 | 2.1 |
| Optimal control | 1.9 | 0.6 | 1.0 | 1.6 | 1.8 | 1.9 |
| <i>Core PCE prices</i> | | | | | | |
| Extended Tealbook baseline | 1.6 | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| Taylor (1993) | 1.6 | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| Taylor (1999) | 1.6 | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| First-difference | 1.6 | 1.5 | 1.6 | 1.7 | 2.0 | 2.1 |
| Nominal income targeting | 1.6 | 1.5 | 1.6 | 1.8 | 2.0 | 2.1 |
| Optimal control | 1.6 | 1.5 | 1.5 | 1.6 | 1.8 | 1.9 |
| <i>Effective nominal federal funds rate²</i> | | | | | | |
| Extended Tealbook baseline | 0.1 | 0.1 | 1.0 | 2.1 | 3.1 | 3.7 |
| Taylor (1993) | 0.1 | 0.1 | 2.6 | 3.2 | 3.8 | 3.9 |
| Taylor (1999) | 0.1 | 0.1 | 2.2 | 3.1 | 3.9 | 4.0 |
| First-difference | 0.1 | 0.1 | 1.1 | 2.6 | 3.3 | 3.3 |
| Nominal income targeting | 0.1 | 0.1 | 0.1 | 0.7 | 1.7 | 2.5 |
| Optimal control | 0.1 | 0.1 | 1.2 | 2.4 | 3.4 | 3.9 |

1. With the exception of optimal control, monetary policy is specified to keep the federal funds rate at an effective lower bound of 12½ basis points as long as the unemployment rate is 5.6 percent or more. Once the threshold is crossed, the federal funds rate follows the prescriptions of the specified rule.

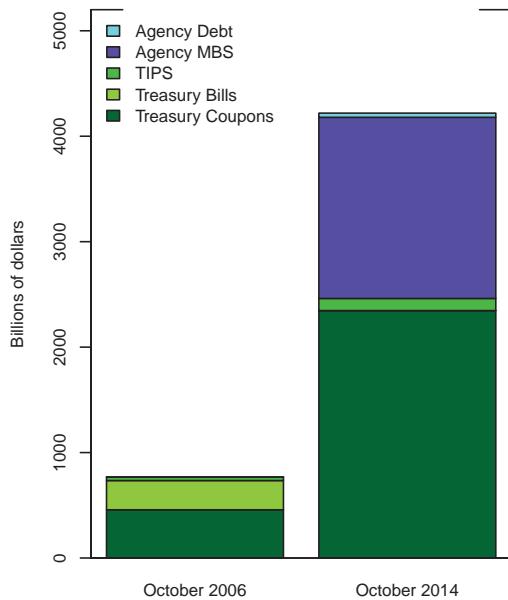
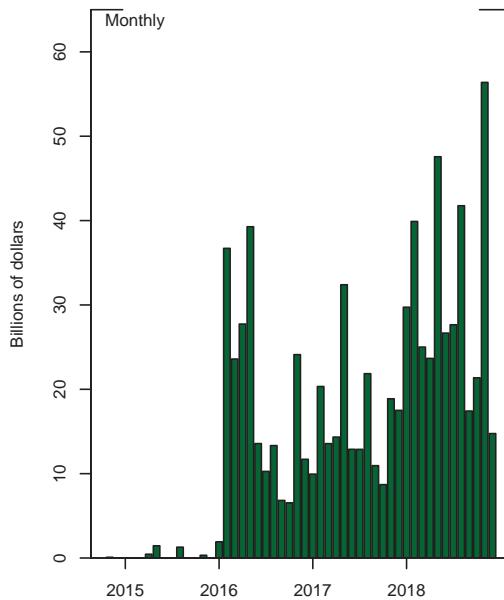
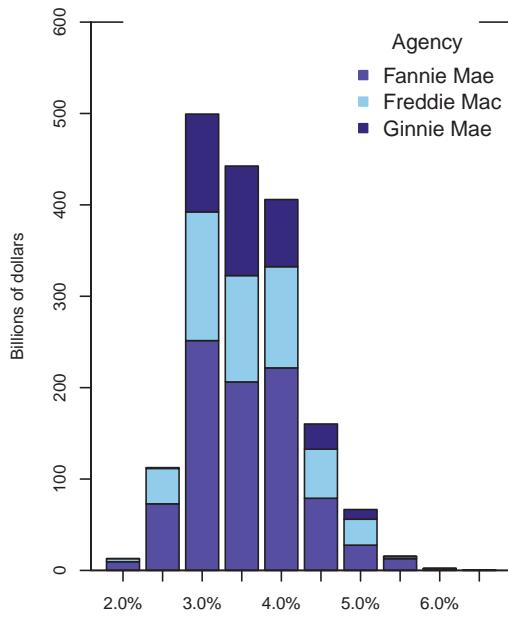
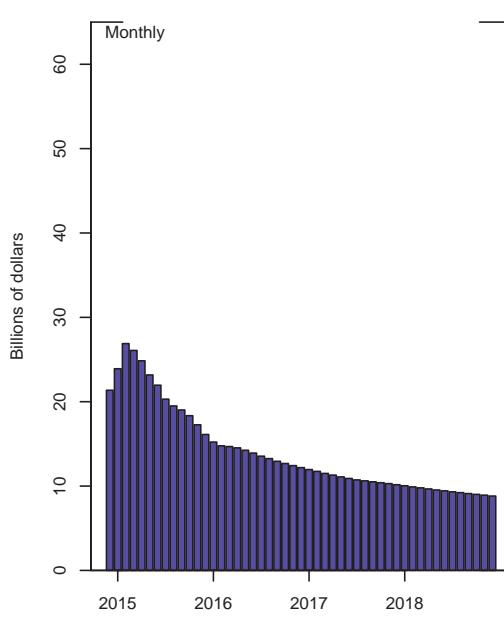
2. Percent, average for the final quarter of the period.

**Outcomes under Alternative Policies with an
Unemployment Rate Threshold, Quarterly¹**
(Four-quarter percentage change, except as noted)

| Measure and policy | 2015 | | | | 2016 | | | |
|---|------|-----|-----|-----|------|-----|-----|-----|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| <i>Real GDP</i> | | | | | | | | |
| Extended Tealbook baseline ¹ | 3.3 | 2.8 | 2.4 | 2.5 | 2.6 | 2.7 | 2.8 | 2.7 |
| Taylor (1993) | 3.3 | 2.7 | 2.2 | 2.2 | 2.2 | 2.3 | 2.4 | 2.5 |
| Taylor (1999) | 3.3 | 2.7 | 2.2 | 2.2 | 2.2 | 2.3 | 2.4 | 2.5 |
| Inertial Taylor (1999) | 3.3 | 2.8 | 2.4 | 2.5 | 2.6 | 2.7 | 2.8 | 2.8 |
| First-difference | 3.3 | 2.8 | 2.4 | 2.6 | 2.7 | 2.8 | 2.9 | 2.8 |
| Nominal income targeting | 3.3 | 2.9 | 2.7 | 3.0 | 3.3 | 3.4 | 3.5 | 3.4 |
| <i>Unemployment rate²</i> | | | | | | | | |
| Extended Tealbook baseline ¹ | 5.5 | 5.4 | 5.3 | 5.2 | 5.2 | 5.1 | 5.1 | 5.0 |
| Taylor (1993) | 5.5 | 5.4 | 5.5 | 5.5 | 5.4 | 5.4 | 5.3 | 5.3 |
| Taylor (1999) | 5.5 | 5.4 | 5.4 | 5.4 | 5.4 | 5.3 | 5.3 | 5.3 |
| Inertial Taylor (1999) | 5.5 | 5.4 | 5.3 | 5.2 | 5.2 | 5.1 | 5.1 | 5.0 |
| First-difference | 5.5 | 5.4 | 5.3 | 5.2 | 5.1 | 5.1 | 5.0 | 5.0 |
| Nominal income targeting | 5.5 | 5.4 | 5.2 | 5.0 | 4.9 | 4.7 | 4.6 | 4.5 |
| <i>Total PCE prices</i> | | | | | | | | |
| Extended Tealbook baseline ¹ | 0.7 | 0.5 | 0.6 | 1.0 | 1.6 | 1.6 | 1.6 | 1.7 |
| Taylor (1993) | 0.7 | 0.5 | 0.6 | 1.0 | 1.6 | 1.6 | 1.6 | 1.6 |
| Taylor (1999) | 0.7 | 0.5 | 0.6 | 1.0 | 1.5 | 1.6 | 1.6 | 1.6 |
| Inertial Taylor (1999) | 0.7 | 0.5 | 0.6 | 1.0 | 1.6 | 1.7 | 1.6 | 1.7 |
| First-difference | 0.7 | 0.5 | 0.6 | 1.1 | 1.7 | 1.8 | 1.8 | 1.8 |
| Nominal income targeting | 0.7 | 0.5 | 0.7 | 1.1 | 1.7 | 1.8 | 1.8 | 1.9 |
| <i>Core PCE prices</i> | | | | | | | | |
| Extended Tealbook baseline ¹ | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 |
| Taylor (1993) | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 |
| Taylor (1999) | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 |
| Inertial Taylor (1999) | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 |
| First-difference | 1.6 | 1.5 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 |
| Nominal income targeting | 1.7 | 1.5 | 1.6 | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 |
| <i>Effective nominal federal funds rate²</i> | | | | | | | | |
| Extended Tealbook baseline ¹ | 0.1 | 0.4 | 0.7 | 1.0 | 1.3 | 1.6 | 1.8 | 2.1 |
| Taylor (1993) | 0.1 | 2.3 | 2.6 | 2.6 | 2.7 | 2.9 | 3.0 | 3.2 |
| Taylor (1999) | 0.1 | 1.8 | 2.1 | 2.2 | 2.4 | 2.6 | 2.9 | 3.1 |
| Inertial Taylor (1999) | 0.1 | 0.4 | 0.7 | 1.0 | 1.2 | 1.5 | 1.8 | 2.1 |
| First-difference | 0.1 | 0.4 | 0.7 | 1.1 | 1.5 | 1.9 | 2.3 | 2.6 |
| Nominal income targeting | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.4 | 0.7 |

1. With the exception of optimal control, monetary policy is specified to keep the federal funds rate at an effective lower bound of 12½ basis points as long as the unemployment rate is 5.6 percent or more. Once the threshold is crossed, the federal funds rate follows the prescriptions of the specified rule.

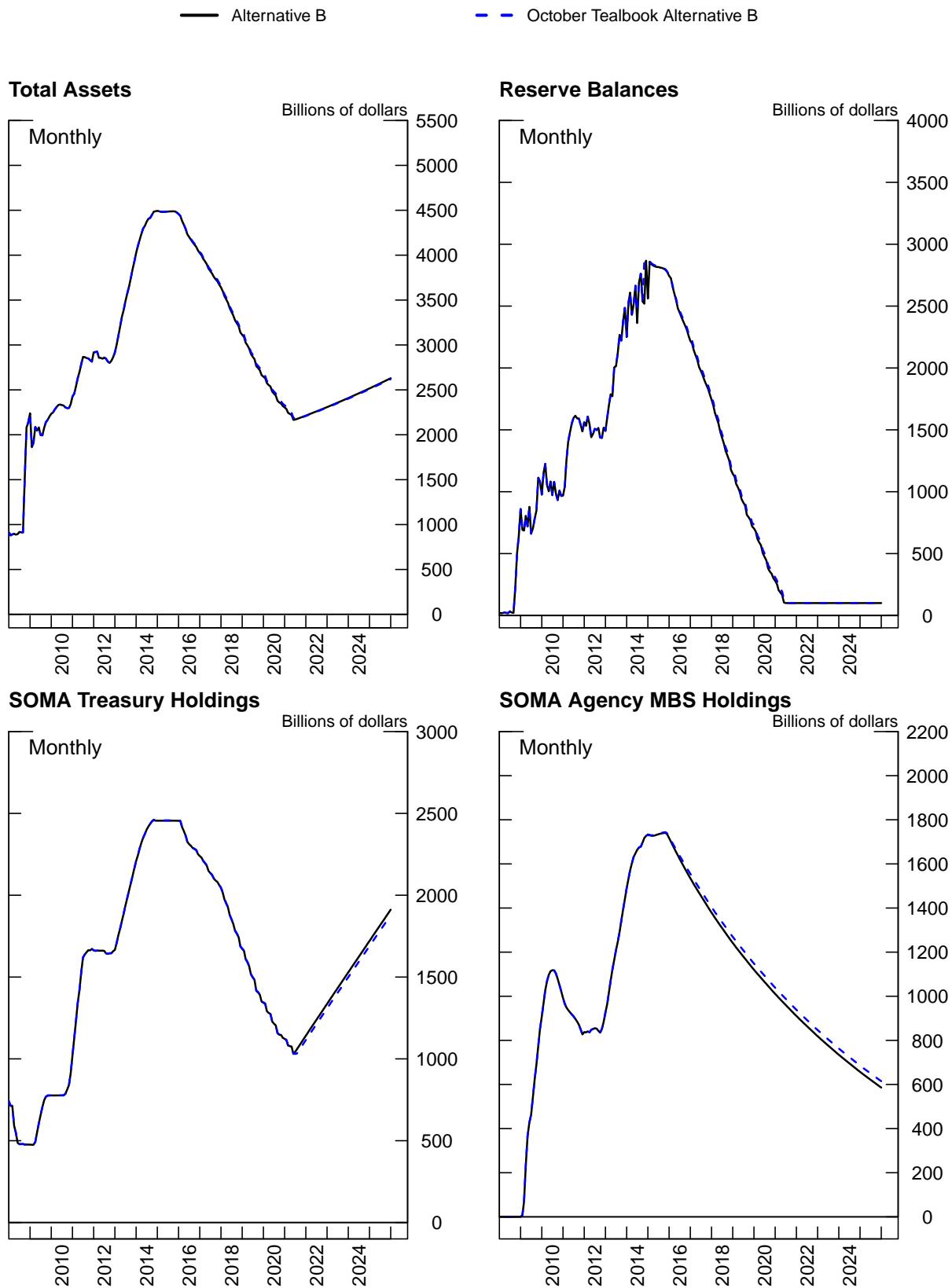
2. Percent, average for the quarter.

Figure 1. Comparison of SOMA Holdings in 2006 and 2014**Figure 2. SOMA Treasury Redemptions****Figure 3. SOMA MBS Holdings (10-29-2014)****Figure 4. SOMA MBS Paydown Projections**

Projections

Note: 88 percent of MBS holdings in the SOMA have a 30 year term and 12 percent a 15 year term; 50 percent of the holdings were issued in 2013 or 2014, 26 percent in 2012 and the remainder in earlier years.

Total Assets and Selected Balance Sheet Items

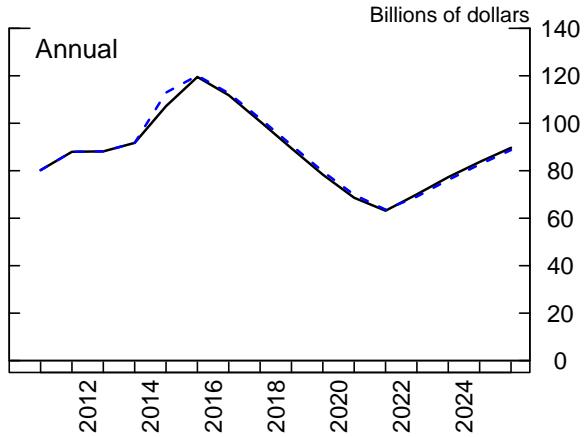


Income Projections

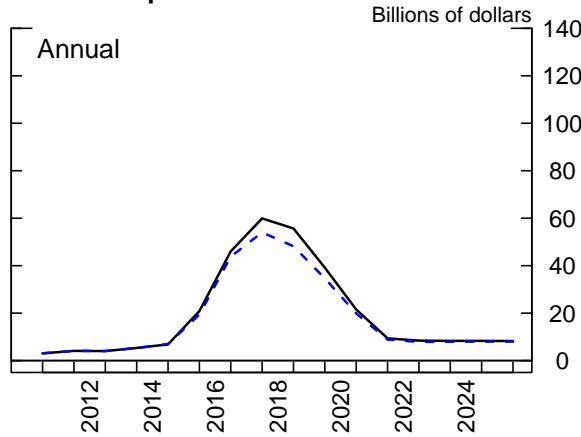
Projections

— Alternative B - - - October Tealbook Alternative B

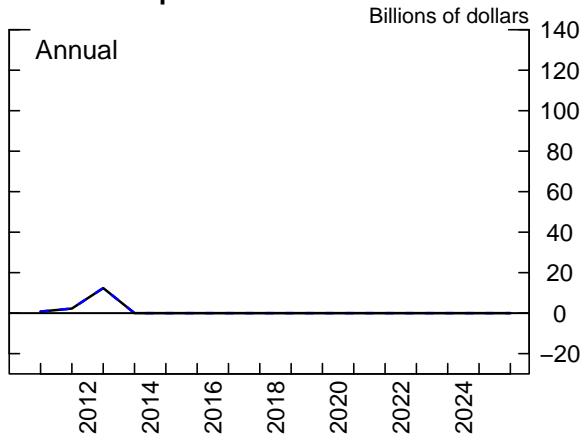
Interest Income



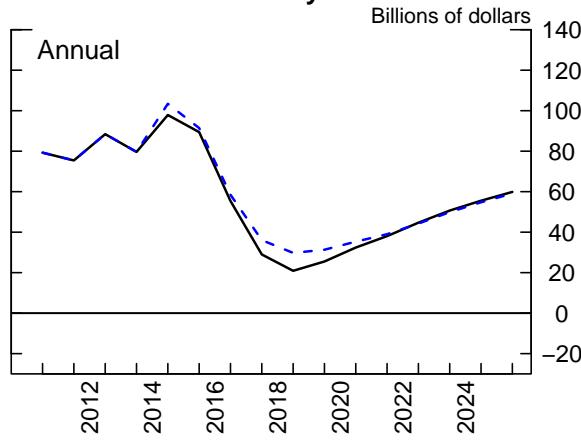
Interest Expense



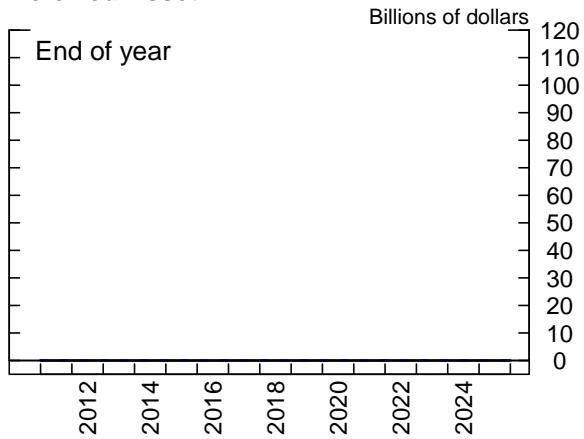
Realized Capital Gains



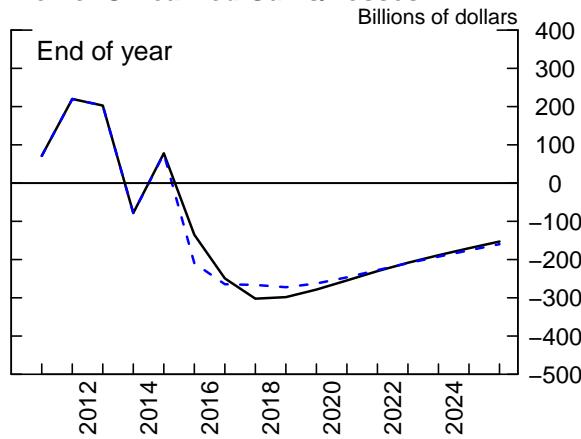
Remittances to Treasury



Deferred Asset



Memo: Unrealized Gains/Losses



Projections for the 10-Year Treasury Term Premium Effect

| Date | Alternative B | October Alternative B |
|--------------------|---------------|--------------------------|
| Basis Points | | |
| Quarterly Averages | | |
| 2014: Q4 | -116 | -116 |
| 2015: Q1 | -111 | -111 |
| Q2 | -106 | -106 |
| Q3 | -101 | -101 |
| Q4 | -96 | -96 |
| 2016: Q1 | -91 | -91 |
| Q2 | -86 | -87 |
| Q3 | -82 | -82 |
| Q4 | -77 | -78 |
| 2017: Q4 | -62 | -63 |
| 2018: Q4 | -50 | -51 |
| 2019: Q4 | -41 | -42 |
| 2020: Q4 | -33 | -34 |
| 2021: Q4 | -28 | -28 |
| 2022: Q4 | -23 | -24 |
| 2023: Q4 | -19 | -19 |
| 2024: Q4 | -14 | -15 |
| 2025: Q4 | -10 | -10 |

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

Billions of dollars

| | <u>Oct 31, 2014</u> | <u>2015</u> | <u>2017</u> | <u>2019</u> | <u>2021</u> | <u>2023</u> | <u>2025</u> |
|--|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Total assets | 4,485 | 4,459 | 3,642 | 2,647 | 2,213 | 2,409 | 2,630 |
| Selected assets | | | | | | | |
| Loans and other credit extensions* | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Securities held outright | 4,219 | 4,205 | 3,428 | 2,465 | 2,054 | 2,266 | 2,500 |
| U.S. Treasury securities | 2,462 | 2,455 | 2,044 | 1,343 | 1,141 | 1,529 | 1,912 |
| Agency debt securities | 40 | 33 | 4 | 2 | 2 | 2 | 2 |
| Agency mortgage-backed securities | 1,718 | 1,717 | 1,379 | 1,120 | 911 | 735 | 586 |
| Unamortized premiums | 209 | 194 | 151 | 116 | 91 | 74 | 60 |
| Unamortized discounts | -19 | -17 | -13 | -10 | -8 | -7 | -6 |
| Total other assets | 74 | 76 | 76 | 76 | 76 | 76 | 76 |
| Total liabilities | 4,428 | 4,399 | 3,569 | 2,555 | 2,098 | 2,262 | 2,444 |
| Selected liabilities | | | | | | | |
| Federal Reserve notes in circulation | 1,256 | 1,360 | 1,530 | 1,657 | 1,803 | 1,967 | 2,149 |
| Reverse repurchase agreements | 296 | 209 | 209 | 109 | 109 | 109 | 109 |
| Deposits with Federal Reserve Banks | 2,870 | 2,824 | 1,825 | 784 | 180 | 180 | 180 |
| Reserve balances held by depository institutions | 2,519 | 2,744 | 1,745 | 703 | 100 | 100 | 100 |
| U.S. Treasury, General Account | 117 | 75 | 75 | 75 | 75 | 75 | 75 |
| Other Deposits | 233 | 5 | 5 | 5 | 5 | 5 | 5 |
| Interest on Federal Reserve Notes due to U.S. Treasury | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total capital | 56 | 60 | 72 | 91 | 116 | 147 | 185 |

Projections

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

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

* Loans and other credit extensions includes primary, secondary, and seasonal credit; central bank liquidity swaps; Term Asset-Backed Securities Loan Facility (TALF); net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC; and net portfolio holdings of TALF LLC.

Projections for the Monetary Base

Percent change, annual rate; not seasonally adjusted

| Date | Alternative B | October Alternative B |
|------|---------------|--------------------------|
|------|---------------|--------------------------|

Quarterly

| | | |
|----------|-------|-------|
| 2014: Q4 | 12.0 | 31.6 |
| 2015: Q1 | 16.4 | 5.3 |
| Q2 | 4.3 | -0.2 |
| Q3 | 0.3 | 0.0 |
| Q4 | -0.8 | -0.8 |
| 2016: Q1 | -6.8 | -6.4 |
| Q2 | -13.3 | -12.7 |
| Q3 | -10.4 | -10.0 |
| Q4 | -8.8 | -8.4 |

Annual

| | | |
|------|-------|-------|
| 2017 | -9.9 | -9.6 |
| 2018 | -14.7 | -14.4 |
| 2019 | -13.4 | -13.1 |
| 2020 | -13.6 | -13.3 |
| 2021 | -6.4 | -7.4 |
| 2022 | 3.7 | 3.6 |
| 2023 | 3.8 | 3.7 |
| 2024 | 3.9 | 3.8 |
| 2025 | 3.9 | 3.8 |

Projections

Note: For years, Q4 to Q4; for quarters, calculated from corresponding average levels.

| M2 Monetary Aggregate Projections (Percent change, annual rate; seasonally adjusted)* | | |
|--|------|------|
| <i>Quarterly</i> | | |
| 2014: | Q4 | 4.1 |
| 2015: | Q1 | 2.5 |
| | Q2 | -1.1 |
| | Q3 | -3.4 |
| | Q4 | -2.5 |
| 2016: | Q1 | -0.9 |
| | Q2 | -0.1 |
| | Q3 | 0.5 |
| | Q4 | 1.0 |
| 2017: | Q1 | 1.5 |
| | Q2 | 1.7 |
| | Q3 | 2.0 |
| | Q4 | 2.2 |
| <i>Annual</i> | | |
| | 2014 | 5.7 |
| | 2015 | -1.1 |
| | 2016 | 0.1 |
| | 2017 | 1.9 |

Actual data through December 1, 2014; projections thereafter.

* Quarterly growth rates are computed from quarter averages. Annual growth rates are fourth quarter over fourth quarter.