Prefatory Note

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

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

Report to the FOMC
on Economic Conditions
and Monetary Policy

Book A

Economic and Financial Conditions:
Current Situation and Outlook

June 10, 2015

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 March FOMC meeting. The table below compares the staff's current economic projection with the one we presented in the March Tealbook.

Since the March projection, we have revised down our forecast for real GDP growth this year, primarily reflecting the weaker-than-expected incoming data on aggregate spending. Our forecast for real GDP growth in 2016 and 2017 is slightly higher than in March, mostly because our projected path for the foreign exchange value of the dollar is lower. Altogether, these revisions leave our projection for the GDP gap next year and in 2017 weaker than in the March forecast. The unemployment rate has declined a little less than we expected in March and is projected to average 5.3 percent in the fourth quarter of this year. Reflecting both the recent labor data and our lower projected path for aggregate output, the unemployment rate is revised up a little at the end of 2017 to 5.2 percent, equal to the staff's estimate of its natural rate.

The staff's projection for headline PCE inflation has been revised up somewhat in the first half of this year, mostly reflecting recent higher-than-expected readings for consumer energy prices, and projected core PCE inflation is essentially unchanged. Given our assumptions that longer-run inflation expectations will remain stable over the medium term, the earlier declines in energy prices were transitory, and core import prices will start to rise after this year, our forecasts for headline and core inflation in 2016 and 2017 are little changed. We continue to project that inflation will run somewhat below the Committee's 2 percent objective through 2017.

Staff Economic Projections Compared with the March Tealbook

Variable	2014	2015 H1	2015 H2	2015	2016	2017	Longer run
Real GDP[1]	2.4	1.0	2.1	1.6	2.4	2.2	1.9
March Tealbook	2.4	2.2	2.3	2.2	2.3	2.0	1.9
Unemployment rate[2]	5.7	5.5	5.3	5.3	5.2	5.2	5.2
March Tealbook	5.7	5.3	5.2	5.2	5.1	5.0	5.2
PCE inflation[1]	1.1	-.1	1.3	.6	1.6	1.8	2.0
March Tealbook	1.1	-.3	1.6	.6	1.7	1.9	2.0
Core PCE inflation[1]	1.4	1.2	1.4	1.3	1.6	1.8	n.a.
March Tealbook	1.4	1.1	1.5	1.3	1.6	1.8	n.a.
Federal funds rate[2]	.10	.13	.35	.35	1.26	2.12	3.50
March Tealbook	.10	.16	.66	.66	1.75	2.67	3.50
Memo: Federal funds rate, end of period	.13	.13	.44	.44	1.33	2.19	3.50
March Tealbook	.13	.20	.76	.76	1.84	2.73	3.50
GDP gap[2,3]	-1.0	-1.3	-1.0	-1.0	-.4	.1	n.a.
March Tealbook	-1.0	-.7	-.4	-.4	.2	.5	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.

Since the March Tealbook, our assumption for the date of liftoff of the federal funds rate from its effective lower bound was changed from the second quarter to the third quarter of this year. Reflecting both the later assumed liftoff date and the softer GDP gap in the current forecast, the projected path for the federal funds rate is around ½ percentage point lower at the end of next year and in 2017 than in March.

Because FOMC participants are 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 the table below providing quarterly information from the staff projection. In the third quarter of this year—the quarter when our baseline projection assumes liftoff of the federal funds rate will occur—we forecast the unemployment rate to average 5.4 percent and the trailing four-quarter change in real GDP to be 1.5 percent. We project the trailing four-quarter change in core PCE inflation to be 1.2 percent, and the four-quarter change in headline PCE prices to be only 0.2 percent because of earlier decreases in energy prices. (We do not anticipate that these energy price declines will fall out of the four-quarter change in headline inflation until early next year.) Of course, even the preliminary versions of these readings on economic performance will not become available until after the close of the quarter in question.

Staff Economic Projections Compared with the March Tealbook, Quarterly

Variable	2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Four-quarter percent change								
Real GDP	2.8	2.3	1.5	1.6	2.2	2.2	2.4	2.4
March Tealbook	3.3	2.8	2.2	2.2	2.4	2.3	2.3	2.3
PCE inflation	.3	.2	.2	.6	1.5	1.4	1.5	1.6
March Tealbook	.3	.0	.1	.6	1.5	1.6	1.6	1.7
Core PCE inflation	1.3	1.2	1.2	1.3	1.5	1.5	1.5	1.6
March Tealbook	1.3	1.1	1.2	1.3	1.5	1.5	1.6	1.6
Percent								
Unemployment rate	5.6	5.5	5.4	5.3	5.3	5.3	5.3	5.2
March Tealbook	5.5	5.3	5.2	5.2	5.1	5.1	5.1	5.1
Federal funds rate	.11	.13	.15	.35	.59	.82	1.04	1.26
March Tealbook	.13	.16	.40	.66	.95	1.23	1.50	1.75
Memo								
Federal funds rate, end of period	.11	.13	.19	.44	.67	.89	1.11	1.33
March Tealbook	.13	.20	.49	.76	1.05	1.33	1.59	1.84

Comparing the Staff Projection with Other Forecasts

The staff's projection for real GDP growth is, on balance, a little lower than the most recent Blue Chip Consensus outlook and the Survey of Professional Forecasters (SPF) median projection (note that the latter survey dates from mid-May). The staff's forecast of the unemployment rate is a little higher than those of the outside forecasters; the staff's inflation projection is a bit lower.

Comparison of Tealbook and Outside Forecasts

|	2015	2016
GDP (Q4/Q4 percent change)		
June Tealbook	1.6	2.4
Blue Chip (6/10/15)	2.0	2.7
SPF median (5/15/15)	2.2	n.a.
Unemployment rate (Q4 level)		
June Tealbook	5.3	5.2
Blue Chip (6/10/15)	5.1	4.8
SPF median (5/15/15)	5.2	n.a.
Consumer price inflation (Q4/Q4 percent change)		
June Tealbook	.7	2.0
Blue Chip (6/10/15)	.8	2.3
SPF median (5/15/15)	.7	2.1
PCE price inflation (Q4/Q4 percent change)		
June Tealbook	.6	1.6
SPF median (5/15/15)	.8	1.9
Core PCE price inflation (Q4/Q4 percent change)		
June Tealbook	1.3	1.6
SPF median (5/15/15)	1.4	1.7

Note: SPF is the Survey of Professional Forecasters. Blue Chip does not provide results for PCE price inflation. The Blue Chip Consensus contains about 50 panelists, and the SPF about 40. Roughly 20 panelists contribute to both surveys.

n.a. Not available.

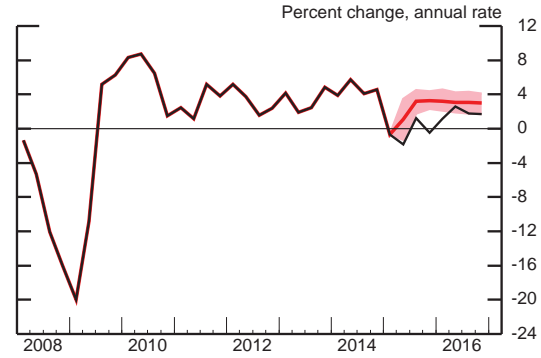Source: Blue Chip Economic Indicators; Federal Reserve Bank of Philadelphia.

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Tealbook Forecast Compared with Blue Chip
(Blue Chip survey released June 10, 2015)

Real GDP
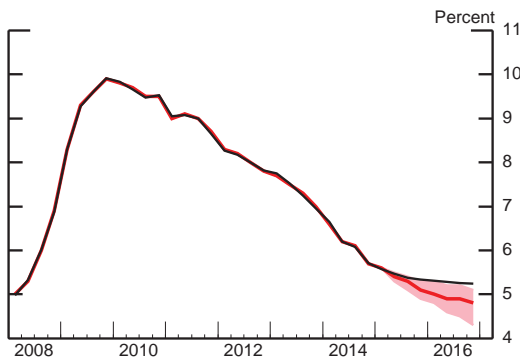
Percent change, annual rate

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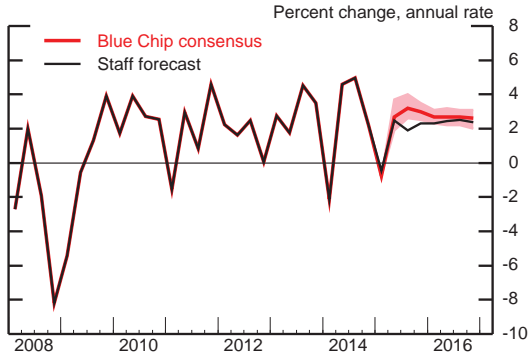
Note: The shaded area represents the area between the
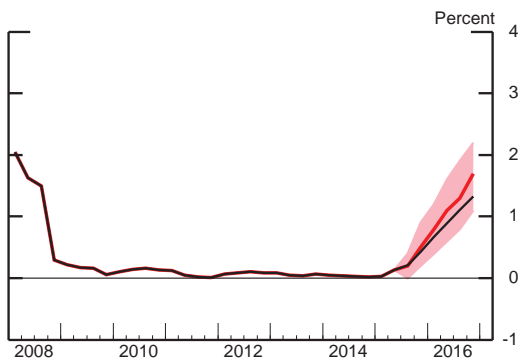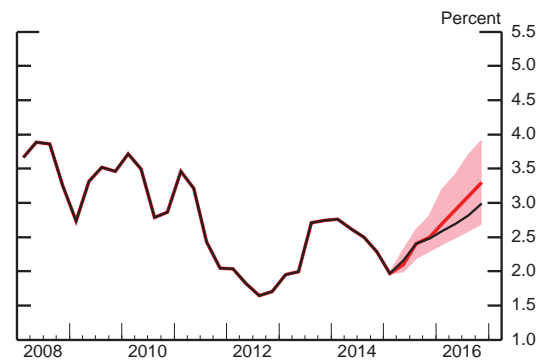Blue Chip top 10 and bottom 10 averages.

Industrial Production

Percent change, annual rate

Unemployment Rate

Percent

Consumer Price Index

Percent change, annual rate
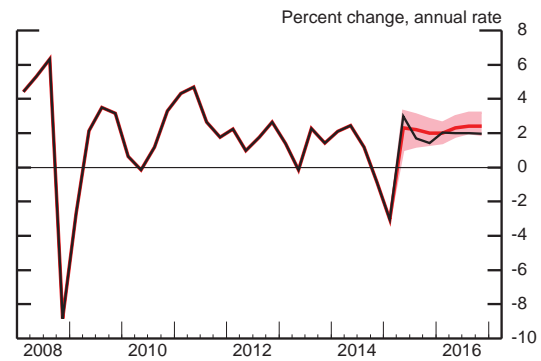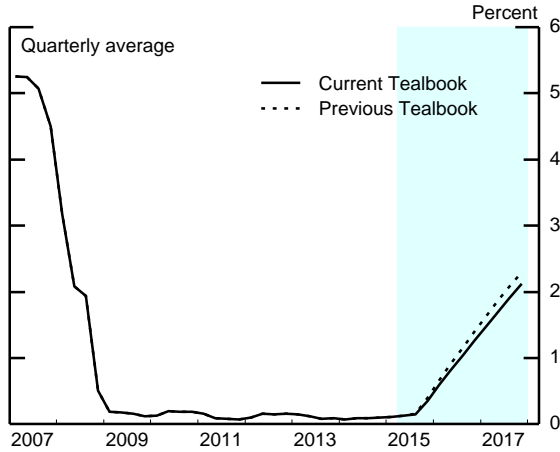
Treasury Bill Rate
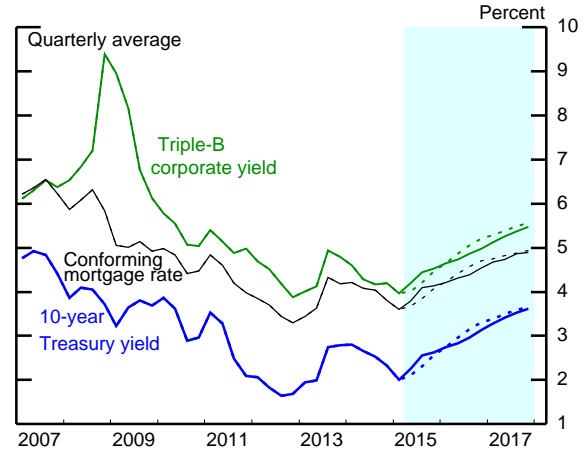
Percent

10-Year Treasury Yield

Percent

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.

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Key Background Factors underlying the Baseline Staff Projection

Federal Funds Rate

Quarterly average

Percent

—— Current Tealbook
······ Previous Tealbook

2007 2009 2011 2013 2015 2017

Long-Term Interest Rates

Quarterly average

Percent

Triple-B corporate yield

Conforming mortgage rate

10-year Treasury yield

2007 2009 2011 2013 2015 2017

Equity Prices

Quarter-end

Ratio scale, 2007:Q1 = 100

Dow Jones U.S. Total Stock Market Index

2007 2009 2011 2013 2015 2017

House Prices

Quarterly

Ratio scale, 2007:Q1 = 100

CoreLogic index

2007 2009 2011 2013 2015 2017

Crude Oil Prices

Quarterly average

Dollars per barrel

Imported oil

West Texas Intermediate

2007 2009 2011 2013 2015 2017

Broad Real Dollar

Quarterly average

2007:Q1 = 100

2007 2009 2011 2013 2015 2017

Special Factors Contributing to Weakness in GDP in the First Quarter

A number of transitory factors appear to have restrained aggregate spending in the first quarter, and the unwinding of their effects is expected to provide a boost to spending this quarter. The staff's estimates of the effects of these factors on real GDP are shown in the table below. While we discuss point estimates here, there is, of course, considerable uncertainty around the magnitude of these estimates, and other analysts—including from within the Federal Reserve System—have judged some of these effects to be larger than the staff's estimates.

Residual seasonality is estimated to have subtracted 0.8 percentage point from the change in real GDP last quarter (line 2). Residual seasonality appears evident in real spending for exports, state and local government construction, and private-sector nonresidential construction, along with the change in inventory investment. The staff assumes that much of the first-quarter residual seasonality will be unwound in the second quarter, with the rest showing up in the second half.

Unusually severe winter weather is estimated to have subtracted 0.2 percentage point from the change in real GDP in the first quarter, as PCE and construction spending were held down temporarily (line 3). The bounceback in spending from this weather effect is assumed to raise second-quarter real GDP growth by a similar amount.

Numerous reports suggested that the West Coast port labor dispute restrained international trade and disrupted some manufacturing supply chains. The staff estimates that the port labor dispute shaved 0.2 percentage point off the change in real GDP in the first quarter and assumes that a comparable amount will be added to second-quarter real GDP growth as activity returns to normal (line 4).

Finally, the large declines in retail gasoline prices early this year likely caused some measurement error in the BEA's translation to real PCE of nominal retail sales by some big-box stores that also sell gasoline (line 5). The staff estimates that this measurement error reduced real GDP growth 0.2 percentage point in the first quarter but that it is unlikely to reverse in the near term, as gasoline prices are not projected to return to their earlier levels.

In total, these identifiable transitory factors are judged to have reduced the change in real GDP 1.4 percentage points last quarter (line 6). The corresponding bounceback in spending as these factors disappate is projected to boost real GDP growth 1 percentage point this quarter.

Estimated Effects of Transitory Special Factors on Real GDP
(Percent change from previous period at an annual rate)

	2015:Q1	2015:Q2
1. **Change in real GDP**	**-.5**	**2.5**
Contribution from special factors:		
2. Residual seasonality	-.8	.6
3. Weather	-.2	.2
4. West Coast port labor dispute	-.2	.2
5. Measurement error (retail sales)	-.2	.0
6. **Total effect of special factors**	**-1.4**	**1.0**
7. **Change in real GDP (line 1) excluding special factors (line 6)**	**.9**	**1.5**

Note: Staff estimates.

Federal Reserve System Nowcasts of 2015:Q2 Real GDP Growth
(Percent change at annual rate from previous quarter)

Federal Reserve entity	Type of model	Nowcast as of June 8, 2015
Federal Reserve Bank		
New York	• Factor-augmented autoregressions • Factor-augmented autoregressions (financials only)	1.6 2.3
Cleveland	• Bayesian regressions with stochastic volatility • Tracking model	2.2 2.8
Atlanta	• Tracking model combined with Bayesian vector autoregressions (VARs), dynamic factor models, and factor-augmented autoregressions (known as GDPNow)	1.5
Chicago	• Dynamic factor models • Bayesian VARs	1.4 2.5
St. Louis	• Dynamic factor models • News index model • Let-the-data-decide regressions	2.8 4.7 2.3
Minneapolis	• Bayesian VARs	1.6
Kansas City	• Judgmental tracking model	1.9
Board of Governors	• Board staff's forecast (judgmental tracking model)[1] • Dynamic factor models	2.5 .7
Memo: Median of Federal Reserve System nowcasts		2.3

1. The June Tealbook forecast, which incorporates data received after June 8, is also 2.5 percent.

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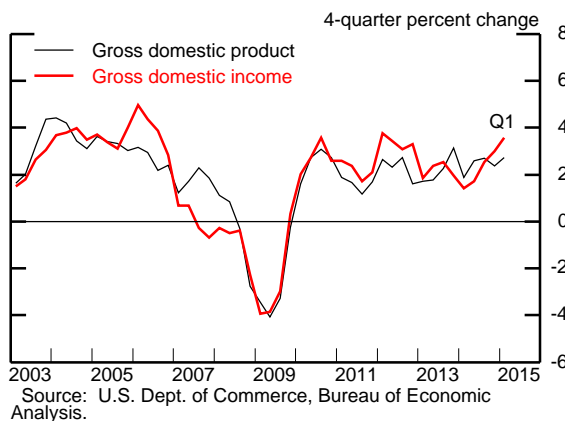(Percent change at annual rate except as noted)

Measure	2015:Q1		2015:Q2		2015:H2	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
Real GDP	**.1**	**-.5**	**2.4**	**2.5**	**2.4**	**2.1**
Private domestic final purchases	.9	1.3	3.1	2.8	4.1	3.5
Personal consumption expenditures	1.9	1.8	4.2	2.8	4.1	3.4
Residential investment	1.8	6.3	1.1	11.3	11.2	6.5
Nonres. private fixed investment	-4.3	-2.8	-1.9	1.0	2.3	2.8
Government purchases	-2.3	-.6	1.3	1.3	.3	.4
Contributions to change in real GDP						
Inventory investment[1]	.4	.4	.2	.1	-.3	-.2
Net exports[1]	-.6	-1.8	-.6	-.2	-.8	-.7
Unemployment rate[2]	**5.6**	**5.6**	**5.4**	**5.5**	**5.3**	**5.3**
PCE chain price index	**-2.0**	**-2.0**	**1.5**	**1.9**	**1.5**	**1.3**
Ex. food and energy	.8	.8	1.6	1.6	1.4	1.4

1. Percentage points.
2. Percent.

Recent Nonfinancial Developments (1)

Real GDP and GDI

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

Manufacturing IP ex. Motor Vehicles and Parts

Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."
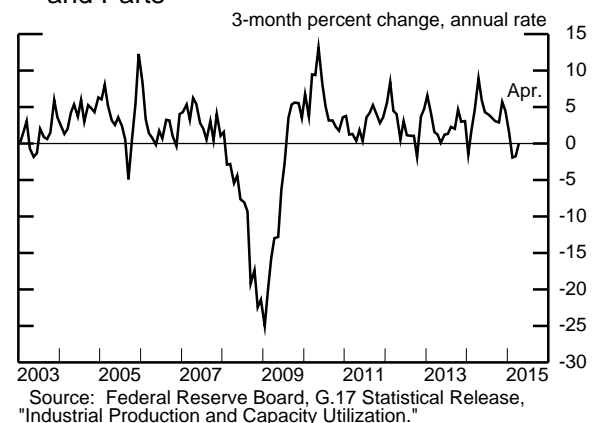
Sales and Production of Light Motor Vehicles

Source: Ward's Communications, Chrysler, General Motors; adjusted using FRB seasonals.
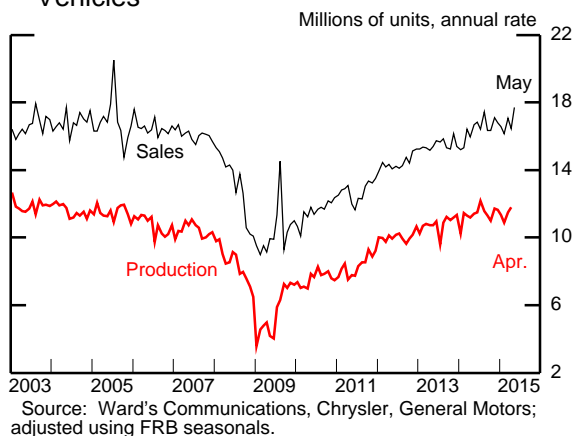
Real PCE Goods ex. Motor Vehicles

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.
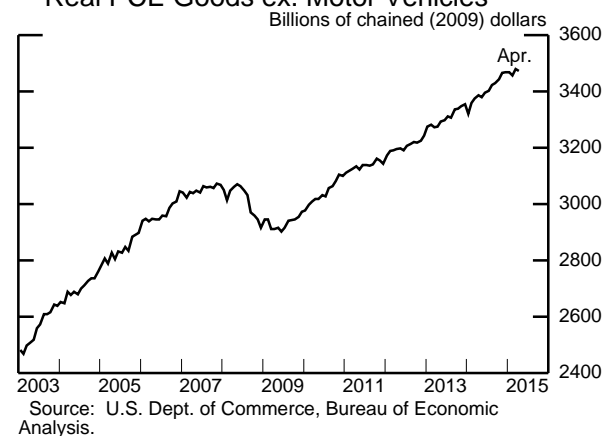
These large domestic and international imbalances could create several challenges for the U.S. and global economy. First, the stretched position of U.S. households leads them, over time, to attempt to rebuild their savings, placing a drag on both consumption and investment and hence upward pressure on unemployment by 2017. A weak rate of investment and elevated borrowing from abroad lower U.S. potential output and national income, placing a persistent drag on U.S. living standards. And the limited savings buffer of U.S. households and the elevated level of U.S. asset prices imply some risk of a painful retrenchment, as households may have limited ability to weather adverse shocks and elevated domestic asset prices could collapse when unexpected adverse developments materialize.

Monetary policy is not well suited to address these challenges: A more accommodative monetary policy stance would only marginally boost inflation (given the flat Phillips curve) and would likely further depress household saving, borrowing from future aggregate demand and leaving households even more vulnerable to adverse shocks. In principle, fiscal policy adjustments that boost domestic saving while supporting domestic productive in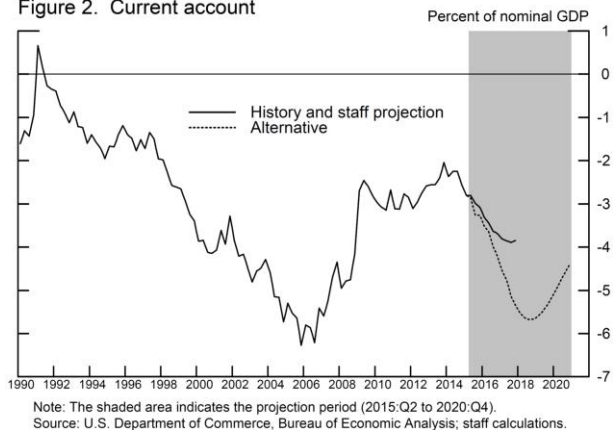vestment would alleviate these imbalances. More direct tools to alleviate global imbalances would consist of coordinated international adjustments in fiscal and monetary policy (and related structural reforms), including increases in spending in countries with current account surpluses.

While the unsustainable pace of U.S. consumption in the scenario above is importantly due to an alternative perspective on the possible effect of low global interest rates on U.S. asset prices over the next couple of years, these forces are only one set that could lead to similar macroeconomic imbalances. For example, some staff models project that the household saving rate will decline more rapidly than in the staff projection, or the appreciation of the dollar that has already occurred may lead to a wider U.S. current account deficit than anticipated. Alternatively, the global economy would be even more reliant on U.S. household demand if growth among foreign economies were to fall substantially short of expectations, which could also contribute to a stronger dollar and lower U.S. interest rates.

Figure 1. Personal saving rate

Note: The shaded area indicates the projection period (2015:Q2 to 2020:Q4).
Source: U.S. Department of Commerce, Bureau of Economic Analysis; staff calculations.

Figure 2. Current account

Note: The shaded area indicates the projection period (2015:Q2 to 2020:Q4).
Source: U.S. Department of Commerce, Bureau of Economic Analysis; staff calculations.

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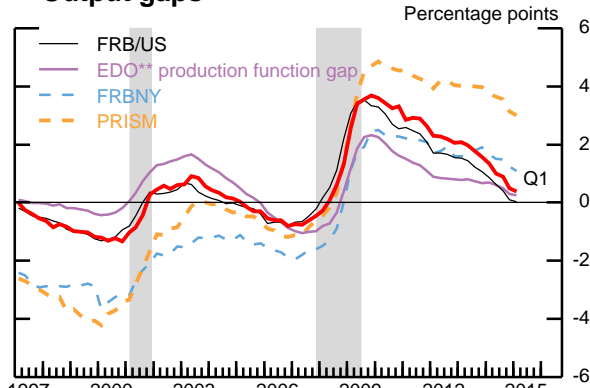
Alternative Measures of Slack
The red line in each panel is the staff's measure of the unemployment rate gap (right axis).

Output gaps*

Percentage points

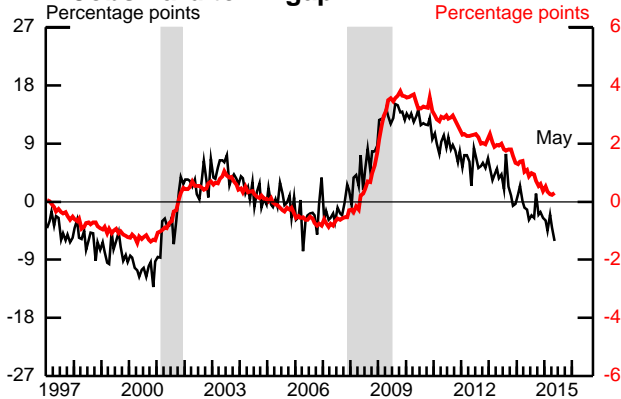- FRB/US
- EDO** production function gap
- FRBNY
- PRISM

Q1

** EDO is Estimated, Dynamic, Optimization-based model.
 Source: Federal Reserve Board; PRISM: Federal Reserve
Board Bank of Philadelphia, PRISM Model Documentation
(June 2011); FRBNY: Federal Reserve Bank of New York Staff
Report 618 (May 2013, revised April 2014).

Manufacturing capacity utilization gap*

Percentage points   Percentage points

May

Apr.
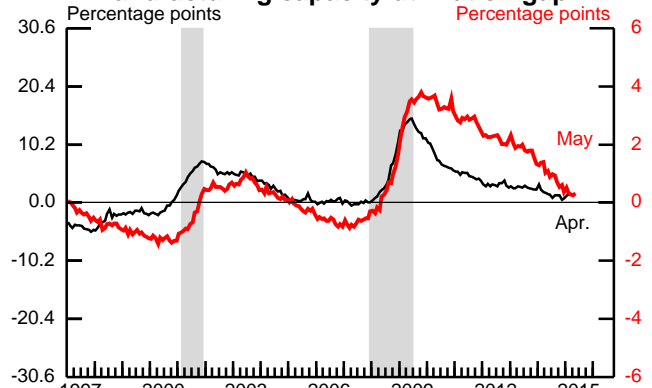
Source: Federal Reserve Board.

Jobs hard to fill gap*

Percentage points   Percentage points

May

Note: Percent of small businesses surveyed with at least one
"hard to fill" job opening. Seasonally adjusted by Federal Reserve
Board Staff.
 Source: National Federation of Independent Business,
Small Business Economic Trends Survey.

Job openings gap*

Percentage points   Percentage points

- Help-wanted advertisements rate
- Private job openings rate

May

May

Apr.
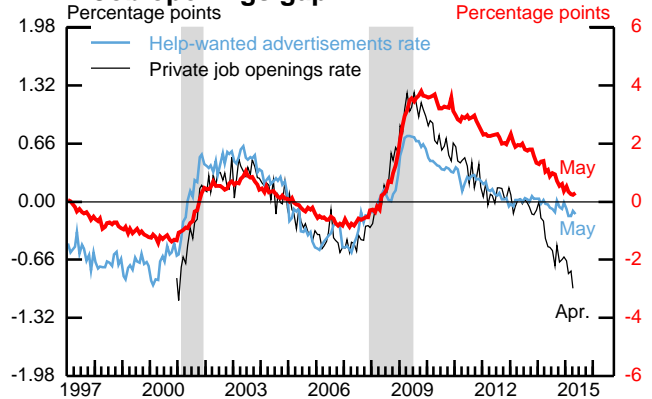
Note: Job openings rate is the number of job openings divided
by employment plus job openings.
 Source: Job Openings and Labor Turnover Survey; U.S.
Department of Labor, Bureau of Labor Statistics,
Current Employment Statistics.

Job availability gap*

Percentage points   Percentage points

May
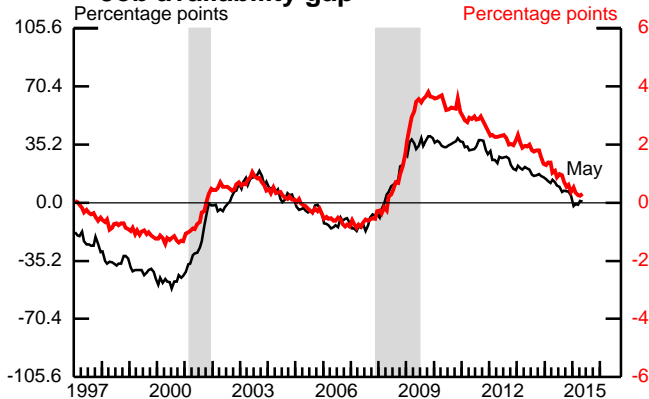
Note: Percent of households believing jobs are plentiful minus
the percent believing jobs are hard to get.
 Source: Conference Board.

Involuntary part-time employment gap

Percentage points   Percentage points

May
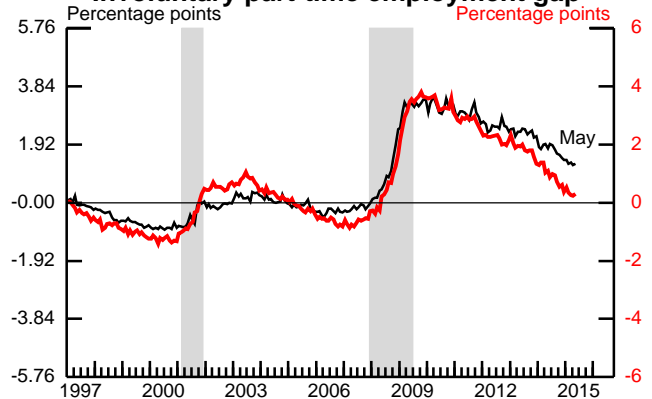
Note: Percent of employment.
 Source: U.S. Department of Labor, Bureau of Labor Statistics,
Current Population Survey.

 * Plots the negative of the gap to have the same sign as the unemployment rate gap.
 Note: The shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research. Output gaps are
multiplied by -0.44 to facilitate comparison with the unemployment rate gap. Manufacturing capacity utilization gap is constructed by subtracting
its average rate from 1972 to 2013. Other gaps were constructed by subtracting each series' average in 2004:Q4 and 2005:Q1.

June 10, 2015

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

Measure	2014	2015	2015		2016	2017
			H1	H2		
Real GDP	**2.4**	**1.6**	**1.0**	**2.1**	**2.4**	**2.2**
Previous Tealbook	2.4	1.8	1.2	2.4	2.4	2.1
Final sales	2.4	1.5	.8	2.3	2.6	2.6
Previous Tealbook	2.4	1.8	1.0	2.7	2.4	2.3
Personal consumption expenditures	2.9	2.9	2.3	3.4	3.3	2.7
Previous Tealbook	2.9	3.6	3.0	4.1	3.3	2.5
Residential investment	2.5	7.6	8.8	6.5	12.0	8.0
Previous Tealbook	2.5	6.2	1.4	11.2	11.5	7.8
Nonresidential structures	6.5	-7.3	-13.8	-.3	.2	.3
Previous Tealbook	6.5	-11.5	-19.5	-2.8	.3	.5
Equipment and intangibles	6.1	3.4	3.0	3.7	4.6	3.6
Previous Tealbook	6.1	2.8	2.1	3.6	4.0	2.6
Federal purchases	.2	-1.1	-.8	-1.4	-1.2	-.8
Previous Tealbook	.2	-2.3	-2.9	-1.7	-1.3	-.9
State and local purchases	1.2	1.3	1.0	1.5	2.0	2.2
Previous Tealbook	1.2	1.2	1.0	1.5	2.0	2.2
Exports	2.4	-.1	-1.5	1.3	1.3	3.2
Previous Tealbook	2.4	-1.2	-2.7	.4	1.1	3.1
Imports	5.6	5.5	5.2	5.8	5.7	3.7
Previous Tealbook	5.6	3.8	1.8	5.9	5.8	3.9
Contributions to change in real GDP (percentage points)						
Inventory change	.0	.0	.2	-.2	-.1	-.3
Previous Tealbook	.0	.0	.3	-.3	.0	-.1
Net exports	-.6	-.9	-1.0	-.7	-.8	-.2
Previous Tealbook	-.6	-.8	-.6	-.8	-.8	-.2

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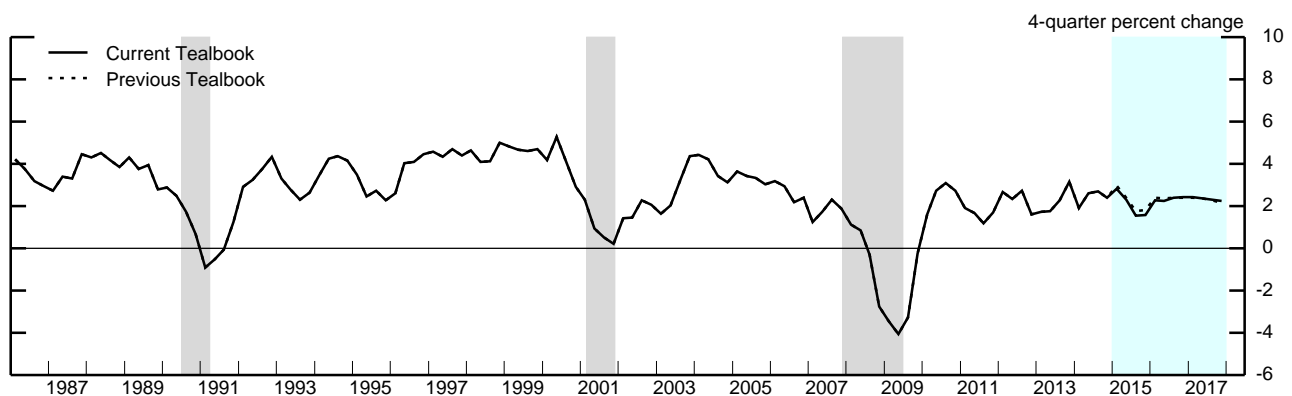
Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

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

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Components of Final Demand

Personal Consumption Expenditures

4-quarter percent change

- —— Current Tealbook
- ······ Previous Tealbook

Residential Investment

4-quarter percent change

Equipment and Intangibles

4-quarter percent change

Nonresidential Structures

4-quarter percent change
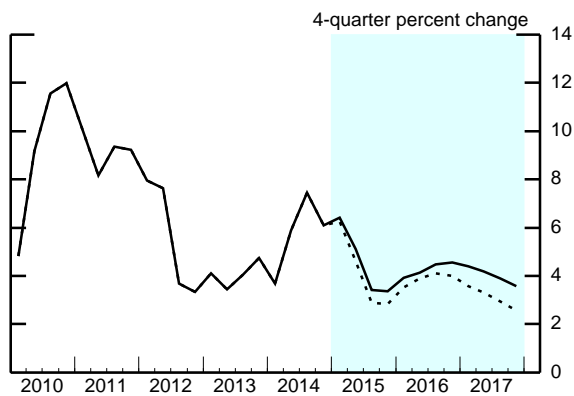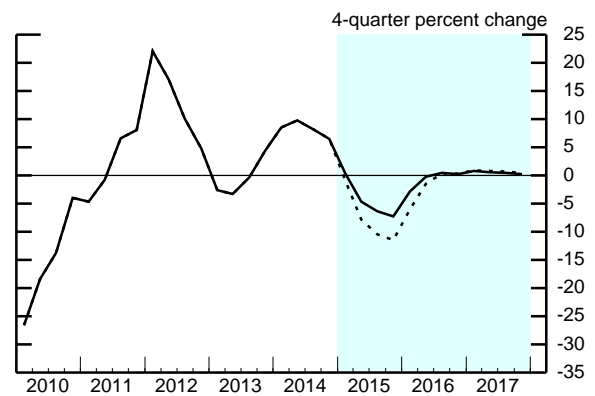
Government Consumption & Investment

4-quarter percent change

Exports and Imports

4-quarter percent change
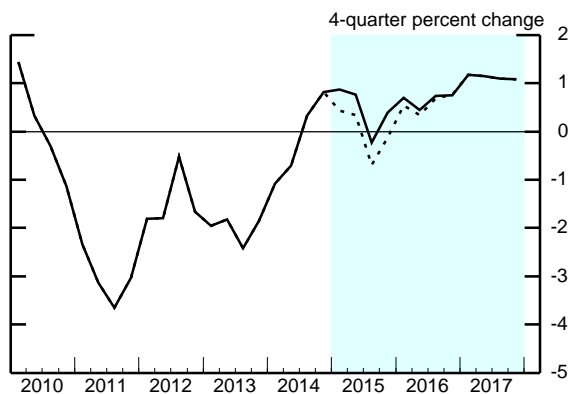
Exports

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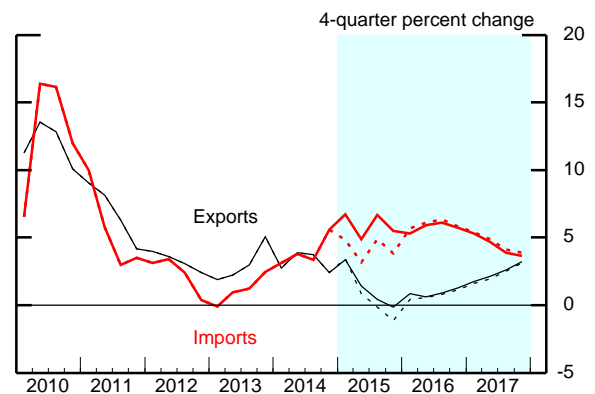
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Aspects of the Medium-Term Projection

Domestic Econ Devel & Outlook

Personal Saving Rate

Percent

- —— Current Tealbook
- ········ Previous Tealbook

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

Wealth-to-Income Ratio

Ratio

Note: Ratio of household net worth to disposable personal income.

Source: For net worth, Federal Reserve Board, Financial Accounts of the United States; for income, U.S. Dept. of Commerce, Bureau of Economic Analysis.
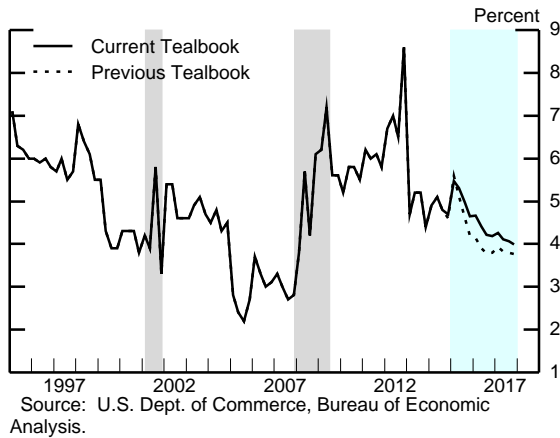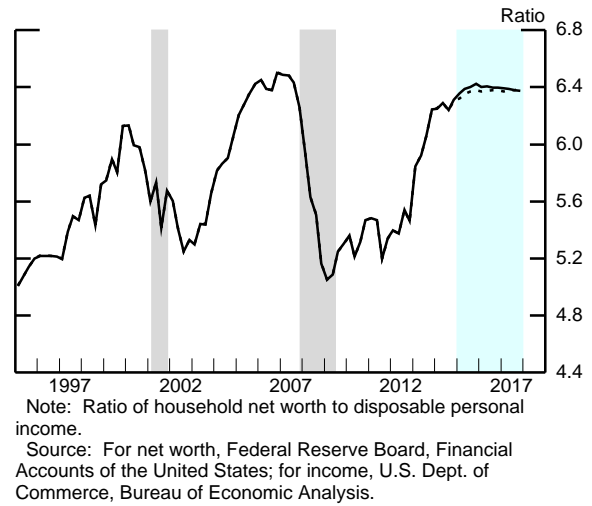
Single-Family Housing Starts

Millions of units

Source: U.S. Census Bureau.
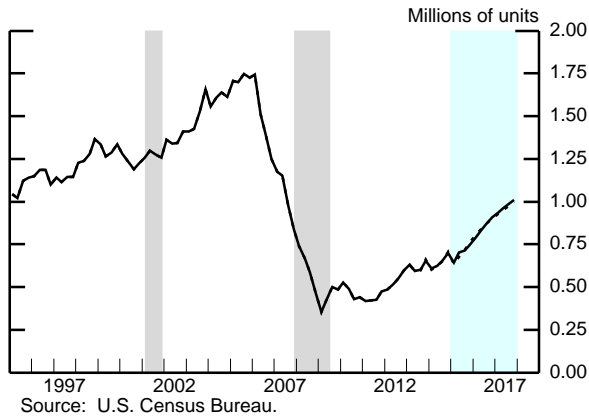
Equipment and Intangibles Spending

Share of nominal GDP

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.
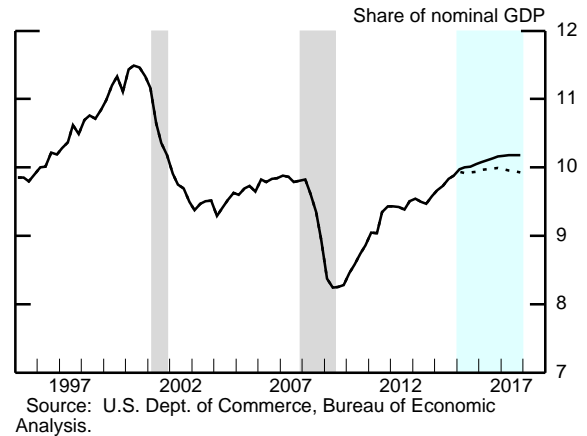
Federal Surplus/Deficit

Share of nominal GDP

4-quarter moving average

Source: *Monthly Treasury Statement.*
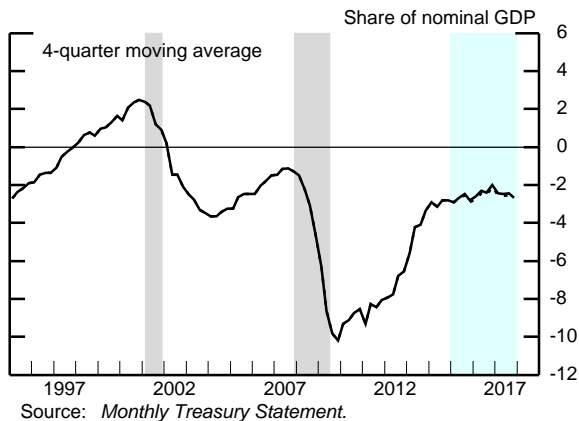
Current Account Surplus/Deficit
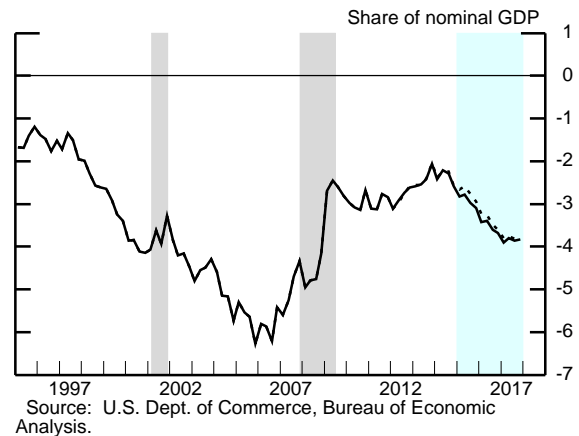
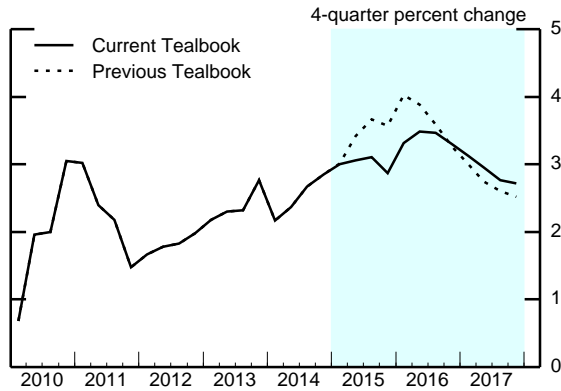Share of nominal GDP

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

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

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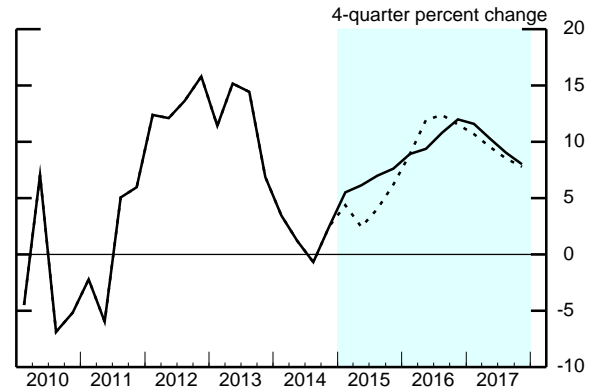(Percent change, Q4 to Q4, except as noted)

Measure	1974-95	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	.5	1.6	1.7	1.7
Previous Tealbook	3.1	3.4	2.6	1.7	1.6	.5	1.6	1.7	1.7
Selected contributions[1]									
Structural labor productivity[2]	1.6	2.9	2.8	1.5	1.2	.5	1.5	1.6	1.6
Previous Tealbook	1.6	2.9	2.8	1.5	1.2	.5	1.5	1.6	1.6
Capital deepening	.7	1.5	.9	.5	.4	.6	.7	.8	.8
Multifactor productivity	.7	1.1	1.6	.9	.7	-.2	.7	.7	.7
Structural hours	1.5	1.0	.7	.2	.7	.7	.3	.3	.3
Previous Tealbook	1.5	1.0	.7	.2	.7	.7	.3	.3	.3
Labor force participation	.4	.0	-.3	-.4	-.5	-.5	-.5	-.5	-.5
Previous Tealbook	.4	.0	-.3	-.4	-.5	-.5	-.5	-.5	-.5
Memo:									
GDP gap[3]	-1.8	2.5	.9	-4.4	-2.8	-1.0	-1.0	-.4	.1
Previous Tealbook	-1.8	2.5	.9	-4.4	-2.8	-1.0	-.8	-.1	.3

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.

GDP Gap
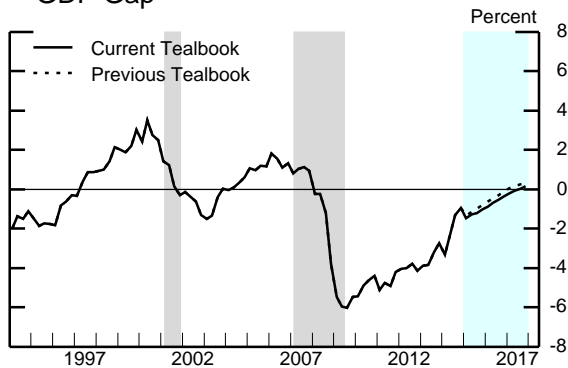
Note: The GDP gap is the percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.
  Source: U.S. Department of Commerce, Bureau of Economic Analysis; staff assumptions.

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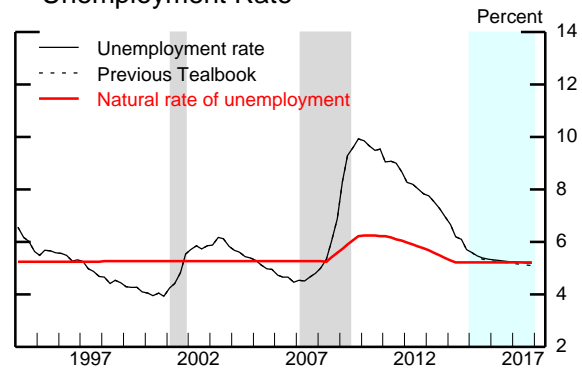
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

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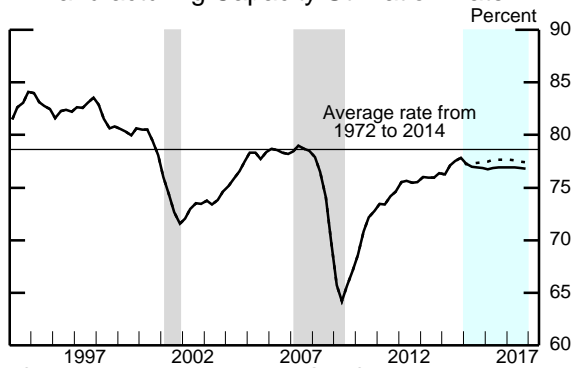
Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Structural and Actual Labor Productivity
(Business sector)
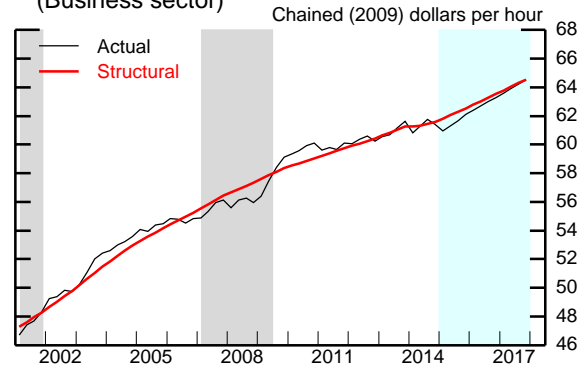
Source: U.S. Department of Labor, Bureau of Labor Statistics; U.S. Department of Commerce, Bureau of Economic Analysis; staff assumptions.

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

The Outlook for the Labor Market

Measure	2014	2015	2015		2016	2017
			H1	H2		
Output per hour, business[1]	-.4	1.1	-.3	2.6	1.9	1.9
Previous Tealbook	-.4	1.4	.4	2.5	1.8	1.8
Nonfarm private employment[2]	254	206	210	202	160	122
Previous Tealbook	254	202	204	200	165	125
Labor force participation rate[3]	62.8	62.7	62.8	62.7	62.6	62.4
Previous Tealbook	62.8	62.7	62.8	62.7	62.6	62.4
Civilian unemployment rate[3]	5.7	5.3	5.5	5.3	5.2	5.2
Previous Tealbook	5.7	5.3	5.4	5.3	5.2	5.1

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	2015	2015		2016	2017
			H1	H2		
PCE chain-weighted price index	1.1	.6	-.1	1.3	1.6	1.8
Previous Tealbook	1.1	.6	-.2	1.5	1.6	1.8
Food and beverages	2.8	.3	-.6	1.1	1.6	1.9
Previous Tealbook	2.8	.6	-.2	1.4	1.6	1.9
Energy	-6.1	-11.3	-19.9	-1.7	2.3	1.3
Previous Tealbook	-6.1	-11.4	-24.4	3.8	2.6	1.6
Excluding food and energy	1.4	1.3	1.2	1.4	1.6	1.8
Previous Tealbook	1.4	1.3	1.2	1.4	1.6	1.8
Prices of core goods imports[1]	.6	-2.3	-4.2	-.4	1.0	1.5
Previous Tealbook	.6	-2.3	-4.0	-.5	.9	1.6

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
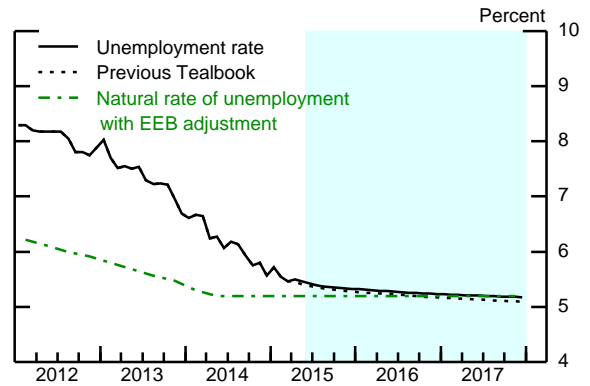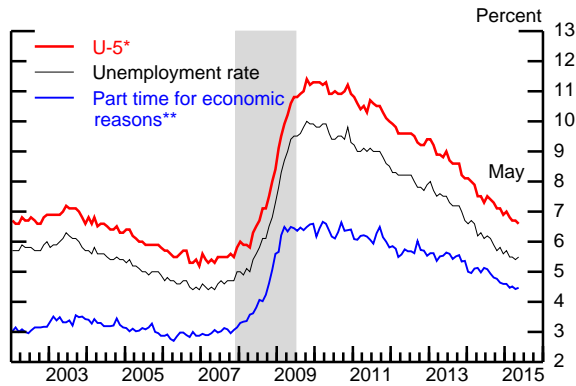
* U-5 measures total unemployed persons plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.
** Percent of Current Population Survey employment.
EEB Extended and emergency unemployment benefits.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

Level of Payroll Employment*
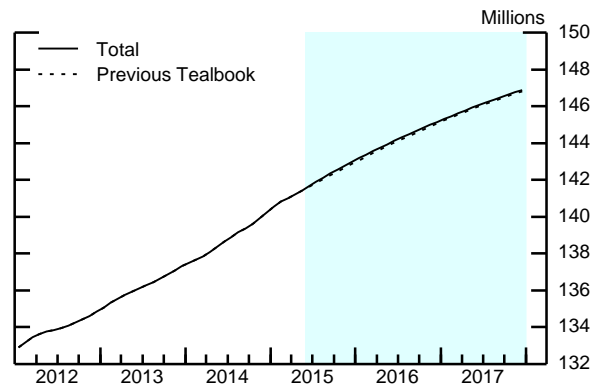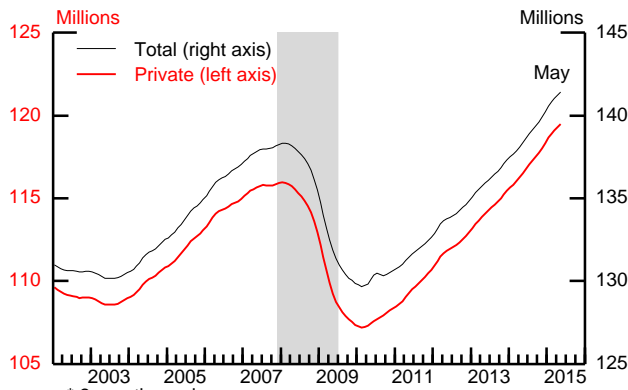
* 3-month moving averages.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

Change in Payroll Employment*
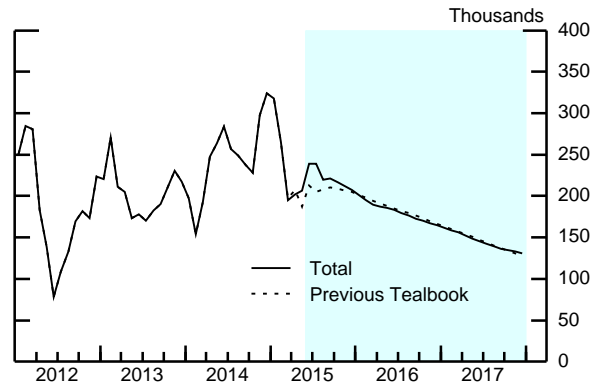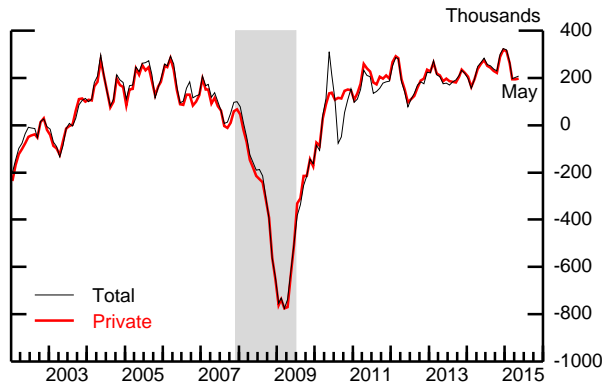
* 3-month moving averages.
Source: U.S. Department of Labor, Bureau of Labor Statistics.

Note: 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*
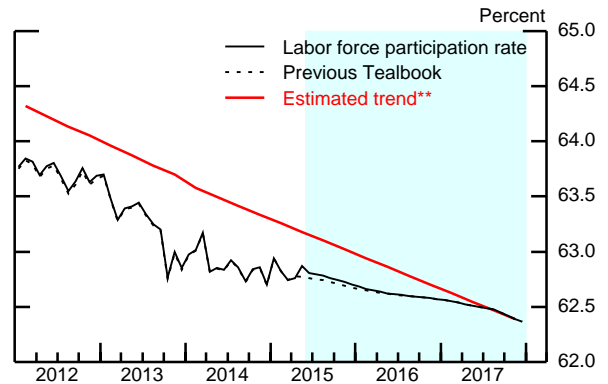
* Published data adjusted by staff to account for changes in population weights.
** Includes staff estimate of the effect of extended and emergency unemployment benefits.
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Initial Unemployment Insurance Claims*
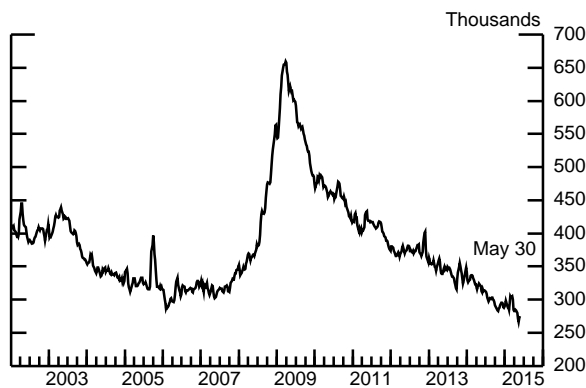
* 4-week moving average.
   Source: U.S. Department of Labor, Employment and Training Administration.

Private Hires, Quits, and Job Openings
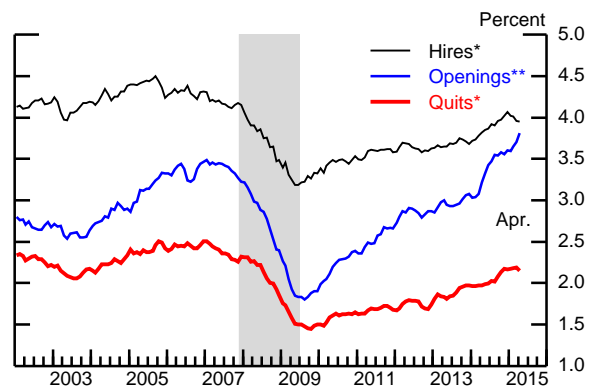
* Percent of private nonfarm payroll employment, 3-month moving average.
** Percent of private nonfarm payroll employment plus unfilled jobs, 3-month moving average.
   Source: Job Openings and Labor Turnover Survey.

Average Monthly Change in Labor Market Conditions Index
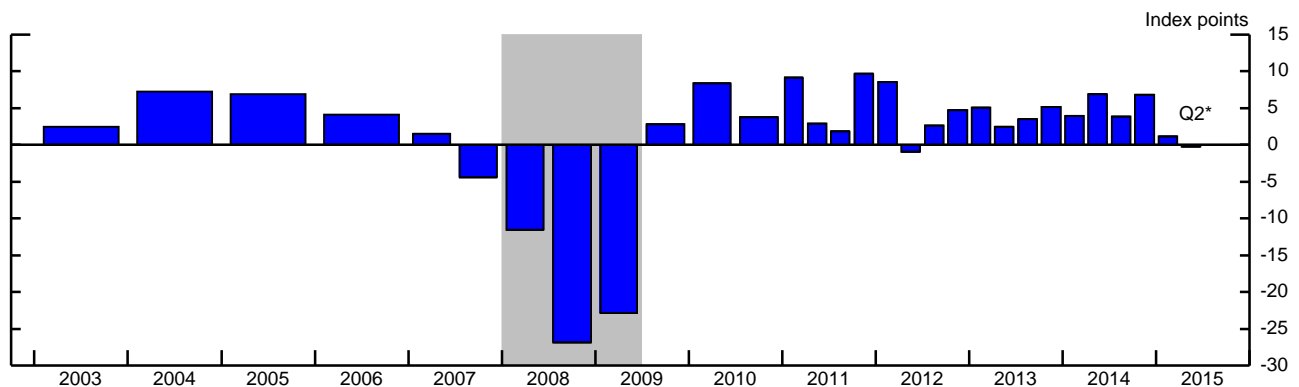
* Value shown for Q2 is an average of May and April data.
   Note: Labor market conditions index estimated by staff.

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

Domestic Econ Devel & Outlook

Inflation Developments and Outlook (1)
(Percent change from year-earlier period)

Headline Consumer Price Inflation

Percent

- CPI
- PCE

Apr.

2003 2005 2007 2009 2011 2013 2015 2017

Percent

- PCE - Current Tealbook
- PCE - Previous Tealbook

2012   2013   2014   2015   2016   2017

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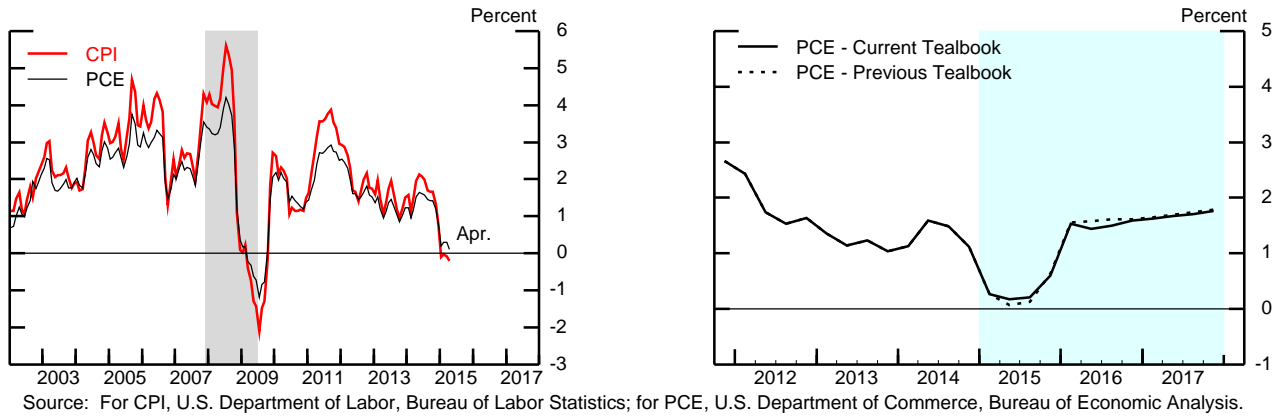
Measures of Underlying PCE Price Inflation

Percent

- Trimmed mean PCE
- Market-based PCE excluding food and energy
- PCE excluding food and energy

Apr.

2003 2005 2007 2009 2011 2013 2015 2017

Percent

- Core PCE - Current Tealbook
- Core PCE - Previous Tealbook

2012   2013   2014   2015   2016   2017

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

Labor Cost Growth

Percent

Mar.

May

- Employment cost index
- Average hourly earnings
- Compensation per hour

Q1

2003 2005 2007 2009 2011 2013 2015 2017

Percent

- Compensation per hour - Current Tealbook
- Compensation per hour - Previous Tealbook

2012   2013   2014   2015   2016   2017

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

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

Inflation Developments and Outlook (2)
(Percent change from year-earlier period, except as noted)

Commodity and Oil Price Levels

1967 = 100

Dollars per barrel

Brent crude oil history/futures (right axis)
CRB spot commodity price index (left axis)

June 9

1967 = 100

Dollars per barrel

Brent crude oil history/futures (right axis)
CRB spot commodity price index (left axis)

June 9

Note: Futures prices (dotted lines) are the latest observations on monthly futures contracts.
Source: For oil prices, U.S. Department of Energy, Energy Information Agency; for commodity prices, Commodity Research Bureau (CRB).

Energy and Import Price Inflation

Percent   Percent

PCE energy prices (right axis)
Core import prices (left axis)

Apr.

Percent   Percent

PCE energy prices (right axis)
Core import prices (left axis)

Apr.

Source: For core import prices, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.
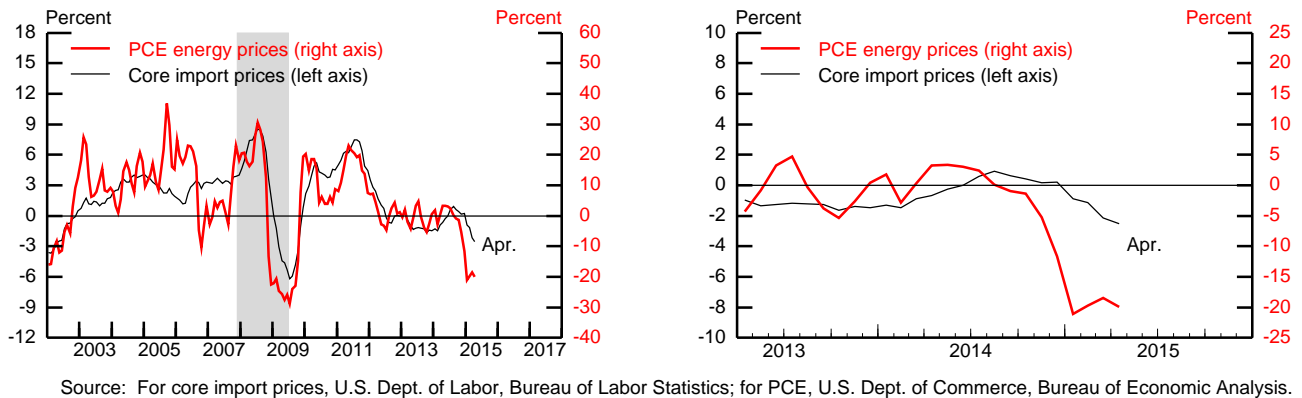
Long-Term Inflation Expectations

Percent

5-to-10-year-ahead TIPS
Michigan median next 5 to 10 years
SPF PCE median next 10 years

May

May

Q2

Percent

5-to-10-year-ahead TIPS
Michigan median next 5 to 10 years
SPF PCE median next 10 years

May

May

Q2

Note: Based on a comparison of an estimated TIPS (Treasury Inflation-Protected Securities) yield curve with an estimated nominal off-the-run Treasury yield curve, with an adjustment for the indexation-lag effect.
SPF Survey of Professional Forecasters.
Source: For Michigan, University of Michigan Surveys of Consumers; for SPF, the Federal Reserve Bank of Philadelphia; for TIPS, Federal Reserve Board staff calculations.

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

June 10, 2015

The Long-Term Outlook

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

Domestic Econ Devel & Outlook

Measure	2015	2016	2017	2018	2019	Longer run
Real GDP	1.6	2.4	2.2	1.9	1.7	1.9
Previous Tealbook	1.8	2.4	2.1	1.8	1.7	1.9
Civilian unemployment rate[1]	5.3	5.2	5.2	5.1	5.1	5.2
Previous Tealbook	5.3	5.2	5.1	5.0	5.1	5.2
PCE prices, total	.6	1.6	1.8	1.9	2.0	2.0
Previous Tealbook	.6	1.6	1.8	1.9	2.0	2.0
Core PCE prices	1.3	1.6	1.8	1.9	2.0	2.0
Previous Tealbook	1.3	1.6	1.8	1.9	2.0	2.0
Federal funds rate[1]	.4	1.3	2.1	2.8	3.2	3.5
Previous Tealbook	.4	1.4	2.3	2.9	3.2	3.5
10-year Treasury yield[1]	2.6	3.1	3.6	3.9	4.1	4.3
Previous Tealbook	2.6	3.3	3.7	4.0	4.1	4.3

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

Real GDP — 4-quarter percent change

Unemployment Rate — Percent

PCE Prices — 4-quarter percent change

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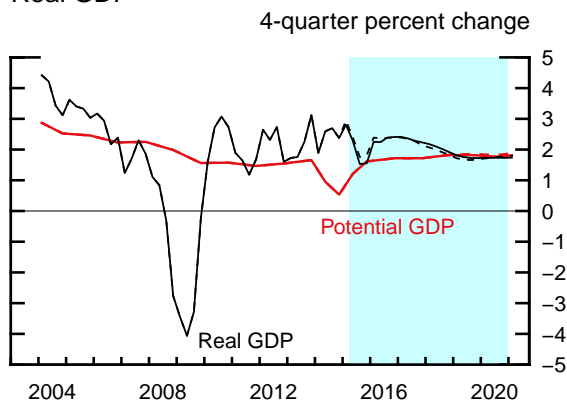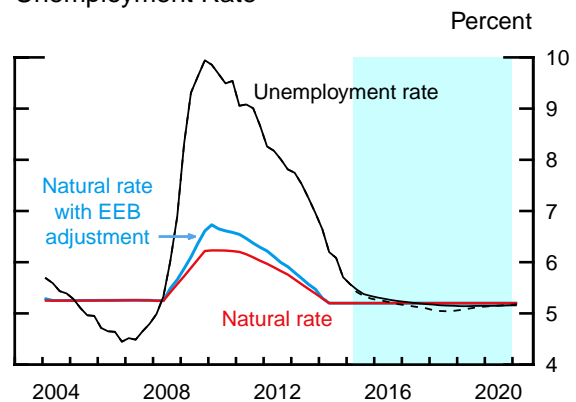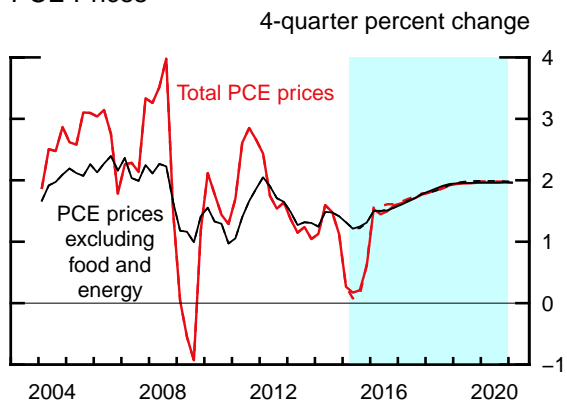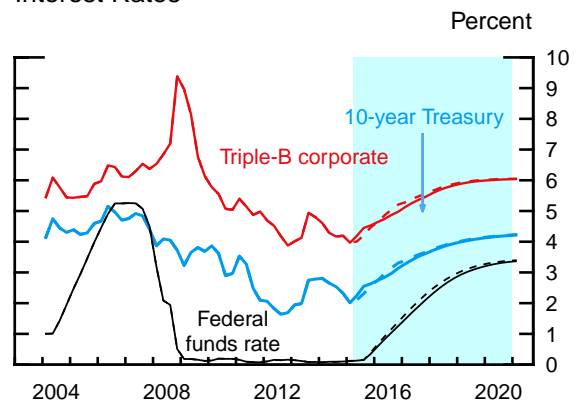
Note: In each panel, shading represents the projection period, and dashed lines are the previous Tealbook.

Evolution of the Staff Forecast

Domestic Econ Devel & Outlook

Change in Real GDP

Percent, Q4/Q4

Tealbook publication date

Unemployment Rate

Percent, fourth quarter
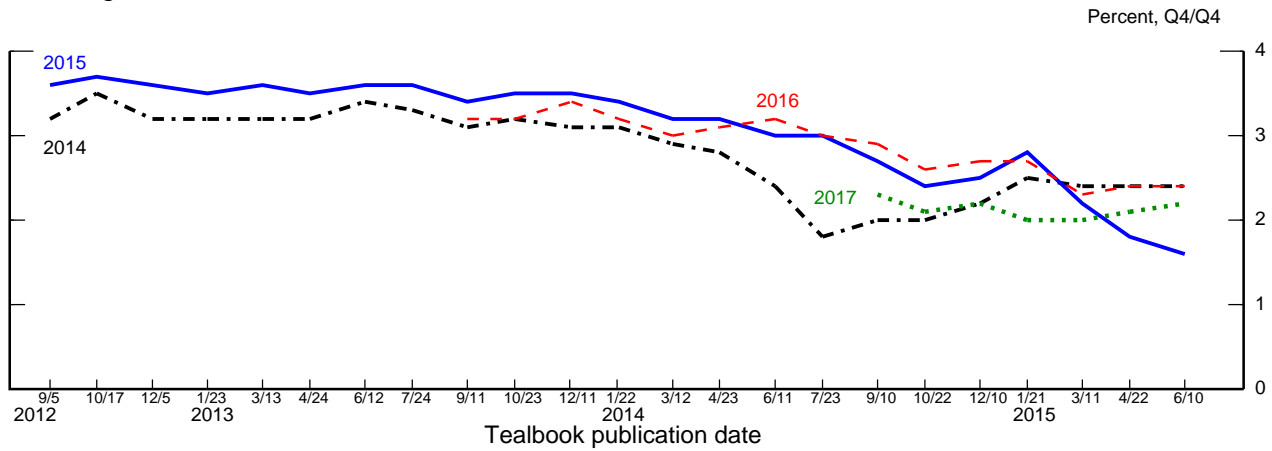
Tealbook publication date
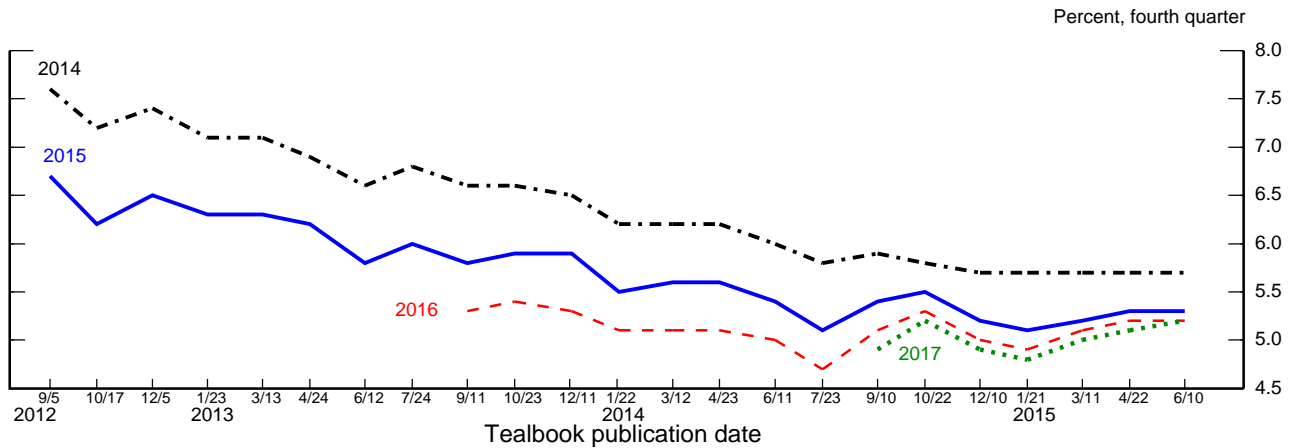
Change in PCE Prices excluding Food and Energy

Percent, Q4/Q4

Tealbook publication date
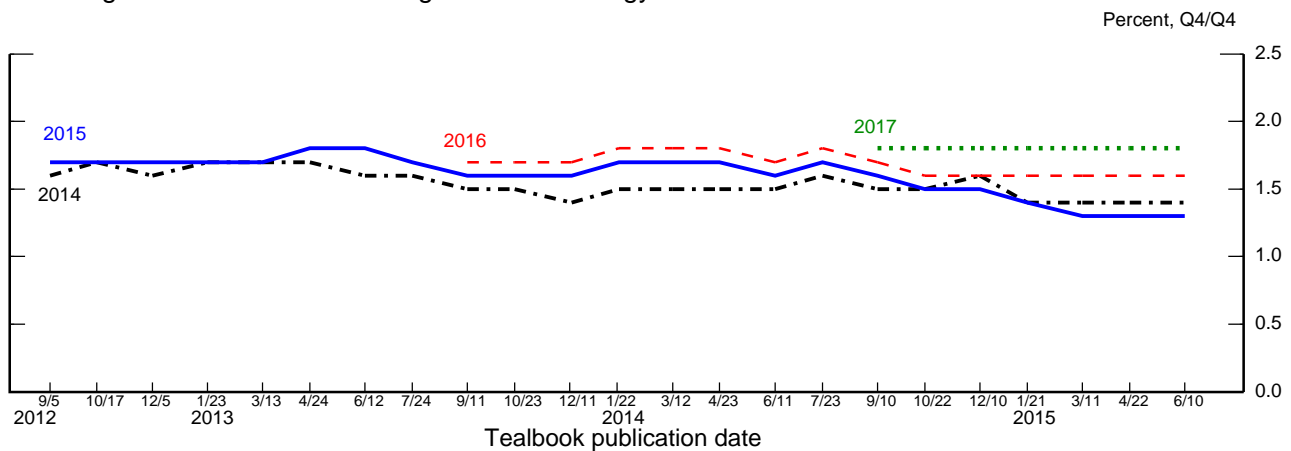
AFE economies.[3] According to this approach, the AFE equilibrium interest rate (shown by the red line) has fallen steadily over the past 15 years and is currently negative. A number of possible structural factors have been put forward to account for this decline in the long-run value of the equilibrium interest rate. For example, potential output growth appears to have stepped down, partly reflecting demographic trends and the effects of the global financial crisis on financial intermediation and productivity. In addition, from an open-economy perspective, the sizable upward shift in global savings in the early to mid-2000s may have contributed to lower world interest rates.

The estimates based on the Laubach and Williams (2003) methodology suggest that, absent developments that would push the long-run equilibrium rate back up, aggregate demand and the associated neutral policy rates in the AFEs are likely to be much lower than in the early 2000s and will not return to pre-crisis levels, as in the first approach. An implication is that, going forward, even shallow recessions may take policy rates in the AFEs to the zero lower bound constraint.

All told, both cyclical and trend estimates suggest that equilibrium interest rates in the AFEs are currently low and will likely remain so for many years. However, the degree to which the decline is due to cyclical versus structural factors—in other words, how low the equilibrium rate will be in the long run—remains difficult to disentangle with confidence. Moreover, in either approach, confidence intervals around estimates of the equilibrium interest rate tend to be very large. Finally, some of the structural factors that may have contributed to lower long-run equilibrium interest rates over the past decade may still unwind. For instance, global savings could conceivably fall going forward, as Asian economies rebalance toward domestic demand somewhat, thus putting upward pressure on global interest rates. Choosing an appropriate path of policy rates over time in AFEs will thus require important judgments related to these uncertainties.

Int'l Econ Devel & Outlook

1. Estimates of the Cyclical AFE Equilibrium Real Interest Rate
Note: AFE aggregate refers to the GDP-weighted average of estimates for the euro area, Japan, Canada, and the United Kingdom.
Source: Staff calculations using DSGE approach.

2. Estimates of the Long-Run Value of the AFE Equilibrium Real Interest Rate
Note: Estimates for the United States are from the latest update of Laubach and Williams (2003).
Source: Staff calculations using Laubach-Williams approach.

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[3] Our methodology differs from Laubach and Williams (2003) in two respects. First, we use staff estimates of potential output for the AFEs rather than treat this variable as unobserved. Second, we construct real policy rates using survey-based measures of inflation expectations rather than construct inflation expectations using an autoregressive process on estimated inflation data, as these authors do. When we apply our methodology to U.S. data, however, we obtain estimates very similar to the original article, suggesting that these changes have a modest effect on the results.

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**	**2.8**	**2.4**	**1.6**	**2.2**	**2.8**	**3.0**	**2.9**
	Previous Tealbook	*2.2*	*2.6*	*2.7*	*1.8*	*2.4*	*2.9*	*3.1*	*2.9*
2.	**Advanced Foreign Economies**	**1.5**	**1.7**	**1.9**	**0.9**	**1.6**	**2.0**	**2.2**	**1.9**
	Previous Tealbook	*1.6*	*1.7*	*2.0*	*1.0*	*1.8*	*2.1*	*2.2*	*1.9*
3.	Canada	2.2	3.2	2.2	-0.6	1.4	2.1	2.4	2.0
4.	Euro Area	0.7	0.7	1.4	1.5	1.6	1.7	1.9	2.2
5.	Japan	-1.4	-2.0	1.2	3.9	1.5	1.6	1.4	-0.2
6.	United Kingdom	3.5	2.5	2.5	1.2	2.4	2.5	2.4	2.3
7.	**Emerging Market Economies**	**2.9**	**3.9**	**3.0**	**2.2**	**2.8**	**3.6**	**3.8**	**3.9**
	Previous Tealbook	*2.8*	*3.6*	*3.4*	*2.5*	*3.0*	*3.7*	*3.9*	*3.9*
8.	China	7.0	8.1	7.0	5.1	6.1	7.2	6.6	6.5
9.	Emerging Asia ex. China	3.3	5.1	2.3	3.6	3.8	4.2	4.4	4.2
10.	Mexico	2.8	2.1	2.7	1.6	2.6	3.1	3.1	3.2
11.	Brazil	-1.4	0.6	1.1	-0.6	-3.2	-0.0	1.8	2.3

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

Total Foreign GDP

Percent change, annual rate
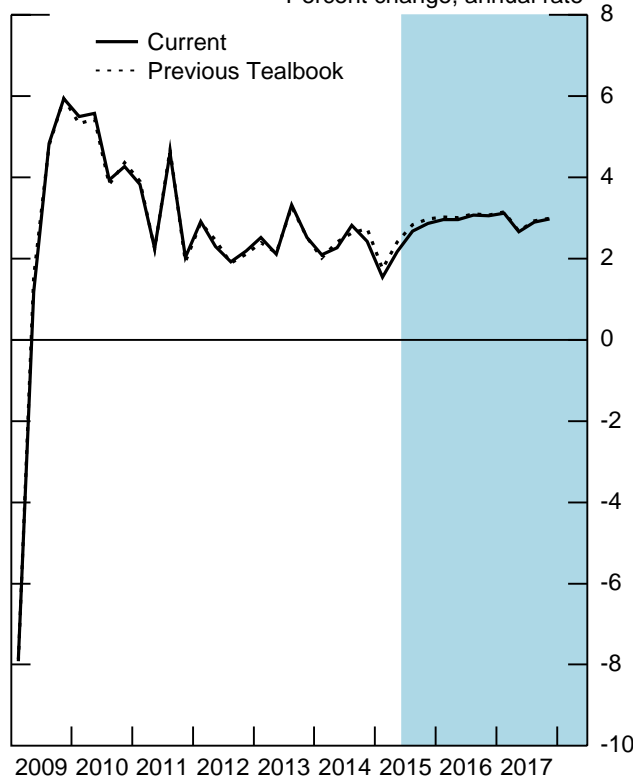
Foreign GDP

Percent change, annual rate
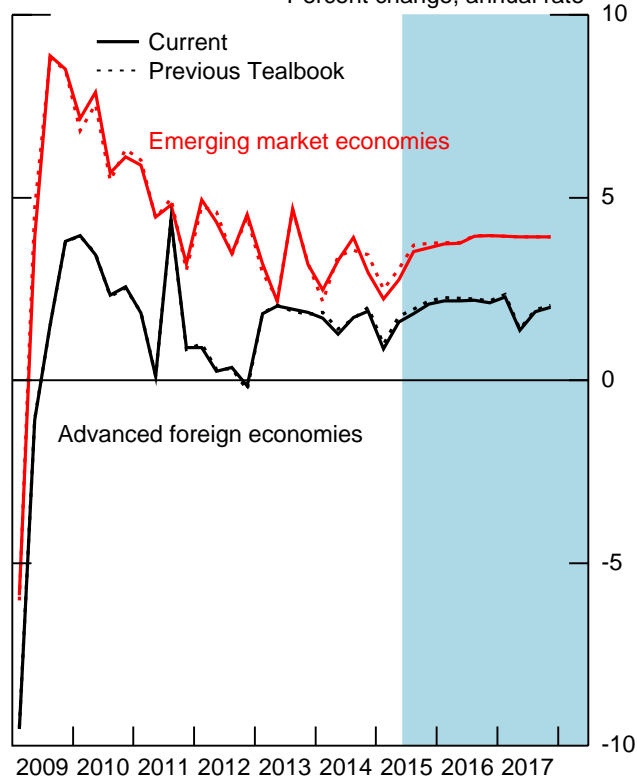
The Foreign Inflation Outlook

Consumer Prices*

Percent change, annual rate

		2014			2015		2016	2017
	H1	Q3	Q4	Q1	Q2	H2		
1. Total Foreign	**2.5**	**2.0**	**1.1**	**-0.1**	**2.1**	**2.3**	**2.4**	**2.6**
Previous Tealbook	*2.5*	*2.0*	*1.1*	*-0.1*	*2.0*	*2.3*	*2.4*	*2.6*
2. Advanced Foreign Economies	**2.2**	**0.8**	**-0.4**	**-0.8**	**1.4**	**1.3**	**1.6**	**2.0**
Previous Tealbook	*2.2*	*0.9*	*-0.4*	*-0.8*	*1.1*	*1.4*	*1.6*	*2.0*
3. Canada	3.2	1.2	-0.0	-0.2	1.8	1.8	1.8	2.0
4. Euro Area	0.4	0.4	-0.6	-1.5	1.9	1.4	1.6	1.7
5. Japan	4.9	1.2	-0.6	-0.3	0.5	0.7	1.0	2.6
6. United Kingdom	1.6	1.2	-0.7	-1.6	0.9	1.7	1.8	1.9
7. Emerging Market Economies	**2.7**	**2.9**	**2.3**	**0.5**	**2.6**	**3.0**	**3.1**	**3.1**
Previous Tealbook	*2.7*	*2.9*	*2.3*	*0.4*	*2.7*	*3.0*	*3.1*	*3.1*
8. China	1.4	2.2	1.0	-0.4	1.6	2.4	2.5	2.5
9. Emerging Asia ex. China	2.8	1.9	1.4	-0.2	2.9	3.1	3.2	3.3
10. Mexico	4.1	4.4	4.2	0.3	2.6	3.3	3.3	3.3
11. Brazil	7.0	6.2	6.0	11.1	9.3	5.9	5.6	5.4

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

Int'l Econ Devel & Outlook

Foreign Monetary Policy

AFE Policy Rates

Percent
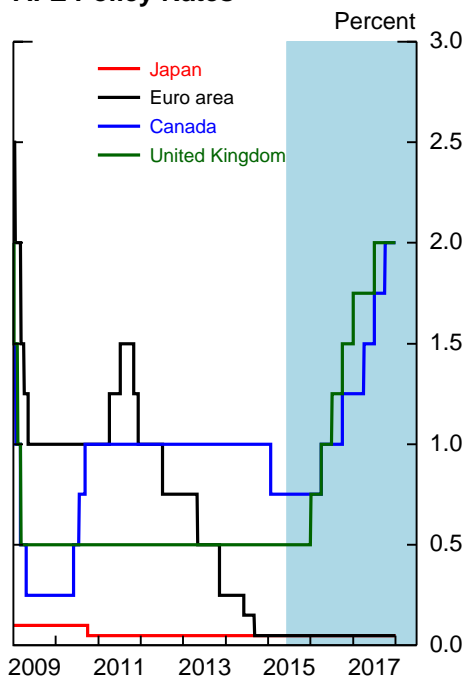
AFE Central Bank Balance Sheets

Percent of GDP

EME Policy Rates

Percent
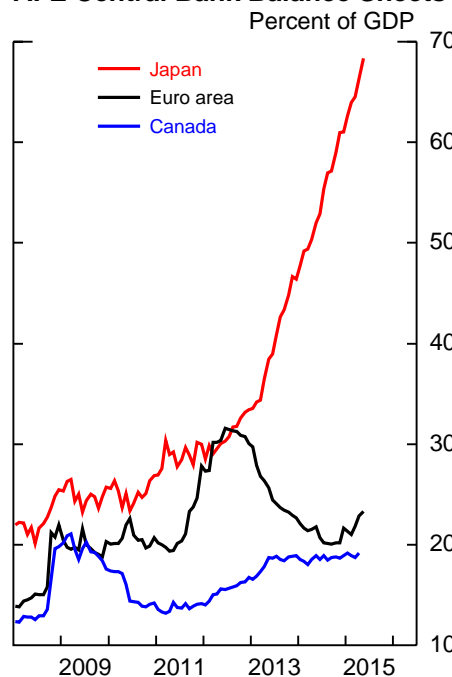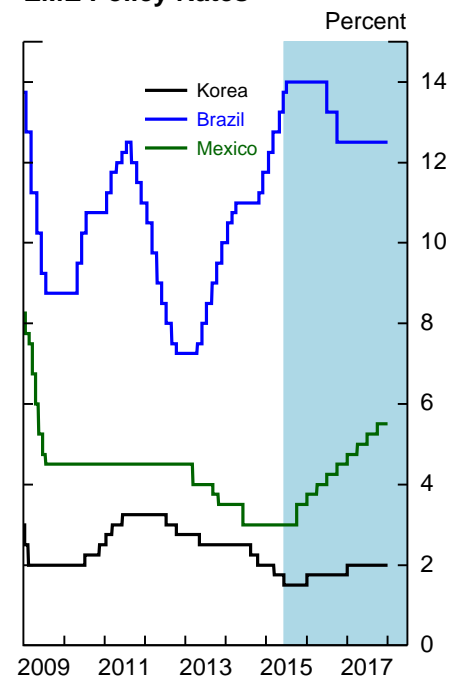
Evolution of Staff's International Forecast

Int'l Econ Devel & Outlook

Total Foreign GDP

Percent change, Q4/Q4

Tealbook publication date

Total Foreign CPI

Percent change, Q4/Q4

Tealbook publication date

U.S. Current Account Balance

Percent of GDP
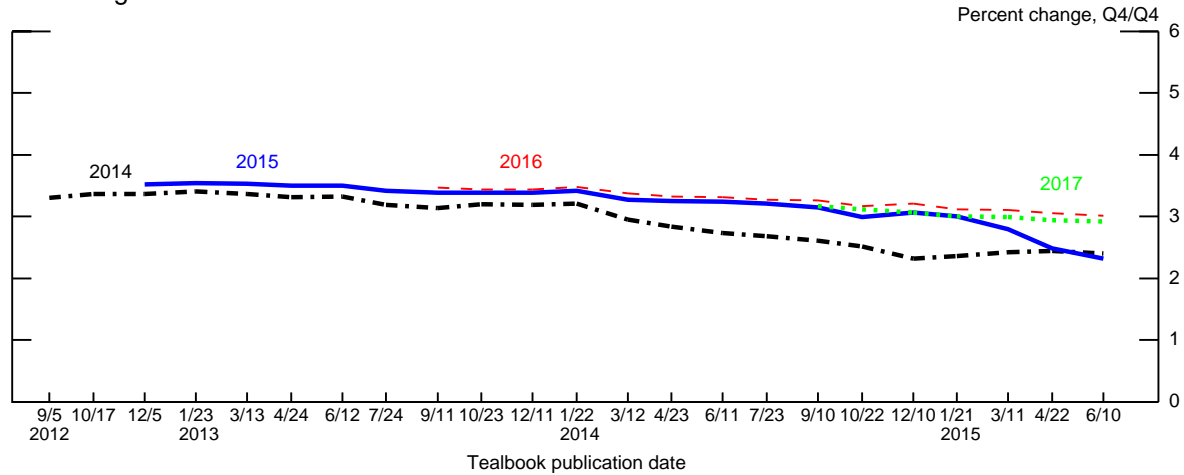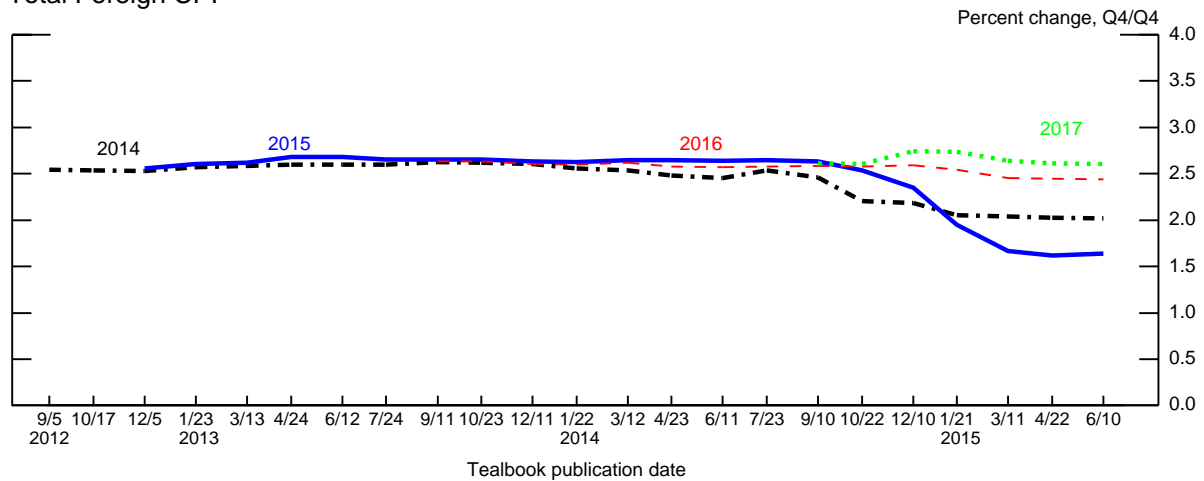
Tealbook publication date
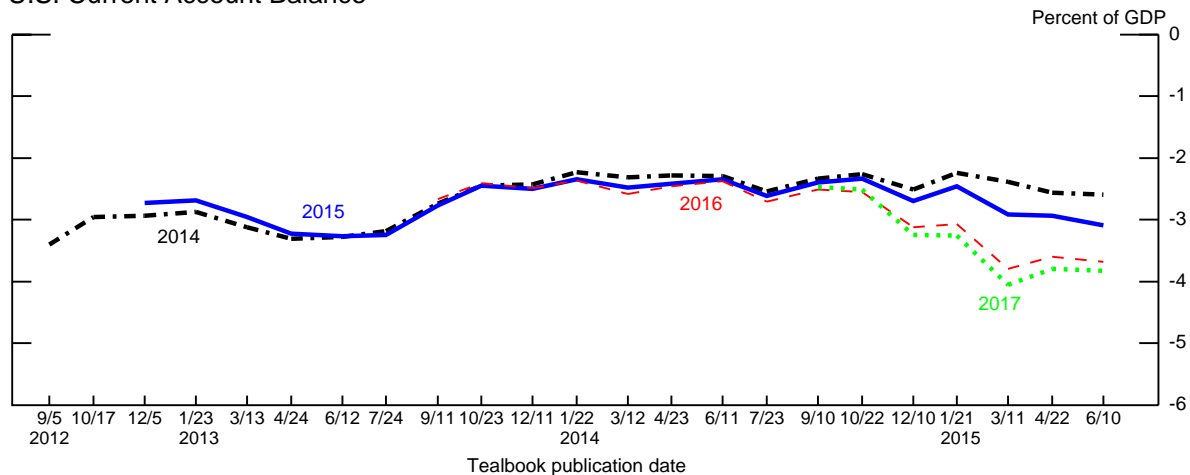
Treasury Yields and Policy Expectations

Selected Interest Rates

Percent   Percent

Apr. FOMC statement
Apr. ISM nonmanufacturing
Apr. employment report
Apr. retail sales
Dec. 2016 Eurodollar (left scale)
Apr. FOMC minutes
Apr. CPI
May employment report
10-year Treasury yield (right scale)

Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m.
Source: Bloomberg.

Implied Federal Funds Rate

Percent

Most recent: June 9, 2015
Last FOMC: April 28, 2015
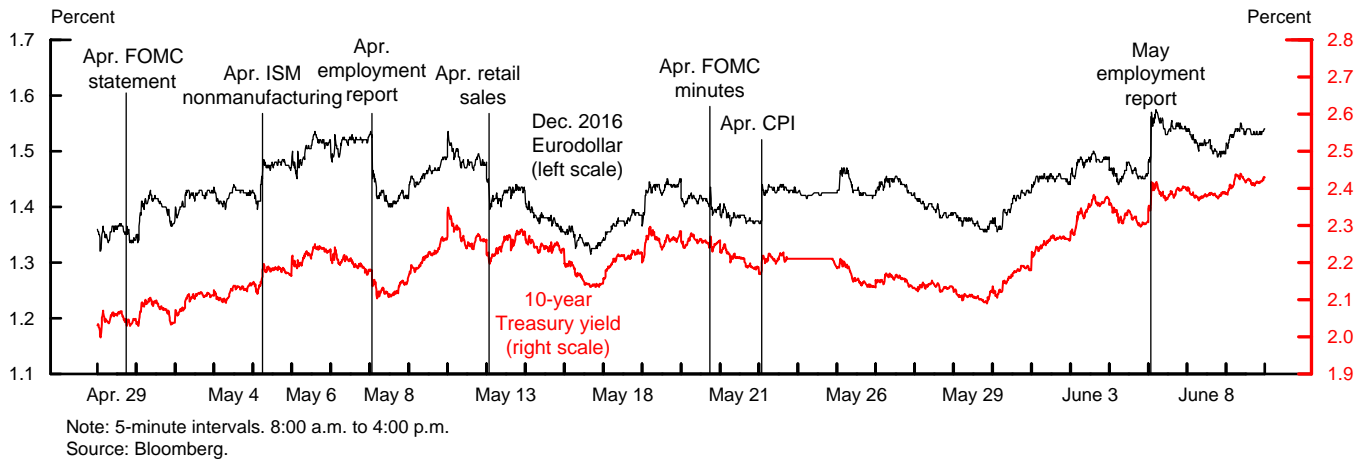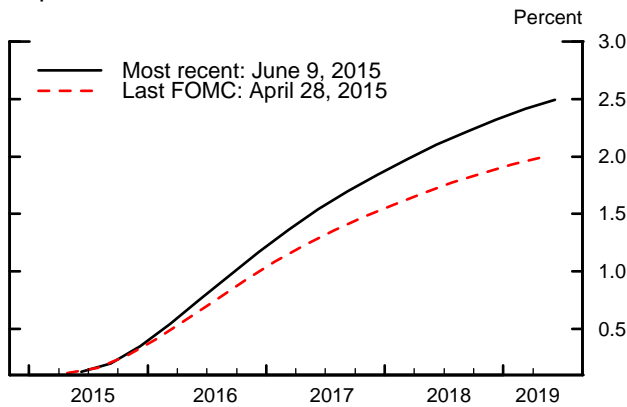
Note: Path is estimated using overnight index swap quotes with a spline approach and a term premium of zero basis points.
Source: Bloomberg; staff estimates.

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

Percent

Recent: 22 respondents
April FOMC: 22 respondents
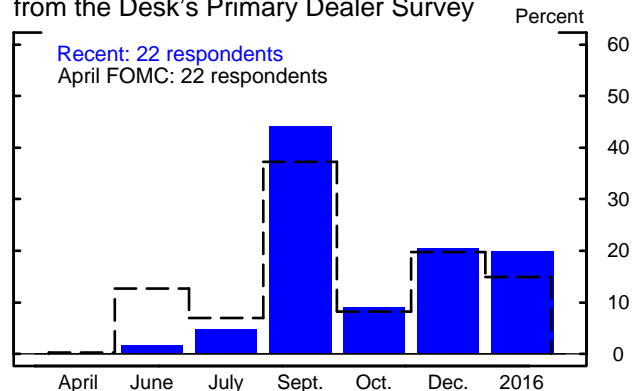
Note: Average across dealers of their individual probabilities attached to the first tightening occurring at a particular meeting. For 2016, expected timing is during or after that year.
Source: Desk's primary dealer survey from June 8, 2015.

Treasury Yield Curve

Percent

Most recent: June 9, 2015
Last FOMC: April 28, 2015

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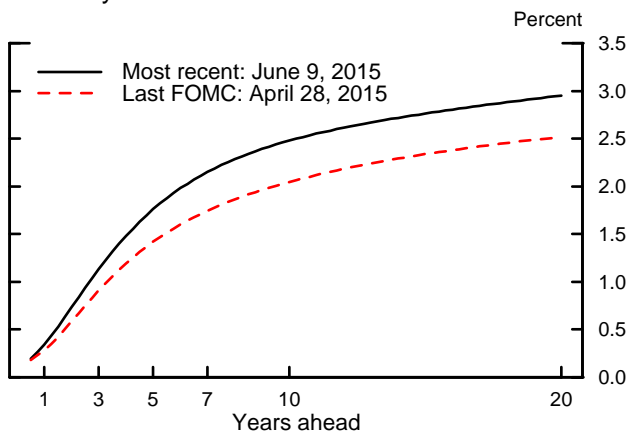
Note: Smoothed yield curve estimated from off-the-run Treasury coupon securities. Yields shown are those on notional par Treasury securities with semiannual coupons.
Source: Federal Reserve Board.

Inflation Compensation

Percent

Daily
5 to 10 years ahead
Apr. FOMC
Next 5 years*
June 9

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; Federal Reserve Bank of New York; staff estimates.

Financial Developments

Why Are Net Interest Margins of Large Banks So Compressed?

The extraordinarily low interest rate environment that has prevailed in the wake of the financial crisis has put downward pressure on the net interest margins (NIMs) of all bank holding companies (banks), but especially the largest ones. In particular, over roughly the past five years, NIMs of large banks have fallen about 80 basis points, while NIMs of small banks have decreased approximately 20 basis points (left panel).[1]

The more pronounced decline in NIMs at large banks is driven by two main factors related to the low interest rate environment. The first factor accounts for the majority of the difference in the behavior of NIMs at the two bank groups and arises from the liability side of banks' balance sheets, namely from a more pronounced decline in deposit costs at small banks. In general, deposit rates tend to move with short-term interest rates and are typically lower at large banks. With the federal funds rate at the zero lower bound since late 2008, the degree to which large banks have been able to boost their profitability by reducing their deposit rates has been more limited relative to small banks. For example, the arithmetic effect of the decline in deposit rates at small banks has pushed up NIMs about 60 basis points, while the corresponding effect of declining rates at large banks has increased NIMs roughly 20 basis points (red portions of the bars, right panel). So far, at least, large domestic banks have been reluctant to charge negative deposit rates, a step that banks in foreign jurisdictions have been more willing to take.[2]

The second factor stems from the asset side of the balance sheet: Large banks have experienced a somewhat bigger decline in the interest income they earn on "other" assets, which includes assets held for trading purposes. Interest income on such assets has declined notably since 2010, and large banks hold more of these assets relative to small banks. This factor explains why interest income fell about 150 basis points at large banks while it moved down roughly 130 basis points at small banks (gray portions of the bars, right panel).

These empirical findings have implications for assessing the monetary transmission mechanism around the time of liftoff.[3] At that time, for example, large banks could try to boost their profitability in the short term by delaying the increase in deposit rates relative to previous tightening cycles. If that happens, more deposits than usual could leave the banking system, putting some downward pressure on the level of short-term interest rates. However, with interest on excess reserves higher than many deposit rates, banks may act to preserve this funding source, accelerating the pass-through to market interest rates relative to previous tightening cycles. That said, this latter effect may be damped because many large banks face balance sheet constraints in light of the new regulatory environment.

Net interest margins, by bank size
Source: FR Y-9C.

Contributions to changes in net interest margins, 2010:Q1-2015:Q1
Source: FR Y-9C, staff estimates.

Financial Developments
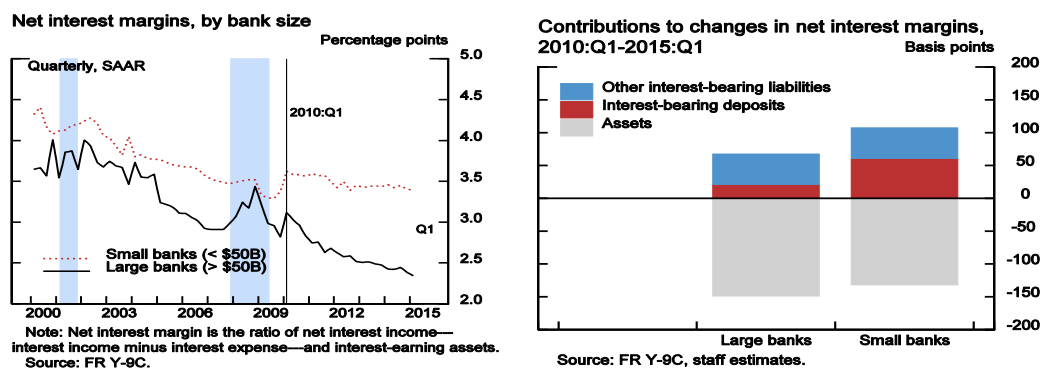
[1] Large banks are defined as those with more than $50 billion in consolidated assets.

[2] Some custodial banks in the United States are reportedly currently charging negative rates on nonoperational deposits denominated in euros. Such reports are more common in foreign jurisdictions.

[3] See the box "The Transmission of Monetary Policy to Deposit Rates" in the April 2015 Tealbook, Book B.

Federal Reserve Operations and Short-Term Funding Markets

Outstanding Term Deposits

Billions of dollars

Oct. series | Feb. series | May series
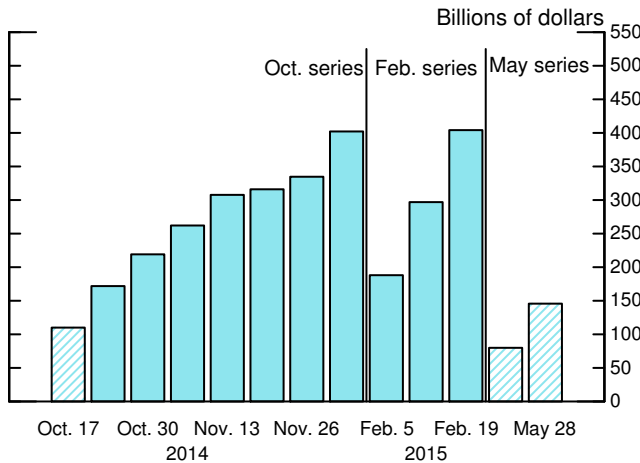
Note: Striped bars denote an offer rate of 1 basis point above the interest on excess reserves and a maximum award amount of $5 billion per counterparty.
Source: Federal Reserve Board.

ON RRP and Term RRP Take-Up

Billions of dollars

Daily
- ON RRP
- Term RRP

June 9
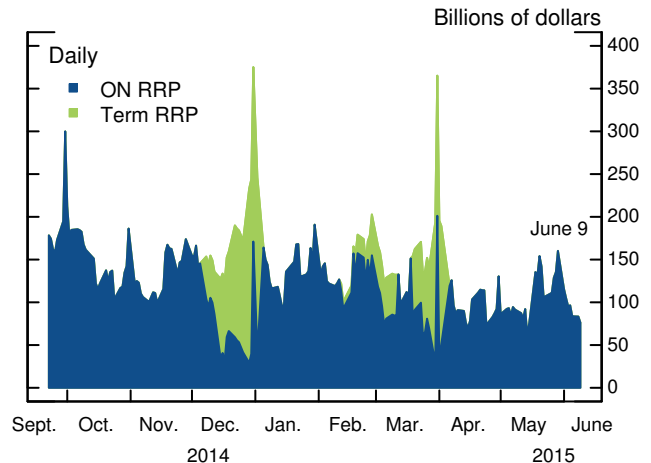
Note: ON RRP is overnight reverse repurchase agreement; term RRP is term reverse repurchase agreement.
Source: Federal Reserve Bank of New York.

ON RRP Take-Up, by Type

Billions of dollars

Daily

ON RRP
- Govt. MMF
- Prime MMF
- Other
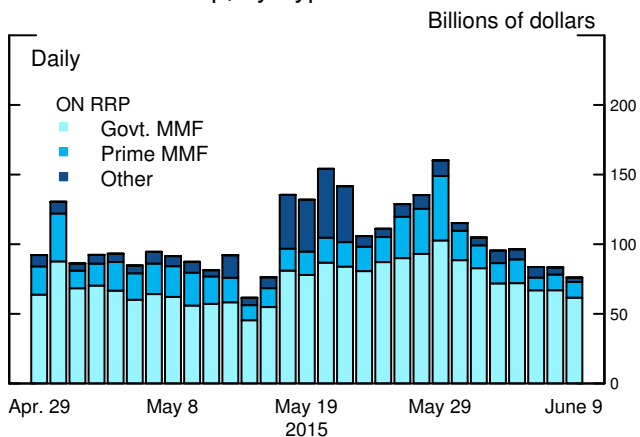
Note: ON RRP is overnight reverse repurchase agreement; MMF is money market fund.
Source: Federal Reserve Bank of New York.

Money Market Rates

Basis points

Daily
- ON RRP
- Federal funds
- Eurodollar
- PD survey Treasury repo
- GCF Treasury repo
- 3-month Treasury bill
- Triparty Treasury repo
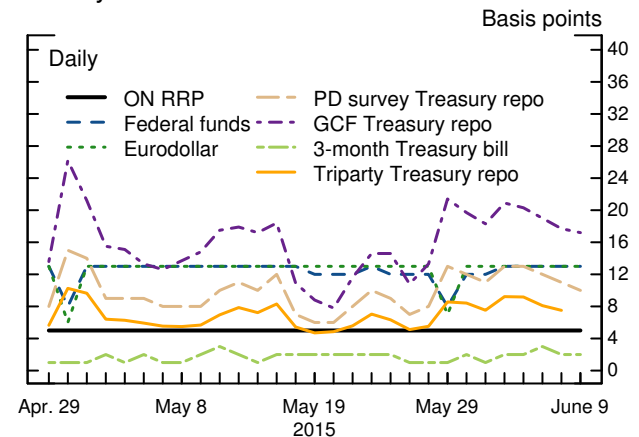
Note: GCF is General Collateral Finance; ON RRP is overnight reverse repurchase agreement; PD is primary dealer; repo is repurchase agreement.
Source: Federal Reserve Bank of New York.

Expected Overnight Treasury GCF Repo and Federal Funds Rates

Percent

Annualized
- Most recent GCF
- Last FOMC GCF
- Most recent FF
- Last FOMC FF
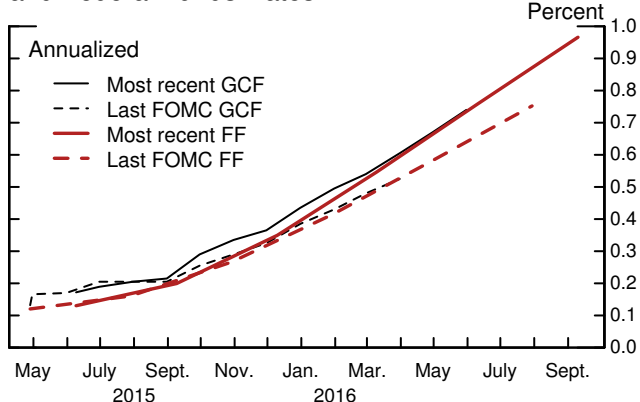
Note: Last FOMC is April 28, 2015; most recent is June 9, 2015. Federal funds (FF) rates are estimated using overnight index swap quotes with a spline approach; General Collateral Finance (GCF) rates are calculated using GCF Treasury repurchase agreement (repo) futures quotes.
Source: Bloomberg; staff estimates.

Agency MBS Issuance and Fed Settlement

Billions of dollars   Percent of gross issuance

Monthly
- Total gross issuance (left scale)
- Total net issuance (left scale)
- Total Fed settlement (left scale)
- Settlement, percent of gross issuance (right scale)

Source: Federal Reserve Bank of New York.

Financial Developments
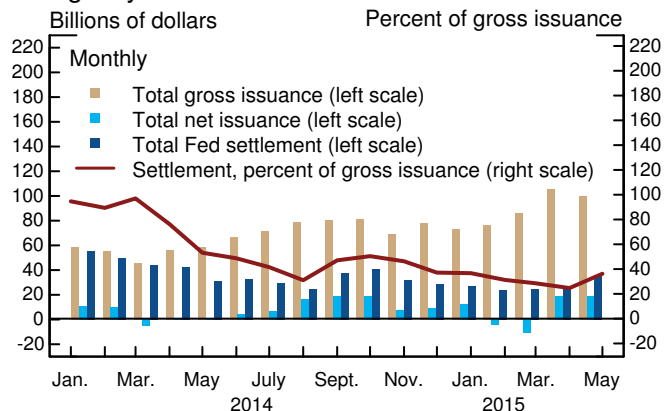
Overall, the widening of the spread between the overnight Treasury GCF repo and general Treasury triparty repo rates seems to be explained in part by regulatory changes and market segmentation. The staff will continue to monitor activity in these markets as the time of policy firming approaches.

GCF Rate and GCF − Triparty Spread
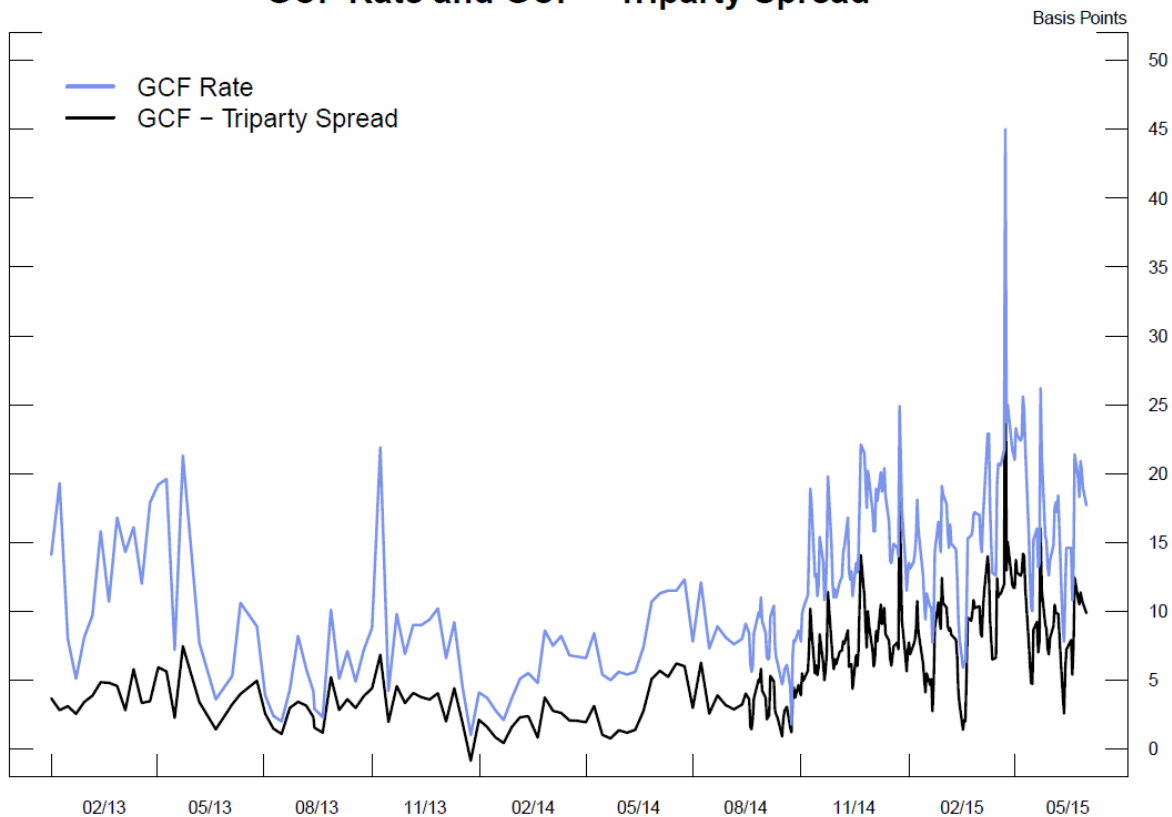
Note: Data are weekly until August 21, 2014, after which data are daily.
Source: Federal Reserve Bank of New York.

Net Lending in GCF Market from January 2013–March 2015 for Overnight U.S. Treasury Collateral (Billions of dollars)

	U.S. Primary Dealer	Foreign Primary Dealer	U.S. Nonprimary Dealer	Foreign Nonprimary Dealer
Sample mean	$ 19.6	$ -12.1	$ -1.4	$ -6.2
Quarter-end mean	$ 16.7	$ -5.7	$ -2.3	$ -8.8
% Change	**-15%**	**53%**	**-66%**	**-42%**

Financial Developments

Forecast Confidence Intervals and Alternative Scenarios

Confidence Intervals Based on FRB/US Stochastic Simulations

- **Extended Tealbook baseline** (black)
- **Lower long–run equilibrium fed funds rate** (blue)
- **Near–term slowdown in economic activity** (red)
- **Lower natural rate of unemployment** (pink)
- **Faster growth with higher inflation** (yellow)
- **Weaker foreign growth and stronger dollar** (green)
- **Greek exit with severe spillovers** (light blue)
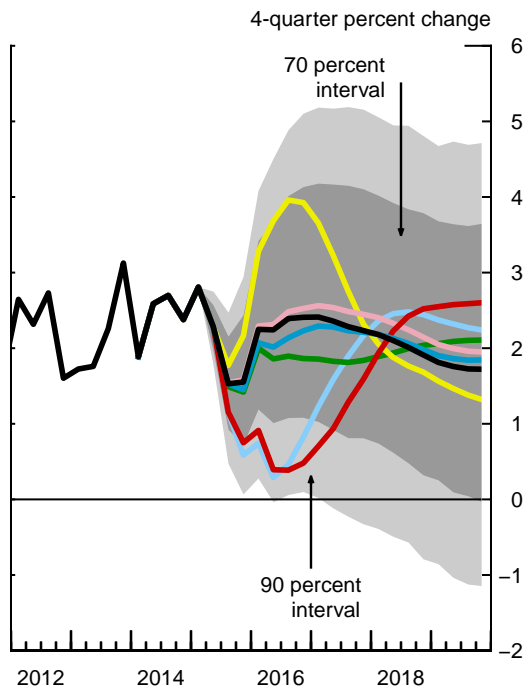
Real GDP

4-quarter percent change

70 percent interval

90 percent interval

Unemployment Rate

Percent

PCE Prices excluding Food and Energy

4-quarter percent change

Federal Funds Rate

Percent

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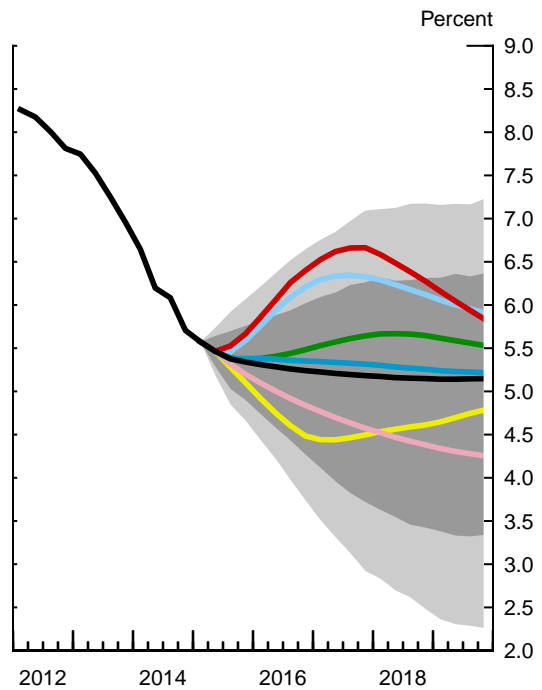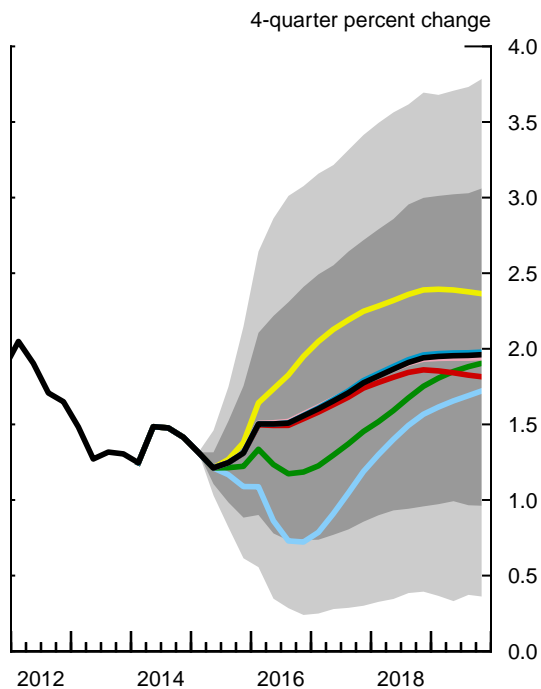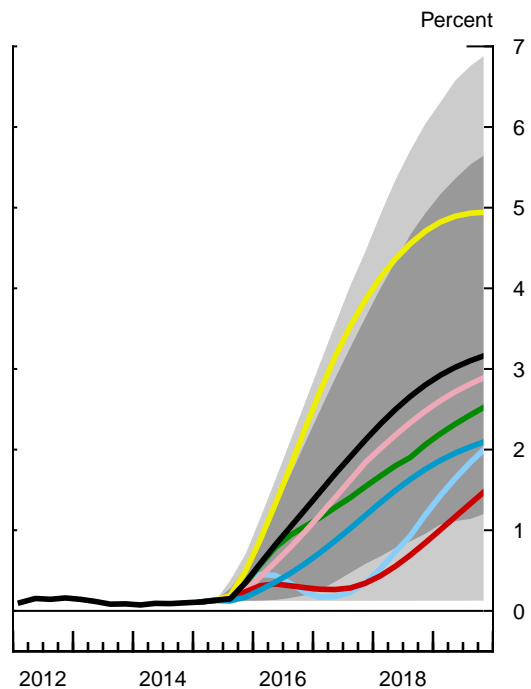
**Selected Tealbook Projections and 70 Percent Confidence Intervals Derived
from Historical Tealbook Forecast Errors and FRB/US Simulations**

Measure	2015	2016	2017	2018	2019
Real GDP					
(percent change, Q4 to Q4)					
Projection	1.6	2.4	2.2	1.9	1.7
Confidence interval					
Tealbook forecast errors	.2–3.1	.2–4.0	-.1–3.8	. . .	. . .
FRB/US stochastic simulations	.7–2.4	1.1–4.1	.8–4.1	.3–3.8	.0–3.6
Civilian unemployment rate					
(percent, Q4)					
Projection	5.3	5.2	5.2	5.1	5.1
Confidence interval					
Tealbook forecast errors	4.9–5.6	4.3–6.3	3.9–6.8	. . .	. . .
FRB/US stochastic simulations	4.9–5.8	4.3–6.0	3.7–6.3	3.4–6.3	3.3–6.4
PCE prices, total					
(percent change, Q4 to Q4)					
Projection	.6	1.6	1.8	1.9	2.0
Confidence interval					
Tealbook forecast errors	-.1–1.2	.8–3.3	.8–3.4	. . .	. . .
FRB/US stochastic simulations	.1–1.2	.7–2.6	.7–2.8	.8–3.1	.8–3.1
PCE prices excluding					
food and energy					
(percent change, Q4 to Q4)					
Projection	1.3	1.6	1.8	1.9	2.0
Confidence interval					
Tealbook forecast errors	.9–1.6	.8–2.4	. . .	. . .	. . .
FRB/US stochastic simulations	.9–1.8	.7–2.4	.9–2.7	1.0–3.0	1.0–3.1
Federal funds rate					
(percent, Q4)					
Projection	.4	1.3	2.1	2.8	3.2
Confidence interval					
FRB/US stochastic simulations	.1–.5	.2–2.1	.6–3.6	1.0–4.9	1.2–5.7

  Note: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969–2014 set of model equation residuals. Intervals derived from Tealbook forecast errors are based on projections made from 1980 to 2014 for real GDP and unemployment and from 1998 to 2014 for PCE prices. The intervals for real GDP, unemployment, and total PCE prices are extended into 2017 using information from the Blue Chip survey and forecasts from the CBO and CEA.
  . . . Not applicable.

Risks & Uncertainty

Prediction Intervals Derived from Historical Tealbook Forecast Errors

Forecast Error Percentiles

Historical Distributions

Unemployment Rate

Q4 Level, Percent

Historical revisions | Tealbook forecasts | Augmented Tealbook [1]

- median
- 15% to 85%
- 5% to 95%
- data/forecast
- range

2012 2013 2014 2015 2016 2017

1980 to 2014

PCE Inflation

Q4/Q4, Percent

2012 2013 2014 2015 2016 2017

1998 to 2014

Real GDP Growth

Q4/Q4, Percent

2012 2013 2014 2015 2016 2017

1980 to 2014

Core PCE Inflation

Q4/Q4, Percent

2012 2013 2014 2015 2016 2017

1998 to 2014

Historical Distributions

Unemployment Rate

Annual, Percent

- median
- 15% to 85%
- 5% to 95%
- 2.5% to 97.5%
- range

1930 to 2014 | 1947 to 2014 | 1980 to 2014

Real GDP Growth

Annual, Percent

1930 to 2014 | 1947 to 2014 | 1980 to 2014

PCE Inflation

Annual, Percent

1930 to 2014 | 1947 to 2014 | 1998 to 2014

Core PCE Inflation

Annual, Percent

1930 to 2014 | 1947 to 2014 | 1998 to 2014

Note: See the technical note in the appendix for more information on this exhibit.

1. Augmented Tealbook prediction intervals use 1- and 2-year-ahead forecast errors from Blue Chip, CBO, and CEA to extend the Tealbook prediction intervals through 2017.

Risks & Uncertainty

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

Measure and projection	2015		2016		2017	
	March Tealbook	Current Tealbook	March Tealbook	Current Tealbook	March Tealbook	Current Tealbook
Real GDP						
Staff	2.2	1.6	2.3	2.4	2.0	2.2
FRB/US	2.8	1.9	2.5	2.6	2.2	2.2
EDO	2.7	1.7	2.5	2.4	2.5	2.6
Unemployment rate[1]						
Staff	5.2	5.3	5.1	5.2	5.0	5.2
FRB/US	5.3	5.4	5.2	5.4	5.3	5.5
EDO	5.7	5.7	5.8	5.9	5.9	5.9
Total PCE prices						
Staff	.6	.6	1.7	1.6	1.9	1.8
FRB/US	.7	.7	1.7	1.7	1.5	1.5
EDO	.7	.9	1.8	2.1	2.0	2.1
Core PCE prices						
Staff	1.3	1.3	1.6	1.6	1.8	1.8
FRB/US	1.3	1.5	1.6	1.7	1.5	1.5
EDO	1.4	1.6	1.8	2.1	2.0	2.1
Federal funds rate[1]						
Staff	.7	.4	1.8	1.3	2.7	2.1
FRB/US	.9	.6	1.6	1.2	1.8	1.1
EDO	1.4	1.0	2.4	2.1	2.9	2.7

1. Percent, average for Q4.

Risks & Uncertainty

Assessment of Key Macroeconomic Risks (1)

Probability of Inflation Events
(4 quarters ahead—2016:Q2)

Probability that the 4-quarter change in total PCE prices will be ...	Staff	FRB/US	EDO	BVAR
Greater than 3 percent				
Current Tealbook	.04	.07	.14	.08
Previous Tealbook	.06	.06	.15	.00
Less than 1 percent				
Current Tealbook	.29	.19	.22	.16
Previous Tealbook	.24	.21	.22	.64

Probability of Unemployment Events
(4 quarters ahead—2016:Q2)

Probability that the unemployment rate will ...	Staff	FRB/US	EDO	BVAR
Increase by 1 percentage point				
Current Tealbook	.05	.04	.25	.01
Previous Tealbook	.03	.02	.24	.00
Decrease by 1 percentage point				
Current Tealbook	.10	.04	.04	.35
Previous Tealbook	.13	.09	.04	.40

Probability of Near-Term Recession

Probability that real GDP declines in each of 2015:Q3 and 2015:Q4	Staff	FRB/US	EDO	BVAR	Factor Model
Current Tealbook	.04	.03	.03	.03	.41
Previous Tealbook	.05	.02	.03	.03	.30

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.

Risks & Uncertainty

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

Interval	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate[1]	
	04/22/15	06/10/15	04/22/15	06/10/15	04/22/15	06/10/15	04/22/15	06/10/15	04/22/15	06/10/15
Quarterly										
2014:Q1	-.8	-.8	-2.1	-2.1	1.4	1.4	1.2	1.2	6.6	6.6
Q2	6.8	6.8	4.6	4.6	2.3	2.3	2.0	2.0	6.2	6.2
Q3	6.4	6.4	5.0	5.0	1.2	1.2	1.4	1.4	6.1	6.1
Q4	2.4	2.4	2.2	2.2	-.4	-.4	1.1	1.1	5.7	5.7
2015:Q1	.3	-.6	.1	-.5	-2.0	-2.0	.8	.8	5.6	5.6
Q2	4.6	5.0	2.4	2.5	1.5	1.9	1.6	1.6	5.4	5.5
Q3	3.7	3.0	2.4	1.9	1.5	1.4	1.4	1.5	5.3	5.4
Q4	4.2	3.6	2.4	2.3	1.6	1.2	1.4	1.3	5.3	5.3
2016:Q1	4.3	4.2	2.4	2.3	1.6	1.6	1.6	1.6	5.3	5.3
Q2	4.1	4.1	2.3	2.5	1.6	1.6	1.6	1.6	5.2	5.3
Q3	4.2	4.2	2.4	2.5	1.6	1.6	1.6	1.6	5.2	5.3
Q4	4.2	4.0	2.5	2.4	1.6	1.6	1.5	1.5	5.2	5.2
Two-quarter[2]										
2014:Q2	2.9	2.9	1.2	1.2	1.9	1.9	1.6	1.6	-.8	-.8
Q4	4.4	4.4	3.6	3.6	.4	.4	1.2	1.2	-.5	-.5
2015:Q2	2.4	2.2	1.2	1.0	-.2	-.1	1.2	1.2	-.3	-.2
Q4	3.9	3.3	2.4	2.1	1.5	1.3	1.4	1.4	-.1	-.2
2016:Q2	4.2	4.2	2.3	2.4	1.6	1.6	1.6	1.6	-.1	.0
Q4	4.2	4.1	2.4	2.4	1.6	1.6	1.6	1.5	.0	-.1
Four-quarter[3]										
2013:Q4	4.6	4.6	3.1	3.1	1.0	1.0	1.3	1.3	-.8	-.8
2014:Q4	3.7	3.7	2.4	2.4	1.1	1.1	1.4	1.4	-1.3	-1.3
2015:Q4	3.2	2.7	1.8	1.6	.6	.6	1.3	1.3	-.4	-.4
2016:Q4	4.2	4.1	2.4	2.4	1.6	1.6	1.6	1.6	-.1	-.1
2017:Q4	4.0	4.1	2.1	2.2	1.8	1.8	1.8	1.8	-.1	.0
Annual										
2013	3.7	3.7	2.2	2.2	1.2	1.2	1.3	1.3	7.4	7.4
2014	3.9	3.9	2.4	2.4	1.3	1.3	1.4	1.4	6.2	6.2
2015	3.3	3.0	2.2	2.0	.3	.3	1.3	1.3	5.4	5.4
2016	4.2	4.0	2.4	2.3	1.6	1.5	1.5	1.5	5.2	5.3
2017	4.1	4.1	2.3	2.3	1.7	1.7	1.7	1.7	5.1	5.2

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, change in percentage points; for unemployment rate, change is in percentage points.

Greensheets

Greensheets

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

Item	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2014[1]	2015[1]	2016[1]	2017[1]
Real GDP	4.6	5.0	2.2	-.5	2.5	1.9	2.3	2.3	2.5	2.5	2.4	2.4	1.6	2.4	2.2
Previous Tealbook	4.6	5.0	2.2	.1	2.4	2.4	2.4	2.4	2.3	2.4	2.5	2.4	1.8	2.4	2.1
Final sales	3.2	5.0	2.3	-.9	2.4	2.0	2.6	2.2	2.7	2.6	2.7	2.4	1.5	2.6	2.6
Previous Tealbook	3.2	5.0	2.3	-.3	2.2	2.6	2.8	2.5	2.6	2.4	2.3	2.4	1.8	2.4	2.3
Priv. dom. final purch.	3.8	4.1	4.5	1.3	2.8	3.3	3.6	3.9	3.9	3.8	3.3	3.3	2.8	3.7	3.0
Previous Tealbook	3.8	4.1	4.5	.9	3.1	4.0	4.3	4.0	3.9	3.5	3.0	3.3	3.1	3.6	2.7
Personal cons. expend.	2.5	3.2	4.4	1.8	2.8	3.4	3.5	3.6	3.5	3.3	2.8	2.9	2.9	3.3	2.7
Previous Tealbook	2.5	3.2	4.4	1.9	4.2	4.2	4.0	3.7	3.6	3.1	2.7	2.9	3.6	3.3	2.5
Durables	14.1	9.2	6.2	1.1	6.7	7.6	7.7	7.1	7.0	6.7	5.3	8.1	5.7	6.5	4.2
Nondurables	2.2	2.5	4.1	.1	2.3	3.8	2.9	2.6	2.9	2.8	2.5	2.2	2.3	2.7	2.5
Services	.9	2.5	4.3	2.5	2.3	2.6	3.0	3.3	3.1	3.0	2.5	2.2	2.6	3.0	2.5
Residential investment	8.8	3.2	3.8	6.3	11.3	6.8	6.2	11.6	13.1	12.4	10.8	2.5	7.6	12.0	8.0
Previous Tealbook	8.8	3.2	3.8	1.8	1.1	9.6	12.9	12.6	12.7	11.4	9.3	2.5	6.2	11.5	7.8
Nonres. priv. fixed invest.	9.7	8.9	4.7	-2.8	1.0	2.0	3.6	3.3	3.9	3.8	3.6	6.2	.9	3.7	2.9
Previous Tealbook	9.7	8.9	4.7	-4.3	-1.9	1.0	3.6	3.3	3.2	3.4	3.2	6.2	-.4	3.3	2.1
Equipment & intangibles	8.9	10.1	4.4	2.4	3.7	3.2	4.2	4.7	4.5	4.6	4.5	6.1	3.4	4.6	3.6
Previous Tealbook	8.9	10.1	4.4	1.8	2.3	3.0	4.2	4.5	3.7	3.9	3.8	6.1	2.8	4.0	2.6
Nonres. structures	12.6	4.8	5.9	-18.9	-8.3	-2.2	1.7	-2.1	1.6	.8	.4	6.5	-7.3	.2	.3
Previous Tealbook	12.6	4.8	5.9	-22.7	-16.0	-6.5	1.0	-1.6	1.1	1.0	.8	6.5	-11.5	.3	.5
Net exports[2]	-460	-431	-471	-546	-554	-591	-617	-667	-699	-738	-746	-453	-577	-712	-785
Previous Tealbook[2]	-460	-431	-471	-497	-524	-558	-596	-635	-673	-710	-730	-453	-544	-687	-766
Exports	11.1	4.5	4.5	-5.9	3.0	.5	2.2	-2.1	2.0	1.5	3.7	2.4	-.1	1.3	3.2
Imports	11.3	-.9	10.4	6.7	3.7	6.0	5.5	5.8	6.3	6.8	4.0	5.6	5.5	5.7	3.7
Gov't. cons. & invest.	1.7	4.4	-1.9	-.6	1.3	.3	.5	.6	.3	1.6	.6	.8	.4	.8	1.1
Previous Tealbook	1.7	4.4	-1.9	-2.3	1.3	.2	.3	.3	.5	1.6	.7	.8	-.1	.8	1.1
Federal	-.9	9.9	-7.3	.1	-1.6	-1.5	-1.2	-1.2	-2.4	.8	-2.0	.2	-1.1	-1.2	-.8
Previous Tealbook	.9	16.0	-12.2	-1.0	-2.0	-2.2	-1.6	-2.0	-3.9	1.3	-3.3	-.3	-1.7	-2.0	-1.5
Defense	-3.8	.4	1.5	2.0	-1.0	-.5	-.6	.0	.0	.0	.0	1.1	.0	.0	.1
Nondefense	.9														
State & local	3.4	1.1	1.6	-1.1	3.2	1.5	1.6	1.8	1.9	2.0	2.1	1.2	1.3	2.0	2.2
Change in priv. inventories[2]	85	82	80	98	100	96	88	92	84	80	67	71	95	81	39
Previous Tealbook[2]	85	82	80	95	103	96	81	77	66	68	76	71	94	72	69

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	-2.8	-.2	2.7	1.7	1.6	3.1	2.4	1.6	2.4	2.2
Previous Tealbook	-2.8	-.2	2.7	1.7	1.6	3.1	2.4	1.8	2.4	2.1
Final sales	-2.1	-.4	2.0	1.5	2.1	2.6	2.4	1.5	2.6	2.6
Previous Tealbook	-2.1	-.4	2.0	1.5	2.1	2.6	2.4	1.8	2.4	2.3
Priv. dom. final purch.	-4.1	-2.4	3.5	2.6	2.6	3.2	3.3	2.8	3.7	3.0
Previous Tealbook	-4.1	-2.4	3.5	2.6	2.6	3.2	3.3	3.1	3.6	2.7
Personal cons. expend.	-2.0	-.2	3.1	1.5	2.0	2.8	2.9	2.9	3.3	2.7
Previous Tealbook	-2.0	-.2	3.1	1.5	2.0	2.8	2.9	3.6	3.3	2.5
Durables	-12.9	2.5	9.3	4.8	7.5	5.9	8.1	5.7	6.5	4.2
Nondurables	-2.7	.2	3.3	.4	1.0	2.5	2.2	2.3	2.7	2.5
Services	.3	-.8	2.0	1.4	1.5	2.4	2.2	2.6	3.0	2.5
Residential investment	-24.3	-10.8	-5.2	6.0	15.8	6.9	2.5	7.6	12.0	8.0
Previous Tealbook	-24.3	-10.8	-5.2	6.0	15.8	6.9	2.5	6.2	11.5	7.8
Nonres. priv. fixed invest.	-8.9	-12.2	8.1	9.0	3.7	4.7	6.2	.9	3.7	2.9
Previous Tealbook	-8.9	-12.2	8.1	9.0	3.7	4.7	6.2	-.4	3.3	2.1
Equipment & intangibles	-11.8	-6.0	12.0	9.2	3.3	4.8	6.1	3.4	4.6	3.6
Previous Tealbook	-11.8	-6.0	12.0	9.2	3.3	4.8	6.1	2.8	4.0	2.6
Nonres. structures	-1.2	-27.1	-4.0	8.0	4.8	4.4	6.5	-7.3	.2	.3
Previous Tealbook	-1.2	-27.1	-4.0	8.0	4.8	4.4	6.5	-11.5	.3	.5
Net exports[1]	-558	-395	-459	-459	-452	-420	-453	-577	-712	-785
Previous Tealbook[1]	-558	-395	-459	-459	-452	-420	-453	-544	-687	-766
Exports	-2.8	.8	10.1	4.2	2.4	5.1	2.4	-.1	1.3	3.2
Imports	-6.0	-6.2	12.0	3.5	.4	2.5	5.6	5.5	5.7	3.7
Gov't. cons. & invest.	3.3	2.3	-1.1	-3.0	-1.7	-1.9	.8	.4	.8	1.1
Previous Tealbook	3.3	2.3	-1.1	-3.0	-1.7	-1.9	.8	-.1	.8	1.1
Federal	8.4	3.9	3.2	-4.0	-2.6	-6.3	.2	-1.1	-1.2	-.8
Defense	9.4	3.6	2.0	-4.1	-4.9	-6.1	-.3	-1.7	-2.0	-1.5
Nondefense	6.5	4.6	5.5	-3.9	1.4	-6.6	1.1	.0	.0	.1
State & local	.2	1.3	-4.0	-2.3	-1.0	1.2	1.2	1.3	2.0	2.2
Change in priv. inventories[1]	-34	-148	58	38	57	64	71	95	81	39
Previous Tealbook[1]	-34	-148	58	38	57	64	71	94	72	69

1. Billions of chained (2009) dollars.

Greensheets

Greensheets

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

Item	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2014[1]	2015[1]	2016[1]	2017[1]
Real GDP	4.6	5.0	2.2	-.5	2.5	1.9	2.3	2.3	2.5	2.5	2.4	2.4	1.6	2.4	2.2
Previous Tealbook	4.6	5.0	2.2	.1	2.4	2.4	2.4	2.4	2.3	2.4	2.5	2.4	1.8	2.4	2.1
Final sales	3.2	5.0	2.3	-.9	2.4	2.0	2.5	2.2	2.6	2.6	2.7	2.4	1.5	2.5	2.6
Previous Tealbook	3.2	5.0	2.3	-.3	2.2	2.5	2.8	2.5	2.6	2.4	2.3	2.4	1.8	2.4	2.3
Priv. dom. final purch.	3.2	3.5	3.7	1.1	2.4	2.8	3.0	3.3	3.3	3.2	2.8	2.8	2.3	3.2	2.6
Previous Tealbook	3.2	3.5	3.7	.8	2.6	3.3	3.6	3.3	3.3	2.9	2.6	2.8	2.6	3.1	2.3
Personal cons. expend.	1.8	2.2	3.0	1.2	1.9	2.3	2.4	2.5	2.4	2.3	1.9	1.9	2.0	2.3	1.9
Previous Tealbook	1.8	2.2	3.0	1.3	2.8	2.9	2.8	2.5	2.5	2.1	1.9	1.9	2.4	2.3	1.8
Durables	1.0	.7	.5	.1	.5	.6	.6	.5	.5	.5	.4	.6	.4	.5	.3
Nondurables	.3	.4	.6	.0	.3	.5	.4	.4	.4	.4	.4	.3	.3	.4	.4
Services	.4	1.2	1.9	1.1	1.1	1.2	1.4	1.5	1.5	1.4	1.2	1.0	1.2	1.4	1.2
Residential investment	.3	.1	.1	.2	.4	.2	.2	.4	.4	.4	.4	.1	.2	.4	.3
Previous Tealbook	.3	.1	.1	.1	.0	.3	.4	.4	.4	.4	.3	.1	.2	.4	.3
Nonres. priv. fixed invest.	1.2	1.1	.6	-.4	.1	.3	.5	.4	.5	.5	.5	.8	.1	.5	.4
Previous Tealbook	1.2	1.1	.6	-.6	-.2	.1	.4	.4	.4	.4	.4	.8	-.1	.4	.3
Equipment & intangibles	.8	1.0	.4	.2	.4	.3	.4	.5	.4	.5	.4	.6	.3	.5	.4
Previous Tealbook	.8	1.0	.4	.2	.2	.3	.4	.4	.4	.4	.4	.6	.3	.4	.3
Nonres. structures	.4	.1	.2	-.6	-.2	-.1	.0	-.1	.0	.0	.0	.2	-.2	.0	.0
Previous Tealbook	.4	.1	.2	-.7	-.5	-.2	.0	.0	.0	.0	.0	.2	-.3	.0	.0
Net exports	-.3	.8	-1.0	-1.8	-.2	-.9	-.6	-1.2	-.7	-.9	-.2	-.6	-.9	-.8	-.2
Previous Tealbook	-.3	.8	-1.0	-.6	-.6	-.8	-.9	-.9	-.9	-.9	-.4	-.6	-.8	-.8	-.2
Exports	1.4	.6	.6	-.8	.4	.1	.3	-.3	.3	.2	.5	.3	.0	.2	.4
Imports	-1.8	.2	-1.6	-1.0	-.6	-.9	-.9	-.9	-1.0	-1.1	-.6	-.9	-.9	-.9	-.6
Gov't. cons. & invest.	.3	.8	-.4	-.1	.2	.1	.1	.1	.1	.3	.1	.1	.1	.1	.2
Previous Tealbook	.3	.8	-.4	-.4	.2	.0	.1	.1	.1	.3	.1	.1	.0	.1	.2
Federal	-.1	.7	-.5	.0	-.1	-.1	-.1	-.1	-.2	.1	-.1	.0	-.1	-.1	-.1
Previous Tealbook	-.1	.7	-.6	.0	-.1	-.1	-.1	-.1	-.2	.1	-.1	.0	-.1	-.1	-.1
Defense	.0	.0	.0	.0	.0	.0	-.1	.0	.0	.0	-.1	.0	-.1	-.1	-.1
Nondefense	-.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
State & local	.4	.1	.2	-.1	.3	.2	.2	.2	.2	.2	.2	.1	.1	.2	.2
Change in priv. inventories	1.4	.0	-.1	.4	.1	-.1	-.2	.1	-.2	-.1	-.3	.0	.0	-.1	-.3
Previous Tealbook	1.4	.0	-.1	.4	.2	-.2	-.4	-.1	-.3	.1	.2	.0	.0	.0	-.1

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

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

Item	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2014[1]	2015[1]	2016[1]	2017[1]
GDP chain-wt. price index	2.1	1.4	.1	-.1	2.5	1.1	1.2	1.9	1.7	1.7	1.6	1.2	1.2	1.7	1.8
Previous Tealbook	2.1	1.4	.1	.3	2.2	1.3	1.7	1.9	1.7	1.7	1.7	1.2	1.4	1.8	1.8
PCE chain-wt. price index	2.3	1.2	-.4	-2.0	1.9	1.4	1.2	1.6	1.6	1.6	1.6	1.1	.6	1.6	1.8
Previous Tealbook	2.3	1.2	-.4	-2.0	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.1	.6	1.6	1.8
Energy	5.2	-4.0	-26.0	-44.5	15.6	-.7	-2.8	3.2	2.3	2.1	1.6	-6.1	-11.3	2.3	1.3
Previous Tealbook	5.2	-4.0	-26.0	-45.0	3.9	3.0	4.5	3.5	2.7	2.3	2.0	-6.1	-11.4	2.6	1.6
Food	4.5	3.1	2.1	-.2	-.9	.8	1.4	1.5	1.6	1.7	1.8	2.8	.3	1.6	1.9
Previous Tealbook	4.5	3.1	2.1	-.2	-.3	1.3	1.5	1.5	1.6	1.7	1.8	2.8	.6	1.6	1.9
Ex. food & energy	2.0	1.4	1.1	.8	1.6	1.5	1.3	1.6	1.6	1.6	1.5	1.4	1.3	1.6	1.8
Previous Tealbook	2.0	1.4	1.1	.8	1.6	1.4	1.4	1.6	1.6	1.6	1.5	1.4	1.3	1.6	1.8
Ex. food & energy, market based	1.8	1.4	.7	.5	1.8	1.5	1.3	1.6	1.6	1.6	1.5	1.2	1.3	1.6	1.8
Previous Tealbook	1.8	1.4	.7	.5	1.5	1.4	1.4	1.6	1.6	1.6	1.5	1.2	1.2	1.6	1.8
CPI	2.4	1.2	-.9	-3.1	3.0	1.7	1.4	2.0	2.0	2.0	2.0	1.2	.7	2.0	2.1
Previous Tealbook	2.4	1.2	-.9	-3.1	2.0	1.9	2.0	2.1	2.0	2.0	2.0	1.2	.7	2.0	2.1
Ex. food & energy	2.2	1.4	1.5	1.7	2.6	1.9	1.7	2.0	2.0	2.0	2.0	1.7	2.0	2.0	2.1
Previous Tealbook	2.2	1.4	1.5	1.7	2.2	1.8	1.9	2.0	2.0	2.0	2.0	1.7	1.9	2.0	2.1
ECI, hourly compensation[2]	3.4	2.7	2.0	3.0	2.5	2.6	2.6	2.9	2.9	2.9	2.9	2.3	2.7	2.9	2.9
Previous Tealbook[2]	3.4	2.7	2.3	2.6	2.6	2.6	2.6	2.9	2.9	2.9	2.9	2.3	2.6	2.9	3.0
Business sector															
Output per hour	2.9	3.3	-2.3	-2.8	2.3	2.2	2.9	2.0	2.0	1.9	1.8	-.4	1.1	1.9	1.9
Previous Tealbook	2.9	3.3	-2.4	-1.8	2.8	2.7	2.3	1.9	1.8	1.8	1.8	-.4	1.4	1.8	1.8
Compensation per hour	-1.0	2.1	3.1	3.1	2.7	2.9	3.4	3.5	3.3	3.4	3.4	2.6	3.0	3.4	3.4
Previous Tealbook	-1.1	2.1	1.6	3.2	3.0	3.0	3.0	3.4	3.4	3.4	3.4	2.3	3.0	3.4	3.5
Unit labor costs	-3.9	-1.2	5.5	6.1	.4	.7	.5	1.5	1.3	1.4	1.5	3.0	1.9	1.4	1.4
Previous Tealbook	-3.9	-1.2	4.0	5.1	.2	.3	.7	1.5	1.5	1.6	1.6	2.7	1.6	1.5	1.7
Core goods imports chain-wt. price index[3]	.2	.5	-.8	-4.3	-4.0	-.6	-.2	.5	1.0	1.2	1.2	.6	-2.3	1.0	1.5
Previous Tealbook[3]	.2	.5	-.8	-4.0	-4.0	-.8	-.1	.4	.9	1.2	1.2	.6	-2.3	.9	1.6

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

Greensheets

Class II FOMC - Restricted (FR)   June 10, 2015

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	1.9	.4	1.8	1.9	1.8	1.4	1.2	1.2	1.7	1.8
Previous Tealbook	1.9	.4	1.8	1.9	1.8	1.4	1.2	1.4	1.8	1.8
PCE chain-wt. price index	1.5	1.2	1.3	2.7	1.6	1.0	1.1	.6	1.6	1.8
Previous Tealbook	1.5	1.2	1.3	2.7	1.6	1.0	1.1	.6	1.6	1.8
Energy	-8.2	2.3	6.4	12.0	2.1	-2.6	-6.1	-11.3	2.3	1.3
Previous Tealbook	-8.2	2.3	6.4	12.0	2.1	-2.6	-6.1	-11.4	2.6	1.6
Food	6.9	-1.8	1.3	5.1	1.2	.7	2.8	.3	1.6	1.9
Previous Tealbook	6.9	-1.8	1.3	5.1	1.2	.7	2.8	.6	1.6	1.9
Ex. food & energy	1.6	1.4	1.0	1.9	1.6	1.3	1.4	1.3	1.6	1.8
Previous Tealbook	1.6	1.4	1.0	1.9	1.6	1.3	1.4	1.3	1.6	1.8
Ex. food & energy, market based	2.2	1.8	.7	1.9	1.5	1.2	1.2	1.3	1.6	1.8
Previous Tealbook	2.2	1.8	.7	1.9	1.5	1.2	1.2	1.2	1.6	1.8
CPI	1.6	1.5	1.2	3.3	1.9	1.2	1.2	.7	2.0	2.1
Previous Tealbook	1.6	1.5	1.2	3.3	1.9	1.2	1.2	.7	2.0	2.1
Ex. food & energy	2.0	1.8	.6	2.2	1.9	1.7	1.7	2.0	2.0	2.1
Previous Tealbook	2.0	1.8	.6	2.2	1.9	1.7	1.7	1.9	2.0	2.1
ECI, hourly compensation[1]	2.4	1.2	2.1	2.2	1.8	2.0	2.3	2.7	2.9	2.9
Previous Tealbook[1]	2.4	1.2	2.1	2.2	1.8	2.0	2.3	2.6	2.9	3.0
Business sector										
Output per hour	-.2	5.6	1.7	.0	.2	2.3	-.4	1.1	1.9	1.9
Previous Tealbook	-.2	5.6	1.7	.0	.2	2.3	-.4	1.4	1.8	1.8
Compensation per hour	2.9	1.3	1.2	.6	5.6	-.1	2.6	3.0	3.4	3.4
Previous Tealbook	2.9	1.3	1.2	.6	5.6	-.1	2.3	3.0	3.4	3.5
Unit labor costs	3.2	-4.2	-.4	.6	5.4	-2.3	3.0	1.9	1.4	1.4
Previous Tealbook	3.2	-4.2	-.4	.6	5.4	-2.3	2.7	1.6	1.5	1.7
Core goods imports chain-wt. price index[2]	3.9	-1.9	2.3	4.3	.2	-1.0	.6	-2.3	1.0	1.5
Previous Tealbook[2]	3.9	-1.9	2.3	4.3	.2	-1.0	.6	-2.3	.9	1.6

1. Private-industry workers.
2. Core goods imports exclude computers, semiconductors, oil, and natural gas.

Class II FOMC - Restricted (FR)   June 10, 2015

Other Macroeconomic Indicators

Item	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2014[1]	2015[1]	2016[1]	2017[1]
Employment and production															
Nonfarm payroll employment[2]	.8	.7	.9	.8	.6	.7	.6	.6	.6	.5	.5	2.9	2.7	2.2	1.7
Unemployment rate[3]	6.2	6.1	5.7	5.6	5.5	5.4	5.3	5.3	5.3	5.3	5.2	5.7	5.3	5.2	5.2
Previous Tealbook[3]	6.2	6.1	5.7	5.6	5.4	5.3	5.3	5.3	5.2	5.2	5.2	5.7	5.3	5.2	5.1
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	5.2	5.2
Previous Tealbook[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	5.2	5.2
Employment-to-Population Ratio[3]	58.9	59.0	59.2	59.3	59.4	59.4	59.4	59.3	59.3	59.3	59.3	59.2	59.4	59.3	59.2
Employment-to-Population Trend[3]	60.2	60.1	60.0	60.0	59.9	59.8	59.7	59.7	59.6	59.5	59.4	60.0	59.7	59.4	59.1
GDP gap[4]	-2.3	-1.3	-1.0	-1.5	-1.3	-1.2	-1.0	-.9	-.7	-.5	-.4	-1.0	-1.0	-.4	.1
Previous Tealbook[4]	-2.3	-1.3	-1.0	-1.3	-1.2	-1.0	-.8	-.6	-.5	-.3	-.1	-1.0	-.8	-.1	.3
Industrial production[5]	5.7	4.1	4.6	-.7	-1.8	1.3	-.5	1.2	2.6	1.8	1.7	4.6	-.4	1.8	1.9
Previous Tealbook[5]	5.7	4.1	4.6	-1.0	-.8	.7	.6	2.4	2.9	2.0	1.5	4.6	-.1	2.2	1.5
Manufacturing industr. prod.[5]	7.0	4.4	3.8	-1.0	.1	1.3	1.1	1.2	2.4	2.1	2.0	4.1	.4	1.9	1.7
Previous Tealbook[5]	7.0	4.4	3.8	-1.2	1.8	1.9	2.0	2.3	2.6	2.1	1.8	4.1	1.1	2.2	1.5
Capacity utilization rate - mfg.[3]	77.1	77.5	77.8	77.3	77.0	76.9	76.8	76.7	76.9	76.9	76.9	77.8	76.8	76.9	76.8
Previous Tealbook[3]	77.1	77.5	77.8	77.2	77.3	77.3	77.4	77.5	77.6	77.7	77.7	77.8	77.4	77.7	77.4
Housing starts[6]	1.0	1.0	1.1	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.0	1.1	1.3	1.5
Light motor vehicle sales[6]	16.5	16.7	16.7	16.6	17.0	16.9	16.8	16.8	16.8	16.8	16.8	16.4	16.8	16.8	16.7
Income and saving															
Nominal GDP[5]	6.8	6.4	2.4	-.6	5.0	3.0	3.6	4.2	4.1	4.2	4.0	3.7	2.7	4.1	4.1
Real disposable pers. income[5]	3.1	2.4	4.1	5.4	2.3	2.1	2.0	3.6	2.4	2.5	2.6	3.3	2.9	2.8	2.5
Previous Tealbook[5]	3.1	2.4	3.6	6.5	2.0	2.1	2.2	3.4	2.5	2.6	2.8	3.1	3.2	2.8	2.5
Personal saving rate[3]	5.1	4.8	4.7	5.5	5.3	5.0	4.6	4.7	4.4	4.2	4.2	4.7	4.6	4.2	4.0
Previous Tealbook[3]	5.1	4.8	4.6	5.6	5.1	4.6	4.2	4.1	3.9	3.8	3.8	4.6	4.2	3.8	3.8
Corporate profits[7]	38.3	12.8	-5.5	-23.0	17.1	-5.2	-1.5	-3.7	1.8	1.9	6.3	-.2	-4.2	1.5	.5
Profit share of GNP[3]	12.0	12.2	12.0	11.2	11.6	11.3	11.2	11.0	10.9	10.8	10.9	12.0	11.2	10.9	10.5
Gross national saving rate[3]	17.9	18.1	18.2	18.4	18.0	17.6	17.5	17.2	17.3	17.1	17.2	18.2	17.5	17.2	17.0
Net national saving rate[3]	2.9	3.1	3.2	3.4	3.0	2.5	2.4	2.0	2.1	1.8	1.9	3.2	2.4	1.9	1.5

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.

Greensheets

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
Employment and production										
Nonfarm payroll employment[1]	-2.8	-5.6	.8	2.0	2.2	2.5	2.9	2.7	2.2	1.7
Unemployment rate[2]	6.9	9.9	9.5	8.7	7.8	7.0	5.7	5.3	5.2	5.2
Previous Tealbook[2]	6.9	9.9	9.5	8.7	7.8	7.0	5.7	5.3	5.2	5.1
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
Previous Tealbook[2]	5.6	6.2	6.2	6.0	5.8	5.4	5.2	5.2	5.2	5.2
Employment-to-Population Ratio[2]	61.4	58.4	58.3	58.5	58.7	58.5	59.2	59.4	59.3	59.2
Employment-to-Population Trend[2]	62.0	61.3	60.9	60.6	60.3	60.2	60.0	59.7	59.4	59.1
GDP gap[3]	-3.8	-5.5	-4.4	-4.2	-4.1	-2.8	-1.0	-1.0	-.4	.1
Previous Tealbook[3]	-3.8	-5.5	-4.4	-4.2	-4.1	-2.8	-1.0	-.8	-.1	.3
Industrial production[4]	-8.9	-5.5	6.2	3.2	3.2	3.3	4.6	-.4	1.8	1.9
Previous Tealbook[4]	-8.9	-5.5	6.2	3.2	3.2	3.3	4.6	-.1	2.2	1.5
Manufacturing industr. prod.[4]	-11.6	-6.1	6.4	3.1	3.5	2.9	4.1	.4	1.9	1.7
Previous Tealbook[4]	-11.6	-6.1	6.4	3.1	3.5	2.9	4.1	1.1	2.2	1.5
Capacity utilization rate - mfg.[2]	70.0	67.1	72.7	74.6	75.5	76.4	77.8	76.8	76.9	76.8
Previous Tealbook[2]	70.0	67.1	72.7	74.6	75.5	76.4	77.8	77.4	77.7	77.4
Housing starts[5]	.9	.6	.6	.6	.8	.9	1.0	1.1	1.3	1.5
Light motor vehicle sales[5]	13.1	10.4	11.5	12.7	14.4	15.5	16.4	16.8	16.8	16.7
Income and saving										
Nominal GDP[4]	-.9	.1	4.6	3.6	3.5	4.6	3.7	2.7	4.1	4.1
Real disposable pers. income[4]	1.1	-.7	2.6	1.7	5.0	-1.9	3.3	2.9	2.8	2.5
Previous Tealbook[4]	1.1	-.7	2.6	1.7	5.0	-1.9	3.1	3.2	2.8	2.5
Personal saving rate[2]	6.1	5.6	5.5	5.8	8.6	4.4	4.7	4.6	4.2	4.0
Previous Tealbook[2]	6.1	5.6	5.5	5.8	8.6	4.4	4.6	4.2	3.8	3.8
Corporate profits[6]	-30.8	53.7	18.0	6.8	3.8	4.7	-.2	-4.2	1.5	.5
Profit share of GNP[2]	6.9	10.6	12.0	12.3	12.4	12.4	12.0	11.2	10.9	10.5
Gross national saving rate[2]	14.9	14.6	15.2	16.1	17.8	17.9	18.2	17.5	17.2	17.0
Net national saving rate[2]	-1.6	-1.7	-.4	.8	2.8	3.0	3.2	2.4	1.9	1.5

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.

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	Q1a	Q2a	Q3a	Q4a	Q1a	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget					Not seasonally adjusted											
Receipts	3,021	3,257	3,419	3,550	656	938	760	739	680	1,025	812	753	719	1,082	865	803
Outlays	3,504	3,697	3,863	4,020	897	890	877	916	943	945	894	991	949	951	971	969
Surplus/deficit	-482	-441	-444	-470	-241	47	-117	-177	-263	81	-82	-239	-230	130	-106	-166
Previous Tealbook	*-482*	*-453*	*-472*	*-491*	*-241*	*47*	*-117*	*-177*	*-263*	*76*	*-90*	*-249*	*-235*	*124*	*-112*	*-173*
Means of financing:																
Borrowing	798	327	551	589	262	-46	211	240	67	-37	57	249	252	-80	129	193
Cash decrease	-70	-52	13	1	20	3	-19	-65	123	-131	20	19	8	-21	7	3
Other[1]	-245	166	-120	-120	-42	-4	-74	1	73	87	5	-30	-30	-30	-30	-30
Cash operating balance, end of period	158	211	197	196	142	139	158	223	100	231	211	191	183	204	197	194
NIPA federal sector					Seasonally adjusted annual rates											
Receipts	3,267	3,430	3,574	3,715	3,243	3,277	3,342	3,349	3,401	3,469	3,500	3,532	3,544	3,587	3,632	3,680
Expenditures	3,844	3,977	4,150	4,356	3,803	3,875	3,953	3,901	3,907	4,030	4,068	4,061	4,158	4,161	4,219	4,274
Consumption expenditures	963	961	966	981	957	956	988	961	963	961	960	960	968	966	971	970
Defense	617	612	612	617	610	610	641	614	613	612	610	610	614	611	613	611
Nondefense	346	349	354	364	347	345	347	347	350	350	350	350	355	356	357	359
Other spending	2,882	3,015	3,184	3,376	2,846	2,920	2,965	2,940	2,944	3,069	3,108	3,102	3,190	3,195	3,249	3,304
Current account surplus	-577	-547	-576	-641	-560	-599	-611	-552	-506	-562	-568	-529	-613	-575	-587	-594
Gross investment	256	254	249	248	251	255	254	256	254	253	252	251	250	248	249	248
Gross saving less gross investment[2]	-561	-522	-541	-598	-539	-580	-589	-532	-482	-535	-539	-498	-580	-537	-550	-553
Fiscal indicators																
High-employment (HEB) surplus/deficit[3]	-404.2	-452.1	-494.3	-587.6	-342.8	-427.0	-488.7	-457.3	-403.9	-469.9	-477.3	-439.1	-526.3	-493.6	-518.1	-532.2
Change in HEB, percent of potential GDP	-1.0	.2	.2	.4	-.1	.5	.3	-.2	-.3	.3	.0	-.2	.4	-.2	.1	.1
Fiscal impetus (FI), percent of GDP[4]	-.1	.2	.3	.3	-.6	.0	.7	-.4	-.1	.4	.3	.3	.2	.2	.4	.2
Previous Tealbook	*-.1*	*.2*	*.3*	*.3*	*-.6*	*.0*	*.7*	*-.4*	*-.4*	*.4*	*.3*	*.3*	*.1*	*.2*	*.4*	*.2*
Federal purchases	.0	-.1	-.1	-.1	.0	-.1	.1	-.5	.0	-.1	-.1	-.1	-.1	-.2	.1	-.1
State and local purchases	.1	.1	.2	.2	-.1	.4	.1	.2	-.1	.3	.2	.2	.2	.2	.2	.2
Taxes and transfers	-.2	.2	.1	.1	-.5	-.3	-.1	-.1	.0	.2	.2	.2	.1	.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)

	2014				2015				2016 (Projected)			
Measure and country	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP[1]												
Total foreign	2.1	2.3	2.8	2.4	1.6	2.2	2.7	2.9	3.0	3.0	3.1	3.1
Previous Tealbook	*2.0*	*2.4*	*2.6*	*2.7*	*1.8*	*2.4*	*2.8*	*3.0*	*3.0*	*3.0*	*3.1*	*3.1*
Advanced foreign economies	1.7	1.3	1.7	1.9	.9	1.6	1.8	2.1	2.2	2.2	2.2	2.1
Canada	1.0	3.4	3.2	2.2	-.6	1.4	1.9	2.4	2.5	2.5	2.4	2.2
Japan	4.4	-6.8	-2.0	1.2	3.9	1.5	1.6	1.5	1.5	1.4	1.3	1.4
United Kingdom	3.6	3.4	2.5	2.5	1.2	2.4	2.5	2.5	2.4	2.4	2.4	2.4
Euro area	.9	.4	.7	1.4	1.5	1.6	1.7	1.8	1.8	1.9	2.0	2.0
Germany	3.1	-.3	.3	2.8	1.1	1.7	1.7	1.8	1.9	1.9	2.1	2.1
Emerging market economies	2.5	3.3	3.9	3.0	2.2	2.8	3.5	3.6	3.7	3.7	3.9	4.0
Asia	4.4	4.9	6.2	4.0	4.1	4.7	5.4	5.3	5.2	5.2	5.2	5.2
Korea	4.4	2.0	3.2	1.1	3.3	3.3	3.9	4.0	4.0	4.0	4.1	4.1
China	6.4	7.6	8.1	7.0	5.1	6.1	7.5	7.0	6.6	6.6	6.6	6.6
Latin America	.8	2.1	2.1	1.9	.9	1.2	2.1	2.3	2.5	2.6	2.9	2.9
Mexico	2.0	3.7	2.1	2.7	1.6	2.6	3.1	3.1	3.1	3.1	3.2	3.2
Brazil	2.9	-5.5	.6	1.1	-.6	-3.2	-.8	.8	1.6	1.7	1.8	2.0
Consumer prices[2]												
Total foreign	2.0	3.0	2.0	1.1	-.1	2.1	2.2	2.4	2.4	2.4	2.5	2.5
Previous Tealbook	*2.0*	*3.0*	*2.0*	*1.1*	*-.1*	*2.0*	*2.2*	*2.4*	*2.4*	*2.4*	*2.5*	*2.5*
Advanced foreign economies	1.4	3.1	.8	-.4	-.8	1.4	1.3	1.4	1.5	1.5	1.6	1.6
Canada	3.2	3.3	1.2	.0	-.2	1.8	1.7	1.8	1.8	1.8	1.9	1.9
Japan	.7	9.3	1.2	-.6	-.3	.5	.7	.8	.9	1.0	1.1	1.2
United Kingdom	1.5	1.6	1.2	-.7	-1.6	.9	1.6	1.8	1.8	1.7	1.8	1.8
Euro area	.4	.4	.4	-.6	-1.5	1.9	1.3	1.5	1.6	1.6	1.6	1.6
Germany	.4	.3	1.5	-.5	-1.7	2.2	1.6	1.6	1.7	1.7	1.7	1.8
Emerging market economies	2.5	2.9	2.9	2.3	.5	2.6	3.0	3.1	3.1	3.1	3.1	3.1
Asia	1.4	2.4	2.1	1.2	-.3	2.0	2.5	2.7	2.8	2.8	2.8	2.8
Korea	1.4	2.2	.6	-.2	-.3	1.9	2.6	2.9	3.1	3.2	3.2	3.2
China	.8	2.0	2.2	1.0	-.4	1.6	2.2	2.5	2.5	2.5	2.5	2.5
Latin America	5.3	4.3	4.9	4.8	1.7	3.7	4.0	3.9	3.9	3.9	3.9	3.8
Mexico	4.8	3.3	4.4	4.2	.3	2.6	3.3	3.3	3.1	3.3	3.3	3.3
Brazil	6.5	7.4	6.2	6.0	11.1	9.3	6.2	5.7	5.7	5.7	5.7	5.6

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

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

Measure and country	2009	2010	2011	2012	2013	2014	2015	2016	2017
								Projected	
Real GDP[1]									
Total foreign	.9	4.8	3.2	2.3	2.6	2.4	2.3	3.0	2.9
Previous Tealbook	*.9*	*4.7*	*3.2*	*2.3*	*2.6*	*2.4*	*2.5*	*3.1*	*2.9*
Advanced foreign economies	-1.5	3.1	1.8	.3	1.9	1.6	1.6	2.2	1.9
Canada	-1.4	3.6	3.0	1.0	2.7	2.5	1.3	2.4	2.0
Japan	-.6	3.6	.3	.0	2.3	-.9	2.1	1.4	-.2
United Kingdom	-1.5	2.2	1.5	.4	2.4	3.0	2.2	2.4	2.3
Euro area	-2.4	2.3	.6	-.9	.5	.9	1.6	1.9	2.2
Germany	-3.0	4.4	2.4	.1	1.1	1.5	1.6	2.0	2.2
Emerging market economies	3.7	6.7	4.6	4.3	3.3	3.2	3.0	3.8	3.9
Asia	7.5	8.4	4.9	5.7	5.2	4.9	4.9	5.2	5.0
Korea	4.9	6.1	2.9	2.1	3.4	2.7	3.6	4.0	3.8
China	11.4	9.7	8.7	7.8	7.5	7.3	6.4	6.6	6.5
Latin America	.0	4.7	4.2	3.4	1.5	1.7	1.6	2.7	3.0
Mexico	-1.2	4.4	4.2	3.4	1.0	2.6	2.6	3.1	3.2
Brazil	5.2	5.8	2.5	2.3	2.1	-.3	-1.0	1.8	2.3
Consumer prices[2]									
Total foreign	1.2	3.2	3.4	2.3	2.3	2.0	1.6	2.4	2.6
Previous Tealbook	*1.2*	*3.2*	*3.4*	*2.3*	*2.4*	*2.0*	*1.6*	*2.4*	*2.6*
Advanced foreign economies	.2	1.7	2.2	1.3	1.0	1.2	.8	1.6	2.0
Canada	.8	2.2	2.7	1.0	1.0	1.9	1.3	1.8	2.0
Japan	-2.0	-.3	-.3	-.2	1.4	2.5	.4	1.0	2.6
United Kingdom	2.2	3.4	4.6	2.6	2.1	.9	.7	1.8	1.9
Euro area	.4	2.0	2.9	2.3	.8	.2	.8	1.6	1.7
Germany	.3	1.6	2.6	2.0	1.3	.4	.9	1.7	1.8
Emerging market economies	2.0	4.3	4.3	3.1	3.4	2.7	2.3	3.1	3.1
Asia	1.2	4.3	4.5	2.6	3.1	1.8	1.7	2.8	2.8
Korea	2.4	3.2	3.9	1.7	1.1	1.0	1.8	3.2	3.2
China	.6	4.6	4.6	2.1	2.9	1.5	1.5	2.5	2.5
Latin America	3.9	4.4	4.0	4.3	4.0	4.8	3.3	3.9	3.7
Mexico	4.0	4.3	3.5	4.1	3.7	4.2	2.4	3.3	3.3
Brazil	4.3	5.6	6.7	5.6	5.9	6.5	8.1	5.6	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.

Greensheets

Greensheets

U.S. Current Account

Quarterly Data

Billions of dollars, s.a.a.r.

	2014				2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
U.S. current account balance	**-411.5**	**-383.1**	**-403.4**	**-459.0**	**-499.4**	**-496.2**	**-535.4**	**-561.7**	**-628.4**	**-630.0**	**-676.9**	**-697.8**
Previous Tealbook	*-403.9*	*-389.1*	*-395.7*	*-453.8*	*-472.1*	*-462.5*	*-499.9*	*-537.0*	*-596.4*	*-607.1*	*-657.3*	*-685.4*
Current account as percent of GDP	-2.4	-2.2	-2.3	-2.6	-2.8	-2.8	-3.0	-3.1	-3.4	-3.4	-3.6	-3.7
Previous Tealbook	*-2.4*	*-2.2*	*-2.2*	*-2.6*	*-2.7*	*-2.6*	*-2.8*	*-2.9*	*-3.2*	*-3.3*	*-3.5*	*-3.6*
Net goods & services	-501.7	-514.8	-503.5	-513.3	-521.0	-496.1	-541.1	-573.1	-626.9	-649.4	-692.1	-710.1
Investment income, net	218.6	228.8	248.5	211.8	175.7	147.7	156.1	159.4	164.9	167.3	165.7	160.3
Direct, net	293.2	293.1	314.9	281.1	258.7	240.3	254.1	266.4	281.8	295.2	307.7	318.0
Portfolio, net	-74.6	-64.3	-66.5	-69.3	-83.0	-92.5	-97.9	-107.0	-116.8	-127.9	-142.0	-157.7
Other income and transfers, net	-128.4	-97.0	-148.4	-157.5	-154.1	-147.8	-150.4	-148.0	-166.5	-147.8	-150.4	-148.0

Annual Data

Billions of dollars

	2009	2010	2011	2012	2013	2014	2015	2016	2017
U.S. current account balance	**-380.8**	**-443.9**	**-459.3**	**-459.9**	**-402.3**	**-414.2**	**-523.2**	**-658.3**	**-747.6**
Previous Tealbook	*-380.8*	*-443.9*	*-459.3*	*-460.8*	*-400.3*	*-410.6*	*-492.9*	*-636.6*	*-739.3*
Current account as percent of GDP	-2.6	-3.0	-3.0	-2.8	-2.4	-2.4	-2.9	-3.5	-3.8
Previous Tealbook	*-2.6*	*-3.0*	*-3.0*	*-2.9*	*-2.4*	*-2.4*	*-2.7*	*-3.4*	*-3.8*
Net goods & services	-383.8	-494.7	-548.6	-536.8	-478.4	-508.3	-532.8	-669.6	-754.6
Investment income, net	132.3	185.7	229.0	211.4	208.5	226.9	159.7	164.5	160.2
Direct, net	257.7	288.0	298.6	281.6	290.9	295.6	254.9	300.7	365.4
Portfolio, net	-125.4	-102.3	-69.5	-70.2	-82.3	-68.7	-95.1	-136.1	-205.2
Other income and transfers, net	-129.3	-135.0	-139.8	-134.6	-132.4	-132.8	-150.1	-153.2	-153.2

(Projected columns: 2015 Q1 onward in Quarterly Data; 2015–2017 in Annual Data.)

Abbreviations

AFE	advanced foreign economy
BHC	bank holding company
BOC	Bank of Canada
BOE	Bank of England
BOJ	Bank of Japan
C&I	commercial and industrial
CMBS	commercial mortgage-backed securities
CPI	consumer price index
CRE	commercial real estate
Desk	Open Market Desk
DSGE model	dynamic stochastic general equilibrium model
ECB	European Central Bank
ECI	employment cost index
EFSF	European Financial Stability Facility
EME	emerging market economy
FOMC	Federal Open Market Committee; also, the Committee
FX	foreign exchange
GCF	General Collateral Finance
GDI	gross domestic income
GDP	gross domestic product
IMF	International Monetary Fund
JOLTS	Job Openings and Labor Turnover Survey
M&A	mergers and acquisitions
MBS	mortgage-backed securities
MERS	Middle East Respiratory Syndrome
OIS	overnight index swap
ON RRP	overnight reverse repurchase agreement
PCE	personal consumption expenditures

PMI	purchasing managers index
PRISM model	Philadelphia Research Intertemporal Stochastic Model
repo	repurchase agreement
SCOOS	Senior Credit Officer Opinion Survey on Dealer Financing Terms
SOMA	System Open Market Account
S&P	Standard & Poor's
TIPS	Treasury Inflation-Protected Securities

Report to the FOMC
on Economic Conditions
and Monetary Policy

Book B

Monetary Policy:
Strategies and Alternatives

June 11, 2015

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

	2015Q3	2015Q4
Taylor (1993) rule	**1.78**	**1.95**
Previous Tealbook	*1.85*	*2.07*
Taylor (1999) rule	**1.18**	**1.44**
Previous Tealbook	*1.36*	*1.68*
Inertial Taylor (1999) rule	**0.29**	**0.46**
Previous Tealbook outlook	*0.31*	*0.52*
First-difference rule	**0.16**	**0.26**
Previous Tealbook outlook	*0.21*	*0.31*

Memo: Equilibrium and Actual Real Federal Funds Rates

	Current Tealbook	*Previous Tealbook*
Tealbook-consistent FRB/US *r** estimate	−0.30	*−0.09*
Actual real federal funds rate	−1.18	*−1.18*

Note: The lines denoted "Previous Tealbook outlook" report rule prescriptions based on the previous Tealbook's staff outlook using the current rule specifications, which have intercept terms that have been adjusted, where applicable, to reflect the staff's downward revision to the longer-run real federal funds rate. Rules that have the lagged policy rate as a right-hand-side variable jump off from the average value of the policy rate thus far in the current quarter.

Key Elements of the Staff Projection

GDP Gap
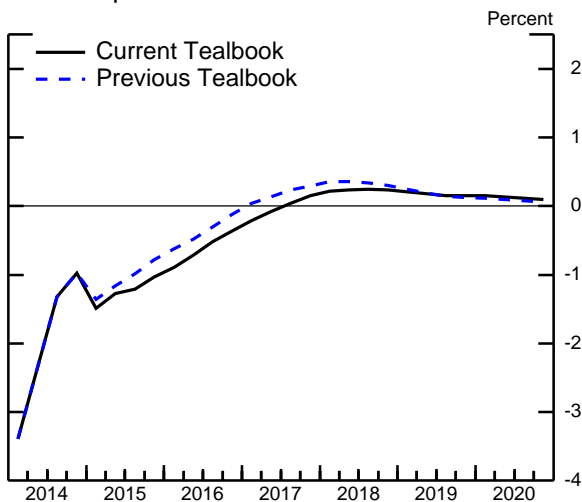
PCE Prices Excluding Food and Energy
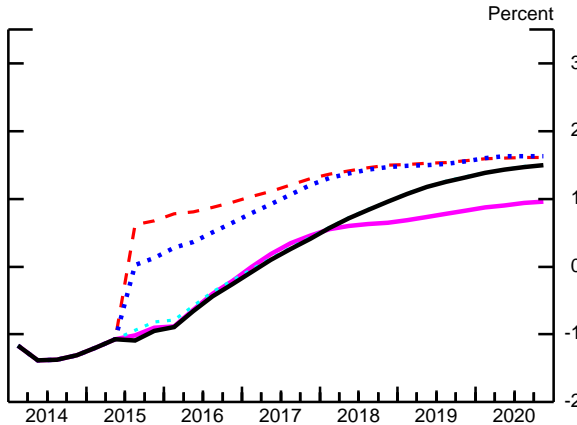Four-quarter average
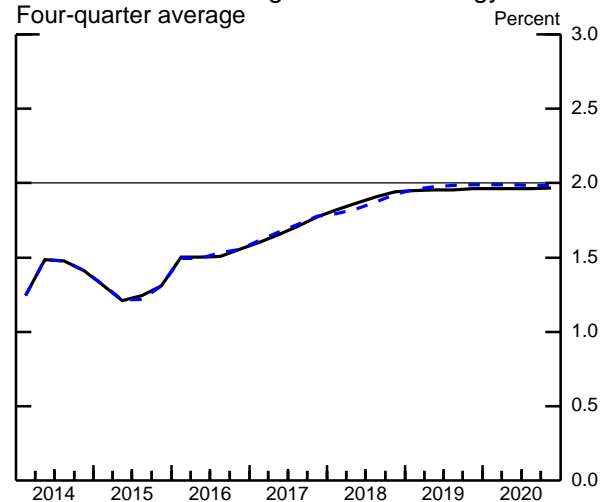
Policy Rule Simulations
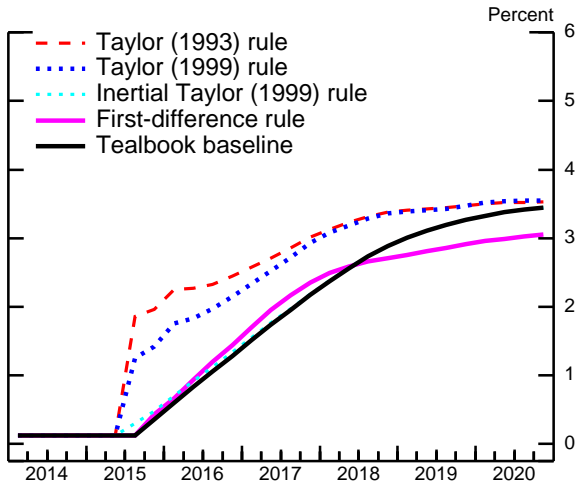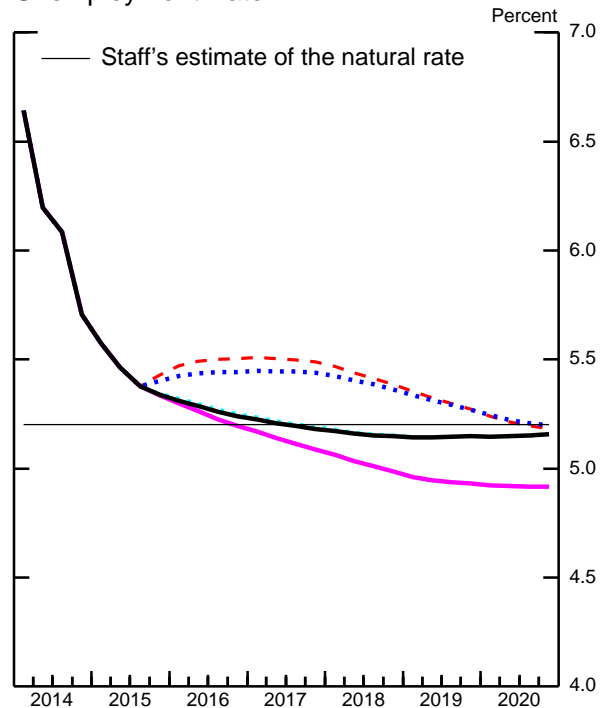
Strategies

Effective Nominal Federal Funds Rate

Percent

- - - Taylor (1993) rule
.... Taylor (1999) rule
.... Inertial Taylor (1999) rule
—— First-difference rule
—— Tealbook baseline

Real Federal Funds Rate

Percent

Real 10-year Treasury Yield

Percent

Unemployment Rate

Percent

—— Staff's estimate of the natural rate

PCE Inflation
Four-quarter average

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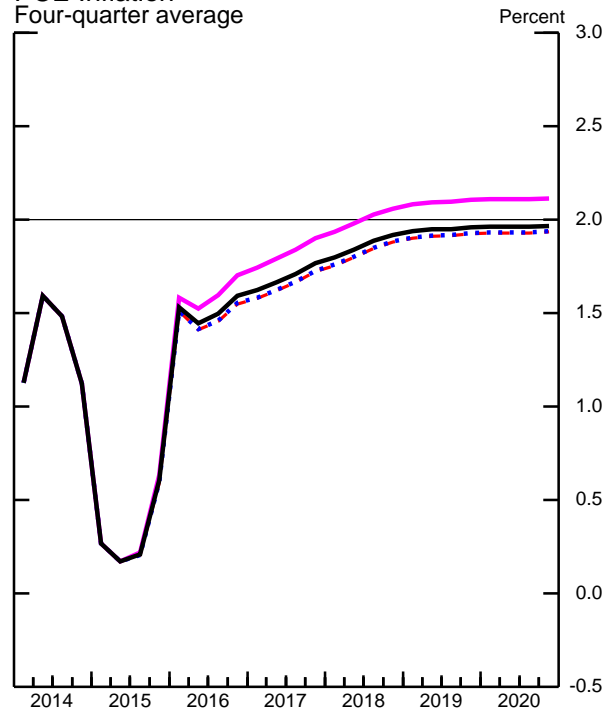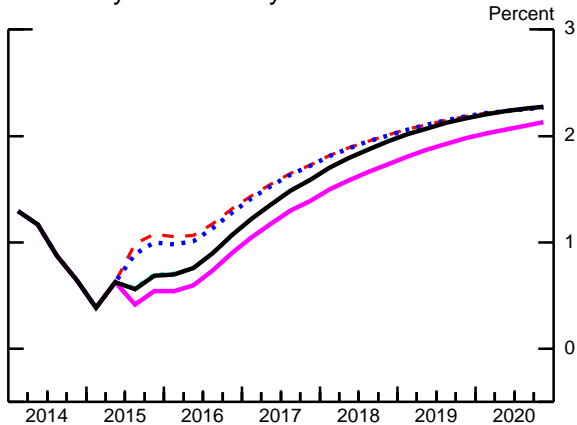
Note: The policy rule simulations in this exhibit are based on rules that respond to core inflation. This choice of rule specification was made in light of the tendency for current and near-term core inflation rates to outperform headline inflation rates as predictors of the medium-term behavior of headline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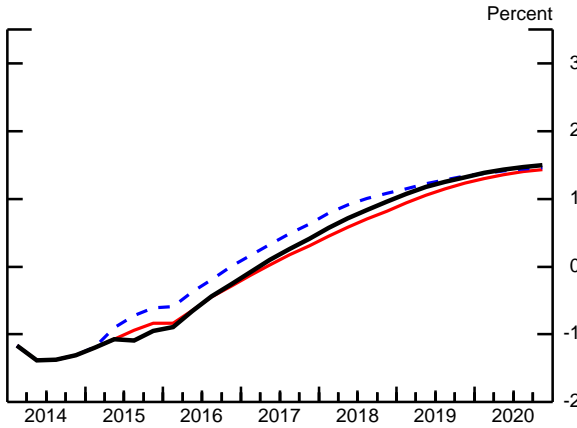
Optimal Control Policy under Commitment
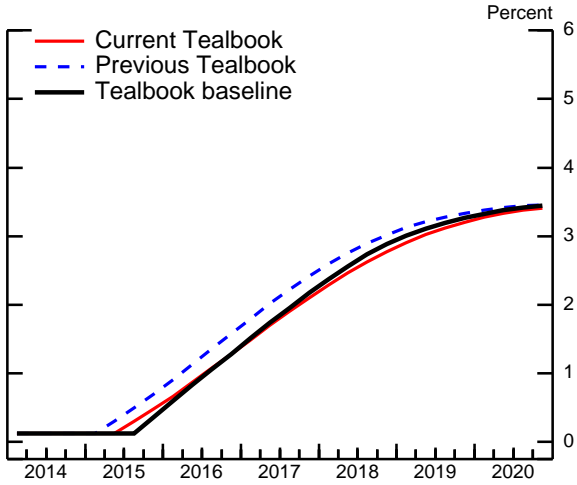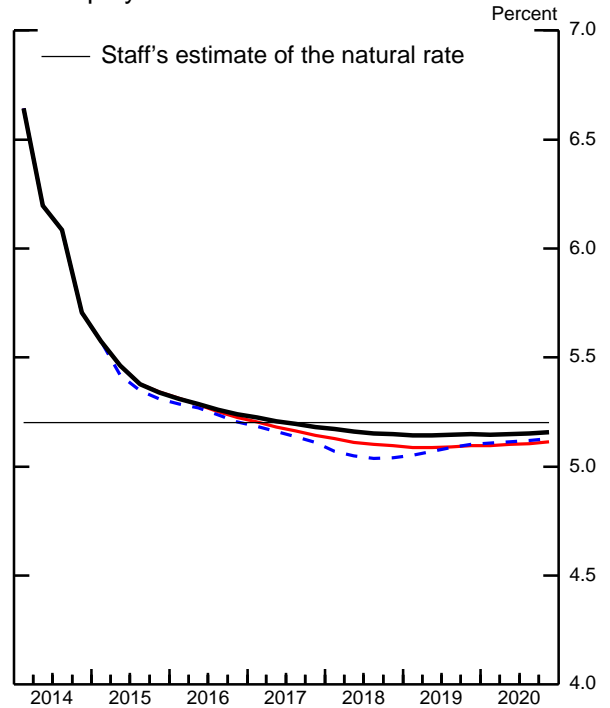
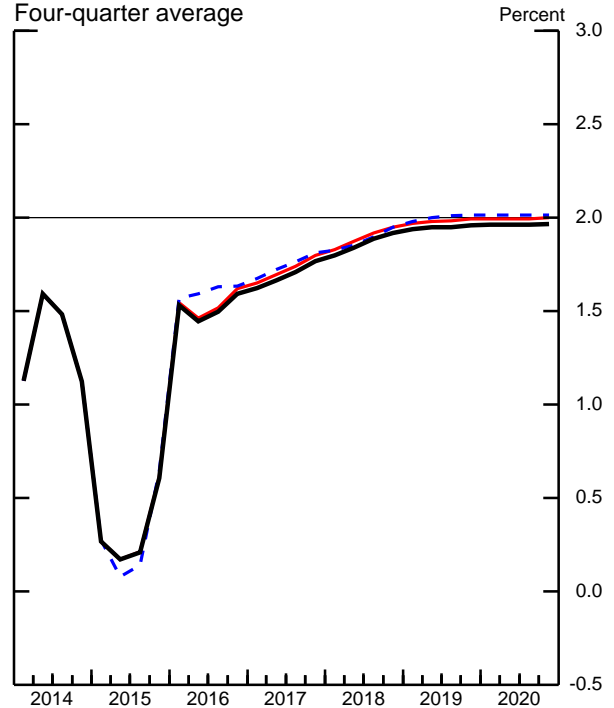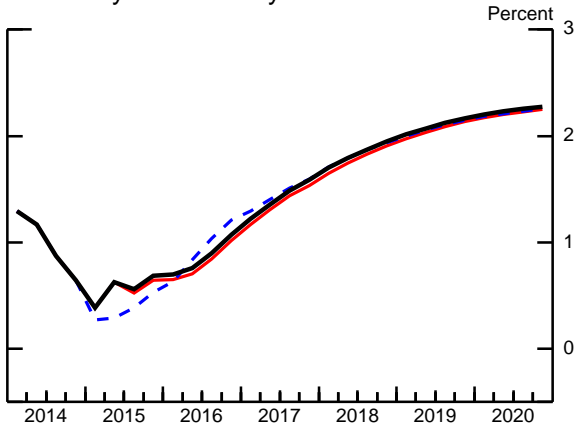**Strategies**

Effective Nominal Federal Funds Rate

Percent

- Current Tealbook
- Previous Tealbook
- Tealbook baseline

Real Federal Funds Rate

Percent

Real 10-year Treasury Yield

Percent

Unemployment Rate

Percent

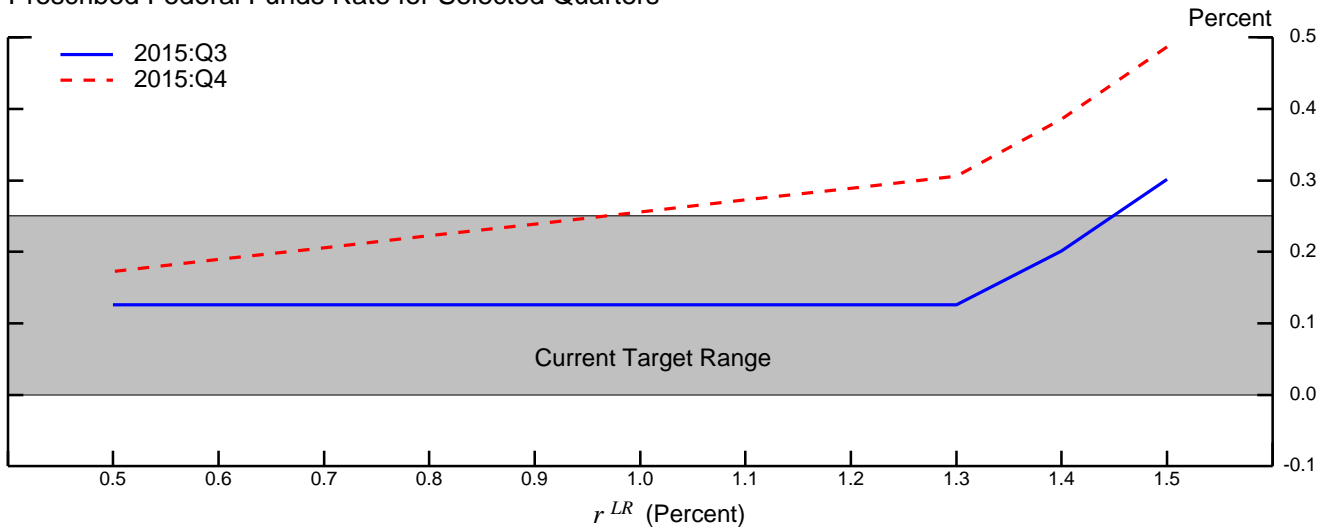— Staff's estimate of the natural rate
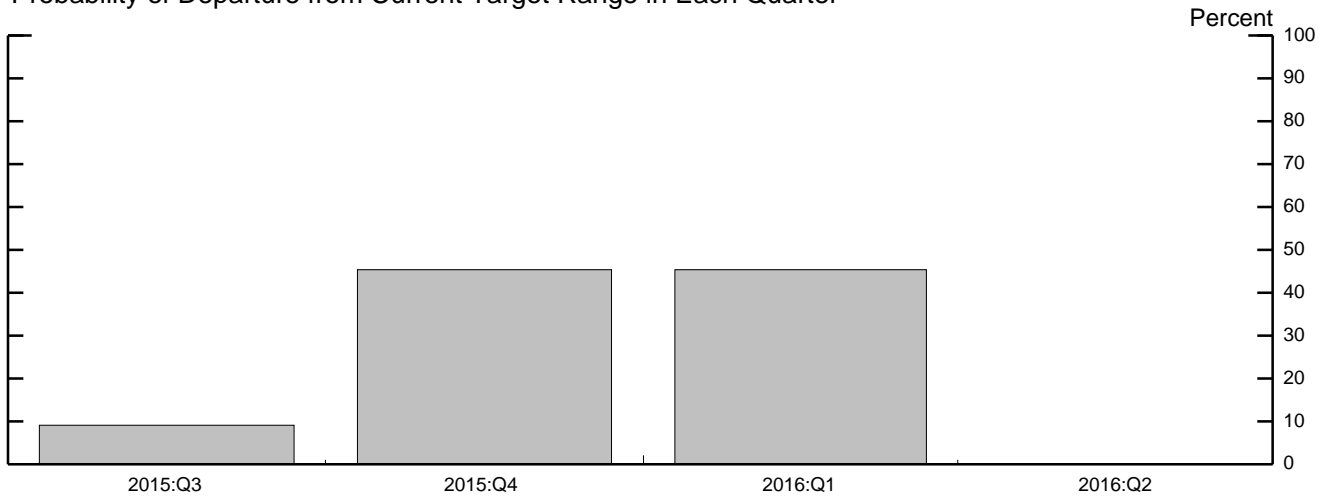
PCE Inflation
Four-quarter average

Percent

Implications of Alternative Values
of the Long-Run Real Federal Funds Rate (r^{LR})

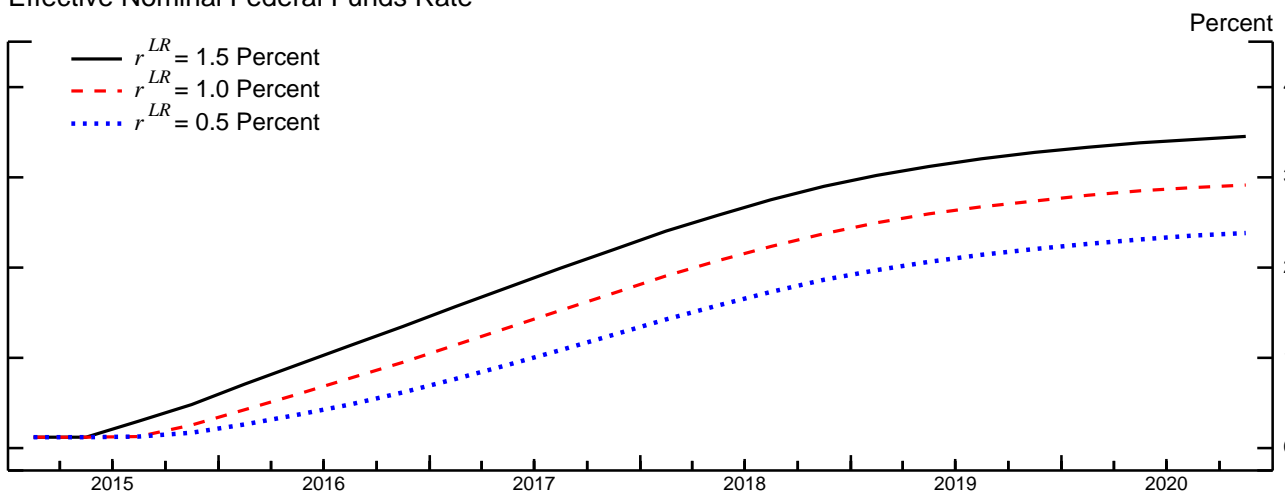Prescribed Federal Funds Rate for Selected Quarters

Percent

— 2015:Q3
- - - 2015:Q4

Current Target Range

r^{LR} (Percent)

Probability of Departure from Current Target Range in Each Quarter

Percent

2015:Q3   2015:Q4   2016:Q1   2016:Q2

Effective Nominal Federal Funds Rate

Percent

— r^{LR} = 1.5 Percent
- - - r^{LR} = 1.0 Percent
····· r^{LR} = 0.5 Percent

2015   2016   2017   2018   2019   2020

Outcomes under Alternative Policies

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

Measure and policy	2015 H1	2015 H2	2016	2017	2018	2019
Real GDP						
Extended Tealbook baseline[1]	1.0	2.1	2.4	2.2	1.9	1.7
Taylor (1993)	1.0	1.8	2.0	2.2	2.0	1.9
Taylor (1999)	1.0	1.9	2.1	2.1	2.0	1.9
Inertial Taylor (1999)	1.0	2.1	2.4	2.2	1.9	1.7
First-difference	1.0	2.1	2.5	2.3	2.0	1.8
Optimal control	1.0	2.1	2.4	2.3	1.9	1.7
Unemployment rate[2]						
Extended Tealbook baseline[1]	5.5	5.3	5.2	5.2	5.1	5.1
Taylor (1993)	5.5	5.4	5.5	5.5	5.4	5.3
Taylor (1999)	5.5	5.4	5.4	5.4	5.4	5.3
Inertial Taylor (1999)	5.5	5.3	5.3	5.2	5.2	5.1
First-difference	5.5	5.3	5.2	5.1	5.0	4.9
Optimal control	5.5	5.3	5.2	5.1	5.1	5.1
Total PCE prices						
Extended Tealbook baseline[1]	-0.1	1.3	1.6	1.8	1.9	2.0
Taylor (1993)	-0.1	1.3	1.6	1.7	1.9	1.9
Taylor (1999)	-0.1	1.3	1.6	1.7	1.9	1.9
Inertial Taylor (1999)	-0.1	1.3	1.6	1.8	1.9	2.0
First-difference	-0.1	1.3	1.7	1.9	2.1	2.1
Optimal control	-0.1	1.3	1.6	1.8	2.0	2.0
Core PCE prices						
Extended Tealbook baseline[1]	1.2	1.4	1.6	1.8	1.9	2.0
Taylor (1993)	1.2	1.4	1.5	1.7	1.9	1.9
Taylor (1999)	1.2	1.4	1.5	1.7	1.9	1.9
Inertial Taylor (1999)	1.2	1.4	1.6	1.8	1.9	2.0
First-difference	1.2	1.5	1.7	1.9	2.1	2.1
Optimal control	1.2	1.5	1.6	1.8	2.0	2.0
Effective nominal federal funds rate[2]						
Extended Tealbook baseline[1]	0.1	0.4	1.3	2.2	2.9	3.3
Taylor (1993)	0.1	2.0	2.5	3.0	3.4	3.5
Taylor (1999)	0.1	1.4	2.2	2.9	3.4	3.5
Inertial Taylor (1999)	0.1	0.5	1.3	2.2	2.9	3.3
First-difference	0.1	0.4	1.4	2.4	2.7	2.9
Optimal control	0.1	0.5	1.3	2.1	2.8	3.2

1. In the Tealbook baseline, the federal funds rate first departs from an effective lower bound of 12½ basis points
in September 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.

Strategies

Strategies

Outcomes under Alternative Policies, Quarterly
(Four-quarter percentage change, except as noted)

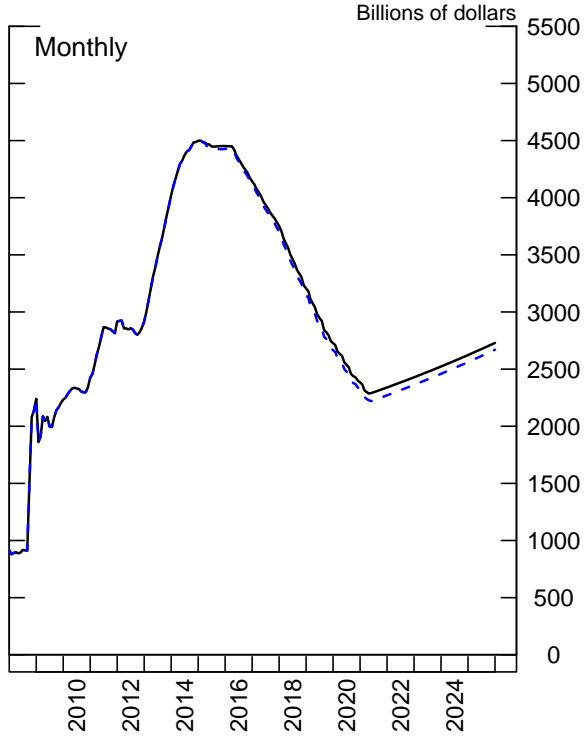| Measure and policy	2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP								
Extended Tealbook baseline[1]	2.8	2.3	1.5	1.6	2.2	2.2	2.4	2.4
Taylor (1993)	2.8	2.3	1.5	1.4	2.0	1.9	2.0	2.0
Taylor (1999)	2.8	2.3	1.5	1.5	2.1	2.0	2.1	2.1
Inertial Taylor (1999)	2.8	2.3	1.5	1.5	2.2	2.2	2.4	2.4
First-difference	2.8	2.3	1.5	1.6	2.3	2.3	2.5	2.5
Optimal control	2.8	2.3	1.5	1.6	2.3	2.3	2.4	2.4
Unemployment rate[2]								
Extended Tealbook baseline[1]	5.6	5.5	5.4	5.3	5.3	5.3	5.3	5.2
Taylor (1993)	5.6	5.5	5.4	5.4	5.5	5.5	5.5	5.5
Taylor (1999)	5.6	5.5	5.4	5.4	5.4	5.4	5.4	5.4
Inertial Taylor (1999)	5.6	5.5	5.4	5.3	5.3	5.3	5.3	5.3
First-difference	5.6	5.5	5.4	5.3	5.3	5.3	5.2	5.2
Optimal control	5.6	5.5	5.4	5.3	5.3	5.3	5.3	5.2
Total PCE prices								
Extended Tealbook baseline[1]	0.3	0.2	0.2	0.6	1.5	1.4	1.5	1.6
Taylor (1993)	0.3	0.2	0.2	0.6	1.5	1.4	1.5	1.6
Taylor (1999)	0.3	0.2	0.2	0.6	1.5	1.4	1.5	1.6
Inertial Taylor (1999)	0.3	0.2	0.2	0.6	1.5	1.4	1.5	1.6
First-difference	0.3	0.2	0.2	0.6	1.6	1.5	1.6	1.7
Optimal control	0.3	0.2	0.2	0.6	1.5	1.5	1.5	1.6
Core PCE prices								
Extended Tealbook baseline[1]	1.3	1.2	1.2	1.3	1.5	1.5	1.5	1.6
Taylor (1993)	1.3	1.2	1.2	1.3	1.5	1.5	1.5	1.5
Taylor (1999)	1.3	1.2	1.2	1.3	1.5	1.5	1.5	1.5
Inertial Taylor (1999)	1.3	1.2	1.2	1.3	1.5	1.5	1.5	1.6
First-difference	1.3	1.2	1.3	1.3	1.6	1.6	1.6	1.7
Optimal control	1.3	1.2	1.3	1.3	1.5	1.5	1.5	1.6
Effective nominal federal funds rate[2]								
Extended Tealbook baseline[1]	0.1	0.1	0.2	0.4	0.6	0.8	1.1	1.3
Taylor (1993)	0.1	0.1	1.9	2.0	2.3	2.3	2.3	2.5
Taylor (1999)	0.1	0.1	1.3	1.4	1.8	1.8	2.0	2.2
Inertial Taylor (1999)	0.1	0.1	0.3	0.5	0.7	0.9	1.1	1.3
First-difference	0.1	0.1	0.2	0.4	0.7	0.9	1.2	1.4
Optimal control	0.1	0.1	0.3	0.5	0.7	0.9	1.1	1.3

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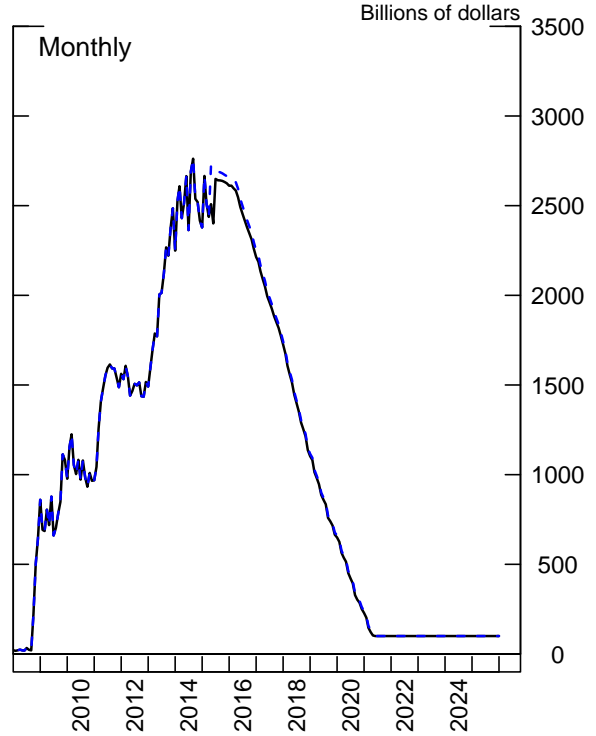
2. Percent, average for the quarter.

Total Assets and Selected Balance Sheet Items
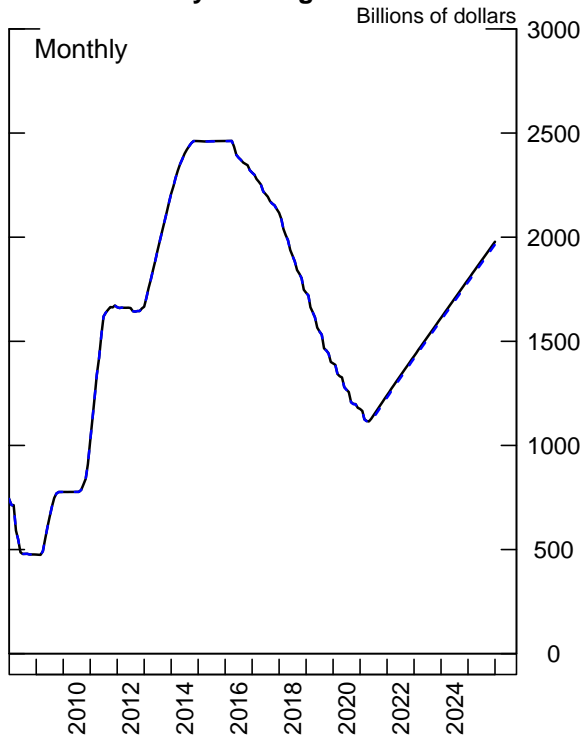
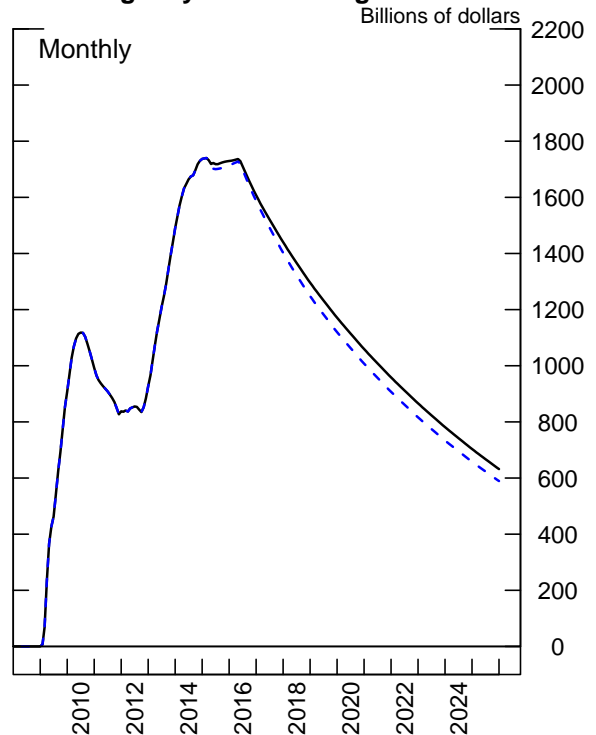——— June Tealbook — — April Tealbook

Total Assets

Billions of dollars

Monthly

Reserve Balances

Billions of dollars

Monthly

SOMA Treasury Holdings

Billions of dollars

Monthly

SOMA Agency MBS Holdings

Billions of dollars

Monthly

Projections

Federal Reserve Balance Sheet
End-of-Year Projections -- June Tealbook
(Billions of dollars)

	May 31, 2015	2015	2017	2019	2021	2023	2025
Total assets	4,465	4,452	3,752	2,727	2,339	2,523	2,729
Selected assets							
Loans and other credit extensions*	2	0	0	0	0	0	0
Securities held outright	4,219	4,224	3,562	2,567	2,202	2,396	2,612
U.S. Treasury securities	2,461	2,462	2,117	1,394	1,241	1,613	1,978
Agency debt securities	36	33	4	2	2	2	2
Agency mortgage-backed securities	1,722	1,729	1,441	1,171	959	781	632
Unamortized premiums	199	192	152	117	93	81	71
Unamortized discounts	-18	-17	-13	-10	-8	-7	-6
Total other assets	43	45	45	45	45	45	45
Total liabilities	4,407	4,392	3,681	2,636	2,224	2,377	2,545
Selected liabilities							
Federal Reserve notes in circulation	1,323	1,364	1,538	1,669	1,807	1,960	2,128
Reverse repurchase agreements	317	256	256	156	156	156	156
Deposits with Federal Reserve Banks	2,759	2,766	1,881	805	255	255	255
Reserve balances held by depository institutions	2,401	2,611	1,726	649	100	100	100
U.S. Treasury, General Account	199	150	150	150	150	150	150
Other deposits	159	5	5	5	5	5	5
Interest on Federal Reserve Notes due to U.S. Treasury	3	0	0	0	0	0	0
Total capital	58	60	72	91	115	146	184

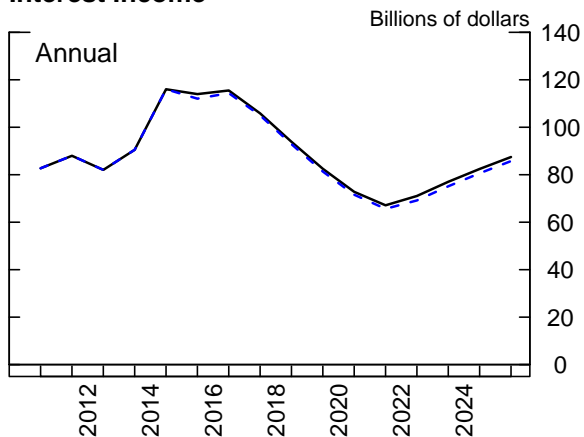Source: Federal Reserve H.4.1 statistical releases and staff calculations.
Note: Components may not sum to totals due to rounding.
*Loans and other credit extensions includes primary, secondary, and seasonal credit; central bank liquidity swaps; and net portfolio holdings of Maiden Lane LLC.
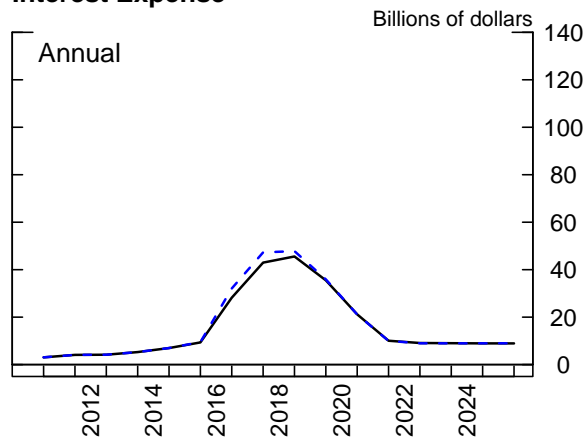
Projections
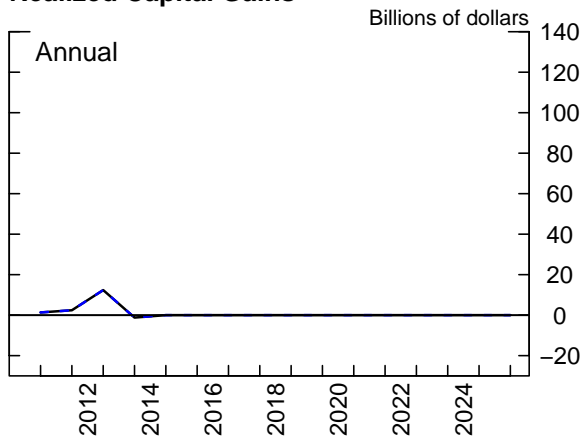
Income Projections
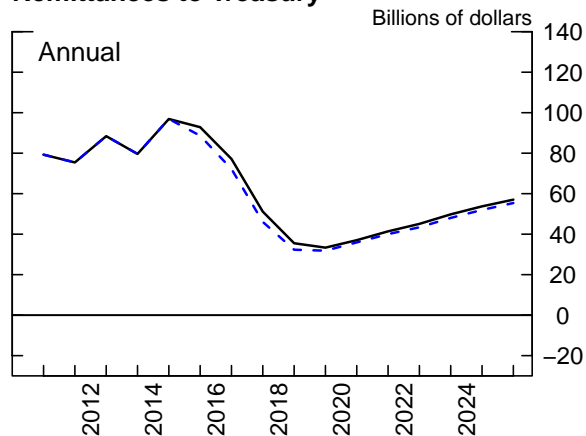
—— June Tealbook   – – April Tealbook

Interest Income

Billions of dollars

Annual

Interest Expense

Billions of dollars

Annual

Realized Capital Gains

Billions of dollars

Annual

Remittances to Treasury

Billions of dollars

Annual

Deferred Asset

Billions of dollars

End of year
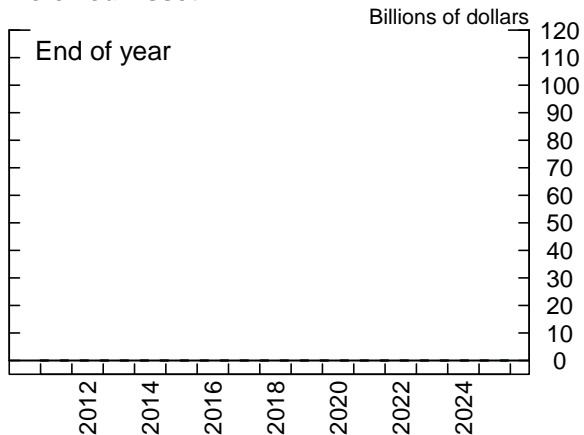
Memo: Unrealized Gains/Losses

Billions of dollars

End of year
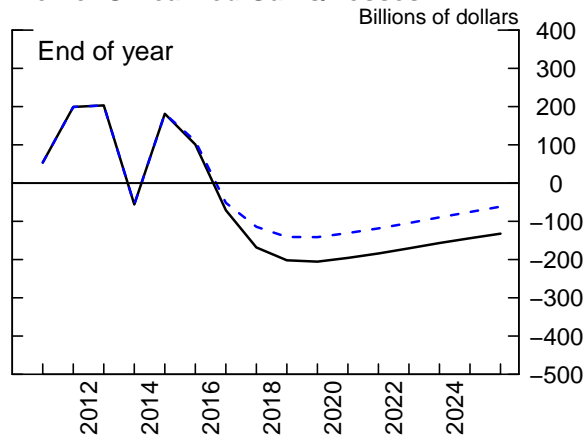
Projections

Projections for the 10-Year Treasury Term Premium Effect
(Basis Points)

Date	June Tealbook	April Tealbook
	Quarterly Averages	
2015:Q2	-112	-109
Q3	-107	-104
Q4	-102	-100
2016:Q1	-98	-95
Q2	-93	-90
Q3	-88	-86
Q4	-84	-81
2017:Q4	-69	-66
2018:Q4	-57	-55
2019:Q4	-48	-45
2020:Q4	-40	-38
2021:Q4	-35	-32
2022:Q4	-30	-28
2023:Q4	-24	-23
2024:Q4	-19	-18
2025:Q4	-14	-13

Projections

Projections for the Monetary Base
(Percent change, annual rate; not seasonally adjusted)

Date	June Tealbook	April Tealbook
Quarterly		
2015:Q2	8.4	32.6
Q3	14.4	3.3
Q4	0.2	-0.3
2016:Q1	-0.2	0.2
Q2	-5.3	-5.0
Q3	-10.5	-10.6
Q4	-9.6	-9.6
Annual		
2017	-10.2	-10.4
2018	-15.4	-15.2
2019	-14.1	-13.8
2020	-14.0	-13.5
2021	-4.4	-4.6
2022	3.5	3.5
2023	3.6	3.6
2024	3.6	3.6
2025	3.7	3.6

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

Projections

MONEY

M2 growth is expected to moderate a bit in the second quarter of 2015; thereafter, M2 is projected to contract notably through mid-2016 and then to move up slowly over the remainder of the forecast period as the projected increase in the target range for the federal funds rate and the associated rise in the opportunity cost of holding money restrains money demand. The increase in the opportunity cost is expected to hold M2 growth below that of nominal GDP in 2016 and, to a lesser extent, in 2017. There are significant uncertainties surrounding the M2 forecast. For example, it is possible that banks may respond to increases in short-term interest rates somewhat differently than in the past, in particular because of important changes to bank regulation. (See accompanying box, "Bank Regulation, Deposit Outflows, and Demand for ON RRPs.")

M2 Monetary Aggregate Projections (Percent change, annual rate; seasonally adjusted)*		
Quarterly		
2015:	Q1	7.6
	Q2	4.9
	Q3	-0.3
	Q4	-3.8
2016:	Q1	-2.9
	Q2	-0.6
	Q3	1.0
	Q4	1.4
2016:	Q1	1.6
	Q2	1.7
	Q3	1.7
	Q4	1.9
Annual		
	2015	2.1
	2016	-0.3
	2017	1.7

Note: This forecast is consistent with nominal GDP and interest rates in the Tealbook forecast. Actual data through June 1, 2015; projections thereafter.

* Quarterly growth rates are computed from quarter averages. Annual growth rates are calculated using the change from fourth quarter of previous year to fourth quarter of year indicated.

Projections

Abbreviations

ABS	asset-backed securities
BEA	Bureau of Economic Analysis, Department of Commerce
BHC	bank holding company
CDS	credit default swaps
C&I	commercial and industrial
CLO	collateralized loan obligation
CMBS	commercial mortgage-backed securities
CPI	consumer price index
CRE	commercial real estate
Desk	Open Market Desk
ECB	European Central Bank
EME	emerging market economy
FDIC	Federal Deposit Insurance Corporation
FOMC	Federal Open Market Committee; also, the Committee
GCF	general collateral finance
GDI	gross domestic income
GDP	gross domestic product
GSIBs	globally systemically important banking organizations
HQLA	high-quality liquid assets
ISM	Institute for Supply Management
LIBOR	London interbank offered rate
MBS	mortgage-backed securities
MMFs	money market funds
NIPA	national income and product accounts
OIS	overnight index swap
ON RRP	overnight reverse repurchase agreement
PCE	personal consumption expenditures

repo	repurchase agreement
RMBS	residential mortgage-backed securities
RRP	reverse repurchase agreement
SCOOS	Senior Credit Officer Opinion Survey on Dealer Financing Terms
SEP	Summary of Economic Projections
SFA	Supplemental Financing Account
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
SOMA	System Open Market Account
TBA	to be announced (for example, TBA market)
TGA	U.S. Treasury's General Account
TIPS	Treasury inflation-protected securities
TPE	Term premium effects