

Prefatory Note

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

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

Class II FOMC – Restricted (FR)

Report to the FOMC on Economic Conditions and Monetary Policy



Book A

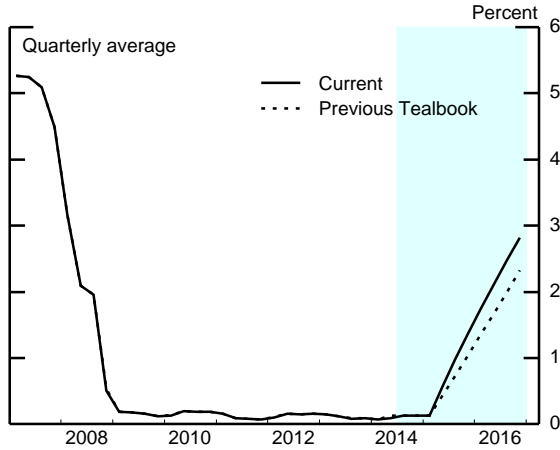
Economic and Financial Conditions: Current Situation and Outlook

July 23, 2014

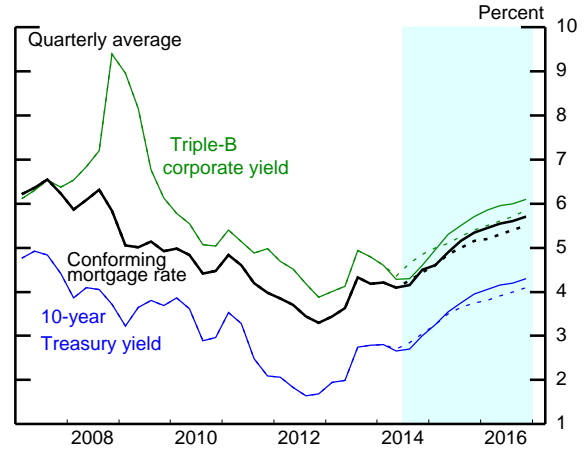
Prepared for the Federal Open Market Committee
by the staff of the Board of Governors of the Federal Reserve System

Key Background Factors underlying the Baseline Staff Projection

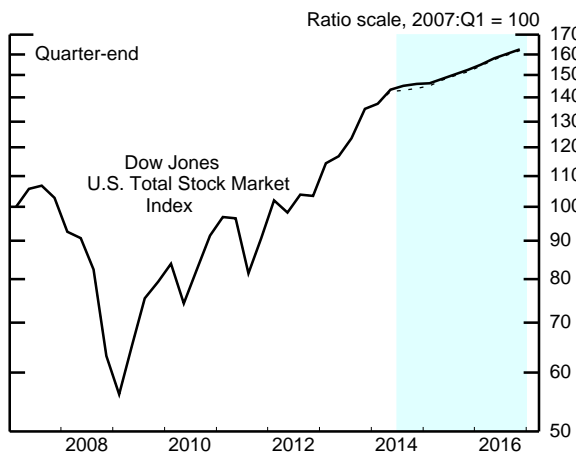
Federal Funds Rate



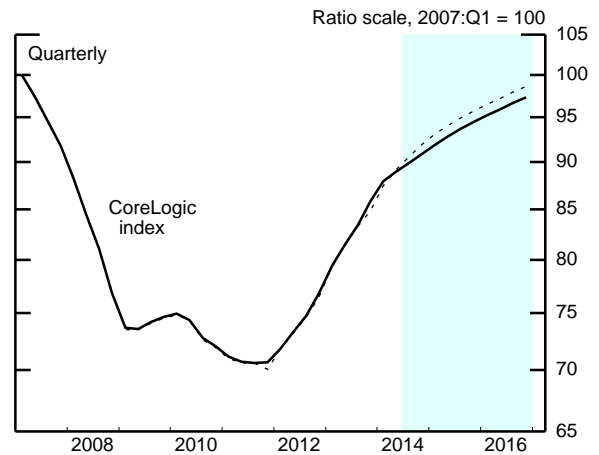
Long-Term Interest Rates



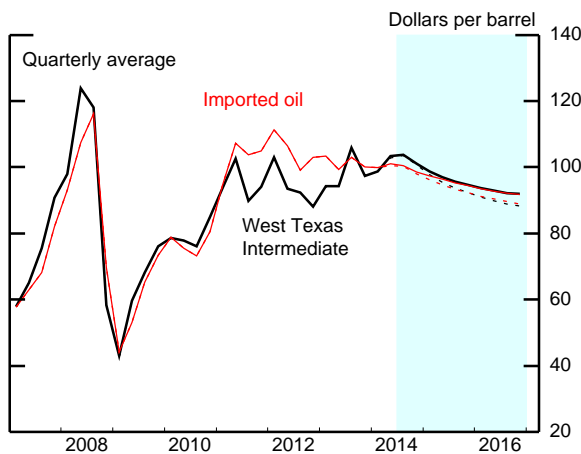
Equity Prices



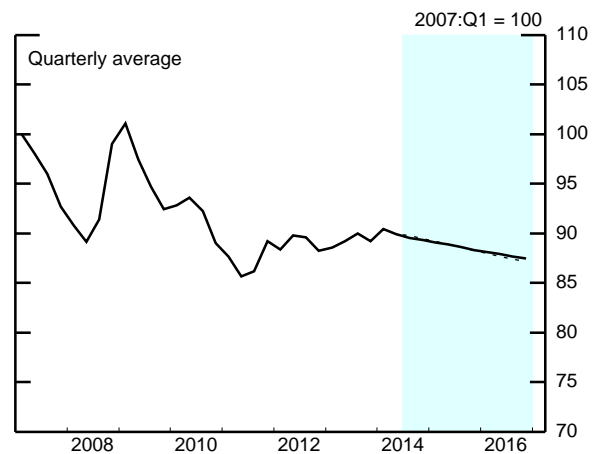
House Prices



Crude Oil Prices



Broad Real Dollar



Summary of the Near-Term Outlook

(Percent change at annual rate except as noted)

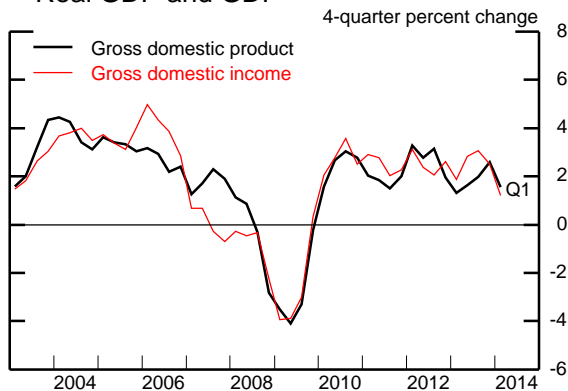
Measure	2014:Q1		2014:Q2		2014:H2	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
Real GDP	-1.5	-2.9	4.2	3.5	3.5	3.4
Private domestic final purchases	2.2	.5	3.9	3.5	4.1	3.7
Personal consumption expenditures	3.1	1.0	3.0	2.1	3.9	3.6
Residential investment	-4.8	-4.2	4.3	4.4	8.8	8.0
Nonres. private fixed investment	-.8	-1.2	8.8	11.3	4.3	3.6
Government purchases	-.7	-.8	-.3	1.2	-.4	-.3
<i>Contributions to change in real GDP</i>						
Inventory investment ¹	-1.6	-1.7	.9	.6	.2	.2
Net exports ¹	-1.5	-1.5	.1	-.3	-.1	.1
Unemployment rate²	6.7	6.7	6.3	6.2	6.0	5.8
PCE chain price index	1.4	1.4	2.0	2.3	1.4	1.5
Ex. food and energy	1.2	1.2	1.8	1.9	1.4	1.6

1. Percentage points.

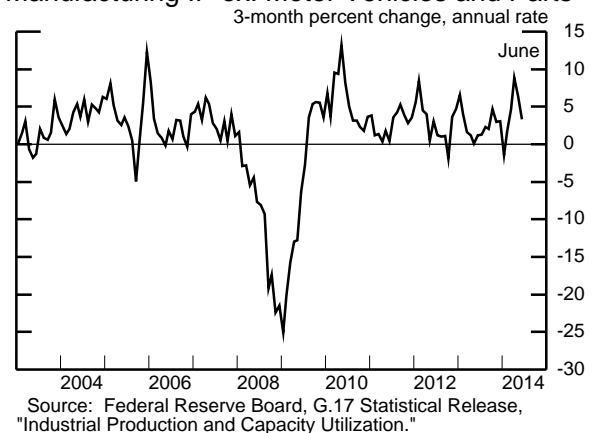
2. Percent. For 2014:H2, the 2014:Q4 value is shown.

Recent Nonfinancial Developments (1)

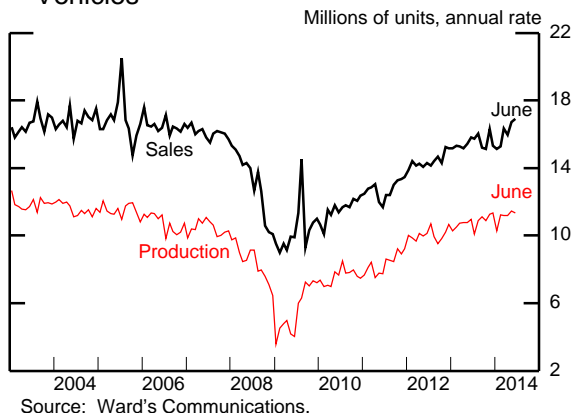
Real GDP and GDI



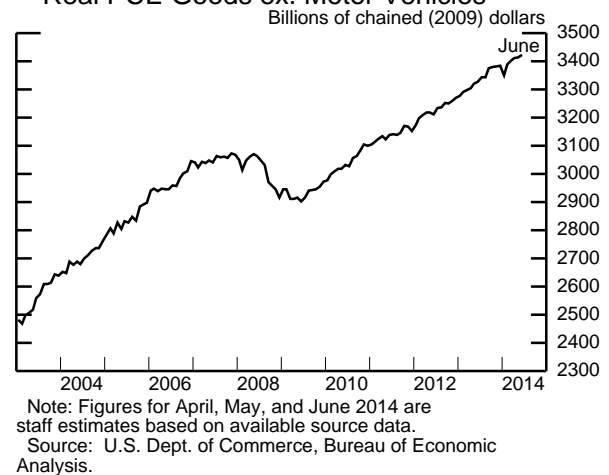
Manufacturing IP ex. Motor Vehicles and Parts



Sales and Production of Light Motor Vehicles



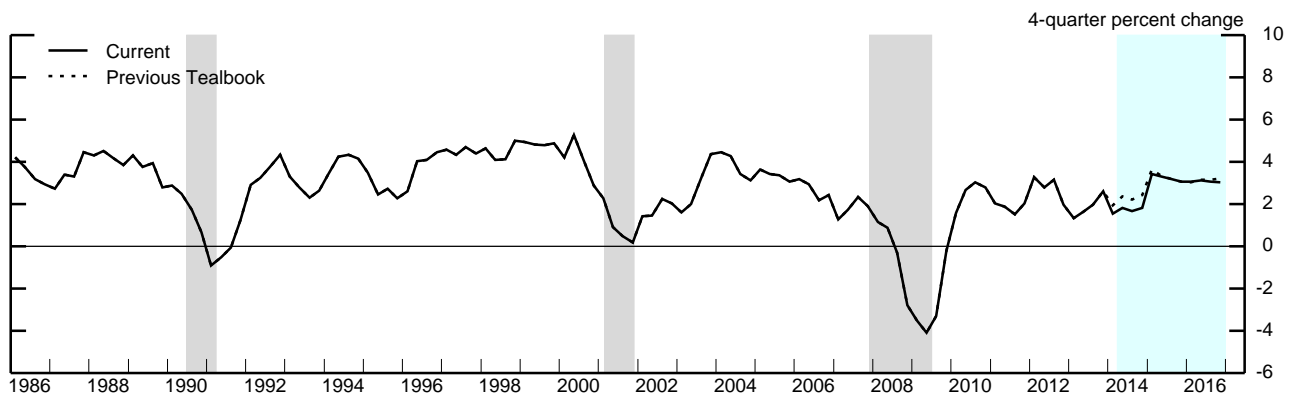
Real PCE Goods ex. Motor Vehicles



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

Measure	2013	2014	2014		2015	2016
			H1	H2		
Real GDP	2.6	1.8	.3	3.4	3.0	3.0
Previous Tealbook	2.6	2.4	1.3	3.5	3.0	3.2
Final sales	1.8	2.0	.8	3.2	3.2	3.0
Previous Tealbook	1.8	2.5	1.7	3.4	3.3	3.2
Personal consumption expenditures	2.3	2.6	1.6	3.6	3.4	2.8
Previous Tealbook	2.3	3.5	3.0	3.9	3.5	2.9
Residential investment	6.9	3.9	.0	8.0	13.7	11.9
Previous Tealbook	6.9	4.1	-.3	8.8	14.6	13.3
Nonresidential structures	-.7	3.8	.7	7.0	1.7	2.6
Previous Tealbook	-.7	2.8	-1.8	7.5	2.2	2.1
Equipment and intangibles	3.5	4.4	6.1	2.7	5.0	4.9
Previous Tealbook	3.5	4.4	5.6	3.3	5.4	5.4
Federal purchases	-6.2	-1.6	-.4	-2.7	-3.2	-1.2
Previous Tealbook	-6.2	-2.1	-1.2	-3.0	-3.6	-1.2
State and local purchases	.2	1.0	.7	1.3	1.4	1.8
Previous Tealbook	.2	.5	-.1	1.2	1.3	1.7
Exports	4.9	2.0	-.7	4.8	5.0	5.5
Previous Tealbook	4.9	1.4	-1.6	4.5	5.1	5.6
Imports	2.8	4.2	5.2	3.2	4.6	4.6
Previous Tealbook	2.8	3.5	3.0	4.1	4.7	4.5
Contributions to change in real GDP (percentage points)						
Inventory change	.7	-.2	-.5	.2	-.1	.0
Previous Tealbook	.7	-.1	-.4	.2	-.2	.0
Net exports	.2	-.4	-.9	.1	-.1	.0
Previous Tealbook	.2	-.4	-.7	-.1	-.1	.0

Real GDP

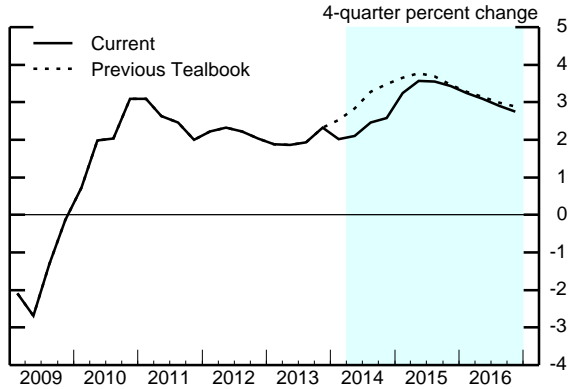


Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

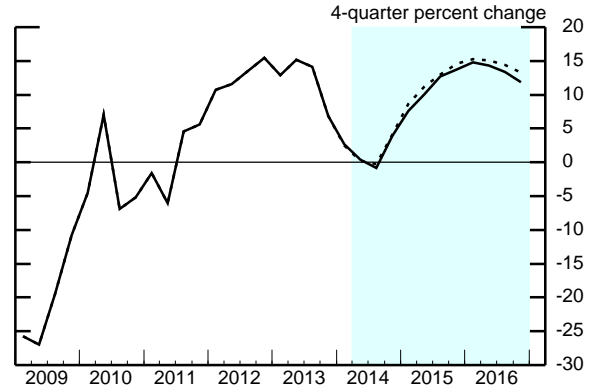
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Components of Final Demand

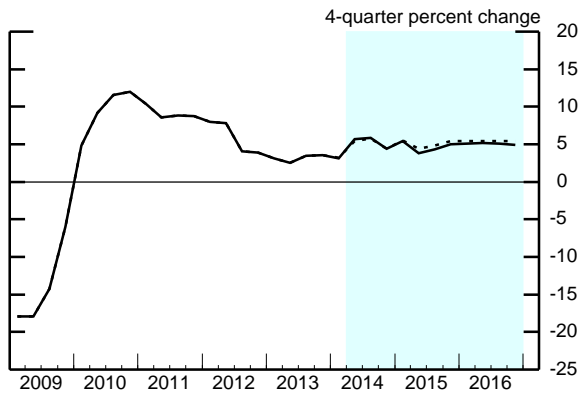
Personal Consumption Expenditures



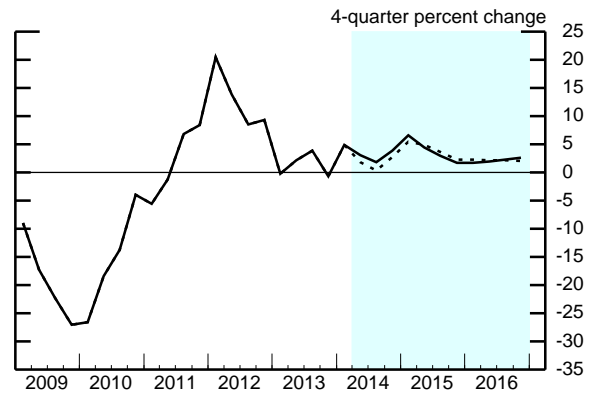
Residential Investment



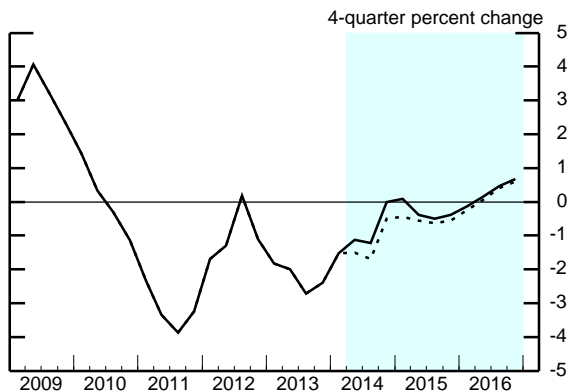
Equipment and Intangibles



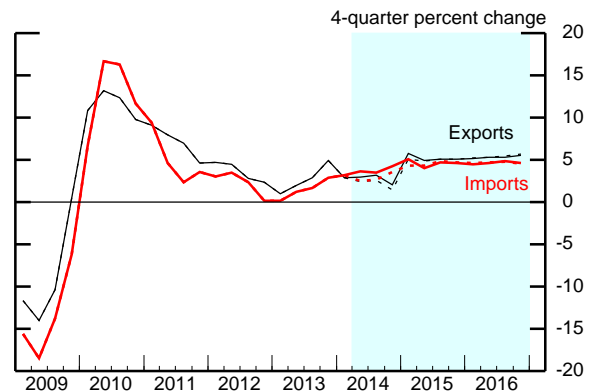
Nonresidential Structures



Government Consumption & Investment

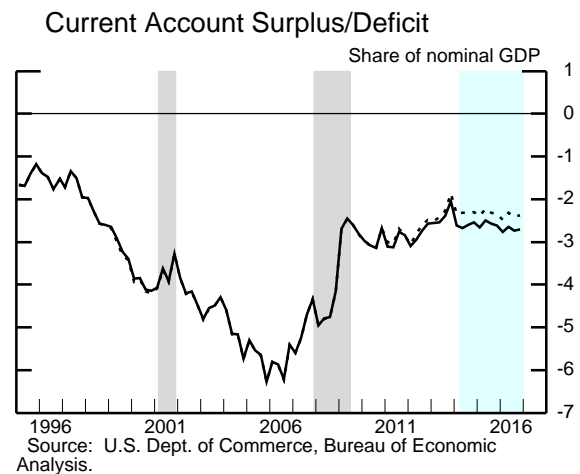
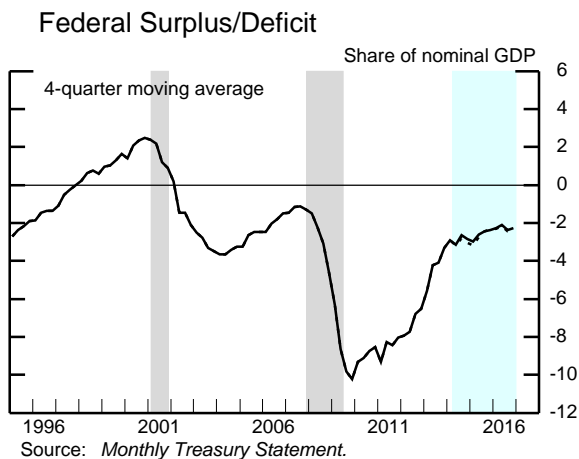
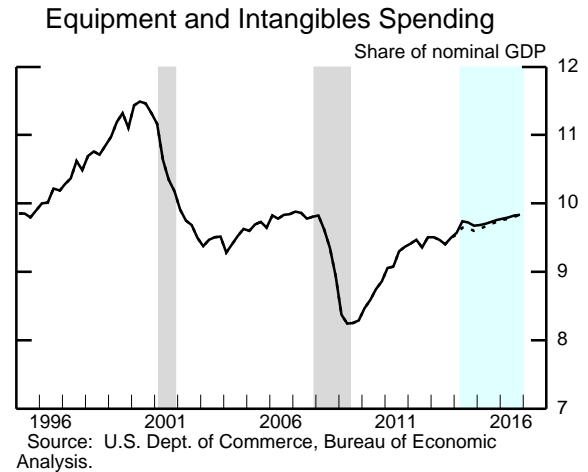
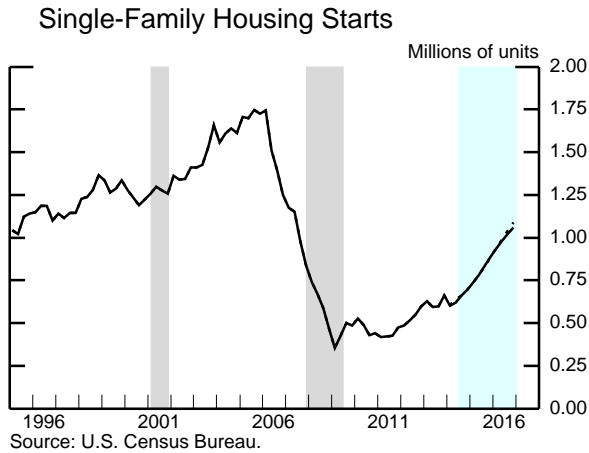
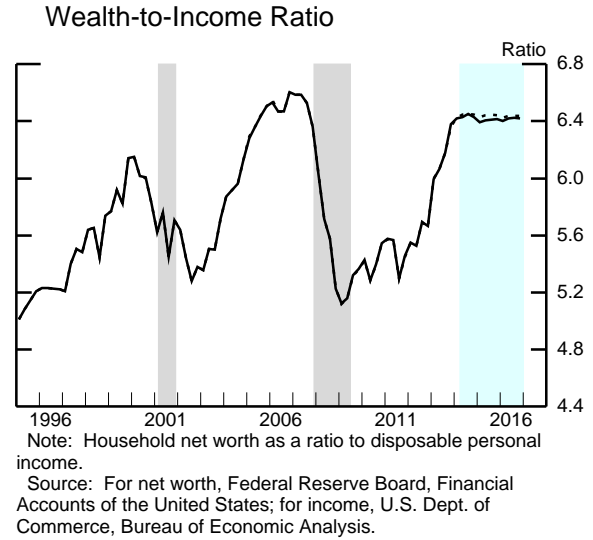
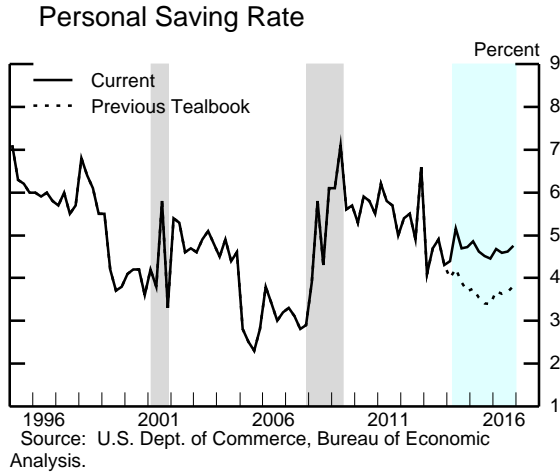


Exports and Imports



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

Aspects of the Medium-Term Projection



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)

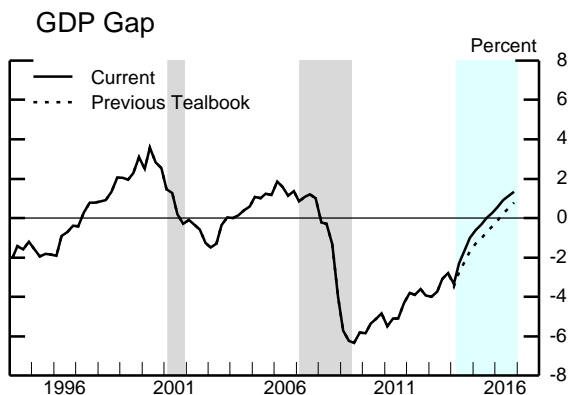
Measure	1974-95	1996-2000	2001-07	2008-10	2011-13	2014	2015	2016
Potential real GDP	3.1	3.4	2.6	1.9	1.5	.0	1.7	1.9
Previous Tealbook	3.1	3.4	2.6	1.9	1.5	1.3	1.7	1.9
<i>Selected contributions¹</i>								
Structural NFB labor productivity ²	1.6	2.7	2.6	1.8	1.1	.0	1.7	1.8
Previous Tealbook	1.6	2.7	2.6	1.8	1.1	1.0	1.7	1.8
Structural hours	1.5	1.0	.7	.2	.6	.2	.3	.3
Previous Tealbook	1.5	1.0	.7	.2	.6	.6	.4	.4
Labor force participation	.4	.0	-.3	-.4	-.5	-.8	-.5	-.5
Previous Tealbook	.4	.0	-.3	-.4	-.5	-.4	-.4	-.4
Memo:								
GDP gap ³	-1.8	2.5	1.0	-4.8	-2.8	-1.0	.3	1.3
Previous Tealbook	-1.8	2.5	1.0	-4.8	-2.8	-1.7	-.4	.8

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

1. Percentage points.

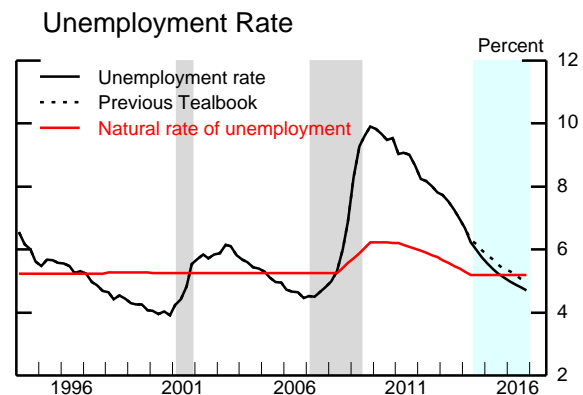
2. Because of substantial revisions from the Bureau of Economic Analysis to productive investment as part of the latest comprehensive revision, staff estimates of the components of structural productivity are not available for this Tealbook.

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

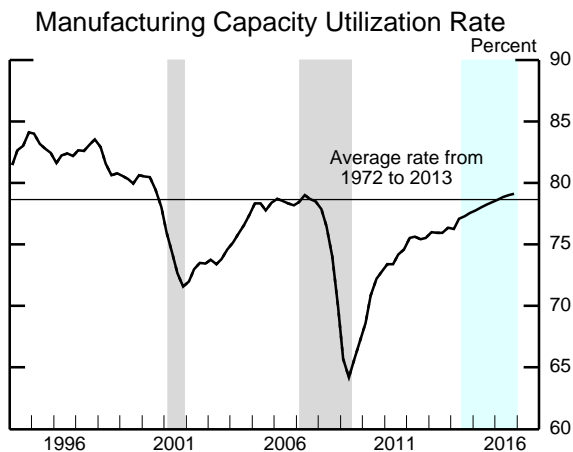


Note: The GDP gap is the percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.

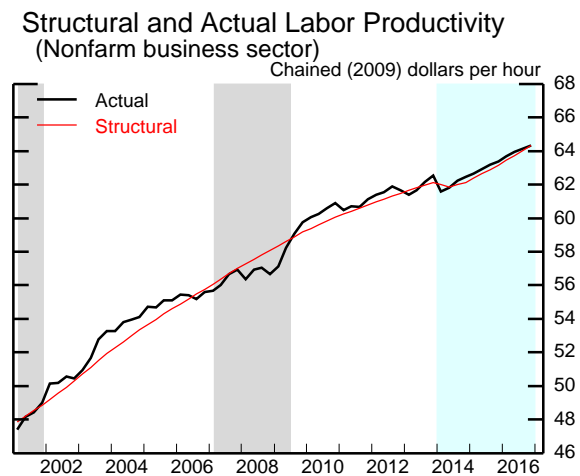
Source: U.S. Dept. of Commerce, BEA; staff assumptions.



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



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



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	2013	2014	2014		2015	2016
			H1	H2		
Output per hour, nonfarm business ¹	1.4	-.1	-2.2	2.0	1.5	1.5
Previous Tealbook	1.4	.5	-1.0	2.0	1.5	1.8
Nonfarm private employment ²	197	230	222	238	210	205
Previous Tealbook	197	218	214	223	204	205
Labor force participation rate ³	62.8	62.8	62.8	62.8	62.7	62.6
Previous Tealbook	62.8	62.9	62.9	62.9	62.9	62.8
Civilian unemployment rate ³	7.0	5.8	6.2	5.8	5.1	4.7
Previous Tealbook	7.0	6.0	6.3	6.0	5.4	5.0

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)

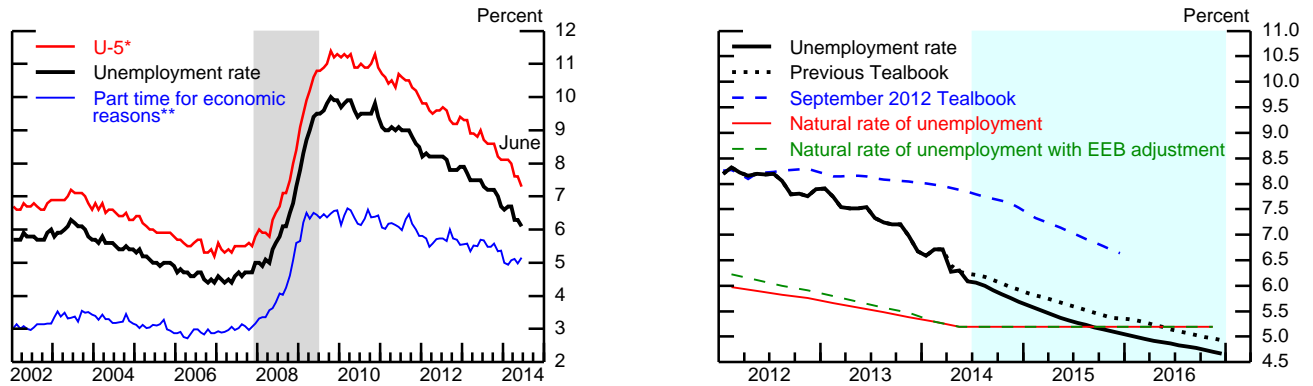
Measure	2013	2014	2014		2015	2016
			H1	H2		
PCE chain-weighted price index	1.0	1.7	1.8	1.5	1.5	1.6
Previous Tealbook	1.0	1.5	1.7	1.4	1.4	1.5
Food and beverages	.8	2.3	2.9	1.7	.8	1.3
Previous Tealbook	.8	2.0	2.4	1.5	1.1	1.3
Energy	-1.5	2.1	4.7	-.5	-.6	-.3
Previous Tealbook	-1.5	1.4	3.1	-.2	-1.6	-.8
Excluding food and energy	1.2	1.6	1.6	1.6	1.7	1.8
Previous Tealbook	1.2	1.5	1.5	1.4	1.6	1.7
Prices of core goods imports ¹	-1.1	1.4	1.6	1.2	1.3	1.3
Previous Tealbook	-1.1	1.4	1.8	1.1	1.2	1.3

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

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

Labor Market Developments and Outlook (1)

Measures of Labor Underutilization



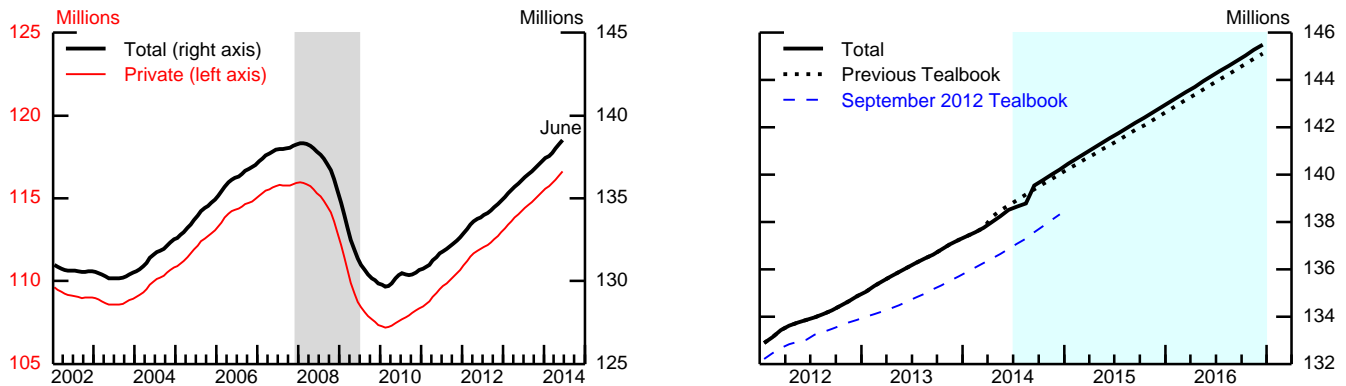
* U-5 measures total unemployed persons plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.

** Percent of Current Population Survey employment.

EEB Extended and emergency unemployment benefits.

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

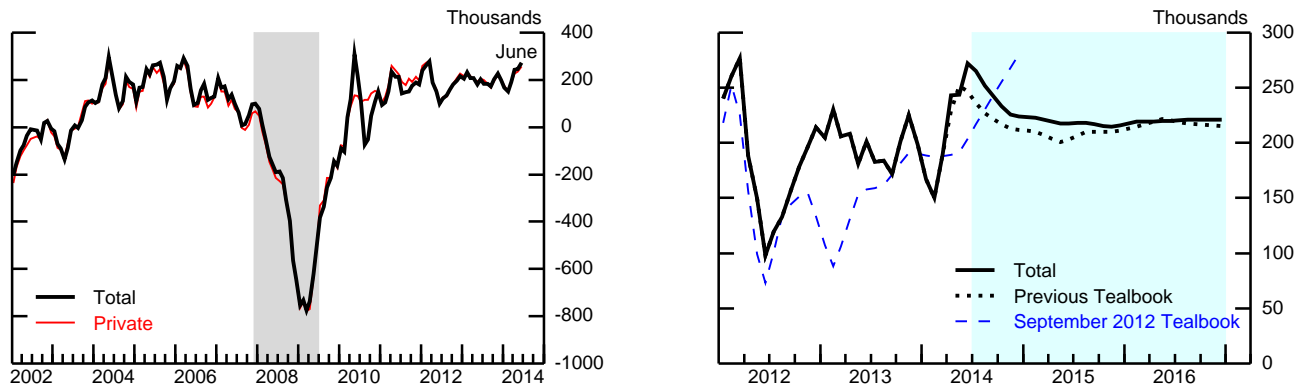
Level of Payroll Employment*



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

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

Change in Payroll Employment*



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

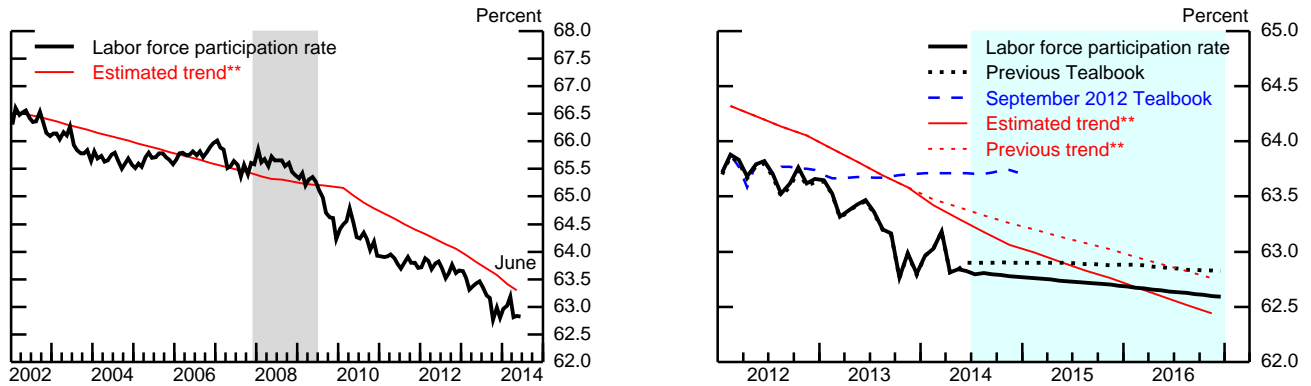
Source: U.S. Department of Labor, Bureau of Labor Statistics.

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

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

Labor Market Developments and Outlook (2)

Labor Force Participation Rate*

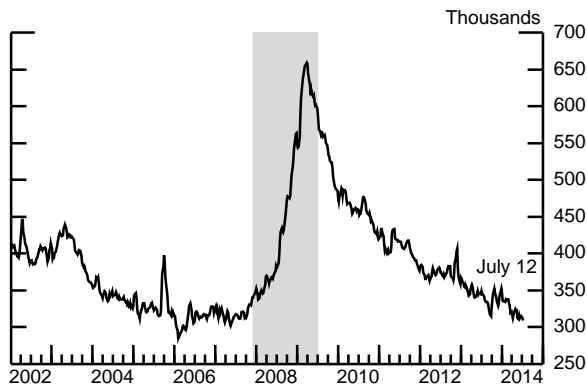


* Published data adjusted by staff to account for changes in population weights.

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

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

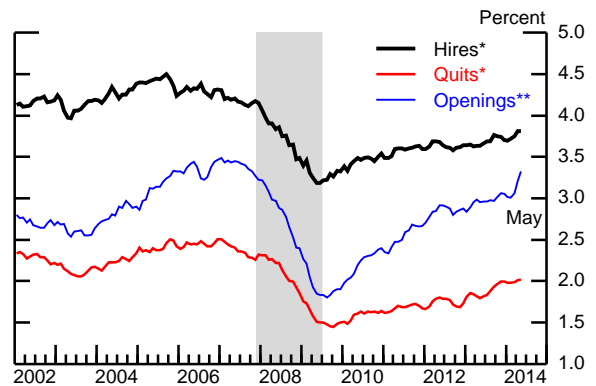
Initial Unemployment Insurance Claims*



* 4-week moving average.

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

Private Hires, Quits, and Job Openings

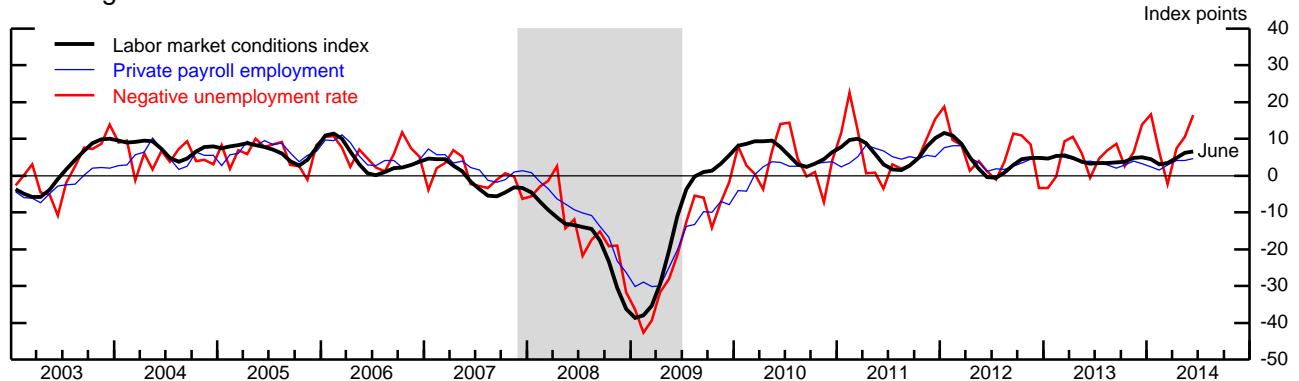


* Percent of private nonfarm payroll employment, 3-month moving average.

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

Source: Job Openings and Labor Turnover Survey.

Change in Labor Market Conditions Index and Selected Indicators*



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

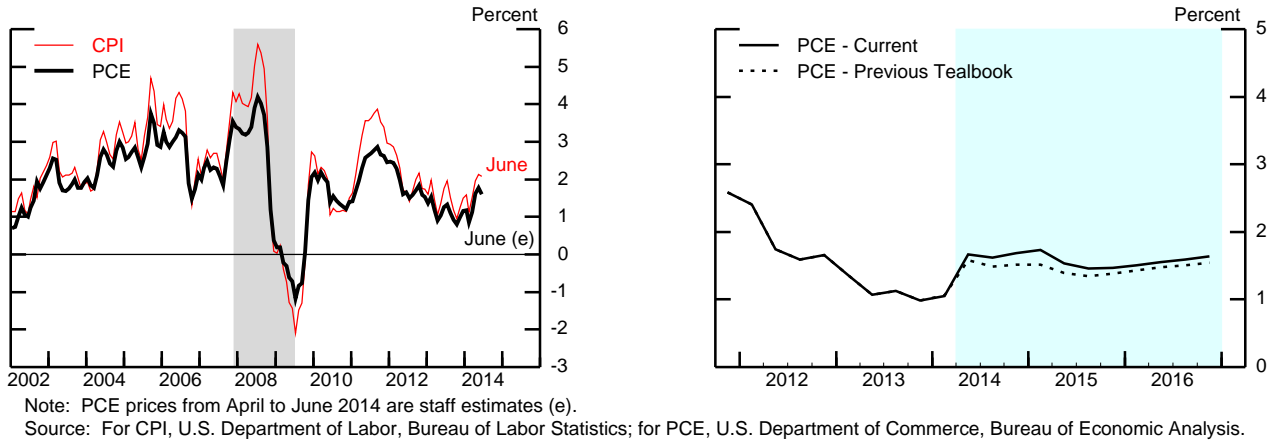
* 3-month moving average.

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

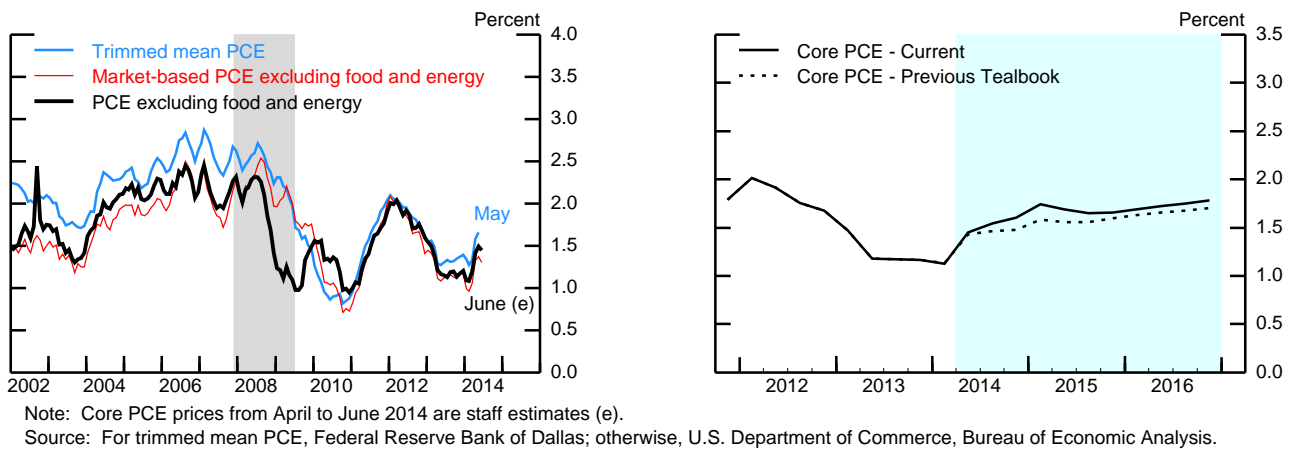
Inflation Developments and Outlook (1)

(Percent change from year-earlier period)

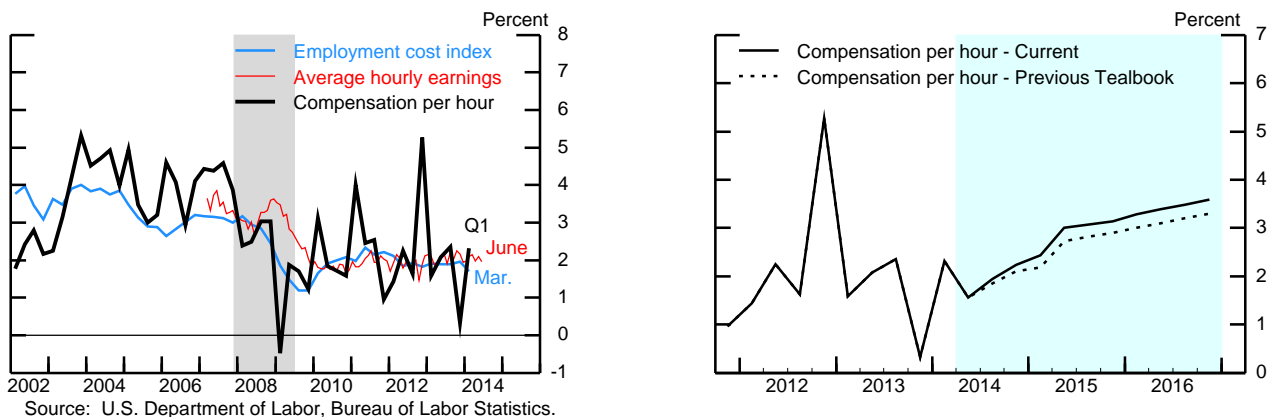
Headline Consumer Price Inflation



Measures of Underlying PCE Price Inflation



Labor Cost Growth (Private Industry)



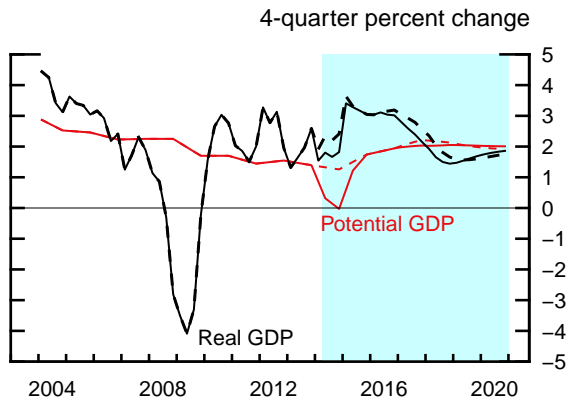
The Long-Term Outlook

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

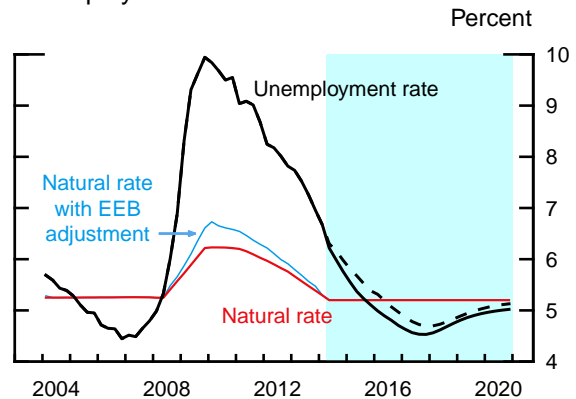
Measure	2014	2015	2016	2017	2018	Longer run
Real GDP	1.8	3.0	3.0	2.2	1.4	2.0
Previous Tealbook	2.4	3.0	3.2	2.6	1.7	2.0
Civilian unemployment rate ¹	5.8	5.1	4.7	4.5	4.7	5.2
Previous Tealbook	6.0	5.4	5.0	4.7	4.8	5.2
PCE prices, total	1.7	1.5	1.6	1.8	2.0	2.0
Previous Tealbook	1.5	1.4	1.5	1.7	1.9	2.0
Core PCE prices	1.6	1.7	1.8	1.9	2.0	2.0
Previous Tealbook	1.5	1.6	1.7	1.8	1.9	2.0
Federal funds rate ¹	.1	1.4	2.8	3.8	4.2	3.8
Previous Tealbook	.1	1.0	2.3	3.3	3.8	3.8
10-year Treasury yield ¹	3.0	4.0	4.3	4.6	4.7	4.6
Previous Tealbook	3.1	3.8	4.1	4.4	4.5	4.6

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

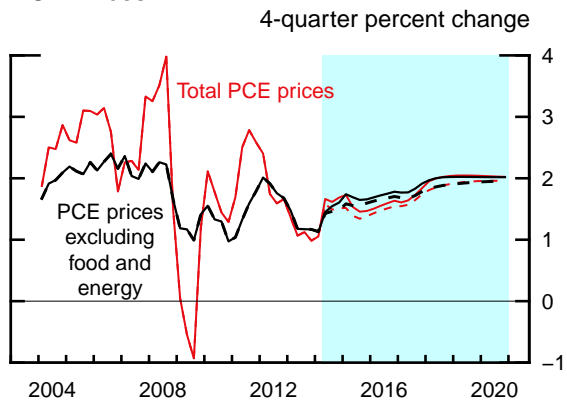
Real GDP



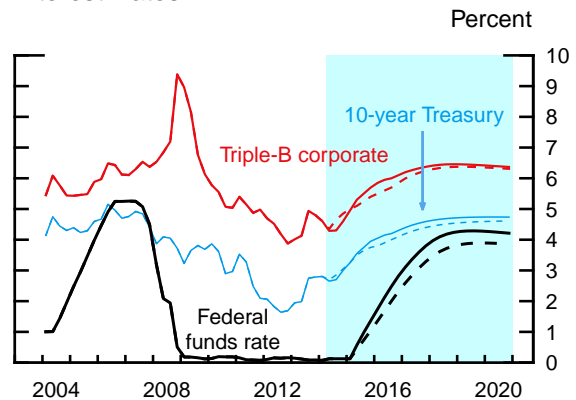
Unemployment Rate



PCE Prices



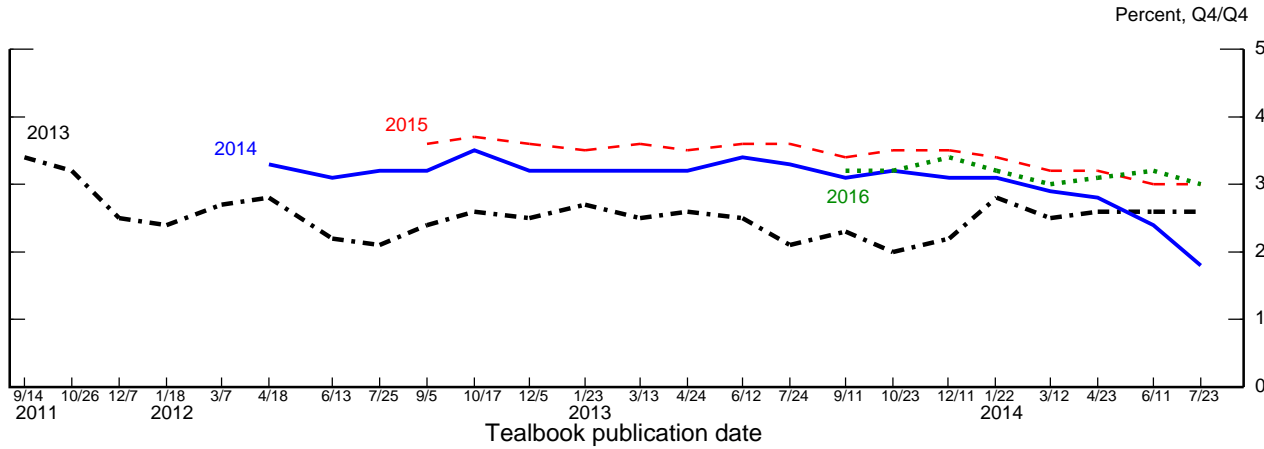
Interest Rates



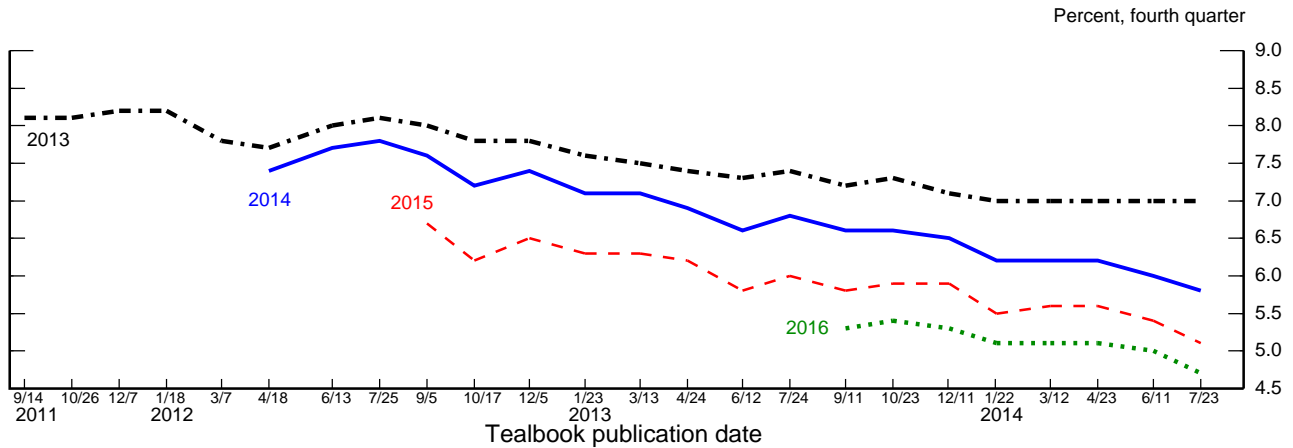
Note: In each panel, shading represents the projection period, and dashed lines are the previous Tealbook.

Evolution of the Staff Forecast

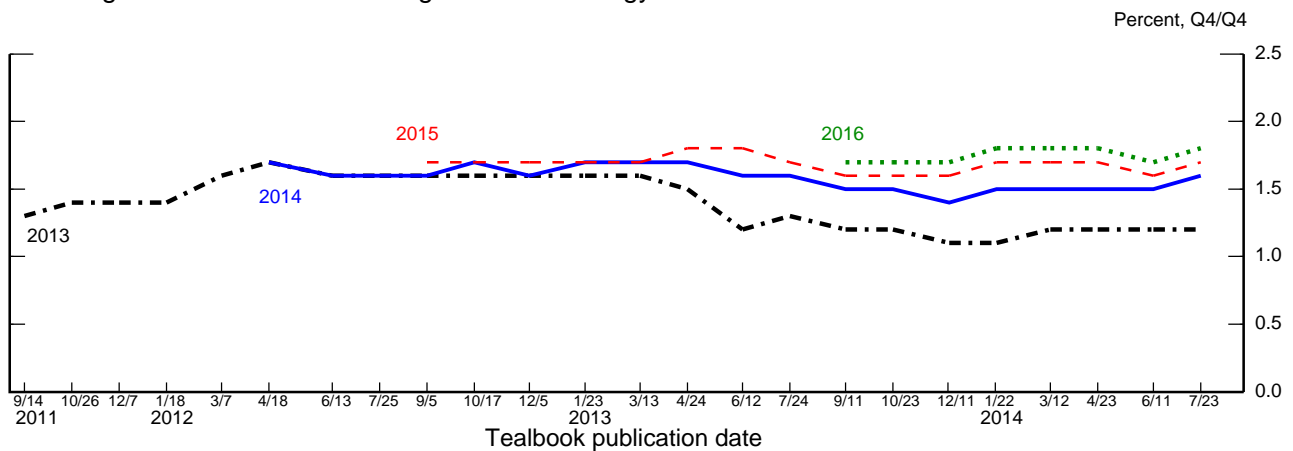
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy



The Foreign GDP Outlook

Real GDP*

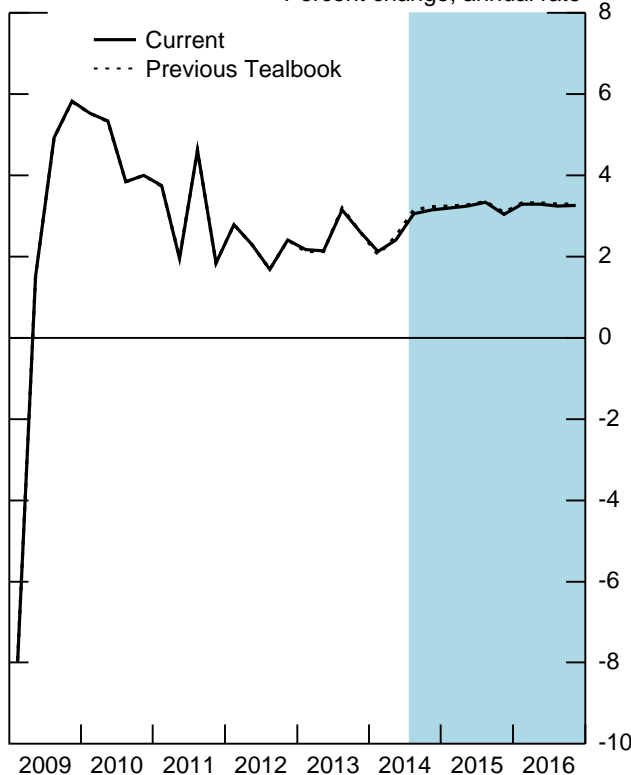
Percent change, annual rate

	2013		2014			2015	2016
	H1	H2	Q1	Q2	H2		
1. Total Foreign	2.2	2.9	2.1	2.4	3.1	3.2	3.3
<i>Previous Tealbook</i>	2.1	2.9	2.1	2.5	3.2	3.2	3.3
2. Advanced Foreign Economies	2.0	2.0	2.0	1.2	2.1	2.1	2.2
<i>Previous Tealbook</i>	1.9	2.0	2.0	1.7	2.2	2.1	2.2
3. Canada	2.4	2.9	1.2	2.3	2.5	2.5	2.5
4. Euro Area	0.2	0.8	0.8	1.4	1.4	1.8	1.9
5. Japan	4.1	0.8	6.7	-5.3	2.1	0.7	1.2
6. United Kingdom	2.4	3.0	3.3	3.0	2.9	2.6	2.4
7. Emerging Market Economies	2.4	3.7	2.3	3.6	4.1	4.3	4.4
<i>Previous Tealbook</i>	2.3	3.8	2.2	3.3	4.2	4.3	4.4
8. China	6.9	8.4	5.5	7.8	7.5	7.2	7.1
9. Emerging Asia ex. China	2.8	4.5	2.4	3.5	4.1	4.4	4.4
10. Mexico	-1.0	2.2	1.1	3.0	3.4	3.6	3.7
11. Brazil	4.1	0.3	0.7	0.2	1.6	2.2	2.5

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

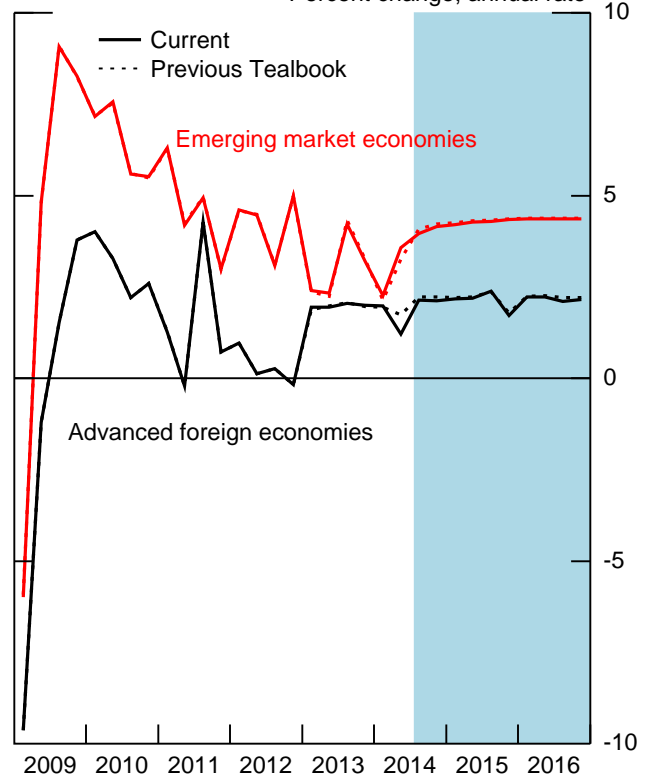
Total Foreign GDP

Percent change, annual rate



Foreign GDP

Percent change, annual rate



The Foreign Inflation Outlook

Consumer Prices*

Percent change, annual rate

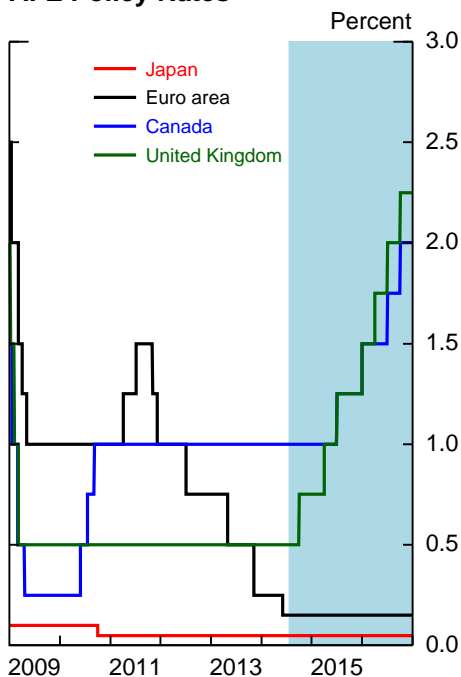
	2013		2014			2015	2016
	H1	H2	Q1	Q2	H2		
1. Total Foreign	2.1	2.6	2.0	3.0	2.6	2.6	2.6
<i>Previous Tealbook</i>	2.1	2.6	2.0	2.7	2.5	2.6	2.6
2. Advanced Foreign Economies	0.7	1.3	1.1	3.2	1.4	1.7	1.6
<i>Previous Tealbook</i>	0.7	1.4	1.1	2.6	1.3	1.7	1.6
3. Canada	0.8	1.2	2.8	3.7	1.7	1.8	2.0
4. Euro Area	0.8	0.8	0.2	0.5	1.2	1.3	1.5
5. Japan	0.4	2.4	0.4	9.3	0.9	2.3	1.3
6. United Kingdom	2.1	2.0	1.1	1.9	2.4	1.9	1.9
7. Emerging Market Economies	3.2	3.5	2.7	2.8	3.5	3.4	3.3
<i>Previous Tealbook</i>	3.2	3.5	2.7	2.8	3.5	3.4	3.3
8. China	2.6	3.2	0.8	1.7	3.2	3.0	3.0
9. Emerging Asia ex. China	2.8	4.0	2.9	3.4	3.6	3.5	3.4
10. Mexico	4.2	3.1	5.2	3.0	3.4	3.3	3.3
11. Brazil	6.4	5.3	6.9	8.3	6.2	5.4	5.3

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

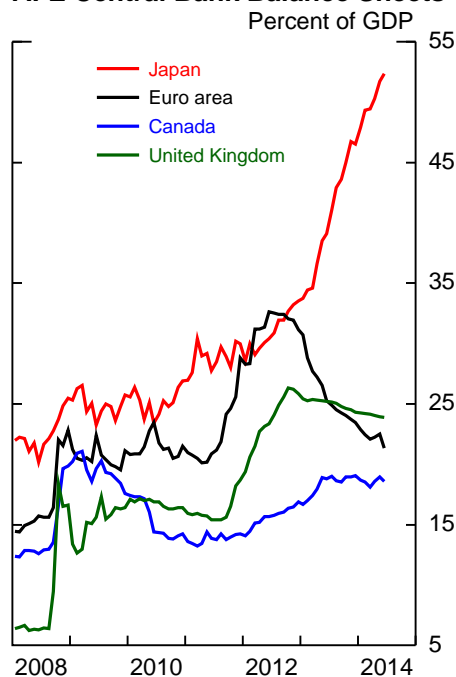
Int'l Econ Devel & Outlook

Foreign Monetary Policy

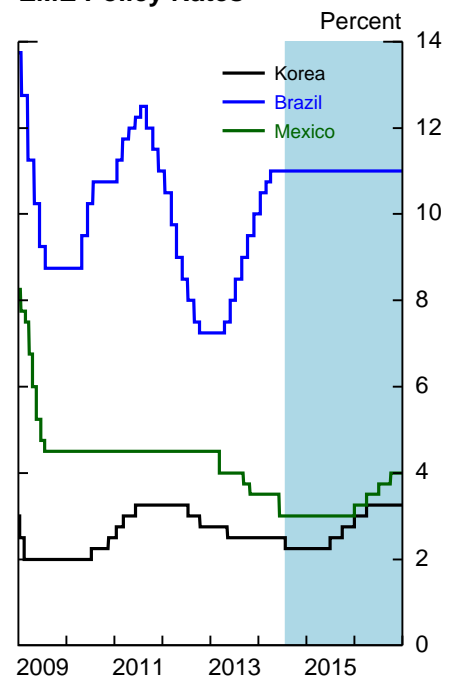
AFE Policy Rates



AFE Central Bank Balance Sheets

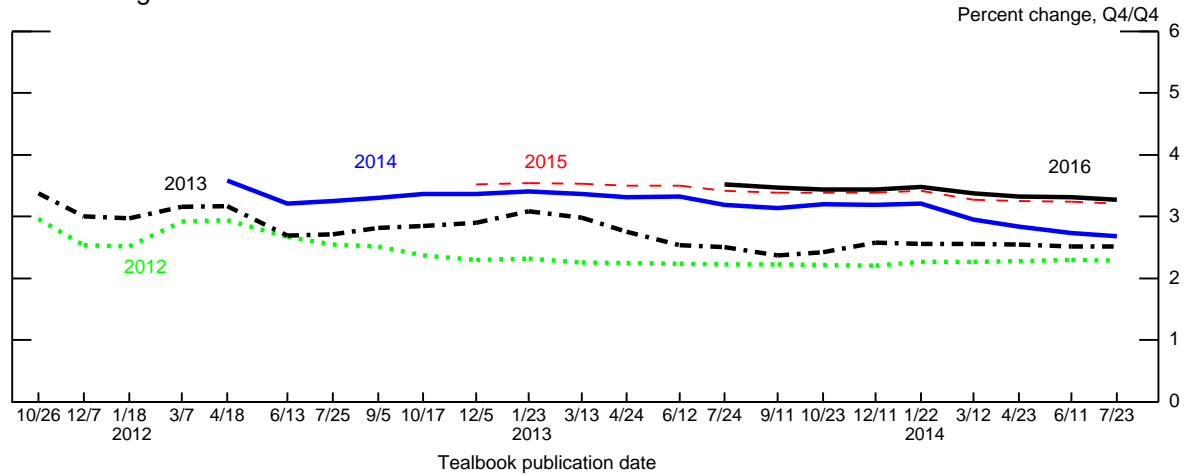


EME Policy Rates

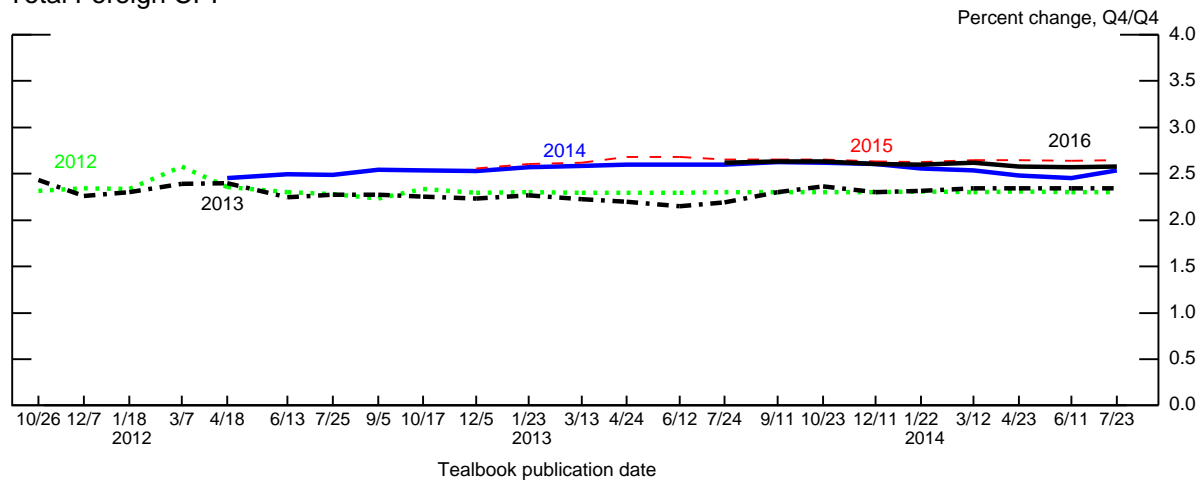


Evolution of Staff's International Forecast

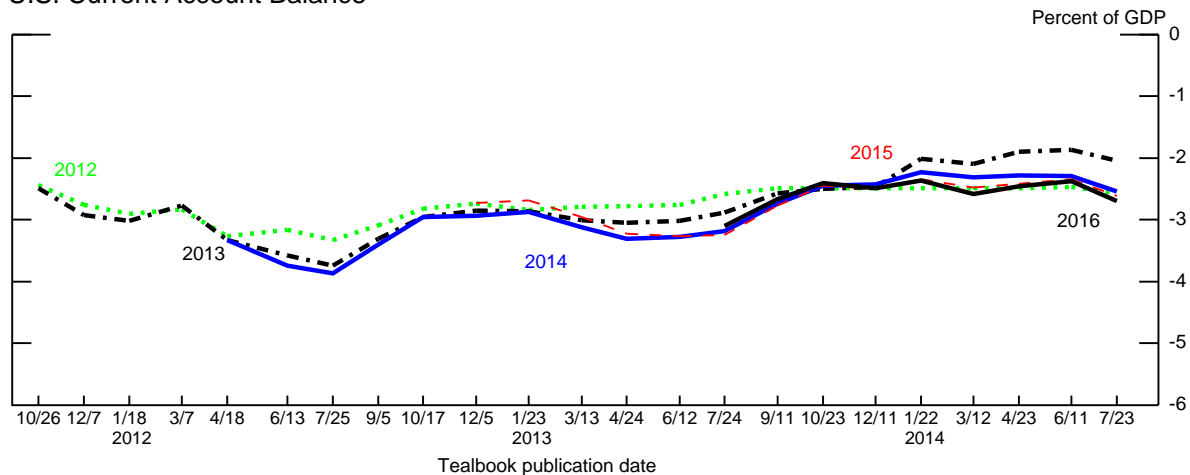
Total Foreign GDP



Total Foreign CPI

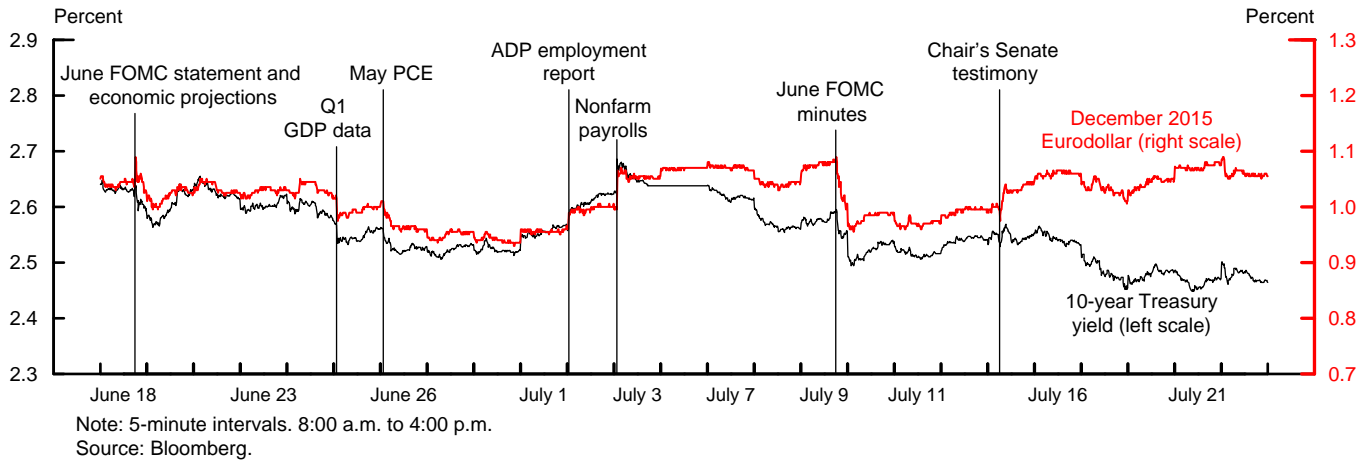


U.S. Current Account Balance

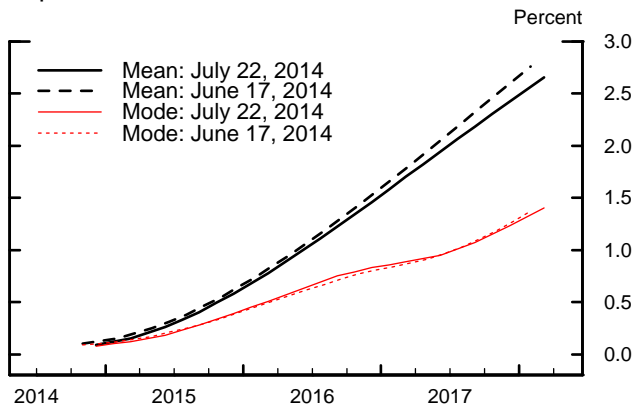


Policy Expectations and Treasury Yields

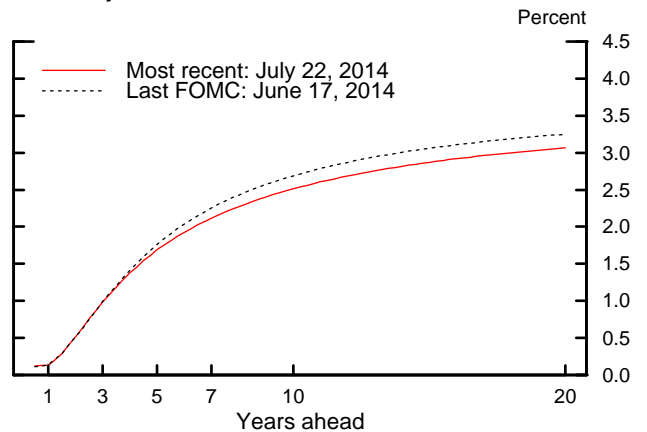
Selected Interest Rates



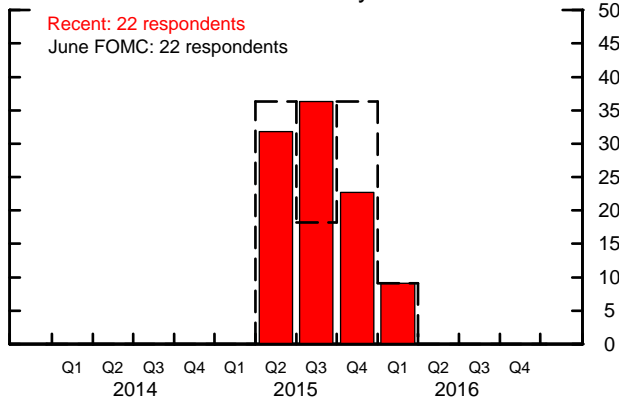
Implied Federal Funds Rate



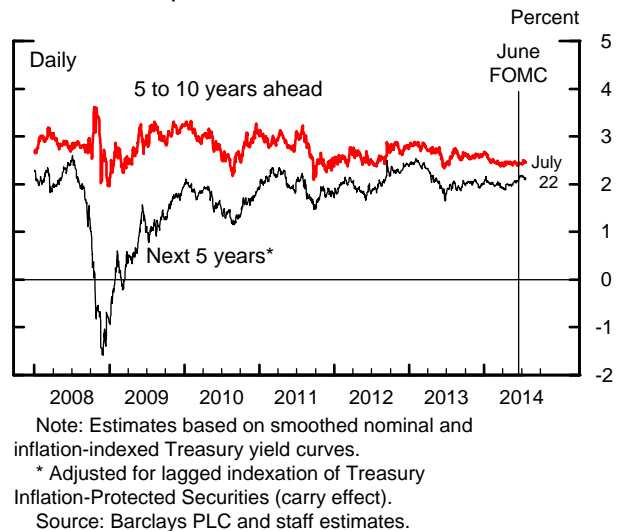
Treasury Yield Curve



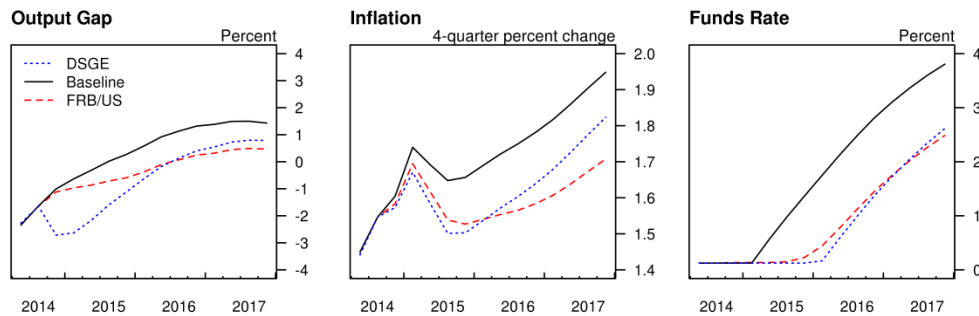
Distribution of Modal Timing of First Rate Increase from the Desk's Dealer Survey



Inflation Compensation



Responses to Risk Premium Shock



push up firms' marginal costs. With a weaker economic outlook, liftoff for the federal funds rate is delayed by a full year relative to the baseline.²

By contrast, the increase in premiums in FRB/US results in a smaller deterioration of the economy, which delays liftoff by only two quarters. In FRB/US, the output gap falls by 1 percentage point relative to baseline at the trough.

The much larger drop in output in the DSGE model than in FRB/US occurs primarily because spending (especially consumer spending) is much more sensitive to interest rate changes in the DSGE model, as noted earlier. This may result, in part, from the fact that an increase in risk premiums within the DSGE model affects all short- and long-term borrowing costs. Indeed, some research suggests that the effects of increases in borrowing costs that only affect long-term interest rates have more muted effects on output than the type of risk premium shock in this DSGE model, but such alternative models remain largely at the development stage.³

² Monetary policy in the DSGE model is set using the same policy rule as in FRB/US, discussed in the main text of the Risks and Uncertainty section. While the DSGE model lacks an unemployment variable, an implicit threshold is set using the output gap.

³ Examples of such research within the Federal Reserve System include Han Chen, Vasco Cúrdia, and Andrea Ferrero (2012), "The Macroeconomic Effects of Large-Scale Asset Purchase Programmes," Royal Economic Society, *Economic Journal*, vol. 122 (November), pp. F289–F315; and Michael T. Kiley (forthcoming), "The Aggregate Demand Effects of Short- and Long-Term Interest Rates," *International Journal of Central Banking*.

Alternative Scenarios

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

Measure and scenario	2014		2015	2016	2017-18
	H1	H2			
<i>Real GDP</i>					
Extended Tealbook baseline	.3	3.4	3.0	3.0	1.8
Stronger activity	.3	4.5	4.0	3.6	1.8
Weaker household demand	.3	2.0	1.5	2.4	2.3
China-driven EME crisis	.3	2.1	.9	3.2	2.5
Higher oil prices	.3	3.1	2.6	2.8	1.8
Credit market turbulence	.3	3.2	2.2	2.7	1.9
<i>Unemployment rate¹</i>					
Extended Tealbook baseline	6.2	5.8	5.1	4.7	4.7
Stronger activity	6.2	5.6	4.5	3.9	4.1
Weaker household demand	6.2	6.1	5.9	5.8	5.4
China-driven EME crisis	6.2	6.0	6.1	5.9	5.5
Higher oil prices	6.2	5.8	5.3	5.0	4.9
Credit market turbulence	6.2	5.9	5.5	5.2	5.1
<i>Total PCE prices</i>					
Extended Tealbook baseline	1.8	1.5	1.5	1.6	1.9
Stronger activity	1.8	1.5	1.5	1.9	2.7
Weaker household demand	1.8	1.5	1.4	1.5	1.8
China-driven EME crisis	1.8	-1.0	-.5	1.4	2.3
Higher oil prices	1.8	4.3	1.0	1.5	1.9
Credit market turbulence	1.8	1.5	1.4	1.4	1.6
<i>Core PCE prices</i>					
Extended Tealbook baseline	1.6	1.6	1.7	1.8	2.0
Stronger activity	1.6	1.6	1.7	2.1	2.8
Weaker household demand	1.6	1.6	1.6	1.7	1.9
China-driven EME crisis	1.6	1.1	.6	1.4	2.0
Higher oil prices	1.6	1.7	1.9	1.9	2.0
Credit market turbulence	1.6	1.6	1.6	1.6	1.7
<i>Federal funds rate¹</i>					
Extended Tealbook baseline	.1	.1	1.4	2.8	4.2
Stronger activity	.1	.1	1.9	3.9	6.3
Weaker household demand	.1	.1	.1	.1	1.4
China-driven EME crisis	.1	.1	.1	.1	2.3
Higher oil prices	.1	.1	1.2	2.7	3.9
Credit market turbulence	.1	.1	.2	1.5	3.0

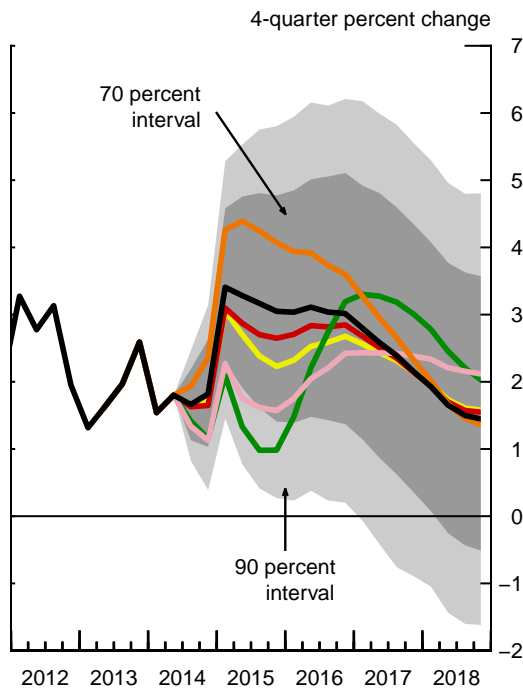
1. Percent, average for the final quarter of the period.

Forecast Confidence Intervals and Alternative Scenarios

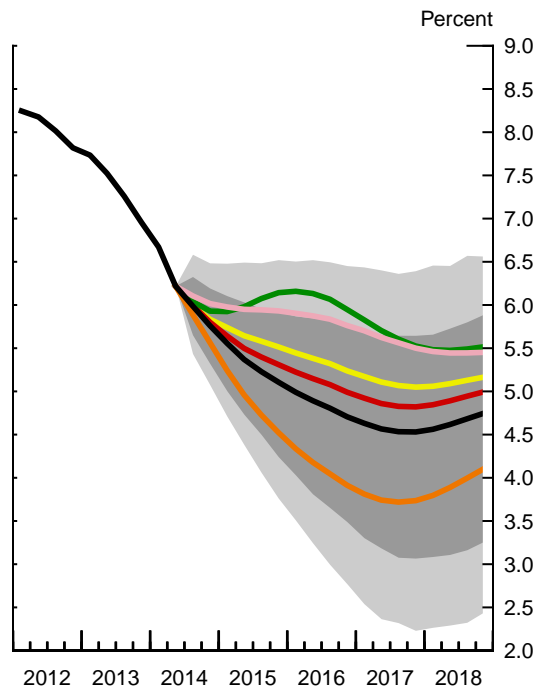
Confidence Intervals Based on FRB/US Stochastic Simulations

- Extended Tealbook baseline
- Stronger activity
- Weaker household demand
- China-driven EME crisis
- Higher oil prices
- Credit market turbulence

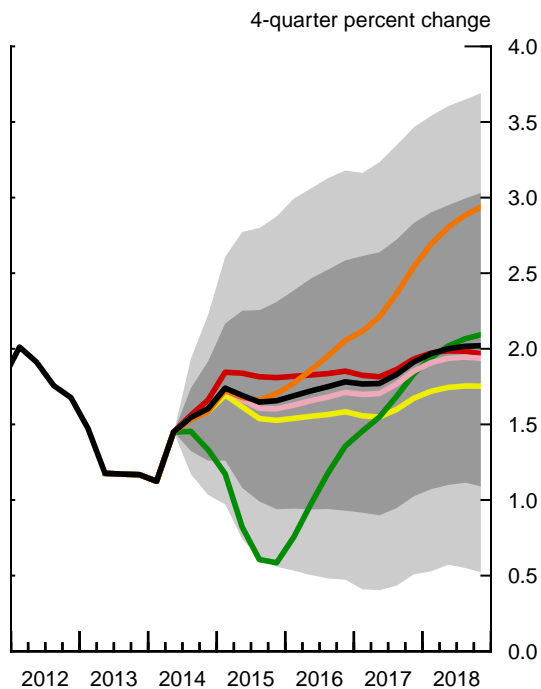
Real GDP



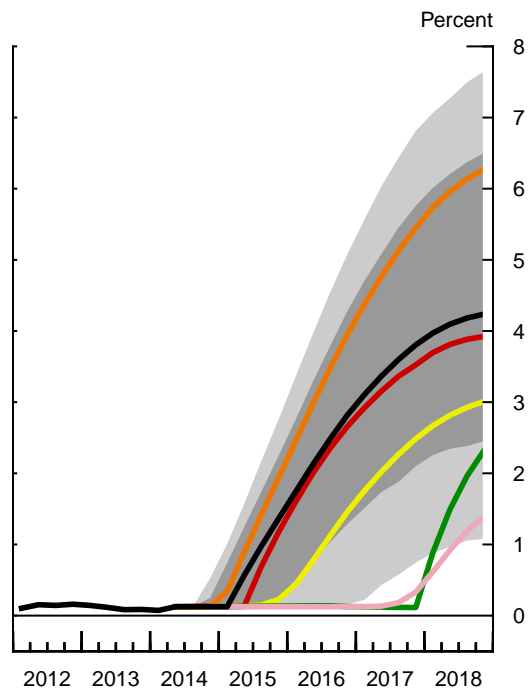
Unemployment Rate



PCE Prices excluding Food and Energy



Federal Funds Rate



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

Measure	2014	2015	2016	2017	2018
<i>Real GDP</i> (percent change, Q4 to Q4)					
Projection	1.8	3.0	3.0	2.2	1.4
Confidence interval					
Tealbook forecast errors	1.0–2.6	1.2–4.9	.9–5.1
FRB/US stochastic simulations	1.0–2.6	1.4–4.8	1.4–5.1	.4–4.3	-.5–3.6
<i>Civilian unemployment rate</i> (percent, Q4)					
Projection	5.8	5.1	4.7	4.5	4.7
Confidence interval					
Tealbook forecast errors	5.4–6.1	4.3–5.9	3.5–5.9
FRB/US stochastic simulations	5.3–6.2	4.2–5.9	3.5–5.8	3.1–5.6	3.3–5.9
<i>PCE prices, total</i> (percent change, Q4 to Q4)					
Projection	1.7	1.5	1.6	1.8	2.0
Confidence interval					
Tealbook forecast errors	1.2–2.1	.3–2.6	.4–2.8
FRB/US stochastic simulations	1.1–2.3	.5–2.4	.6–2.7	.8–3.0	.9–3.3
<i>PCE prices excluding food and energy</i> (percent change, Q4 to Q4)					
Projection	1.6	1.7	1.8	1.9	2.0
Confidence interval					
Tealbook forecast errors	1.3–1.9	1.0–2.3	.8–2.8
FRB/US stochastic simulations	1.3–1.9	.9–2.3	.9–2.6	1.1–2.9	1.1–3.0
<i>Federal funds rate</i> (percent, Q4)					
Projection	.1	1.4	2.8	3.8	4.2
Confidence interval					
FRB/US stochastic simulations	.1–.2	.2–2.2	1.3–4.3	2.1–5.8	2.5–6.5

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

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

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

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

(4 quarters ahead—2015:Q2)

Probability that the 4-quarter change in total PCE prices will be ...	Staff	FRB/US	EDO	BVAR
<i>Greater than 3 percent</i>				
Current Tealbook	.05	.04	.12	.24
Previous Tealbook	.04	.03	.10	.16
<i>Less than 1 percent</i>				
Current Tealbook	.25	.27	.26	.07
Previous Tealbook	.30	.37	.33	.08

Probability of Unemployment Events

(4 quarters ahead—2015:Q2)

Probability that the unemployment rate will ...	Staff	FRB/US	EDO	BVAR
<i>Increase by 1 percentage point</i>				
Current Tealbook	.01	.01	.25	.00
Previous Tealbook	.01	.01	.20	.00
<i>Decrease by 1 percentage point</i>				
Current Tealbook	.42	.28	.08	.62
Previous Tealbook	.31	.22	.13	.58

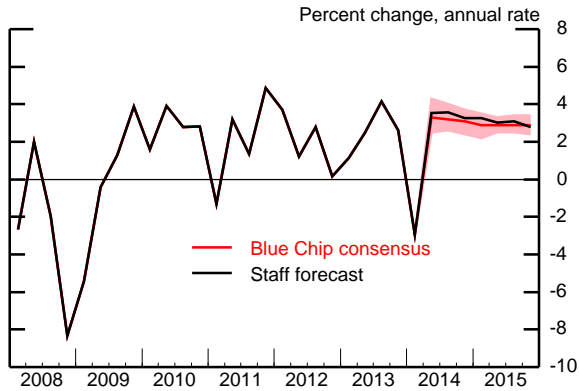
Probability of Near-Term Recession

Probability that real GDP declines in each of 2014:Q3 and 2014:Q4	Staff	FRB/US	EDO	BVAR	Factor Model
Current Tealbook	.03	.04	.04	.11	.09
Previous Tealbook	.03	.05	.04	.04	.22

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.

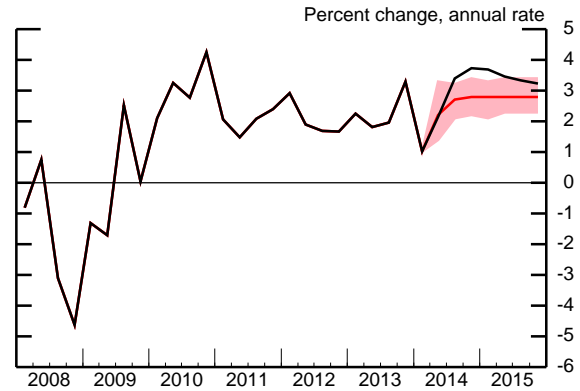
Tealbook Forecast Compared with Blue Chip (Blue Chip survey released July 10, 2014)

Real GDP

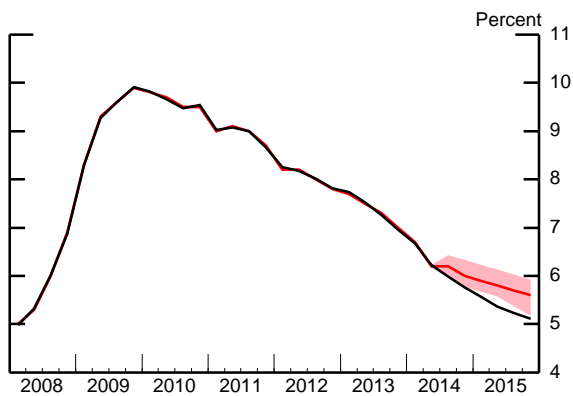


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

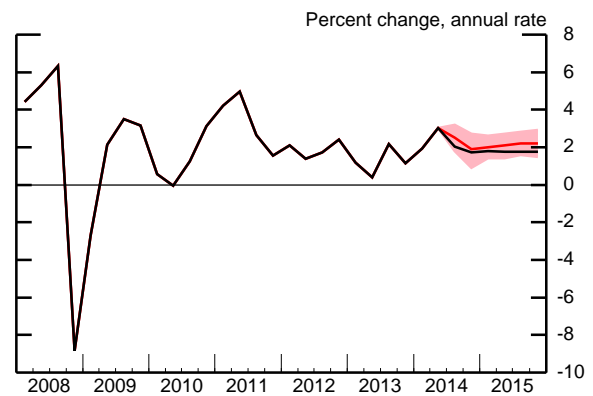
Real PCE



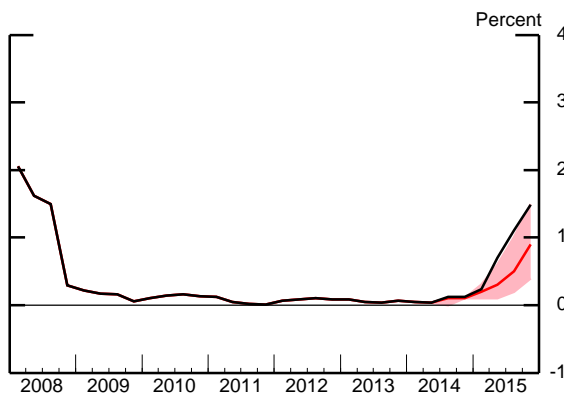
Unemployment Rate



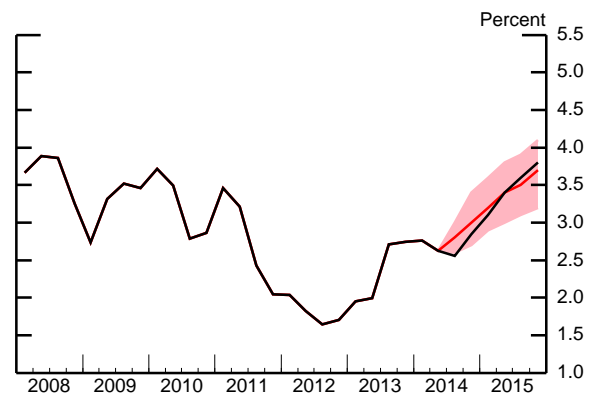
Consumer Price Index



Treasury Bill Rate



10-Year Treasury Yield



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

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	
	06/11/14	07/23/14	06/11/14	07/23/14	06/11/14	07/23/14	06/11/14	07/23/14	06/11/14	07/23/14
<i>Quarterly</i>										
2013:Q1	2.8	2.8	1.1	1.1	1.1	1.4	1.4	1.4	7.7	7.7
Q2	3.1	3.1	2.5	2.5	-1	.6	.6	.6	7.5	7.5
Q3	6.2	6.2	4.1	4.1	1.9	1.4	1.4	1.4	7.3	7.3
Q4	4.2	4.2	2.6	2.6	1.1	1.3	1.3	1.3	7.0	7.0
2014:Q1	-2	-1.7	-1.5	-2.9	1.4	1.2	1.2	1.2	6.7	6.7
Q2	6.0	5.4	4.2	3.5	2.0	1.8	1.9	1.9	6.3	6.2
Q3	5.2	5.4	3.5	3.6	1.5	1.5	1.8	1.8	6.2	6.0
Q4	5.1	5.0	3.5	3.3	1.2	1.4	1.5	1.5	6.0	5.8
2015:Q1	5.2	5.2	3.3	3.3	1.4	1.6	1.7	1.7	5.8	5.6
Q2	4.7	4.8	2.9	3.0	1.5	1.7	1.8	1.8	5.7	5.4
Q3	4.6	4.8	3.0	3.1	1.4	1.5	1.6	1.6	5.5	5.2
Q4	4.5	4.4	2.9	2.8	1.3	1.5	1.5	1.5	5.4	5.1
<i>Two-quarter²</i>										
2013:Q2	3.0	3.0	1.8	1.8	.5	1.0	1.0	1.0	-3	-3
Q4	5.2	5.2	3.4	3.4	1.5	1.3	1.3	1.3	-5	-5
2014:Q2	2.9	1.8	1.3	.3	1.7	1.5	1.6	1.6	-7	-8
Q4	5.2	5.2	3.5	3.4	1.4	1.4	1.6	1.6	-3	-4
2015:Q2	4.9	5.0	3.1	3.2	1.4	1.5	1.7	1.7	-3	-4
Q4	4.6	4.6	3.0	2.9	1.3	1.5	1.6	1.6	-3	-3
<i>Four-quarter³</i>										
2012:Q4	3.8	3.8	2.0	2.0	1.7	1.7	1.7	1.7	-9	-9
2013:Q4	4.1	4.1	2.6	2.6	1.0	1.2	1.2	1.2	-8	-8
2014:Q4	4.0	3.5	2.4	1.8	1.5	1.5	1.6	1.6	-1.0	-1.2
2015:Q4	4.8	4.8	3.0	3.0	1.4	1.5	1.7	1.7	-6	-7
2016:Q4	5.0	4.8	3.2	3.0	1.5	1.7	1.8	1.8	-4	-4
<i>Annual</i>										
2012	4.6	4.6	2.8	2.8	1.8	1.8	1.8	1.8	8.1	8.1
2013	3.4	3.4	1.9	1.9	1.1	1.2	1.2	1.2	7.4	7.4
2014	3.8	3.3	2.2	1.7	1.4	1.4	1.4	1.4	6.3	6.2
2015	5.0	5.0	3.3	3.2	1.4	1.5	1.7	1.7	5.6	5.3
2016	4.9	4.8	3.1	3.0	1.5	1.6	1.7	1.7	5.1	4.8

1. Level, except for two-quarter and four-quarter intervals.
2. Percent change from two quarters earlier; for unemployment rate, change is in percentage points.
3. Percent change from four quarters earlier; for unemployment rate, change is in percentage points.

Greensheets

Changes in Real Gross Domestic Product and Related Items

(Percent, annual rate except as noted)

Item	2013			2014				2015				2013 ¹	2014 ¹	2015 ¹	2016 ¹
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Real GDP <i>Previous Tealbook</i>	2.5 2.5	4.1 4.1	2.6 2.6	-2.9 -1.5	3.5 4.2	3.6 3.5	3.3 3.5	3.3 3.3	3.0 2.9	3.1 3.0	2.8 2.9	2.6 2.6	1.8 2.4	3.0 3.0	3.0 3.2
Final sales <i>Previous Tealbook</i>	2.1 2.1	2.5 2.5	2.7 2.7	-1.3 .1	2.9 3.4	3.4 3.4	3.1 3.3	3.2 3.4	3.2 3.4	3.2 3.2	3.2 3.2	1.8 1.8	2.0 2.5	3.2 3.3	3.0 3.2
Priv. dom. final purch. <i>Previous Tealbook</i>	2.6 2.6	2.7 2.7	3.2 3.2	.5 2.2	3.5 3.9	3.6 4.0	3.9 4.3	4.0 4.3	4.0 4.1	4.0 4.0	3.8 3.9	2.5 2.5	2.9 3.6	4.0 4.1	3.4 3.6
Personal cons. expend. <i>Previous Tealbook</i>	1.8 1.8	2.0 2.0	3.3 3.3	1.0 3.1	2.1 3.0	3.4 3.7	3.7 4.1	3.7 4.1	3.5 3.5	3.3 3.3	3.2 3.2	2.3 2.3	2.6 3.5	3.4 3.5	2.8 2.9
Durables	6.2	7.9	2.8	1.2	12.3	10.0	11.6	8.8	9.1	8.2	8.0	5.6	8.7	8.5	6.2
Nondurables	1.6	2.9	2.9	-3	2.6	2.8	2.6	3.0	2.6	2.6	2.5	2.6	1.9	2.7	2.2
Services	1.2	.7	3.5	1.5	.4	2.6	2.9	3.1	2.8	2.8	2.7	1.7	1.8	2.8	2.4
Residential investment <i>Previous Tealbook</i>	14.2 14.2	10.3 10.3	-7.9 -7.9	-4.2 -4.8	4.4 4.3	4.9 8.3	11.2 9.3	10.2 12.7	14.4 14.7	15.4 15.2	15.0 15.7	6.9 6.9	3.9 4.1	13.7 14.6	11.9 13.3
Nonres. priv. fixed invest. <i>Previous Tealbook</i>	4.7 4.7	4.8 4.8	5.7 5.7	-1.2 -8	11.3 8.8	4.2 4.6	3.0 3.9	4.4 4.8	4.1 4.7	4.4 4.7	4.0 4.5	2.6 2.6	4.3 4.1	4.2 4.7	4.4 4.6
Equipment & intangibles <i>Previous Tealbook</i>	1.3 1.3	2.4 2.4	8.0 8.0	.8 1.2	11.7 10.1	3.3 3.9	2.1 2.8	5.0 5.5	4.9 5.5	5.3 5.4	4.7 5.2	3.5 3.5	4.4 4.4	5.0 5.4	4.9 5.4
Nonres. structures <i>Previous Tealbook</i>	17.6 17.6	13.4 13.4	-1.8 -1.8	-7.7 -7.7	10.0 4.4	7.7 7.1	6.4 8.0	2.6 2.2	1.3 2.2	1.3 2.3	1.7 2.3	-7 -7	3.8 2.8	1.7 2.2	2.6 2.1
Net exports ² <i>Previous Tealbook</i> ²	-424 -424	-420 -420	-383 -383	-441 -441	-453 -436	-440 -433	-444 -440	-450 -445	-451 -445	-453 -449	-455 -452	-412 -412	-444 -437	-452 -448	-458 -452
Exports	8.0	3.9	9.5	-8.9	8.3	4.8	4.8	4.9	5.1	5.3	4.8	4.9	2.0	5.0	5.5
Imports	6.9	2.4	1.5	1.8	8.8	1.8	4.6	5.1	4.4	4.7	4.3	2.8	4.2	4.6	4.6
Gov't. cons. & invest. <i>Previous Tealbook</i>	-4 -4	.4 .4	-5.2 -5.2	-8 -7	1.2 -3	.0 -4	-5 -5	-4 -6	-6 -8	-5 -7	.0 -2	-2.4 -2.4	.0 -5	-4 -6	.7 .6
Federal	-1.6	-1.5	-12.8	.6	-1.5	-2.0	-3.4	-3.1	-3.9	-3.5	-2.4	-6.2	-1.6	-3.2	-1.2
Defense	-6	-5	-14.4	-2.5	-1.6	-3.4	-4.2	-3.6	-4.8	-4.3	-2.6	-6.9	-2.9	-3.8	-2.0
Nondefense	-3.1	-3.1	-10.0	5.9	-1.4	.2	-2.0	-2.2	-2.4	-2.4	-2.1	-5.0	.6	-2.3	.0
State & local	.4	1.7	.0	-1.7	3.0	1.3	1.3	1.3	1.4	1.4	1.4	.2	1.0	1.4	1.8
Change in priv. inventories ² <i>Previous Tealbook</i> ²	57 57	116 116	112 112	46 45	69 80	78 87	86 96	93 96	86 81	82 75	67 66	82 82	70 77	82 80	75 66

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	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Real GDP <i>Previous Tealbook</i>	1.9 1.9	-2.8 -2.8	-2 -2	2.8 2.8	2.0 2.0	2.0 2.0	2.6 2.6	1.8 2.4	3.0 3.0	3.0 3.2
Final sales <i>Previous Tealbook</i>	2.0 2.0	-2.2 -2.2	-4 -4	2.0 2.0	1.8 1.8	2.5 2.5	1.8 1.8	2.0 2.5	3.2 3.3	3.0 3.2
Priv. dom. final purch. <i>Previous Tealbook</i>	.8 .8	-4.1 -4.1	-2.3 -2.3	3.5 3.5	3.0 3.0	2.9 2.9	2.5 2.5	2.9 3.6	4.0 4.1	3.4 3.6
Personal cons. expend. <i>Previous Tealbook</i>	1.5 1.5	-2.0 -2.0	-1 -1	3.1 3.1	2.0 2.0	2.0 2.0	2.3 2.3	2.6 3.5	3.4 3.5	2.8 2.9
Durables	4.1	-12.9	2.5	9.3	5.7	7.8	5.6	8.7	8.5	6.2
Nondurables	.1	-2.7	.2	3.3	.7	1.6	2.6	1.9	2.7	2.2
Services	1.5	.2	-6	2.1	1.9	1.3	1.7	1.8	2.8	2.4
Residential investment <i>Previous Tealbook</i>	-21.3 -21.3	-24.3 -24.3	-10.8 -10.8	-5.2 -5.2	5.6 5.6	15.5 15.5	6.9 6.9	3.9 4.1	13.7 14.6	11.9 13.3
Nonres. priv. fixed invest. <i>Previous Tealbook</i>	7.1 7.1	-8.9 -8.9	-12.2 -12.2	8.1 8.1	8.6 8.6	5.0 5.0	2.6 2.6	4.3 4.1	4.2 4.7	4.4 4.6
Equipment & intangibles <i>Previous Tealbook</i>	3.9 3.9	-11.8 -11.8	-6.0 -6.0	12.0 12.0	8.7 8.7	3.9 3.9	3.5 3.5	4.4 4.4	5.0 5.4	4.9 5.4
Nonres. structures <i>Previous Tealbook</i>	17.1 17.1	-1.2 -1.2	-27.1 -27.1	-4.0 -4.0	8.3 8.3	9.3 9.3	-7 -7	3.8 2.8	1.7 2.2	2.6 2.1
Net exports ¹ <i>Previous Tealbook</i> ¹	-704 -704	-547 -547	-392 -392	-463 -463	-446 -446	-431 -431	-412 -412	-444 -437	-452 -448	-458 -452
Exports	9.8	-2.9	.4	9.8	4.6	2.4	4.9	2.0	5.0	5.5
Imports	.7	-5.9	-6.2	11.7	3.5	.1	2.8	4.2	4.6	4.6
Gov't. cons. & invest. <i>Previous Tealbook</i>	1.8 1.8	3.3 3.3	2.3 2.3	-1.1 -1.1	-3.3 -3.3	-1.1 -1.1	-2.4 -2.4	.0 -5	-4 -6	.7 .6
Federal	2.7	8.4	3.9	3.2	-3.9	-2.3	-6.2	-1.6	-3.2	-1.2
Defense	2.5	9.4	3.6	2.0	-4.2	-5.0	-6.9	-2.9	-3.8	-2.0
Nondefense	2.9	6.5	4.6	5.5	-3.3	2.6	-5.0	.6	-2.3	.0
State & local	1.2	.2	1.3	-4.0	-2.8	-.3	.2	1.0	1.4	1.8
Change in priv. inventories ¹ <i>Previous Tealbook</i> ¹	36 36	-34 -34	-148 -148	58 58	34 34	58 58	82 82	70 77	82 80	75 66

1. Billions of chained (2009) dollars.

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

Item	2013			2014				2015				2013 ¹	2014 ¹	2015 ¹	2016 ¹
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Real GDP <i>Previous Tealbook</i>	2.5 2.5	4.1 4.1	2.6 2.6	-2.9 -1.5	3.5 4.2	3.6 3.5	3.3 3.5	3.3 3.3	3.0 2.9	3.1 3.0	2.8 2.9	2.6 2.6	1.8 2.4	3.0 3.0	3.0 3.2
Final sales <i>Previous Tealbook</i>	2.1 2.1	2.5 2.5	2.6 2.6	-1.2 .1	2.9 3.4	3.4 3.4	3.1 3.3	3.2 3.4	3.2 3.3	3.2 3.1	3.2 3.2	1.8 1.8	2.0 2.5	3.2 3.3	3.0 3.2
Priv. dom. final purch. <i>Previous Tealbook</i>	2.2 2.2	2.3 2.3	2.7 2.7	.4 1.8	3.0 3.3	3.0 3.4	3.3 3.6	3.3 3.6	3.3 3.5	3.3 3.4	3.2 3.3	2.1 2.1	2.4 3.0	3.3 3.4	2.9 3.1
Personal cons. expend. <i>Previous Tealbook</i>	1.2 1.2	1.4 1.4	2.2 2.2	.7 2.1	1.5 2.1	2.3 2.6	2.6 2.8	2.5 2.6	2.4 2.4	2.3 2.3	2.2 2.2	1.6 1.6	1.8 2.4	2.4 2.4	1.9 2.0
Durables	.5	.6	.2	.1	.9	.7	.9	.7	.7	.6	.6	.4	.6	.6	.5
Nondurables	.3	.5	.5	-1	.4	.4	.4	.5	.4	.4	.4	.4	.3	.4	.3
Services	.5	.3	1.6	.7	.2	1.2	1.3	1.4	1.3	1.3	1.2	.8	.8	1.3	1.1
Residential investment <i>Previous Tealbook</i>	.4 .4	.3 .3	-.3 -.3	-1 -2	.1 .1	.2 .3	.3 .3	.3 .4	.5 .5	.5 .5	.5 .5	.2 .2	.1 .1	.5 .5	.4 .5
Nonres. priv. fixed invest. <i>Previous Tealbook</i>	.6 .6	.6 .6	.7 .7	-1 -1	1.3 1.1	.5 .6	.4 .5	.5 .6	.5 .6	.5 .6	.5 .6	.3 .3	.5 .5	.5 .6	.5 .6
Equipment & intangibles <i>Previous Tealbook</i>	.1 .1	.2 .2	.7 .7	.1 .1	.9 .4	.3 .4	.2 .3	.5 .5	.5 .5	.5 .5	.5 .5	.3 .3	.4 .4	.5 .5	.5 .5
Nonres. structures <i>Previous Tealbook</i>	.4 .4	.4 .4	-1 -1	-2 -2	.3 .1	.2 .2	.2 .2	.1 .1	.0 .1	.0 .1	.0 .1	.0 .0	.1 .1	.0 .1	.1 .1
Net exports <i>Previous Tealbook</i>	-1 -1	.1 .1	1.0 1.0	-1.5 -1.5	-.3 .1	.3 .1	-.1 -.2	-2 -1	.0 .0	.0 -.1	-.1 -.1	.2 .2	-.4 -.4	-.1 -.1	.0 .0
Exports	1.0	.5	1.2	-1.3	1.1	.6	.6	.7	.7	.7	.6	.7	.3	.7	.7
Imports	-1.1	-.4	-.2	-.3	-1.4	-.3	-.8	-.8	-.7	-.8	-.7	-.5	-.7	-.8	-.8
Gov't. cons. & invest. <i>Previous Tealbook</i>	-1 -1	.1 .1	-1.0 -1.0	-1 -1	.2 -1	.0 -1	-.1 -1	-1 -1	-1 -1	-1 -1	.0 .0	-.5 -.5	.0 -1	-.1 -1	.1 .1
Federal	-1	-1	-1.0	.1	-1	-1	-.2	-2	-3	-2	-.2	-.5	-.1	-.2	-.1
Defense	.0	.0	-.7	-1	-1	-1	-.2	-2	-2	-2	-.1	-.3	-.1	-.2	-.1
Nondefense	-1	-1	-.3	.2	.0	.0	-.1	-1	-1	-1	-.1	-.1	.0	-.1	.0
State & local	.1	.2	.0	-.2	.3	.2	.1	.2	.2	.2	.2	.0	.1	.2	.2
Change in priv. inventories <i>Previous Tealbook</i>	.4 .4	1.7 1.7	.0 .0	-1.7 -1.6	.6 .9	.2 .2	.2 .2	.1 -.1	-.2 -.4	-.1 -.1	-.4 -.2	.7 .7	-.2 -.1	-.1 -.2	.0 .0

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

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

Item	2013			2014				2015				2013 ¹	2014 ¹	2015 ¹	2016 ¹
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
GDP chain-wt. price index <i>Previous Tealbook</i>	.6	2.0	1.6	1.3	1.8	1.8	1.7	1.9	1.7	1.6	1.5	1.4	1.6	1.7	1.8
PCE chain-wt. price index <i>Previous Tealbook</i>	.6	2.0	1.6	1.3	1.7	1.6	1.5	1.8	1.7	1.6	1.5	1.4	1.6	1.7	1.7
Energy <i>Previous Tealbook</i>	-11.9	11.8	-1.0	4.1	5.3	-1	-9	-2	-7	-7	-8	-1.5	2.1	-6	-3
Food <i>Previous Tealbook</i>	-11.9	11.8	-1.0	4.0	2.3	1.4	-1.8	-1.9	-2.0	-1.4	-1.3	-1.5	1.4	-1.6	-8
Ex. food & energy <i>Previous Tealbook</i>	.5	1.2	.1	1.4	4.4	2.5	1.0	.6	.6	.8	1.1	.8	2.3	.8	1.3
Ex. food & energy <i>Previous Tealbook</i>	.5	1.2	.1	1.4	3.4	1.9	1.2	1.0	1.1	1.1	1.2	.8	2.0	1.1	1.3
Ex. food & energy <i>Previous Tealbook</i>	.6	1.4	1.3	1.2	1.9	1.8	1.5	1.7	1.8	1.6	1.5	1.2	1.6	1.7	1.8
Ex. food & energy, market based <i>Previous Tealbook</i>	.6	1.4	1.3	1.2	1.8	1.5	1.4	1.6	1.7	1.5	1.5	1.2	1.5	1.6	1.7
CPI <i>Previous Tealbook</i>	.5	1.4	1.0	1.0	1.9	1.8	1.5	1.7	1.8	1.6	1.5	1.2	1.5	1.7	1.8
Ex. food & energy <i>Previous Tealbook</i>	.5	1.4	1.0	1.0	1.8	1.5	1.4	1.6	1.7	1.5	1.5	1.2	1.4	1.6	1.7
ECL, hourly compensation ² <i>Previous Tealbook</i> ²	.4	2.2	1.1	1.9	3.0	2.0	1.7	1.8	1.8	1.8	1.8	1.2	2.2	1.8	1.9
Nonfarm business sector Output per hour <i>Previous Tealbook</i>	.4	2.2	1.1	1.9	2.5	2.0	1.5	1.5	1.5	1.6	1.5	1.2	2.0	1.6	1.7
Compensation per hour <i>Previous Tealbook</i>	1.4	1.8	1.6	1.6	2.5	2.1	2.1	2.2	2.2	2.1	2.1	1.7	2.1	2.1	2.2
Unit labor costs <i>Previous Tealbook</i>	1.4	1.8	1.6	1.6	2.4	2.0	1.9	1.9	2.0	2.0	1.9	1.7	2.0	1.9	1.9
Core goods imports chain-wt. price index ³ <i>Previous Tealbook</i> ³	2.1	2.0	2.0	1.0	2.3	2.8	2.7	2.9	2.8	2.9	2.9	2.0	2.2	2.9	3.4
	2.1	2.0	2.0	1.0	2.3	2.5	2.5	2.6	2.6	2.6	2.7	2.0	2.1	2.6	3.1
Output per hour <i>Previous Tealbook</i>	1.8	3.5	2.3	-5.8	1.5	2.6	1.5	1.4	1.6	1.7	1.3	1.4	-1	1.5	1.5
Compensation per hour <i>Previous Tealbook</i>	1.8	3.5	2.3	-3.9	1.9	2.3	1.8	1.5	1.4	1.7	1.5	1.4	.5	1.5	1.8
Unit labor costs <i>Previous Tealbook</i>	3.8	1.3	1.7	2.4	.8	2.9	2.8	3.2	3.0	3.1	3.1	.3	2.2	3.1	3.6
Core goods imports chain-wt. price index ³ <i>Previous Tealbook</i> ³	3.8	1.3	1.7	2.4	.8	2.5	2.7	2.8	2.9	2.9	3.0	.3	2.1	2.9	3.3
	2.0	-2.1	-6	8.7	-7	.3	1.3	1.8	1.4	1.4	1.8	-1.1	2.4	1.6	2.1
	2.0	-2.1	-6	6.6	-1.1	.2	.9	1.3	1.4	1.2	1.5	-1.1	1.6	1.4	1.5
	-2.4	-3.2	.6	2.8	.5	1.3	1.2	1.2	1.3	1.3	1.3	-1.1	1.4	1.3	1.3
	-2.4	-3.2	.6	2.6	1.0	1.1	1.0	1.2	1.2	1.3	1.3	-1.1	1.4	1.2	1.3

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

2. Private-industry workers.

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

Greensheets

Changes in Prices and Costs

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

Item	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GDP chain-wt. price index <i>Previous Tealbook</i>	2.5 2.5	1.9 1.9	.4 .4	1.8 1.8	1.8 1.8	1.8 1.8	1.4 1.4	1.6 1.6	1.7 1.7	1.8 1.7
PCE chain-wt. price index <i>Previous Tealbook</i>	3.3 3.3	1.5 1.5	1.2 1.2	1.3 1.3	2.6 2.6	1.7 1.7	1.0 1.0	1.7 1.5	1.5 1.4	1.6 1.5
Energy <i>Previous Tealbook</i>	19.1 19.1	-8.2 -8.2	2.3 2.3	6.4 6.4	11.7 11.7	2.1 2.1	-1.5 -1.5	2.1 1.4	-6 -1.6	-3 -8
Food <i>Previous Tealbook</i>	4.9 4.9	6.9 6.9	-1.8 -1.8	1.3 1.3	5.1 5.1	1.2 1.2	.8 .8	2.3 2.0	.8 1.1	1.3 1.3
Ex. food & energy <i>Previous Tealbook</i>	2.2 2.2	1.6 1.6	1.4 1.4	1.0 1.0	1.8 1.8	1.7 1.7	1.2 1.2	1.6 1.5	1.7 1.6	1.8 1.7
Ex. food & energy, market based <i>Previous Tealbook</i>	2.1 2.1	2.2 2.2	1.8 1.8	.7 .7	1.9 1.9	1.5 1.5	1.2 1.2	1.5 1.4	1.7 1.6	1.8 1.7
CPI <i>Previous Tealbook</i>	4.0 4.0	1.6 1.6	1.5 1.5	1.2 1.2	3.3 3.3	1.9 1.9	1.2 1.2	2.2 2.0	1.8 1.6	1.9 1.7
Ex. food & energy <i>Previous Tealbook</i>	2.3 2.3	2.0 2.0	1.8 1.8	.6 .6	2.2 2.2	1.9 1.9	1.7 1.7	2.1 2.0	2.1 1.9	2.2 1.9
ECL, hourly compensation ¹ <i>Previous Tealbook</i> ¹	3.0 3.0	2.4 2.4	1.2 1.2	2.1 2.1	2.2 2.2	1.8 1.8	2.0 2.0	2.2 2.1	2.9 2.6	3.4 3.1
Nonfarm business sector Output per hour <i>Previous Tealbook</i>	2.4 2.4	-5 -5	5.5 5.5	1.9 1.9	.4 .4	.8 .8	1.4 1.4	-.1 .5	1.5 1.5	1.5 1.8
Compensation per hour <i>Previous Tealbook</i>	3.9 3.9	3.0 3.0	1.2 1.2	1.6 1.6	1.0 1.0	5.3 5.3	.3 .3	2.2 2.1	3.1 2.9	3.6 3.3
Unit labor costs <i>Previous Tealbook</i>	1.5 1.5	3.5 3.5	-4.0 -4.0	-.3 -.3	.5 .5	4.4 4.4	-1.1 -1.1	2.4 1.6	1.6 1.4	2.1 1.5
Core goods imports chain-wt. price index ² <i>Previous Tealbook</i> ²	3.0 3.0	3.9 3.9	-1.9 -1.9	2.3 2.3	4.2 4.2	.1 .1	-1.1 -1.1	1.4 1.4	1.3 1.2	1.3 1.3

1. Private-industry workers.

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

Other Macroeconomic Indicators

Item	2013				2014				2015				2013 ¹	2014 ¹	2015 ¹	2016 ¹
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
<i>Employment and production</i>																
Nonfarm payroll employment ²	.6	.5	.6	.5	.8	.8	.7	.7	.7	.7	.6		2.4	2.7	2.6	2.6
Unemployment rate ³	7.5	7.3	7.0	6.7	6.2	6.0	5.8	5.6	5.4	5.2	5.1		7.0	5.8	5.1	4.7
<i>Previous Tealbook³</i>	7.5	7.3	7.0	6.7	6.3	6.2	6.0	5.8	5.7	5.5	5.4		7.0	6.0	5.4	5.0
Natural rate of unemployment ³	5.6	5.5	5.4	5.3	5.2	5.2	5.2	5.2	5.2	5.2	5.2		5.4	5.2	5.2	5.2
<i>Previous Tealbook³</i>	5.6	5.5	5.4	5.3	5.2	5.2	5.2	5.2	5.2	5.2	5.2		5.4	5.2	5.2	5.2
GDP gap ⁴	-3.7	-3.1	-2.8	-3.3	-2.3	-1.6	-1.0	-6	-3	.0	.3		-2.8	-1.0	.3	1.3
<i>Previous Tealbook⁴</i>	-3.7	-3.1	-2.8	-3.5	-2.8	-2.2	-1.7	-1.3	-1.0	-.7	-.4		-2.8	-1.7	-.4	.8
Industrial production ⁵	1.9	2.5	4.9	3.9	5.5	3.7	4.1	4.4	3.6	3.0	2.7		3.3	4.3	3.4	3.2
<i>Previous Tealbook⁵</i>	1.9	2.5	4.9	4.5	3.6	4.8	3.6	5.0	4.3	3.4	2.5		3.3	4.1	3.8	3.4
Manufacturing industr. prod. ⁵	1.3	1.9	4.2	1.4	6.7	3.4	3.5	3.3	3.9	3.5	3.4		2.9	3.8	3.5	3.3
<i>Previous Tealbook⁵</i>	1.3	1.9	4.2	2.1	4.2	3.6	3.0	3.6	3.4	3.5	3.5		2.9	3.2	3.5	3.4
Capacity utilization rate - mfg. ³	75.9	76.0	76.4	76.2	77.1	77.3	77.6	77.7	78.0	78.3	78.4		76.4	77.6	78.4	79.1
<i>Previous Tealbook³</i>	75.9	76.0	76.4	76.3	76.6	76.8	76.8	77.0	77.2	77.4	77.5		76.4	76.8	77.5	78.3
Housing starts ⁶	.9	.9	1.0	.9	1.0	1.0	1.1	1.2	1.2	1.3	1.4		.9	1.0	1.3	1.5
Light motor vehicle sales ⁶	15.5	15.7	15.6	15.6	16.5	16.5	16.4	16.6	16.8	16.9	16.9		15.5	16.3	16.8	17.0
<i>Income and saving</i>																
Nominal GDP ⁵	3.1	6.2	4.2	-1.7	5.4	5.4	5.0	5.2	4.8	4.8	4.4		4.1	3.5	4.8	4.8
Real disposable pers. income ⁵	4.1	3.0	.7	1.5	5.5	1.4	3.9	4.3	2.4	2.9	3.1		-2	3.1	3.2	3.1
<i>Previous Tealbook⁵</i>	4.1	3.0	.7	1.7	3.9	2.4	3.2	4.1	2.6	2.8	3.2		-2	2.8	3.2	3.3
Personal saving rate ³	4.7	4.9	4.3	4.4	5.2	4.7	4.7	4.9	4.6	4.5	4.5		4.3	4.7	4.5	4.8
<i>Previous Tealbook³</i>	4.7	4.9	4.3	4.0	4.2	3.9	3.7	3.8	3.5	3.4	3.4		4.3	3.7	3.4	3.8
Corporate profits ⁷	13.9	7.7	9.2	-31.8	22.9	8.4	4.0	.1	5.9	4.6	-.1		6.2	-1.4	2.6	3.8
Profit share of GNP ³	12.3	12.4	12.5	11.4	11.9	12.0	11.9	11.8	11.8	11.8	11.7		12.5	11.9	11.7	11.6
Net federal saving ⁸	-653	-850	-653	-732	-732	-675	-698	-704	-681	-676	-672		-752	-709	-683	-725
Net state & local saving ⁸	-198	-226	-230	-240	-235	-237	-227	-227	-210	-209	-203		-221	-235	-212	-188
Gross national saving rate ³	17.7	17.8	18.1	17.2	17.9	17.9	17.9	17.8	18.0	18.0	18.0		18.1	17.9	18.0	18.4
Net national saving rate ³	2.5	2.7	3.1	1.7	3.3	3.4	3.4	3.3	3.5	3.5	3.5		3.1	3.4	3.5	3.8

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

2. Change, millions.

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

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

5. Percent change, annual rate.

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

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

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

Greensheets

Other Macroeconomic Indicators

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

Item	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Employment and production</i>										
Nonfarm payroll employment ¹	1.2	-2.8	-5.6	.8	2.0	2.2	2.4	2.7	2.6	2.6
Unemployment rate ²	4.8	6.9	9.9	9.5	8.7	7.8	7.0	5.8	5.1	4.7
<i>Previous Tealbook²</i>	4.8	6.9	9.9	9.5	8.7	7.8	7.0	6.0	5.4	5.0
Natural rate of unemployment ²	5.3	5.6	6.2	6.2	6.0	5.8	5.4	5.2	5.2	5.2
<i>Previous Tealbook²</i>	5.3	5.6	6.2	6.2	6.0	5.8	5.4	5.2	5.2	5.2
GDP gap ³	1.0	-4.0	-5.8	-4.8	-4.3	-3.9	-2.8	-1.0	.3	1.3
<i>Previous Tealbook³</i>	1.0	-4.0	-5.8	-4.8	-4.3	-3.9	-2.8	-1.7	-.4	.8
Industrial production ⁴	2.6	-8.9	-5.5	6.2	3.2	3.2	3.3	4.3	3.4	3.2
<i>Previous Tealbook⁴</i>	2.6	-8.9	-5.5	6.2	3.2	3.2	3.3	4.1	3.8	3.4
Manufacturing industr. prod. ⁴	2.8	-11.6	-6.1	6.4	3.1	3.5	2.9	3.8	3.5	3.3
<i>Previous Tealbook⁴</i>	2.8	-11.6	-6.1	6.4	3.1	3.5	2.9	3.2	3.5	3.4
Capacity utilization rate - mfg. ²	78.5	70.0	67.1	72.7	74.6	75.5	76.4	77.6	78.4	79.1
<i>Previous Tealbook²</i>	78.5	70.0	67.1	72.7	74.6	75.5	76.4	76.8	77.5	78.3
Housing starts ⁵	1.4	.9	.6	.6	.6	.8	.9	1.0	1.3	1.5
Light motor vehicle sales ⁵	16.1	13.1	10.4	11.5	12.7	14.4	15.5	16.3	16.8	17.0
<i>Income and saving</i>										
Nominal GDP ⁴	4.4	-1.0	.1	4.6	3.9	3.8	4.1	3.5	4.8	4.8
Real disposable pers. income ⁴	1.2	1.1	-.6	2.5	1.4	3.6	-.2	3.1	3.2	3.1
<i>Previous Tealbook⁴</i>	1.2	1.1	-.6	2.5	1.4	3.6	-.2	2.8	3.2	3.3
Personal saving rate ²	2.9	6.1	5.7	5.5	5.0	6.6	4.3	4.7	4.5	4.8
<i>Previous Tealbook²</i>	2.9	6.1	5.7	5.5	5.0	6.6	4.3	3.7	3.4	3.8
Corporate profits ⁶	-9.0	-30.8	54.5	17.0	8.4	2.7	6.2	-1.4	2.6	3.8
Profit share of GNP ²	9.9	6.9	10.7	11.9	12.4	12.3	12.5	11.9	11.7	11.6
Net federal saving ⁷	-267	-635	-1,250	-1,330	-1,248	-1,110	-752	-709	-683	-725
Net state & local saving ⁷	-73	-165	-272	-237	-213	-253	-221	-235	-212	-188
Gross national saving rate ²	16.3	15.0	14.7	15.2	15.8	16.9	18.1	17.9	18.0	18.4
Net national saving rate ²	1.0	-1.6	-1.6	-.4	.5	1.7	3.1	3.4	3.5	3.8

1. Change, millions.

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

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

Values are for the fourth quarter of the year indicated.

4. Percent change.

5. Level, millions; values are annual averages.

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

7. Billions of dollars; values are annual averages.

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

Item	Fiscal year				2013				2014				2015			
	2013 ^a	2014	2015	2016	Q1 ^a	Q2 ^a	Q3 ^a	Q4 ^a	Q1 ^a	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget																
Receipts ¹	2,775	3,026	3,250	3,450	581	891	687	665	656	938	767	727	672	1,028	823	766
Outlays ¹	3,454	3,482	3,688	3,895	888	800	857	837	897	890	858	939	943	919	888	968
Surplus/deficit ¹	-679	-456	-438	-445	-307	91	-170	-173	-241	47	-90	-211	-271	109	-65	-202
<i>Previous Tealbook</i>	-680	-487	-439	-464	-307	91	-170	-173	-241	39	-112	-214	-272	111	-65	-203
On-budget	-719	-488	-474	-472	-303	36	-143	-183	-238	-3	-64	-239	-257	56	-35	-226
Off-budget	39	32	35	27	-4	55	-28	10	-3	51	-27	28	-15	53	-30	23
Means of financing:																
Borrowing	702	747	469	565	336	-17	69	371	262	-46	160	152	301	-79	95	232
Cash decrease	-3	-71	89	0	14	-56	46	-74	20	3	-20	89	0	0	0	0
Other ²	-20	-220	-120	-120	-43	-18	55	-124	-42	-4	-50	-30	-30	-30	-30	-30
Cash operating balance, end of period	88	159	70	70	79	135	88	162	142	139	159	70	70	70	70	70
NIPA federal sector																
Receipts	2,938	3,149	3,327	3,515	2,900	3,167	2,976	3,119	3,090	3,178	3,207	3,244	3,311	3,355	3,400	3,439
Expenditures	3,797	3,847	4,017	4,224	3,753	3,820	3,826	3,772	3,821	3,910	3,883	3,942	4,015	4,036	4,075	4,112
Consumption expenditures	981	957	954	955	982	976	972	953	959	958	958	954	958	953	949	947
Defense	620	600	596	595	620	616	615	598	602	602	600	597	599	596	593	592
Nondefense	361	357	357	359	363	360	358	356	357	357	358	357	359	358	356	355
Other spending	2,815	2,890	3,063	3,270	2,771	2,844	2,853	2,819	2,862	2,952	2,925	2,988	3,057	3,082	3,126	3,165
Current account surplus	-859	-698	-690	-710	-853	-653	-850	-653	-732	-732	-675	-698	-704	-681	-676	-672
Gross investment	277	264	254	248	273	277	279	271	262	262	260	258	256	253	250	249
Gross saving less gross investment ³	-870	-690	-667	-675	-860	-663	-861	-654	-723	-722	-662	-681	-683	-656	-647	-641
Fiscal indicators⁴																
High-employment (HEB) surplus/deficit	-661.9	-537.2	-634.8	-727.3	-638.4	-449.4	-667.7	-481.1	-536.9	-575.7	-555.2	-606.3	-640.1	-638.8	-653.8	-667.5
Change in HEB, percent of potential GDP	-1.8	-8	.5	.4	-1.5	-1.1	1.2	-1.1	.3	.2	-1	.3	.2	.0	.1	.0
Fiscal impetus (FI), percent of GDP	-1.2	-5	-.3	-.1	-1.9	-.8	-.5	-1.6	-.7	-.6	-.4	-.5	-.6	-.2	-.2	-.2
<i>Previous Tealbook</i>	-1.2	-.6	-.3	-.1	-1.9	-.8	-.5	-1.6	-.7	-.7	-.4	-.5	-.6	-.2	-.2	-.2

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

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

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

4. HEB is gross saving less gross investment (NIPA) of the federal government in current dollars, with cyclically sensitive receipts and outlays adjusted to the staff's measure of potential output and the natural rate of unemployment. The sign on Change in HEB, as a percent of nominal potential GDP, is reversed. FI is the weighted difference of discretionary changes in federal spending and taxes in chained (2009) dollars, scaled by real GDP. The FI estimates are calendar year contributions to Q4/Q4 real GDP growth. Also, for FI and the change in HEB, positive values indicate aggregate demand stimulus. Quarterly figures for change in HEB and FI are not at annual rates.

a Actual.

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

Measure and country	2013				2014				Projected-----			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP¹												
Total foreign	2.2	2.1	3.1	2.6	2.1	2.4	3.1	3.1	3.2	3.2	3.3	3.0
<i>Previous Tealbook</i>	2.1	2.1	3.2	2.6	2.1	2.5	3.2	3.2	3.2	3.3	3.4	3.1
Advanced foreign economies	1.9	2.0	2.0	2.0	2.0	1.2	2.1	2.1	2.2	2.2	2.4	1.7
Canada	3.0	1.9	3.0	2.7	1.2	2.4	2.4	2.5	2.5	2.5	2.5	2.5
Japan	5.3	2.9	1.3	.3	6.7	-5.3	2.5	1.8	1.5	1.2	3.0	-2.9
United Kingdom	2.1	2.7	3.4	2.6	3.3	3.0	3.0	2.7	2.6	2.6	2.6	2.4
Euro area	-.8	1.3	.4	1.2	.8	1.4	1.3	1.4	1.7	1.9	1.8	1.9
Germany	.0	2.9	1.3	1.5	3.3	.4	1.9	1.9	2.0	2.0	2.1	2.1
Emerging market economies	2.4	2.3	4.2	3.2	2.3	3.6	4.0	4.2	4.2	4.3	4.3	4.3
Asia	3.6	5.0	5.9	5.9	3.5	5.1	5.4	5.4	5.4	5.4	5.4	5.4
Korea	2.5	4.1	4.4	3.6	3.8	2.7	4.4	4.4	4.2	4.2	4.2	4.2
China	6.5	7.2	8.8	8.0	5.5	7.8	7.6	7.5	7.3	7.3	7.2	7.2
Latin America	1.3	-.2	2.9	.9	1.1	2.3	2.8	3.1	3.2	3.3	3.3	3.4
Mexico	1.0	-2.9	3.9	.5	1.1	3.0	3.3	3.5	3.5	3.6	3.6	3.7
Brazil	1.5	6.6	-1.2	1.8	.7	.2	1.2	2.0	2.1	2.2	2.3	2.3
Consumer prices²												
Total foreign	2.3	1.9	2.7	2.4	2.0	3.0	2.6	2.5	2.5	2.5	2.6	3.0
<i>Previous Tealbook</i>	2.3	1.9	2.7	2.4	2.0	2.7	2.6	2.5	2.5	2.5	2.5	3.0
Advanced foreign economies	1.0	.5	2.0	.7	1.1	3.2	1.3	1.4	1.4	1.4	1.5	2.6
Canada	1.6	-.1	1.9	.5	2.8	3.7	1.7	1.7	1.8	1.8	1.9	1.9
Japan	.0	.8	3.0	1.9	.4	9.3	.8	.9	.9	1.0	1.1	6.4
United Kingdom	2.4	1.9	2.7	1.3	1.1	1.9	2.4	2.3	1.7	1.7	1.8	2.3
Euro area	.8	.7	1.6	.1	.2	.5	1.2	1.3	1.3	1.3	1.4	1.4
Germany	1.4	.9	2.4	.7	.1	.4	1.3	1.5	1.6	1.6	1.6	1.6
Emerging market economies	3.4	3.0	3.2	3.7	2.7	2.8	3.6	3.4	3.4	3.4	3.4	3.3
Asia	3.4	2.0	3.5	3.4	1.5	2.3	3.4	3.3	3.3	3.2	3.2	3.2
Korea	1.0	.4	1.7	1.1	1.3	2.4	2.5	3.1	3.2	3.2	3.2	3.1
China	3.2	2.1	3.4	3.0	.8	1.7	3.5	3.0	3.0	3.0	3.0	3.0
Latin America	3.5	5.4	2.6	4.5	5.7	4.1	4.1	3.8	3.8	3.8	3.8	3.8
Mexico	3.2	5.3	2.0	4.2	5.2	3.0	3.6	3.3	3.3	3.3	3.3	3.3
Brazil	7.0	5.8	4.6	6.0	6.9	8.3	6.7	5.6	5.4	5.4	5.4	5.4

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

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

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

Measure and country	2008	2009	2010	2011	2012	2013	2014	2015	2016
	-----Projected-----								
Real GDP¹									
Total foreign	-7	.9	4.7	3.0	2.3	2.5	2.7	3.2	3.3
<i>Previous Tealbook</i>	-7	.9	4.7	3.0	2.3	2.5	2.7	3.2	3.3
Advanced foreign economies	-1.6	-1.5	3.0	1.5	.3	2.0	1.9	2.1	2.2
Canada	.1	-1.4	3.6	2.4	1.0	2.7	2.1	2.5	2.5
Japan	-4.8	-6	3.5	.3	-.3	2.4	1.3	.7	1.2
United Kingdom	-4.3	-2.5	1.8	1.1	.2	2.7	3.0	2.6	2.4
Euro area	-2.2	-2.3	2.3	.7	-1.0	.5	1.2	1.8	1.9
Germany	-1.8	-2.2	4.2	2.2	.3	1.4	1.9	2.0	2.1
Emerging market economies	.4	3.9	6.5	4.6	4.3	3.0	3.5	4.3	4.4
Asia	1.1	7.8	8.0	5.0	5.6	5.1	4.8	5.4	5.4
Korea	-1.6	4.9	6.1	3.0	2.1	3.6	3.8	4.2	4.1
China	7.7	11.3	9.7	8.7	7.8	7.6	7.1	7.2	7.1
Latin America	-6	.0	4.7	4.1	3.2	1.2	2.3	3.3	3.4
Mexico	-1.3	-1.2	4.5	4.2	3.3	.6	2.7	3.6	3.7
Brazil	.9	5.3	5.4	1.4	1.8	2.2	1.0	2.2	2.5
Consumer prices²									
Total foreign	3.3	1.2	3.2	3.4	2.3	2.3	2.5	2.6	2.6
<i>Previous Tealbook</i>	3.3	1.2	3.2	3.4	2.3	2.3	2.5	2.6	2.6
Advanced foreign economies	2.0	.2	1.7	2.2	1.3	1.0	1.8	1.7	1.6
Canada	1.8	.8	2.2	2.7	.9	1.0	2.5	1.8	2.0
Japan	1.1	-2.0	-.3	-.3	-.2	1.4	2.8	2.3	1.3
United Kingdom	3.9	2.2	3.4	4.6	2.6	2.1	1.9	1.9	1.9
Euro area	2.3	.4	2.0	2.9	2.3	.8	.8	1.3	1.5
Germany	1.7	.3	1.6	2.6	2.0	1.3	.8	1.6	1.7
Emerging market economies	4.6	2.0	4.3	4.3	3.1	3.3	3.1	3.4	3.3
Asia	3.7	1.2	4.3	4.5	2.6	3.1	2.6	3.2	3.2
Korea	4.5	2.4	3.2	3.9	1.7	1.1	2.3	3.2	3.2
China	2.5	.6	4.7	4.6	2.1	2.9	2.2	3.0	3.0
Latin America	6.6	3.9	4.4	4.0	4.3	4.0	4.4	3.8	3.7
Mexico	6.2	4.0	4.3	3.5	4.1	3.7	3.8	3.3	3.3
Brazil	6.2	4.2	5.6	6.7	5.6	5.8	6.9	5.4	5.3

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

U.S. Current Account

Quarterly Data

	2013				2014				Projected-----			
									2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	<i>Billions of dollars, s.a.a.r.</i>											
U.S. current account balance	-422.0	-424.6	-405.2	-349.3	-444.6	-460.3	-453.8	-450.4	-477.8	-453.4	-472.2	-485.1
<i>Previous Tealbook</i>	<i>-416.2</i>	<i>-404.4</i>	<i>-384.1</i>	<i>-318.6</i>	<i>-400.3</i>	<i>-401.9</i>	<i>-405.7</i>	<i>-407.8</i>	<i>-431.4</i>	<i>-404.4</i>	<i>-425.8</i>	<i>-437.4</i>
Current account as percent of GDP	-2.6	-2.5	-2.4	-2.0	-2.6	-2.7	-2.6	-2.5	-2.7	-2.5	-2.6	-2.6
<i>Previous Tealbook</i>	<i>-2.5</i>	<i>-2.4</i>	<i>-2.3</i>	<i>-1.9</i>	<i>-2.3</i>	<i>-2.3</i>	<i>-2.3</i>	<i>-2.3</i>	<i>-2.4</i>	<i>-2.2</i>	<i>-2.3</i>	<i>-2.3</i>
Net goods & services	-483.8	-487.2	-484.8	-449.8	-507.3	-530.1	-519.1	-521.5	-529.3	-515.6	-522.0	-529.3
Investment income, net	192.3	199.1	215.1	227.6	195.4	205.1	203.2	207.0	199.6	191.5	181.7	173.7
Direct, net	278.4	282.2	296.1	306.8	277.8	281.0	279.9	287.6	290.1	299.0	308.1	319.8
Portfolio, net	-86.1	-83.1	-81.1	-79.1	-82.4	-75.9	-76.7	-80.5	-90.5	-107.5	-126.4	-146.0
Other income and transfers, net	-130.5	-136.5	-135.5	-127.1	-132.7	-135.3	-137.9	-136.0	-148.1	-129.4	-132.0	-129.6

Annual Data

	2008	2009	2010	2011	2012	2013	2014	2015	2016
	-----Projected-----								
	Billions of dollars								
U.S. current account balance	-686.6	-380.8	-443.9	-459.3	-460.8	-400.3	-452.3	-472.1	-517.8
Previous Tealbook	-687.8	-381.8	-444.8	-449.5	-443.4	-380.8	-404.0	-424.7	-459.5
Current account as percent of GDP	-4.7	-2.6	-3.0	-3.0	-2.8	-2.4	-2.6	-2.6	-2.7
Previous Tealbook	-4.7	-2.6	-3.0	-2.9	-2.7	-2.3	-2.3	-2.3	-2.4
Net goods & services	-708.7	-383.8	-494.7	-548.6	-537.6	-476.4	-519.5	-524.0	-530.8
Investment income, net	157.8	132.3	185.7	229.0	211.4	208.5	202.7	186.6	147.7
Direct, net	284.3	257.7	288.0	298.6	281.6	290.9	281.6	304.2	341.2
Portfolio, net	-126.4	-125.4	-102.3	-69.5	-70.2	-82.3	-78.9	-117.6	-193.5
Other income and transfers, net	-135.8	-129.3	-135.0	-139.8	-134.6	-132.4	-135.4	-134.7	-134.7

Class I FOMC – Restricted Controlled (FR)

Report to the FOMC on Economic Conditions and Monetary Policy



Book B Monetary Policy: Strategies and Alternatives

July 24, 2014

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

Policy Rules and the Staff Projection

Near-Term Prescriptions of Selected Policy Rules¹

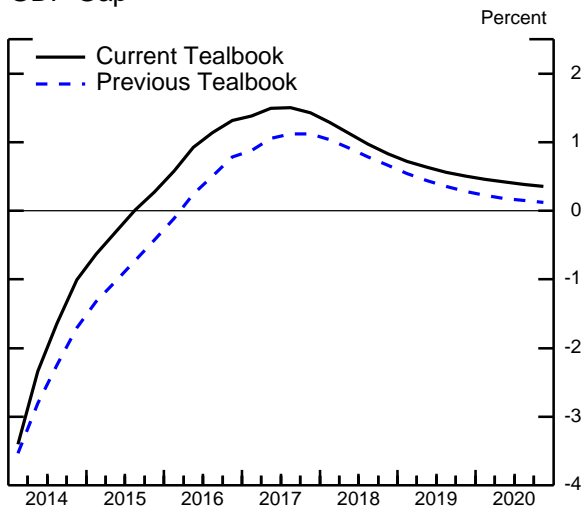
	Constrained Policy		Unconstrained Policy	
	2014Q3	2014Q4	2014Q3	2014Q4
Taylor (1993) rule	2.27	2.66	2.27	2.66
<i>Previous Tealbook</i>	1.84	2.12	1.84	2.12
Taylor (1999) rule	1.46	2.16	1.46	2.16
<i>Previous Tealbook</i>	0.73	1.28	0.73	1.28
Inertial Taylor (1999) rule	0.33	0.60	0.33	0.60
<i>Previous Tealbook outlook</i>	0.22	0.37	0.22	0.37
Outcome-based rule	0.75	1.58	0.75	1.58
<i>Previous Tealbook outlook</i>	0.54	1.12	0.54	1.12
First-difference rule	0.97	1.61	0.97	1.61
<i>Previous Tealbook outlook</i>	0.77	1.30	0.77	1.30
Nominal income targeting rule	0.13	0.13	-0.31	-0.49
<i>Previous Tealbook outlook</i>	0.13	0.13	-0.49	-0.85

Memo: Equilibrium and Actual Real Federal Funds Rates²

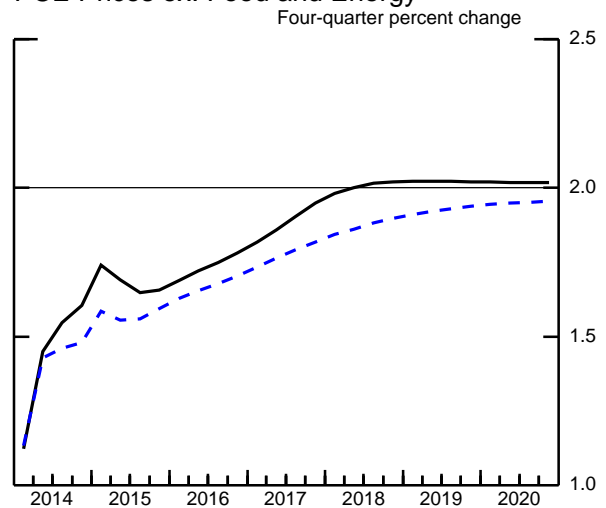
	Current Tealbook	Current Quarter Estimate as of Previous Tealbook	Previous Tealbook
Tealbook-consistent FRB/US r^* estimate	-0.29	-0.55	-0.64
Actual real federal funds rate	-1.31		-1.01

Key Elements of the Staff Projection

GDP Gap



PCE Prices ex. Food and Energy

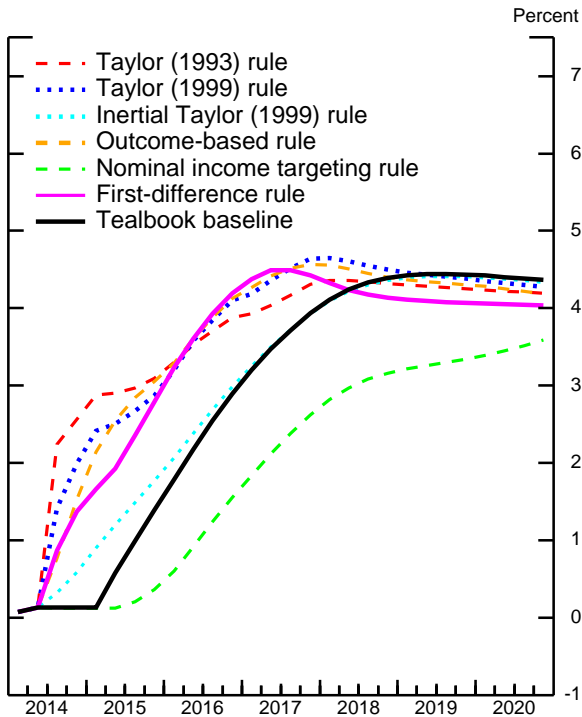


1. For rules that have the lagged policy rate as a right-hand-side variable, the lines denoted "Previous Tealbook outlook" report rule prescriptions based on the previous Tealbook's staff outlook, but jumping off from the realized value for the policy rate last quarter.

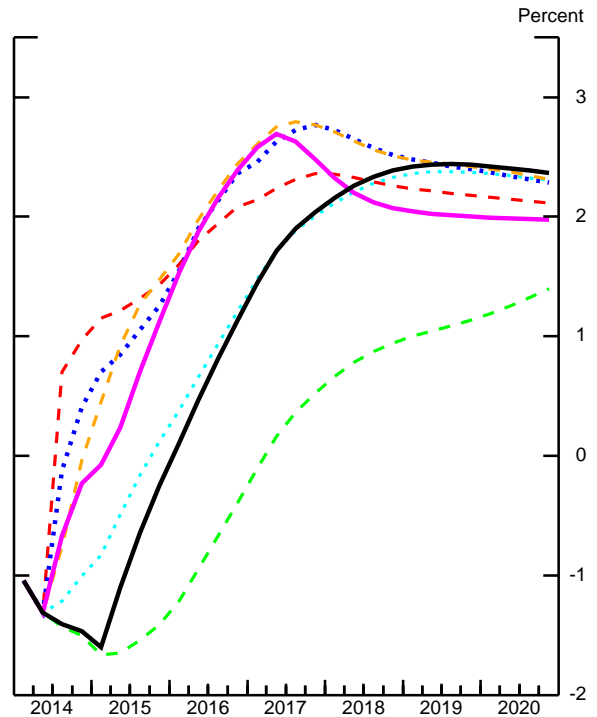
2. Estimates of r^* may change at the beginning of a quarter even when the staff outlook is unchanged because the twelve-quarter horizon covered by the calculation has rolled forward one quarter. Therefore, whenever the Tealbook is published early in the quarter, the memo includes a third column labeled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

Policy Rule Simulations

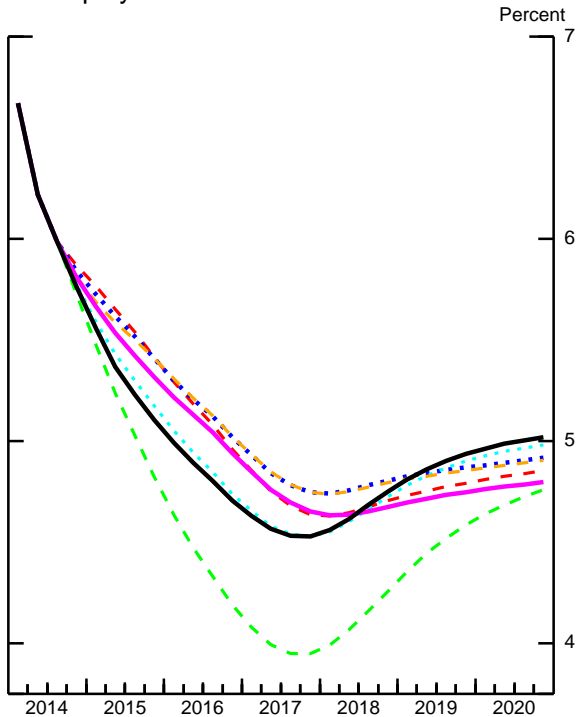
Effective Nominal Federal Funds Rate



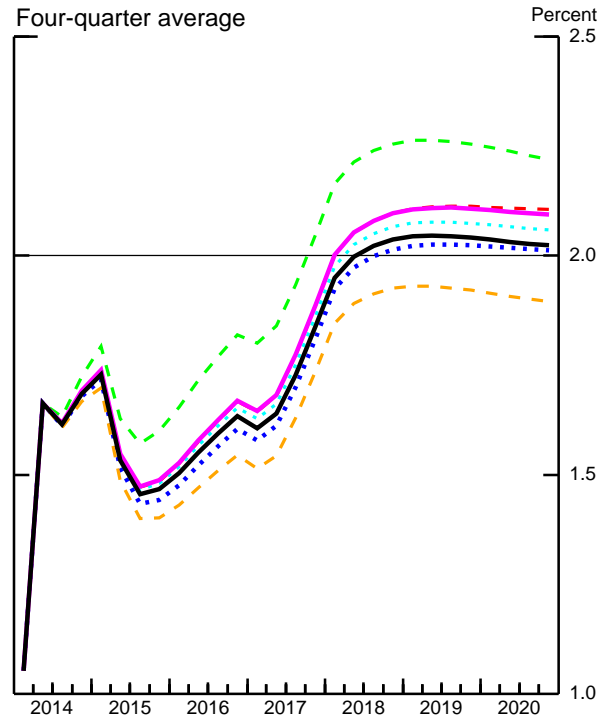
Real Federal Funds Rate



Unemployment Rate



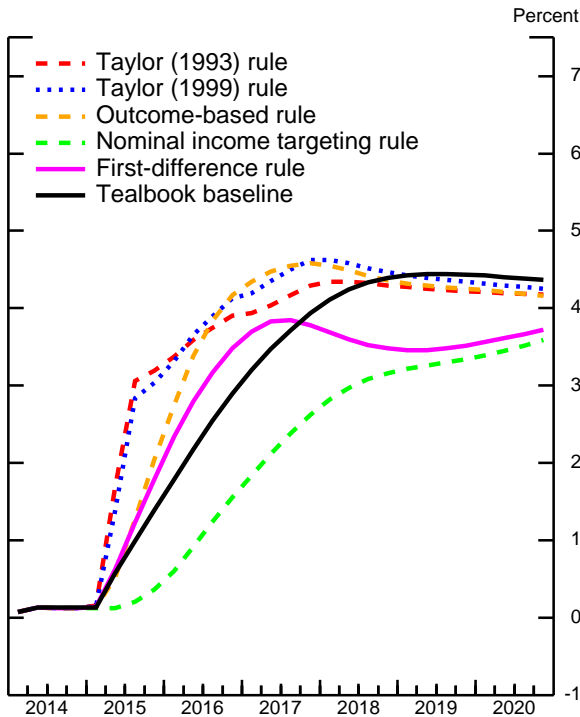
PCE Inflation
Four-quarter average



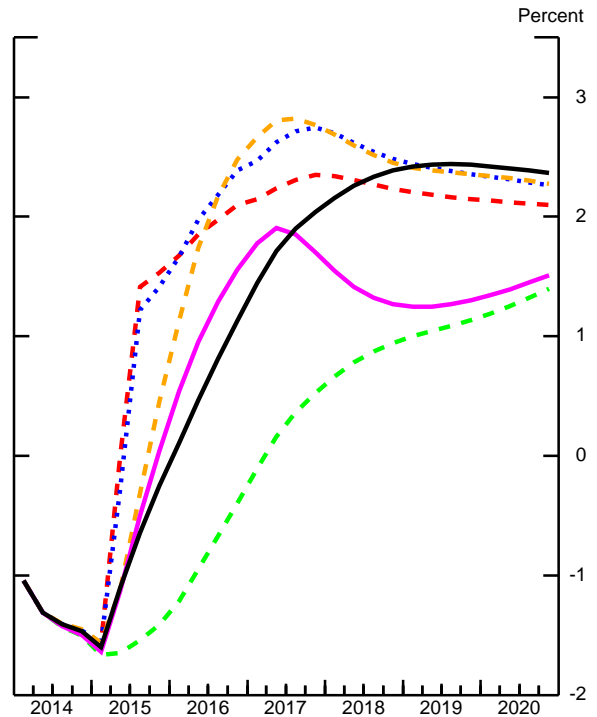
Note: The policy rule simulations in this exhibit are based on rules that respond to core inflation. This choice of rule specification was made in light of the tendency for current and near-term core inflation rates to outperform headline inflation rates as predictors of the medium-term behavior of headline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

Policy Rule Simulations with an Unemployment Rate Threshold

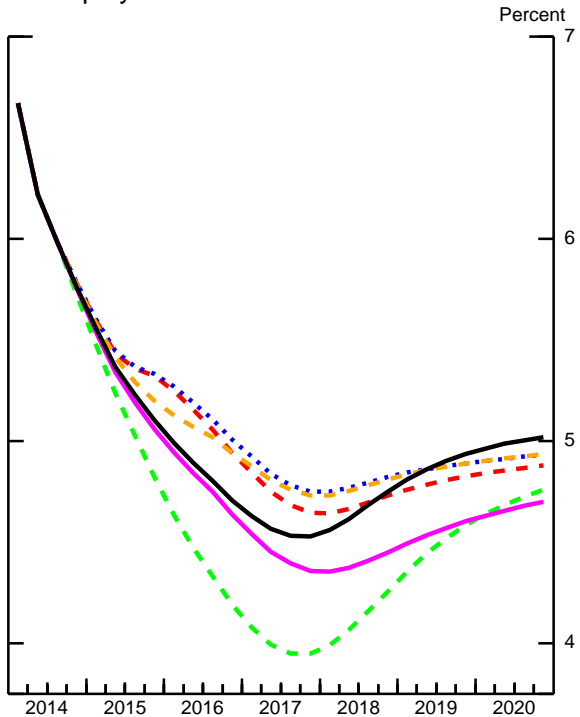
Effective Nominal Federal Funds Rate



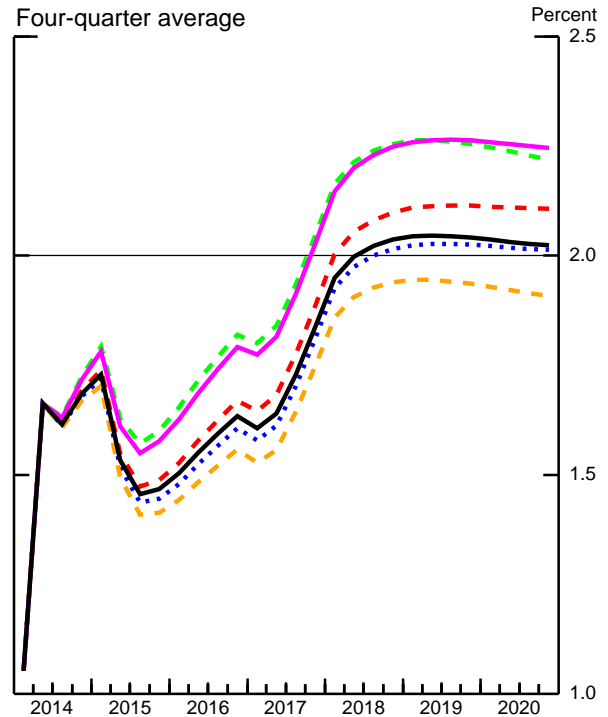
Real Federal Funds Rate



Unemployment Rate



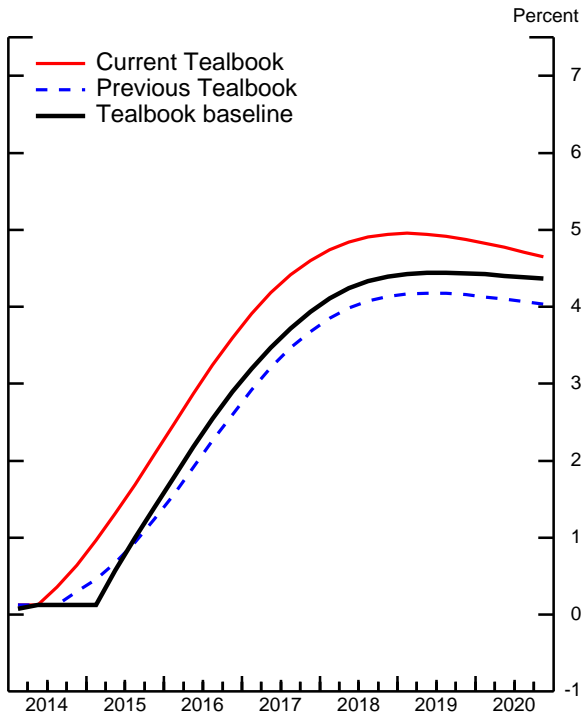
PCE Inflation
Four-quarter average



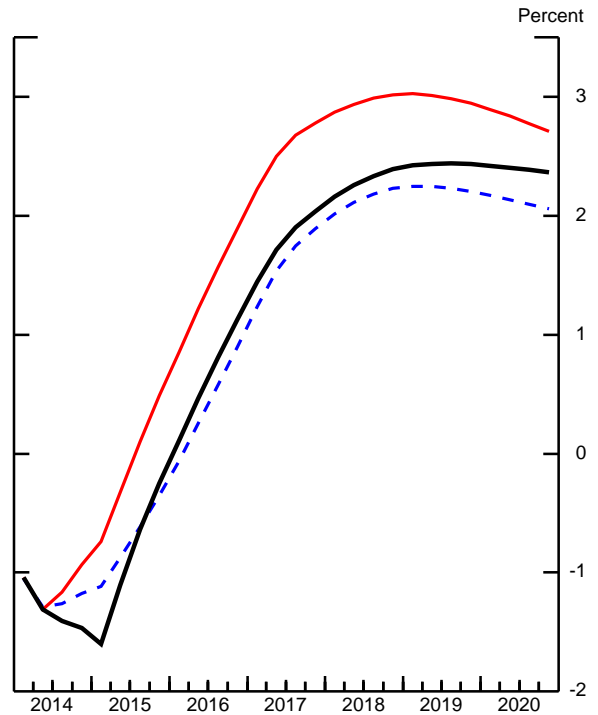
Note: The policy rule simulations in this exhibit keep the federal funds rate at an effective lower bound of 12½ basis points as long as the unemployment rate is 5.6 percent or more. Thereafter, the federal funds rate follows the prescriptions of the specified rule. A value of 5.6 percent was chosen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

Optimal Control Policy

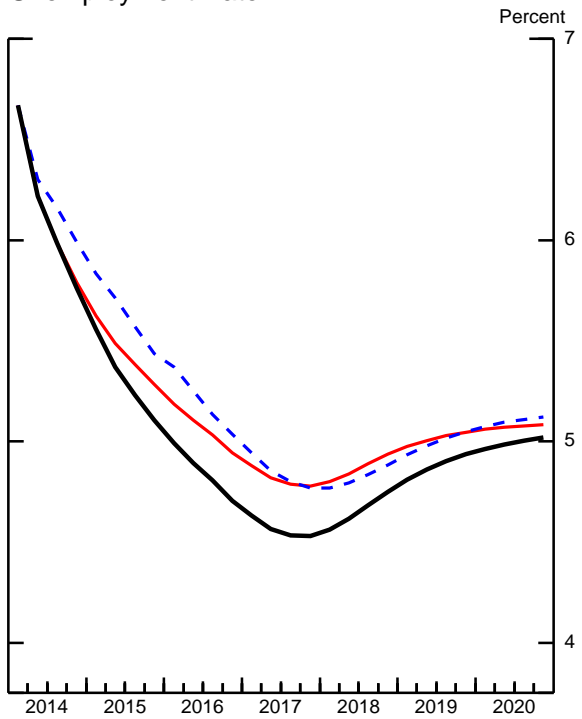
Effective Nominal Federal Funds Rate



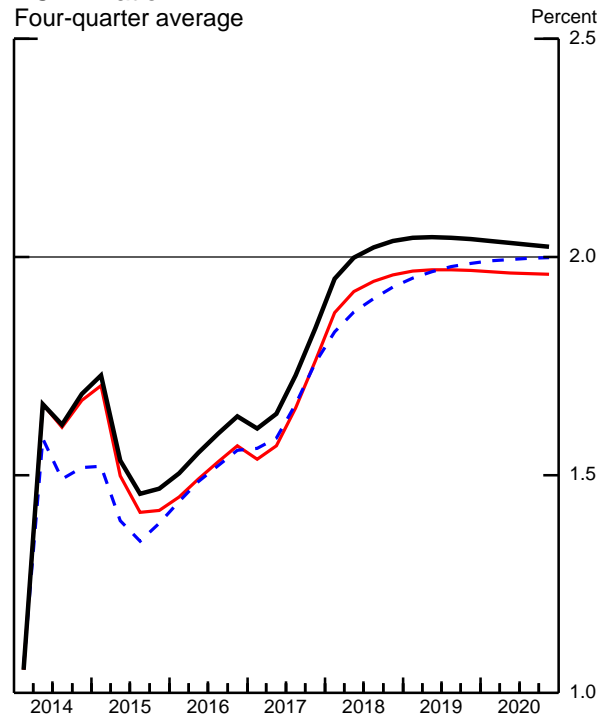
Real Federal Funds Rate



Unemployment Rate

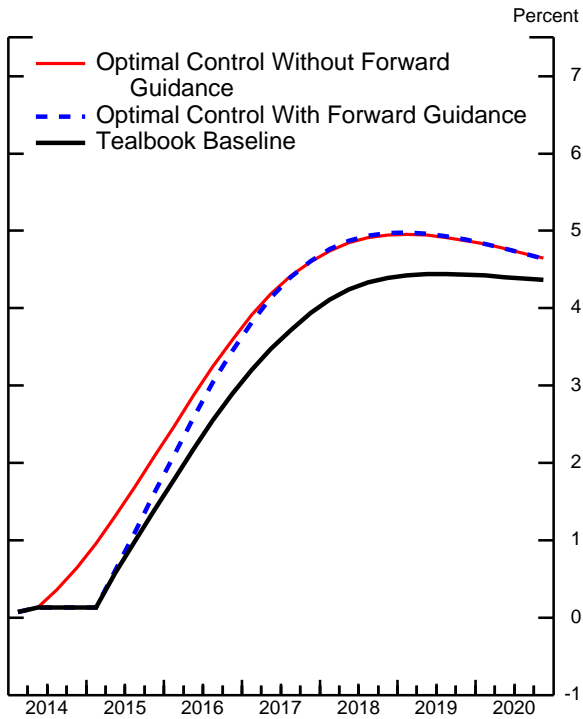


PCE Inflation
Four-quarter average

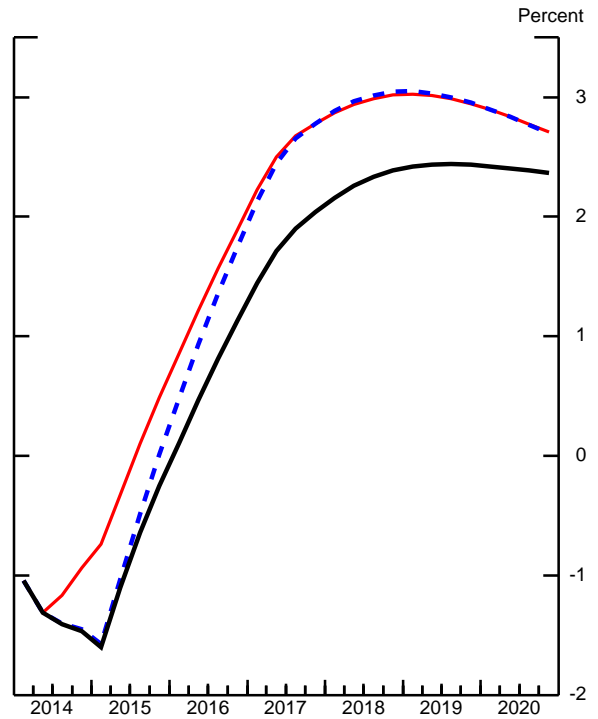


Optimal Control Policy With Forward Guidance Regarding Liftoff

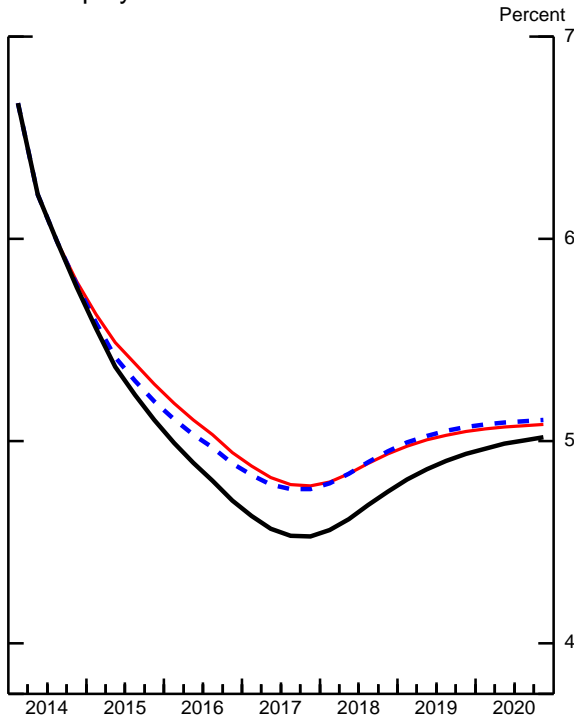
Effective Nominal Federal Funds Rate



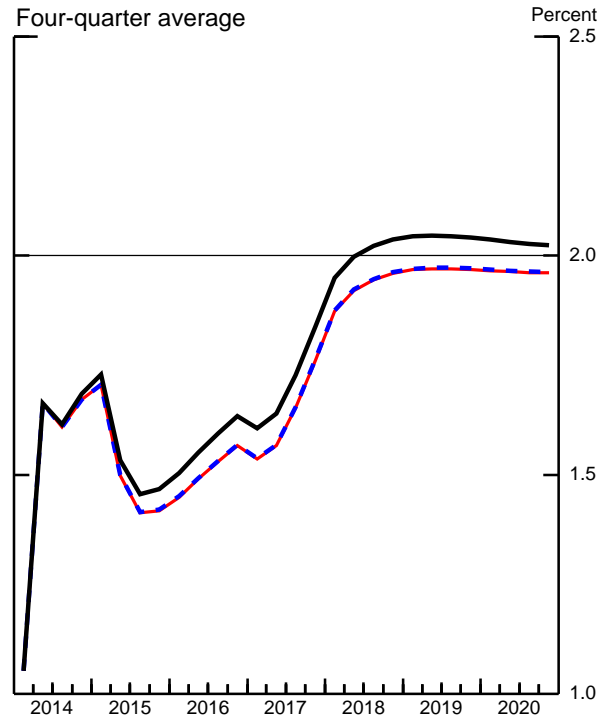
Real Federal Funds Rate



Unemployment Rate



PCE Inflation
Four-quarter average



Outcomes under Alternative Policies

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

Measure and policy	2014		2015	2016	2017	2018
	H1	H2				
<i>Real GDP</i>						
Extended Tealbook baseline ¹	0.3	3.4	3.0	3.0	2.2	1.4
Taylor (1993)	0.3	3.1	2.6	3.1	2.4	1.7
Taylor (1999)	0.3	3.1	2.6	2.9	2.3	1.7
Inertial Taylor (1999)	0.3	3.4	2.9	3.1	2.2	1.5
Outcome-based	0.3	3.2	2.5	2.9	2.3	1.7
First-difference	0.3	3.2	2.7	3.0	2.4	1.8
Nominal income targeting	0.3	3.6	3.6	3.5	2.3	1.3
Optimal control	0.3	3.3	2.7	2.9	2.1	1.5
<i>Unemployment rate²</i>						
Extended Tealbook baseline ¹	6.2	5.8	5.1	4.7	4.5	4.8
Taylor (1993)	6.2	5.9	5.4	5.0	4.6	4.7
Taylor (1999)	6.2	5.8	5.4	5.0	4.7	4.8
Inertial Taylor (1999)	6.2	5.8	5.2	4.7	4.5	4.7
Outcome-based	6.2	5.8	5.4	5.0	4.7	4.8
First-difference	6.2	5.8	5.3	4.9	4.7	4.7
Nominal income targeting	6.2	5.7	4.8	4.2	4.0	4.3
Optimal control	6.2	5.8	5.3	4.9	4.8	4.9
<i>Total PCE prices</i>						
Extended Tealbook baseline ¹	1.8	1.5	1.5	1.6	1.8	2.0
Taylor (1993)	1.8	1.5	1.5	1.7	1.9	2.1
Taylor (1999)	1.8	1.5	1.4	1.6	1.8	2.0
Inertial Taylor (1999)	1.8	1.5	1.5	1.7	1.9	2.1
Outcome-based	1.8	1.5	1.4	1.5	1.7	1.9
First-difference	1.8	1.5	1.5	1.7	1.9	2.1
Nominal income targeting	1.8	1.6	1.6	1.8	2.0	2.3
Optimal control	1.8	1.5	1.4	1.6	1.8	2.0
<i>Core PCE prices</i>						
Extended Tealbook baseline ¹	1.6	1.6	1.7	1.8	1.9	2.0
Taylor (1993)	1.6	1.7	1.7	1.8	2.0	2.1
Taylor (1999)	1.6	1.6	1.6	1.8	1.9	2.0
Inertial Taylor (1999)	1.6	1.7	1.7	1.8	1.9	2.1
Outcome-based	1.6	1.6	1.6	1.7	1.8	1.9
First-difference	1.6	1.7	1.7	1.8	2.0	2.1
Nominal income targeting	1.6	1.7	1.8	2.0	2.1	2.2
Optimal control	1.6	1.6	1.6	1.7	1.8	1.9
<i>Effective nominal federal funds rate²</i>						
Extended Tealbook baseline ¹	0.1	0.1	1.4	2.9	3.9	4.4
Taylor (1993)	0.1	2.6	3.1	3.9	4.3	4.3
Taylor (1999)	0.1	2.0	2.9	4.1	4.6	4.5
Inertial Taylor (1999)	0.1	0.6	1.8	3.0	3.9	4.4
Outcome-based	0.1	1.5	3.1	4.1	4.6	4.4
First-difference	0.1	1.4	2.8	4.2	4.4	4.1
Nominal income targeting	0.1	0.1	0.4	1.6	2.6	3.2
Optimal control	0.1	0.6	2.0	3.5	4.4	4.8

1. In the Tealbook baseline, the federal funds rate first departs from an effective lower bound of 12½ basis points two quarters after the end of the asset purchase program. Thereafter, the federal funds rate follows the prescriptions of the inertial Taylor (1999) rule.

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

Outcomes under Alternative Policies with an Unemployment Rate Threshold¹

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

Measure and policy	2014		2015	2016	2017	2018
	H1	H2				
<i>Real GDP</i>						
Extended Tealbook baseline	0.3	3.4	3.0	3.0	2.2	1.4
Taylor (1993)	0.3	3.3	2.7	2.9	2.4	1.7
Taylor (1999)	0.3	3.3	2.7	2.8	2.3	1.7
Outcome-based	0.3	3.3	2.8	2.8	2.2	1.7
First-difference	0.3	3.5	3.2	3.1	2.3	1.7
Nominal income targeting	0.3	3.6	3.6	3.5	2.3	1.3
Optimal control	0.3	3.3	2.7	2.9	2.1	1.5
<i>Unemployment rate²</i>						
Extended Tealbook baseline	6.2	5.8	5.1	4.7	4.5	4.8
Taylor (1993)	6.2	5.8	5.3	4.9	4.6	4.7
Taylor (1999)	6.2	5.8	5.3	5.0	4.8	4.8
Outcome-based	6.2	5.8	5.2	4.9	4.7	4.8
First-difference	6.2	5.8	5.1	4.6	4.4	4.5
Nominal income targeting	6.2	5.7	4.8	4.2	4.0	4.3
Optimal control	6.2	5.8	5.3	4.9	4.8	4.9
<i>Total PCE prices</i>						
Extended Tealbook baseline	1.8	1.5	1.5	1.6	1.8	2.0
Taylor (1993)	1.8	1.5	1.5	1.7	1.9	2.1
Taylor (1999)	1.8	1.5	1.4	1.6	1.8	2.0
Outcome-based	1.8	1.5	1.4	1.6	1.8	1.9
First-difference	1.8	1.6	1.6	1.8	2.0	2.2
Nominal income targeting	1.8	1.6	1.6	1.8	2.0	2.3
Optimal control	1.8	1.5	1.4	1.6	1.8	2.0
<i>Core PCE prices</i>						
Extended Tealbook baseline	1.6	1.6	1.7	1.8	1.9	2.0
Taylor (1993)	1.6	1.7	1.7	1.8	2.0	2.1
Taylor (1999)	1.6	1.6	1.6	1.8	1.9	2.0
Outcome-based	1.6	1.6	1.6	1.7	1.8	1.9
First-difference	1.6	1.7	1.8	1.9	2.1	2.2
Nominal income targeting	1.6	1.7	1.8	2.0	2.1	2.2
Optimal control	1.6	1.6	1.6	1.7	1.8	1.9
<i>Effective nominal federal funds rate²</i>						
Extended Tealbook baseline	0.1	0.1	1.4	2.9	3.9	4.4
Taylor (1993)	0.1	0.1	3.2	3.9	4.3	4.3
Taylor (1999)	0.1	0.1	3.0	4.1	4.6	4.5
Outcome-based	0.1	0.1	2.0	4.2	4.6	4.4
First-difference	0.1	0.1	1.8	3.5	3.8	3.5
Nominal income targeting	0.1	0.1	0.4	1.6	2.6	3.2
Optimal control	0.1	0.6	2.0	3.5	4.4	4.8

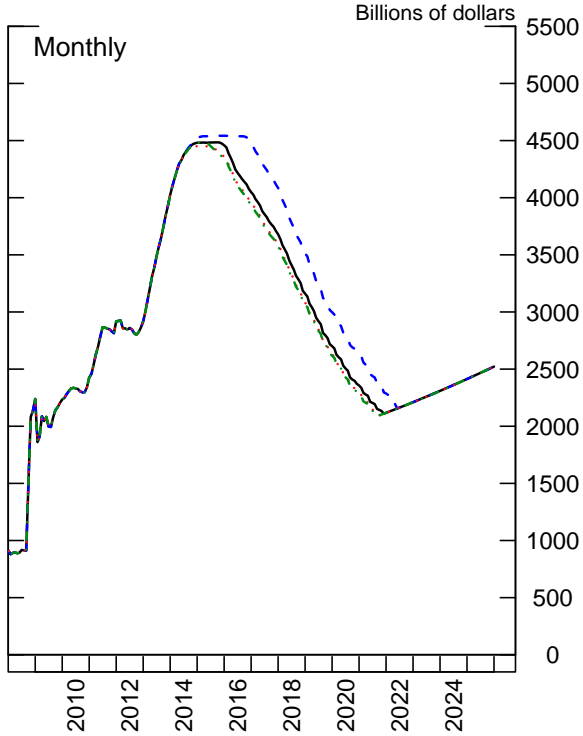
1. With the exception of optimal control, monetary policy is specified to keep the federal funds rate at an effective lower bound of 12½ basis points as long as the unemployment rate is 5.6 percent or more. Once the threshold is crossed, the federal funds rate follows the prescriptions of the specified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

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

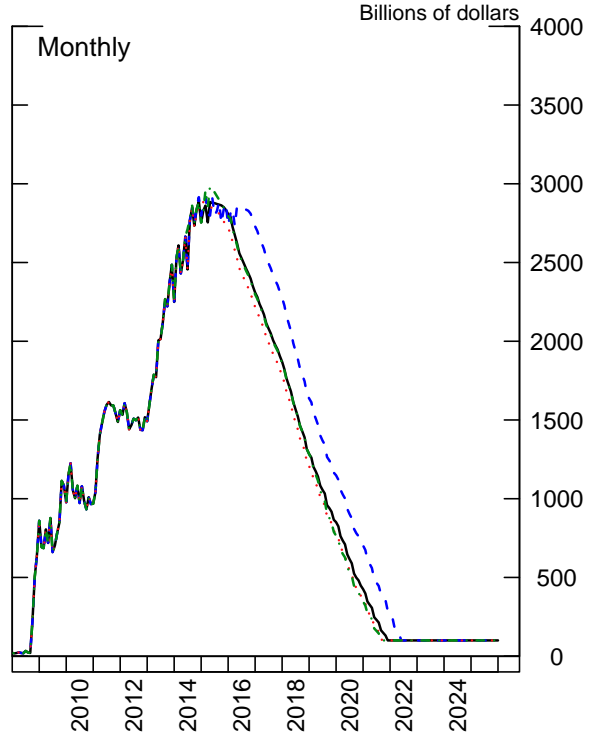
Total Assets and Selected Balance Sheet Items

— Alternative B
 - - - Alternative A
 . . . Alternative C
 - - - June Tealbook Alternative B

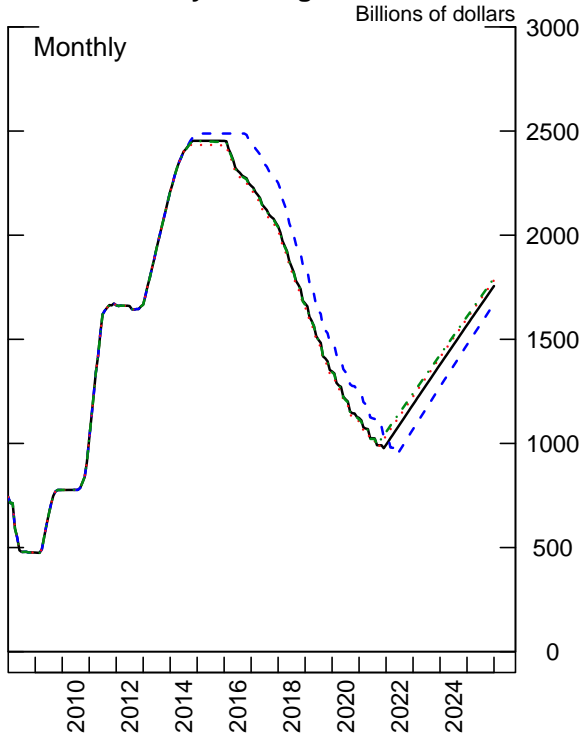
Total Assets



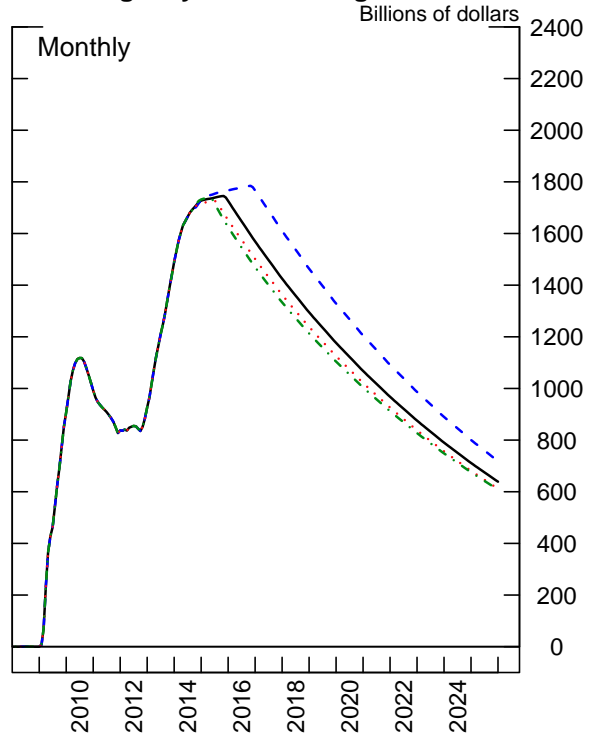
Reserve Balances



SOMA Treasury Holdings



SOMA Agency MBS Holdings

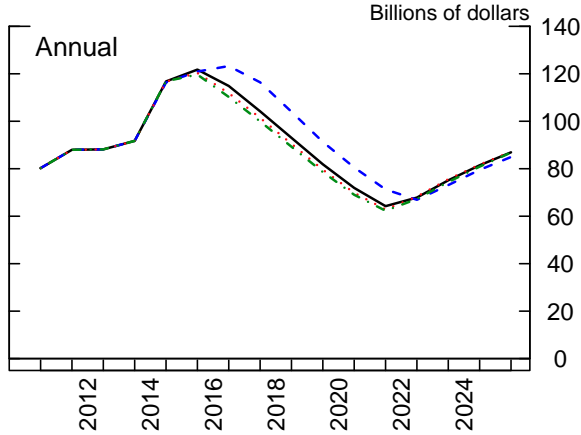


Projections

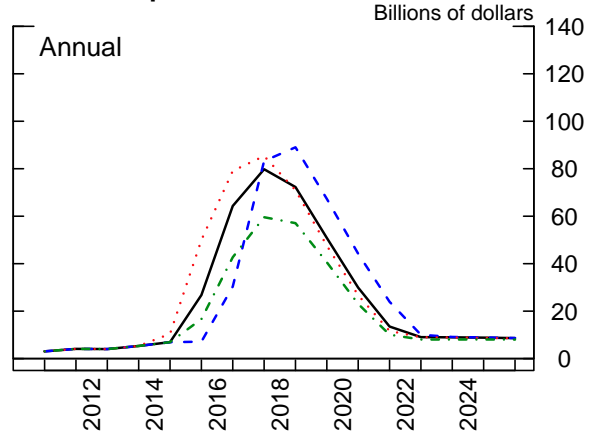
Income Projections

— Alternative B
- - Alternative A
... Alternative C
- . June Tealbook Alternative B

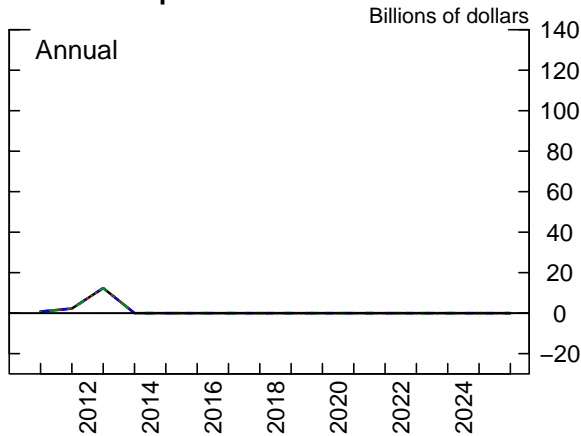
Interest Income



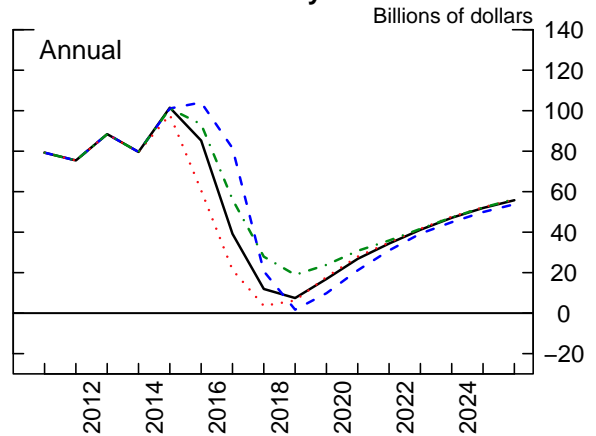
Interest Expense



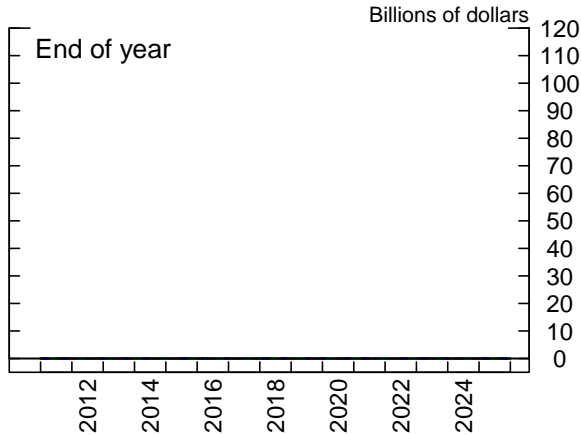
Realized Capital Gains



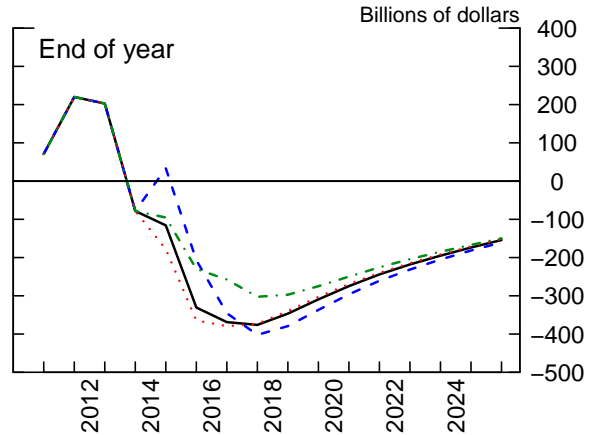
Remittances to Treasury



Deferred Asset



Memo: Unrealized Gains/Losses



Federal Reserve Balance Sheet

End-of-Year Projections -- Alternative B

Billions of dollars

	<u>Jun 30, 2014</u>	<u>2015</u>	<u>2017</u>	<u>2019</u>	<u>2021</u>	<u>2023</u>	<u>2025</u>
Total assets	4,372	4,459	3,680	2,701	2,117	2,309	2,522
Selected assets							
Loans and other credit extensions*	2	0	0	0	0	0	0
Securities held outright	4,108	4,212	3,472	2,524	1,963	2,171	2,397
U.S. Treasury securities	2,401	2,453	2,042	1,346	993	1,379	1,756
Agency debt securities	44	33	4	2	2	2	2
Agency mortgage-backed securities	1,664	1,726	1,425	1,177	968	790	639
Unamortized premiums	209	191	148	114	90	72	58
Unamortized discounts	-18	-17	-14	-11	-9	-7	-6
Total other assets	71	73	73	73	73	73	73
Total liabilities	4,316	4,398	3,603	2,604	1,994	2,154	2,325
Selected liabilities							
Federal Reserve notes in circulation	1,239	1,358	1,505	1,628	1,772	1,933	2,104
Reverse repurchase agreements	456	217	217	117	117	117	117
Deposits with Federal Reserve Banks	2,612	2,819	1,881	862	111	111	111
Reserve balances held by depository institutions	2,456	2,808	1,870	851	100	100	100
U.S. Treasury, General Account	139	5	5	5	5	5	5
Other Deposits	17	6	6	6	6	6	6
Interest on Federal Reserve Notes due to U.S. Treasury	4	0	0	0	0	0	0
Total capital	56	61	77	97	123	155	197

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

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

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

Alternative Projections for the 10-Year Treasury Term Premium Effect

Date	Alternative B	Alternative C	Alternative A	June Alternative B
------	---------------	---------------	---------------	-----------------------

Basis Points

Quarterly Averages

2014: Q3	-122	-120	-132	-116
Q4	-117	-115	-128	-110
2015: Q1	-112	-109	-123	-105
Q2	-107	-104	-118	-100
Q3	-101	-99	-113	-95
Q4	-96	-94	-109	-90
2016: Q1	-92	-89	-104	-85
Q2	-87	-85	-99	-81
Q3	-82	-80	-95	-76
Q4	-78	-76	-90	-72

2017: Q4	-63	-61	-73	-58
2018: Q4	-51	-49	-59	-47
2019: Q4	-41	-40	-47	-37
2020: Q4	-33	-32	-37	-30
2021: Q4	-27	-26	-30	-25
2022: Q4	-22	-22	-24	-21
2023: Q4	-18	-17	-19	-17
2024: Q4	-13	-13	-14	-13
2025: Q4	-10	-10	-10	-9

Alternative Projections for the Monetary Base

Percent change, annual rate; not seasonally adjusted

Date	Alternative B	Alternative C	Alternative A	June Alternative B
------	---------------	---------------	---------------	-----------------------

Quarterly

2014: Q3	32.3	31.9	32.8	7.2
Q4	10.1	10.7	11.7	5.6
2015: Q1	1.1	6.2	3.7	5.8
Q2	6.2	0.0	-0.4	10.7
Q3	2.2	-1.6	0.4	-2.5
Q4	-0.8	-4.5	0.8	-5.2
2016: Q1	-6.0	-6.7	-0.1	-7.2
Q2	-12.3	-12.4	5.8	-13.3
Q3	-9.5	-9.6	1.8	-10.3
Q4	-8.1	-8.1	-2.7	-8.7

Annual

2017	-9.3	-9.3	-8.5	-9.9
2018	-14.0	-14.1	-13.9	-14.9
2019	-12.5	-12.6	-12.8	-16.5
2020	-13.0	-13.1	-12.4	-15.3
2021	-11.3	-9.7	-13.0	-9.9
2022	2.8	3.7	-6.1	4.2
2023	3.7	3.7	3.7	4.3
2024	3.7	3.7	3.7	4.3
2025	3.7	3.7	3.7	4.3

Projections

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

MONEY

In recent years, M2 has grown considerably faster than would be predicted based on its historical relationship with nominal GDP and the opportunity cost of holding money. The staff projects that M2 growth will decline markedly over the forecast period relative to its pace in recent years, and even turn negative for a time. This trajectory for M2 largely reflects an increase in the opportunity cost of holding M2 balances arising from the projected tightening of monetary policy.¹³ In addition, the forecast incorporates a judgment that investors will reallocate a portion of their elevated M2 balances to other investments as the economic recovery progresses and that this process will act as an additional restraint on M2 growth in 2015 and 2016; however, the timing and magnitude of this shift are highly uncertain.

M2 Monetary Aggregate Projections (Percent change, annual rate; seasonally adjusted)*		
<i>Quarterly</i>		
2014:	Q2	6.6
	Q3	6.1
	Q4	4.9
2015:	Q1	1.2
	Q2	-3.4
	Q3	-3.6
	Q4	-2.8
2016:	Q1	-1.1
	Q2	-0.1
	Q3	0.2
	Q4	0.6
<i>Annual</i>		
	2014	6.2
	2015	-2.1
	2016	-0.1

Note: Actual data through July 14, 2014; projections thereafter.

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

¹³ The three-month Treasury bill rate is assumed to begin rising in 2015:Q1—one quarter earlier than the projected liftoff in the federal funds rate—and to continue rising through the end of the projection period, resulting in an increasing opportunity cost of holding M2 balances.