

### **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)

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# Report to the FOMC on Economic Conditions and Monetary Policy



## Book A

### Economic and Financial Conditions: Current Situation and Outlook

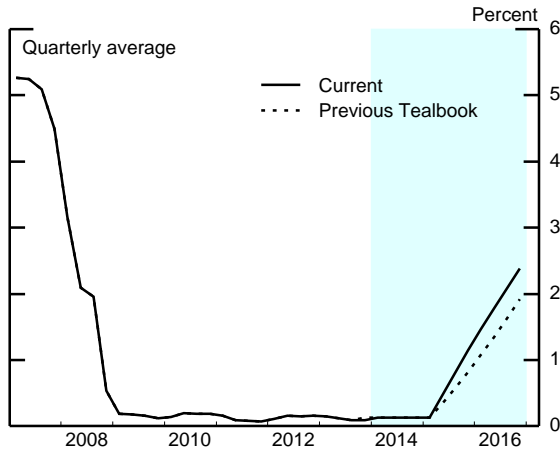
January 23, 2014

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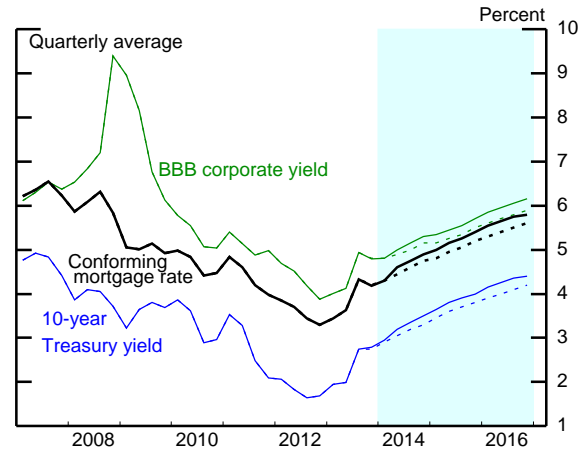
Prepared for the Federal Open Market Committee  
by the staff of the Board of Governors of the Federal Reserve System

## Key Background Factors underlying the Baseline Staff Projection

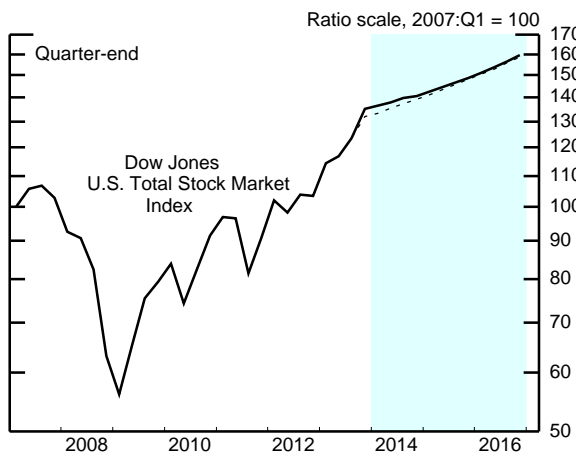
Federal Funds Rate



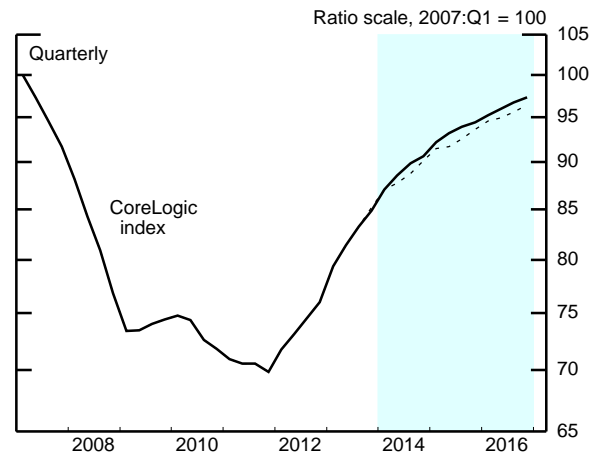
Long-Term Interest Rates



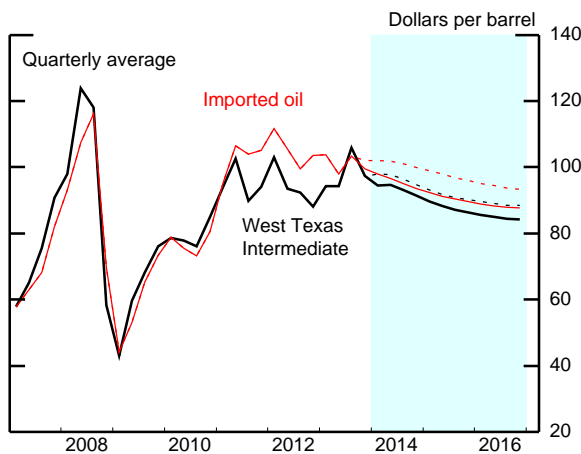
Equity Prices



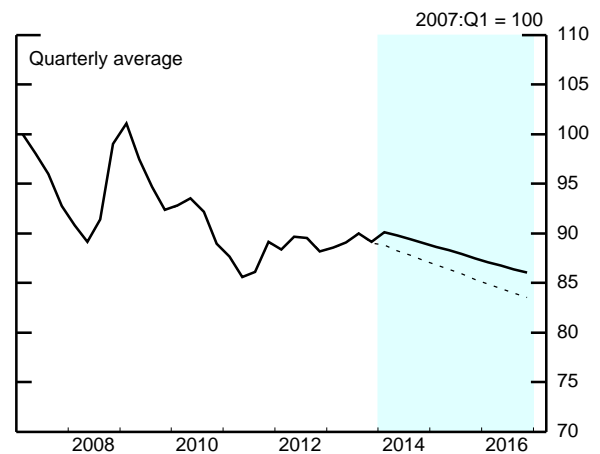
House Prices



Crude Oil Prices



Broad Real Dollar



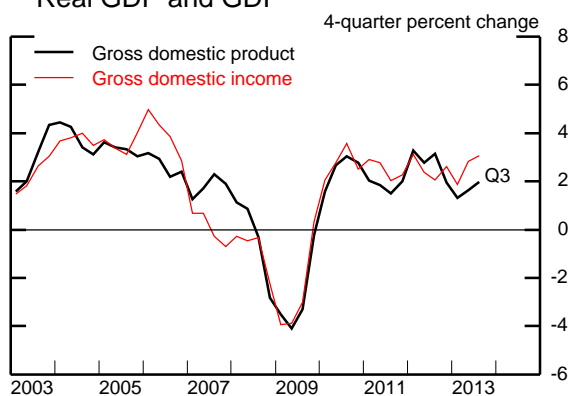
**Summary of the Near-Term Outlook**  
(Percent change at annual rate except as noted)

Measure	2013:Q3		2013:Q4		2014:Q1	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
<b>Real GDP</b>	<b>3.5</b>	<b>4.1</b>	<b>1.7</b>	<b>3.5</b>	<b>2.8</b>	<b>2.4</b>
Private domestic final purchases	2.1	2.7	3.3	4.1	3.1	3.3
Personal consumption expenditures	1.4	2.0	3.2	4.0	2.8	3.1
Residential investment	13.0	10.3	-1.7	-5.3	10.8	8.8
Nonres. private fixed investment	3.5	4.8	5.0	7.4	3.0	3.0
Government purchases	.4	.4	-5.3	-6.0	.9	.8
<i>Contributions to change in real GDP</i>						
Inventory investment <sup>1</sup>	1.5	1.7	-.1	-.1	-.3	-.5
Net exports <sup>1</sup>	.1	.1	.1	1.3	.3	.0
<b>Unemployment rate</b>	<b>7.3</b>	<b>7.3</b>	<b>7.1</b>	<b>7.0</b>	<b>6.9</b>	<b>6.7</b>
<b>PCE chain price index</b>	<b>2.0</b>	<b>1.9</b>	<b>.7</b>	<b>.7</b>	<b>1.5</b>	<b>1.1</b>
Ex. food and energy	1.5	1.4	1.1	1.1	1.4	1.3

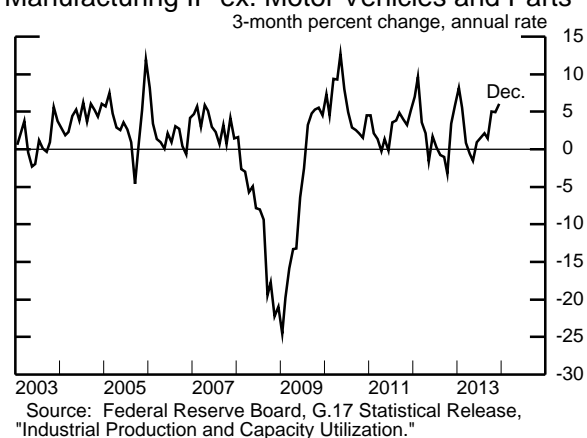
1. Percentage points.

**Recent Nonfinancial Developments (1)**

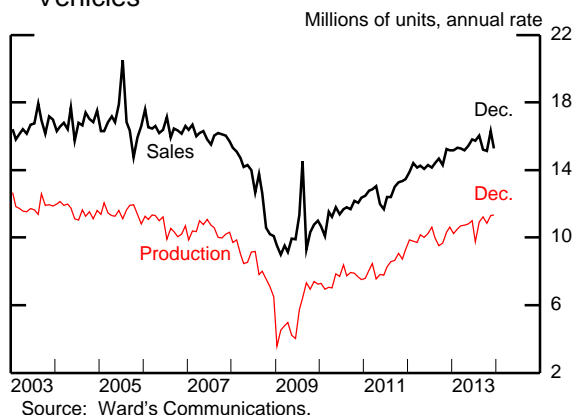
**Real GDP and GDI**



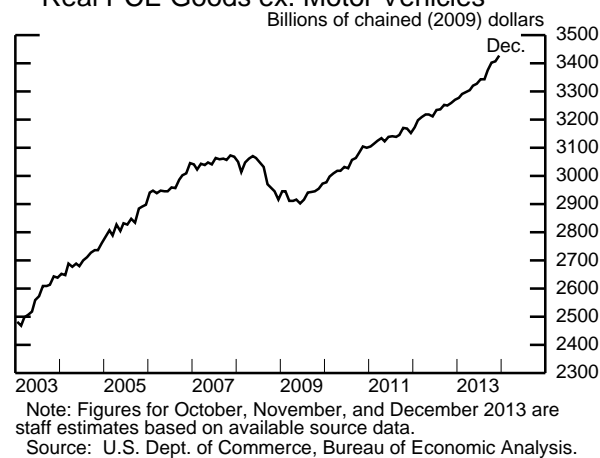
**Manufacturing IP ex. Motor Vehicles and Parts**



**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			
<b>Real GDP</b>	<b>2.8</b>	<b>1.8</b>	<b>3.8</b>	<b>3.1</b>	<b>3.4</b>	<b>3.2</b>
Previous Tealbook	2.2	1.8	2.6	3.1	3.5	3.4
Final sales	2.1	1.1	3.0	3.2	3.7	3.4
Previous Tealbook	1.5	1.1	1.9	3.3	3.7	3.5
Personal consumption expenditures	2.5	2.0	3.0	3.5	3.9	3.2
Previous Tealbook	2.2	2.0	2.3	3.3	3.9	3.2
Residential investment	7.6	13.4	2.2	12.5	15.6	9.2
Previous Tealbook	9.3	13.4	5.4	15.5	14.7	8.3
Nonresidential structures	-.4	-6.5	6.2	4.3	2.5	2.2
Previous Tealbook	.1	-6.5	7.2	3.9	2.8	2.6
Equipment and intangibles	4.0	1.9	6.1	5.2	6.2	5.5
Previous Tealbook	2.7	1.9	3.4	4.8	6.2	5.8
Federal purchases	-6.8	-5.1	-8.4	-2.1	-3.7	-.1
Previous Tealbook	-6.3	-5.1	-7.6	-2.0	-3.7	.0
State and local purchases	.3	-.4	1.0	.4	1.1	1.5
Previous Tealbook	.3	-.4	1.1	.5	1.1	1.5
Exports	5.7	3.2	8.2	4.3	5.4	6.2
Previous Tealbook	4.2	3.2	5.3	4.7	6.0	6.7
Imports	3.0	3.7	2.3	4.4	5.1	4.6
Previous Tealbook	3.7	3.7	3.7	3.5	5.2	4.9
Contributions to change in real GDP (percentage points)						
Inventory change	.7	.7	.8	-.1	-.3	-.2
Previous Tealbook	.7	.7	.7	-.2	-.2	-.1
Net exports	.3	-.2	.7	-.1	-.1	.1
Previous Tealbook	.0	-.2	.1	.1	.0	.1

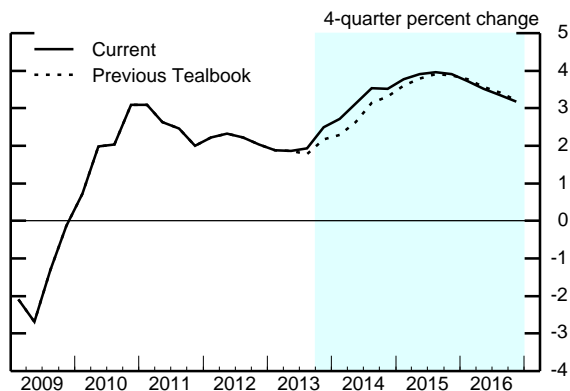
### Real GDP



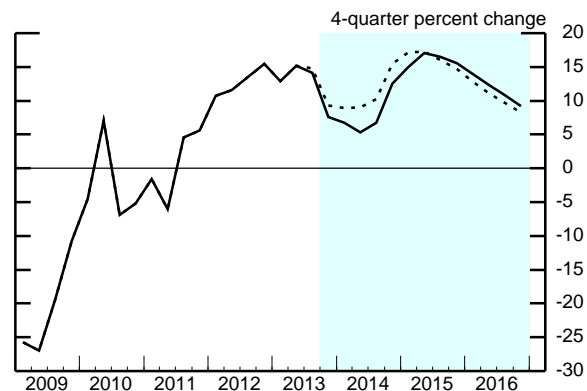
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

# Components of Final Demand

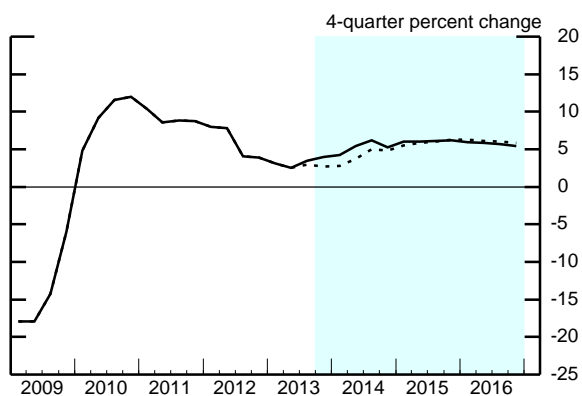
Personal Consumption Expenditures



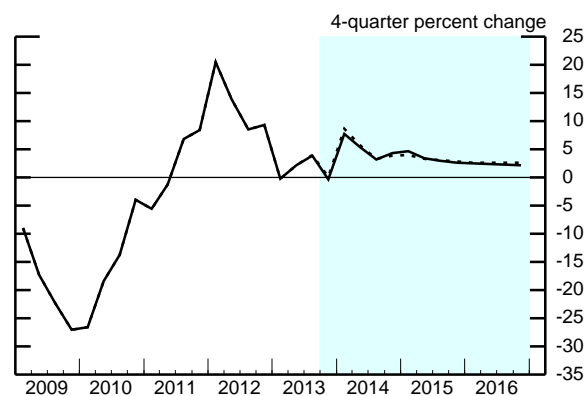
Residential Investment



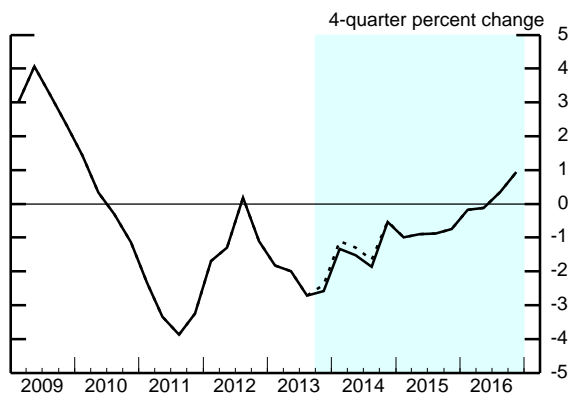
Equipment and Intangibles



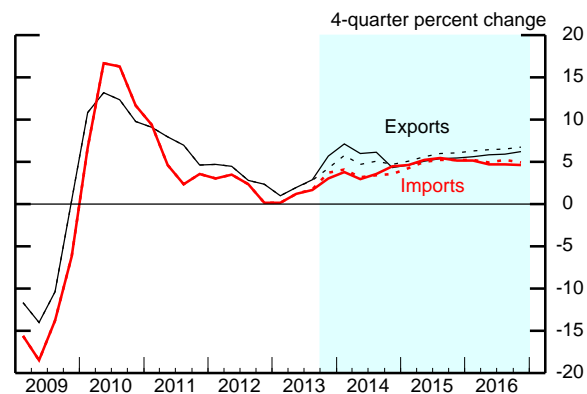
Nonresidential Structures



Government Consumption & Investment



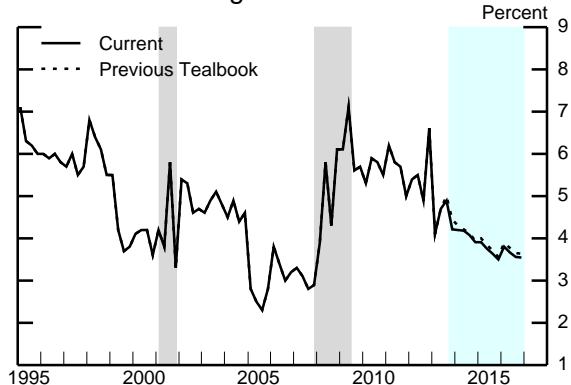
Exports and Imports



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

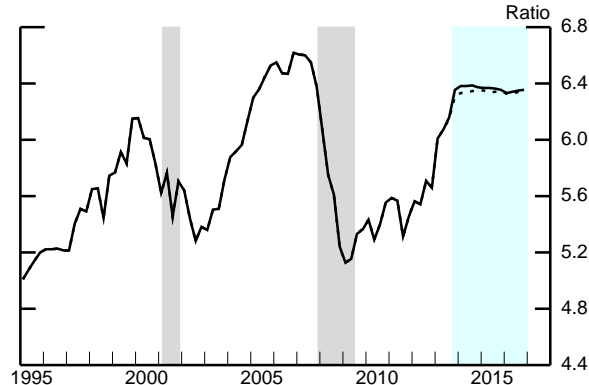
## Aspects of the Medium-Term Projection

### Personal Saving Rate



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

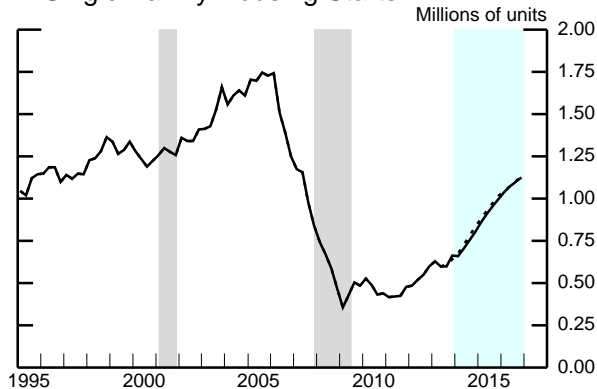
### Wealth-to-Income Ratio



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

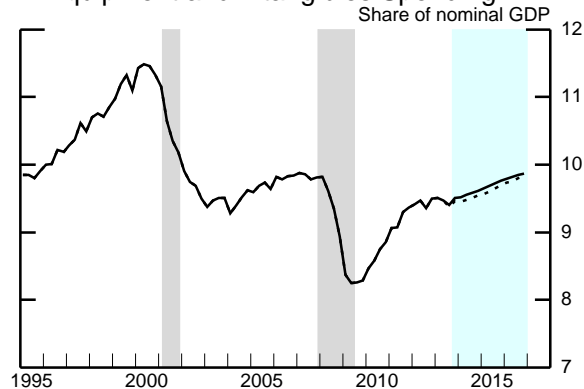
Source: For net worth, Federal Reserve Board, Financial Accounts of the United States; for income, U.S. Dept. of Commerce, Bureau of Economic Analysis.

### Single-Family Housing Starts



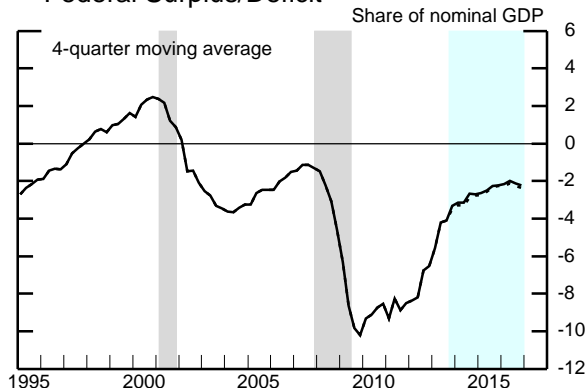
Source: U.S. Census Bureau.

### Equipment and Intangibles Spending



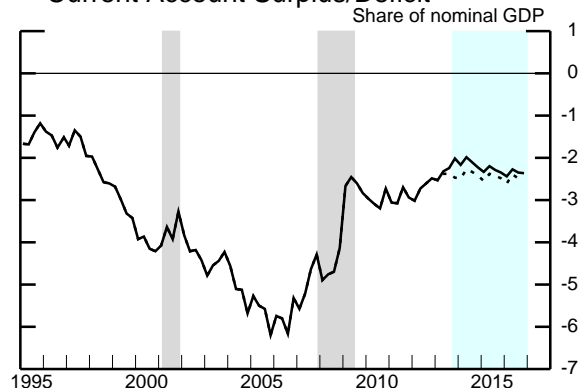
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

### Federal Surplus/Deficit



Source: *Monthly Treasury Statement*.

### Current Account Surplus/Deficit



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

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

### Decomposition of Potential GDP

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

Measure	1974-95	1996-2000	2001-7	2008-10	2011-13	2014	2015	2016
Potential real GDP	3.1	3.4	2.6	1.9	1.6	2.0	2.1	2.1
Previous Tealbook	3.1	3.4	2.6	1.4	1.9	2.2	2.2	2.1
<i>Selected contributions<sup>1</sup></i>								
Structural NFB labor productivity <sup>2</sup>	1.6	2.7	2.6	1.8	1.3	1.6	1.8	1.9
Previous Tealbook	1.5	2.7	2.6	1.4	1.5	1.7	1.8	1.9
Structural hours	1.5	1.0	.7	.2	.6	.7	.6	.5
Previous Tealbook	1.5	1.0	.7	.2	.6	.6	.6	.5
Labor force participation	.4	.0	-.3	-.4	-.5	-.3	-.3	-.3
Previous Tealbook	.4	.0	-.3	-.4	-.5	-.3	-.3	-.3
Memo:								
GDP gap <sup>3</sup>	-1.9	2.5	1.0	-4.8	-3.0	-1.9	-.6	.4
Previous Tealbook	-2.4	1.9	.6	-3.9	-3.4	-2.5	-1.3	-.1

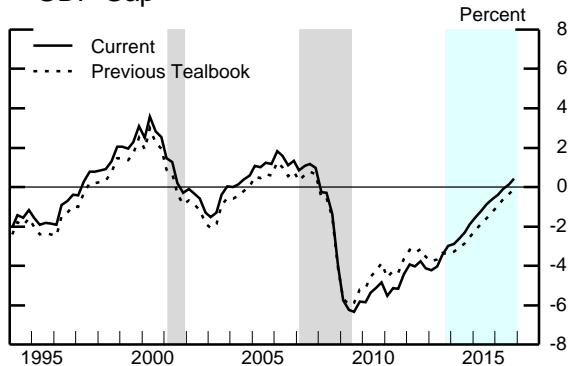
Note: For multiyear periods, the percent change is the annual average from Q4 of the year preceding the first year shown to Q4 of the last year shown.

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.

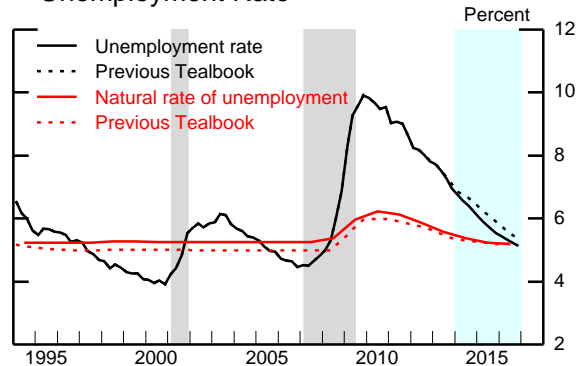
#### GDP Gap



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

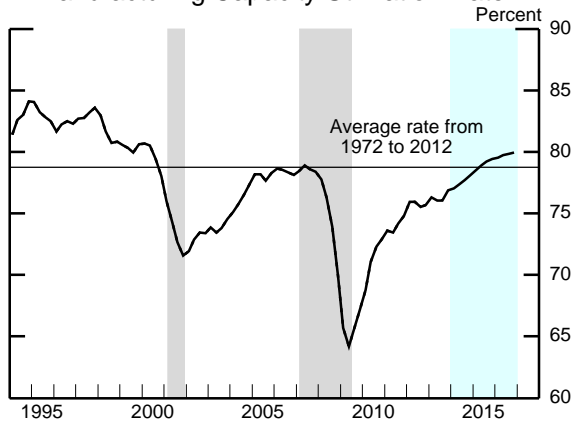
Source: U.S. Dept. of Commerce, BEA; staff assumptions.

#### Unemployment Rate



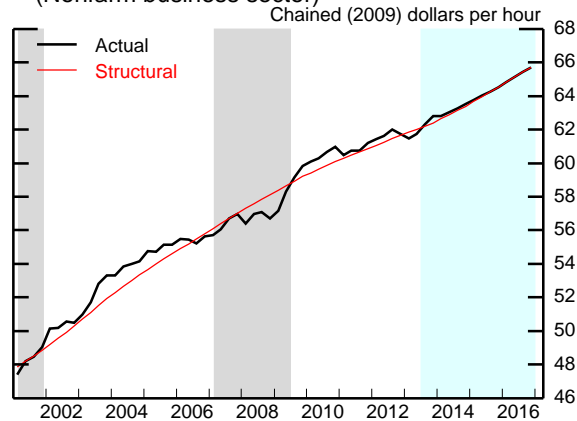
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

#### Manufacturing Capacity Utilization Rate



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

#### Structural and Actual Labor Productivity (Nonfarm 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	2013	2014		2014	2015	2016
		H1	H2			
Output per hour, nonfarm business <sup>1</sup>	1.7	.8	1.6	1.2	1.6	1.9
Previous Tealbook	.7	1.2	1.8	1.5	1.8	1.9
Nonfarm private employment <sup>2</sup>	184	203	242	223	235	210
Previous Tealbook	190	203	217	210	245	220
Labor force participation rate <sup>3</sup>	62.8	62.8	62.8	62.8	62.8	62.8
Previous Tealbook	62.9	63.0	63.0	63.0	62.9	62.8
Civilian unemployment rate <sup>3</sup>	7.0	6.6	6.2	6.2	5.5	5.1
Previous Tealbook	7.1	6.8	6.5	6.5	5.9	5.3

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)

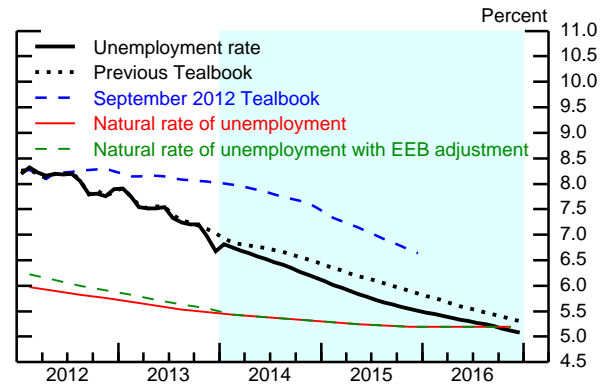
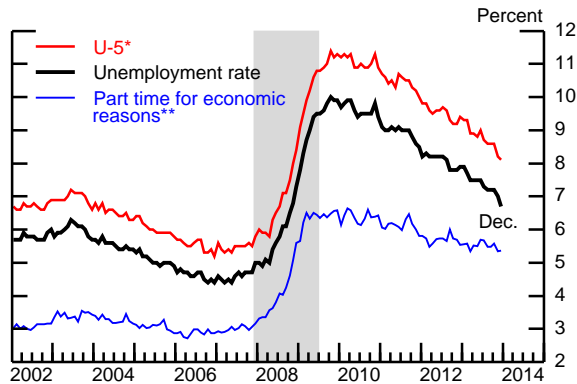
Measure	2013	2014		2014	2015	2016
		H1	H2			
PCE chain-weighted price index	.9	1.3	1.4	1.4	1.6	1.7
Previous Tealbook	.9	1.4	1.3	1.4	1.4	1.6
Food and beverages	.8	.6	.7	.6	1.3	1.4
Previous Tealbook	.9	.7	.7	.7	1.3	1.4
Energy	-2.5	-.3	.0	-.2	-.5	-.1
Previous Tealbook	-2.5	2.5	-.2	1.1	-.8	-.5
Excluding food and energy	1.1	1.4	1.6	1.5	1.7	1.8
Previous Tealbook	1.1	1.5	1.4	1.4	1.6	1.7
Prices of core goods imports <sup>1</sup>	-1.2	.6	1.5	1.1	1.5	1.6
Previous Tealbook	-1.1	1.3	1.7	1.5	1.6	1.7

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

### Measures of Labor Underutilization



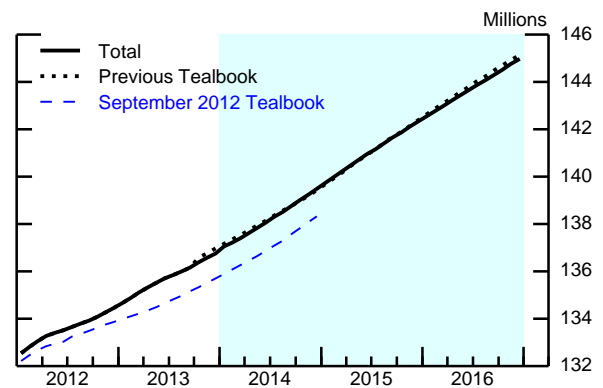
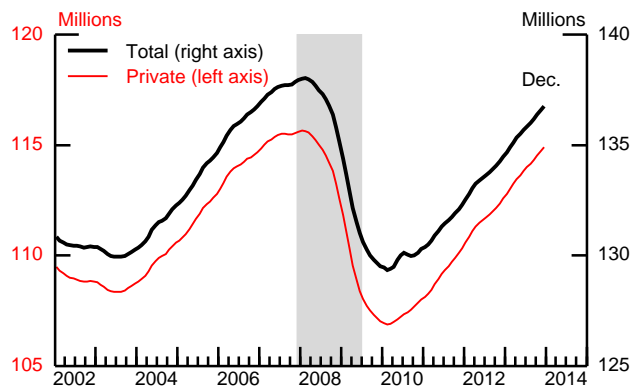
\* U-5 measures total unemployed plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.

\*\* Percent of Current Population Survey employment.

EEB Extended and emergency unemployment benefits.

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

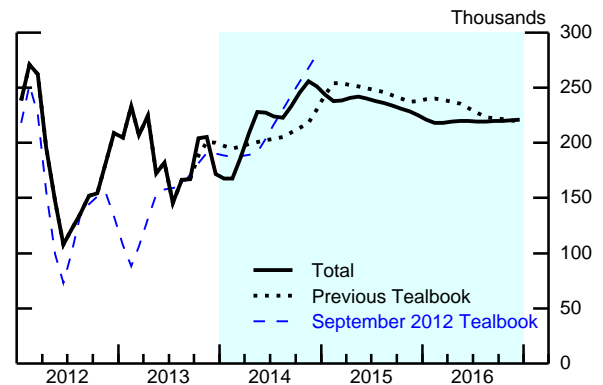
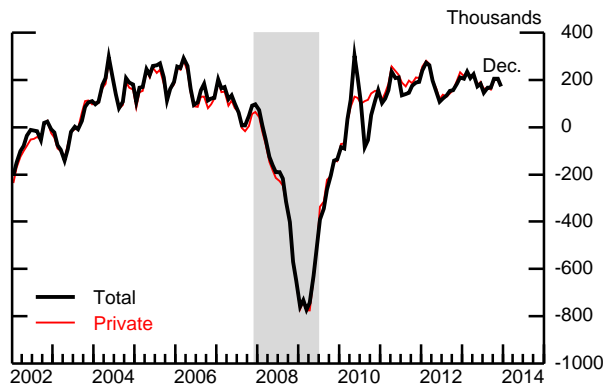
### Level of Payroll Employment\*



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

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

### Change in Payroll Employment\*



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

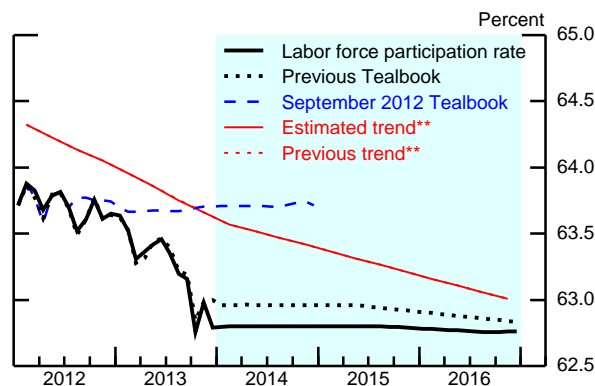
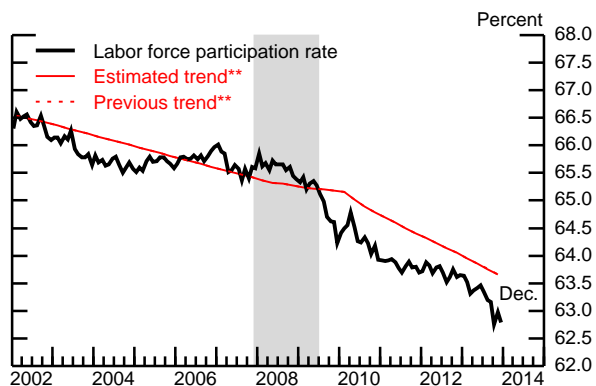
Source: U.S. Department of Labor, Bureau of Labor Statistics.

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

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\*

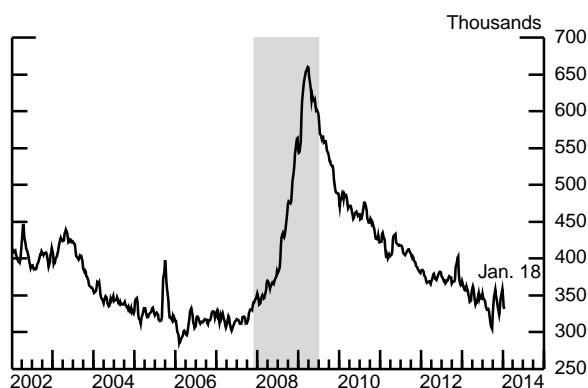


\* Published data adjusted by staff to account for changes in population weights.

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

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

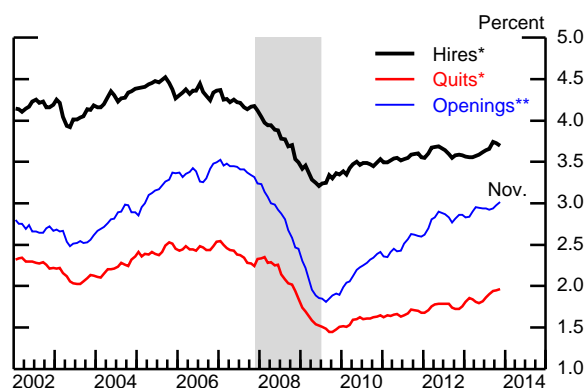
### Initial Unemployment Insurance Claims\*



\* 4-week moving average.

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

### Private Hires, Quits, and Job Openings

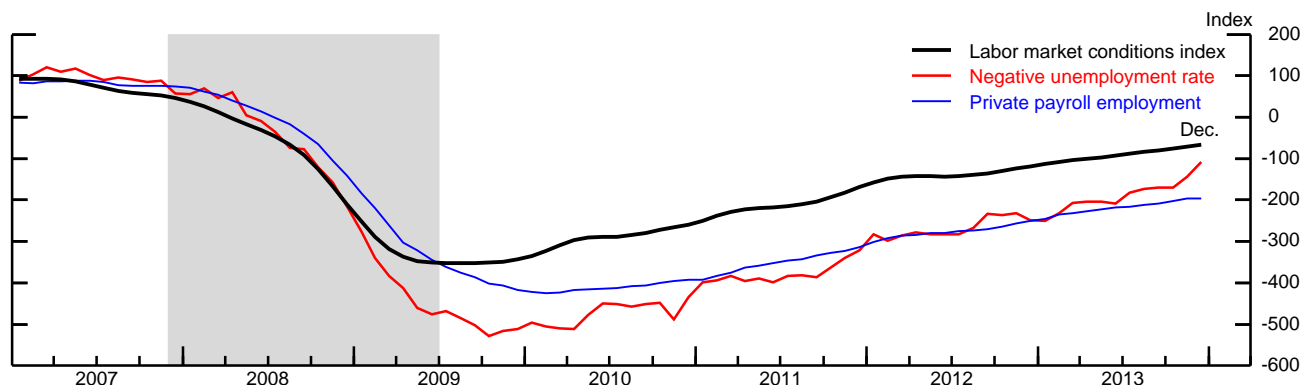


\* Percent of private nonfarm payroll employment, 3-month moving average.

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

Source: Job Openings and Labor Turnover Survey.

### Indexes of Selected Labor Market Indicators



Note: Labor market conditions index estimated by staff; indexes for unemployment rate and private payroll employment are deviation from estimated trend normalized to have mean zero and unit standard deviation over the period July 1976 to September 2008, multiplied by 100.

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

**Labor Market Data and Projections**

Indicator	Aug. 2012 <sup>1</sup>	Projection for mid-2014 <sup>2</sup> in the Tealbook dated:				
		Sept. 2012	Dec. 2012	Sept. 2013 <sup>3</sup>	Dec. 2013 <sup>3</sup>	Jan. 2014 <sup>3</sup>
Unemployment rate (percent)	8.1	7.8	7.6	6.8	6.7	6.5
Labor force participation rate (percent)	63.5	63.7	63.7	63.3	63.0	62.8
<i>Monthly change in payroll employment (thousands, three-month averages)</i>						
Total	94	212	197	197	203	224
Private	109	210	195	205	207	228
Level of total payroll employment (millions)	133.3	137.0	137.1	138.0	138.2	138.2
Total hours worked (percent change) <sup>4</sup>	1.0	2.3	2.0	2.5	2.0	2.6
Total hours worked (billions) <sup>4</sup>	184.6	190.3	190.8	193.0	193.3	193.4

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

2. Calculated as the mean of the 2014:Q2 and 2014:Q3 projections.

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

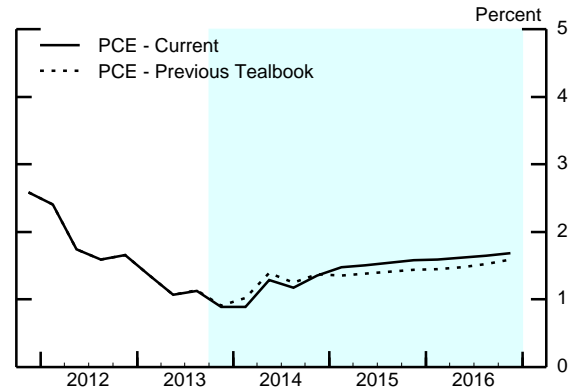
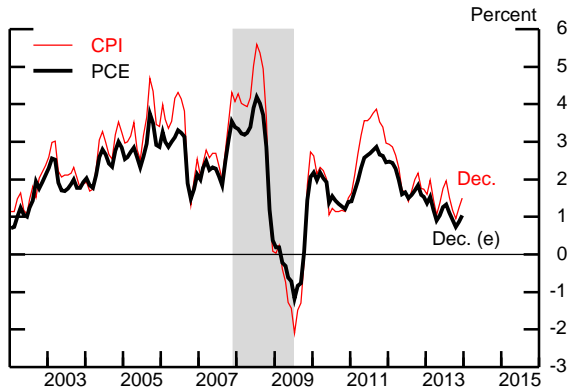
4. Total hours worked are aggregate hours in the nonfarm business sector. Because that series is available only on a quarterly basis, the August 2012 figures refer to the quarterly percent change and level in 2012:Q3. The percent changes and levels in hours are at annual rates.

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

## Inflation Developments and Outlook

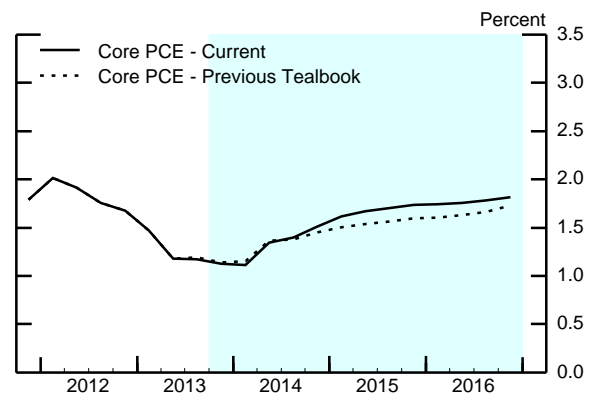
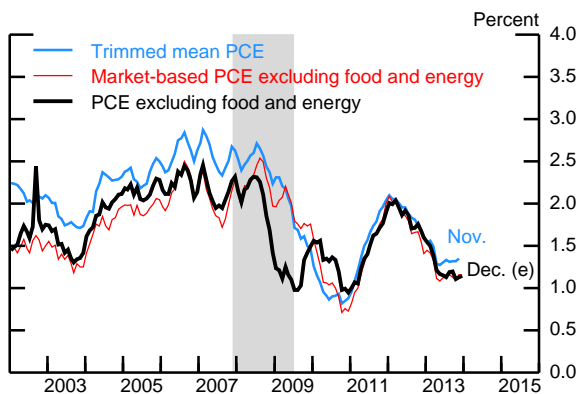
(Percent change from year-earlier period)

### Headline Consumer Price Inflation



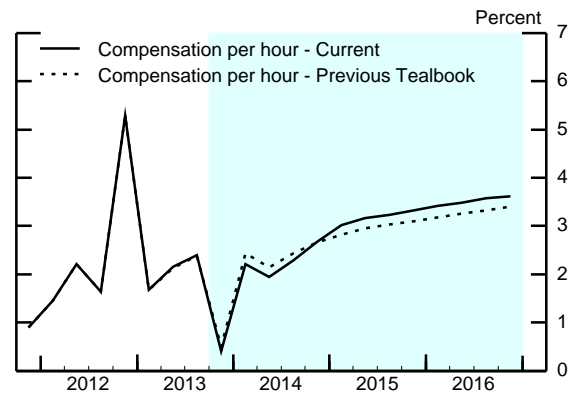
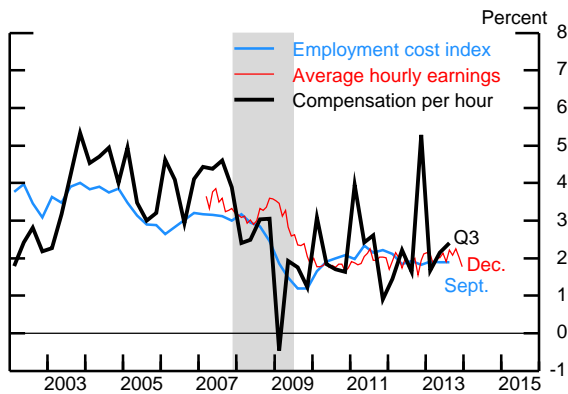
Note: PCE prices from October to December 2013 are staff estimates (e).  
Source: For CPI, U.S. Department of Labor, Bureau of Labor Statistics; for PCE, U.S. Department of Commerce, Bureau of Economic Analysis.

### Measures of Underlying PCE Price Inflation



Note: Core PCE prices from October to December 2013 are staff estimates (e).  
Source: For trimmed mean PCE, Federal Reserve Bank of Dallas; otherwise, U.S. Department of Commerce, Bureau of Economic Analysis.

### Labor Cost Growth (Private Industry)



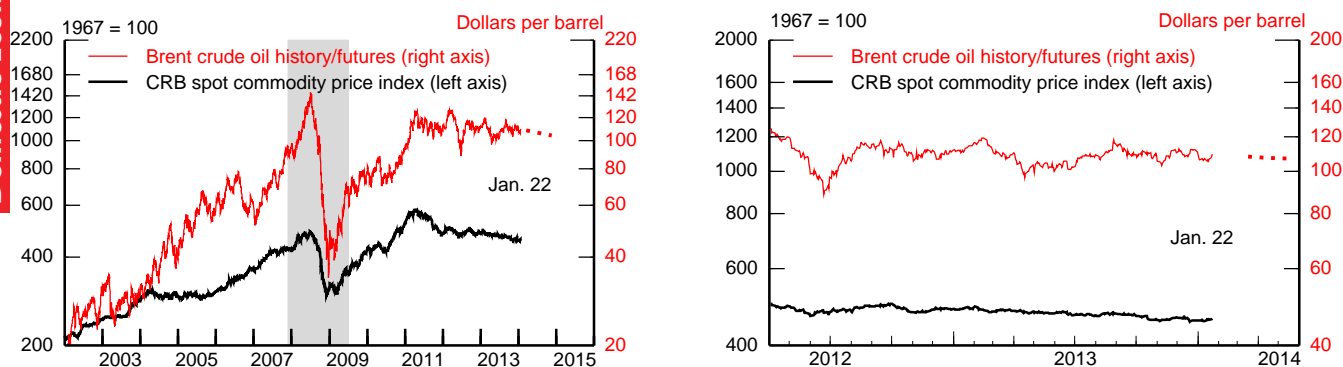
Source: U.S. Department of Labor, Bureau of Labor Statistics.

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

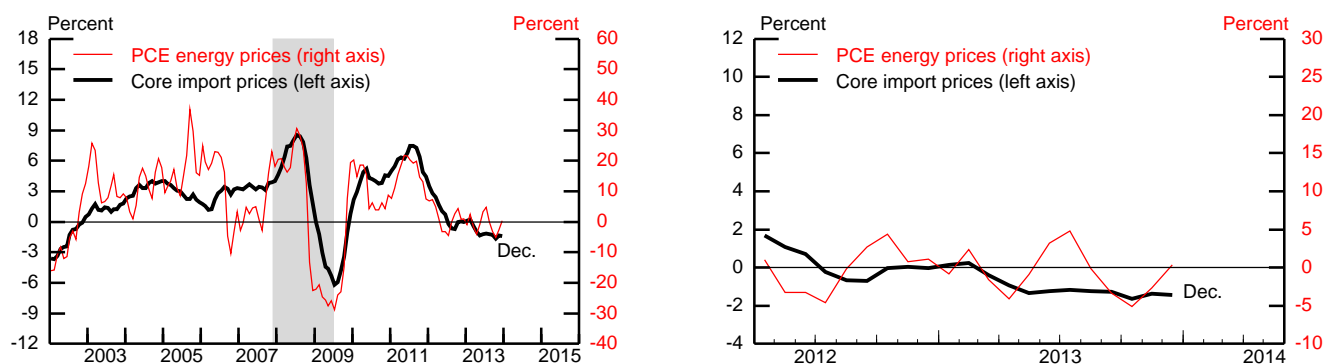
## Inflation Developments and Outlook (2)

(Percent change from year-earlier period, except as noted)

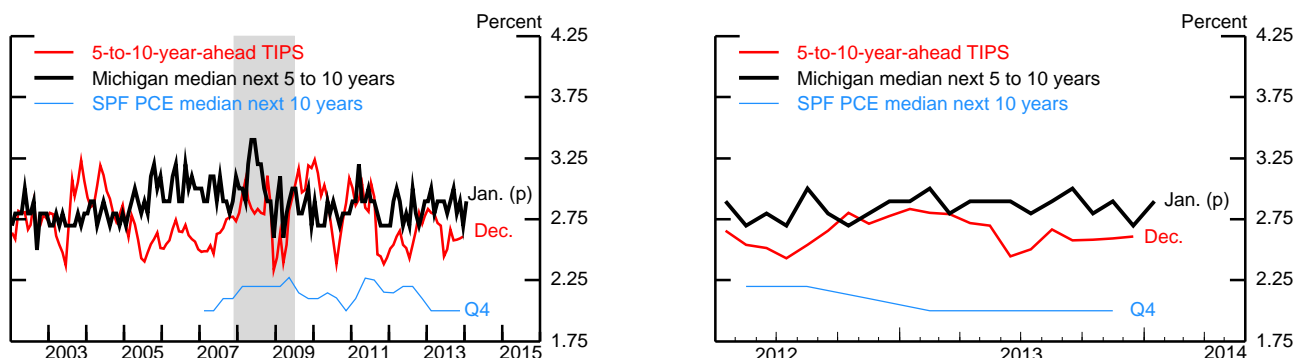
### Commodity and Oil Price Levels



### Energy and Import Price Inflation



### Long-Term Inflation Expectations



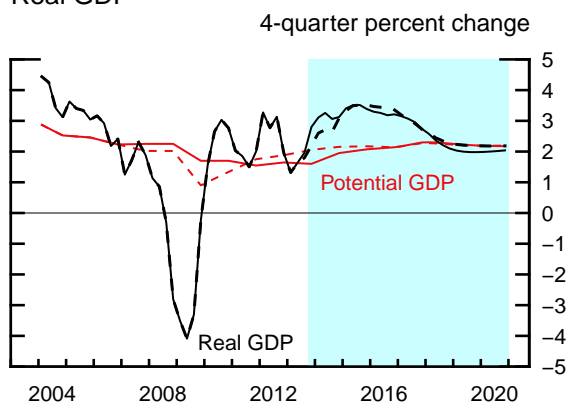
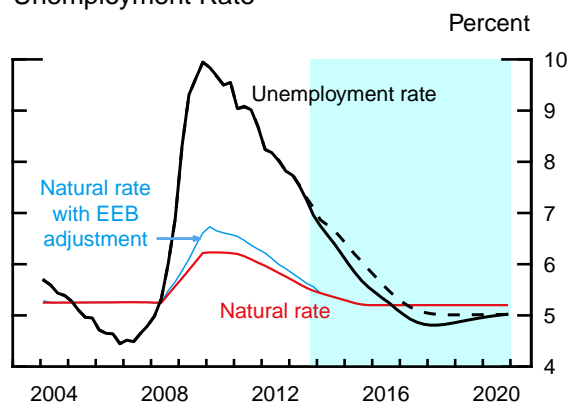
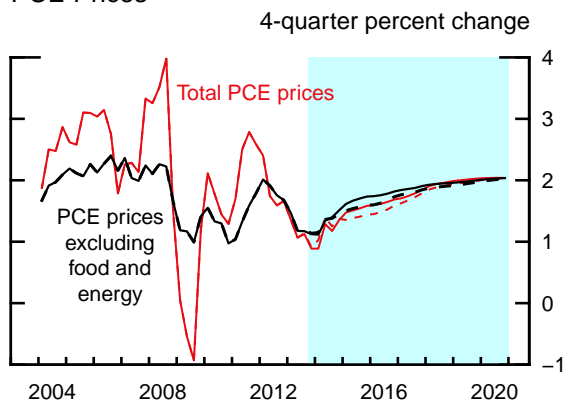
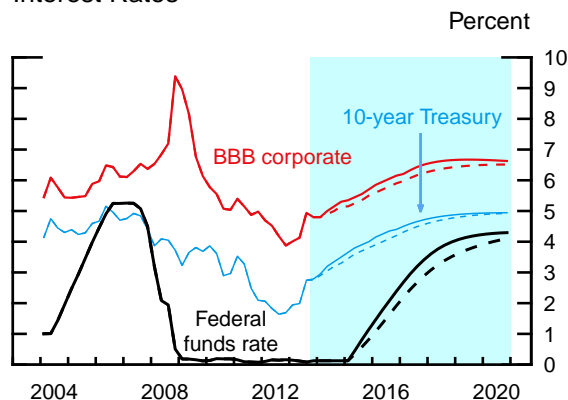
Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

**The Long-Term Outlook**

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

Measure	2013	2014	2015	2016	2017	2018	Longer run
Real GDP	2.8	3.1	3.4	3.2	2.7	2.1	2.3
Previous Tealbook	2.2	3.1	3.5	3.4	2.7	2.3	2.3
Civilian unemployment rate <sup>1</sup>	7.0	6.2	5.5	5.1	4.8	4.8	5.2
Previous Tealbook	7.1	6.5	5.9	5.3	5.1	5.0	5.2
PCE prices, total	.9	1.4	1.6	1.7	1.8	2.0	2.0
Previous Tealbook	.9	1.4	1.4	1.6	1.8	1.9	2.0
Core PCE prices	1.1	1.5	1.7	1.8	1.9	2.0	2.0
Previous Tealbook	1.1	1.4	1.6	1.7	1.8	1.9	2.0
Federal funds rate <sup>1</sup>	.1	.1	1.1	2.4	3.4	4.0	4.0
Previous Tealbook	.1	.1	.8	1.9	2.9	3.5	4.0
10-year Treasury yield <sup>1</sup>	2.8	3.5	4.0	4.4	4.7	4.9	4.8
Previous Tealbook	2.8	3.3	3.8	4.2	4.6	4.8	4.8

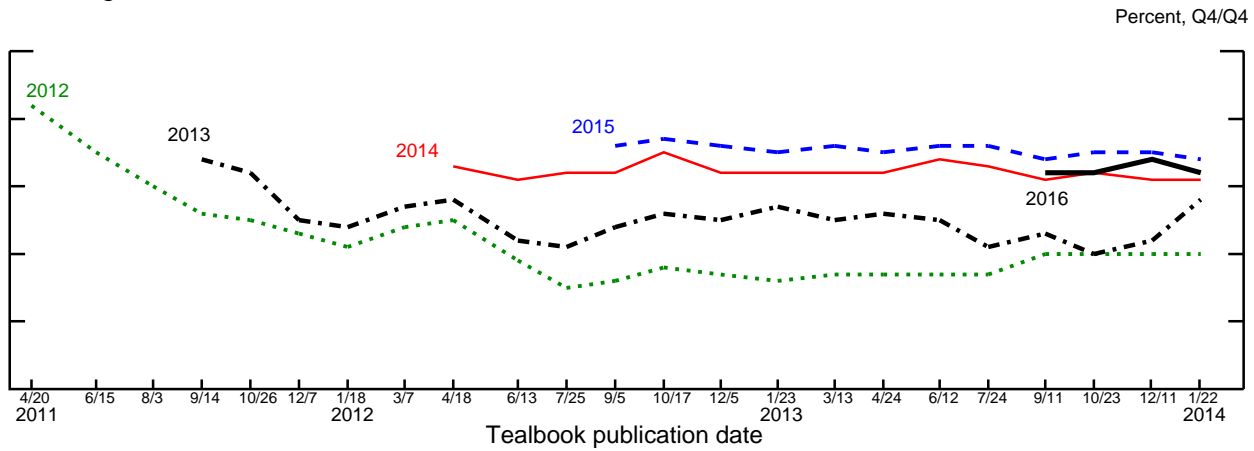
1. Percent, average for the final quarter of the period.

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

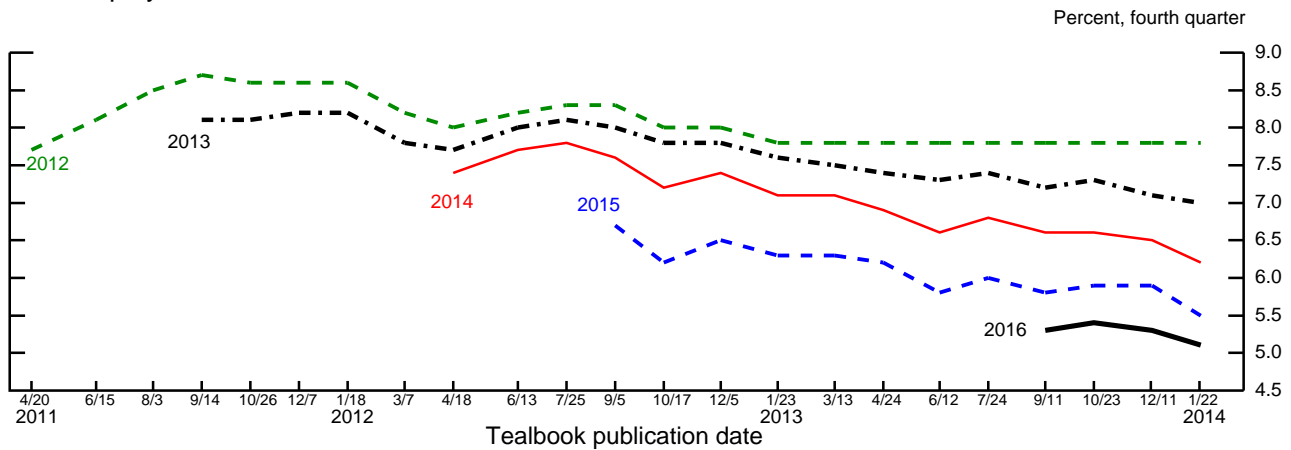
Note: In each panel, shading represents the projection period, and dashed lines are the previous Tealbook.

## Evolution of the Staff Forecast

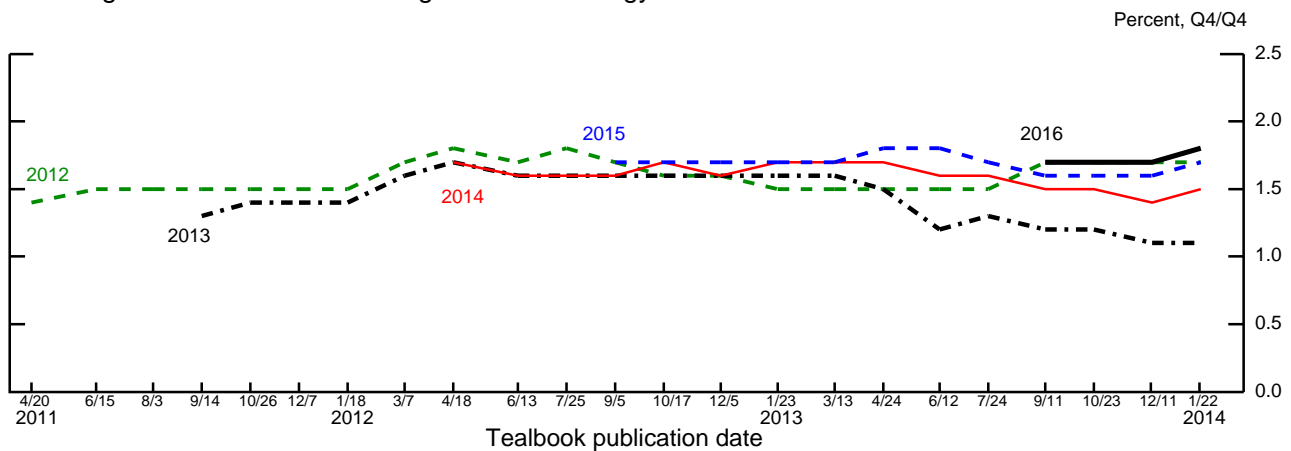
### Change in Real GDP



### Unemployment Rate



### Change in PCE Prices excluding Food and Energy





## The Foreign GDP Outlook

### Real GDP\*

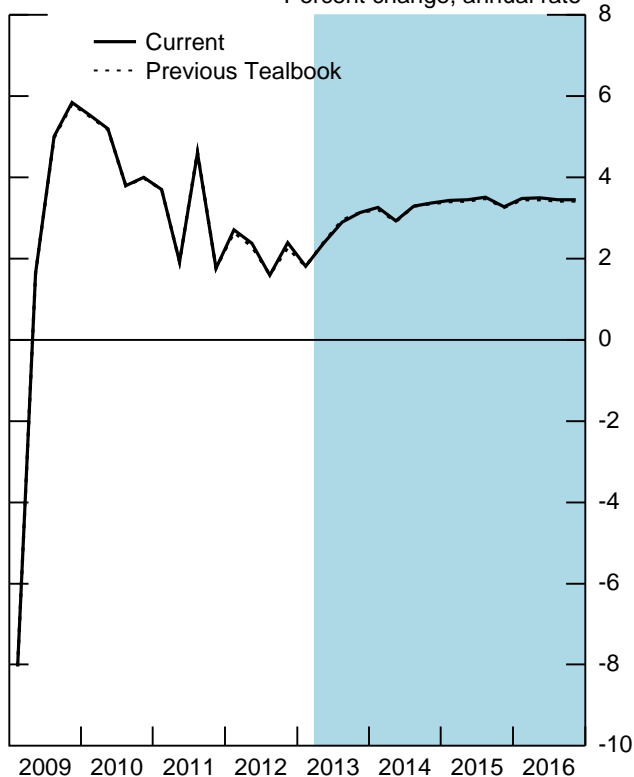
Percent change, annual rate

	2013			2014			2015	2016
	H1	Q3	Q4	Q1	Q2	H2		
<b>1. Total Foreign</b>	<b>2.1</b>	<b>2.9</b>	<b>3.1</b>	<b>3.3</b>	<b>2.9</b>	<b>3.3</b>	<b>3.4</b>	<b>3.5</b>
<i>Previous Tealbook</i>	2.1	3.0	3.1	3.2	2.9	3.3	3.4	3.4
<b>2. Advanced Foreign Economies</b>	<b>1.7</b>	<b>1.9</b>	<b>2.0</b>	<b>2.3</b>	<b>1.5</b>	<b>2.2</b>	<b>2.2</b>	<b>2.3</b>
<i>Previous Tealbook</i>	1.7	1.8	2.0	2.2	1.5	2.2	2.2	2.3
3. Canada	2.0	2.7	2.1	2.5	2.6	2.6	2.7	2.7
4. Euro Area	0.2	0.5	0.9	1.1	1.3	1.3	1.9	2.0
5. Japan	4.0	1.1	3.6	4.4	-3.8	2.1	1.0	1.3
6. United Kingdom	2.6	3.1	3.0	2.9	2.8	2.7	2.5	2.4
<b>7. Emerging Market Economies</b>	<b>2.5</b>	<b>3.9</b>	<b>4.2</b>	<b>4.2</b>	<b>4.3</b>	<b>4.5</b>	<b>4.6</b>	<b>4.6</b>
<i>Previous Tealbook</i>	2.6	4.1	4.3	4.3	4.4	4.5	4.6	4.6
8. China	6.9	8.8	8.0	7.8	7.7	7.7	7.6	7.5
9. Emerging Asia ex. China	2.9	4.1	4.4	3.9	4.1	4.3	4.6	4.6
10. Mexico	-0.7	3.4	3.5	3.4	3.6	3.7	3.7	3.7
11. Brazil	3.5	-1.9	2.0	2.6	3.0	3.2	3.4	3.4

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

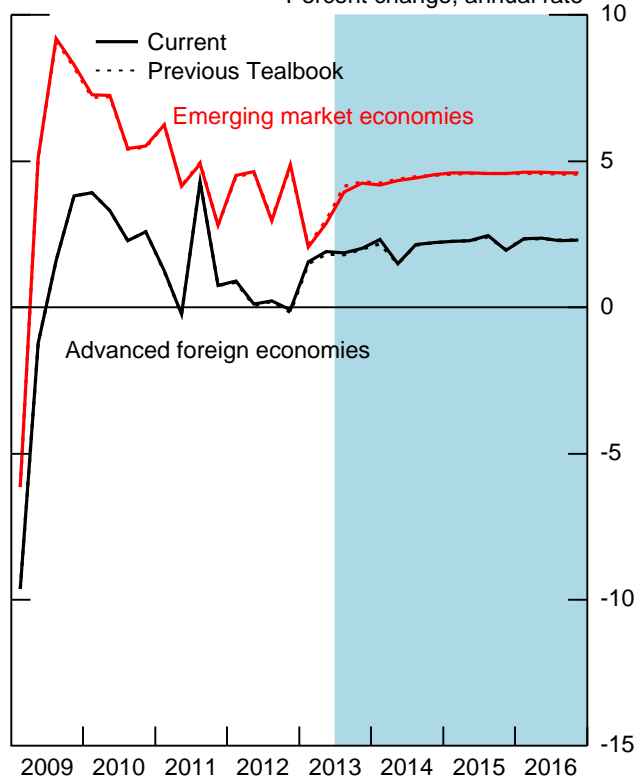
### Total Foreign GDP

Percent change, annual rate



### Foreign GDP

Percent change, annual rate



## The Foreign Inflation Outlook

### Consumer Prices\*

Percent change, annual rate

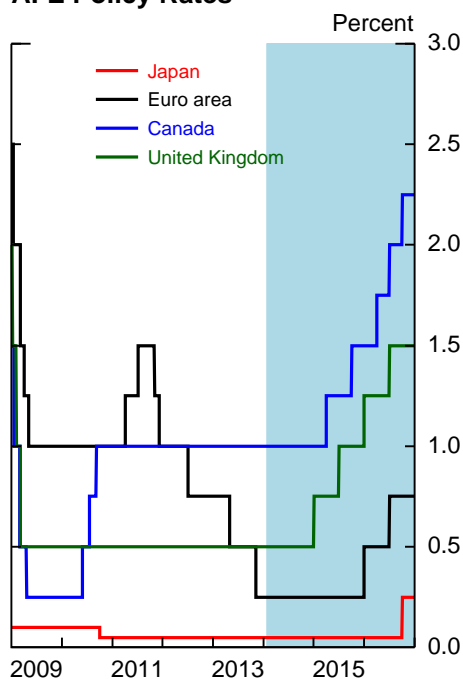
	2013			2014			2015	2016
	H1	Q3	Q4	Q1	Q2	H2		
<b>1. Total Foreign</b>	<b>2.1</b>	<b>2.8</b>	<b>2.3</b>	<b>2.3</b>	<b>3.0</b>	<b>2.4</b>	<b>2.6</b>	<b>2.6</b>
<i>Previous Tealbook</i>	2.1	2.8	2.3	2.5	3.0	2.4	2.6	2.6
<b>2. Advanced Foreign Economies</b>	<b>0.7</b>	<b>2.0</b>	<b>0.5</b>	<b>1.0</b>	<b>2.7</b>	<b>1.3</b>	<b>1.7</b>	<b>1.7</b>
<i>Previous Tealbook</i>	0.7	2.0	0.6	1.2	2.7	1.4	1.8	1.7
3. Canada	0.8	1.5	0.1	1.2	1.3	1.5	1.7	1.9
4. Euro Area	0.7	1.7	0.0	0.8	1.2	1.3	1.3	1.4
5. Japan	0.2	3.1	1.7	1.1	8.8	0.8	2.6	1.7
6. United Kingdom	2.0	2.9	1.3	1.5	1.7	2.0	1.9	1.9
<b>7. Emerging Market Economies</b>	<b>3.2</b>	<b>3.3</b>	<b>3.7</b>	<b>3.3</b>	<b>3.3</b>	<b>3.3</b>	<b>3.3</b>	<b>3.3</b>
<i>Previous Tealbook</i>	3.1	3.3	3.7	3.5	3.3	3.3	3.3	3.3
8. China	2.6	3.4	3.0	2.1	3.0	3.0	3.0	3.0
9. Emerging Asia ex. China	2.9	4.1	4.0	3.1	3.2	3.4	3.4	3.4
10. Mexico	4.2	2.0	4.2	5.3	3.7	3.4	3.4	3.4
11. Brazil	6.4	4.6	6.0	6.5	6.0	5.7	5.3	5.3

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

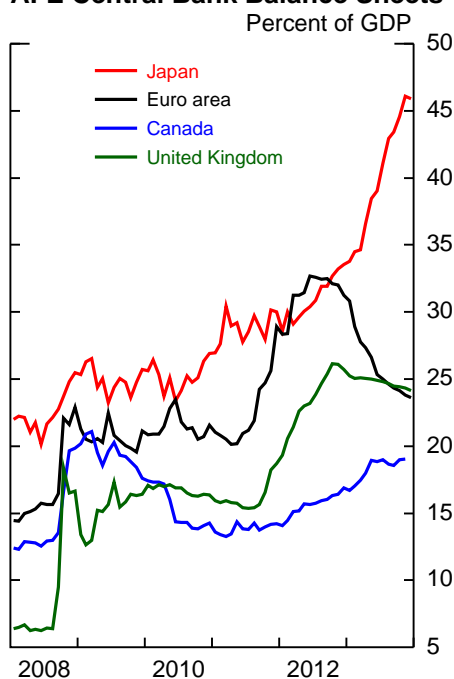
Int'l Econ Devel &amp; Outlook

## Foreign Monetary Policy

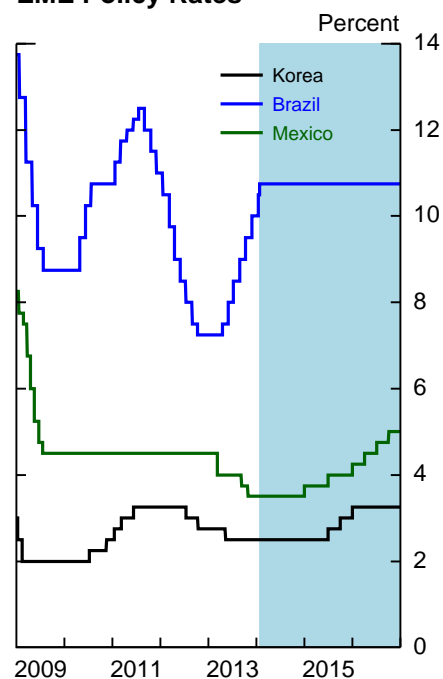
### AFE Policy Rates



### AFE Central Bank Balance Sheets

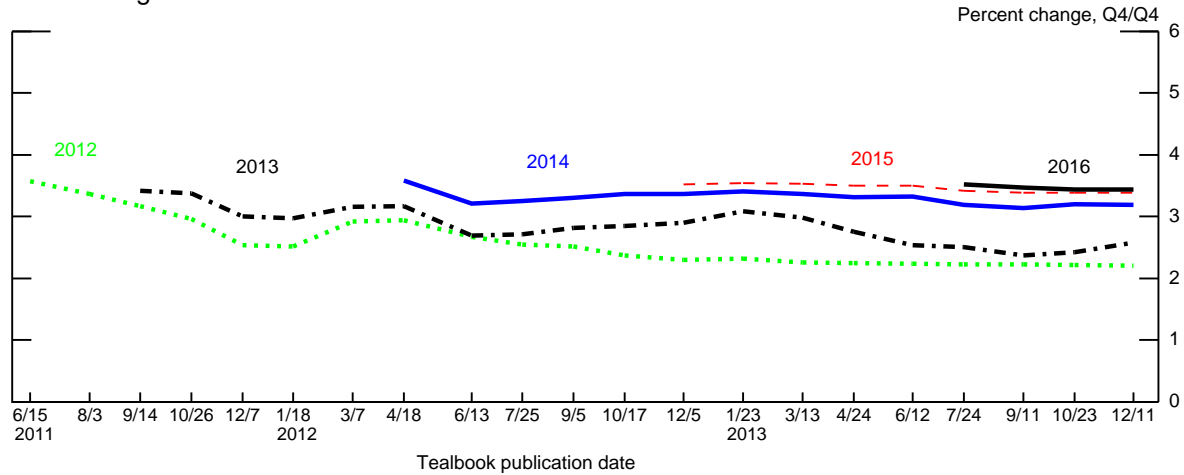


### EME Policy Rates

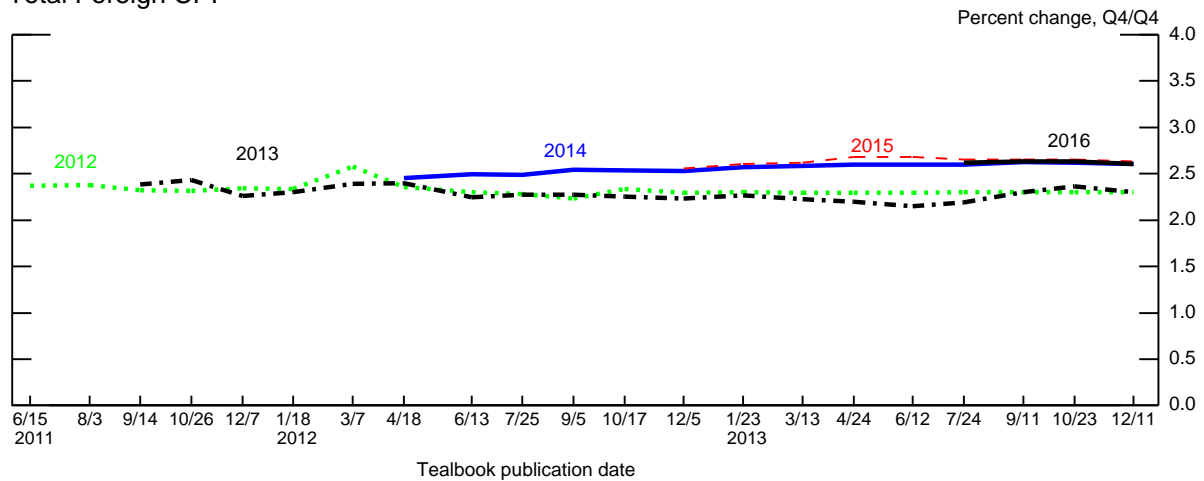


## Evolution of Staff's International Forecast

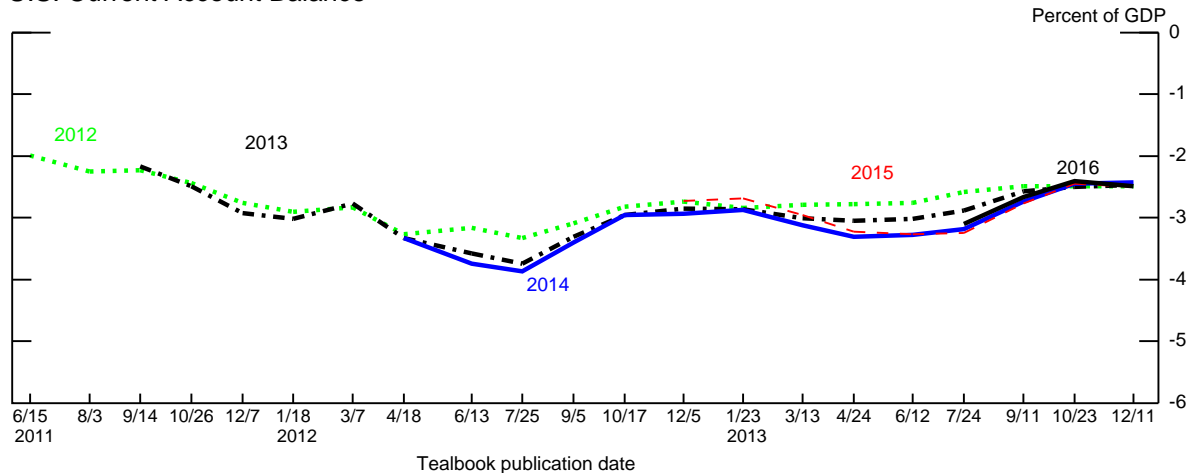
Total Foreign GDP



Total Foreign CPI

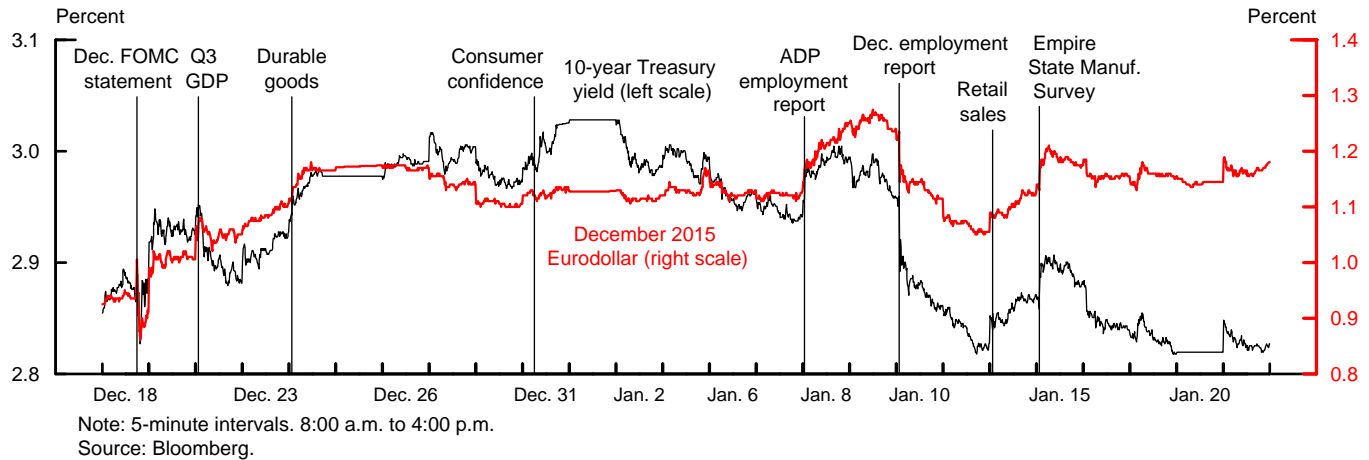


U.S. Current Account Balance

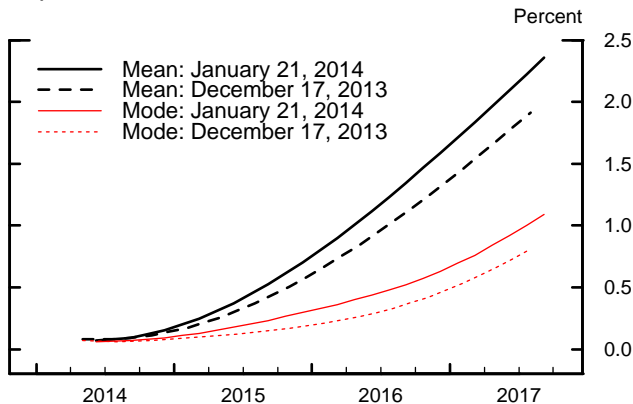


## Policy Expectations and Treasury Yields

### Selected Interest Rates



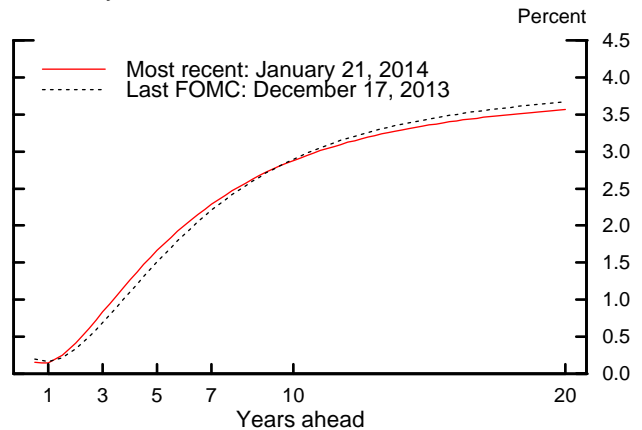
### Implied Federal Funds Rate



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

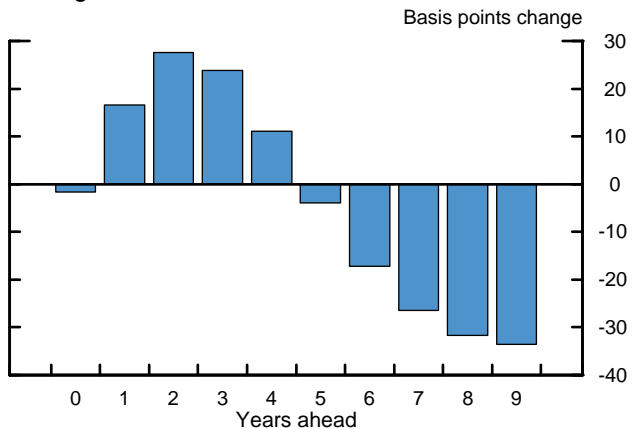
Source: Bloomberg; CME Group.

### Treasury Yield Curve



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

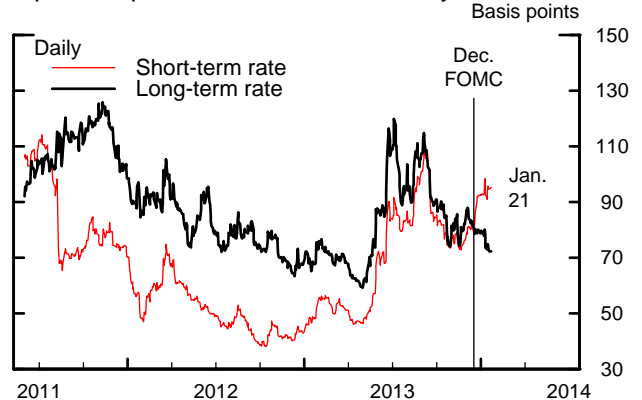
### Change in Forward Rates



Note: Change since day before FOMC meeting in 1-year forward rates beginning at the horizons shown on the horizontal axis.

Source: Federal Reserve Board.

### Option-Implied Interest Rate Volatility



Note: Implied volatility of the long-term rate is based on options on the 10-year swap rate that expire in 3 months, while implied volatility of the short-term rate is based on options on the 1-year swap rate that expire in 2 years.

Source: Staff calculations from Barclays data.

**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	2.7	3.5	3.4	3.2	2.4
Consumer confidence	3.4	4.7	4.0	3.1	2.1
Consumer and business confidence	3.4	5.1	4.6	3.8	2.5
Supply-side damage	2.6	3.3	3.0	2.5	1.7
Low inflation	2.7	3.4	3.4	3.2	2.4
Lower inflation in the AFEs	2.5	3.1	3.1	3.2	2.5
Faster recovery in the AFEs	2.9	3.8	3.6	3.2	2.2
<i>Unemployment rate<sup>1</sup></i>					
Extended Tealbook baseline	6.6	6.2	5.5	5.1	4.8
Consumer confidence	6.5	5.9	4.7	4.3	4.3
Consumer and business confidence	6.5	5.8	4.5	3.8	3.8
Supply-side damage	6.5	6.0	5.0	4.6	4.7
Low inflation	6.6	6.2	5.5	5.1	4.9
Lower inflation in the AFEs	6.6	6.3	5.7	5.3	4.9
Faster recovery in the AFEs	6.6	6.1	5.3	4.9	4.7
<i>Total PCE prices</i>					
Extended Tealbook baseline	1.3	1.4	1.6	1.7	1.9
Consumer confidence	1.3	1.4	1.7	1.8	2.1
Consumer and business confidence	1.3	1.4	1.7	1.8	2.1
Supply-side damage	1.4	1.5	1.8	2.0	2.2
Low inflation	.8	.8	.7	.7	.9
Lower inflation in the AFEs	1.1	.9	1.0	1.1	1.4
Faster recovery in the AFEs	1.5	1.7	2.0	1.9	1.9
<i>Core PCE prices</i>					
Extended Tealbook baseline	1.4	1.6	1.7	1.8	1.9
Consumer confidence	1.4	1.6	1.8	1.9	2.1
Consumer and business confidence	1.4	1.6	1.8	1.9	2.1
Supply-side damage	1.5	1.7	1.9	2.1	2.2
Low inflation	.9	1.0	.8	.8	.9
Lower inflation in the AFEs	1.3	1.2	1.1	1.2	1.3
Faster recovery in the AFEs	1.5	1.7	1.9	2.0	2.0
<i>Federal funds rate<sup>1</sup></i>					
Extended Tealbook baseline	.1	.1	1.1	2.4	4.0
Consumer confidence	.1	.1	1.9	3.5	5.1
Consumer and business confidence	.1	.1	2.1	3.9	5.8
Supply-side damage	.1	.1	1.8	3.3	4.8
Low inflation	.1	.1	.6	1.4	2.6
Lower inflation in the AFEs	.1	.1	.6	1.6	3.3
Faster recovery in the AFEs	.1	.1	1.4	2.9	4.4

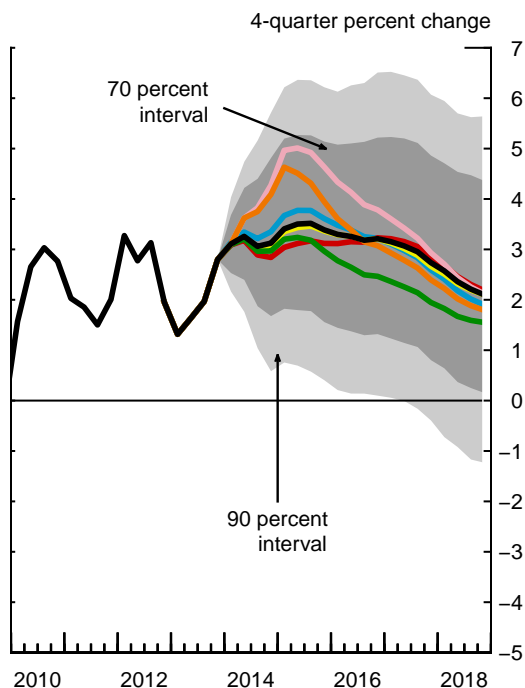
1. Percent, average for the final quarter of the period.

## Forecast Confidence Intervals and Alternative Scenarios

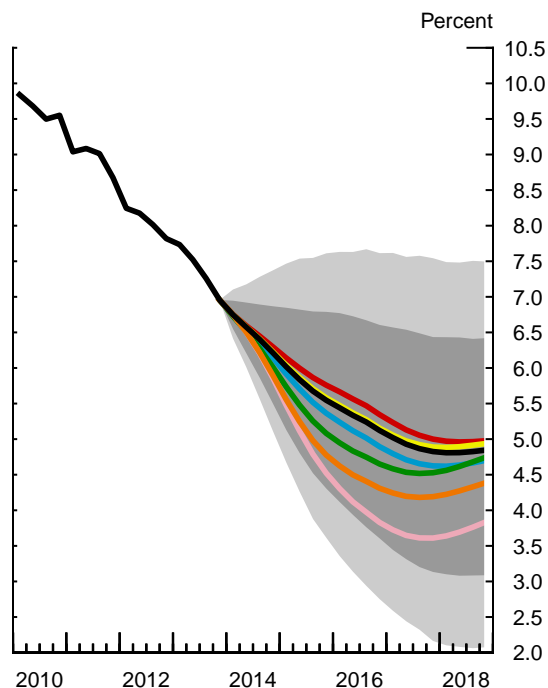
Confidence Intervals Based on FRB/US Stochastic Simulations

- Extended Tealbook baseline
- Consumer confidence
- Consumer and business confidence
- Supply-side damage
- Low inflation
- Lower inflation in the AFEs
- Faster recovery in the AFEs

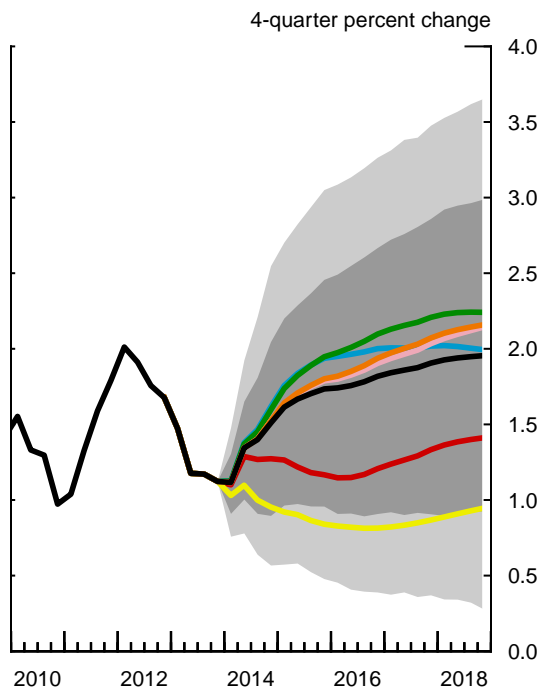
Real GDP



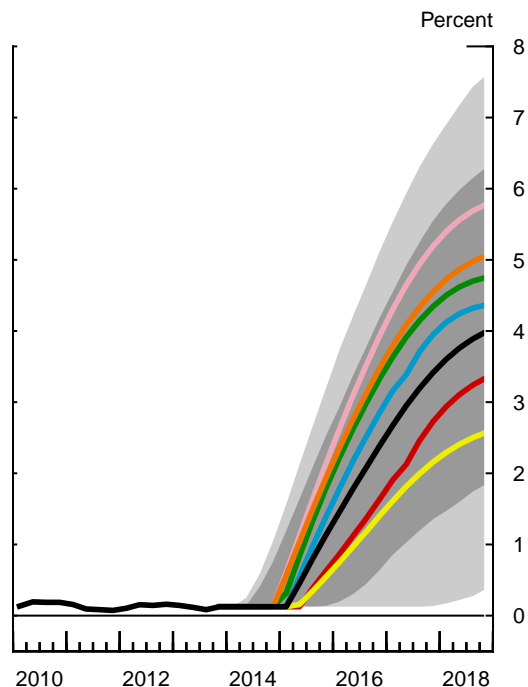
Unemployment Rate



PCE Prices excluding Food and Energy



Federal Funds Rate



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

Measure	2013	2014	2015	2016	2017	2018
<i>Real GDP</i> (percent change, Q4 to Q4)						
Projection	2.8	3.1	3.4	3.2	2.7	2.1
Confidence interval						
Tealbook forecast errors	2.6–3.0	1.6–4.6	1.6–5.2	...	...	...
FRB/US stochastic simulations	2.6–3.0	1.7–4.8	1.6–5.1	1.3–5.2	.8–4.9	.2–4.4
<i>Civilian unemployment rate</i> (percent, Q4)						
Projection	7.0	6.2	5.5	5.1	4.8	4.8
Confidence interval						
Tealbook forecast errors	6.9–7.0	5.6–6.8	4.6–6.5	...	...	...
FRB/US stochastic simulations	6.9–7.0	5.5–6.9	4.3–6.8	3.6–6.6	3.1–6.4	3.1–6.4
<i>PCE prices, total</i> (percent change, Q4 to Q4)						
Projection	.9	1.4	1.6	1.7	1.8	2.0
Confidence interval						
Tealbook forecast errors	.8–1.0	.4–2.3	.5–2.7	...	...	...
FRB/US stochastic simulations	.8–1.0	.5–2.2	.6–2.6	.6–2.7	.7–3.0	.8–3.2
<i>PCE prices excluding food and energy</i> (percent change, Q4 to Q4)						
Projection	1.1	1.5	1.7	1.8	1.9	2.0
Confidence interval						
Tealbook forecast errors	1.0–1.2	1.0–2.1	1.0–2.5	...	...	...
FRB/US stochastic simulations	1.1–1.2	.9–2.0	1.0–2.5	.9–2.7	.9–2.9	.9–3.0
<i>Federal funds rate</i> (percent, Q4)						
Projection	.1	.1	1.1	2.4	3.4	4.0
Confidence interval						
FRB/US stochastic simulations	.1–.1	.1–.8	.1–2.5	.6–4.2	1.4–5.6	1.9–6.3

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

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

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

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

Measure and projection	2013		2014		2015	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
<i>Real GDP</i>						
Staff	2.2	2.8	3.1	3.1	3.5	3.4
FRB/US	2.2	2.8	2.1	2.0	2.6	2.5
EDO	2.2	2.8	3.0	3.2	2.9	2.9
Blue Chip	2.2	2.5	2.8	2.8	...	3.0
<i>Unemployment rate<sup>1</sup></i>						
Staff	7.1	7.0	6.5	6.2	5.9	5.5
FRB/US	7.1	7.0	7.0	6.7	6.6	6.4
EDO	7.1	7.0	7.1	6.9	6.9	6.8
Blue Chip	7.2	7.0	6.7	6.6	...	6.1
<i>Total PCE prices</i>						
Staff	.9	.9	1.4	1.4	1.4	1.6
FRB/US	.9	.9	1.0	1.0	1.0	1.1
EDO	.9	.9	1.3	1.2	1.5	1.4
Blue Chip <sup>2</sup>	1.3	1.2	2.0	1.9	...	2.1
<i>Core PCE prices</i>						
Staff	1.1	1.1	1.4	1.5	1.6	1.7
FRB/US	1.1	1.1	1.1	1.2	1.1	1.2
EDO	1.1	1.1	1.3	1.2	1.5	1.4
Blue Chip	...	...	...	...	...	...
<i>Federal funds rate<sup>1</sup></i>						
Staff	.1	.1	.1	.1	.8	1.1
FRB/US	.1	.1	.1	.1	.1	.1
EDO	.1	.1	1.2	1.2	2.0	2.0
Blue Chip <sup>3</sup>	.1	.1	.2	.1	...	.8

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

1. Percent, average for Q4.

2. Consumer price index.

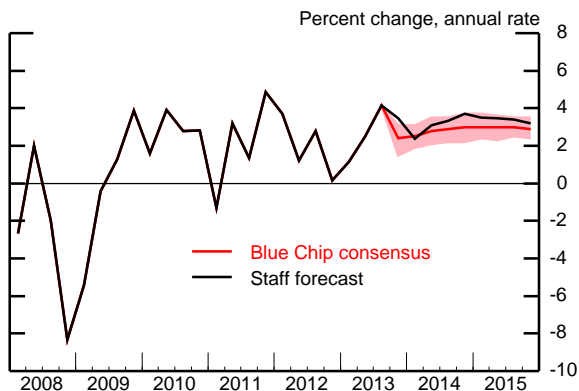
3. Treasury bill rate.

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



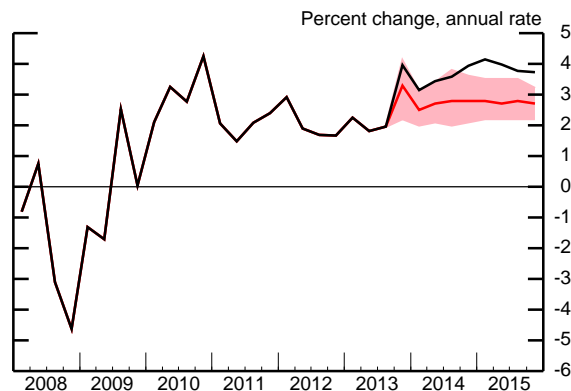
## Tealbook Forecast Compared with Blue Chip (Blue Chip survey released January 10, 2014)

Real GDP

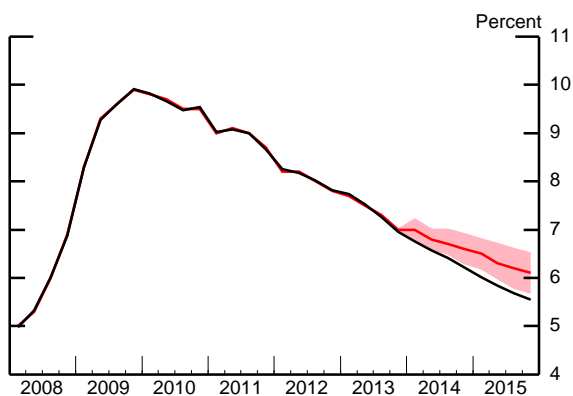


Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

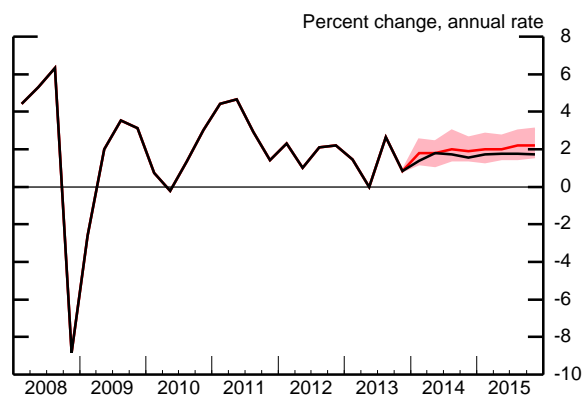
Real PCE



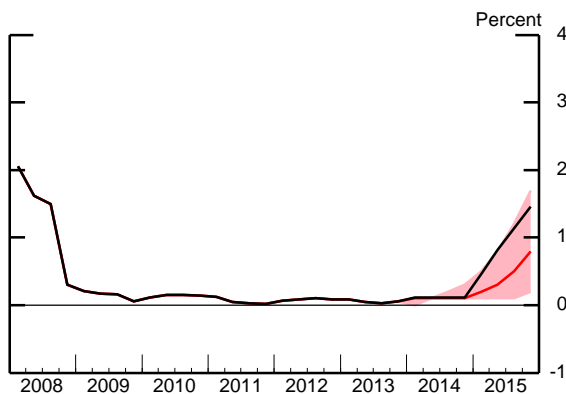
Unemployment Rate



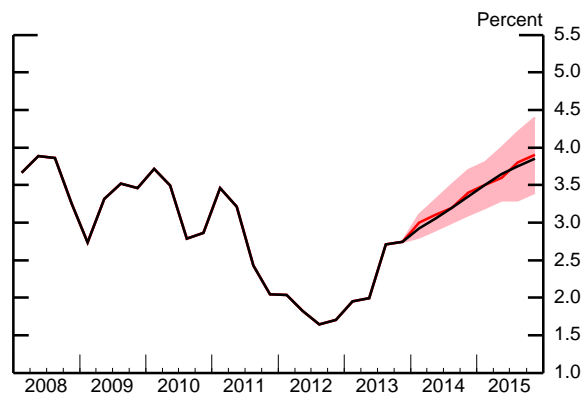
Consumer Price Index



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.

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

(4 quarters ahead—2014:Q4)

Probability that the 4-quarter change in total PCE prices will be ...	Staff	FRB/US	EDO	BVAR
<i>Greater than 3 percent</i>				
Current Tealbook	.03	.01	.07	.03
Previous Tealbook	.03	.02	.09	.02
<i>Less than 1 percent</i>				
Current Tealbook	.32	.48	.40	.23
Previous Tealbook	.31	.47	.35	.27

**Probability of Unemployment Events**

(4 quarters ahead—2014:Q4)

Probability that the unemployment rate will ...	Staff	FRB/US	EDO	BVAR
<i>Increase by 1 percentage point</i>				
Current Tealbook	.01	.03	.23	.01
Previous Tealbook	.01	.04	.23	.01
<i>Decrease by 1 percentage point</i>				
Current Tealbook	.38	.15	.13	.35
Previous Tealbook	.27	.08	.14	.18

**Probability of Near-Term Recession**

Probability that real GDP declines in each of 2014:Q1 and 2014:Q2	Staff	FRB/US	EDO	BVAR	Factor Model
Current Tealbook	.01	.06	.05	.01	.06
Previous Tealbook	.02	.05	.05	.04	.04

Note: "Staff" represents Tealbook forecast errors applied to the Tealbook baseline; baselines for FRB/US, BVAR, EDO, and the factor model are generated by those models themselves, up to the current-quarter estimate. Data for the current quarter are taken from the staff estimate for the second Tealbook in each quarter; if the second Tealbook for the current quarter has not yet been published, the preceding quarter is taken as the latest historical observation.

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

Interval	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate <sup>1</sup>	
	12/12/13	01/22/14	12/12/13	01/22/14	12/12/13	01/22/14	12/12/13	01/22/14	12/12/13	01/22/14
<i>Quarterly</i>										
2013:Q1	2.8	2.8	1.1	1.1	1.1	1.1	1.4	1.4	7.7	7.7
Q2	3.1	3.1	2.5	2.5	-1	-1	.6	.6	7.5	7.5
Q3	5.5	6.2	3.5	4.1	2.0	1.9	1.5	1.4	7.3	7.3
Q4	2.8	5.0	1.7	3.5	.7	.7	1.1	1.1	7.1	7.0
2014:Q1	4.2	3.6	2.8	2.4	1.5	1.1	1.4	1.3	6.9	6.7
Q2	4.4	5.0	2.9	3.1	1.3	1.5	1.5	1.6	6.8	6.6
Q3	4.7	5.1	3.2	3.3	1.4	1.5	1.5	1.6	6.7	6.4
Q4	4.9	5.4	3.5	3.7	1.2	1.4	1.4	1.5	6.5	6.2
2015:Q1	5.5	5.5	3.7	3.5	1.5	1.6	1.6	1.7	6.3	6.0
Q2	5.3	5.3	3.6	3.5	1.5	1.6	1.6	1.8	6.2	5.8
Q3	5.0	5.2	3.3	3.4	1.5	1.6	1.6	1.8	6.1	5.7
Q4	5.1	4.9	3.5	3.2	1.3	1.5	1.5	1.7	5.9	5.5
<i>Two-quarter<sup>2</sup></i>										
2013:Q2	3.0	3.0	1.8	1.8	.5	.5	1.0	1.0	-3	-3
Q4	4.1	5.6	2.6	3.8	1.3	1.3	1.3	1.2	-4	-5
2014:Q2	4.3	4.3	2.8	2.7	1.4	1.3	1.5	1.4	-3	-4
Q4	4.8	5.2	3.3	3.5	1.3	1.4	1.4	1.6	-3	-4
2015:Q2	5.4	5.4	3.6	3.5	1.5	1.6	1.6	1.8	-3	-4
Q4	5.0	5.1	3.4	3.3	1.4	1.6	1.6	1.7	-3	-3
<i>Four-quarter<sup>3</sup></i>										
2012:Q4	3.8	3.8	2.0	2.0	1.7	1.7	1.7	1.7	-9	-9
2013:Q4	3.5	4.3	2.2	2.8	.9	.9	1.1	1.1	-7	-8
2014:Q4	4.6	4.7	3.1	3.1	1.4	1.4	1.4	1.5	-6	-8
2015:Q4	5.2	5.2	3.5	3.4	1.4	1.6	1.6	1.7	-6	-7
2016:Q4	5.1	5.1	3.4	3.2	1.6	1.7	1.7	1.8	-6	-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	3.2	3.5	1.7	1.9	1.1	1.1	1.2	1.2	7.4	7.4
2014	4.2	4.7	2.8	3.1	1.3	1.2	1.3	1.3	6.7	6.5
2015	5.1	5.3	3.5	3.5	1.4	1.5	1.6	1.7	6.1	5.8
2016	5.2	5.1	3.4	3.2	1.5	1.6	1.7	1.8	5.5	5.3

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

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

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

## Changes in Real Gross Domestic Product and Related Items

(Percent, annual rate except as noted)

Item	2013				2014				2015				2013 <sup>1</sup>	2014 <sup>1</sup>	2015 <sup>1</sup>	2016 <sup>1</sup>
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Real GDP <i>Previous Tealbook</i>	2.5 2.5	4.1 3.5	3.5 1.7	2.4 2.8	3.1 2.9	3.3 3.2	3.7 3.5	3.5 3.7	3.5 3.6	3.4 3.3	3.2 3.5	2.8 2.2	3.1 3.1	3.4 3.5	3.2 3.4	
Final sales <i>Previous Tealbook</i>	2.1 2.1	2.5 1.9	3.6 1.9	2.9 3.0	3.1 3.1	3.3 3.4	3.5 3.7	4.0 3.8	3.6 3.7	3.5 3.7	3.7 3.7	2.1 1.5	3.2 3.3	3.7 3.7	3.4 3.5	
Priv. dom. final purch. <i>Previous Tealbook</i>	2.6 2.6	2.7 2.1	4.1 3.3	3.3 3.1	4.0 3.9	4.3 4.2	4.7 4.7	4.9 4.7	4.7 4.7	4.4 4.5	4.4 4.5	2.7 2.4	4.1 4.0	4.6 4.6	3.7 3.7	
Personal cons. expend. <i>Previous Tealbook</i>	1.8 1.8	2.0 1.4	4.0 3.2	3.1 2.8	3.4 3.2	3.6 3.4	3.9 3.9	4.1 3.9	4.0 4.0	3.8 3.8	3.7 3.9	2.5 2.2	3.5 3.3	3.9 3.9	3.2 3.2	
Durables	6.2	7.9	7.2	8.9	9.9	9.3	9.8	10.4	8.6	8.7	8.7	6.8	9.4	9.1	6.3	
Nondurables	1.6	2.9	6.5	2.4	2.6	2.8	3.1	3.2	3.2	3.0	3.0	3.4	2.7	3.1	2.6	
Services	1.2	.7	2.6	2.5	2.7	2.9	3.3	3.4	3.4	3.2	3.1	1.5	2.8	3.3	2.8	
Residential investment <i>Previous Tealbook</i>	14.2 14.2	10.3 13.0	-5.3 -1.7	8.8 10.8	8.4 14.8	16.1 18.2	16.9 18.4	18.7 17.4	16.5 15.1	14.0 13.4	13.1 12.9	7.6 9.3	12.5 15.5	15.6 14.7	9.2 8.3	
Nonres. priv. fixed invest. <i>Previous Tealbook</i>	4.7 4.7	4.8 3.5	7.4 5.0	3.0 3.0	6.3 5.2	5.5 5.0	5.4 5.1	5.6 5.3	5.1 5.5	5.3 5.5	5.4 5.5	3.0 2.1	5.0 4.6	5.3 5.4	4.7 5.1	
Equipment & intangibles <i>Previous Tealbook</i>	1.3 1.3	2.4 .7	9.8 6.3	3.4 3.0	6.0 5.1	5.7 5.5	5.9 5.6	6.5 5.9	5.9 6.3	6.1 6.3	6.2 6.4	4.0 2.7	5.2 4.8	6.2 6.2	5.5 5.8	
Nonres. structures <i>Previous Tealbook</i>	17.6 17.6	13.4 13.8	-5 1.0	1.4 3.0	7.3 5.4	4.6 3.6	4.0 3.6	2.5 3.3	2.5 2.8	2.6 2.6	2.6 2.6	-4 .1	4.3 3.9	2.5 2.8	2.2 2.6	
Net exports <sup>2</sup> <i>Previous Tealbook</i> <sup>2</sup>	-424 -424	-420 -423	-372 -417	-373 -408	-377 -407	-382 -404	-392 -408	-391 -408	-400 -414	-404 -410	-405 -412	-410 -422	-381 -407	-400 -411	-395 -401	
Exports	8.0	3.9	12.7	4.0	3.5	4.5	5.0	5.2	5.5	5.7	5.3	5.7	4.3	5.4	6.2	
Imports	6.9	2.4	2.2	3.7	3.6	4.8	5.8	4.3	6.1	5.4	4.6	3.0	4.4	5.1	4.6	
Gov't. cons. & invest. <i>Previous Tealbook</i>	-4 -4	.4 .4	-6.0 -5.3	.8 .9	-1.2 -1.2	-1.0 -1.0	-8 -8	-1.0 -1.0	-8 -8	-1.0 -1.0	-2 -2	-2.6 -2.4	-5 -5	-8 -7	.9 .9	
Federal	-1.6	-1.5	-14.9	1.5	-3.6	-3.3	-2.8	-4.2	-3.9	-4.4	-2.5	-6.8	-2.1	-3.7	-1	
Defense	-6	-5	-16.6	-2.4	-5.3	-5.2	-3.0	-4.9	-4.3	-4.9	-2.4	-7.5	-4.0	-4.1	-1	
Nondefense	-3.1	-3.1	-12.1	8.0	-9	-3	-2.5	-3.1	-3.3	-3.7	-2.6	-5.6	1.0	-3.2	.1	
State & local	.4	1.7	.4	.4	.4	.4	.5	1.0	1.1	1.1	1.1	.3	.4	1.1	1.5	
Change in priv. inventories <sup>2</sup> <i>Previous Tealbook</i> <sup>2</sup>	57 57	116 107	113 102	97 96	100 92	102 85	110 78	93 83	90 81	87 65	68 57	82 77	102 88	84 72	44 50	
Nonfarm <sup>2</sup>	33	89	97	85	93	97	105	91	87	84	66	60	95	82	41	
Farm <sup>2</sup>	19	23	16	12	7	5	5	2	2	2	2	18	7	2	2	

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	2.8 2.2	3.1 3.1	3.4 3.5	3.2 3.4
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	2.1 1.5	3.2 3.3	3.7 3.7	3.4 3.5
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	2.7 2.4	4.1 4.0	4.6 4.6	3.7 3.7
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	2.5 2.2	3.5 3.3	3.9 3.9	3.2 3.2
Durables	4.1	-12.9	2.5	9.3	5.7	7.8	6.8	9.4	9.1	6.3
Nondurables	.1	-2.7	.2	3.3	.7	1.6	3.4	2.7	3.1	2.6
Services	1.5	.2	-6	2.1	1.9	1.3	1.5	2.8	3.3	2.8
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	7.6 9.3	12.5 15.5	15.6 14.7	9.2 8.3
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	3.0 2.1	5.0 4.6	5.3 5.4	4.7 5.1
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	4.0 2.7	5.2 4.8	6.2 6.2	5.5 5.8
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	-4 .1	4.3 3.9	2.5 2.8	2.2 2.6
Net exports <sup>1</sup> <i>Previous Tealbook</i> <sup>1</sup>	-704 -704	-547 -547	-392 -392	-463 -463	-446 -446	-431 -431	-410 -422	-381 -407	-400 -411	-395 -401
Exports	9.8	-2.9	.4	9.8	4.6	2.4	5.7	4.3	5.4	6.2
Imports	.7	-5.9	-6.2	11.7	3.5	.1	3.0	4.4	5.1	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	-2.6 -2.4	-.5 -.5	-.8 -.7	.9 .9
Federal	2.7	8.4	3.9	3.2	-3.9	-2.3	-6.8	-2.1	-3.7	-1
Defense	2.5	9.4	3.6	2.0	-4.2	-5.0	-7.5	-4.0	-4.1	-1
Nondefense	2.9	6.5	4.6	5.5	-3.3	2.6	-5.6	1.0	-3.2	.1
State & local	1.2	.2	1.3	-4.0	-2.8	-.3	.3	.4	1.1	1.5
Change in priv. inventories <sup>1</sup> <i>Previous Tealbook</i> <sup>1</sup>	36 36	-34 -34	-148 -148	58 58	34 34	58 58	82 77	102 88	84 72	44 50
Nonfarm <sup>1</sup>	37	-35	-146	66	40	69	60	95	82	41
Farm <sup>1</sup>	-1	1	-2	-7	-4	-7	18	7	2	2

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 <sup>1</sup>	2014 <sup>1</sup>	2015 <sup>1</sup>	2016 <sup>1</sup>
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Real GDP <i>Previous Tealbook</i>	2.5 2.5	4.1 3.5	3.5 1.7	2.4 2.8	3.1 2.9	3.3 3.2	3.7 3.5	3.5 3.7	3.5 3.6	3.4 3.3	3.2 3.5	2.8 2.2	3.1 3.1	3.4 3.5	3.2 3.4
Final sales <i>Previous Tealbook</i>	2.1 2.1	2.5 1.9	3.5 1.9	2.9 3.0	3.1 3.1	3.3 3.4	3.5 3.7	4.0 3.7	3.5 3.6	3.5 3.7	3.6 3.7	2.1 1.5	3.2 3.3	3.7 3.7	3.4 3.5
Priv. dom. final purch. <i>Previous Tealbook</i>	2.2 2.2	2.3 1.8	3.4 2.7	2.8 2.6	3.4 3.3	3.6 3.5	3.9 3.9	4.1 3.9	3.9 3.9	3.7 3.8	3.7 3.8	2.3 2.0	3.4 3.3	3.9 3.9	3.1 3.2
Personal cons. expend. <i>Previous Tealbook</i>	1.2 1.2	1.4 1.0	2.7 2.2	2.1 1.9	2.3 2.2	2.4 2.3	2.7 2.7	2.8 2.7	2.7 2.7	2.6 2.6	2.5 2.6	1.7 1.5	2.4 2.3	2.7 2.7	2.2 2.2
Durables	.5	.6	.5	.6	.7	.7	.7	.8	.7	.7	.7	.5	.7	.7	.5
Nondurables	.3	.5	1.0	.4	.4	.4	.5	.5	.5	.5	.5	.5	.4	.5	.4
Services	.5	.3	1.2	1.1	1.2	1.3	1.5	1.5	1.6	1.4	1.4	.7	1.3	1.5	1.3
Residential investment <i>Previous Tealbook</i>	.4 .4	.3 .4	-.2 -.1	.3 .3	.3 .5	.5 .6	.5 .6	.6 .6	.6 .5	.5 .5	.5 .5	.2 .3	.4 .5	.5 .5	.4 .3
Nonres. priv. fixed invest. <i>Previous Tealbook</i>	.6 .6	.6 .4	.9 .6	.4 .4	.8 .6	.7 .6	.7 .6	.7 .6	.6 .7	.7 .7	.7 .7	.4 .3	.6 .6	.7 .7	.6 .6
Equipment & intangibles <i>Previous Tealbook</i>	.1 .1	.2 .1	.9 .6	.3 .3	.6 .5	.5 .5	.6 .5	.6 .6	.6 .6	.6 .6	.6 .6	.4 .3	.5 .5	.6 .6	.5 .6
Nonres. structures <i>Previous Tealbook</i>	.4 .4	.4 .4	.0 .0	.0 .1	.2 .2	.1 .1	.1 .1	.1 .1	.1 .1	.1 .1	.1 .1	.0 .0	.1 .1	.1 .1	.1 .1
Net exports <i>Previous Tealbook</i>	-.1 -1.1	.1 .5	1.3 1.6	.0 .3	-.1 .0	-.1 .1	-.2 -.1	.0 .0	-.2 -.2	-.1 .8	.0 .7	.3 .8	-.1 .6	-.1 .7	.1 .8
Exports															
Imports															
Gov't. cons. & invest. <i>Previous Tealbook</i>	-.1 -1.1	.1 .5	1.1 1.6	.1 .3	-.2 .5	-.2 .6	-.1 -.9	-.2 -.7	-.1 -1.0	-.2 .8	.0 .7	-.5 .8	-.1 .6	-.1 .7	.2 -.7
Federal															
Defense															
Nondefense															
State & local															
Change in priv. inventories <i>Previous Tealbook</i>	.4 .4	1.7 1.5	-.1 -.1	-.5 -.3	.0 -.2	.1 -.2	.2 -.2	-.5 .0	-.1 -.1	-.1 -.4	-.5 -.2	.7 .7	-.1 -.2	-.3 -.2	-.2 -.1
Nonfarm															
Farm															

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 <sup>1</sup>	2014 <sup>1</sup>	2015 <sup>1</sup>	2016 <sup>1</sup>
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
GDP chain-wt. price index <i>Previous Tealbook</i>	.6 .6	2.0 2.0	1.5 1.1	1.2 1.4	1.8 1.5	1.7 1.5	1.6 1.4	1.9 1.8	1.8 1.6	1.7 1.6	1.7 1.5	1.4 1.3	1.6 1.4	1.8 1.6	1.7	
PCE chain-wt. price index <i>Previous Tealbook</i>	-.1 -.1	1.9 2.0	.7 .7	1.1 1.5	1.5 1.3	1.5 1.4	1.4 1.2	1.6 1.5	1.6 1.5	1.6 1.5	1.5 1.3	.9 .9	1.4 1.4	1.6 1.4	1.7 1.6	
Energy <i>Previous Tealbook</i>	-11.9 -11.9	11.8 11.7	-5.0 -4.8	-2.0 4.9	1.4 .1	.3 .1	-.3 -.4	-.3 -.5	-.5 -.9	-.6 -.9	-.5 -.8	-2.5 -2.5	-.2 1.1	-.5 -.8	-1 -5	
Food <i>Previous Tealbook</i>	.5 .5	1.2 1.2	.1 .5	.5 .7	.6 .6	.6 .7	.7 .7	1.0 1.0	1.3 1.3	1.3 1.3	1.4 1.4	.8 .9	.6 .7	1.3 1.3	1.4 1.4	
Ex. food & energy <i>Previous Tealbook</i>	.6 .6	1.4 1.5	1.1 1.1	1.3 1.4	1.6 1.5	1.6 1.5	1.5 1.4	1.7 1.6	1.8 1.6	1.8 1.6	1.7 1.5	1.1 1.1	1.5 1.4	1.7 1.6	1.8 1.7	
Ex. food & energy, market based <i>Previous Tealbook</i>	.5 .5	1.4 1.4	.9 .7	1.3 1.4	1.6 1.5	1.6 1.5	1.5 1.3	1.8 1.6	1.8 1.6	1.8 1.6	1.6 1.4	1.1 1.1	1.5 1.4	1.7 1.6	1.8 1.7	
CPI <i>Previous Tealbook</i>	.0 .0	2.6 2.6	.9 .9	1.4 2.0	1.8 1.6	1.7 1.6	1.6 1.4	1.7 1.6	1.8 1.6	1.8 1.6	1.7 1.6	1.2 1.2	1.6 1.7	1.7 1.6	1.8 1.7	
Ex. food & energy <i>Previous Tealbook</i>	1.4 1.4	1.8 1.8	1.6 1.6	1.8 1.9	2.0 1.9	2.0 1.9	1.8 1.7	2.0 1.9	2.1 1.9	2.1 1.9	2.0 1.8	1.7 1.7	1.9 1.8	2.0 1.9	2.0 1.9	
ECL, hourly compensation <sup>2</sup> <i>Previous Tealbook</i>	2.4 2.4	1.7 1.7	2.1 2.1	2.2 2.2	2.5 2.4	2.5 2.5	2.6 2.5	2.8 2.6	2.9 2.7	3.0 2.8	3.0 2.8	2.0 2.0	2.5 2.4	2.9 2.7	3.2 3.0	
Nonfarm business sector Output per hour <i>Previous Tealbook</i>	1.8 1.8	3.7 2.7	3.2 .2	.2 .8	1.4 1.7	1.5 1.9	1.7 1.8	1.6 1.9	1.6 1.7	1.4 1.6	1.8 1.9	1.7 .7	1.2 1.5	1.6 1.8	1.9 1.9	
Compensation per hour <i>Previous Tealbook</i>	3.8 3.8	1.6 1.6	1.6 2.0	1.8 2.3	2.7 2.6	3.0 2.8	3.1 2.9	3.2 3.0	3.3 3.1	3.3 3.1	3.5 3.2	.4 .5	2.7 2.7	3.3 3.1	3.6 3.4	
Unit labor costs <i>Previous Tealbook</i>	2.0 1.9	-2.0 -1.0	-1.6 1.8	1.6 1.6	1.3 .9	1.6 .9	1.5 1.1	1.6 1.1	1.7 1.4	1.9 1.5	1.7 1.3	-1.3 -2	1.5 1.1	1.7 1.3	1.7 1.5	
Core goods imports chain-wt. price index <sup>3</sup> <i>Previous Tealbook</i>	-2.4 -2.4	-3.2 -3.2	.3 .8	.7 1.1	.6 1.4	1.7 1.8	1.4 1.5	1.5 1.6	1.5 1.6	1.5 1.6	1.5 1.6	-1.2 -1.1	1.1 1.5	1.5 1.6	1.6 1.7	

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 1.3	1.6 1.4	1.8 1.6	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	.9 .9	1.4 1.4	1.6 1.4	1.7 1.6
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	-2.5 -2.5	-2 1.1	-5 -8	-1 -5
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 .9	.6 .7	1.3 1.3	1.4 1.4
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	1.1 1.1	1.5 1.4	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	1.1 1.1	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	1.6 1.7	1.7 1.6	1.8 1.7
Ex. food & energy <i>Previous Tealbook</i>	2.3 2.3	2.0 2.0	1.7 1.7	.6 .6	2.2 2.2	1.9 1.9	1.7 1.7	1.9 1.8	2.0 1.9	2.0 1.9
ECL, hourly compensation <sup>1</sup> <i>Previous Tealbook</i> <sup>1</sup>	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	2.5 2.4	2.9 2.7	3.2 3.0
Nonfarm business sector Output per hour <i>Previous Tealbook</i>	2.4 2.4	-.4 -.4	5.5 5.5	1.9 1.9	.4 .4	.9 .9	1.7 .7	1.2 1.5	1.6 1.8	1.9 1.9
Compensation per hour <i>Previous Tealbook</i>	3.9 3.9	3.0 3.0	1.2 1.2	1.6 1.6	.9 .9	5.3 5.3	.4 .5	2.7 2.7	3.3 3.1	3.6 3.4
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	-1.3 -2	1.5 1.1	1.7 1.3	1.7 1.5
Core goods imports chain-wt. price index <sup>2</sup> <i>Previous Tealbook</i> <sup>2</sup>	3.0 3.0	3.9 3.9	-1.9 -1.9	2.3 2.3	4.2 4.2	.1 .1	-1.2 -1.1	1.1 1.5	1.5 1.6	1.6 1.7

1. Private-industry workers.

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



## Other Macroeconomic Indicators

Item	2013				2014				2015				2013 <sup>1</sup>	2014 <sup>1</sup>	2015 <sup>1</sup>	2016 <sup>1</sup>
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
<i>Employment and production</i>																
Nonfarm payroll employment <sup>2</sup>	.6	.5	.6	.5	.6	.7	.7	.7	.7	.7	.7	.7	2.3	2.5	2.9	2.6
Unemployment rate <sup>3</sup>	7.5	7.3	7.0	6.7	6.6	6.4	6.2	6.0	5.8	5.7	5.5	5.5	7.0	6.2	5.5	5.1
<i>Previous Tealbook<sup>3</sup></i>	7.5	7.3	7.1	6.9	6.8	6.7	6.5	6.3	6.2	6.1	5.9	5.9	7.1	6.5	5.9	5.3
Natural rate of unemployment <sup>3</sup>	5.6	5.5	5.5	5.4	5.4	5.4	5.3	5.3	5.2	5.2	5.2	5.2	5.5	5.3	5.2	5.2
<i>Previous Tealbook<sup>3</sup></i>	5.5	5.4	5.4	5.3	5.3	5.3	5.3	5.2	5.2	5.2	5.2	5.2	5.4	5.3	5.2	5.2
GDP gap <sup>4</sup>	-4.0	-3.4	-3.0	-2.9	-2.6	-2.3	-1.9	-1.5	-1.2	-0.9	-0.6	-0.6	-3.0	-1.9	-0.6	.4
<i>Previous Tealbook<sup>4</sup></i>	-3.7	-3.3	-3.4	-3.3	-3.1	-2.9	-2.5	-2.2	-1.8	-1.6	-1.3	-1.3	-3.4	-2.5	-1.3	-1.1
Industrial production <sup>5</sup>	1.2	2.4	6.8	4.3	4.4	3.3	3.8	4.9	4.6	3.2	2.8	2.8	3.6	4.0	3.9	3.0
<i>Previous Tealbook<sup>5</sup></i>	1.1	2.3	5.7	4.7	4.1	3.1	3.7	4.2	3.9	2.7	3.6	3.6	3.3	3.9	3.6	3.1
Manufacturing industr. prod. <sup>5</sup>	.1	1.5	6.2	2.8	4.0	3.9	4.2	4.7	4.4	4.1	3.6	3.6	3.1	3.7	4.2	3.3
<i>Previous Tealbook<sup>5</sup></i>	.1	1.0	4.8	3.3	3.6	3.6	4.1	4.2	4.3	3.7	3.9	3.9	2.7	3.6	4.0	3.5
Capacity utilization rate - mfg. <sup>3</sup>	76.1	76.0	76.9	77.0	77.4	77.7	78.1	78.5	78.9	79.2	79.4	79.4	76.9	78.1	79.4	80.0
<i>Previous Tealbook<sup>3</sup></i>	76.1	76.0	76.5	76.8	77.1	77.4	77.7	78.1	78.5	78.7	79.0	79.0	76.5	77.7	79.0	79.8
Housing starts <sup>6</sup>	.9	.9	1.0	1.0	1.1	1.2	1.2	1.3	1.4	1.4	1.5	1.5	.9	1.1	1.4	1.6
Light motor vehicle sales <sup>6</sup>	15.5	15.7	15.6	15.8	16.0	16.0	16.1	16.4	16.5	16.6	16.8	16.8	15.5	16.0	16.6	16.8
<i>Income and saving</i>																
Nominal GDP <sup>5</sup>	3.1	6.2	5.0	3.6	5.0	5.1	5.4	5.5	5.3	5.2	4.9	4.9	4.3	4.7	5.2	5.1
Real disposable pers. income <sup>5</sup>	4.1	3.0	.9	2.9	3.3	3.2	3.2	4.1	3.3	3.2	3.2	3.2	-1	3.2	3.5	3.2
<i>Previous Tealbook<sup>5</sup></i>	4.1	2.9	.9	2.2	2.8	3.0	3.2	4.1	3.3	3.3	3.3	3.3	-1	2.8	3.5	3.3
Personal saving rate <sup>3</sup>	4.7	4.9	4.2	4.2	4.2	4.1	3.9	3.9	3.8	3.6	3.5	3.5	4.2	3.9	3.5	3.5
<i>Previous Tealbook<sup>3</sup></i>	4.7	5.0	4.4	4.3	4.2	4.1	3.9	4.0	3.8	3.7	3.6	3.6	4.4	3.9	3.6	3.6
Corporate profits <sup>7</sup>	13.9	7.7	8.9	3.9	5.7	6.8	8.1	3.0	6.2	6.2	3.8	3.8	6.1	6.1	4.8	6.3
Profit share of GNP <sup>3</sup>	12.3	12.4	12.5	12.5	12.6	12.6	12.7	12.6	12.7	12.7	12.7	12.7	12.5	12.7	12.7	12.9
Net federal saving <sup>8</sup>	-653	-850	-737	-681	-666	-664	-652	-657	-638	-627	-615	-615	-773	-666	-634	-671
Net state & local saving <sup>8</sup>	-198	-226	-236	-205	-200	-195	-182	-177	-158	-153	-145	-145	-222	-196	-158	-130
Gross national saving rate <sup>3</sup>	17.7	17.8	18.0	18.0	18.2	18.3	18.4	18.3	18.5	18.5	18.6	18.6	18.0	18.4	18.6	18.8
Net national saving rate <sup>3</sup>	2.5	2.7	3.4	3.4	3.6	3.7	3.8	3.8	4.0	4.1	4.2	4.2	3.4	3.8	4.2	4.6

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

2. Change, millions.

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

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

5. Percent change, annual rate.

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

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

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

## Other Macroeconomic Indicators

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

Item	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Employment and production</i>										
Nonfarm payroll employment <sup>1</sup>	1.2	-2.8	-5.6	.8	2.0	2.2	2.3	2.5	2.9	2.6
Unemployment rate <sup>2</sup>	4.8	6.9	9.9	9.5	8.7	7.8	7.0	6.2	5.5	5.1
<i>Previous Tealbook<sup>2</sup></i>	4.8	6.9	9.9	9.5	8.7	7.8	7.1	6.5	5.9	5.3
Natural rate of unemployment <sup>2</sup>	5.3	5.6	6.2	6.2	6.0	5.8	5.5	5.3	5.2	5.2
<i>Previous Tealbook<sup>2</sup></i>	5.0	5.3	6.0	6.0	5.8	5.7	5.4	5.3	5.2	5.2
GDP gap <sup>3</sup>	1.0	-4.0	-5.8	-4.8	-4.4	-4.1	-3.0	-1.9	-6	.4
<i>Previous Tealbook<sup>3</sup></i>	.6	-4.1	-5.2	-3.9	-3.6	-3.6	-3.4	-2.5	-1.3	-1
Industrial production <sup>4</sup>	2.7	-8.9	-5.5	6.2	3.3	2.8	3.6	4.0	3.9	3.0
<i>Previous Tealbook<sup>4</sup></i>	2.7	-8.9	-5.5	6.2	3.3	2.8	3.3	3.9	3.6	3.1
Manufacturing industr. prod. <sup>4</sup>	2.9	-11.6	-6.1	6.4	3.3	2.8	3.1	3.7	4.2	3.3
<i>Previous Tealbook<sup>4</sup></i>	2.9	-11.6	-6.1	6.4	3.3	2.8	2.7	3.6	4.0	3.5
Capacity utilization rate - mfg. <sup>2</sup>	78.4	69.9	67.2	72.9	74.8	75.7	76.9	78.1	79.4	80.0
<i>Previous Tealbook<sup>2</sup></i>	78.4	69.9	67.2	72.9	74.8	75.7	76.5	77.7	79.0	79.8
Housing starts <sup>5</sup>	1.4	.9	.6	.6	.6	.8	.9	1.1	1.4	1.6
Light motor vehicle sales <sup>5</sup>	16.1	13.1	10.4	11.5	12.7	14.4	15.5	16.0	16.6	16.8
<i>Income and saving</i>										
Nominal GDP <sup>4</sup>	4.4	-1.0	.1	4.6	3.9	3.8	4.3	4.7	5.2	5.1
Real disposable pers. income <sup>4</sup>	1.2	1.1	-6	2.5	1.4	3.6	-1	3.2	3.5	3.2
<i>Previous Tealbook<sup>4</sup></i>	1.2	1.1	-6	2.5	1.4	3.6	-1	2.8	3.5	3.3
Personal saving rate <sup>2</sup>	2.9	6.1	5.7	5.5	5.0	6.6	4.2	3.9	3.5	3.5
<i>Previous Tealbook<sup>2</sup></i>	2.9	6.1	5.7	5.5	5.0	6.6	4.4	3.9	3.6	3.6
Corporate profits <sup>6</sup>	-9.0	-30.8	54.5	17.0	8.4	2.7	6.1	6.1	4.8	6.3
Profit share of GNP <sup>2</sup>	9.9	6.9	10.7	11.9	12.4	12.3	12.5	12.7	12.7	12.9
Net federal saving <sup>7</sup>	-267	-635	-1,250	-1,330	-1,248	-1,110	-773	-666	-634	-671
Net state & local saving <sup>7</sup>	-73	-165	-272	-237	-213	-253	-222	-196	-158	-130
Gross national saving rate <sup>2</sup>	16.3	15.0	14.7	15.2	15.8	16.9	18.0	18.4	18.6	18.8
Net national saving rate <sup>2</sup>	1.0	-1.6	-1.6	-.4	.5	1.7	3.4	3.8	4.2	4.6

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 <sup>a</sup>	2014	2015	2016	Q1 <sup>a</sup>	Q2 <sup>a</sup>	Q3 <sup>a</sup>	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Unified budget</b>																
Receipts <sup>1</sup>	2,774	3,057	3,279	3,503	581	891	687	665	640	976	776	750	665	1,028	835	785
Outlays <sup>1</sup>	3,454	3,524	3,694	3,912	888	800	857	838	921	893	872	932	942	925	895	963
Surplus/deficit <sup>1</sup>	-680	-467	-416	-409	-307	91	-170	-174	-281	83	-96	-182	-277	103	-60	-178
<i>Previous Tealbook</i>	-680	-500	-424	-434	-307	91	-170	-201	-274	75	-100	-187	-271	97	-62	-179
On-budget	-720	-488	-446	-429	-303	36	-143	-184	-266	29	-67	-207	-261	52	-29	-201
Off-budget	39	21	30	21	-4	55	-28	10	-14	54	-29	26	-16	52	-31	23
Means of financing:																
Borrowing	702	610	536	529	336	-17	69	371	-27	220	46	212	307	-73	90	208
Cash decrease	-3	18	0	0	14	-56	46	-74	118	-105	80	0	0	0	0	0
Other <sup>2</sup>	-19	-161	-120	-120	-43	-18	55	-123	190	-198	-30	-30	-30	-30	-30	-30
Cash operating balance, end of period	88	70	70	70	79	135	88	162	45	150	70	70	70	70	70	70
<b>NIPA federal sector</b>																
Receipts	2,938	3,166	3,386	3,581	2,900	3,167	2,976	3,037	3,169	3,208	3,249	3,298	3,367	3,415	3,464	3,509
Expenditures	3,797	3,853	4,030	4,240	3,753	3,820	3,826	3,774	3,850	3,874	3,913	3,951	4,025	4,053	4,091	4,124
Consumption expenditures	981	948	937	937	982	976	972	954	950	947	943	940	942	936	930	927
Defense	620	595	586	584	620	616	615	600	597	593	589	587	589	585	582	581
Nondefense	361	353	351	353	363	360	358	354	353	353	354	352	353	351	348	346
Other spending	2,815	2,904	3,093	3,303	2,771	2,844	2,853	2,820	2,900	2,928	2,970	3,011	3,083	3,117	3,161	3,197
Current account surplus	-859	-687	-644	-659	-853	-653	-850	-737	-681	-666	-664	-652	-657	-638	-627	-615
Gross investment	277	260	250	243	273	277	279	264	262	259	255	254	251	248	245	244
Gross saving less gross investment <sup>3</sup>	-870	-676	-617	-620	-860	-663	-861	-732	-672	-653	-646	-632	-633	-609	-594	-580
<b>Fiscal indicators<sup>4</sup></b>																
High-employment (HEB) surplus/deficit	-640.3	-503.2	-523.8	-606.3	-616.8	-426.8	-643.9	-540.6	-486.3	-487.1	-498.8	-506.9	-526.4	-526.7	-535.2	-541.4
Change in HEB, percent of potential GDP	-1.9	-9	.0	.3	-1.5	-1.1	1.2	-6	-3	.0	.0	.0	.1	.0	.0	.0
Fiscal impetus (FI), percent of GDP	-1.3	-5	-4	.0	-2.0	-7	-7	-1.7	-5	-6	-5	-3	-7	-4	-3	-2
<i>Previous Tealbook</i>	-1.3	-5	-4	.0	-2.0	-7	-7	-1.6	-4	-7	-5	-3	-7	-4	-3	-2

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

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

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

4. HEB is gross saving less gross investment (NIPA) of the federal government in current dollars, with cyclically sensitive receipts and outlays adjusted to the staff's measure of potential output and the natural rate of unemployment. The sign on Change in HEB, as a percent of nominal potential GDP, is reversed. FI is the weighted difference of discretionary changes in federal spending and taxes in chained (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				2015			
	2013				2014				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Real GDP<sup>1</sup></b>												
Total foreign	1.8	2.4	2.9	3.1	3.3	2.9	3.3	3.4	3.4	3.5	3.5	3.3
<i>Previous Tealbook</i>	1.8	2.4	3.0	3.1	3.2	2.9	3.3	3.3	3.4	3.4	3.5	3.3
Advanced foreign economies	1.6	1.9	1.9	2.0	2.3	1.5	2.1	2.2	2.3	2.3	2.5	2.0
Canada	2.3	1.6	2.7	2.1	2.5	2.6	2.6	2.6	2.6	2.6	2.7	2.6
Japan	4.5	3.6	1.1	3.6	4.4	-3.8	2.0	2.2	1.8	1.4	2.6	-1.8
United Kingdom	2.0	3.2	3.1	3.0	2.9	2.8	2.7	2.7	2.6	2.6	2.5	2.4
Euro area	-9	1.3	.5	.9	1.1	1.3	1.3	1.4	1.7	1.9	1.9	2.0
Germany	.0	2.9	1.3	1.0	1.9	2.0	2.0	2.1	2.4	2.5	2.5	2.5
Emerging market economies	2.1	2.9	3.9	4.2	4.2	4.3	4.4	4.5	4.6	4.6	4.6	4.6
Asia	3.5	5.2	5.8	5.7	5.3	5.4	5.5	5.6	5.7	5.7	5.7	5.7
Korea	3.4	4.5	4.3	4.3	3.7	3.8	4.0	4.2	4.3	4.5	4.6	4.6
China	6.4	7.3	8.8	8.0	7.8	7.7	7.7	7.7	7.7	7.7	7.6	7.6
Latin America	.7	.7	2.4	3.1	3.2	3.4	3.5	3.6	3.6	3.6	3.6	3.6
Mexico	.8	-2.2	3.4	3.5	3.4	3.6	3.6	3.8	3.8	3.8	3.7	3.7
Brazil	.0	7.2	-1.9	2.0	2.6	3.0	3.2	3.2	3.4	3.4	3.4	3.4
<b>Consumer prices<sup>2</sup></b>												
Total foreign	2.3	1.9	2.8	2.3	2.3	3.0	2.4	2.5	2.5	2.5	2.5	3.0
<i>Previous Tealbook</i>	2.2	1.9	2.8	2.3	2.5	3.0	2.4	2.5	2.5	2.5	2.6	3.0
Advanced foreign economies	.9	.5	2.0	.5	1.0	2.7	1.3	1.4	1.4	1.4	1.5	2.6
Canada	1.6	.0	1.5	.1	1.2	1.3	1.5	1.6	1.7	1.7	1.8	1.8
Japan	-4	.8	3.1	1.7	1.1	8.8	.8	.9	1.1	1.2	1.3	6.8
United Kingdom	2.4	1.7	2.9	1.3	1.5	1.7	1.7	2.3	1.7	1.7	1.8	2.3
Euro area	.8	.7	1.7	.0	.8	1.2	1.3	1.3	1.3	1.3	1.4	1.4
Germany	1.4	.7	2.6	.6	1.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Emerging market economies	3.4	3.0	3.3	3.7	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Asia	3.4	2.1	3.6	3.4	2.5	3.1	3.1	3.2	3.2	3.2	3.2	3.2
Korea	1.0	.4	1.7	1.1	2.2	2.4	2.8	3.1	3.2	3.2	3.2	3.1
China	3.2	2.1	3.4	3.0	2.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Latin America	3.5	5.3	2.6	4.5	5.4	3.9	3.7	3.7	3.7	3.7	3.7	3.7
Mexico	3.2	5.3	2.0	4.2	5.3	3.7	3.4	3.4	3.4	3.4	3.4	3.4
Brazil	7.0	5.8	4.6	6.0	6.5	6.0	5.9	5.5	5.3	5.3	5.3	5.3

<sup>1</sup> Foreign GDP aggregates calculated using shares of U.S. exports.

<sup>2</sup> 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	-----Projected-----				
						2013	2014	2015	2016	
<b>Real GDP<sup>1</sup></b>										
Total foreign	-7	1.0	4.6	3.0	2.3	2.6	3.2	3.4	3.5	
<i>Previous Tealbook</i>	-7	.9	4.6	3.0	2.2	2.6	3.2	3.4	3.4	
Advanced foreign economies	-1.5	-1.5	3.0	1.5	.3	1.8	2.0	2.2	2.3	
Canada	.1	-1.4	3.6	2.4	1.0	2.2	2.6	2.7	2.7	
Japan	-4.8	-6	3.5	.2	-.3	3.2	1.2	1.0	1.3	
United Kingdom	-4.3	-2.5	1.8	1.1	.2	2.8	2.8	2.5	2.4	
Euro area	-2.1	-2.3	2.3	.7	-1.0	.5	1.3	1.9	2.0	
Germany	-1.8	-2.2	4.2	2.2	.3	1.3	2.0	2.5	2.5	
Emerging market economies	.4	3.9	6.4	4.5	4.2	3.3	4.4	4.6	4.6	
Asia	.8	8.1	7.8	4.9	5.4	5.1	5.5	5.7	5.7	
Korea	-3.2	6.3	5.0	3.4	1.4	4.1	3.9	4.5	4.5	
China	7.7	11.3	9.7	8.7	7.8	7.6	7.7	7.6	7.5	
Latin America	-4	-1	4.7	4.0	3.3	1.7	3.4	3.6	3.6	
Mexico	-1.3	-1.2	4.4	4.1	3.2	1.4	3.6	3.7	3.7	
Brazil	.9	5.3	5.3	1.4	1.9	1.7	3.0	3.4	3.4	
<b>Consumer prices<sup>2</sup></b>										
Total foreign	3.3	1.2	3.2	3.4	2.3	2.3	2.6	2.6	2.6	
<i>Previous Tealbook</i>	3.3	1.2	3.2	3.4	2.3	2.3	2.6	2.6	2.6	
Advanced foreign economies	2.0	.2	1.7	2.2	1.3	1.0	1.6	1.7	1.7	
Canada	1.8	.8	2.2	2.7	.9	.8	1.4	1.7	1.9	
Japan	1.1	-2.0	-.2	-.3	-.2	1.3	2.8	2.6	1.7	
United Kingdom	3.9	2.2	3.4	4.6	2.6	2.1	1.8	1.9	1.9	
Euro area	2.3	.4	2.0	2.9	2.3	.8	1.2	1.3	1.4	
Germany	1.7	.3	1.6	2.6	2.0	1.3	1.5	1.6	1.7	
Emerging market economies	4.6	2.1	4.3	4.3	3.1	3.4	3.3	3.3	3.3	
Asia	3.7	1.3	4.3	4.5	2.6	3.1	3.0	3.2	3.2	
Korea	4.5	2.4	3.2	3.9	1.7	1.1	2.6	3.2	3.2	
China	2.5	.6	4.7	4.6	2.1	2.9	2.8	3.0	3.0	
Latin America	6.6	3.9	4.4	4.0	4.3	4.0	4.2	3.7	3.7	
Mexico	6.2	4.0	4.3	3.5	4.1	3.7	3.9	3.4	3.4	
Brazil	6.2	4.2	5.6	6.7	5.6	5.8	6.0	5.3	5.3	

<sup>1</sup> Foreign GDP aggregates calculated using shares of U.S. exports.

<sup>2</sup> Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

## U.S. Current Account

## Quarterly Data

	2013				2014				Projected-----2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Billions of dollars, s.a.a.r.											
<b>U.S. current account balance</b>	<b>-419.6</b>	<b>-386.4</b>	<b>-379.4</b>	<b>-345.2</b>	<b>-375.2</b>	<b>-346.7</b>	<b>-374.5</b>	<b>-399.8</b>	<b>-425.3</b>	<b>-405.9</b>	<b>-428.6</b>	<b>-442.9</b>
<i>Previous Tealbook</i>	-419.6	-396.9	-403.7	-420.6	-427.6	-394.9	-411.9	-431.7	-460.1	-436.3	-449.2	-466.9
Current account as percent of GDP	-2.5	-2.3	-2.2	-2.0	-2.2	-2.0	-2.1	-2.2	-2.3	-2.2	-2.3	-2.3
<i>Previous Tealbook</i>	-2.5	-2.4	-2.4	-2.5	-2.5	-2.3	-2.3	-2.4	-2.6	-2.4	-2.4	-2.5
Net goods & services	-490.5	-472.5	-482.9	-436.8	-438.0	-413.1	-424.7	-442.8	-444.2	-432.5	-442.4	-452.1
Investment income, net	211.6	232.7	248.7	231.3	219.4	206.0	193.4	182.8	175.4	166.1	156.9	148.9
Direct, net	276.6	290.6	304.6	302.8	296.4	291.5	290.3	289.4	294.3	298.6	305.1	313.1
Portfolio, net	-65.0	-57.9	-55.9	-71.5	-77.0	-85.6	-97.0	-106.6	-118.9	-132.4	-148.1	-164.2
Other income and transfers, net	-140.6	-146.7	-145.1	-139.7	-156.5	-139.5	-143.1	-139.7	-156.5	-139.5	-143.1	-139.7

## Annual Data

	Projected-----2016										
	2008	2009	2010	2011	2012	2013	2014	2015	2016		
	Billions of dollars										
<b>U.S. current account balance</b>	<b>-681.3</b>	<b>-381.6</b>	<b>-449.5</b>	<b>-457.7</b>	<b>-440.4</b>	<b>-382.7</b>	<b>-374.0</b>	<b>-425.7</b>	<b>-459.9</b>		
<i>Previous Tealbook</i>	-681.3	-381.6	-449.5	-457.7	-440.4	-410.2	-416.5	-453.1	-481.9		
Current account as percent of GDP	-4.6	-2.6	-3.0	-2.9	-2.7	-2.3	-2.1	-2.3	-2.4		
<i>Previous Tealbook</i>	-4.6	-2.6	-3.0	-2.9	-2.7	-2.4	-2.4	-2.5	-2.5		
Net goods & services	-702.3	-383.7	-499.4	-556.8	-534.7	-470.7	-429.7	-442.8	-435.9		
Investment income, net	157.8	132.3	185.7	240.7	232.3	231.1	200.4	161.9	120.8		
Direct, net	284.3	257.7	288.0	310.6	293.5	293.6	291.9	302.8	329.4		
Portfolio, net	-126.5	-125.4	-102.3	-69.8	-61.2	-62.6	-91.5	-140.9	-208.6		
Other income and transfers, net	-136.9	-130.2	-135.8	-141.6	-138.0	-143.0	-144.7	-144.7	-144.7		

Class I FOMC – Restricted Controlled (FR)

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# Report to the FOMC on Economic Conditions and Monetary Policy



## Book B Monetary Policy: Strategies and Alternatives

January 23, 2014

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

## Policy Rules and the Staff Projection

### Near-Term Prescriptions of Selected Policy Rules

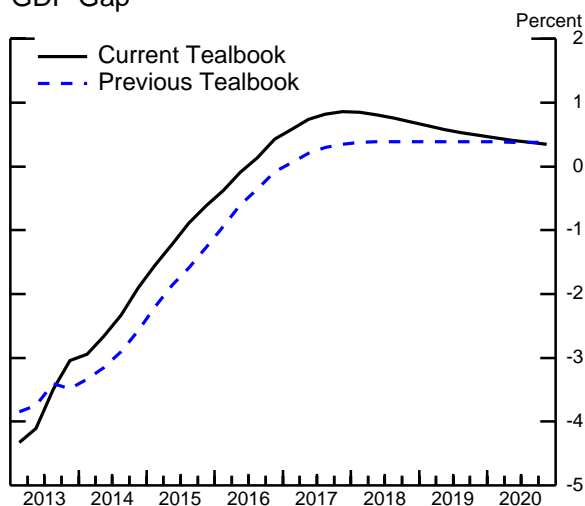
	Constrained Policy		Unconstrained Policy	
	2014Q1	2014Q2	2014Q1	2014Q2
Taylor (1993) rule	<b>1.21</b>	<b>1.70</b>	<b>1.21</b>	<b>1.70</b>
<i>Previous Tealbook</i>	1.07	1.49	1.07	1.49
Taylor (1999) rule	<b>0.13</b>	<b>0.39</b>	<b>-0.24</b>	<b>0.39</b>
<i>Previous Tealbook</i>	0.13	0.13	-0.57	-0.06
Inertial Taylor (1999) rule	<b>0.13</b>	<b>0.13</b>	<b>0.07</b>	<b>0.12</b>
<i>Previous Tealbook outlook</i>	0.13	0.13	0.02	0.01
Outcome-based rule	<b>0.13</b>	<b>0.31</b>	<b>0.12</b>	<b>0.31</b>
<i>Previous Tealbook outlook</i>	0.13	0.14	0.08	0.14
First-difference rule	<b>0.44</b>	<b>0.93</b>	<b>0.44</b>	<b>0.93</b>
<i>Previous Tealbook outlook</i>	0.29	0.59	0.29	0.59
Nominal income targeting rule	<b>0.13</b>	<b>0.13</b>	<b>-0.66</b>	<b>-1.14</b>
<i>Previous Tealbook outlook</i>	0.13	0.13	-0.77	-1.37

### Memo: Equilibrium and Actual Real Federal Funds Rates

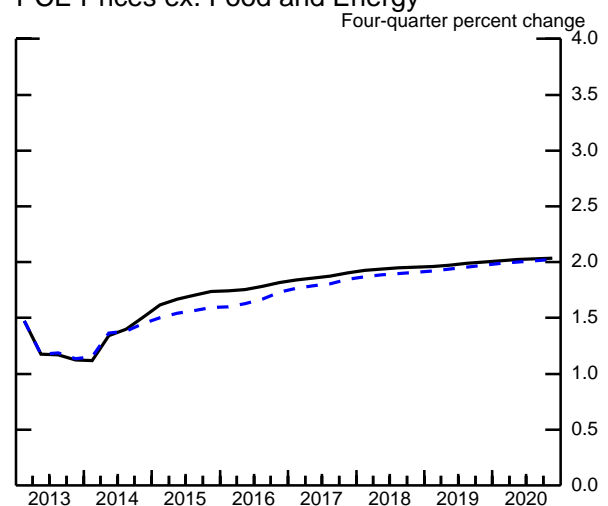
	Current Tealbook	Current Quarter Estimate as of Previous Tealbook	Previous Tealbook
Tealbook-consistent FRB/US $r^*$ estimate	-0.67	-1.07	-1.27
Actual real federal funds rate	-0.99		-1.06

## Key Elements of the Staff Projection

GDP Gap



PCE Prices ex. Food and Energy



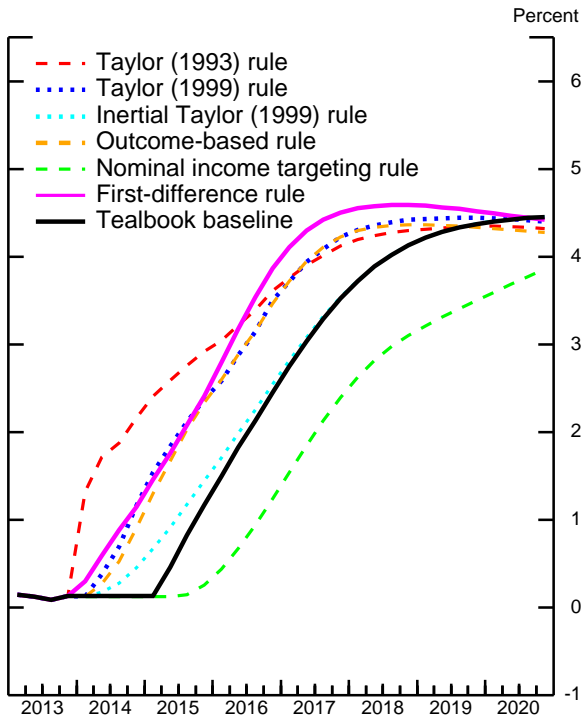
Estimates of  $r^*$  may change at the beginning of a quarter even when the staff outlook is unchanged because the twelve-quarter horizon covered by the calculation has rolled forward one quarter. Therefore, whenever the Tealbook is published early in the quarter, the memo includes a third column labeled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

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

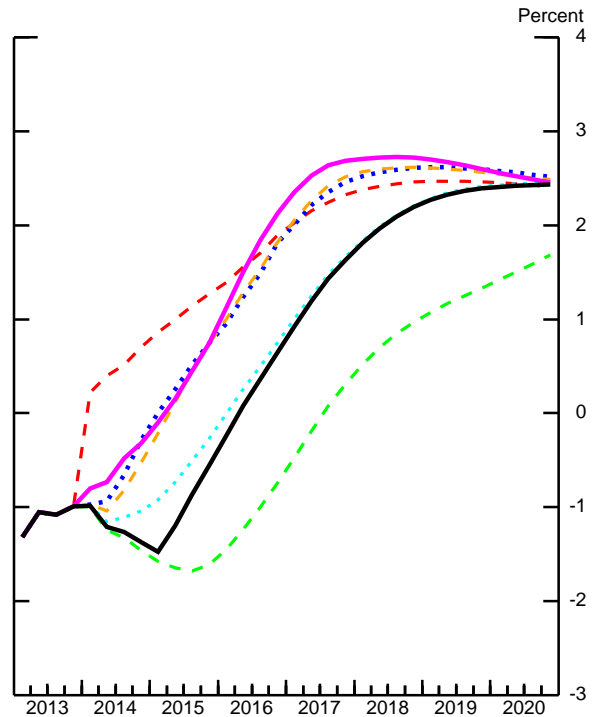


## Policy Rule Simulations without Thresholds

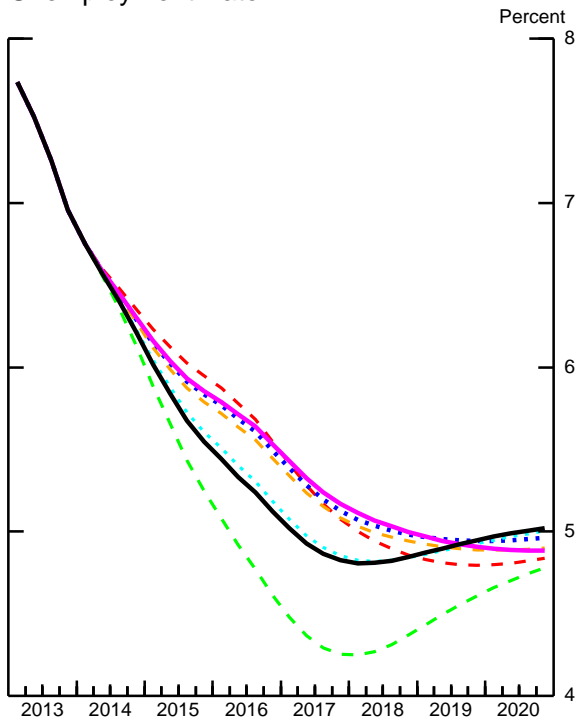
Effective Nominal Federal Funds Rate



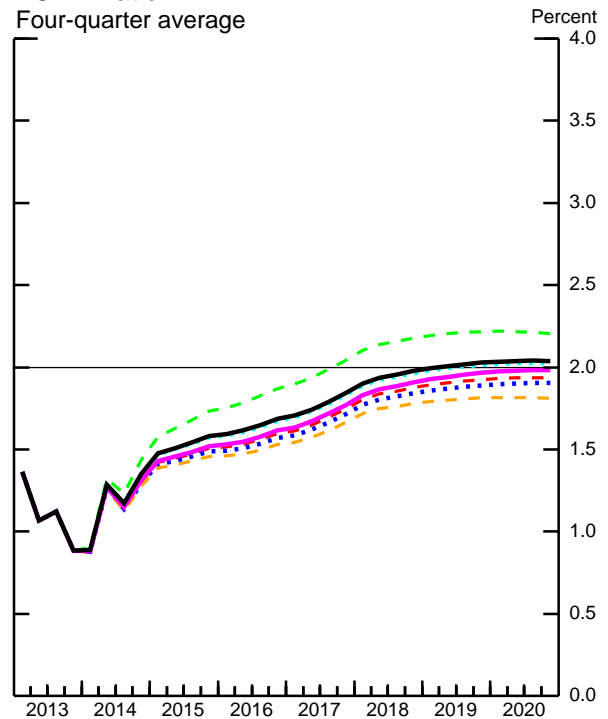
Real Federal Funds Rate



Unemployment Rate



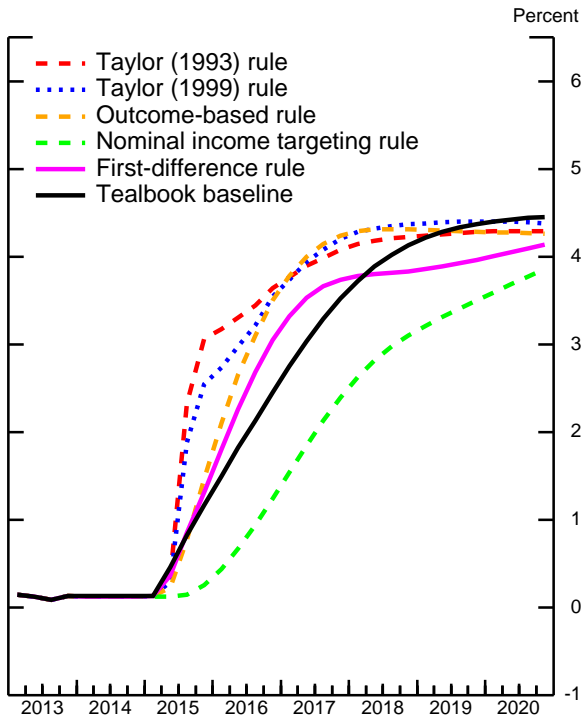
PCE Inflation  
Four-quarter average



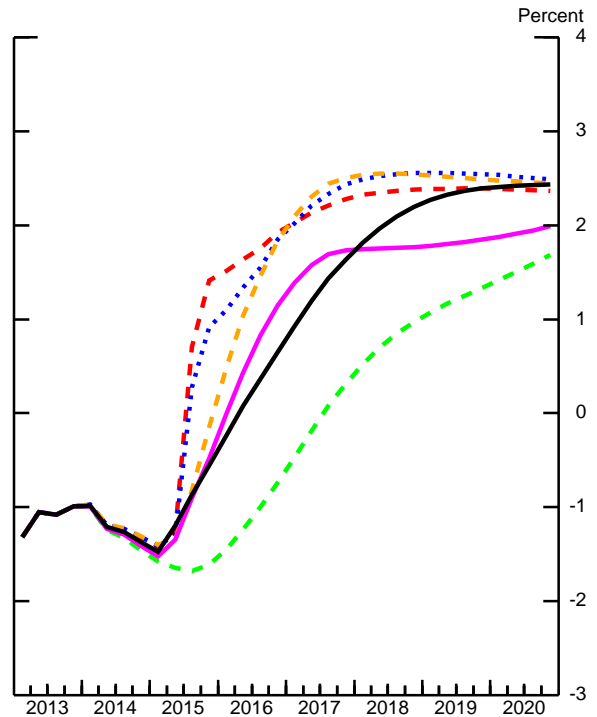
Note: The policy rule simulations in this exhibit are based on rules that respond to core inflation. This choice of rule specification was made in light of the tendency for current and near-term core inflation rates to outperform headline inflation rates as predictors of the medium-term behavior of headline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

## Policy Rule Simulations with Current Thresholds and Forward Guidance

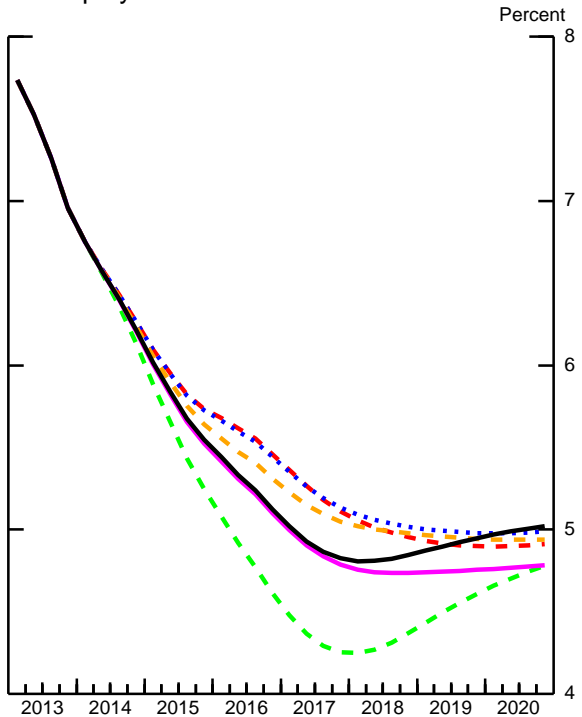
Effective Nominal Federal Funds Rate



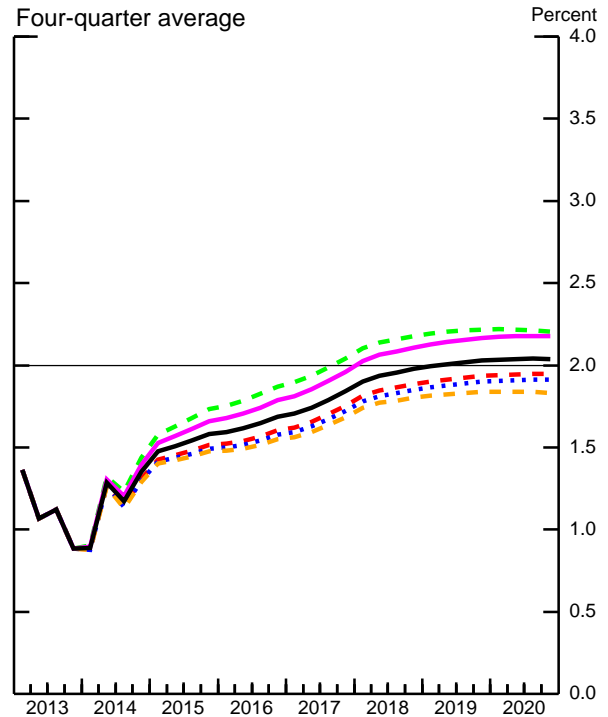
Real Federal Funds Rate



Unemployment Rate



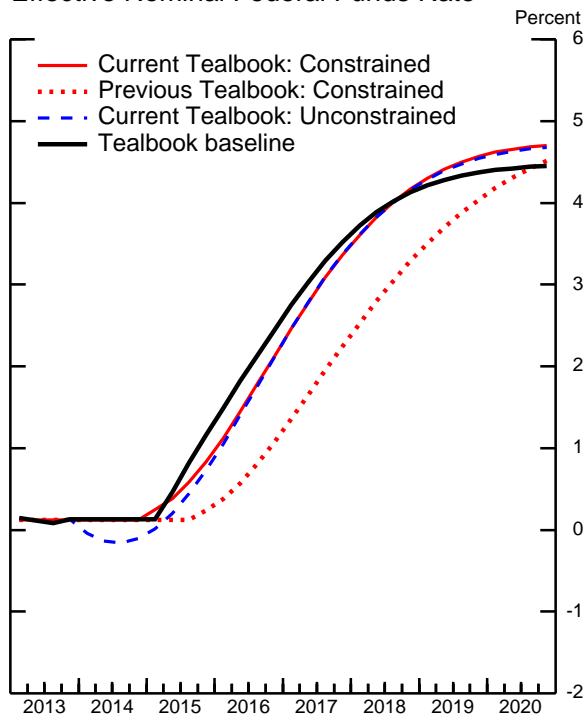
PCE Inflation  
Four-quarter average



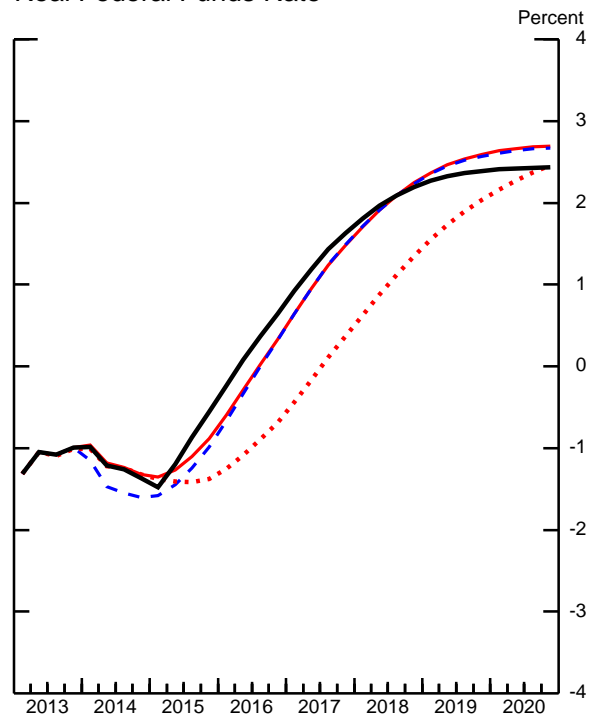
Note: The policy rule simulations in this exhibit are based on rules that respond to core inflation. This choice of rule specification was made in light of the tendency for current and near-term core inflation rates to outperform headline inflation rates as predictors of the medium-term behavior of headline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

## Constrained versus Unconstrained Optimal Control Policy

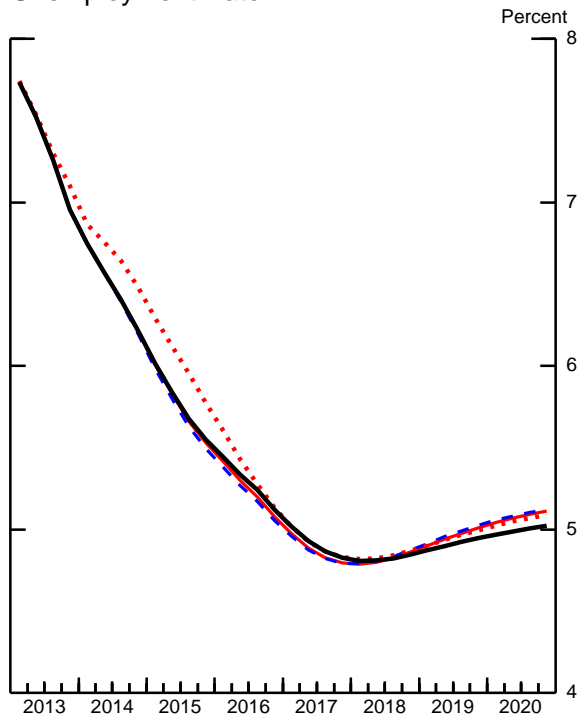
Effective Nominal Federal Funds Rate



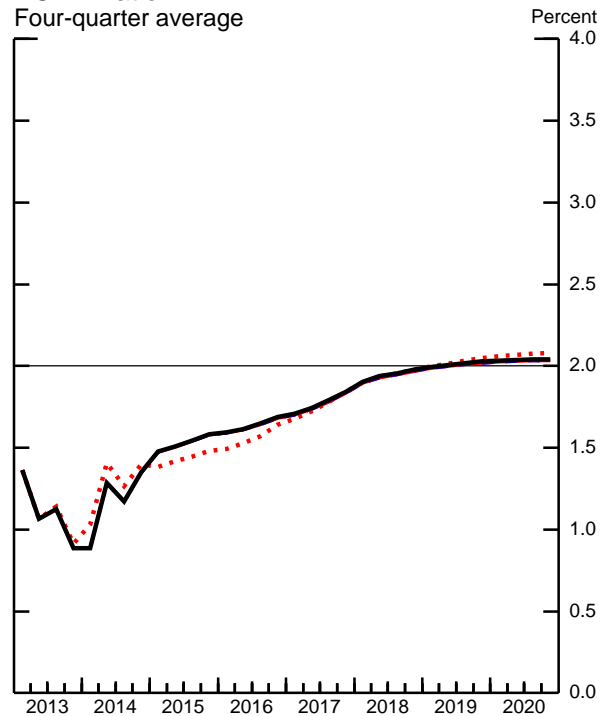
Real Federal Funds Rate



Unemployment Rate



PCE Inflation  
Four-quarter average



**Outcomes under Alternative Policies without Thresholds**

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

Measure and scenario	2013					
	H2	2014	2015	2016	2017	2018
<i>Real GDP</i>						
Extended Tealbook baseline <sup>1</sup>	3.8	3.1	3.4	3.2	2.7	2.1
Taylor (1993)	3.8	2.7	3.0	3.3	3.0	2.5
Taylor (1999)	3.8	2.9	3.0	3.1	2.9	2.4
Inertial Taylor (1999)	3.8	3.1	3.3	3.2	2.8	2.1
Outcome based	3.8	2.9	3.0	3.1	2.9	2.4
First difference	3.8	2.8	3.0	3.1	2.9	2.4
Nominal income targeting	3.8	3.4	3.8	3.6	2.8	2.0
Constrained optimal control	3.8	3.1	3.4	3.3	2.7	2.0
<i>Unemployment rate<sup>2</sup></i>						
Extended Tealbook baseline <sup>1</sup>	7.0	6.2	5.5	5.1	4.8	4.8
Taylor (1993)	7.0	6.4	5.9	5.5	5.1	4.9
Taylor (1999)	7.0	6.3	5.8	5.5	5.1	5.0
Inertial Taylor (1999)	7.0	6.2	5.6	5.2	4.9	4.8
Outcome based	7.0	6.3	5.8	5.4	5.1	4.9
First difference	7.0	6.3	5.9	5.5	5.2	5.0
Nominal income targeting	7.0	6.1	5.2	4.6	4.3	4.4
Constrained optimal control	7.0	6.2	5.5	5.1	4.8	4.9
<i>Total PCE prices</i>						
Extended Tealbook baseline <sup>1</sup>	1.3	1.4	1.6	1.7	1.8	2.0
Taylor (1993)	1.3	1.3	1.5	1.6	1.7	1.9
Taylor (1999)	1.3	1.3	1.5	1.6	1.7	1.8
Inertial Taylor (1999)	1.3	1.3	1.6	1.7	1.8	2.0
Outcome based	1.3	1.3	1.5	1.5	1.7	1.8
First difference	1.3	1.3	1.5	1.6	1.8	1.9
Nominal income targeting	1.3	1.4	1.7	1.9	2.0	2.2
Constrained optimal control	1.3	1.3	1.6	1.7	1.8	2.0
<i>Core PCE prices</i>						
Extended Tealbook baseline <sup>1</sup>	1.2	1.5	1.7	1.8	1.9	2.0
Taylor (1993)	1.2	1.5	1.7	1.7	1.8	1.9
Taylor (1999)	1.2	1.5	1.6	1.7	1.8	1.8
Inertial Taylor (1999)	1.2	1.5	1.7	1.8	1.9	1.9
Outcome based	1.2	1.4	1.6	1.7	1.7	1.8
First difference	1.2	1.5	1.7	1.7	1.8	1.9
Nominal income targeting	1.2	1.6	1.9	2.0	2.1	2.2
Constrained optimal control	1.2	1.5	1.7	1.8	1.9	1.9
<i>Effective nominal federal funds rate<sup>2</sup></i>						
Extended Tealbook baseline <sup>1</sup>	0.1	0.1	1.2	2.4	3.5	4.1
Taylor (1993)	0.1	2.2	2.9	3.6	4.1	4.3
Taylor (1999)	0.1	1.2	2.4	3.5	4.2	4.4
Inertial Taylor (1999)	0.1	0.5	1.4	2.5	3.5	4.1
Outcome based	0.1	0.9	2.3	3.5	4.2	4.4
First difference	0.1	1.1	2.4	3.9	4.5	4.6
Nominal income targeting	0.1	0.1	0.3	1.2	2.4	3.1
Constrained optimal control	0.1	0.2	0.8	2.1	3.3	4.0

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

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

**Outcomes under Alternative Policies with Thresholds<sup>1</sup>**  
(Percent change, annual rate, from end of preceding period except as noted)

Measure and scenario	2013					
	H2	2014	2015	2016	2017	2018
<i>Real GDP</i>						
Extended Tealbook baseline <sup>1</sup>	3.8	3.1	3.4	3.2	2.7	2.1
Taylor (1993)	3.8	3.0	3.1	3.0	2.9	2.4
Taylor (1999)	3.8	3.0	3.1	3.0	2.8	2.3
Outcome based	3.8	3.0	3.2	3.0	2.7	2.3
First difference	3.8	3.1	3.4	3.2	2.8	2.3
Nominal income targeting	3.8	3.4	3.8	3.6	2.8	2.0
Constrained optimal control	3.8	3.1	3.4	3.3	2.7	2.0
<i>Unemployment rate<sup>2</sup></i>						
Extended Tealbook baseline <sup>1</sup>	7.0	6.2	5.5	5.1	4.8	4.8
Taylor (1993)	7.0	6.3	5.7	5.5	5.1	5.0
Taylor (1999)	7.0	6.3	5.7	5.4	5.1	5.0
Outcome based	7.0	6.2	5.6	5.3	5.1	5.0
First difference	7.0	6.2	5.5	5.1	4.8	4.7
Nominal income targeting	7.0	6.1	5.2	4.6	4.3	4.4
Constrained optimal control	7.0	6.2	5.5	5.1	4.8	4.9
<i>Total PCE prices</i>						
Extended Tealbook baseline <sup>1</sup>	1.3	1.4	1.6	1.7	1.8	2.0
Taylor (1993)	1.3	1.3	1.5	1.6	1.8	1.9
Taylor (1999)	1.3	1.3	1.5	1.6	1.7	1.9
Outcome based	1.3	1.3	1.5	1.6	1.7	1.8
First difference	1.3	1.4	1.7	1.8	2.0	2.1
Nominal income targeting	1.3	1.4	1.7	1.9	2.0	2.2
Constrained optimal control	1.3	1.3	1.6	1.7	1.8	2.0
<i>Core PCE prices</i>						
Extended Tealbook baseline <sup>1</sup>	1.2	1.5	1.7	1.8	1.9	2.0
Taylor (1993)	1.2	1.5	1.7	1.7	1.8	1.9
Taylor (1999)	1.2	1.5	1.6	1.7	1.8	1.8
Outcome based	1.2	1.4	1.6	1.7	1.8	1.8
First difference	1.2	1.6	1.8	1.9	2.0	2.1
Nominal income targeting	1.2	1.6	1.9	2.0	2.1	2.2
Constrained optimal control	1.2	1.5	1.7	1.8	1.9	1.9
<i>Effective nominal federal funds rate<sup>2</sup></i>						
Extended Tealbook baseline <sup>1</sup>	0.1	0.1	1.2	2.4	3.5	4.1
Taylor (1993)	0.1	0.1	3.1	3.6	4.1	4.2
Taylor (1999)	0.1	0.1	2.5	3.5	4.2	4.4
Outcome based	0.1	0.1	1.5	3.5	4.2	4.3
First difference	0.1	0.1	1.3	3.0	3.7	3.8
Nominal income targeting	0.1	0.1	0.3	1.2	2.4	3.1
Constrained optimal control	0.1	0.2	0.8	2.1	3.3	4.0

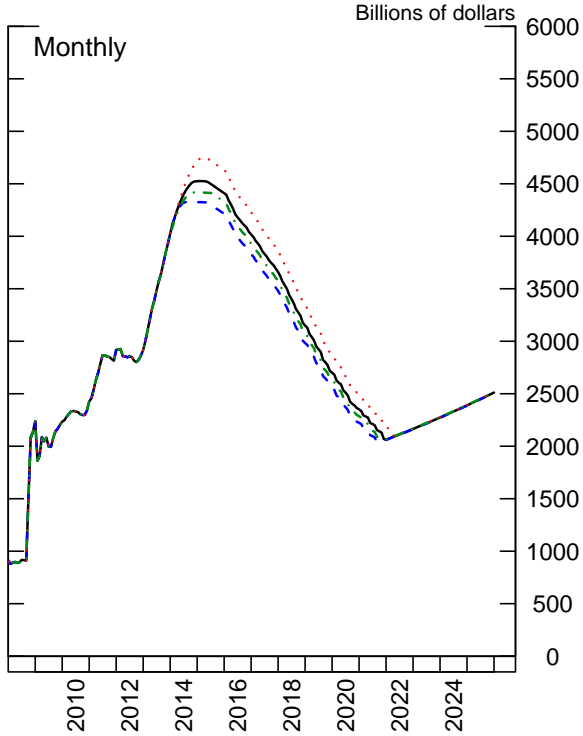
1. With the exception of constrained optimal control, monetary policy is specified to keep the federal funds rate at an effective lower bound of 12.5 basis points as long as the unemployment rate is above 6.5 percent and projected one-year-ahead inflation is less than 2.5 percent. Once either of these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

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

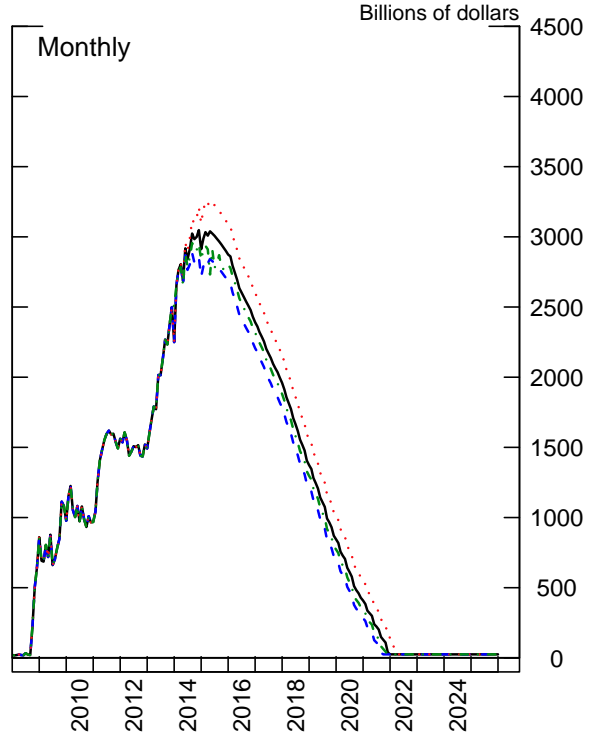
## Total Assets and Selected Balance Sheet Items

— Alternative B  
 - - - Alternative A  
 - - - December Tealbook Alternative B

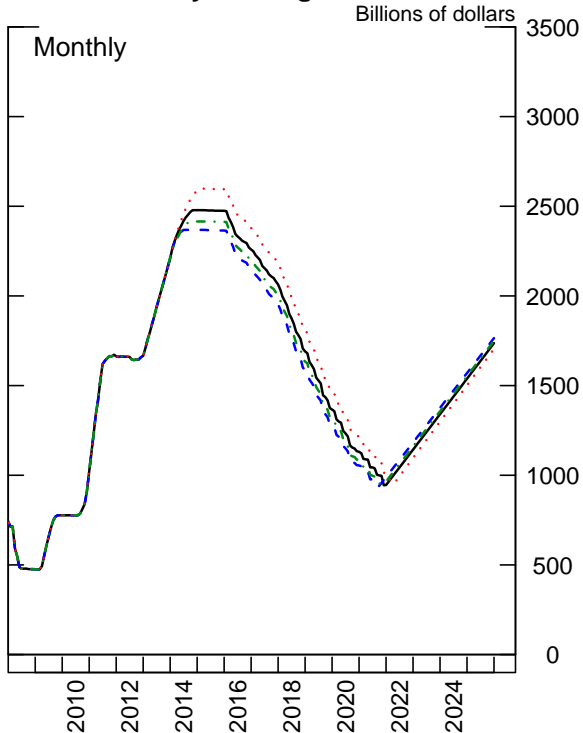
**Total Assets**



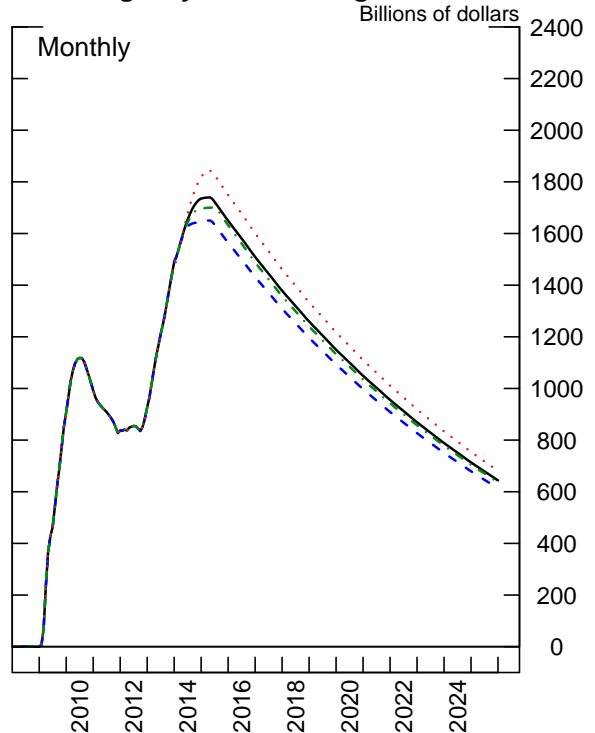
**Reserve Balances**



**SOMA Treasury Holdings**



**SOMA Agency MBS Holdings**

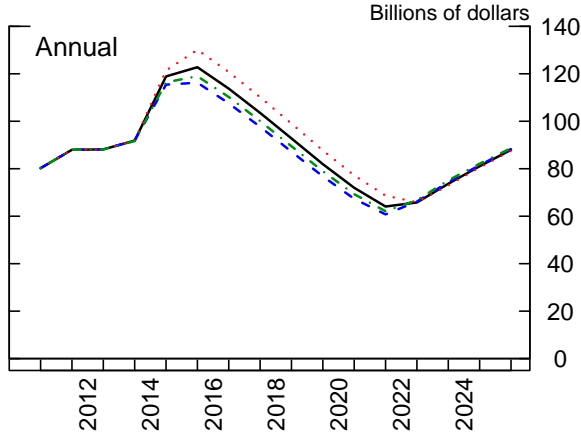


Projections

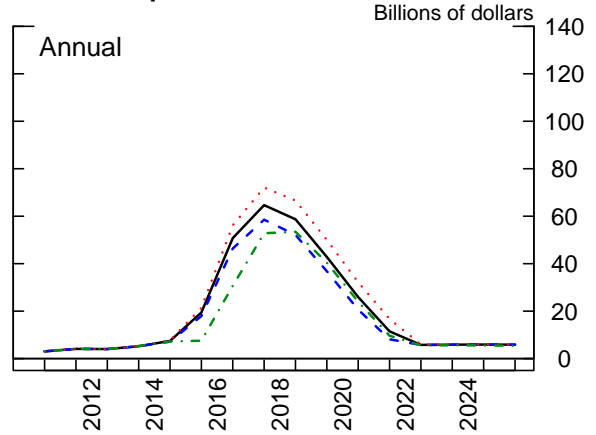
## Income Projections

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

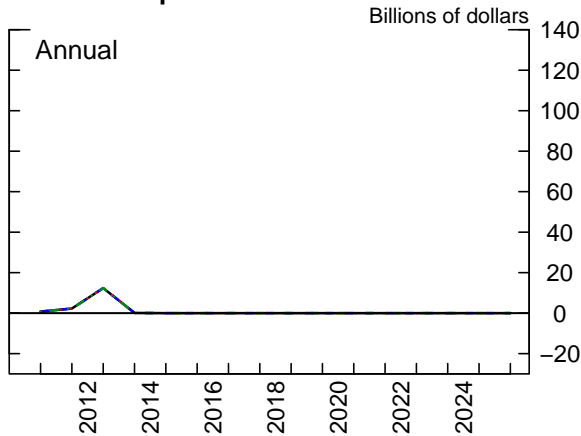
### Interest Income



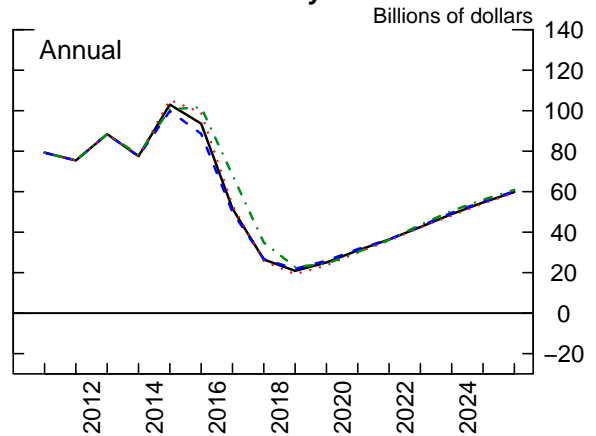
### Interest Expense



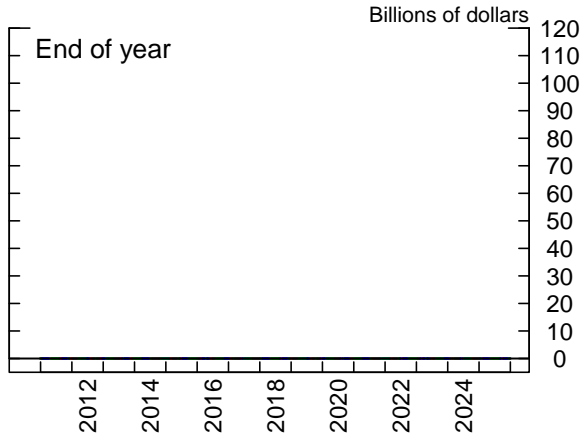
### Realized Capital Gains



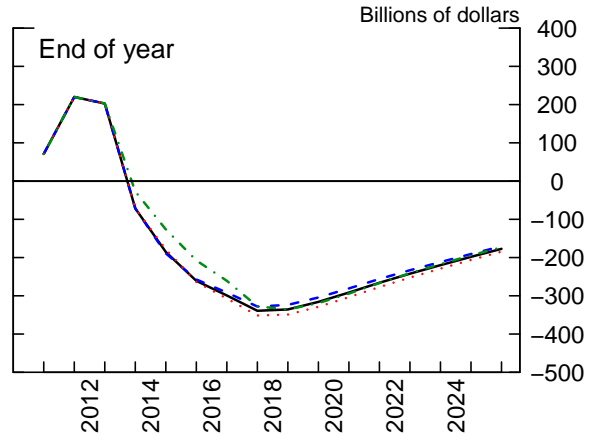
### Remittances to Treasury



### Deferred Asset



### Memo: Unrealized Gains/Losses



# Federal Reserve Balance Sheet

## End-of-Year Projections -- Alternative B

Billions of dollars

	<u>Dec 31, 2013</u>	<u>2015</u>	<u>2017</u>	<u>2019</u>	<u>2021</u>	<u>2023</u>	<u>2025</u>
Total assets	4,024	4,411	3,660	2,700	2,062	2,274	2,511
Selected assets							
Loans and other credit extensions*	3	0	0	0	0	0	0
Securities held outright	3,756	4,157	3,447	2,519	1,904	2,131	2,383
U.S. Treasury securities	2,209	2,475	2,064	1,366	945	1,340	1,737
Agency debt securities	57	33	4	2	2	2	2
Agency mortgage-backed securities	1,490	1,649	1,379	1,150	956	789	644
Unamortized premiums	209	201	157	122	97	79	64
Unamortized discounts	-12	-18	-15	-12	-9	-8	-7
Total other assets	69	71	71	71	71	71	71
Total liabilities	3,969	4,350	3,585	2,604	1,941	2,120	2,317
Selected liabilities							
Federal Reserve notes in circulation	1,198	1,352	1,504	1,641	1,800	1,981	2,178
Reverse repurchase agreements	316	100	100	100	100	100	100
Deposits with Federal Reserve Banks	2,446	2,887	1,972	857	38	38	38
Reserve balances held by depository institutions	2,250	2,874	1,959	844	25	25	25
U.S. Treasury, General Account	162	5	5	5	5	5	5
Other Deposits	34	8	8	8	8	8	8
Interest on Federal Reserve Notes due to U.S. Treasury	3	0	0	0	0	0	0
Total capital	55	60	76	96	121	153	194

Projections

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

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

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



## Alternative Projections for the 10-Year Treasury Term Premium Effect

Date	Alternative B	Alternative C	Alternative A	December Alternative B
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Basis Points

## Quarterly Averages

## Quarterly

2014 Q1	-127	-119	-136	-122
Q2	-123	-114	-131	-117
Q3	-117	-109	-127	-112
Q4	-112	-104	-121	-107
2015 Q1	-107	-99	-116	-101
Q2	-102	-94	-110	-96
Q3	-96	-89	-105	-91
Q4	-91	-84	-99	-86
2016 Q1	-87	-80	-94	-82
Q2	-82	-76	-89	-77
Q3	-78	-72	-85	-73
Q4	-74	-68	-80	-69
2017 Q4	-59	-54	-64	-54
2018Q4	-47	-43	-51	-42
2019 Q4	-37	-34	-41	-33
2020 Q4	-29	-27	-32	-25
2021 Q4	-23	-22	-25	-20
2022 Q4	-19	-18	-20	-16
2023 Q4	-15	-14	-16	-12
2024 Q4	-11	-11	-12	-9
2025 Q4	-8	-8	-9	-6

## Alternative Projections for the Monetary Base

Percent change, annual rate; not seasonally adjusted

Date	Alternative B	Alternative C	Alternative A	December Alternative B
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*Quarterly*

2013: Q4	33.6	33.6	33.6	33.2
2014: Q1	55.0	54.6	55.3	28.9
Q2	17.7	14.2	20.4	11.1
Q3	14.2	6.6	19.3	13.0
Q4	6.1	0.4	11.5	4.1
2015: Q1	1.4	0.5	6.3	1.6
Q2	4.7	4.9	5.4	-5.6
Q3	-2.9	-2.8	-2.8	1.1
Q4	-4.0	-4.0	-4.0	-1.4
2016: Q1	-6.1	-6.2	-5.9	-2.0
Q2	-11.5	-11.9	-11.1	-12.6
Q3	-9.1	-9.3	-8.8	-10.0
Q4	-7.6	-7.8	-7.5	-8.4

*Annual*

2013	37.8	37.8	37.8	37.7
2014	24.9	19.7	29.0	14.9
2015	-0.2	-0.4	1.2	-1.1
2016	-8.3	-8.5	-8.1	-8.0
2017	-8.8	-9.0	-8.6	-9.6
2018	-13.3	-13.7	-12.9	-14.6
2019	-14.4	-14.5	-14.2	-15.9
2020	-13.6	-13.6	-13.5	-15.2
2021	-11.9	-9.1	-12.1	-12.3
2022	1.7	4.2	-3.8	4.1
2023	4.2	4.2	4.2	4.8
2024	4.3	4.3	4.3	4.8
2025	4.3	4.2	4.3	4.8

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

## MONEY

After advancing briskly in 2013, M2 is projected to increase at a rate in line with that of nominal GDP in the first quarter of this year. Thereafter, M2 is forecast to expand more slowly than nominal GDP, in part because investors are assumed to reallocate a portion of their elevated M2 balances to riskier investments as economic conditions improve.<sup>12</sup> In 2015 and 2016, M2 growth is depressed as the projected rise in short-term market rates increases the opportunity cost of holding M2 assets.

M2 Monetary Aggregate Projections (Percent change, annual rate; seasonally adjusted) <sup>1</sup>		
<i>Quarterly</i>		
2014:	Q1	3.7
	Q2	3.8
	Q3	3.1
	Q4	3.4
2015:	Q1	-1.6
	Q2	-2.4
	Q3	-2.2
	Q4	-2.1
2016:	Q1	-1.5
	Q2	-0.8
	Q3	-0.4
	Q4	0.5
<i>Annual</i>		
	2014	3.6
	2015	-2.0
	2016	-0.6

Note: This forecast is consistent with nominal GDP and interest rates in the Tealbook forecast. Actual data through January 13, 2014; projections thereafter.

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

<sup>12</sup> The staff's M2 forecast is constructed using the staff's forecast of nominal income growth and model-based estimates of interest rate effects with judgmental adjustments.