Board of Governors of the Federal Reserve System

The Federal Reserve, the central bank of the United States, provides the nation with a safe, flexible, and stable monetary and financial system.

Accessible Material

December 2012 Tealbook Tables and Charts

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Last update: January 5, 2018

BOARD OF GOVERNORS *of the* FEDERAL RESERVE SYSTEM
20th Street and Constitution Avenue N.W., Washington, DC 20551

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December 2012 Tealbook A Tables and Charts†

Domestic Economic Developments and Outlook

[Box:] Revisions to the Staff Projection since the Previous SEP

Staff Economic Projections Compared with the September Tealbook

Variable	2012 H1	2012 H2	2012	2013	2014	2015	Longer run
Real GDP[1]	1.6	1.8	1.7	2.5	3.2	3.6	2.5
September Tealbook	1.8	1.5	1.6	2.4	3.2	3.6	2.5
Unemployment rate[2]	8.2	8.0	8.0	7.8	7.4	6.5	5.2
September Tealbook	8.2	8.3	8.3	8.0	7.6	6.7	5.2
PCE inflation[1]	1.6	1.6	1.6	1.3	1.4	1.5	2.0
September Tealbook	1.6	1.8	1.7	1.4	1.4	1.5	2.0
Core PCE inflation[1]	2.0	1.2	1.6	1.6	1.6	1.7	n.a.
September Tealbook	2.0	1.4	1.7	1.6	1.6	1.7	n.a.
Federal funds rate[2]	.15	.15	.15	.13	.13	.38	4.25
September Tealbook	.15	.13	.13	.13	.65	2.06	4.25
Memo:							
Federal funds rate, end of period	.13	.13	.13	.13	.13	.50	4.25
September Tealbook	.13	.13	.13	.13	.75	2.25	4.25

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

2. Percent, final quarter of period indicated. Return to table

n.a. Not available. Return to table

Key Background Factors underlying the Baseline Staff Projection

Figure: Federal Funds Rate

Line chart, by percent, 2007 to 2015. Data are quarterly averages. There are three series, Current Tealbook, Previous Tealbook, and Market, expected rate. Current Tealbook begins in 2007 at about 5.25 and decreases to about 0.1 by 2009. It remains relatively constant here until 2015 when it increases to about 0.3. Previous Tealbook generally follows the same path as Current Tealbook until 2015 when it begins increasing at a faster rate. It ends in 2015 at about 0.6. Market, expected rate generally follows the same path as Current Tealbook until 2012 when it begins increasing at a faster rate. It ends in 2015 at about 0.4.

Figure: Long-Term Interest Rates

Line chart, by percent, 2007 to 2015. Data are quarterly averages. There are six series, Current BBB corporate yield, Previous BBB corporate yield, Current Conforming mortgage rate, Previous Conforming mortgage rate, Current 10-year Treasury yield, and Previous 10-year Treasury yield. Current BBB corporate yield begins in 2007 at about 6.1 and increases to about 9.5 by 2008. It generally decreases to about 4 by 2013 and then increases to about 5.9 by 2015. Previous BBB corporate yield generally follows the same path as Current BBB corporate yield and ends in 2014 at about 5.2. Current Conforming mortgage rate begins in 2007 at about 6.1 and generally decreases to about 3.5 by 2013. It then generally increases to about 5.6. Previous Conforming mortgage rate generally follows the same path as Current Conforming mortgage rate and ends in 2014 at about 4.9. Current 10-year Treasury yield begins in 2007 at about 4.85 and generally decreases to about 1.6 by 2012. It then increases to about 4.1 by 2015. Previous 10-year Treasury yield generally follows the same path as Current 10-year Treasury yield and ends in 2014 at about 3.4.

Figure: Equity Prices

Line chart, by ratio scale where 2007:Q1 = 100, 2007 to 2015. Data are quarter-end. There are two series, Current Dow Jones U.S. Total Stock Market Index and Previous Dow Jones U.S. Total Stock Market Index. Current Dow Jones U.S. Total Stock Market Index begins in 2007 at about 100 and decreases to about 56 by 2009. It generally increases to about 131 by 2015. Previous Dow Jones U.S. Total Stock Market Index generally follows the same path as Current Dow Jones U.S. Total Stock Market Index until 2012 when it begins increasing at a faster rate. It ends in 2014 at about 129.

Figure: House Prices

Line chart, by ratio scale where 2007:Q1 = 100, 2007 to 2015. Data are quarterly. There are two series, Current CoreLogic Index and Previous CoreLogic Index. Current CoreLogic Index begins in 2008 at about 100 and generally decreases to about 70 by 2012. It then increases to about 81.5 by 2015. Previous CoreLogic index generally follows the same path as Current CoreLogic Index until 2012 when it begins increasing at a slower rate. It ends in 2014 at about 77.5.

Figure: Crude Oil Prices

Line chart, by dollars per barrel, 2007 to 2015. Data are quarterly averages. There are four series, Current Imported oil, Previous Imported oil, Current West Texas Intermediate and Previous West Texas Intermediate. Current Imported oil begins in 2007 at about 59.9 and increases to about 119 by 2008. It decreases to about 45 by 2009 and then generally increases to about 15 by 2012. It then decreases to about 95 by 2015. Previous Imported oil generally follows the same path as Current Imported oil and ends in 2014 at about 95. Current West Texas Intermediate begins in 2007 at about 59.9 and increases to about 125 by 2008. It decreases to about 42 by 2009 and then generally increases to about 102 by 2012. It then decreases to about 83 by 2015. Previous West Texas Intermediate generally follows the same path as Current West Texas Intermediate and ends in 2014 at about 88.

Figure: Broad Real Dollar

Line chart, by ratio scale where 2007:Q1 = 100, 2007 to 2015. Data are quarterly averages. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 2007 at about 100 and decreases to about 89 by 2008. It increases to about 101 by 2009 and then decreases to about 81.5 by 2015. Previous Tealbook generally follows the same path as Current Tealbook until 2012 when it begins decreasing at a faster rate. It ends in 2014 at about 83.

Note: Blue shading represents the projection period, which begins in 2012:Q4.

Fiscal Policy

Total Fiscal Impetus

(Percentage point contribution to real GDP growth)

2012	2013	2014	2015
-.2	-1.1	-.4	-.2

[Box:] Supply of Mortgage and Consumer Credit

Figure: Lenders Offering 30-Year Fixed-Rate Mortgages at Given FICO Scores

Line chart, by percent, 2010 to 2012. There are four series, 750, 680, 620, and 580. 750 begins in early 2010 at about 96 and generally decreases to about 90 by mid-2010. It increases to about 99 by November 26, 2012. 680 begins in early 2010 at about 73 and decreases to about 65 by mid-2010. It then generally increases to about 95 by November 26, 2012. 620 begins in mid-2010 at about 45 and generally increases to about 60 by November 26, 2012. 580 begins in mid-2010 at about 16 and generally decreases to about 10 by November 26, 2012.

Note: Mortgages originated with 10 percent down payments.

Source: LoanSifter.

Figure: Likelihood of Approving an Application for an FHA Home Purchase Mortgage Loan Relative to 2006

Bar chart, by percent. There are five series, Much Less likely, Somewhat less likely, About the same, Somewhat more likely, and More likely. Approximate values are: FICO score of 660: Much less likely 0, Somewhat less likely 10, About the same 95, Somewhat more likely, 99, Much more likely 100; FICO score of 620: Much less likely 5, Somewhat less like 80, About the same 95, Somewhat more likely 100, Much more likely 0; FICO score of 580: Much less likely 70, Somewhat less likely 90, About the same 95, Somewhat more likely 100, Much more likely 0.

Note: Responses are weighted by survey respondents' holdings of residential real estate loans (excluding multifamily loans and home equity lines of credit).

Source: Senior Loan Officer Opinion Survey on Bank Lending Practices.

Figure: Aggregate Credit Card Limits

Line chart, by billions of dollars, 2000 to 2012. Data are quarterly. There are three series, Prime, Superprime, and Subprime. Prime begins in 2000 at about 1000 and generally increases to about 1800 by 2008. It then decreases to about 1050 by 2012:Q3. Superprime begins in 2000 at about 400 and generally increases to about 1600 by 2008. It decreases to about 1380 by 2009 and then increases to about 1550 by 2012:Q3. Subprime begins in 2000 at about

300 and increases to about 355 by 20020. It then generally decreases to about 225 by 2012:Q3.

Note: Prime credit scores between 659 and 780, Superprime greater than 779.

Source: Equifax.

Figure: Aggregate Auto Loan Balances

Line chart, by billions of dollars, 2000 to 2012. Data are quarterly. There are three series, Prime, Subprime, and Superprime. Prime begins in 2000 at about 190 and increases to about 380 by 2006. It decreases to about 290 by 2010 and then increases to about 330 by 2012:Q3. Subprime begins in 2000 at about 170 and increases to about 330 by 2008. It decreases to about 250 by 2010 and then increases to about 275 by 2012:Q3. Superprime begins in 2000 at about 49 and generally increases to about 175 by 2012:Q3.

Note: Prime credit scores between 659 and 780, Superprime greater than 779.

Source: Equifax.

Summary of the Near-Term Outlook

(Percent change at annual rate except as noted)

Measure	2012:Q3 Previous Tealbook	2012:Q3 Current Tealbook	2012:Q4 Previous Tealbook	2012:Q4 Current Tealbook	2013:Q1 Previous Tealbook	2013:Q1 Current Tealbook
Real GDP	**2.0**	**2.8**	**2.0**	**.9**	**1.8**	**1.7**
Private domestic final purchases	2.1	1.3	3.1	2.9	1.4	1.1
Personal consumption expenditures	2.3	1.4	3.1	2.1	1.1	.6
Residential investment	14.3	13.8	13.9	14.8	13.4	17.0
Business fixed investment	-2.5	-2.2	.8	5.4	1.0	1.1
Government purchases	.6	4.0	-1.6	-3.5	-1.5	-1.8
Contributions to change in real GDP						
Inventory investment[1]	.1	.8	.0	-.8	.8	.9
Net exports[1]	.0	.1	-.2	.0	.1	.2
Unemployment Rate[2]	**8.1**	**8.1**	**8.0**	**8.0**	**8.0**	**7.9**
PCE Chain Price Index	**1.7**	**1.6**	**2.1**	**1.5**	**.9**	**1.1**
Ex. food and energy	1.2	1.1	1.4	1.2	1.6	1.7

1. Percentage points. Return to table

2. Percent. Return to table

Recent Nonfinancial Developments (1)

Figure: Real GDP and GDI

Line chart, by 4-quarter percent change, 2003 to 2012. There is a horizontal line at zero. There are two series, Gross domestic product and Gross domestic income. Gross domestic product begins in 2003 at about 1.8 and increases to about 4.1 by 2004. It generally decreases to about -4.25 by 2009 and then increases to about 2.5 by 2012:Q3. Gross domestic income begins in 2003 at about 1.4 and generally decreases to about -5 by 2009. It increases to about 4 by 2010 and then generally decreases to about 2.4 by 2012:Q3.

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

Figure: Change in Private Payroll Employment

Line chart, by thousands of employees, 2003 to 2012. There is a horizontal line at zero. There are two series, Current Tealbook and 3-month moving average. Current Tealbook begins in 2003 at about 50 and generally increases to about 350 by 2005. It generally decreases to about -850 by 2008 and then generally increases to about 200 by October 2012. 3-month moving average begins in 2003 at about -30 and generally increases to about 260 by 2006. It generally decreases to about -790 by 2009 and then increases to about 190 by October 2012.

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

Figure: Unemployment Rate

Line chart, by percent, 2003 to 2012. The series begins in 2003 at about 5.9 and generally decreases to about 4.4 by 2007. It increases to about 10 by 2009 and then generally decreases to about 7.9 by October 2012.

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

Figure: Manufacturing IP excluding Motor Vehicles and Parts

Line chart, by 3-month percent change, annual rate, 2003 to 2012. There is a horizontal line at zero. The series begins in 2003 at about 0 and generally increases to about 13 by 2005. It generally decreases to about -25 by 2009 and then increases to about 13 by 2010. It then generally decreases to about -5 by October 2012.

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

Recent Nonfinancial Developments (2)

Figure: Production of Light Motor Vehicles

Line chart, by millions of units, annual rate, 2003 to 2012. The series begins in 2003 at about 12.8 and generally decreases to about 3.3 by 2008. It then generally increases to about 9.8 by October 2012.

Source: Ward's Auto Infobank.

Figure: Sales of Light Motor Vehicles

Line chart, by millions of units, annual rate, 2003 to 2012. The series begins in 2003 at about 15.8 and generally increases to about 20.7 by 2005. It generally decreases to about 9 by 2009 and then increases to about 15.2 by November 2012.

Source: Ward's Auto Infobank.

Figure: Real PCE Goods excluding Motor Vehicles

Line chart, by billions of chained (2005) dollars, 2003 to 2012. The series begins in 2003 at about 2400 and increases to about 2950 by 2007. It generally decreases to about 2800 by 2009 and then increases to about 3100 by October 2012.

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

Figure: Single-Family Housing Starts

Line chart, by thousands of units, annual rate, 2003 to 2012. There are two series, Starts and Adjusted permits. Starts begins in 2003 at about 1500 and generally increase to about 1800 by 2006. It decreases to about 350 by 2008 and then increases to about 600 by October 2012. Adjusted permits generally follows the same path as Starts.

Note: Adjusted permits equal permits plus starts outside of permit-issuing areas.

Source: U.S. Census Bureau.

Figure: Single-Family Home Sales

Line chart, by thousands of units, annual rate, 2003 to 2012. There are two series, New and Existing. New begins in 2003 at about 1050 and increases to about 1400 by 2005. It then generally decreases to about 350 by October 2012. Existing begins in 2003 at about 5400 and generally increases to about 6250 by 2005. It decreases to about 3400 by 2008 and then increases to about 5000 by 2009. It decreases to about 3000 by 2010 and then generally increases to about 4000 by October 2012.

Source: For existing, National Association of Realtors; for new, U.S. Census Bureau.

Figure: Nondefense Capital Goods excluding Aircraft

Line chart, by billions of dollars, 2003 to 2012. There are two series, Orders and Shipments. Orders begins in 2003 at about 49 and increases to about 70 by 2008. It decreases to about 46 by 2009 and then increases to about 67 by 2011. It then decreases to about 61 by October 2012. Shipments begins in 2003 at about 49 and increase to about 66 by 2008. It decreases to about 52.5 by 2009 and then increases to about 68 by October 2012.

Source: U.S. Census Bureau.

Recent Nonfinancial Developments (3)

Figure: Nonresidential Construction Put in Place

Line chart, by billions of chained (2005) dollars, 2003 to 2012. The series begins in 2003 at about 260 and generally increases to about 350 by 2008. It decreases to about 190 by 2010 and then increases to about 240 by October 2012.

Note: Nominal CPIP deflated by BEA prices through 2012:Q2 and by staff's estimated deflator thereafter.

Source: U.S. Census Bureau.

Figure: Inventory Ratios excluding Motor Vehicles

Line chart, by months, 2003 to 2012. There are two series, Staff flow-of-goods system and Census book-value data. Staff flow-of-goods system begins in 2003 at about 1.59 and decreases to about 1.49 by 2008. It increases to about 1.62 by 2009 and then decreases to about 1.51 by October 2012. Census book-value data begins in 2003 at about 1.3 and decreases to about 1.2 by 2008. It increases to about 1.4 by 2009 and then decreases to about 1.225 by September 2012.

Note: Flow-of-goods system covers total industry excluding motor vehicles and parts, and inventories are relative to consumption. Census data cover manufacturing and trade excluding motor vehicles and parts, and inventories are relative to sales.

Source: U.S. Census Bureau; staff calculation.

Figure: Defense Spending

Line chart, by billions of chained (2005) dollars, 2003 to 2012. There are two series, Unified (Monthly) and NIPA (quarterly). Unified begins in 2003 at about 455 and generally increases to about 690 by 2010. It then generally decreases to about 600 by October 2012. NIPA begins in 2003 at about 450 and increases to about 650 by 2010. It then decreases to about 610 by 2012:Q3.

Note: The unified series is seasonally adjusted and deflated by BEA prices. The NIPA series excludes the consumption of fixed capital.

Source: *Monthly Treasury Statement*; U.S. Department of Commerce, Bureau of Economic Analysis.

Figure: Exports and Non-Oil Imports

Line chart, by billions of dollars, 2003 to 2012. There are two series, Non-oil imports and Exports. Non-oil imports begins in 2003 at about 115 and generally increases to about 180 by 2008. It decreases to about 130 by 2009 and then increases to about 195 by September 2012. Exports begins in 2003 at about 80 and increases to about 165 by 2008. It decreases to about 120 by 2009 and then increases to about 185 by October 2012.

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

Figure: Total PCE Prices

Line chart, by percent, 2003 to 2012. There is a horizontal line at zero. There are two series, 12-month change and 3-month change. 12-month change begins in 2003 at about 2 and generally increases to about 4 by 2008. It decreases to about -1 by 2009 and then increases to about 2 by October 2012. 3-month change begins in 2003 at about 2 and generally increases to about 8.5 by 2005. It generally decreases to about -9 by 2008 and then increases to about 3.8 by October 2012.

Note: 3-month changes are at an annual rate.

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

Figure: PCE Prices excluding Food and Energy

Line chart, by percent, 2003 to 2012. There are two series, 12-month change and 3-month change. 12-month change begins in 2003 at about 1.8 and generally increases to about 2.5 by 2006. It generally decreases to about 1.1 by 2011 and then increases to about 1.6 by October 2012. 3-month change begins in 2003 at about 0.9 and generally increases to about 3.25 by 2007. It decreases to about 0.45 by 2009 and then increases to about 2.5 by 2011. It then decreases to about 0.9 by October 2012.

Note: 3-month changes are at an annual rate.

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

Projections of Real GDP and Related Components

(Percent change at annual rate from final quarter of preceding period except as noted)

Measure	2011	2012 H1	2012 H2	2013	2014	2015
Real GDP	**2.0**	**1.6**	**1.8**	**2.5**	**3.2**	**3.6**
Previous Tealbook	2.0	1.6	2.0	2.6	3.5	3.7
Final sales	1.7	2.1	1.8	2.3	3.1	3.6
Previous Tealbook	1.7	2.1	2.0	2.5	3.5	
Personal consumption expenditures	1.9	2.0	1.8	2.2	3.3	3.6
Previous Tealbook	1.9	2.0	2.7	2.8	3.7	
Residential investment	3.9	14.3	14.3	16.8	11.8	12.7
Previous Tealbook	3.9	14.3	14.1	14.8	13.2	
Nonresidential structures	6.9	6.6	.4	2.9	2.5	2.1
Previous Tealbook	6.9	6.6	-4.2	2.7	2.3	
Equipment and software	11.4	5.1	2.0	6.1	7.0	6.2
Previous Tealbook	11.4	5.1	.5	4.2	7.5	
Federal purchases	-4.2	-2.3	.0	-4.5	-4.3	-2.3
Previous Tealbook	-4.2	-2.3	-1.4	-4.2	-4.2	
State and local purchases	-2.7	-1.6	.3	.3	.9	1.2
Previous Tealbook	-2.7	-1.6	.0	.3	.9	
Exports	4.3	4.8	2.1	5.1	5.9	7.3

Previous Tealbook	4.3	4.8	1.1	5.1	6.2	
Imports	3.5	2.9	1.3	3.8	4.8	5.2
Previous Tealbook	3.5	2.9	1.4	3.9	5.0	
	Contributions to change in real GDP (percentage points)					
Inventory change	.3	-.4	.0	.2	.1	.0
Previous Tealbook	.3	-.4	.1	.2	.0	
Net exports	.0	.1	.1	.0	.0	.1
Previous Tealbook	.0	.1	-.1	.0	.0	

Figure: Real GDP

Line chart, by 4-quarter percent change, 1984 to 2015. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 1984 at about 8.5 and generally decreases to about -0.8 by 1991. It generally increases to about 5 by 2000 and then generally decreases to about -4.2 by 2009. It then generally increases to about 3.9 by 2015. Previous Tealbook generally follows the same path as Current Tealbook.

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research: July 1990-March 1991, March 2001-November 2001, and December 2007-June 2009. Blue shading represents the projection period, which begins in 2012:Q3.

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

Components of Final Demand

Figure: Personal Consumption Expenditures

Line chart, by 4-quarter percent change, 2008 to 2015. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 2008 at about 1 and decreases to about -3 by 2009. It increases to about 3 by 2010 and then decreases to about 1.5 by 2013. It then increases to about 3.6 by 2015. Previous Tealbook generally follows the same path as Current Tealbook until 2012 when it begins increasing at a faster rate. It ends in 2014 at about 3.9.

Figure: Residential Investment

Line chart, by 4-quarter percent change, 2008 to 2015. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begin sin 2008 at about -24 and decreases to about -27.5 by 2009. It increases to about 5 by 2010 and then decreases to about -7 by 2011. It increases to about 17 by 2013 and then decreases to about 8 by 2015. Previous Tealbook generally follows the same path as Current Tealbook until 2012 when it begins increasing at a slower rate. It ends in 2014 at about 13.

Figure: Equipment and Software

Line chart, by 4-quarter percent change, 2008 to 2015. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 2008 at about 2.5 by decreases to about -20 by 2009. It increases to about 12 by 2010 and then decreases to about 2.5 by 2013. It then increase to about 6 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2014 at about 7.

Figure: Nonresidential Structures

Line chart, by 4-quarter percent change, 2008 to 2012. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 2008 at about 15 and decreases to about -30 by 2009. It increases to about 20 by 2011 and then decreases to about 1 by 2012. It increases to about 2 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2014 at about 2.

Figure: Government Consumption & Investment

Line chart, by 4-quarter percent change, 2008 to 2015. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 2008 at about 2.9 and increases to about 4.25 by 2009. It decreases to about -4 by 2011 and then generally increases to about -0.1 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2014 at about -1.

Figure: Exports and Imports

Line chart, by 4-quarter percent change, 2008 to 2015. There is a horizontal line at zero. There are four series, Current Exports, Previous Exports, Current Imports, and Previous Imports. Current Exports begins in 2008 at about 10 and decreases to about -13 by 2009. It increases to about 12.5 by 2010 and then decreases to about 3.5 by 2012. It increases to about 7 by 2015. Previous Exports generally follows the same path as Current Exports and ends in 2014 at about 6. Current Imports begins in 2008 at about 0 and decreases to about -18 by 2009. It increases to about 16 by 2010 and then decreases to about 2.5 by 2011. It increases to about 5 by 2015. Previous Imports generally follows the same path as Current Imports and ends in 2014 at about 5.

Note: Blue shading represents the projection period, which begins in 2012:Q3.

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

Aspects of the Medium-Term Projection

Figure: Personal Saving Rate

Line chart, by percent, 1995 to 2015. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 1995 at about 6 and generally decreases to about 1.3 by 2005. It increases to about 6.25 by 2008 and then generally decreases to about 2.75 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2014 at about 3.6.

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

Figure: Wealth-to-Income Ratio

Line chart, by ratio, 1995 to 2015. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 1995 at about 4.81 and generally increases to about 6.2 by 1999. It decreases to about 5.1 by 2003 and then increases to about 6.42 by 2006. It decreases to about 4.8 by 2009 and then increase to about 5.6 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2014 at about 5.5.

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

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

Figure: Single-Family Housing Starts

Line chart, by millions of units, 1995 to 2015. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 1995 at about 1 and generally increases to about 1.75 by 2005. It decreases to about 0.33 by 2009 and then increases to about 1 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2014 at about 0.76.

Source: U.S. Census Bureau.

Figure: Equipment and Software Spending

Line chart, by share of nominal GDP, 1995 to 2015. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 1995 at about 8.15 and increase to about 9.6 by 2000. It generally decreases to about 6.4 by 2009 and then increases to about 7.9 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends at about 7.5 in 2014.

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

Figure: Federal Surplus/Deficit

Line chart, by share of nominal GDP, 1995 to 201. Data are 4-quarter moving averages. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 1995 at about -2.6 and generally increases to about 2.25 by 2000. It decreases to about -4 by 2003 and then increases to about -1 by 2007. It decreases to about -10 by 2009 and then increases to about -3.2 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2014 at about -4.

Source: *Monthly Treasury Statement*.

Figure: Current Account Surplus/Deficit

Line chart, by share of nominal GDP, 1995 to 2015. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 1995 at about -1.8 and generally decreases to about -6.5 by 2005. It increases to about -2.4 by 2010 and then decreases to about -2.7 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2014 at about -3.

Source: U.S. Department 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: March 2001-November 2001, and December 2007-June 2009. Blue shading represents the projection period, which begins in 2012:Q3.

Decomposition of Potential GDP

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

Measure	1974-1995	1996-2000	2001-2010	2011	2012	2013	2014	2015
Potential real GDP	**3.0**	**3.4**	**2.2**	**1.5**	**1.8**	**2.0**	**2.1**	**2.2**
Previous Tealbook	3.0	3.4	2.2	1.5	1.8	2.0	2.1	
Selected contributions[1]								
Structural labor productivity	1.4	2.6	2.1	1.3	1.4	1.6	1.7	1.8
Previous Tealbook	1.4	2.6	2.1	1.3	1.4	1.6	1.7	
Capital deepening	.7	1.5	.7	.4	.5	.6	.7	.8
Previous Tealbook	.7	1.5	.7	.4	.5	.6	.6	
Multifactor productivity	.5	.8	1.2	.8	.9	.9	.9	.9
Previous Tealbook	.5	.8	1.2	.8	.9	.9	1.0	
Structural hours	1.5	1.0	.6	.5	.6	.6	.6	.7
Previous Tealbook	1.5	1.0	.6	.5	.6	.6	.6	
Labor force participation	.4	.0	-.3	-.4	-.3	-.3	-.3	-.4
Previous Tealbook	.4	.0	-.3	-.4	-.3	-.3	-.3	

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

1. Percentage points. Return to table

Figure: Structural and Actual Labor Productivity (Nonfarm business sector)

Line chart, by chained (2005) dollars per hour, 2001 to 2015. There are two series, Current Tealbook and Structural. Current Tealbook begins in 2001 at about 43.8 and generally increases to about 51 by 2008. It then increases to about 58.5 by 2015. Structural begins in 2001 at 44 and generally increases to about 58.5 by 2015.

Figure: Structural and Actual Labor Force Participation Rate

Line chart, by percent, 2001 to 2015. There are two series, Current Tealbook and Structural. Current Tealbook begins in 2001 at about 67.1 and generally decreases to about 66 by 2007. It then decreases to about 63.5 by 2015. Structural begins in 2001 at about 66.75 and generally decreases to about 63.5 by 2015.

Note: Blue shading represents the projection period, which begins in 2012:Q4.

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

The Outlook for the Labor Market and Resource Utilization

(Percent change from final quarter of preceding period)

Measure	2011	2012 H1	2012 H2	2013	2014	2015
Output per hour, nonfarm business	.6	.7	1.2	1.0	1.8	1.9
Previous Tealbook	.6	.7	1.1	1.3	1.6	
Nonfarm private employment[1]	175	157	153	158	200	262
Previous Tealbook	175	157	137	170	249	
Labor force participation rate[2]	64.0	63.7	63.8	63.7	63.7	63.5
Previous Tealbook	64.0	63.7	63.6	63.6	63.6	
Civilian unemployment rate[2]	8.7	8.2	8.0	7.8	7.4	6.5
Previous Tealbook	8.7	8.2	8.0	7.8	7.2	6.2
Memo:						
GDP gap[3]	-4.0	-4.1	-4.1	-3.6	-2.6	-1.3
Previous Tealbook	-4.0	-4.1	-4.0	-3.4	-2.0	

1. Thousands, average monthly changes. Return to table

2. Percent, average for the final quarter in the period. Return to table

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. Return to table

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

Figure: Nonfarm Private Employment (Average monthly changes)

Line chart, by thousands, 1995 to 2015. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 1995 at about 210 and generally decreases to about -300 by 2001. It increases to about 300 by 2005 and then decreases to about -800 by 2009. It then generally increases to about 270 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2014 at about 270.

Source: U.S. Department of Labor, BLS.

Figure: Unemployment Rate

Line chart, by percent, 1995 to 2015. There are four series, Current Tealbook, Previous Tealbook, Natural rate, and Natural rate with EEB adjustment. Current Tealbook begins in 1995 at about 5.6 and decreases to about 4 by 2000. It increases to about 6.1 by 2004 and then increases to about 4.5 by 2007. It increases to about 10 by 2009 and then decreases to about 6.6 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2015 at about 6.5. Natural rate begins in 1995 at about 5 where it remains relatively constant until 2008. It increases to about 6 by 2009 where it remains relatively constant until 2014. It decreases to about 5.9 by 2015. Natural rate with EEB adjustment begins in 1995 at 5 where it remains relatively constant until 2008. It increases to about 6.5 by 2009 and then decreases to about 6 by 2013. It then decreases to about 5.9 by 2015.

Note: The EEB adjustment is the staff estimate of the effect of extended and emergency unemployment compensation programs on the natural rate of unemployment.

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

Figure: GDP Gap

Line chart, by percent, 1995 to 2015. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 1995 at about -2 and increases to about 3.5 by 1999. It decreases to about -1.9 by 2002 and then increases to about 1 by 2005. It decreases to about -6 by 2009 and then increases to about -1.6 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2014 at about -2.

Note: The GDP gap is the percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential. Blue shading represents the projection period, which begins in 2012:Q3.

Source: U.S. Department of Commerce, BEA; Staff assumptions.

Figure: Manufacturing Capacity Utilization Rate

Line chart, by percent, 1995 to 2015. There is a horizontal line at 79 that represents the average rate from 1972 to 2011. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 1995 at about 84 and generally decreases to about 71 by 2001. It increases to about 79 by 2006 and then decreases to about 65 by 2009. It increases to about 81 by 2015. Previous Tealbook generally follows the same path as Current Tealbook and ends in 2014 at about 80.

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

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research: March 2001-November 2001, and December 2007-June 2009. Blue shading represents the projection period, which begins in 2012:Q4, except as noted.

Inflation Projections

(Percent change at annual rate from final quarter of preceding period)

Measure	2011	2012 H1	2012 H2	2013	2014	2015
PCE chain-weighted price index	2.5	1.6	1.6	1.3	1.4	1.5
Previous Tealbook	2.5	1.6	1.9	1.3	1.4	1.5
Food and beverages	5.1	1.0	1.5	2.3	1.1	1.5
Previous Tealbook	5.1	1.0	1.6	2.4	1.0	
Energy	11.9	-3.3	7.5	-4.4	-1.7	-1.6

Previous Tealbook	11.9	-3.3	11.0	-4.7	-2.3	
Excluding food and energy	1.7	2.0	1.2	1.6	1.6	1.7
Previous Tealbook	1.7	2.0	1.3	1.6	1.7	1.7
Prices of core goods imports[1]	4.3	.5	-.1	1.1	1.5	1.5
Previous Tealbook	4.3	.5	-.9	1.4	1.5	

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

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

Figure: Total PCE Prices

Line chart, by 4-quarter percent change, 1995 to 2015. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 1995 at about 2.4 and generally increases to about 4.5 by 2008. It decrease to about -1 by 2009 and then increases to about 3 by 2010. It then decreases to about 1.6 by 2015. Previous Tealbook generally follows the same path as Current Tealbook.

Note: Blue shading represents the projection period, which begins in 2012:Q3.

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

Figure: PCE Prices excluding Food and Energy

Line chart, by 4-quarter percent change, 1995 to 2015. There are four series, Current Tealbook, Previous Tealbook, Current Market-based, and Previous Market-based. Current Tealbook begins in 1995 at about 2.4 and decreases to about 1.4 by 1998. It generally increases to about 2.5 by 2006 and then decreases to about 1.2 by 2010. It then generally increases to about 1.8 by 2015. Previous Tealbook generally follows the same path as Current Tealbook. Current Market-based begins in 1995 at about 2.1 and generally decreases to about 1 by 1998. It generally increases to about 2.5 by 2009 and then decreases to about 0.75 by 2010. It then generally increases to about 1.6 by 2015. Previous Market-based generally follows the same path as Current Market-based and ends in 2014 at about 1.5.

Note: Blue shading represents the projection period, which begins in 2012:Q3.

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

Figure: Compensation per Hour

Line chart, by 4-quarter percent change, 1995 to 2015. There is a horizontal line at zero. There are four series, Current Tealbook, Previous Tealbook, Current Employment cost index, and Previous Employment cost index. Current Tealbook begins in 1995 at about 1.2 and generally increases to about 8.5 by 2000. It generally decreases to about 0 by 2009 and then increase to about 3.6 by 2015. Previous Tealbook generally follows the same path as Current Tealbook. Current Employment cost index begins in 1995 at about 2.8 and generally increases to about 4.5 by 2000. It decreases to about 1.3 by 2009 and then increases to about 3 by 2015. Previous Employment cost index generally follows the same path as Current Employment cost index.

Note: Blue shading represents the projection period, which begins in 2012:Q3.

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

Figure: Long-Term Inflation Expectations

Line chart, by percent, 1995 to 2015. There are two series, Thomson Reuters/Michigan, next 5 to 10 years and SPF, next 10 years. Thomson Reuters/Michigan, next 5 to 10 years begins in 1995 at about 3.2 and generally decreases to about 2.5 by 2001. It increases to about 3.4 by 2008 and then decreases to about 2.75 by November 2012. SPF, next 10 years begins in 2007 at about 2 and increases to about 2.25 by 2009. It then generally decreases to about 2.1 by 2012:Q4.

Note: The Survey of Professional Forecasters (SPF) projection is for the PCE price index.

Source: Thomson Reuters/University of Michigan Surveys of Consumers; Federal Reserve Bank of Philadelphia.

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research: March 2001-November 2001, and December 2007-June 2009.

The Long-Term Outlook

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

Measure	2012	2013	2014	2015	2016	2017	Longer run
Real GDP	1.7	2.5	3.2	3.6	3.2	2.5	2.5
Previous Tealbook	1.8	2.6	3.5	3.7	3.1	2.4	2.5
Civilian unemployment rate[1]	8.0	7.8	7.4	6.5	5.8	5.4	5.2
Previous Tealbook	8.0	7.8	7.2	6.2	5.5	5.1	5.2
PCE prices, total	1.6	1.3	1.4	1.5	1.8	1.9	2.0
Previous Tealbook	1.7	1.3	1.4	1.5	1.8	2.0	2.0
Core PCE prices	1.6	1.6	1.6	1.7	1.8	1.9	2.0
Previous Tealbook	1.6	1.6	1.7	1.7	1.9	2.0	2.0
Federal funds rate[1]	.2	.1	.1	.4	2.0	3.2	4.3
Previous Tealbook	.1	.1	.1	.7	2.6	3.9	4.3
10-year Treasury yield[1]	1.7	2.8	3.6	4.2	4.4	4.4	5.1
Previous Tealbook	1.8	2.7	3.5	4.1	4.4	4.6	5.1

1. Percent, average for the final quarter of the period. Return to table

Figure: Real GDP

Line chart, by 4-quarter percent change, 2004 to 2020. There is a horizontal line at zero. There are four series, Current Real GDP, Previous Real GDP, Current Potential GDP, and Previous Potential GDP. Current Real GDP begins in 2004 at about 4 and generally decreases to about -4.7 by 2009. It generally increases to about 3.9 by 2015 and then decreases to about 2.6 by 2020. Previous Real GDP generally follows the same path as Current Real GDP and ends in 2020 at about 2.4. Current Potential GDP begins in 2004 at about 2.5 and generally decreases to about 1 by 2009. It then increases to about 2.4 by 2020. Previous Potential GDP generally follows the same path as Current Potential GDP.

Figure: Unemployment Rate

Line chart, by percent, 2004 to 2020. There are four series, Current Tealbook, Previous Tealbook, Natural rate, and Natural rate with EEB adjustment. Current Tealbook begins in 2004 at about 5.8 and decreases to about 4.4 by 2006. It increases to about 10 by 2009 and then generally decreases to about 5.3 by 2020. Previous Tealbook generally follows the same path as Current Tealbook. Natural rate begins in 2004 at 5 where it remains relatively constant until 2008. It increases to 6 by 2009 where it remains relatively constant until 2015. It then decreases to about 5.25 by 2017 where it remains relatively constant until 2020. Natural rate with EEB adjustment begins in 2004 at 5 where it remains relatively constant until 2008. It increases to about 6.4 by 2009 and then decreases to 6 by 2013. It then decreases to 5.25 by 2017 where it remains relatively constant until 2020.

Figure: PCE Prices

Line chart, by 4-quarter percent change, 2004 to 2020. There are four series, Current Total PCE prices, Previous Total PCE prices, Current PCE prices excluding food and energy, and Previous PCE prices excluding food and energy. Current Total PCE prices begins in 2004 at 2 and generally increases to about 4.2 by 2007. It decreases to about -0.9 by 2009 and then generally increases to about 2.8 by 2011. It then generally decreases to about 2 by 2020. Previous Total PCE prices generally follows the same path as Current Total PCE prices. Current PCE prices excluding food and energy begins in 2004 at about 1.9 and generally decreases to about 1.1 by 2010. It then generally increases to about 2 by 2020. Previous PCE prices excluding food and energy generally follows the same path as Current PCE prices excluding food and energy.

Figure: Interest Rates

Line chart, by percent, 2004 to 2020. There are six series, Current BBB corporate, Previous BBB corporate, Current 10-year Treasury, Previous 10-year Treasury, Current Federal funds rate, and Previous Federal funds rate. Current BBB corporate begins in 2004 at about 5.5 and increases to about 9.5 by 2008. It decreases to about 4 by 2013 and then increases to about 6 by 2020. Previous BBB corporate generally follows the same path as Current BBB corporate. Current 10-year Treasury begins in 2004 at about 4 and generally decreases to about 2 by 2013. It then increases to about 4.5 by 2020. Previous 10-year Treasury generally follows the same path as Current 10-year Treasury and ends in 2020 at about 4.75. Current Federal funds rate begins in 2004 at about 1 and increases to about 5.2 by 2006. It decreases to about 0.1 by 2009 where it remains relatively constant until 2016. It then increases to about 4.1 by 2020. Previous Federal funds rate generally follows the same path as Current Federal funds rate.

Note: In each panel, shading represents the projection period, which begins in 2012:Q4; dashed lines are the previous Tealbook.

Evolution of the Staff Forecast

Figure: Change in Real GDP

Line chart, by percent Q4 over Q4, 2010 to 2012. The x-axis represents Tealbook publication date. There are four series, 2012, 2013, 2014, and 2015. 2012 begins on September 15, 2010 at about 4.4 and decreases to about 2.2 by January 18, 2012. It then decreases to about 1.8 by December 5, 2012. 2013 begins on September 14, 2011 at about 3.4 by generally decreases to about 2.5 by December 5, 2012. 2014 begins on April 18, 2012 at about 3.3 and increases to about 3.5 by October 17, 2012. It then decreases to about 3.1 by December 5, 2012. 2014 begins on December 5, 2012 at about 3.6.

Figure: Unemployment Rate

Line chart, by percent, fourth quarter, 2010 to 2012. The x-axis represents Tealbook publication date. There are four series, 2012, 2013, 2014, and 2015. 2012 begins on September 15, 2010 at about 8 and decreases to about 7.5 by March 9, 2011. It increases to about 8.5 by September 14, 2011 and then decreases to about 8 by December 5, 2012. 2013 begins on September 14, 2011 at about 8.2 and decreases to about 7.7 by April 18, 2012. It increases to about 8 by July 25, 2012 and then decreases to about 7.75 by December 5, 2012. 2014 begins on April 18, 2012 at about 7.3 and increases to about 7.6 by July 25, 2012. It decreases to about 7.2 by October 17, 2012 and then increases to about 7.45 by December 5, 2012. 2015 begins on December 5, 2012 at about 6.5.

Figure: Change in PCE Prices excluding Food and Energy

Line chart, by percent Q4 over Q4, 2010 to 2012. The x-axis represents Tealbook publication date. There are four series, 2012, 2013, 2014, and 2015. 2012 begins on September 15, 2010 at about 0.9 and generally increases to about 1.5 by June 15, 2011. It Increases to about 1.75 by April 18, 2012 and then decreases to about 1.6 by December 5, 2012. 2013 begins on September 14, 2011 at about 1.25 and increases to about 1.7 by April 18, 2012. It then decreases to about 1.6 by December 5, 2012. 2014 begins on April 18, 2012 at about 1.7 and decreases to about 1.6 by December 5, 2012. 2015 begins on December 5, 2012 at about 1.7.

International Economic Developments and Outlook

Recent Foreign Indicators

Figure: Nominal Exports

Line chart, by ratio scale where January 2008 = 100, 2008 to 2012. There is a horizontal line at zero. There are three series, Foreign, AFE, and EME. Foreign begins in 2008 at 100 and generally decreases to about 70 by 2009. It then generally increases to about 115 by 2012. AFE begins in 2008 at 100 and decreases to about 69 by 2009. It increases to about 100 by 2011 and then decreases to about 104 by 2012. EME begins in 2008 at 100 and decreases to about 71 by 2009. It then generally increases to about 128 by 2012.

Note: EME excludes Venezuela.

Figure: Industrial Production

Line chart, by ratio scale where January 2008 = 100, 2008 to 2012. There is a horizontal line at zero. There are three series, Foreign, AFE, and EME. Foreign begins in 2008 at 100 and decreases to about 86 by 2009. It then generally increases to about 102.5 by 2012. AFE begins in 2008 at 100 and decreases to about 85 by 2009. It then generally increases to about 93 by 2012. EME begins in 2008 at 100 and decreases to about 88 by 2009. It then increases to about 114 by 2012.

Note: AFE excludes Australia and Switzerland. EME excludes Colombia, Hong Kong, Philippines, and Venezuela.

Figure: Retail Sales

Line chart, by 12-month percent change, 2008 to 2012. There is a horizontal line at zero. There are three series, Foreign, AFE, and EME. Foreign begins in 2008 at 5 and decreases to about -2 by 2009. It increases to about 7 by 2010 and then generally decreases to about 2.5 by 2012. AFE begins in 2008 at about 4.6 and decreases to about -4.8 by 2009. It increases to about 5 by 2010 and then generally decreases to about 1 by 2012. EME begins in 2008 at about 8 and generally decreases to about 2.5 by 2009. It increases to about 15 by 2010 and then decreases to about 6.5 by 2012.

Note: AFE excludes Australia and Switzerland. EME includes Brazil, China, Indonesia, Korea, Singapore, and Taiwan.

Figure: Employment

Line chart, by 4-quarter percent change, 2008 to 2012. There is a horizontal line at zero. There are three series, Foreign, AFE, and EME. Foreign begins in 2008 at 2 and decreases to about -1 by 2009. It increases to about 1.9 by 2011 and then decreases to about 1 by 2012. AFE begins in 2008 at about 1.9 and decreases to about -1.75 by 2009. It increases to about 1 by 2011 and then decreases to about 0.4 by 2012. EME begins in 2008 at 3 and decreases to about 0.5 by 2009. It increases to about 3 by 2011 and then decreases to about 2.1 by 2012.

Note: EME excludes Argentina and Mexico.

Figure: Consumer Prices: Advanced Foreign Economies

Line chart, by 12-month percent change, 2008 to 2012. There is a horizontal line at zero. There are two series, Headline and Core. Headline begins in early 2008 at about 2.2 and increases to about 3.6 by mid-2008. It decreases to about -0.9 by 2009 and then increases to about 2.6 by 2011. It then decreases to about 1.5 by 2012. Core begins in 2008 at about 1.1 and decreases to about 0.75 by 2010. It increases to about 1.4 by 2011 and then decreases to about 0.99 by 2012.

Note: Excludes Australia, Sweden, and Switzerland. Core also excludes all food and energy; staff calculation.

Source: Haver Analytics and CEIC.

Figure: Consumer Prices: Emerging Market Economies

Line chart, by 12-month percent change, 2008 to 2012. There is a horizontal line at 0. There are three series, Headline, Excluding food--East Asia, and Excluding food--Latin America. Headline begins in 2008 at about 5.6 and generally decreases to about 0.75 by 2009. It increases to about 5.2 by 2011 and then decreases to about 3 by 2012. Excluding food--East Asia begins in 2008 at about 3 and generally decreases to about -2 by 2009. It increases to about 2.8 by 2011 and then decreases to about 2 by 2012. Excluding food--Latin America begins in 2008 at about 3.8 and increases to about 5.6 by 2009. It then generally decreases to about 3 by 2012.

The Foreign Outlook

(Percent change, annual rate)

		2012				2013				
	2011	Q1	Q2	Q3	Q4	Q1	Q2	H2	2014	2015
Real GDP										
Total foreign	2.8	3.4	1.9	1.8	2.1	2.5	2.9	3.1	3.4	3.5
Previous Tealbook	2.8	3.2	2.2	2.0	2.1	2.4	2.7	3.1	3.4	n.a.
Advanced foreign economies	1.3	1.5	.5	.2	.5	.8	1.2	1.6	2.0	2.3
Previous Tealbook	1.3	1.5	.6	.7	.6	.9	1.1	1.6	2.0	n.a.
Emerging market economies	4.4	5.4	3.4	3.5	3.9	4.2	4.6	4.7	4.9	4.9
Previous Tealbook	4.5	5.0	3.9	3.4	3.6	4.1	4.5	4.7	4.8	n.a.
Consumer Prices										
Total foreign	3.4	2.6	1.9	2.2	2.5	2.3	2.2	2.2	2.5	2.6
Previous Tealbook	3.4	2.6	1.9	2.2	2.7	2.3	2.2	2.2	2.5	n.a.
Advanced foreign economies	2.2	2.1	.6	.8	1.7	1.2	1.2	1.2	1.6	1.7
Previous Tealbook	2.2	2.1	.6	.7	1.8	1.3	1.2	1.2	1.7	n.a.
Emerging market economies	4.3	2.9	3.0	3.3	3.1	3.1	3.0	3.1	3.2	3.3
Previous Tealbook	4.3	2.9	3.0	3.3	3.3	3.1	3.1	3.1	3.2	n.a.

n.a. Not available.

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

Figure: Real GDP

Line chart, by percent change, annual rate, 2008 to 2015. There is a horizontal line at zero. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 2008 at about 3 and decreases to about -10 by 2009. It increases to about 5 by 2010 and then decreases to about 2 by 2011. It then increases to about 4 by 2015. Previous Tealbook generally follows the same path as Current Tealbook.

There is a second line chart, by percent change, annual rate 2008 to 2015. There is a horizontal line at zero. There are four series, Current Emerging market economies, Previous Emerging market economies, Current Advanced foreign economies, and Previous Advanced foreign economies. Current Emerging market economies begins in 2008 at 5 and decreases to -10 by early 2009. It increases to 10 by mid-2009 and then generally decreases to about 5 by 2015. Previous Emerging market economies generally follows the same path as Current Emerging market economies. Current Advanced foreign economies begins in 2008 at about 1 and decreases to about -10 by 2009. It increases to about 4 by 2010 and then generally decreases to about 0 by 2012. It then increases to about 2.5 by 2015. Previous Advanced foreign economies generally follows the same path as Current Advanced foreign economies.

Figure: Consumer Prices

Line chart, by percent change, annual rate, 2008 to 2015. There is a horizontal line at zero. There are two series, Current Total foreign and Previous Total foreign. Current Total foreign begins in 2008 at about 5 and generally decreases to about -1 by 2009. It generally increases to about 5 by 2010 and then generally decreases to about 2.8 by 2015. Previous Total foreign generally follows the same path as Current Total foreign.

There is a second line chart, by percent change, annual rate 2008 to 2015. There is a horizontal line at zero. There are four series, Current Emerging market economies, Previous Emerging market economies, Current Advanced foreign economies, and Previous Advanced foreign economies. Current Emerging market economies begins in 2008 at about 7 and decreases to about -0.4 by 2009. It generally increases to about 6.4 by 2010 and then decreases to about 3.4 by 2015. Previous Emerging market economies generally follows the same path as Current Emerging market economies. Current Advanced foreign economies begins in 2008 at about 2.5 and generally decreases to about -2.1 by 2009. It generally increases to about 3.2 by 2010 and then decreases to about 0.6 by 2012. It then generally increases to about 2.25 by 2015. Previous Advanced foreign economies generally follows the same path as Current Advanced foreign economies.

Note: Blue shading represents the projection period, which begins in 2012:Q4.

[Box:] Recent Policy Developments in the Euro Area

Figure: 10-Year Sovereign Bond Spreads

Line chart, by basis points, 2011 to 2012. There is a vertical line marking the October TB. There are three series, Greece, Italy, and Spain. Greece begins in 2011 at about 1400 and generally increases to about 3500 by 2012:Q1. It decreases to about 1600 by 2012:Q2 and then increases to about 3000 by 2012:Q3. It decreases to about 1300 by 2012:Q4. Italy begins in 2011:Q3 at about 190 and increases to about 550 by 2011:Q4. It decreases to about 175 by 2012:Q1 and then increases to about 550 by 2012:Q3. It then decreases to about 300 by 2012:Q4. Spain begins in 2011:Q3 at about 230 and increases to about 460 by 2011:Q4. It decreases to about 300 by 2012:Q1 and then increases to about 650 by 2012:Q3. It decreases to about 395 by 2012:Q4.

Note: Spreads relative to Germany.

Source: Bloomberg.

Figure: Greek Debt

Line chart, by percent of GDP, 2009 to 2020. The shaded area from 2011 to 2020 represents the forecasted period. There are two series, FRB and EU-IMF program. FRB begins in 2009 at about 130 and generally increases to about 180 by 2013. It then decreases to about 148 by 2020. EU-IMF program begins in 2009 at about 130 and generally increases to about 187 by 2013. It then generally decreases to about 127 by 2020.

Note: Assumes Greece is unable to regain access to market financing through 2020.

Source: Staff estimate.

Evolution of Staff's International Forecast

Figure: Total Foreign GDP

Line chart, by percent change Q4 over Q4, 2011 to 2012. The x-axis represents Tealbook publication date. There are four series, 2012, 2013, 2014, and 2015. 2012 begins on January 19, 2011 at about 3.6 and generally increases to about 2.25 by December 5, 2012. 2013 begins on September 14, 2011 at about 3.5 and generally decreases to about 3 by December 5, 2012. 2014 begins on April 18, 2012 at about 3.7 and generally decreases to about 3.5 by December 5, 2012. 2015 begins on December 5, 2012 at about 3.6.

Figure: Total Foreign CPI

Line chart, by percent change Q4 over Q4, 2011 to 2012. The x-axis represents Tealbook publication date. There are four series, 2012, 2013, 2014, and 2015. 2012 begins on January 19, 2011 at about 2.3 and generally increases to about 2.5 by March 7, 2012. It then decreases to about 2.3 by December 5, 2012. 2013 begins on September 14, 2011 at about 2.4 and generally decreases to about 2.25 by December 5, 2012. 2014 begins on April 18, 2012 at about 2.3 and generally increases to about 2.5 by December 5, 2012. 2015 begins on December 5, 2012 at about 2.5.

Figure: U.S. Current Account Balance

Line chart, by percent of GDP, 2011 to 2012. The x-axis represents Tealbook publication date. There are four series, 2012, 2013, 2014, and 2015. 2012 begins on January 19, 2011 at about -2.75 and increases to about -2 by June 15, 2011. It then generally decreases to about -2.75 by December 5, 2012. 2013 begins on September 14, 2011 at about -2.25 and decreases to about -3.75 by July 25, 2012. It then increases to about -3 by December 5, 2012. 2014 begins on April 18, 2012 at about -3.3 and decreases to about -3.8 by July 25, 2012. It then increases to about -3 by December 5, 2012. 2015 begins on December 5, 2012 at about -2.75.

Financial Developments

Policy Expectations and Treasury Yields

Figure: Selected Interest Rates

Line chart, by percent, October 2012 to December 2012. There are vertical lines marking the October FOMC, Employment report, U.S. election results, and October minutes. There are two series, 10-year Treasury scale and June 2015 Eurodollar. 10-year Treasury scale begins on October 23, 2012 at about 1.78 and generally decreases to about 1.6 by November 16, 2012. It increases to about 1.69 by November 21, 2012 and then decreases to about 1.6 by December 4, 2012. June 2015 Eurodollar begins on October 23, 2012 at about 0.82 and generally decreases to about 0.65 by November 6, 2012. It increases to about 0.7 by November 21, 2012 and then decreases to about 0.615 by December 4, 2012.

Note: 5-minute intervals. 8:00 a.m. to 4:00 p.m. No adjustments for term premiums.

Source: Bloomberg.

Figure: Inflation Compensation

Line chart, by percent, 2010 to 2012. Data are daily. There is a vertical line marking the October FOMC. There are two series, 5 to 10 years ahead and Next 5 years. 5 to 10 years begins in early 2010 at about 3.25 and decreases to about 2.25 by late 2010. It increases to about 3.2 by early 2011 and then decreases to about 2.15 by late 2011. It then increases to about 2.65 by December 4, 2012. Next 5 years begins in earl 2010 at about 2 and decreases to about 1.3 by late 2010. It increases to about 2.3 by early 2011 and then decreases to about 1.6 by late 2011. It then increases to about 2.3 by December 4, 2012.

Note: Estimates based on smoothed nominal and inflation-indexed Treasury yield curves. Next 5 years is adjusted for the indexation-lag (carry) effect.

Source: Barclays PLC and staff estimates.

Figure: Implied Federal Funds Rate

Line chart, by percent, 2013 to 2017. There are four series, Mean: December 4, 2012, Mean: October 23, 2012, Mode: December 4, 2012, and Mode: October 23, 2012. Mean December 4, 2012 begins in 2013 at about 0.18 and generally increases to about 0.8 by 2017. Mean: October 23, 2012 begins in 2013 at about 0.18 and generally increases to about 0.98 by 2017. Mode: December 4, 2012 begins in 2013 at about 0.1 and decreases to about 0.06 by 2014. It hen increases to about 0.2 by 2017. Mode: October 23, 2012 begins in 2013 at about 0.1 and decreases to about 0.75 by 2014. It then increases to about 0.33 by 2017.

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

Source: Bloomberg and CME Group.

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

Bar chart, by percent, 2013 to 2016. There is a horizontal line at zero. There are two series, Recent: 21 respondents and October FOMC: 21 respondents. Recent: 21 respondents begins in 2015:Q1 at about 15 and increases to about 25 by 2015:Q2. It increases to about 35 by 2015:Q3 and then decreases to about 15 by 2015:Q4. It remains here until it ends in 2016:Q1. October FOMC: 21 respondents begins in 2013:Q1 at 0 where it remains until 2014:Q4. It increases to about 10 by 2015:Q1 and then increases to about 35 by 2015:Q2. It decreases to 30 by 2015:Q3 and then decreases to 10 by 2015:Q1. It remains at 10 for 2016:Q1 and then decreases to about 5 for 2016:Q2 and 2016:Q3. It then decreases to 0 by 2016:Q4.

Source: Desk dealer's survey from December 3, 2012.

Figure: Treasury Yield Curve

Line chart, by percent, 1 to 20 years ahead. There are two series, Most recent: December 4, 2012 and Last FOMC: October 23, 2012. Most recent: December 4, 2012 begins 1 year ahead at about 0.25 and generally increases to about 2.5 by 20 years ahead. Last FOMC: October 23, 2012 begins 1 year ahead at about 0.25 and generally increases to about 2.7 by 20 years ahead.

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

Source: Federal Reserve Board.

Financial Institutions and Short-Term Dollar Funding Markets

Figure: Stock Prices

Line chart, by ratio scale where October 23, 2012 = 100, 2010 to 2012. Data are daily. There is a vertical line marking the October FOMC. There are two series, S&P 500 and Dow Jones bank index. S&P 500 begins in January 2010 at about 80 and generally increases to about 90 by June 2011. It decreases to about 80 by September 2011 and then increases to about 100 by December 4, 2012. Dow Jones bank index begins in January 2010 at about 100 and increases to about 120 by May 2010. It generally decreases to about 68 by September 2011 and then generally increases to about 100 by December 4 2012.

Source: Bloomberg.

Figure: CDS Spreads of Large Bank Holding Companies

Line chart, by basis points, 2010 to 2012. Data are daily. There is a vertical line marking the October FOMC. There are six series, Citigroup, JPMorgan Chase, Wells Fargo, Goldman Sachs, Bank of America, and Morgan Stanley. Citigroup begins in January 2010 at about 150 and generally decreases to about 125 by May 2011. It increases to about 380 by September 2011 and then generally decreases to about 130 by December 4, 2012. JPMorgan Chase begins in January 2010 at about 50 and generally increases to about 190 by September 2011. It decreases to about 100 by April 2012 and then increase to about 175 by May 2012. It then decreases to about 100 by December 4, 2012. Wells Fargo begins in January 20120 at about 95 and generally increase to about 190 by September 2011. It then generally decreases to about 95 by December 4, 2012. Goldman Sachs begins in January 2010 at about 100 and generally increases to about 420 by September 2011. It then generally decreases to about 170 by December 4, 2012. Bank of America begins in January 2010 at about 100 and generally increases to about 500 by September 2011. It then generally decreases to about 140 by December 4, 2012. Morgan Stanley begins in January 2010 at about 100 and generally increases to about 600 by September 2011. It then generally decrease to about 200 by December 4, 2012.

Source: Markit.

Figure: Funding Spreads

Line chart, by basis points, 2011 to 2012. Data are daily. There is a vertical line marking the October FOMC. There are two series, 3x6 FRA-OIS and 3-month LIBOR over OIS. 3x6 FRA-OIS begins in December 2011 at about 50 and generally decreases to about 30 by February 2012. It increases to about 40 by May 2012 and then generally decreases to about 20 by December 4, 2012. 3-month LIBOR over OIS begins in December 2011 at about 43 and increases to about 50 by January 2012. It decreases to about 30 by August 2012 and then decreases to about 17 by December 4, 2012.

Note: 3x6 FRA-OIS spread is calculated from a LIBOR forward rate agreement (FRA) 3 to 6 months in the future and the forward overnight index swap (OIS) rate for the same period.

Source: Bloomberg.

Figure: Average Maturity for Unsecured Financial Commercial Paper Outstanding in the U.S. Market

Line chart, by days, 2010 to 2012. Data are weekly. There is a vertical line marking the October FOMC. There are two series, U.S. parent and European parent. U.S. parent begins in January 2010 at about 42 and generally decreases to about 36 by May 2010. It increases to about 51 by December 2010 and then decreases to about 40 by January 2011. It then generally increases to about 65 by November 28, 2012. European parent begins in January 2010 at about 42 and generally increases to about 57 by December 2010. It generally decreases to about 31 by January 2012 and then increases to about 60 by November 28, 2012.

Source: Federal Reserve Board staff calculations based on data from the Depository Trust & Clearing Corporation.

Figure: Treasury GCF Repo Rate

Line chart, by basis points, 2011 to 2012. Data are daily. There is a vertical line marking the October FOMC. There are two series, Treasury repo rate and Fed funds rate. Treasury repo rate begins in February 2011 at about 15 and generally decreases to about 1 by July 2011. It generally increases to about 52 by October 2012 and then decreases to about 27 by December 4, 2012. Fed funds rate begins in February 2011 at about 19 and generally decreases to about 5 by January 2012. It then generally increases to about 18 by December 4, 2012.

Note: Weighted average of interest rates paid on general collateral finance (GCF) repurchase agreements (repos) based on Treasury securities.

Source: Depository Trust & Clearing Corporation.

Figure: Expected Overnight Treasury GCF Repo Rate

Line chart, by percent, 2012 to 2013. There are two series, Most recent: December 4, 2012 and Day before FOMC: October 23, 2012. Most recent: December 4, 2012 begins in December 2012 at about 0.27 and decreases to about

0.175 by March 2013. It remains relatively constant here until November 2013. Day before FOMC: October 23, 2012 begins in October 2012 at about 0.225 and increases to about 0.25 by December 2012. It then decreases to about 0.20 where it remains relatively constant until October 2013.

Source: Federal Reserve Board staff calculations based on general collateral finance (GCF) Treasury repurchase agreement (repo) futures quotes from Bloomberg.

[Box:] Expiration of Unlimited FDIC Deposit Insurance

Figure: Domestic Commercial Bank Noninterest-Bearing Deposits

Line chart, by billions of dollars, 2008 to 2012. Data are quarterly. There is a vertical line marking the beginning of Dodd-Frank insurance. The series begins in 2008 at about 1400 and generally increases to about 2450 by 2012.

Source: Call Reports.

Figure: Domestic Commercial Bank Net Due to Related Foreign Offices

Line chart, by billions of dollars, 2008 to 2012. Data are monthly. There is a vertical line marking the change in FDIC assessment base. The series begins in 2008 at about 500 and increases to about 600 by 2009. It generally decreases to about 350 by 2010 and then decreases to about 0 by 2012.

Source: H.8 release.

Figure: Commercial Bank Noninterest-Bearing Deposits as a Percent of Total Liabilities

Bar chart, by percent, 2008 to 2012. There are vertical lines marking when TAG fees increased and when Dodd-Frank insurance began. There are two series, All other and TAG/Dodd-Frank deposits. All other begins in 2008:Q1 at about 13 and generally increases to about 15 by 2009:Q4. It increases to about 20 by 2011:Q2 and then increases to about 21 by 2012:Q3. TAG/Dodd-Frank deposits begins in 2008:Q4 at about 7.5 and increases to about 9 by 2009:Q4. It decreases to about 1 by 2010:Q3 and then increases to about 12 by 2011:Q3. It then generally increases to about 14.5 by 2012:Q3.

Note: Not seasonally adjusted.

Foreign Developments

Figure: Dollar Exchange Rates

Line chart, by ratio scale where January 3, 2011 = 100, 2011 to 2012. Data are daily. There is a vertical line marking the October FOMC. There are two series, Broad and Yen. Broad begins in 2011:Q1 at about 100 and decreases to about 95.5 by 2011:Q2. It generally increases to about 105 by 2012:Q2 and then decreases to about 101 by December 4, 2012. Yen begins in 2011:Q1 at about 100 and decreases to about 93 by 2011:Q4. It increases to about 102.5 by 2012:Q2 and then decreases to about 95 by 2012:Q3. It ends on December 4, 2012 at about 101.

Source: Federal Reserve Board; Bloomberg.

Figure: Central Bank Balance Sheets

Line chart, by percent of GDP, 2008 to 2012. Data are monthly. There are three series, Bank of Japan, ECB, and Bank of England. Bank of Japan begins in 2008 at about 22 and generally increases to about 26 by 2009. It then generally increases to about 34 by November 2012. ECB begins in 2008 at about 14.9 and generally increases to about 25 by 2010. It decreases to about 21 by 2011 and then increases to about 32 by October 2012. Bank of England begins in 2008 at about 6 and increases to about 19 by 2009. It generally decreases to about 15.5 by 2011 and then increases to about 26 by November 2012.

Source: European Central Bank (ECB), Bank of Japan, and Bank of England.

Figure: 10-Year Nominal Benchmark Yields

Line chart, by percent, 2011 to 2012. Data are daily. There is a vertical line marking the October FOMC. There are four series, Germany, United Kingdom, Japan, and Canada. Germany begins in 2011:Q1 at about 2.99 and increases to about 3.4 by 2011:Q2. It then generally decreases to about 1.5 by December 4, 2012. United Kingdom begins in 2011:Q1 at about 3.5 and increases to about 3.9 by 2011:Q2. It generally decreases to about 1.5 by 2012:Q3 and then increases to about 1.9 by December 4, 2012. Japan begins in 2011:Q1 at about 1.1 and generally decreases to about 0.75 by December 4, 2012. Canada begins in 2011:Q1 at about 3.1 and increases to about 3.4 by 2011:Q3. It then generally decreases to about 1.4 by December 4, 2012.

Source: Bloomberg.

Figure: Euro-Area 10-Year Government Bond Spreads

Line chart, by percentage points, 2011 to 2012. Data are daily. There is a vertical line marking the October FOMC. There are two series, Spain and Italy. Spain begins in 2011:Q1 at about 2.4 and decreases to about 2 by 2011:Q2. It increases to about 4.8 by 2011:Q4 and then decreases to about 3 by 2012:Q1. It increases to about 6.5 by 2012:Q3 and then decreases to about 4 by December 4, 2012. Italy begins in 2011:Q1 at about 2 and decreases to about 1.6 by 2011:Q2. It increases to about 5.3 by 2011:Q4 and then decreases to about 2.8 by 2012:Q1. It increases to about 5.2 by 2012:Q3 and then decreases to about 3 by December 4, 2012.

Note: Spread over German bunds.

Source: Bloomberg.

Figure: Stock Price Indexes

Line chart, by ratio scale where January 3, 2011 = 100, 2011 to 2012. Data are daily. There is a vertical line marking the October FOMC. There are three series, DJ Euro, MSCI Emerging Markets, and DJ Euro Banks. DJ Euro begins in 2011:Q1 at 100 and decreases to about 72 by 2011:Q3. It increases to about 90 by 2012:Q1 and then decreases to about 79 by 2012:Q2. It then increases to about 90 by December 4, 2012. MSCI Emerging markets generally follows the same path as DJ Euro and ends on December 4, 2012 at about 85. DJ Euro Banks begins in 2011:Q1 at 100 and generally decreases to about 56 by 2011:Q4. It increases to about 72 by 2012:Q1 and then decreases to about 45 by 2012:Q3. It ends on December 4, 2012 at about 68.

Source: Bloomberg.

Figure: Foreign Net Purchases of U.S. Treasury Securities

Bar chart, by billions of dollars, annual rate, 2011 to 2012. There is a horizontal line at zero. There are two series, Official and Private. Approximate values are: 2011:H1: Official 305, Private 90; 2011:H2: Official 10, Private 400; 2012:H1: Official 310, Private 100; July-August 2012 average: Official 575, Private 280; September 2012: Official 120, Private 125; October 2012: Official 110, Private -30.

Source: Treasury International Capital data adjusted for staff estimates. October data are embargoed until December 17, 2012.

Other Domestic Asset Market Developments

Figure: S&P 500 Stock Price Index

Line chart, by log scale where October 23, 2012 = 100, 2010 to 2012. Data are daily. There is a vertical line marking the October FOMC. The series begins in January 2010 at about 80 and generally increases to about 96 by May 2011. It decreases to about 80 by September 2011 and then generally increases to about 100 by December 4, 2012.

Source: Bloomberg.

Figure: Equity Risk Premium

Line chart, by percent, 1990 to 2012. Data are monthly. There is a vertical line marking the October FOMC. There are two series, Expected 10-year real equity return and Expected real yield on 10-year Treasury. Expected 10-year real equity return begins in 1990 at about 7.9 and generally decreases to about 2.5 by 2000. It increases to about 12 by 2008 and then decreases to about 8.7 by December 4, 2012. Expected real yield on 10-year Treasury begins in 1990 at about 4.3 and generally decreases to about 1 by 2004. It then generally decreases to about -0.75 by December 4, 2012.

Note: Expected real yield on 10-year Treasury is off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation. There is a plus sign at the end of each series that denotes the latest observation using daily interest rates and stock prices and latest earnings data.

Source: Thomson Financial.

Figure: Implied Volatility on S&P 500 (VIX)

Line chart, by percent, log scale, 2007 to 2012. Data are daily. There is a vertical line marking the October FOMC. The series begins in 2007 at about 5 and generally increases to about 80 by 2009. It decreases to about 17 by 2010 and then increases to about 50 by 2011. It then decreases to about 16 by December 4, 2012.

Note: Option-implied one-month-ahead volatility on the S&P 500 index.

Source: Chicago Board Options Exchange.

Figure: Revisions to S&P 500 Earnings per Share

Line chart, by percent, 1997 to 2012. There is a horizontal line at zero. Data are monthly. The series begins in 1997 at about 0 and generally decreases to about -6 by 2001. It increases to about 2 by 2003 and then decreases to about -12 by 2009. It increases to about 3.2 by 2010 and then decreases to about -1.7 by mid-November 2012.

Note: Weighted average of the percent change in the consensus forecasts of current-year and following-year earnings per share. Earnings per share revision is -17.22 percent in February 2009.

Source: Thomson Financial.

Figure: Corporate Bond Spreads

Line chart, by basis points, 2007 to 2012. Data are daily. There is a vertical line marking the October FOMC. There are two series, 10-year high-yield and 10-year BBB. 10-year high-yield begins in 2007 at about 320 and generally increases to about 1625 by 2009. It then generally decreases to about 500 by December 4, 2012. 10-year BBB begins in 2007 at about 150 and generally increases to about 625 by 2009. It then generally decreases to about 225 by December 4, 2012.

Note: Spreads are measured relative to a smoothed nominal off-the-run Treasury yield curve.

Source: Merrill Lynch and staff estimates.

Figure: Spread on 30-Day A2/P2 Commercial Paper

Line chart, by basis points, 2009 to 2012. Data are 5-day moving averages. There is a vertical line marking the October FOMC. The series begins in April 2009 at about 87 and generally decreases to about 13 by April 2010. It increases to about 50 by October 2011 and then decreases to about 30 by December 4, 2012.

Note: The A2/P2 spread is the A2/P2 nonfinancial rate minus the AA nonfinancial rate. There is a plus sign at the end of the series that denotes the latest available single-day observation.

Source: Depository Trust & Clearing Corporation.

Business Finance

Figure: Financial Ratios for Nonfinancial Corporations

Line chart, by ratio, 1990 to 2012. There are two series, Debt over total assets and Liquid assets over total assets. Debt over total assets begins in 1990 at about 0.331 and decreases to about 0.275 by 1996. It increases to about

0.31 by 2001 and then decreases to about 0.24 by 2005. It increases to about 0.29 by 2008 and then decreases to about 0.27 by 2012:Q3 preliminary. Liquid assets over total assets begins in 1990 at about 0.06 and generally increases to about 0.105 by 2004. It decreases to about 0.09 by 2008 and then increases to about 0.106 by 2012:Q3 (preliminary).

Note: Data are annual through 1999 and quarterly thereafter.

Source: Compustat.

Figure: Bond Ratings Changes of Nonfinancial Firms

Bar chart, by percent of outstands, 1991 to 2012. Data are annual rate. There are two series, Upgrades and Downgrades. Upgrades begins in 1991 at about 10 and increases to about 20 by 1995. It decreases to about 5 by 2001 and then increases to about 10 by 2007. It decreases to about 5 by 2008 and then increases to about 15 by November 2012. Downgrades begins in 1991 at about -30 and decreases to about -45 by 1993. It increases to about -10 by 1997 and then decreases to about -40 by 2002. It increases to about -15 by 2006 and then increases to about -20 by 2009. It increases to about -5 by 2011 and then decreases to about -18 by November 2012.

Source: Calculated using data from Moody's Investors Service.

Figure: Selected Components of Net Debt Financing, Nonfinancial Firms

Bar chart, by billions of dollars, 2008 to 2012. Data are monthly rate. There is a horizontal line at zero. There are three series, Bonds, C&I loans, and Commercial paper. There is another series, Total, represented by a line chart. Approximate values are: 2008: Bonds 18, C&I loans 24, Commercial paper 25, Total 25; 2009: Bonds 30, C&I loans -25, Commercial paper -30, Total 0; 2010: Bonds 33, C&I loans -5, Commercial paper 35, Total 30; 2011: Bonds 30, C&I loans 42, Commercial paper 45, Total 45; 2012:H1: Bonds 31, C&I loans 50, Commercial paper 52, Total 52; 2012:Q3: Bonds 40, C&I loans 50, Commercial paper -1, Total 50; 2012:October: Bonds 48, C&I loans 62, Commercial paper -1, Total 60; November 2012 estimate: Bonds 80, C&I loans 85, Commercial paper 90, Total 90.

Note: C&I loans and Commercial paper are period-end basis, seasonally adjusted.

Source: Depository Trust & Clearing Corporation; Thomson Financial; Federal Reserve Board.

Figure: U.S. CLO Issuance

Bar chart, by billions of dollars, 2008 to 2012. Data are annual rate. Approximate values are: 2008: 20; 2009: 1; 2010: 5; 2011: 15; 2012:H1: 35; 2012:Q3: 55; October 2012: 70; November 2012 (preliminary): 100.

Note: CLO is collateralized loan obligation.

Source: Thomson Reuters LPC LoanConnector.

Figure: Selected Components of Net Equity Issuance, Nonfinancial Firms

Bar chart, by billions of dollars, 2008 to 2012. Data are monthly rate. There is a horizontal line at zero. There are four series, Public issuance, Private issuance, Repurchases, and Cash mergers. There is another series, Total, represented by a line chart. Approximate values are: 2008: Public issuance 25, Private issuance 20, Repurchases -30, Cash mergers -48, Total -23; 2009: Public issuance 20, Private issuance 15, Repurchases -15, Cash mergers -25, Total -1; 2010: Public issuance 10, Private issuance 5, Repurchases -25, Cash mergers -35, Total -25; 2011: Public issuance 10, Private issuance 5, Repurchases -33, Cash mergers -50, Total -35; 2012:H1: Public issuance 11, Private issuance 5, Repurchases -29, Cash mergers -50, Total -35; 2012:Q3 (estimate): Public issuance 10, Private issuance 6, Repurchases -29, Cash mergers -50, Total -35.

Source: Thomson Financial, Investment Benchmark Report; Money Tree Report by PricewaterhouseCoopers, National Venture Capital Association, and Venture Economics.

Figure: CMBS Issuance

Line chart, by billions of dollars, 2008 to 2012. Data are annual rate. There is a horizontal line at zero. Approximate values are: 2008: 11; 2009: 1; 2010: 10; 2011: 30; 2012:H1: 29; 2012:Q3: 45; October 2012: 63; November 2012: 44.

Note: CMBS is commercial mortgage-backed securities.

Source: Commercial Mortgage Alert.

Household Finance

Figure: Mortgage Rate and MBS Yield

Line chart, by percent, 2010 to 2012. There is a vertical line marking the October FOMC. There are two series, 30-year conforming fixed mortgage rate and MBS yield. 30-year conforming fixed mortgage rate begins in early 2010 at about 5.1 and decreases to about 4.1 by late 2010. It increases to about 5 by 2011 and then decreases to about 3.25 by December 4, 2012. MBS yield begins in early 2010 at about 4.5 and generally decreases to about 3.1 by late 2010. It increases to about 4.5 by 2011 and then decreases to about 2.1 by December 4, 2012.

Note: For mortgage-backed securities (MBS) yield, the data are daily and consist of the Fannie Mae 30-year current-coupon rate; for mortgage rate, the data are weekly before 2010 and daily thereafter.

Source: For MBS yield, Barclays; for mortgage rate, Freddie Mac (before 2010) and Loansifter (from 2010).

Figure: Refinance Loan Originations

Line chart, by billions of dollars, 2002 to 2012. Data are monthly. The series begins in 2002 at about 105 and generally increases to about 350 by 2003. It generally decreases to about 50 by 2008 and then increases to about 140 by November 2012.

Note: Seasonally adjusted by FRB staff.

Source: Staff estimates.

Figure: Prices of Existing Homes

Line chart, by index peak normalized to 100, 2005 to 2012. Data are monthly. The series begins in 2005 at about 86 and increases to about 100 by 2006. It decreases to about 71 by 2009 and then increases to about 73 by 2010. It decreases to about 68 by 2011 and then increases to about 73 by October 2012.

Source: CoreLogic.

Figure: Delinquencies on Prime Mortgages, Delinquency Rate

Line chart, by percent of loans, 2003 to 2012. The series begins in 2003 at about 1.4 and generally decreases to about 1 by 2006. It increases to about 7.1 by 2009 and then decreases to about 6 by September 2012.

Note: Percent of loans 90 or more days past due or in foreclosure.

Source: LPS Applied Analytics.

Figure: Consumer Credit

Line chart, by percent change, annual rate, 2004 to 2012. Data are 3-month moving averages. There is a horizontal line at zero. There are two series, Revolving and Nonrevolving. Revolving begins in 2004 at about 3 and generally increases to about 10 by 2007. It decreases to about -14 by 2010 and then generally increases to about -1 by September 2012. Nonrevolving begins in 2004 at about 5 and generally decreases to about -4 by 2008. It increases to about 11.5 by 2011 and then decreases to about 7 by September 2012.

Source: Federal Reserve Board.

Figure: Gross Consumer ABS Issuance

Bar chart, by billions of dollars, 2007 to 2012. Data are monthly rate. There are three series, Student loan, Credit card, and Auto. Approximate values are: 2007: Student loan 20, Credit card 14.5, Auto 6.5; 2008: Student loan 11, Credit card 8, Auto 3; 2009: Student loan 11, Credit card 8.5, Auto 4.5; 2010: Student loan 6, Credit card 5, Auto 4; 2011: Student loan 6.5, Credit card 5.5, Auto 4; 2012:H1: Student loan 11, Credit card 9, Auto 7; 2012:Q3: Student loan 12, Credit card 10, Auto 6.5; October 2012: Student loan 18.5, Credit card 15, Auto 13; November 2012: Student loan 11, Credit card 7, Auto 2.

Source: Inside MBS & ABS; Merrill Lynch; Bloomberg; Federal Reserve Board.

Commercial Banking and Money

Figure: Changes in Bank Credit

Line chart, by percent, 2005 to 2012. Data are 3-month change, s.a.a.r. There is a horizontal line at zero. There are two series, Total bank credit and C&I loans. Total bank credit begins in 2005 at about 10 and generally decrease to about -10 by 2009. It then generally increases to about 1 by November 2012. C&I loans begins in 2005 at about 12 and generally increases to about 30 by 2007. It generally decreases to about -27 by 2009 and then generally increases to about 5 by November 2012.

Note: The data have been adjusted to remove the estimated effects of certain changes to accounting standards and nonbank structure activity of $5 billion or more.

Source: Federal Reserve Board.

Figure: Return on Assets and Return on Equity

Line chart, by percent, 1997 to 2012. Data are quarterly, s.a.a.r. There is a horizontal line at zero. There are two series, ROA and ROE. ROA begins in 1997 at about 1.1 where it remains relatively constant until 2006. It decreases to about -1.75 by 2008 and then generally increases to about 0.75 by 2012:Q3. ROE begins in 1997 at about 15 where it remains relatively constant until 2006. It decreases to about -27.5 by 2008 and then generally increases to about 7 by 2012:Q3.

Source: Federal Reserve Board, FR Y-9C, Consolidated Financial Statements for Bank Holding Companies.

Figure: Net Interest Margin, All Banks

Line chart, by percent, 1991 to 2012. Data are quarterly. There are two series, Unadjusted and Adjusted for FAS 166 and 167. Unadjusted begins in 1991 at about 3.825 and increases to about 4.4 by 1993. It generally decreases to about 3.34 by 2007 and then increases to about 3.8 by 2010. It then decreases to about 3.44 by 2012:Q3. Adjusted for FAS 166 and 167 generally follows the same path as Unadjusted until 2010 when it begins decreasing at a faster rate. It ends in 2012:Q3 at about 3.29.

Note: FAS 166 and 167 required banks to consolidate some off-balance-sheet vehicles. Net interest margins are adjusted to reflect the interest income and expense associated with the consolidation of credit card assets.

Figure: Weighted-Average Adjusted C&I Loan Rate Spread

Line chart, by basis points, 1997 to 2012. Data are quarterly. The series begins in 1997 at about 154 and generally increases to about 184 by 2002. It decreases to about 138 by 2005 and then generally increases to about 220 by 2012:Q4.

Note: The rate on commercial and industrial (C&I) loans of less than $25 million over the interest rate on a market instrument of comparable maturity, adjusted for changes in nonprice loan characteristics.

Source: Survey of Terms of Business Lending.

Growth of M2 and Its Components

Percent, s.a.a.r.

	M2	Liquid deposits	Small time deposits	Retail MMFs	Curr.
2011	9.7	15.4	-18.4	-2.1	8.8
2012:H1	6.7	10.3	-16.8	-9.1	9.3

2012:Q3	6.7	10.1	-18.0	-6.9	7.6
Oct. & Nov.(e)	8.5	11.0	-20.0	9.5	7.4

Note: Retail MMFs are retail money market funds.

e Staff estimate. Return to table

Source: Federal Reserve Board.

Figure: Level of Liquid Deposits

Line chart, by trillions of dollars, 2008 to 2012. Data are weekly. There is a vertical line marking the October FOMC. The series begins in 2008 at about 4.5 and generally increases to about 8 by November 26, 2012.

Note: Seasonally adjusted.

Source: Federal Reserve Board.

Note: The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research: July 1990-March 1991, March 2001-November 2001, and December 2007-June 2009.

Appendix
Senior Credit Officer Opinion Survey on Dealer Financing Terms

Management of Concentrated Credit Exposures and Indicators of Supply of Credit

Figure: Respondents Increasing Resources and Attention to Management of Concentrated Exposures to Dealers

Line chart, by net percentage, 2010 to 2012. The series begins in early 2010 at about 57 and decreases to about 10 by late 2010. It generally increases to about 90 by 2011 and then generally decreases to about 22 by 2012.

Figure: Respondents Increasing Resources and Attention to Management of Concentrated Exposures to Central Counterparties

Line chart, by net percentage, 2010 to 2012. The series begins in mid-2011 at about 59 and increases to about 65 by late 2011. It decreases to about 58 by early 2012 and then increases to about 67 by mid-2012. It then generally decreases to about 63 by late 2012.

Note: The question about central counterparties was added in the September 2011 survey.

Figure: Respondents Tightening Price Terms to Hedge Funds, Trading REITs, and Mutual Funds

Line chart, by net percentage, 2011 to 2012. There is a horizontal line at zero. There are three series, Hedge funds, Trading REITs, and Mutual funds. Hedge funds begins in mid-2011 at about 3 and increases to about 30 by late 2011. It decreases to about -8 by early 2012 and then generally increases to about 5 by late 2012. Trading REITs begins in mid-2011 at about 18 and increases to about 21 by late 2011. It decreases to about -4 by early 2012 and then generally increases to about 20 by late 2012. Mutual funds begins in mid-2011 at about 0 and generally decreases to about -8 by early 2012. It then generally increases to about 5 by late 3012.

Note: Mutual funds includes mutual funds, exchange-traded funds, pension plans, and endowments. The questions about Trading REITs and Mutual funds were added in the September 2011 survey.

Figure: Respondents Tightening Price Terms to Insurance Companies, Separately Managed Accounts, and Nonfinancial Corporations

Line chart, by net percentage, 2010 to 2012. There is a horizontal line at zero. There are three series, Insurance companies, Separately managed accounts, and Nonfinancial corporations. Insurance companies begins in early 2010 at about -10 and generally decreases to about -27 by early 2011. It increases to about 3 by late 2011 and then decreases to about -8 by mid-2012. It then increases to about 3 by late 2012. Separately managed accounts begins in mid-2011 at about 0 and generally decreases to about -17 by early 2012. It then increases to about -2 by late 2012. Nonfinancial corporations begins in mid-2010 at about -25 and generally decreases to about -36 by mid-2011. It increases to about 40 by late 2011 and then generally decreases to about 0 by 2012.

Note: The question about Separately managed accounts was added in the September 2011 survey.

Figure: Respondents Tightening Nonprice Terms to Hedge Funds, Trading REITs, and Mutual Funds

Line chart, by net percentage, 2010 to 2012. There is a horizontal line at zero. There are three series, Hedge funds, Trading REITs, and Mutual funds. Hedge funds begins in early 2010 at about -23 and generally decreases to about -45 by late 2010. It increases to about 24 by late 2011 and then generally decreases to about 0 by late 2012. Trading REITs begins in mid-2011 at about 3 and increases to about 16 by late 2011. It decreases to about -21 by mid-2012 and then increases to about -5 by late 2012. Mutual funds begins in mid-2011 at about -10 and increases to about 0 by late 2011. It decreases to about 15 by mid-2012 and then increases to about 2 by late 2012.

Note: Mutual funds includes mutual funds, exchange-traded funds, pension plans, and endowments. The questions about Trading REITs and Mutual funds were added in the September 2011 survey.

Figure: Respondents Tightening Nonprice Terms to Insurance Companies, Separately Managed Accounts, and Nonfinancial Corporations

Line chart, by net percentage, 2010 to 2012. There is a horizontal line at zero. There are three series, Insurance companies, Separately managed accounts, and Nonfinancial corporations. Insurance companies begins in early 2010 at about -8 and generally decreases to about -22 by mid-2011. It increases to about 0 by late 2011 and then increases to about 2 by early 2012. It then generally decreases to about -13 by late 2012. Separately managed accounts begins in mid-2011 at about -5 and generally decreases to about -10 by mid-2012. It then increases to about -5 by late 2012. Nonfinancial corporations begins in early 2011 at about -17 and generally increases to about 20 by late 2011. It then generally decreases to about -10 by late 2012.

Note: The question about Separately managed accounts was added in the September 2011 survey.

Use of Financial Leverage

Figure: Respondents Reporting Increased Use of Leverage by Hedge Funds

Line chart, by net percentage, 2011 to 2012. There is a horizontal line at zero. The series begins in 2011:Q3 at about -42 and decreases to about -58 by 2011:Q4. It then generally increases to about 10 by 2012:Q4.

Figure: Respondents Reporting Increased Use of Leverage by Trading REITs

Line chart, by net percentage, 2011 to 2012. There is a horizontal line at zero. The series begins in 2011:Q4 at about 0 and increases to about 15 by 2012:Q1. It decrease to about 3 by 2012:Q2 and then increases to about 19 by 2012:Q4.

Figure: Respondents Reporting Increased Use of Leverage by Insurance Companies

Line chart, by net percentage, 2011 to 2012. There is a horizontal line at zero. The series begins in 2011:Q3 at about 16 and decreases to about 0 by 2011:Q4. It increases to about 5 by 2012:Q1 and then decreases to about -5 by 2012:Q3. It then increases to about 0 by 2012:Q4.

Figure: Respondents Reporting Increased Use of Leverage by Separately Managed Accounts

Line chart, by net percentage, 2011 to 2012. There is a horizontal line at zero. The series begins in 2011:Q3 at about 3 and decreases to about -5 by 2011:Q4. It increases to about 3 by 2012:Q1 and then decreases to about -10 by 2012:Q2. It then generally increases to about 0 by 2012:Q4.

Figure: Respondents Reporting Increased Use of Leverage by Mutual Funds and Exchange-Traded Funds

Line chart, by net percentage, 2011 to 2012. There is a horizontal line at zero. There are two series, Mutual funds and Exchange-traded funds. Mutual funds begins in 2011:Q3 at about 5 and decreases to about 0 by 2011:Q4. It increases to about 5 by 2012:Q1 and then decreases to 0 by 2012:Q2. It then generally increases to about 5 by 2012:Q4. Exchange-traded funds generally follows the same path as Mutual funds until 2012:Q3 when it does not increase. It ends in 2012:Q4 at 0.

Figure: Respondents Reporting Increased Use of Leverage by Pension Funds and Endowments

L Line chart, by net percentage, 2011 to 2012. There is a horizontal line at zero. There are two series, Pension funds and Endowments. Pension funds begins in 2011:Q3 at about 0 and generally increases to about 5 by 2011:Q4. It decreases to about 0 by 2012:Q3 and then increases to about 4 by 2012:Q4. Endowments begins in 2011:Q3 at about 0 and generally increases to about 4 by 2012:Q1. It then decreases to about 0 by 2012:Q2 where it remains until 2012:Q4.

Note: This question was added in the September 2011 survey.

Measures of Demand for Funding and Market Functioning

Figure: Respondents Reporting Increased Demand for Funding of High-Grade Corporate Bonds and High-Yield Corporate Bonds

Line chart, by net percentage, 2010 to 2012. There is a horizontal line at zero. There are two series, High-grade corporate bonds and High-yield corporate bonds. High-grade corporate bonds begins in early 2010 at about 22 and generally increases to about 32 by early 2011. It decreases to about 0 by late 2011 and then increases to about 18 by early 2012. It decreases to about 0 by mid-2012 and then increases to about 13 by late 2012. High-yield corporate bonds begins in mid-2011 at about 22 by decreases to about 9 by late 2011. It increases to about 20 by early 2012 and then decreases to about 0 by late 2012.

Note: The question about High-yield corporate bonds was added in the September 2011 survey.

Figure: Respondents Reporting Increased Demand for Funding of Equities and CMBS

Line chart, by net percentage, 2010 to 2012. There is a horizontal line at zero. There are two series, Equities and CMBS. Equities begins in early 2010 at about 23 and decreases to about 5 by late 2010. It increases to about 30 by early 2011 and then increases to about -7 by mid-2011. It increases to about 18 by early 2012 and then decreases to about 5 by late 2012. CMBS begins in mid-2011 at about -17 and increases to about 18 by early 2012. It decreases to about -10 by mid-2012 and then generally increases to about 19 by late 2012.

Note: The question about CMBS was added in the September 2011 survey.

Figure: Respondents Reporting Increased Demand for Funding of Agency RMBS and Non-Agency RMBS

Line chart, by net percentage, 2010 to 2012. There is a horizontal line at zero. There are two series, Agency RMBS and Non-agency RMBS. Agency RMBS begins in early 2010 at about 35 and generally increases to about 54 by early 2010. It decreases to about -5 by late 2011 and then increases to about 45 by early 2012. It decreases to about 30 by late 2012. Non-agency RMBS begins in mid-2011 at about 12 and decreases to about -15 by late 2011. It increases to about 40 by mid-2012 and then decreases to about 14 by late 2012.

Note: The question about Non-agency RMBS was added in the September 2011 survey.

Figure: Respondents Reporting Increased Demand for Funding of Consumer ABS

Line chart, by net percentage, 2010 to 2012. There is a horizontal line at zero. The series begins in mid-2011 at about 0 and increases to about 20 by early 2012. It decreases to about -8 by mid-2012 and then increases to about 0 by late 2012.

Note: The question about Consumer ABS was added in the September 2011 survey.

Figure: Respondents Reporting an Improvement in Liquidity and Functioning in the Underlying Markets for High-Grade Corporate Bonds, High-Yield Corporate Bonds, and CMBS

Line chart, by net percentage, 2010 to 2012. There is a horizontal line at zero. There are three series, High-grade corporate bonds, High-yield corporate bonds, and CMBS. High-grade corporate bonds begins in early 2010 at about -3 and generally increases to about 50 by mid-2011. It decreases to about -38 by late 2011 and then increases to about 20 by early 2012. It decreases to about 0 by mid-2012 and then increases to about 10 by late 2012. High-yield corporate bonds begins in late mid-2011 at about -55 and increases to about 19 by early 2012. It decreases to about -5 by mid-2012 and then increases to about 4 by late 2012. CMBS begins in mid-2011 at about -59 and increases to about 30 by early 2012. It decreases to about -5 by mid-2012 and then increases to about 33 by late 2012.

Note: The questions about High-yield corporate bonds and CMBS were added in the September 2011 survey.

Figure: Respondents Reporting an Improvement in Liquidity and Functioning in the Underlying Markets for Agency RMBS, Non-Agency RMBS, and Consumer ABS

Line chart, by net percentage, 2010 to 2012. There is a horizontal line at zero. There are three series, Agency RMBS, Non-agency RMBS, and Consumer ABS. Agency RMBS begins in early 2011 at about 3 and increase to about 20 by mid-2011. It decreases to about -40 by late 2011 and then increases to about 18 by early 2012. It then generally decreases to about -10 by late 2012. Non-agency RMBS begins in mid-2011 at about -30 and decrease to about -50 by late 2011. It increases to about 20 by early 2012 and then decreases to about 0 by mid-2012. It then generally increases to about -28 by late 2012. Consumer ABS begins in mid-2011 at about -40 and then decreases to about -50 by late 2011. It increases to about 25 by early 2012 and then generally decreases to about 0 by late 2012.

Note: The questions about Non-agency RMBS and Consumer ABS were added in the September 2011 survey.

Collateral Transformation Transactions

Figure [top panel]

Bar chart, by percentage of respondents. There are four series, Providing pristine collateral: Current activity, Providing pristine collateral: Discussion of prospective transactions, Sourcing pristine collateral: Current activity, and Sourcing pristine collateral: Discussion of prospective transactions. Approximate values are: Dealers: Providing pristine collateral: Current activity 25, Providing pristine collateral: Discussion of prospective transactions 68, Sourcing pristine collateral: Current activity 25, and Sourcing pristine collateral: Discussion of prospective transactions 63; Hedge funds: Providing pristine collateral: Current activity 0, Providing pristine collateral: Discussion of prospective transactions 47, Sourcing pristine collateral: Current activity 5, and Sourcing pristine collateral: Discussion of prospective transactions 68; Trading REITs: Providing pristine collateral: Current activity 0, Providing pristine collateral: Discussion of prospective transactions 25, Sourcing pristine collateral: Current activity 0, and Sourcing pristine collateral: Discussion of prospective transactions 35; Mutual funds and ETFs: Providing pristine collateral: Current activity 11, Providing pristine collateral: Discussion of prospective transactions 49, Sourcing pristine collateral: Current activity 19, and Sourcing pristine collateral: Discussion of prospective transactions 52.

Figure [bottom panel]

Bar chart, by percentage of respondents. There are four series, Providing pristine collateral: Current activity, Providing pristine collateral: Discussion of prospective transactions, Sourcing pristine collateral: Current activity, and Sourcing pristine collateral: Discussion of prospective transactions. Approximate values are: Pension plans and endowments: Providing pristine collateral: Current activity 21, Providing pristine collateral: Discussion of prospective transactions 65, Sourcing pristine collateral: Current activity 21, and Sourcing pristine collateral: Discussion of prospective transactions 60; Insurance companies: Providing pristine collateral: Current activity 17, Providing pristine collateral: Discussion of prospective transactions 64, Sourcing pristine collateral: Current activity 25, and Sourcing pristine collateral: Discussion of prospective transactions 90; Separately managed accounts: Providing pristine collateral: Current activity 6, Providing pristine collateral: Discussion of prospective transactions 55, Sourcing pristine collateral: Current activity 13, and Sourcing pristine collateral: Discussion of prospective transactions 45.

Risks and Uncertainty

Alternative Scenarios

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

Measure and scenario	2012 H2	2013	2014	2015	2016-17
Real GDP					
Extended Tealbook baseline	1.8	2.5	3.2	3.6	2.9
Fiscal cliff	1.8	1.1	2.3	3.4	3.9
Robust housing recovery	1.8	2.7	3.8	3.7	2.5
Housing reverberations	1.8	4.4	4.1	2.8	2.0
Headwinds	1.8	2.1	2.4	2.6	2.9
Higher inflation with unanchored expectations	1.8	2.4	3.1	3.2	2.8
European crisis with severe spillovers	1.7	-3.3	.5	3.9	3.6
Weaker growth in emerging market economies	1.8	1.7	2.4	3.6	3.4
Unemployment rate[1]					
Extended Tealbook baseline	8.0	7.8	7.4	6.5	5.4
Fiscal cliff	8.0	8.3	8.5	7.8	5.9
Robust housing recovery	8.0	7.7	7.1	6.0	5.3
Housing reverberations	8.0	7.2	6.1	5.4	5.3
Headwinds	8.0	7.9	7.9	7.4	6.5
Higher inflation with unanchored expectations	8.0	7.8	7.5	6.7	5.8
European crisis with severe spillovers	8.0	9.7	10.7	9.8	7.9
Weaker growth in emerging market economies	8.0	8.1	8.0	7.2	5.8
Total PCE prices					
Extended Tealbook baseline	1.6	1.3	1.4	1.5	1.8
Fiscal cliff	1.6	1.2	1.2	1.0	1.3
Robust housing recovery	1.6	1.3	1.4	1.6	1.9
Housing reverberations	1.6	1.3	1.6	1.9	2.2
Headwinds	1.6	1.3	1.3	1.3	1.4
Higher inflation with unanchored expectations	1.6	2.1	2.8	2.5	2.3
European crisis with severe spillovers	1.5	-1.3	.2	1.5	2.1
Weaker growth in emerging market economies	1.6	.6	.5	1.2	1.9

Core PCE prices					
Extended Tealbook baseline	1.2	1.6	1.6	1.7	1.9
Fiscal cliff	1.2	1.5	1.4	1.2	1.4
Robust housing recovery	1.2	1.6	1.6	1.8	2.0
Housing reverberations	1.2	1.6	1.8	2.1	2.3
Headwinds	1.2	1.6	1.5	1.5	1.5
Higher inflation with unanchored expectations	1.2	2.4	3.0	2.7	2.4
European crisis with severe spillovers	1.2	.3	.6	1.4	2.0
Weaker growth in emerging market economies	1.2	1.3	1.2	1.4	1.9
Federal funds rate[1]					
Extended Tealbook baseline	.2	.1	.1	.4	3.2
Fiscal cliff	.2	.1	.1	.1	2.4
Robust housing recovery	.2	.1	.2	1.2	3.4
Housing reverberations	.2	.3	1.4	2.0	3.4
Headwinds	.2	.1	.1	.1	1.3
Higher inflation with unanchored expectations	.2	.1	.8	1.7	3.6
European crisis with severe spillovers	.1	.1	.1	.1	.8
Weaker growth in emerging market economies	.1	.1	.1	.1	2.4

1. Percent, average for the final quarter of the period. Return to table

Forecast Confidence Intervals and Alternative Scenarios

Confidence Intervals Based on FRB/US Stochastic Simulations

Figure: Real GDP

Line chart, by 4-quarter percent change, 2008 to 2017. There is a horizontal line at zero. There are ten series, Extended Tealbook baseline, Fiscal cliff, Robust housing recovery, Housing reverberations, Headwinds, Higher inflation with unanchored expectations, European crisis with severe spillovers, Weaker growth in emerging market economies, 90 percent interval and 70 percent interval. Extended Tealbook baseline begins in 2008 at 2 and decreases to about -4.5 by 2009. It increases to about 2.8 by 2010 and then generally increases to about 3.8 by 2015. It then decreases to about 2.5 by 2017. Fiscal cliff begins in 2012 at about 1.8 and decreases to about 0.8 by 2013. It then generally increases to about 3.9 by 2017. Robust housing recovery begins in 2012 at about 1.8 and increases to about 4 by 2014. It then decreases to about 2.15 by 2017. Housing reverberations begins in 2012 at about 1.8 and increases to about 4.8 by 2013. It then decreases to about 1.9 by 2017. Headwinds begins in 2012 at about 1.8 and generally increases to about 3 by 2012. Higher inflation with unanchored expectations begins in 2012 at about 1.8 and increases to about 3.4 by 2015. It then decreases to about 2.7 by 2017. European crisis with severe spillovers begins in 2012 at about 1.8 and decreases to about -3.2 by 2013. It increases to about 4.4 by 2015 and then decreases to about 3.2 by 2017. Weaker growth in emerging market economies begins in 2012 at about 1.8 and increases to about 4 by 2015. It then decreases to about 3.1 by 2017. The other two series, 70 percent interval and 90 percent interval, closely track each other with 90 percent interval being about 1.1 percent greater and less than 70 percent. 70 percent begins in 2012 at about 1 and 2 and increases to about 1.25 and 4.8 by 2014. It ends in 2017 at about 0.75 and 4.85.

Figure: Unemployment Rate

Line chart, by percent, 2008 to 2017. There is a horizontal line at zero. There are ten series, Extended Tealbook baseline, Fiscal cliff, Robust housing recovery, Housing reverberations, Headwinds, Higher inflation with unanchored expectations, European crisis with severe spillovers, Weaker growth in emerging market economies, 90 percent interval and 70 percent interval. Extended Tealbook baseline begins in 2008 at about 5 and increases to about 10 by 2010. It then generally decreases to about 5.5 by 2017. Fiscal cliff begins in 2012 at about 8 and increases to about 8.5 by 2015. It then decreases to about 6 by 2017. Robust housing recovery begins in 2012 at about 8 and generally decreases to about 5.4 by 2017. Housing reverberations begins in 2012 at about 8 and generally decreases to about 5.4 by 2017. Headwinds begins in 2012 at about 8 and decreases to about 6.5 by 2017. Higher inflation with unanchored expectations begins in 2012 at about 8 and decreases to about 5.9 by 2017. European crisis with severe spillovers begins in 2012 at about 8 and increases to about 11.75 by 2014. It then generally decreases to about 8 by 2017. Weaker growth in emerging market economies begins in 2012 at about 8 and decreases to about 5.9 by 2017. The other two series, 70 percent interval and 90 percent interval, closely track each other with 90 percent interval being about 0.7 percent greater and less than 70 percent interval. 70 percent interval begins in 2012 at about 7.5 and 8 and increases to about 5.5 and 8.4 by 2015. It ends in 2017 at about 4.5 and 6.8.

Figure: PCE Prices excluding Food and Energy

Line chart, by 4-quarter percent change, 2008 to 2017. There is a horizontal line at zero. There are ten series, Extended Tealbook baseline, Fiscal cliff, Robust housing recovery, Housing reverberations, Headwinds, Higher inflation with unanchored expectations, European crisis with severe spillovers, Weaker growth in emerging market economies, 90 percent interval and 70 percent interval. Extended Tealbook baseline begins in 2008 at about 2.3 and decreases to about 1.15 by 2010. It increases to about 2 by 2011 and then decreases to about 1.45 by 2013. It then increases to about 2 by 2017. Fiscal cliff begins in 2012 at about 1.5 and decreases to about 1.25 by 2015. It then increases to about 1.5 by 2017. Robust housing recovery begins in 2012 at about 1.5 and increases to about 2.1 by 2017. Housing reverberations begins in 2012 at about 1.5 and generally increases to about 2.3 by 2017. Headwinds begins in 2012 at about 1.5 and increases to about 1.7 by 2014. It then decreases to about 1.5 by 2017. Higher inflation with unanchored expectations begins in 2012 at about 1.5 and increases to about 3 by 2014. It then decreases to about 2.4 by 2017. European crisis with severe spillovers begins in 2012 at about 1.5 and decreases to about 0.2 by 2014. It then increases to about 2.1 by 2017. Weaker growth in emerging market economies begins in 2012 at about 1.5 and decreases to about 1.25 by 2014. It then increases to about 2 by 2017. The other two series, 70 percent interval and 90 percent interval, closely track each other with 90 percent interval being about 1.1 percent greater and less than 70 percent interval. 70 percent interval begins in 2012 at about 1.4 and 1.7 and increases to about 0.9 and 2.45. It ends in 2017 at about 0.99 and 2.99.

Figure: Federal Funds Rate

Line chart, by percent, 2008 to 2017. There is a horizontal line at zero. There are ten series, Extended Tealbook baseline, Fiscal cliff, Robust housing recovery, Housing reverberations, Headwinds, Higher inflation with unanchored expectations, European crisis with severe spillovers, Weaker growth in emerging market economies, 90 percent interval and 70 percent interval. Extended Tealbook baseline begins in 2008 at about 3.1 and decreases to about 0.1 by 2009 where it remains relatively constant until 2015. It then increases to about 3.2 by 2017. Fiscal cliff begins in 2012 at about 0.1 where it remains relatively constant until 2016. It then increases to about 2.25 by 2017. Robust housing recovery begins in 2012 at about 0.1 where it remains relatively constant until 2014. It then increases to about 3.3 by 2017. Housing reverberations begins in 2012 at about 0.1 and generally increases to about 3.33 by 2017. Headwinds begins in 2012 at about 0.1 where it remains relatively constant until 2016. It the increases to about 1.25 by 2017. Higher inflation with unanchored expectation 2012 at about 0.1 where it remains relatively constant until 2014. It then increases to about 3.5 by 2017. European crisis with severe spillovers begins in 2012 at about 0.1 where it remains relatively constant until 2016. It then increases to about 0.9 by 2017. Weaker growth in emerging market economies begins in 2012 at about 0.1 where it remains relatively constant until 2016. It then increases to about 2.4 by 2017. The other two series, 70 percent interval and 90 percent interval, closely track each other with 90 percent interval being about 1 percent greater and less than 70 percent interval. 70 percent interval begins in 2013 at about 0.1 and 0.3 and increases to about 0.1 and 2.2 by 2015. It ends in 2017 at about 1.1 and 5.1.

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

Measure	2012	2013	2014	2015	2016	2017
Real GDP (percent change, Q4 to Q4)						
Projection	1.7	2.5	3.2	3.6	3.2	2.5
Confidence interval						
Tealbook forecast errors	1.2-2.2	.7-4.2	1.3-5.0	…	…	…
FRB/US stochastic simulations	1.4-2.0	1.2-4.3	1.5-5.1	1.2-5.0	1.0-5.0	.7-4.7
Civilian unemployment rate (percent, Q4)						
Projection	8.0	7.8	7.4	6.5	5.8	5.4
Confidence interval						
Tealbook forecast errors	7.8-8.1	7.1-8.5	6.2-8.6	…	…	…
FRB/US stochastic simulations	7.9-8.0	7.1-8.4	6.2-8.3	5.4-7.8	4.8-7.3	4.5-6.8
PCE prices, total (percent change, Q4 to Q4)						
Projection	1.6	1.3	1.4	1.5	1.8	1.9
Confidence interval						
Tealbook forecast errors	1.3-1.8	.0-2.6	.1-2.7	…	…	…
FRB/US stochastic simulations	1.4-1.8	.4-2.3	.3-2.6	.4-2.8	.6-3.0	.7-3.1
PCE prices excluding food and energy (percent change, Q4 to Q4)						
Projection	1.6	1.6	1.6	1.7	1.8	1.9
Confidence interval						
Tealbook forecast errors	1.3-1.8	.9-2.3	.8-2.5	…	…	…
FRB/US stochastic simulations	1.4-1.7	1.0-2.3	.8-2.5	.8-2.7	.9-2.8	1.0-2.9
Federal funds rate (percent, Q4)						
Projection	.2	.1	.1	.4	2.0	3.2
Confidence interval						
FRB/US stochastic simulations	.1-.1	.1-.8	.1-2.1	.1-2.9	.2-4.1	1.2-5.2

Note: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969-2011 set of model equation residuals.

Intervals derived from Tealbook forecast errors are based on projections made from 1979-2011, except for PCE prices excluding food and energy, where the sample is 1981-2011.

… Not applicable. The Tealbook forecast horizon has typically extended about 2 years. Return to table

Alternative Projections

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

Measure and projection	2012		2013		2014	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
Real GDP						
Staff	1.8	1.7	2.6	2.5	3.5	3.2
FRB/US	1.4	1.7	1.9	1.4	3.1	2.9
EDO	2.0	1.7	3.2	3.0	3.2	3.3
Blue Chip	1.7	1.7	2.3	2.3	…	…
Unemployment rate[1]						
Staff	8.0	8.0	7.8	7.8	7.2	7.4
FRB/US	8.1	8.0	8.5	8.3	8.1	8.1
EDO	8.1	8.0	7.7	7.7	7.4	7.3
Blue Chip	8.1	7.9	7.8	7.6	…	…
Total PCE prices						
Staff	1.7	1.6	1.3	1.3	1.4	1.4
FRB/US	1.8	1.6	1.2	1.0	1.0	1.1
EDO	1.6	1.6	1.5	1.3	1.6	1.5
Blue Chip[2]	1.9	2.0	2.1	2.0	…	…
Core PCE prices						
Staff	1.6	1.6	1.6	1.6	1.7	1.6
FRB/US	1.7	1.6	1.5	1.3	1.3	1.3
EDO	1.6	1.6	1.5	1.3	1.6	1.5
Blue Chip	…	…	…	…	…	…
Federal funds rate[1]						
Staff	.1	.2	.1	.1	.1	.1
FRB/US	.3	.2	.5	.2	1.6	1.3
EDO	.3	.2	1.2	.9	1.9	1.7
Blue Chip[3]	.1	.1	.2	.2	…	…

Note: Blue Chip forecast completed on November 10, 2012.

1. Percent, average for Q4. Return to table

2. Consumer price index. Return to table

3. Treasury bill rate. Return to table

… Not applicable. The Blue Chip forecast typically extends about 2 years. Return to table

Tealbook Forecast Compared with Blue Chip

(Blue Chip survey released November 10, 2012)

Figure: Real GDP

Line chart, by percent change, annual rate, 2008 to 2013. There are three series, Blue Chip consensus, Staff forecast, and Blue Chip top 10 and bottom 10 averages. Blue Chip consensus begins in early 2008 at about -2 and decreases to about -9 by 2008. It increases to about 4 by 2009 and then generally decreases to about 1 by 2012 and then increases to about 3 by 2013. Staff forecast generally follows the same path as Blue Chip consensus. Blue Chip top 10 and bottom 10 average begins in 2012 at about 2 and 2.8 and increases to about 0 and 2.6. It ends in 2013 at about 2 and 3.

Figure: Real PCE

Line chart, by percent change, annual rate, 2008 to 2013. There are three series, Blue Chip consensus, Staff forecast, and Blue Chip top 10 and bottom 10 averages. Blue Chip consensus begins in early 2008 at about -1 and decreases to about -5.2 and generally increases to about 4 by 2011. It decreases to about 1.3 by 2012 and then increases to about 2.6 by 2013. Staff forecast generally follows the same path as Blue Chip consensus and ends in 2013 at about 3. Blue Chip top 10 and bottom 10 begins in 2012 at about 1.2 and 2.7 and increases to about 0 and 2.5 by early 2013. It ends in late 2013 at about 1.8 and 3.2.

Figure: Unemployment Rate

Line chart, by percent, 2008 to 2013. There are three series, Blue Chip consensus, Staff forecast, and Blue Chip top 10 and bottom 10 averages. Blue Chip consensus begins in 2008 at about 5 and increases to about 10 by 2009. It then generally decreases to about 7.6 by 2013. Staff forecast generally follows the same path as Blue Chip consensus and ends at about 7.9 by 2013. Blue Chip top 10 and bottom 10 begins in 2012 at about 7.9 and 8.1 and increases to about 7.25 and 8 by 2013.

Figure: Consumer Price Index

Line chart, by percent change, annual rate, 2008 to 2013. There are three series, Blue Chip consensus, Staff forecast, and Blue Chip top 10 and bottom 10 averages. Blue Chip consensus in early 2008 at about 4.1 and decreases to about -9.8 by late 2008. It generally increases to about 4.3 by 2011 and then decreases to about 2.1 by 2013. Staff forecast generally follows the same path as Blue Chip consensus and ends in 2013 at about 1.4. Blue Chip top 10 and bottom 10 average begins in in 2012 at about 1 and 3.8 and increases to about 0 and 2.9 by early 2013. It ends in late 2013 at about 19 and 3.

Figure: Treasury Bill Rate

Line chart, by percent, 2008 to 2013. There are three series, Blue Chip consensus, Staff forecast, and Blue Chip top 10 and bottom 10 averages. Blue Chip consensus begins in 2008 at about 2 and decrease to about 0.1 by 2009 where it remains relatively constant until 2003. Staff forecast generally follows the same path as Blue Chip consensus. Blue Chip top 10 and bottom 10 averages begins in 2012 at about 0.1 and 0.2 and increases to about 0.1 and 0.4 by 2013.

Figure: 10-Year Treasury Yield

Line chart, by percent, 2008 to 2013. There are three series, Blue Chip consensus, Staff forecast, and Blue Chip top 10 and bottom 10 averages. Blue Chip consensus begins in 2008 at about 3.6 and generally decreases to about 1.7 by 2012. It then increases to about 2.4 by 2013. Staff forecast generally follows the same path as Blue Chip consensus until 2012 when it begins increasing at a faster rate. It ends in 2013 at about 2.7. Blue Chip top 10 and bottom 10 average begins in 2012 at about 1.6 and 2. It ends in 2013 at about 1.8 and 2.9.

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--2013:Q4)

Probability that the 4-quarter change in total PCE prices will be ...	Staff	FRB/US	EDO	BVAR
Greater than 3 percent				
Current Tealbook	.04	.03	.10	.09
Previous Tealbook	.06	.07	.11	.14
Less than 1 percent				
Current Tealbook	.36	.47	.30	.13
Previous Tealbook	.29	.26	.32	.09

Probability of Unemployment Events

(4 quarters ahead--2013:Q4)

Probability that the unemployment rate will ...	Staff	FRB/US	EDO	BVAR
Increase by 1 percentage point				
Current Tealbook	.02	.13	.17	.02
Previous Tealbook	.02	.15	.17	.01
Decrease by 1 percentage point				
Current Tealbook	.04	.00	.28	.18
Previous Tealbook	.04	.00	.29	.30

Probability of Near-Term Recession

Probability that real GDP declines in each of 2013:Q1 and 2013:Q2	Staff	FRB/US	EDO	BVAR	Factor Model
Current Tealbook	.03	.05	.05	.04	.25
Previous Tealbook	.03	.06	.06	.03	.19

Note: "Staff" represents Tealbook forecast errors applied to the Tealbook baseline; baselines for FRB/US, BVAR, EDO, and the factor model are generated by those models themselves, up to the current-quarter estimate. The current quarter is taken as data from the staff estimate for the second Tealbook in each quarter, otherwise the preceding quarter is taken as the latest historical observation.

Assessment of Key Macroeconomic Risks (2)

Figure: Probability that Total PCE Inflation Is above 3 Percent (4 quarters ahead)

Line chart, by probability, 1998 to 2012. There are two series, FRB/US and BVAR. FRB/US begins in 1998 at about 0 and increases to about 0.25 by 2000. It decreases to about by 2003 and then increases to about 0.8 by 2008. It then generally decreases to about 0.02 by 2012. BVAR begins in 1998 at about .08 and generally increases to about 0.7 by 2008. It decreases to about 0.18 by 2009 and then increase to about 0.39 by 2011. It then generally decreases to about 0.1 by 2012.

Figure: Probability that Total PCE Inflation Is below 1 Percent (4 quarters ahead)

Line chart, by probability, 1998 to 2012. There are two series, FRB/US and BVAR. FRB/US begins in 1998 at about 0 and generally increases to about 0.83 by 2004. It decreases to about 0.2 by 2006 and then increases to about 1 by 2008. It then generally decreases to about 0.45 by 2012. BVAR begins in 1998 at about .2 and generally increases to about 1 by 2001. It decreases to about 0 by 2005 and then increases to about 1 by 2009. It then generally decreases to about 0.13 by 2012.

Figure: Probability that the Unemployment Rate Increases 1 ppt (4 quarters ahead)

Line chart, by probability, 1998 to 2012. There are two series, FRB/US and BVAR. FRB/US begins in 1998 at about 0 and increases to about 0.7 by 2001. It decreases to about 0 by 2004 and then increases to about 0.8 by 2009. It then generally decreases to about 0.13 by 2012. BVAR begins in 1998 at about 0 and increases to about 0.6 by 2001. It decreases to about 0 by 2004 and then increases to about 1 by 2009. It then decreases to about 0 by 2012.

Figure: Probability that the Unemployment Rate Decreases 1 ppt (4 quarters ahead)

Line chart, by probability, 1998 to 2012. There are two series, FRB/US and BVAR. FRB/US begins in 1998 at about 0 and generally increases to about 0.85 by 2003. It decreases to about 0 by 2007 and then increases to about 0.8 by 2009. It then decreases to about 0 by 2012. BVAR begins in 1998 at about 0.14 and increases to about 0.21 by 2004. It decreases to about 0 by 2008 and then increases to about 0.58 by 2011. It then decreases to about 0.2 by 2012.

Figure: Probability that Real GDP Declines in Each of the Next Two Quarters

Line chart, by probability, 1998 to 2012. There are two series, FRB/US and BVAR. FRB/US begins in 1998 at about 0 where it remains relatively constant until 2007. It increases to about 0.8 by 2009 and then generally decreases to about 0.07 by 2012. BVAR begins in 1998 at about 0 and increases to about 0.4 by 2001. It decreases to about 0 by 2002 where it remains relatively constant until 2007. It increases to about 1 by 2009 and then generally decreases to about 0.07 by 2012.

Note: See notes on facing page, Assessment of Key Macroeconomic Risks (1). Recession and inflation probabilities for FRB/US and the BVAR are real-time estimates. See Robert J. Tetlow and Brian Ironside (2007), "Real-Time Model Uncertainty in the United States: The Fed, 1996-2003," *Journal of Money and Banking*, vol. 39 (October), pp. 1533-61.

Greensheets

Changes in GDP, Prices, and Unemployment

(Percent, annual rate except as noted)

Interval		Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate[1]	
		10/17/12	12/05/12	10/17/12	12/05/12	10/17/12	12/05/12	10/17/12	12/05/12	10/17/12	12/05/12
Quarterly											
2012:	Q1	4.2	4.2	2.0	2.0	2.5	2.5	2.2	2.2	8.2	8.2

	Q2	2.8	2.8	1.3	1.3	.7	.7	1.7	1.7	8.2	8.2
	Q3	5.2	5.7	2.0	2.8	1.7	1.6	1.2	1.1	8.1	8.1
	Q4	4.3	2.6	2.0	.9	2.1	1.5	1.4	1.2	8.0	8.0
2013:	Q1	2.8	3.1	1.8	1.7	.9	1.1	1.6	1.7	8.0	7.9
	Q2	4.0	3.9	2.5	2.5	1.4	1.4	1.6	1.6	8.0	7.9
	Q3	4.4	4.2	3.0	2.8	1.4	1.4	1.6	1.6	7.9	7.9
	Q4	4.5	4.2	3.1	2.9	1.3	1.3	1.6	1.5	7.8	7.8
2014:	Q1	4.9	4.4	3.4	2.9	1.4	1.5	1.7	1.7	7.6	7.7
	Q2	5.0	4.6	3.5	3.1	1.4	1.4	1.7	1.6	7.5	7.7
	Q3	5.0	4.7	3.5	3.3	1.4	1.4	1.7	1.7	7.3	7.5
	Q4	5.1	4.9	3.6	3.4	1.4	1.4	1.7	1.6	7.2	7.4
Two-quarter[2]											
2012:	Q2	3.5	3.5	1.6	1.6	1.6	1.6	2.0	2.0	-.5	-.5
	Q4	4.7	4.1	2.0	1.8	1.9	1.6	1.3	1.2	-.2	-.2
2013:	Q2	3.4	3.5	2.2	2.1	1.2	1.2	1.6	1.6	.0	-.1
	Q4	4.5	4.2	3.1	2.8	1.4	1.3	1.6	1.6	-.2	-.1
2014:	Q2	5.0	4.5	3.4	3.0	1.4	1.4	1.7	1.7	-.3	-.1
	Q4	5.0	4.8	3.5	3.3	1.4	1.4	1.7	1.6	-.3	-.3
Four-quarter[3]											
2011:Q4		4.0	4.0	2.0	2.0	2.5	2.5	1.7	1.7	-.9	-.9
2012:Q4		4.1	3.8	1.8	1.7	1.7	1.6	1.6	1.6	-.7	-.7
2013:Q4		3.9	3.9	2.6	2.5	1.3	1.3	1.6	1.6	-.2	-.2
2014:Q4		5.0	4.6	3.5	3.2	1.4	1.4	1.7	1.6	-.6	-.4
2015:Q4		…	5.2	3.7	3.6	1.5	1.5	1.7	1.7	-1.0	-.9
Annual											
2011		4.0	4.0	1.8	1.8	2.4	2.4	1.4	1.4	8.9	8.9
2012		4.1	4.1	2.2	2.2	1.8	1.8	1.7	1.7	8.1	8.1
2013		3.9	3.7	2.2	2.0	1.4	1.3	1.5	1.5	7.9	7.9
2014		4.8	4.4	3.3	3.0	1.4	1.4	1.6	1.6	7.4	7.6
2015		…	5.0	3.7	3.4	1.5	1.5	1.7	1.7	6.6	6.9

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

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

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

Changes in Real Gross Domestic Product and Related Items

(Percent, annual rate except as noted)

Item	2012			2013				2014		
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Real GDP	1.3	2.8	.9	1.7	2.5	2.8	2.9	2.9	3.1	3.3
Previous Tealbook	1.3	2.0	2.0	1.8	2.5	3.0	3.1	3.4	3.5	3.5
Final sales	1.7	2.0	1.7	.8	2.8	2.8	2.6	2.6	3.1	3.5
Previous Tealbook	1.7	1.9	2.1	1.0	2.7	3.2	3.0	3.1	3.4	3.7
Priv. dom. final purch.	1.9	1.3	2.9	1.1	3.7	3.6	3.7	3.6	3.9	4.0
Previous Tealbook	1.9	2.1	3.1	1.4	3.5	4.0	4.1	4.3	4.3	4.4
Personal cons. expend.	1.5	1.4	2.1	.6	2.6	2.7	2.9	3.1	3.3	3.4
Previous Tealbook	1.5	2.3	3.1	1.1	3.0	3.4	3.5	3.7	3.7	3.8
Durables	-.2	8.7	9.1	-.1	10.4	9.4	9.8	9.1	8.9	9.2
Nondurables	.6	1.1	1.8	.8	1.2	1.6	1.9	2.2	2.6	2.6
Services	2.1	.3	1.1	.7	1.8	2.0	2.2	2.4	2.6	2.7
Residential investment	8.5	13.8	14.8	17.0	22.6	14.7	13.0	10.3	12.3	12.7
Previous Tealbook	8.5	14.3	13.9	13.4	14.9	15.6	15.2	14.1	13.1	12.9
Business fixed invest.	3.6	-2.2	5.4	1.1	6.4	6.7	6.5	5.7	5.5	5.9
Previous Tealbook	3.6	-2.5	.8	1.0	3.7	5.2	5.2	6.0	5.9	6.2
Equipment & software	4.8	-3.1	7.3	.4	7.9	7.8	8.5	7.5	6.7	7.0
Previous Tealbook	4.8	-1.0	2.0	1.0	4.2	5.5	6.1	7.5	7.3	7.7
Nonres. structures	.6	-.2	.9	2.9	2.8	4.0	1.8	1.3	2.6	3.0
Previous Tealbook	.6	-6.1	-2.2	.9	2.7	4.4	3.0	2.4	2.3	2.3
Net exports[2]	-407	-403	-403	-395	-393	-390	-396	-403	-402	-393
Previous Tealbook[2]	-407	-406	-413	-409	-406	-402	-408	-416	-416	-408
Exports	5.3	1.1	3.1	5.1	5.3	4.8	5.0	5.4	5.2	6.3
Imports	2.8	.1	2.5	2.8	4.0	3.4	5.2	5.8	4.1	3.8
Gov't. cons. &										

invest.	-.7	4.0	-3.5	-1.8	-1.5	-1.6	-1.5	-1.1	-1.2	-1.0
Previous Tealbook	-.7	.6	-1.6	-1.5	-1.5	-1.4	-1.4	-1.1	-1.1	-1.0
Federal	-.2	9.5	-8.6	-4.7	-4.1	-4.6	-4.5	-4.2	-4.4	-4.2
Defense	-.2	12.9	-11.7	-6.0	-5.1	-4.7	-5.4	-4.7	-5.2	-4.9
Nondefense	-.4	2.9	-2.2	-2.0	-2.1	-4.5	-2.8	-3.2	-2.8	-2.8
State & local	-1.0	.4	.1	.2	.3	.3	.4	.8	.9	.9
Change in bus. inventories[2]	41	61	35	75	66	66	74	83	83	77
Previous Tealbook[2]	41	48	48	74	69	64	70	80	83	76
Nonfarm[2]	53	90	64	69	58	59	67	78	78	72
Farm[2]	-8	-19	-19	7	7	7	7	5	5	5

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

2. Billions of chained (2005) dollars. Return to table

Changes in Real Gross Domestic Product and Related Items

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

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Real GDP	2.4	2.2	-3.3	-.1	2.4	2.0	1.7	2.5	3.2	3.6
Previous Tealbook	2.4	2.2	-3.3	-.1	2.4	2.0	1.8	2.6	3.5	3.7
Final sales	2.8	2.4	-2.6	-.5	1.7	1.7	1.9	2.3	3.1	3.6
Previous Tealbook	2.8	2.4	-2.6	-.5	1.7	1.7	2.0	2.5	3.5	
Priv. dom. final purch.	2.4	1.2	-4.5	-2.8	3.2	2.9	2.4	3.0	3.9	4.1
Previous Tealbook	2.4	1.2	-4.5	-2.8	3.2	2.9	2.7	3.2	4.3	
Personal cons. expend.	3.2	1.7	-2.5	-.3	2.9	1.9	1.9	2.2	3.3	3.6
Previous Tealbook	3.2	1.7	-2.5	-.3	2.9	1.9	2.3	2.8	3.7	
Durables	7.0	4.6	-13.0	3.0	9.5	5.9	7.2	7.3	9.0	8.5
Nondurables	2.9	.8	-3.1	.4	3.0	1.4	1.3	1.4	2.5	2.9
Services	2.6	1.4	-.5	-1.1	1.9	1.5	1.2	1.7	2.6	3.0
Residential investment	-15.7	-20.7	-24.4	-13.3	-5.7	3.9	14.3	16.8	11.8	12.7

Previous Tealbook	-15.7	-20.7	-24.4	-13.3	-5.7	3.9	14.2	14.8	13.2	
Business fixed invest.	7.8	7.9	-9.4	-15.7	7.7	10.2	3.5	5.2	5.7	5.0
Previous Tealbook	7.8	7.9	-9.4	-15.7	7.7	10.2	2.3	3.8	6.0	
Equipment & software	6.0	3.9	-13.6	-7.8	11.9	11.4	3.5	6.1	7.0	6.2
Previous Tealbook	6.0	3.9	-13.6	-7.8	11.9	11.4	2.8	4.2	7.5	
Nonres. structures	13.0	17.3	-1.2	-29.4	-1.8	6.9	3.4	2.9	2.5	2.1
Previous Tealbook	13.0	17.3	-1.2	-29.4	-1.8	6.9	1.0	2.7	2.3	
Net exports[1]	-729	-649	-495	-355	-420	-408	-407	-393	-397	-379
Previous Tealbook[1]	-729	-649	-495	-355	-420	-408	-411	-406	-411	
Exports	10.2	10.1	-2.5	.3	8.8	4.3	3.4	5.1	5.9	7.3
Imports	4.1	.8	-5.9	-6.1	10.9	3.5	2.1	3.8	4.8	5.2
Gov't. cons. & invest.	1.5	1.9	2.7	4.0	-1.3	-3.3	-.8	-1.6	-1.1	-.1
Previous Tealbook	1.5	1.9	2.7	4.0	-1.3	-3.3	-1.2	-1.5	-1.1	
Federal	2.2	3.1	8.8	5.1	2.3	-4.2	-1.1	-4.5	-4.3	-2.3
Defense	4.4	2.6	9.8	4.1	1.0	-4.0	-1.9	-5.3	-5.0	-2.0
Nondefense	-2.3	4.2	6.8	7.2	5.2	-4.6	.5	-2.9	-2.9	-2.8
State & local	1.2	1.2	-.9	3.3	-3.6	-2.7	-.7	.3	.9	1.2
Change in bus. inventories[1]	59	28	-36	-139	51	31	49	70	81	75
Previous Tealbook[1]	59	28	-36	-139	51	31	49	69	78	
Nonfarm[1]	63	29	-38	-138	58	36	67	63	76	75
Farm[1]	-4	-1	1	-1	-6	-4	-12	7	5	1

1. Billions of chained (2005) dollars. Return to table

Contributions to Changes in Real Gross Domestic Product

(Percentage points, annual rate except as noted)

Item	2012			2013				2014		
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3

Real GDP	1.3	2.8	.9	1.7	2.5	2.8	2.9	2.9	3.1	3.3
Previous Tealbook	1.3	2.0	2.0	1.8	2.5	3.0	3.1	3.4	3.5	3.5
Final sales	1.7	2.0	1.7	.8	2.8	2.8	2.6	2.6	3.1	3.4
Previous Tealbook	1.7	1.9	2.1	1.0	2.7	3.1	3.0	3.1	3.4	3.7
Priv. dom. final purch.	1.6	1.1	2.4	1.0	3.0	3.0	3.1	3.0	3.2	3.4
Previous Tealbook	1.6	1.7	2.6	1.2	2.9	3.3	3.4	3.6	3.6	3.7
Personal cons. expend.	1.1	1.0	1.5	.4	1.8	1.9	2.1	2.2	2.3	2.4
Previous Tealbook	1.1	1.7	2.2	.8	2.2	2.4	2.5	2.6	2.6	2.7
Durables	.0	.7	.7	.0	.8	.7	.7	.7	.7	.7
Nondurables	.1	.2	.3	.1	.2	.3	.3	.3	.4	.4
Services	1.0	.2	.5	.3	.9	1.0	1.0	1.1	1.2	1.3
Residential investment	.2	.3	.3	.4	.6	.4	.4	.3	.4	.4
Previous Tealbook	.2	.3	.3	.3	.4	.4	.4	.4	.4	.4
Business fixed invest.	.4	-.2	.5	.1	.6	.7	.7	.6	.6	.6
Previous Tealbook	.4	-.3	.1	.1	.4	.5	.5	.6	.6	.6
Equipment & software	.4	-.2	.5	.0	.6	.6	.6	.5	.5	.5
Previous Tealbook	.4	-.1	.1	.1	.3	.4	.4	.5	.5	.6
Nonres. structures	.0	.0	.0	.1	.1	.1	.1	.0	.1	.1
Previous Tealbook	.0	-.2	-.1	.0	.1	.1	.1	.1	.1	.1
Net exports	.2	.1	.0	.2	.1	.1	-.2	-.2	.0	.2
Previous Tealbook	.2	.0	-.2	.1	.1	.1	-.2	-.3	.0	.2
Exports	.7	.2	.4	.7	.7	.7	.7	.8	.7	.9
Imports	-.5	.0	-.4	-.5	-.7	-.6	-.9	-1.0	-.7	-.6
Gov't. cons. & invest.	-.1	.8	-.7	-.3	-.3	-.3	-.3	-.2	-.2	-.2
Previous										

Tealbook	-.1	.1	-.3	-.3	-.3	-.3	-.3	-.2	-.2	-.2
Federal	.0	.7	-.7	-.4	-.3	-.3	-.3	-.3	-.3	-.3
Defense	.0	.6	-.6	-.3	-.3	-.2	-.3	-.2	-.2	-.2
Nondefense	.0	.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1
State & local	-.1	.1	.0	.0	.0	.0	.0	.1	.1	.1
Change in bus. inventories	-.5	.8	-.8	.9	-.3	.0	.3	.3	.0	-.2
Previous Tealbook	-.5	.1	.0	.8	-.2	-.1	.2	.3	.1	-.2
Nonfarm	-.3	1.2	-.8	.2	-.3	.0	.2	.3	.0	-.2
Farm	-.2	-.4	.0	.7	.0	.0	.0	.0	.0	.0

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

Changes in Prices and Costs

(Percent, annual rate except as noted)

	2012			2013				2014		
Item	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
GDP chain-wt. price index	1.6	2.7	1.7	1.4	1.4	1.4	1.3	1.5	1.4	1.4
Previous Tealbook	1.6	3.0	2.1	1.0	1.4	1.3	1.3	1.4	1.5	1.4
PCE chain-wt. price index	.7	1.6	1.5	1.1	1.4	1.4	1.3	1.5	1.4	1.4
Previous Tealbook	.7	1.7	2.1	.9	1.4	1.4	1.3	1.4	1.4	1.4
Energy	-13.6	10.5	4.6	-9.3	-3.7	-2.4	-1.9	-1.4	-1.7	-2.0
Previous Tealbook	-13.6	10.5	11.6	-10.7	-3.0	-2.6	-2.4	-2.1	-2.4	-2.5
Food	.7	.6	2.4	3.4	2.8	2.1	1.1	.9	1.0	1.1
Previous Tealbook	.7	.6	2.6	3.5	2.9	2.2	1.0	.8	.9	1.0
Ex. food & energy	1.7	1.1	1.2	1.7	1.6	1.6	1.5	1.7	1.6	1.7
Previous Tealbook	1.7	1.2	1.4	1.6	1.6	1.6	1.6	1.7	1.7	1.7
Ex. food & energy, market based	1.8	1.3	1.3	1.6	1.5	1.5	1.4	1.6	1.5	1.5
Previous Tealbook	1.8	1.3	1.2	1.5	1.5	1.5	1.5	1.6	1.6	1.6

CPI	.8	2.3	2.3	1.2	1.3	1.4	1.3	1.4	1.4	1.4
Previous Tealbook	.8	2.3	2.9	.8	1.5	1.4	1.3	1.3	1.3	1.4
Ex. food & energy	2.6	1.5	1.8	2.0	1.7	1.7	1.6	1.8	1.8	1.8
Previous Tealbook	2.6	1.5	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8
ECI, hourly compensation[2]	2.1	1.7	2.1	2.3	2.5	2.6	2.7	2.7	2.8	2.9
Previous Tealbook[2]	2.1	2.3	2.4	2.5	2.6	2.7	2.7	2.8	2.9	2.9
Nonfarm business sector										
Output per hour	1.9	3.0	-.6	-1.0	1.9	1.7	1.5	1.7	1.9	1.8
Previous Tealbook	1.9	1.6	.7	.4	1.7	1.7	1.2	1.5	1.7	1.6
Compensation per hour	1.3	.9	1.8	2.4	2.6	2.8	2.9	2.9	3.0	3.1
Previous Tealbook	3.5	2.2	2.4	2.6	2.7	2.8	2.9	2.9	3.0	3.1
Unit labor costs	-.5	-2.0	2.4	3.5	.7	1.1	1.3	1.2	1.1	1.3
Previous Tealbook	1.6	.6	1.7	2.2	1.0	1.1	1.6	1.4	1.4	1.5
Core goods imports chain-wt. price index[3]	1.2	-2.4	2.2	1.5	.8	1.0	1.1	1.3	1.4	1.7
Previous Tealbook[3]	1.2	-3.4	1.6	1.8	1.1	1.4	1.3	1.4	1.4	1.7

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

2. Private-industry workers. Return to table

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

Changes in Prices and Costs

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

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GDP chain-wt. price index	2.9	2.6	2.1	.5	1.8	2.0	2.0	1.3	1.4	1.5
Previous Tealbook	2.9	2.6	2.1	.5	1.8	2.0	2.2	1.3	1.4	
PCE chain-wt. price index	1.9	3.5	1.7	1.4	1.5	2.5	1.6	1.3	1.4	1.5
Previous Tealbook	1.9	3.5	1.7	1.4	1.5	2.5	1.7	1.3	1.4	1.5

Energy	-3.7	19.3	-8.8	2.7	6.5	11.9	1.9	-4.4	-1.7	-1.6
Previous Tealbook	-3.7	19.3	-8.8	2.7	6.5	11.9	3.6	-4.7	-2.3	
Food	1.7	4.7	7.0	-1.7	1.3	5.1	1.2	2.3	1.1	1.5
Previous Tealbook	1.7	4.7	7.0	-1.7	1.3	5.1	1.3	2.4	1.0	
Ex. food & energy	2.3	2.4	2.0	1.6	1.2	1.7	1.6	1.6	1.6	1.7
Previous Tealbook	2.3	2.4	2.0	1.6	1.2	1.7	1.6	1.6	1.7	1.7
Ex. food & energy, market based	2.2	2.1	2.2	1.7	.7	1.9	1.7	1.5	1.5	1.6
Previous Tealbook	2.2	2.1	2.2	1.7	.7	1.9	1.6	1.5	1.6	
CPI	2.0	4.0	1.6	1.5	1.2	3.3	2.0	1.3	1.4	1.5
Previous Tealbook	2.0	4.0	1.6	1.5	1.2	3.3	2.1	1.2	1.4	
Ex. food & energy	2.7	2.3	2.0	1.7	.6	2.2	2.0	1.7	1.7	1.8
Previous Tealbook	2.7	2.3	2.0	1.7	.6	2.2	2.0	1.7	1.8	
ECI, hourly compensation[1]	3.2	3.0	2.4	1.2	2.1	2.2	1.9	2.5	2.8	3.0
Previous Tealbook[1]	3.2	3.0	2.4	1.2	2.1	2.2	2.1	2.6	2.9	
Nonfarm business sector										
Output per hour	.8	2.5	-1.1	5.6	1.8	.6	.9	1.0	1.8	1.9
Previous Tealbook	.8	2.5	-1.1	5.6	1.8	.6	.9	1.3	1.6	
Compensation per hour	4.5	3.6	2.5	1.5	1.6	2.0	2.4	2.7	3.0	3.3
Previous Tealbook	4.5	3.6	2.5	1.5	1.6	2.0	3.5	2.8	3.1	
Unit labor costs	3.6	1.1	3.7	-3.9	-.2	1.4	1.5	1.7	1.2	1.4
Previous Tealbook	3.6	1.1	3.7	-3.9	-.2	1.4	2.6	1.5	1.5	
Core goods imports chain-wt. price index[2]	2.5	2.9	3.7	-1.7	2.7	4.3	.2	1.1	1.5	1.5
Previous Tealbook[2]	2.5	2.9	3.7	-1.7	2.7	4.3	-.2	1.4	1.5	

1. Private-industry workers. Return to table

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

Other Macroeconomic Indicators

	2012			2013				2014		
Item	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Employment and production										
Nonfarm payroll employment[2]	.3	.4	.5	.5	.4	.5	.5	.5	.5	.6
Unemployment rate[3]	8.2	8.1	8.0	7.9	7.9	7.9	7.8	7.7	7.7	7.5
Previous Tealbook[3]	8.2	8.1	8.0	8.0	8.0	7.9	7.8	7.6	7.5	7.3
Natural rate of unemployment[3]	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Previous Tealbook[3]	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
GDP gap[4]	-4.1	-3.9	-4.1	-4.2	-4.1	-3.9	-3.6	-3.4	-3.2	-2.9
Previous Tealbook[4]	-4.1	-4.1	-4.0	-4.1	-3.9	-3.7	-3.4	-3.1	-2.7	-2.4
Industrial production[5]	2.3	.0	1.0	4.0	4.6	4.2	3.8	3.7	3.6	3.6
Previous Tealbook[5]	2.6	-.4	2.8	5.0	3.7	3.4	3.6	4.0	3.9	3.7
Manufacturing industr. prod.[5]	.7	-1.1	-.3	2.9	4.4	4.3	4.2	4.0	3.9	3.9
Previous Tealbook[5]	1.0	-.9	1.6	4.0	3.7	3.6	4.0	4.5	4.3	4.1
Capacity utilization rate - mfg.[3]	77.5	77.0	76.6	76.8	77.3	77.8	78.2	78.6	78.9	79.1
Previous Tealbook[3]	77.5	77.1	77.1	77.5	77.9	78.2	78.7	79.1	79.4	79.8
Housing starts[6]	.7	.8	.9	.9	1.0	1.0	1.1	1.2	1.2	1.3
Light motor vehicle sales[6]	14.1	14.5	14.9	14.6	14.9	15.0	15.3	15.6	15.7	16.0
Income and saving										
Nominal GDP[5]	2.8	5.7	2.6	3.1	3.9	4.2	4.2	4.4	4.6	4.7
Real disposable pers. income[5]	2.2	.5	2.1	-3.5	2.8	2.5	3.2	5.3	3.3	3.6
Previous Tealbook[5]	3.1	2.0	2.1	-1.6	3.0	3.6	3.7	5.1	3.9	4.0
Personal saving rate[3]	3.8	3.6	3.6	2.6	2.6	2.5	2.6	3.1	3.1	3.1

Previous Tealbook[3]	4.0	4.0	3.8	3.1	3.1	3.1	3.1	3.5	3.5	3.6
Corporate profits[7]	4.7	14.7	-2.3	-12.7	.8	3.6	1.6	-3.9	.9	3.5
Profit share of GNP[3]	12.1	12.4	12.3	11.8	11.7	11.7	11.6	11.4	11.3	11.3
Net federal saving[8]	-1,115	-1,074	-1,151	-834	-821	-796	-779	-745	-737	-731
Net state & local saving[8]	-124	-139	-134	-127	-105	-95	-86	-90	-69	-62
Gross national saving rate[3]	12.3	12.5	12.0	12.5	12.7	12.8	13.0	13.1	13.2	13.3
Net national saving rate[3]	-.4	.0	-.6	.1	.2	.4	.6	.8	.9	1.0

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

2. Change, millions. Return to table

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

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. Return to table

5. Percent change, annual rate. Return to table

6. Level, millions; annual values are annual averages. Return to table

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

8. Billions of dollars; annual values are annual averages. Return to table

Other Macroeconomic Indicators

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

Item	2006	2007	2008	2009	2010	2011	2012	2013	2014
Employment and production									
Nonfarm payroll employment[1]	2.1	1.2	-2.8	-5.6	.8	1.8	1.9	1.9	2.4
Unemployment rate[2]	4.5	4.8	6.9	9.9	9.6	8.7	8.0	7.8	7.4
Previous Tealbook[2]	4.5	4.8	6.9	9.9	9.6	8.7	8.0	7.8	7.2
Natural rate of unemployment[2]	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0	6.0
Previous Tealbook[2]	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0	6.0
GDP gap[3]	.8	.8	-4.4	-5.5	-4.4	-4.0	-4.1	-3.6	-2.6
Previous Tealbook[3]	.8	.8	-4.4	-5.5	-4.4	-4.0	-4.0	-3.4	-2.0
Industrial production[4]	2.1	2.5	-9.0	-5.7	6.3	4.1	2.3	4.2	3.7
Previous Tealbook[4]	2.1	2.5	-9.0	-5.7	6.3	4.1	2.7	4.0	3.9

Manufacturing industr. prod.[4]	1.8	2.8	-11.8	-6.5	6.5	4.2	2.2	4.0	4.0
Previous Tealbook[4]	1.8	2.8	-11.8	-6.5	6.5	4.2	2.8	3.8	4.3
Capacity utilization rate - mfg.[2]	78.2	78.2	69.7	67.0	73.1	76.1	76.6	78.2	79.5
Previous Tealbook[2]	78.2	78.2	69.7	67.0	73.1	76.1	77.1	78.7	80.1
Housing starts[5]	1.8	1.4	.9	.6	.6	.6	.8	1.0	1.2
Light motor vehicle sales[5]	16.5	16.1	13.1	10.4	11.5	12.7	14.4	15.0	15.9
Income and saving									
Nominal GDP[4]	5.3	4.9	-1.2	.4	4.3	4.0	3.8	3.9	4.6
Real disposable pers. income[4]	4.6	1.6	1.0	-3.0	3.5	.3	2.1	1.2	4.0
Previous Tealbook[4]	4.6	1.6	1.0	-3.0	3.5	.3	2.7	2.2	4.2
Personal saving rate[2]	2.8	2.5	6.2	3.8	4.8	3.4	3.6	2.6	3.2
Previous Tealbook[2]	2.8	2.5	6.2	3.8	4.8	3.4	3.8	3.1	3.5
Corporate profits[6]	3.7	-8.1	-33.5	57.0	17.3	9.2	1.3	-1.9	1.1
Profit share of GNP[2]	11.6	10.1	6.8	10.7	12.0	12.5	12.3	11.6	11.2
Net federal saving[7]	-204	-245	-613	-1229	-1308	-1237	-1100	-808	-736
Net state & local saving[7]	51	12	-72	-113	-90	-102	-131	-103	-69
Gross national saving rate[2]	16.5	13.9	12.6	11.0	12.1	12.4	12.0	13.0	13.4
Net national saving rate[2]	4.4	1.7	-.6	-2.3	-.6	-.3	-.6	.6	1.2

1. Change, millions. Return to table

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

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. Return to table

4. Percent change. Return to table

5. Level, millions; values are annual averages. Return to table

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

7. Billions of dollars; values are annual averages. Return to table

Staff Projections of Federal Sector Accounts and Related Items

(Billions of dollars except as noted)

Item	Fiscal year				2012				2013		
	2012[a]	2013	2014	2015	Q1[a]	Q2[a]	Q3[a]	Q4	Q1	Q2	Q
Unified budget					Not seasonally ad						
Receipts[1]	2,449	2,794	2,999	3,225	509	760	625	630	595	855	
Outlays[1]	3,538	3,535	3,630	3,804	966	885	810	930	890	869	

Surplus/deficit[1]	-1,089	-741	-630	-579	-457	-125	-185	-300	-296	-14	
Previous Tealbook	*-1,089*	*-795*	*-617*	*-554*	*-457*	*-125*	*-185*	*-324*	*-317*	*-26*	
On-budget	-1,151	-752	-634	-571	-458	-187	-160	-316	-277	-61	
Off-budget	62	11	4	-8	1	62	-25	16	-18	46	
Means of financing											
Borrowing	1,152	732	710	659	398	198	230	276	280	15	
Cash decrease	-27	15	0	0	42	-48	6	26	30	-31	
Other[2]	-36	-6	-80	-80	17	-25	-51	-1	-15	30	
Cash operating balance, end of period	85	70	70	70	43	91	85	60	30	60	
NIPA federal sector					Seasonally adjusted a						
Receipts	2,635	2,904	3,135	3,356	2,665	2,659	2,683	2,679	2,942	2,978	3
Expenditures	3,743	3,804	3,884	4,016	3,724	3,775	3,757	3,830	3,776	3,799	3
Consumption expenditures	1,062	1,060	1,030	1,008	1,056	1,055	1,086	1,070	1,064	1,057	1
Defense	709	703	679	663	703	701	728	711	706	700	
Nondefense	353	357	351	345	352	354	358	359	358	357	
Other spending	2,681	2,745	2,854	3,008	2,668	2,720	2,671	2,760	2,712	2,742	2
Current account surplus	-1,108	-901	-748	-660	-1,059	-1,115	-1,073	-1,151	-834	-821	
Gross investment	156	146	137	131	152	156	155	150	147	144	
Gross saving less gross investment[3]	-1,123	-902	-738	-641	-1,071	-1,130	-1,087	-1,158	-837	-821	
Fiscal indicators[4]											
High-employment (HEB) surplus/deficit	-901.3	-666.5	-544.2	-508.8	-851.8	-910.1	-876.9	-938.9	-592.0	-579.4	-5
Change in HEB, percent of potential GDP	-1.0	-1.6	-.8	-.3	-.8	.3	-.3	.3	-2.1	-.1	
Fiscal impetus (FI), percent of GDP	-.5	-1.2	-.5	-.3	-.7	-.7	.3	-1.0	-2.1	-1.1	

Previous Tealbook	*-.6*	*-1.2*	*-.5*	*-.3*	*-.7*	*-.7*	*-.3*	*-.6*	*-2.0*	*-1.1*

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

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

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

4. HEB is gross saving less gross investment (NIPA) of the federal government in current dollars, with cyclically sensitive receipts and outlays adjusted to the staff's measure of potential output and the natural rate of unemployment. The sign on Change in HEB, as a percent of nominal potential GDP, is reversed. FI is the weighted difference of discretionary changes in federal spending and taxes in chained (2005) dollars, scaled by real GDP. The FI estimates are calendar year contributions to Q4/Q4 real GDP growth. Also, for FI and the change in HEB, positive values indicate aggregate demand stimulus. Quarterly figures for change in HEB and FI are not at annual rates. Return to table

a Actual. Return to table

Foreign Real GDP and Consumer Prices: Selected Countries

(Quarterly percent changes at an annual rate)

Measure and country	Projected									
	2012				2013				2014	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Real GDP[1]										
Total foreign	3.4	1.9	1.8	2.1	2.5	2.9	3.1	3.2	3.4	3.1
Previous Tealbook	*3.2*	*2.2*	*2.0*	*2.1*	*2.4*	*2.7*	*3.0*	*3.2*	*3.4*	*3.1*
Advanced foreign economies	1.5	.5	.2	.5	.8	1.2	1.5	1.8	2.1	1.5
Canada	1.7	1.7	.6	1.9	1.7	1.8	2.1	2.2	2.4	2.5
Japan	5.2	.3	-3.5	-.6	.8	1.1	1.2	1.5	2.9	-2.7
United Kingdom	-1.2	-1.5	3.9	-.1	.8	1.3	1.8	2.0	2.1	2.2
Euro area	.0	-.7	-.2	-1.0	-.5	.3	.7	1.1	1.2	1.2
Germany	2.0	1.1	.9	-.3	.2	.9	1.2	1.7	1.7	1.8
Emerging market economies	5.4	3.4	3.5	3.9	4.2	4.6	4.7	4.7	4.8	4.8
Asia	6.3	3.8	4.6	4.9	5.0	5.6	5.6	5.7	5.8	5.8
Korea	3.5	1.1	.6	2.7	3.0	3.7	3.8	4.0	4.1	4.2
China	7.0	6.5	8.4	8.2	8.0	8.0	8.0	8.0	8.1	8.1
Latin America	4.6	3.0	2.3	2.8	3.4	3.7	3.8	3.8	3.8	3.8
Mexico	5.4	3.3	1.8	2.5	3.4	3.8	3.8	3.8	3.8	3.8

Brazil	.2	1.0	2.4	3.3	3.4	3.5	3.8	3.8	3.9	3.9
Consumer prices[2]										
Total foreign	2.6	1.9	2.2	2.5	2.3	2.2	2.2	2.2	2.3	3.0
Previous Tealbook	*2.6*	*1.9*	*2.2*	*2.7*	*2.3*	*2.2*	*2.2*	*2.3*	*2.3*	*3.0*
Advanced foreign economies	2.1	.6	.8	1.7	1.2	1.2	1.1	1.2	1.2	2.6
Canada	2.1	.1	.1	2.0	1.5	1.5	1.6	1.6	1.7	1.8
Japan	2.3	-.9	-2.0	-.5	-.2	-.2	-.2	-.1	-.1	7.0
United Kingdom	1.8	1.1	3.0	4.2	1.8	1.5	1.5	2.0	1.4	1.5
Euro Area	2.4	2.0	2.3	2.3	1.5	1.5	1.3	1.4	1.4	1.4
Germany	2.2	1.3	2.0	2.2	2.1	2.0	1.7	1.7	1.7	1.7
Emerging market economies	2.9	3.0	3.3	3.1	3.1	3.0	3.1	3.1	3.2	3.2
Asia	2.3	3.2	2.0	2.6	2.9	2.9	2.9	2.9	3.0	3.1
Korea	1.6	1.2	1.0	2.6	2.7	2.8	2.8	2.8	3.0	3.0
China	2.0	2.5	1.7	1.9	2.8	2.8	2.8	2.8	3.0	3.0
Latin America	4.6	2.6	6.3	4.2	3.6	3.5	3.5	3.5	3.6	3.7
Mexico	4.5	2.5	6.5	3.8	3.3	3.2	3.2	3.2	3.4	3.4
Brazil	4.0	3.8	7.3	6.8	5.2	5.4	5.6	5.6	5.6	5.6

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

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

Foreign Real GDP and Consumer Prices: Selected Countries

(Percent change, Q4 to Q4)

						Projected			
Measure and country	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Real GDP[1]									
Total foreign	4.3	-.7	.8	4.5	2.8	2.3	2.9	3.4	3.5
Previous Tealbook	*4.3*	*-.9*	*.9*	*4.5*	*2.8*	*2.4*	*2.8*	*3.4*	...
Advanced foreign economies	2.5	-1.6	-1.5	3.0	1.3	.7	1.3	2.0	2.3
Canada	2.3	.0	-1.6	3.6	2.4	1.5	2.0	2.6	2.9
Japan	1.6	-4.8	-.6	3.4	-.6	.3	1.1	.7	.7
United Kingdom	3.8	-4.6	-.9	1.5	.7	.2	1.5	2.3	2.4

Euro area	2.3	-2.1	-2.3	2.2	.6	-.5	.4	1.4	1.8
Germany	2.4	-1.9	-2.2	4.2	1.9	.9	1.0	1.9	2.2
Emerging market economies	6.7	.4	3.5	6.2	4.4	4.0	4.6	4.9	4.9
Asia	8.9	.8	8.0	7.7	4.9	4.9	5.5	5.8	5.9
Korea	5.8	-3.2	6.3	5.0	3.4	2.0	3.6	4.2	4.6
China	13.7	7.7	11.3	9.7	8.8	7.5	8.0	8.1	8.0
Latin America	4.4	-.2	-.8	4.5	3.8	3.2	3.7	3.8	3.8
Mexico	3.5	-1.1	-2.2	4.1	3.9	3.2	3.7	3.8	3.8
Brazil	6.6	.9	5.3	5.3	1.4	1.7	3.6	4.0	4.1
Consumer prices[2]									
Total foreign	3.7	3.3	1.3	3.2	3.4	2.3	2.2	2.5	2.6
Previous Tealbook	*3.7*	*3.3*	*1.3*	*3.2*	*3.4*	*2.3*	*2.3*	*2.5*	...
Advanced foreign economies	2.2	2.0	.2	1.7	2.2	1.3	1.2	1.6	1.7
Canada	2.5	1.8	.8	2.2	2.7	1.1	1.5	1.8	1.9
Japan	.5	1.1	-2.0	-.3	-.3	-.3	-.2	1.7	1.2
United Kingdom	2.1	3.9	2.2	3.4	4.7	2.5	1.7	1.6	1.8
Euro Area	2.9	2.3	.4	2.0	2.9	2.2	1.4	1.5	1.6
Germany	3.1	1.7	.3	1.6	2.6	1.9	1.9	1.8	1.9
Emerging market economies	5.1	4.6	2.1	4.3	4.3	3.1	3.1	3.2	3.3
Asia	5.5	3.6	1.3	4.3	4.4	2.5	2.9	3.1	3.1
Korea	3.4	4.5	2.4	3.2	4.0	1.6	2.8	3.0	3.2
China	6.7	2.5	.6	4.6	4.6	2.0	2.8	3.0	3.0
Latin America	4.2	6.7	3.9	4.4	3.9	4.4	3.5	3.7	3.7
Mexico	3.8	6.2	4.0	4.3	3.5	4.3	3.2	3.4	3.4
Brazil	4.3	6.3	4.3	5.6	6.7	5.4	5.4	5.6	5.5

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

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

… Not applicable.

U.S. Current Account

Quarterly Data

					Projected					
	2012				2013				2014	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
	Billions of dollars, s.a.a.r.										

U.S. current account balance	**-534.5**	**-469.6**	**-418.4**	**-436.3**	**-432.0**	**-415.0**	**-433.8**	**-471.6**	**-500.2**	**-482.0**	**-48**
Previous Tealbook	*-534.5*	*-469.6*	*-436.6*	*-449.4*	*-465.7*	*-442.9*	*-455.3*	*-490.0*	*-516.8*	*-495.5*	*-49*
Current account as percent of GDP	-3.5	-3.0	-2.6	-2.7	-2.7	-2.6	-2.7	-2.9	-3.0	-2.9	
Previous Tealbook	*-3.5*	*-3.0*	*-2.8*	*-2.8*	*-2.9*	*-2.7*	*-2.8*	*-3.0*	*-3.1*	*-2.9*	
Net goods & services	-593.5	-557.3	-511.2	-514.6	-512.1	-483.7	-482.2	-505.1	-529.9	-503.1	-49
Investment income, net	197.4	229.7	236.2	221.2	221.5	206.2	189.1	176.5	171.1	158.6	14
Direct, net	282.9	305.5	300.4	277.5	275.2	264.5	258.4	257.9	262.2	261.6	26
Portfolio, net	-85.6	-75.8	-64.1	-56.4	-53.7	-58.3	-69.3	-81.5	-91.1	-103.0	-11
Other income and transfers, net	-138.4	-142.0	-143.4	-142.9	-141.4	-137.5	-140.8	-142.9	-141.4	-137.5	-14

Annual Data

					Projected			
	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Billions of dollars								
U.S. current account balance	**-710.3**	**-677.1**	**-381.9**	**-442.0**	**-465.9**	**-464.7**	**-438.1**	**-494.9**	**-497.7**
Previous Tealbook	*-710.3*	*-677.1*	*-381.9*	*-442.0*	*-465.9*	*-472.5*	*-463.5*	*-506.9*	…
Current account as percent of GDP	-5.1	-4.7	-2.7	-3.0	-3.1	-3.0	-2.7	-2.9	-2.8
Previous Tealbook	*-5.1*	*-4.7*	*-2.7*	*-3.0*	*-3.1*	*-3.0*	*-2.8*	*-3.0*	…
Net goods & services	-696.7	-698.3	-379.2	-494.7	-559.9	-544.1	-495.8	-508.8	-493.0
Investment income, net	111.1	157.8	127.6	191.0	235.0	221.1	198.3	154.6	134.9
Direct, net	244.6	284.3	253.0	297.9	321.7	291.6	264.0	264.1	293.2
Portfolio, net	-133.5	-126.5	-125.4	-106.9	-86.7	-70.5	-65.7	-109.6	-158.3
Other income and transfers, net	-124.7	-136.6	-130.3	-138.2	-141.1	-141.7	-140.6	-140.6	-139.6

… Not applicable.

† Note: Data values for figures are rounded and may not sum to totals. Return to text

Last update: January 5, 2018

BOARD OF GOVERNORS *of the* FEDERAL RESERVE SYSTEM
20th Street and Constitution Avenue N.W., Washington, DC 20551

Accessible Material

December 2012 Tealbook B Tables and Charts†

Monetary Policy Strategies

Policy Rules and the Staff Projection

Near-Term Prescriptions of Selected Policy Rules

	Constrained Policy		Unconstrained Policy	
	2013Q1	2013Q2	2013Q1	2013Q2
Taylor (1993) rule	**1.30**	**1.32**	**1.30**	**1.32**
Previous Tealbook	*1.40*	*1.43*	*1.40*	*1.43*
Taylor (1999) rule	**0.13**	**0.13**	**-0.79**	**-0.71**
Previous Tealbook	*0.13*	*0.13*	*-0.63*	*-0.54*
Inertial Taylor (1999) rule	**0.13**	**0.13**	**0.01**	**-0.10**
Previous Tealbook Outlook	*0.13*	*0.13*	*0.03*	*-0.05*
Outcome-based rule	**0.13**	**0.13**	**-0.03**	**-0.14**
Previous Tealbook Outlook	*0.13*	*0.13*	*0.01*	*-0.06*
First-difference rule	**0.20**	**0.37**	**0.20**	**0.37**
Previous Tealbook Outlook	*0.26*	*0.56*	*0.26*	*0.56*
Nominal income targeting rule	**0.13**	**0.13**	**-0.48**	**-0.96**
Previous Tealbook Outlook	*0.13*	*0.13*	*-0.42*	*-0.86*

Processing math: 100%

brium and Actual Real Federal Funds Rate

	Current Tealbook	*Previous Tealbook*
Tealbook-consistent FRB/US r estimate	-2.21	*-1.90*
Actual real federal funds rate	-1.45	*-1.47*

Key Elements of the Staff Projection

Figure: GDP Gap

Line chart, by percent, 2012 to 2020. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 2012 at about -4 and generally increases to about -0.5 by 2016. It then increases to about 0 by 2020.

Figure: PCE Prices excluding Food and Energy

Line chart, by four-quarter percent change, 2012 to 2020. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 2012 at about 1.99 and decreases to about 1.4 by 2013. It then generally increases to about 2 by 2020. Previous Tealbook generally follows the same path as Current Tealbook.

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

Policy Rule Simulations

Figure: Nominal Federal Funds Rate

Line chart, by percent, 2012 to 2020. There are six series, Taylor (1993) rule, Taylor (1999) rule, Inertial Taylor (1999) rule, Nominal income targeting rule, First-difference rule, and Tealbook baseline. Taylor (1993) rule begins in 2012 at about 0.1 and increases to about 1.4 by 2013. It decreases to about 0.8 by 2014 and then generally increases to about 4 by 2020. Taylor (1999) rule begins in 2012 at about 0.1 where it remains relatively constant until 2014. It then increases to about 4 by 2020. Inertial Taylor (1999) rule begins in 2012 at about 0.1 where it remains relatively constant until 2013. It then increases to about 4.2 by 2020. Nominal income targeting rule begins in 2012 at about 0.1 where it remains relatively constant until 2015. It then increase to about 2.25 by 2020. First-difference rule begins in 2012 at about 0.1 where it remains relatively constant until 2014. It then increases to about 4 by 2020. Tealbook baseline begins in 2012 at about 0.1 where it remains relatively constant until 2015. It then increases to about 4.1 by 2020.

Figure: Real Federal Funds Rate

Line chart, by percent, 2012 to 2020. There are six series, Taylor (1993) rule, Taylor (1999) rule, Inertial Taylor (1999) rule, Nominal income targeting rule, First-difference rule, and Tealbook baseline. Taylor (1993) rule begins in 2012 at about -1.9 and increases to about -0.1 by 2013. It decreases to about -0.4 by 2014 and then increases to about 2.1 by 2020. Taylor (1999) rule begins in 2012 at about -1.9 and generally increases to about 2 by 2020. Inertial Taylor (1999) rule begins in 2012 at about -1.9 and increases to about 2 by 2020. Nominal income targeting rule begins in 2012 at about -1.9 and increases to about -1.4 by 2013. It decreases to about -1.9 by 2014 and then increases to about 2 by 2020. First-difference rule begins in 2012 at about -1.9 and generally increases to about 2 by 2020. Tealbook baseline begins in 2012 at about -1.9 and increases to about -1.25 by 2013. It decreases to about -1.5 by 2015 and then increases to about 2.25 by 2020.

Figure: Unemployment Rate

Line chart, by percent, 2012 to 2020. There are six series, Taylor (1993) rule, Taylor (1999) rule, Inertial Taylor

(1999) rule, Nominal income targeting rule, First-difference rule, and Tealbook baseline. Taylor (1993) rule begins in 2012 at about 8.2 and decreases to about 7.9 by 2013. It increases to about 8.2 by 2014 and then decreases to about 5.4 by 2020. Taylor (1999) rule begins in 2012 at about 8.2 and generally decreases to about 5.4 by 2020. Inertial Taylor (1999) rule begins in 2012 at about 8.2 and generally decreases to about 5.2 by 2020. Nominal income targeting rule begins in 2012 at about 82. And decreases to about 5 by 2017 where it remains relatively constant until 2020. First-difference rule begins in 2012 at about 8.2 and generally decreases to about 5.3 by 2020. Tealbook baseline begins in 2012 at about 8.2 and generally decreases to about 5.4 by 2020.

Figure: PCE Inflation

Line chart, by percent, 2012 to 2020. Data are four-quarter averages. There is a horizontal line at 2. There are six series, Taylor (1993) rule, Taylor (1999) rule, Inertial Taylor (1999) rule, Nominal income targeting rule, First-difference rule, and Tealbook baseline. Taylor (1993) rule begins in 2012 at about 2.4 and generally decreases to about 0.9 by 2013. It then generally increases to about 1.8 by 2020. Taylor (1999) rule begins in 2012 at about 2.4 and generally decreases to about 1.1 by 2014. It then generally increases to about 1.8 by 2020. Inertial Taylor (1999) rule begins in 2012 at about 2.4 and decreases to about 1.25 by 2013. It then generally increases to about 2.2 by 2020. Nominal income target rule begins in 2012 at about 2.4 and decreases to about 1.3 by 2013. It then increases to about 2.2 by 2020. First-difference rule begins in 2012 at about 2.4 and decreases to about 1 by 2014. It then increases to about 1.9 by 2020. Tealbook baseline begins in 2012 at about 2.4 and decreases to about 1.2 by 2013. It then increases to about 2 by 2020.

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

Constrained vs. Unconstrained Optimal Control Policy

Figure: Nominal Federal Funds Rate

Line chart, by percent, 2012 to 2020. There are four series, Current Tealbook: Constrained, Previous Tealbook: Constrained, Current Tealbook: Unconstrained, and Tealbook baseline. Current Tealbook: Constrained begins in 2012 at about 0.1 where it remains relatively constant until 2015. It then increases to about 4.5 by 2020. Previous Tealbook: Constrained begins in 2012 at about 0.1 where it remains relatively constant until 2015. It then increases to about 4.6 by 2020. Current Tealbook: Unconstrained begins in 2012 at about 0.1 and decreases to about -1.9 by 2014. It then increases to about 4.1 by 2020. Tealbook baseline begins in 2012 at about 0.1 where it remains relatively constant until 2015. It then increases to about 4.1 by 2020.

Figure: Real Federal Funds Rate

Line chart, by percent, 2012 to 2020. There are four series, Current Tealbook: Constrained, Previous Tealbook: Constrained, Current Tealbook: Unconstrained, and Tealbook baseline. Current Tealbook: Constrained begins in 2012 at about -1.9 and decreases to about -2 by 2015. It then increases to about 2.25 by 2020. Previous Tealbook: Constrained begins in 2012 at about -1.9 and decreases to about -2 by 2014. It then increases to about 2.3 by 2020. Current Tealbook: Unconstrained begins in 2012 at about -1.9 and decreases to about -3.8 by 2014. It then increases to about 2.1 by 2020. Tealbook baseline begins in 2012 at about -1.9 and increases to about -1.4 by 2013. It decreases to about -1.7 by 2014 and then increases to about 2.25 by 2020.

Figure: Unemployment Rate

Line chart, by percent, 2012 to 2020. There are four series, Current Tealbook: Constrained, Previous Tealbook: Constrained, Current Tealbook: Unconstrained, and Tealbook baseline. Current Tealbook: Constrained begins in 2012 at about 8.2 and decreases to about 4.8 by 2017. It then increases to about 5.2 by 2020. Previous Tealbook begins in 2012 at about 8.2 and decreases to about 4.6 by 2017. It then increases to about 5.2 by 2020. Current Tealbook: Unconstrained begins in 2012 at about 8.2 and decreases to about 5 by 2017. It then increases to about

5.3 by 2020. Tealbook baseline begins in 2012 at about 8.2 and decreases to about 5.4 by 2020.

Figure: PCE Inflation

Line chart, by percent, 2012 to 2020. Data are four-quarter averages. There is a horizontal line at 2. There are four series, Current Tealbook: Constrained, Previous Tealbook: Constrained, Current Tealbook: Unconstrained, and Tealbook baseline. Current Tealbook: Constrained begins in 2012 at about 2.4 and decreases to about 1.3 by 2013. It increases to about 2.3 by 2017 and then decreases to about 2.1 by 2020. Previous Tealbook: Constrained begins in 2012 at about 2.4 and decreases to about 1.6 by 2013. It increases to about 2.3 by 2017 and then increases to about 2.1 by 2020. Current Tealbook: Unconstrained begins in 2012 at about 2.4 and decreases to about 1.25 by 2013. It increases to about 2.25 by 2017 and then decreases to about 2 by 2020. Tealbook baseline begins in 2012 at about 2.4 and decreases to about 1.2 by 2013. It then increases to about 2 by 2020.

Optimal Control Policy: Commitment vs. Discretion

Figure: Nominal Federal Funds Rate

Line chart, by percent, 2012 to 2020. There are four series, Optimal policy: Commitment, constrained; Optimal policy: Discretion, constrained; Optimal policy: Discretion, constrained (Previous Tealbook); and Optimal policy: Discretion, unconstrained. Optimal policy: Commitment, constrained begins in 2012 at about 0.1 where it remains relatively constant until 2015. It then increases to about 4.5 by 2020. Optimal policy: Discretion, constrained begins in 2012 at about 0.1 where it remains relatively constant until 2015. It then increases to about 4.1 by 2020. Optimal policy: Discretion, constrained (Previous Tealbook) begins in 2012 at about 0.1 where it remains relatively constant until 2014. It then increases to about 4.15 by 2020. Optimal policy: Discretion, unconstrained begins in 2012 at about 0.1 and decreases to about -2.1 by 2013. It then increases to about 4.1 by 2020.

Figure: Real Federal Funds Rate

Line chart, by percent, 2012 to 2020. There are four series, Current Tealbook: Constrained, Previous Tealbook: Constrained, Current Tealbook: Unconstrained, and Tealbook baseline. Optimal policy: Commitment, constrained beings in 2012 at about -1.9 and decreases to about -2 by 2015. It then increases to about 2.35 by 2020. Optimal policy: Discretion, constrained begins in 2012 at about -1.9 and generally increases to about 2.2 by 2020. Optimal policy: Discretion, constrained (Previous Tealbook) begins in 2012 at about -1.9 and generally increases to about 2.25 by 2020. Optimal policy: Discretion, unconstrained begins in 2012 at about -1.9 and decreases to about -3.9 by 2013. It then increases to about 2.2 by 2020.

Figure: Unemployment Rate

Line chart, by percent, 2012 to 2020. There are four series, Current Tealbook: Constrained, Previous Tealbook: Constrained, Current Tealbook: Unconstrained, and Tealbook baseline. Current Tealbook: Constrained begins in 2012 at about 8.2 and decreases to about 4.9 by 2017. It then increases to about 5.25 by 2020. Optimal policy: Discretion, constrained begins in 2012 at about 8.2 and generally decreases to about 5.25 by 2020. Optimal policy: Discretion, constrained (Previous Tealbook) begins in 2012 at about 8.2 and decreases to about 5 by 2017. It then increases to about 5.2 by 2020. Optimal policy: Discretion, unconstrained begins in 2012 at about 8.2 and decreases to about 5.3 by 2020.

Figure: PCE Inflation

Line chart, by percent, 2012 to 2020. Data are four-quarter averages. There is a horizontal line at 2. There are four series, Current Tealbook: Constrained, Previous Tealbook: Constrained, Current Tealbook: Unconstrained, and Tealbook baseline. Optimal policy: Commitment, constrained begins in 2012 at about 2.4 and decreases to about 1.3 by 2013. It increases to about 2.3 by 2017 and then decreases to about 2.1 by 2020. Optimal policy: Discretion, constrained begins in 2012 at about 2.4 and decreases to about 1.25 by 2013. It then increases to about 2 by 2020. Optimal policy: Discretion, constrained (Previous Tealbook) begins in 2012 at about 2.4 and decreases to about 1.3 by 2013. It then increases to about 2 by 2020. Optimal policy: Discretion, unconstrained begins in 2012 at about 2.4

and decreases to about 1.4 by 2013. It increases to about 2.1 by 2016 and then decreases to about 2 by 2020.

Outcomes under Alternative Policies

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

Measure and scenario	2012 H1	2012 H2	2013	2014	2015	2016
Real GDP						
Extended Tealbook baseline	1.6	1.8	2.5	3.2	3.6	3.2
Taylor (1993)	1.6	1.8	1.6	2.5	3.3	3.5
Taylor (1999)	1.6	1.8	2.1	2.8	3.3	3.2
Inertial Taylor (1999)	1.6	1.8	2.4	3.0	3.5	3.3
First-difference	1.6	1.8	2.0	2.7	3.2	3.3
Nominal income targeting	1.6	1.7	2.7	3.4	3.7	3.4
Constrained optimal control	1.6	1.8	2.8	3.6	3.9	3.5
Unemployment rate[1]						
Extended Tealbook baseline	8.2	8.0	7.8	7.4	6.5	5.8
Taylor (1993)	8.2	8.0	8.1	8.1	7.5	6.6
Taylor (1999)	8.2	8.0	7.9	7.7	7.0	6.3
Inertial Taylor (1999)	8.2	8.0	7.9	7.5	6.7	5.9
First-difference	8.2	8.0	8.0	7.8	7.2	6.4
Nominal income targeting	8.2	8.0	7.7	7.2	6.3	5.4
Constrained optimal control	8.2	8.0	7.7	7.1	6.0	5.1
Total PCE prices						
Extended Tealbook baseline	1.6	1.6	1.3	1.4	1.5	1.8
Taylor (1993)	1.6	1.3	0.9	0.9	1.0	1.2
Taylor (1999)	1.6	1.4	1.1	1.1	1.3	1.5
Inertial Taylor (1999)	1.6	1.6	1.4	1.5	1.7	1.9
First-difference	1.6	1.4	1.1	1.1	1.3	1.5
Nominal income targeting	1.6	1.7	1.6	1.8	1.9	2.1
Constrained optimal control	1.6	1.6	1.6	1.8	1.9	2.1
Core PCE prices						
Extended Tealbook baseline	2.0	1.2	1.6	1.6	1.7	1.8
Taylor (1993)	2.0	0.9	1.2	1.1	1.2	1.3
Taylor (1999)	2.0	1.1	1.4	1.4	1.5	1.6
Inertial Taylor (1999)	2.0	1.2	1.7	1.7	1.9	2.0
First-difference	2.0	1.0	1.4	1.3	1.5	1.6

Nominal income targeting	2.0	1.3	1.9	2.0	2.1	2.2
Constrained optimal control	2.0	1.2	1.9	2.0	2.1	2.2
Federal funds rate[1]						
Extended Tealbook baseline	0.2	0.2	0.1	0.1	0.4	2.0
Taylor (1993)	0.2	1.4	0.9	1.0	1.7	2.5
Taylor (1999)	0.2	0.1	0.1	0.2	1.4	2.5
Inertial Taylor (1999)	0.2	0.1	0.1	0.4	1.2	2.2
First-difference	0.2	0.1	0.1	0.5	1.8	2.6
Nominal income targeting	0.2	0.1	0.1	0.1	0.8	1.9
Constrained optimal control	0.2	0.2	0.1	0.1	0.2	1.1

1. Percent, average for the final quarter of the period. Return to table

Monetary Policy Alternatives

Table 1: Overview of Policy Alternatives for the December 12 FOMC Statement

Selected Elements	October Statement	December Alternatives		
		A	B	C
Economic Outlook				
Outlook	without sufficient policy accommodation, economic growth might not be strong enough	without **further** policy accommodation, economic growth might not be strong enough	unchanged	economic growth will **pick up gradually**; unemployment rate will continue to decline at a mandate-consistent pace
	inflation likely would run at or below 2 percent	inflation likely **will** run at or below 2 percent		inflation **will run near** 2 percent
Balance Sheet				
MEP	continue through end of year	**complete** at end of year		
Agency MBS	$40 billion per month	raise to **$50 billion** per month in January	unchanged	**discontinue** at end of year
Longer-Term Treasuries	none	**$50 billion** per month after MEP is completed	**initially $45 billion** per month after MEP is completed	none
	principal payments from agency securities into	unchanged		

<table>
<tr><td rowspan="2">Securities Reinvestment</td><td>agency MBS</td><td colspan="3"></td></tr>
<tr><td>redeem maturing Treasuries</td><td colspan="3">in January, resume rolling over maturing Treasury securities at auction</td></tr>
<tr><td rowspan="3">Guidance</td><td>if outlook for labor market does not improve substantially, will continue employing policy tools as appropriate until…</td><td colspan="2">essentially unchanged…</td><td rowspan="2">prepared to take further action as needed to promote sustained improvement in labor market conditions in a context of price stability</td></tr>
<tr><td>…such improvement is achieved in a context of price stability</td><td>…conditions are consistent with outlook for sustained progress toward objectives</td><td>unchanged</td></tr>
<tr><td>will take account of efficacy and costs</td><td colspan="2">unchanged</td><td>n.a.</td></tr>
<tr><td colspan="5">Federal Funds Rate</td></tr>
<tr><td>Target</td><td>0 to ¼ percent</td><td colspan="3">unchanged</td></tr>
<tr><td rowspan="3">Guidance</td><td>highly accommodative policy for a considerable time after economic recovery strengthens…</td><td colspan="2">highly accommodative policy for a considerable time after [substantial improvement in outlook for labor market, asset purchase program ends, and] economic recovery strengthens…</td><td>highly accommodative policy for [a considerable | some] time after economic recovery strengthens…</td></tr>
<tr><td>n.a.</td><td colspan="2">quantitative thresholds:
at least as long as unemployment rate above [A: 6 | B: 6½] percent, inflation one- to two-years ahead is no more than ½ percentage point above 2 percent, and longer-term inflation expectations remain well anchored; [B: these thresholds are consistent with earlier date-based guidance;] will also consider other information; when begin to remove accommodation, will take balanced approach consistent with [satisfactory progress toward objectives | longer-run goals]
OR</td><td>qualitative thresholds:
until observe substantial improvement in labor market conditions, provided inflation over the medium term will be close to [2 percent] objective and inflation expectations remain stable

OR</td></tr>
<tr><td>date-based:
at least through mid-2015</td><td>n.a.</td><td>unchanged</td><td>at least through [late 2014 | mid-2014 | late 2013]</td></tr>
</table>

[Note: In the December FOMC Statement Alternatives, emphasis (strike-through) indicates strike-through text in the original document, and strong emphasis (bold) indicates bold red underlined text in the original document.]

December FOMC Statement--Alternative A

1. Information received since the Federal Open Market Committee met in ~~September~~ **October** suggests that economic activity has continued to expand at a moderate pace in recent months**, apart from weather-related disruptions**. Growth in employment has been slow, and the unemployment rate remains elevated. Household spending has **continued to** advance~~d a bit more quickly~~, but growth in business fixed investment has slowed. The housing sector has shown some further signs of improvement, albeit from a depressed level. Inflation ~~recently picked up somewhat,~~ **has been running somewhat below the Committee's longer-run objective, apart from temporary variations that largely** reflect~~ing higher~~ **fluctuations in** energy prices. Longer-term inflation expectations have remained stable.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee remains concerned that, without ~~sufficient~~ **further** policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Furthermore, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term likely ~~would~~ **will** run at or below its 2 percent objective.
3. To support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee ~~will continue purchasing~~ **agreed today to increase its purchases of** additional agency mortgage-backed securities ~~at~~ **to** a pace of ~~$40~~ **$50** billion per month **beginning in January**. The Committee also will ~~continue through the end of the year~~ **purchase longer-term Treasury securities at a pace of $50 billion per month after** its program to extend the average maturity of its holdings of Treasury securities~~, and it~~ **is completed at the end of this year**. **The Committee** is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities **and, in January, will resume rolling over maturing Treasury securities at auction**. These actions, which together will increase the Committee's holdings of longer-term securities by about ~~$85~~ **$100** billion ~~each~~ **per** month ~~through the end of the year~~, should put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.
4. The Committee will closely monitor incoming information on economic and financial developments in coming months. If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of **Treasury and** agency mortgage-backed securities, ~~undertake additional asset purchases,~~ and employ its other policy tools as appropriate, until ~~such improvement is achieved~~ **it judges that data on economic activity and labor market conditions are consistent with an outlook for sustained progress toward maximum employment** in a context of price stability. In determining the size, pace, and composition of its asset purchases, the Committee will, as always, take appropriate account of the likely efficacy and costs of such purchases.
5. To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after **[it sees a substantial improvement in the outlook for the labor market, the asset purchase program ends, and]** the economic recovery strengthens. In particular, the Committee ~~also~~ decided ~~today~~ to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that ~~exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015~~ **this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above 6 percent, inflation between one and two years ahead is projected to be no more than 1/2 percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored**. **In determining how long to maintain a highly accommodative stance of monetary policy, the Committee will also consider other information, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments. When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with [maintaining**

satisfactory progress toward maximum employment in a context of price stability | its longer-run goals of maximum employment and inflation of 2 percent].

December FOMC Statement--Alternative B

1. Information received since the Federal Open Market Committee met in ~~September~~ **October** suggests that economic activity has continued to expand at a moderate pace in recent months**, apart from weather-related disruptions**. Growth in employment has ~~been slow~~ **picked up a bit**, ~~and~~ **but** the unemployment rate remains elevated. Household spending has **continued to** advance~~d a bit more quickly~~, **and the housing sector has shown further signs of improvement,** but growth in business fixed investment has slowed. ~~The housing sector has shown some further signs of improvement, albeit from a depressed level.~~ Inflation ~~recently picked up somewhat,~~ **has been running somewhat below the Committee's longer-run objective, apart from temporary variations that largely** reflect~~ing higher~~ **fluctuations in** energy prices. Longer-term inflation expectations have remained stable.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee remains concerned that, without sufficient policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions. Furthermore, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term likely ~~would~~ **will** run at or below its 2 percent objective.
3. To support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee will continue purchasing additional agency mortgage-backed securities at a pace of $40 billion per month. The Committee also will ~~continue through the end of the year~~ **purchase longer-term Treasury securities after** its program to extend the average maturity of its holdings of Treasury securities~~, and it~~ **is completed at the end of the year, initially at a pace of $45 billion per month**. **The Committee** is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities **and, in January, will resume rolling over maturing Treasury securities at auction**. **Taken together,** these actions~~, which together will increase the Committee's holdings of longer-term securities by about $85 billion each month through the end of the year,~~ should put downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.
4. The Committee will closely monitor incoming information on economic and financial developments in coming months. If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of **Treasury and** agency mortgage-backed securities, ~~undertake additional asset purchases,~~ and employ its other policy tools as appropriate, until such improvement is achieved in a context of price stability. In determining the size, pace, and composition of its asset purchases, the Committee will, as always, take appropriate account of the likely efficacy and costs of such purchases.
5. To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after **[it sees a substantial improvement in the outlook for the labor market, the asset purchase program ends, and]** the economic recovery strengthens. In particular, the Committee ~~also~~ decided ~~today~~ to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that ~~exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015~~ **this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above 6 1/2 percent, inflation between one and two years ahead is projected to be no more than 1/2 percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored**. **The Committee views these thresholds as consistent with its earlier date-based guidance. In determining how long to maintain a highly accommodative stance of monetary policy, the Committee will also consider other information, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings**

on financial developments. When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with [maintaining satisfactory progress toward maximum employment in a context of price stability | its longer-run goals of maximum employment and inflation of 2 percent].
OR
5′. To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after **[it sees a substantial improvement in the outlook for the labor market, the asset purchase program ends, and]** the economic recovery strengthens. In particular, the Committee also decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015.

December FOMC Statement--Alternative C

1. Information received since the Federal Open Market Committee met in ~~September~~ **October** suggests that economic activity has continued to expand at a moderate pace in recent months**, apart from weather-related disruptions**. Growth in employment has ~~been slow~~ **strengthened somewhat**, and the unemployment rate, ~~remains~~ **though still** elevated**, has declined**. ~~Household spending has advanced a bit more quickly, but growth in business fixed investment has slowed.~~ **Private domestic demand has continued to advance, and** the housing sector has shown ~~some~~ further signs of improvement~~, albeit from a depressed level~~. Inflation ~~recently picked up somewhat, reflecting higher energy prices~~ **has been running close to the Committee's longer-run objective**. Longer-term inflation expectations have remained stable.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee ~~remains concerned that, without sufficient policy accommodation, economic growth might not be strong enough to generate sustained improvement in labor market conditions~~ **expects economic growth to be moderate over coming quarters and then to pick up gradually, supported in part by the highly accommodative stance of monetary policy, and consequently anticipates that the unemployment rate will continue to decline at a pace that the Committee judges consistent with its mandate**. ~~Furthermore~~ **However**, strains in global financial markets continue to pose significant downside risks to the economic outlook. The Committee also anticipates that inflation over the medium term ~~likely would~~ **will** run ~~at or below~~ **near** its 2 percent objective.
3. **In light of the improving economic outlook, the Committee judges that it has provided sufficient policy accommodation** to support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its ~~dual~~ mandate**. Accordingly,** the Committee will**, at the end of the year, dis**continue purchasing additional agency mortgage-backed securities ~~at a pace of $40 billion per month.~~ **and complete** ~~The Committee also will continue through the end of the year~~ its program to extend the average maturity of its holdings of Treasury securities. ~~and it~~ **The Committee** is ~~maintaining~~ **continuing** its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities **and, in January, will resume rolling over maturing Treasury securities at auction**. These actions, which together will ~~increase~~ **keep** the Committee's holdings of longer-term securities ~~by about $85 billion each month through the end of the year,~~ **at a level of about $2.8 trillion, will maintain a highly accommodative stance of monetary policy and** should ~~put~~ **sustain** downward pressure on longer-term interest rates, support mortgage markets, and help to ~~make~~ **keep** broader financial conditions ~~more~~ accommodative.
4. The Committee will closely monitor incoming information on economic and financial developments ~~in coming months. If the outlook for the labor market does not improve substantially, the Committee will continue its purchases of agency mortgage-backed securities, undertake additional asset purchases, and employ its other policy tools as appropriate until such improvement is achieved~~ **and is prepared to take further action as needed to promote sustained improvement in labor market conditions** in a context of price stability. ~~In determining the size, pace, and composition of its asset purchases, the Committee will, as always, take~~

appropriate account of the likely efficacy and costs of such purchases.

5. To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for **[** a considerable **| some]** time after the economic recovery strengthens. In particular, the Committee ~~also~~ decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that ~~exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015~~ **this exceptionally low range for the federal funds rate will be appropriate until it has observed substantial improvement in labor market conditions, provided that the Committee projects that inflation over the medium term will be close to its [2 percent] objective and longer-term inflation expectations remain stable**.

OR

5′. To support continued progress toward maximum employment and price stability, the Committee expects that a highly accommodative stance of monetary policy will remain appropriate for **[** a considerable **| some]** time after the economic recovery strengthens. In particular, the Committee ~~also~~ decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that exceptionally low levels for the federal funds rate are likely to be warranted at least through ~~mid-2015~~ **[late 2014 | mid-2014 | late 2013]**.

Long-Run Projections of the Balance Sheet and Monetary Base

Figure: Total Assets

Line chart, by billions of dollars, 2006 to 2025. Data are monthly. There are four series, Alt A, Alt B, Alt C, and October Tealbook Alt B. Alt A begins in 2006 at about 900 and generally increases to about 4000 by 2013. It decreases to about 1800 by 2019 and then increases to about 2600 by 2025. Alt B begins in 2006 at about 900 and generally increases to about 3500 by 2013. It decreases to about 1800 by 2019 and then increases to about 2600 by 2025. Alt C begins in 2006 at about 900 and increases to about 2800 by 2013. It decreases to about 1700 by 2018 and then increases to about 2600 by 2025. October Tealbook Alt B begins in 2006 at about 900 and generally increases to about 3500 by 2013. It decreases to about 1800 by 2019 and then increases to about 2600 by 2025.

Growth Rates for the Monetary Base

Date	Alternative B	Alternative A	Alternative C	October Alternative B
	Percent, annual rate			
Monthly				
Apr-12	-12.2	-12.2	-12.2	-12.3
May-12	-8.7	-8.7	-8.7	-8.7
Jun-12	-5.1	-5.1	-5.1	-5.1
Jul-12	7.7	7.7	7.7	7.7
Aug-12	7.8	7.8	7.8	7.7
Sep-12	-12.4	-12.4	-12.4	-12.4
Oct-12	-8.9	-8.9	-8.9	1.1
Nov-12	32.6	32.5	32.5	28.9
Dec-12	37.9	37.8	38.5	23.1

Quarterly				
2011 Q3	21.0	21.0	21.0	21.0
2011 Q4	-5.9	-5.9	-5.9	-5.9
2012 Q1	5.5	5.5	5.5	5.5
2012 Q2	-3.9	-3.9	-3.9	-3.9
2012 Q3	0.8	0.8	0.8	0.8
2012 Q4	6.6	6.5	6.6	7.5
2013 Q1	36.4	38.2	24.0	28.3
2013 Q2	30.2	38.6	-4.2	30.1
Annual - Q4 to Q4				
2010	0.9	0.9	0.9	0.9
2011	32.9	32.9	32.9	32.9
2012	2.2	2.2	2.2	2.5
2013	25.7	40.4	5.5	25.1
2014	-0.6	2.5	-1.0	-0.6
2015	-1.3	-1.5	-6.6	-2.4
2016	-13.2	-12.5	-16.7	-14.3
2017	-16.5	-15.9	-18.3	-16.9
2018	-23.4	-22.8	-8.5	-23.9
2019	-7.4	-21.3	4.4	-6.2
2020	4.6	4.6	4.6	4.4
2021	4.6	4.6	4.6	4.4
2022	4.6	4.6	4.6	4.5
2023	4.7	4.7	4.7	4.6
2024	4.7	4.7	4.7	4.7
2025	4.7	4.7	4.7	4.7

Note: Not seasonally adjusted.

Growth Rates for M2

(Percent, seasonally adjusted annual rate)

	Tealbook Forecast *
Monthly Growth Rates	
Apr-12	5.5
May-12	3.8
Jun-12	5.1
Jul-12	9.0

Aug-12	4.5
Sep-12	10.1
Oct-12	11.2
Nov-12	5.9
Dec-12	7.3
Jan-13	-7.5
Feb-13	-4.0
Mar-13	2.0
Quarterly Growth Rates	
2012 Q3	6.7
2012 Q4	8.7
2013 Q1	-0.9
2013 Q2	1.6
2013 Q3	2.1
2013 Q4	2.0
2014 Q1	2.0
2014 Q2	2.3
2014 Q3	2.5
2014 Q4	2.6
2015 Q1	2.8
2015 Q2	2.4
2015 Q3	0.9
2015 Q4	-0.4
Annual Growth Rates	
2012	7.3
2013	1.2
2014	2.4
2015	1.4

* This forecast is consistent with nominal GDP and interest rates in the Tealbook forecast. Actual data through November 26, 2012; projections thereafter. Return to table

[Note: In the December 2012 Directive Alternatives, emphasis (strike-through) indicates strike-through text in the original document, and strong emphasis (bold) indicates bold red underlined text in the original document.]

December 2012 Directive--Alternative A

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to 1/4 percent. The Committee directs the Desk to ~~continue~~ **complete** the maturity extension program it announced in June to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about $267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining maturities of approximately 3 years or less with a total face value of about $267 billion. ~~For the duration~~ **Following the completion** of this program, the Committee directs the Desk to ~~suspend~~ **resume** its policy of rolling over maturing Treasury securities into new issues. **From the beginning of January, the Desk is directed to purchase longer-term Treasury securities at a pace of about $50 billion per month**. The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. The Desk is also directed to continue purchasing agency mortgage-backed securities at a pace of about $40 billion per month **until the end of December 2012, and to purchase agency mortgage-backed securities at a pace of about $50 billion per month beginning in January**. The Committee directs the Desk to engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

December 2012 Directive--Alternative B

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to 1/4 percent. The Committee directs the Desk to ~~continue~~ **complete** the maturity extension program it announced in June to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about $267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining maturities of approximately 3 years or less with a total face value of about $267 billion. ~~For the duration~~ **Following the completion** of this program, the Committee directs the Desk to ~~suspend~~ **resume** its policy of rolling over maturing Treasury securities into new issues. **From the beginning of January, the Desk is directed to purchase longer-term Treasury securities at a pace of about $45 billion per month.** The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. The Desk is also directed to continue purchasing agency mortgage-backed securities at a pace of about $40 billion per month. The Committee directs the Desk to engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

December 2012 Directive--Alternative C

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to 1/4 percent. The Committee directs the Desk to ~~continue~~ **complete** the maturity extension program it announced in June to purchase Treasury securities with remaining maturities of 6 years to 30 years with a total face value of about $267 billion by the end of December 2012, and to sell or redeem Treasury securities with remaining maturities of approximately 3 years or less with a total face value of about $267 billion. ~~For the duration~~ **Following the completion** of this program, the Committee directs the Desk to ~~suspend~~ **resume** its policy of rolling over maturing Treasury securities into new issues. The Committee directs the Desk to maintain its existing policy of reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities. The Desk is also directed to continue purchasing agency mortgage-backed securities at a pace of about $40 billion per month **until the end of December 2012**. The Committee directs the Desk to engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

Explanatory Notes

A. Policy Rules Used in "Monetary Policy Strategies"

The table below gives the expressions for the selected policy rules used in "Monetary Policy Strategies." In the table, R_t denotes the nominal federal funds rate for quarter t, while the right-hand-side variables include the staff's projection of trailing four-quarter core PCE inflation for the current quarter and three quarters ahead (π_t and $\pi_{t+3|t}$), the output gap estimate for the current period as well as its one-quarter-ahead forecast (gap_t and $gap_{t+1|t}$), and the forecast of the three-quarter-ahead annual change in the output gap ($\Delta^4 gap_{t+3|t}$). The value of policymakers' long-run inflation objective, denoted π , is 2 percent. The nominal income targeting rule responds to the nominal income gap, which is defined as the difference between nominal income yn_t (100 times the log of the level of nominal GDP) and a target value yn^t (100 times the log of potential nominal GDP). Target nominal GDP in 2007:Q4 is set equal to potential real GDP in that quarter multiplied by the GDP deflator in that quarter; subsequently, target nominal GDP grows 2 percentage points per year faster than potential GDP.

Rule	Specification
Taylor (1993) rule	$R_t = 2.25 + \pi_t + 0.5(\pi_t - \pi \quad) + 0.5gap_t$
Taylor (1999) rule	$R_t = 2.25 + \pi_t + 0.5(\pi_t - \pi \quad) + gap_t$
Inertial Taylor (1999) rule	$R_t = 0.85R_{t-1} + 0.15\left(2.25 + \pi_t + 0.5(\pi_t - \pi \quad) + gap_t\right)$
Outcome-based rule	$R_t = 1.2R_{t-1} - 0.39R_{t-2} + 0.19[0.79 + 1.73\pi_t + 3.66gap_t - 2.72gap_{t-1}]$
First-difference rule	$R_t = R_{t-1} + 0.5(\pi_{t+3\|t} - \pi \quad) + 0.5\Delta^4 gap_{t+3\|t}$
Nominal income targeting rule	$R_t = 0.75R_{t-1} + 0.25(2.25 + \pi_t + yn_t - yn^t \quad)$

D. Long-Run Projections of the Balance Sheet and Monetary Base

10-Year Treasury Term Premium Effect

Date	Alternative B	Alternative A	Alternative C	October Alternative B
	Basis Points Quarterly Averages			
2012 Q4	-113	-113	-69	-93
2013 Q1	-104	-110	-65	-90
2013 Q2	-94	-107	-61	-86
2013 Q3	-83	-103	-57	-81
2013 Q4	-78	-98	-53	-76
2014 Q1	-73	-92	-49	-72

2014 Q2	-69	-86	-45	-67
2014 Q3	-64	-81	-41	-62
2014 Q4	-59	-75	-38	-57
2015 Q1	-55	-70	-34	-53
2015 Q2	-51	-64	-31	-49
2015 Q3	-47	-59	-28	-44
2015 Q4	-43	-54	-25	-40
2016 Q4	-29	-37	-17	-27
2017 Q4	-20	-24	-11	-17
2018 Q4	-14	-16	-9	-10
2019 Q4	-11	-11	-9	-7
2020 Q4	-10	-9	-8	-5
2021 Q4	-9	-8	-7	
2022 Q4	-8	-6	-6	
2023 Q4	-6	-5	-5	
2024 Q4	-4	-4	-4	
2025 Q4	-3	-3	-3	

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

Billions of dollars

	Oct 31, 2012	2013	2015	2017	2019	2021	2023	2025
Total assets	2,825	3,521	3,402	2,469	1,884	2,097	2,345	2,635
Selected assets								
Liquidity programs for financial firms	13	0	0	0	0	0	0	0
Primary, secondary, and seasonal credit	0	0	0	0	0	0	0	0
Central bank liquidity swaps	13	0	0	0	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	2	1	0	0	0	0	0	0
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC	2	1	0	0	0	0	0	0
Securities held outright	2,579	3,253	3,170	2,283	1,736	1,973	2,230	2,527
U.S. Treasury securities	1,645	1,923	1,923	1,511	1,439	1,973	2,230	2,527
Agency debt securities	82	57	33	4	2	0	0	0
Agency mortgage-backed securities	852	1,273	1,215	768	295	0	0	0

Net portfolio holdings of TALF LLC	1	1	0	0	0	0	0	0
Total other assets	229	266	231	186	148	125	116	108
Total liabilities	2,771	3,450	3,307	2,344	1,720	1,880	2,057	2,254
Selected liabilities								
Federal Reserve notes in circulation	1,100	1,179	1,329	1,466	1,604	1,764	1,942	2,138
Reverse repurchase agreements	100	70	70	70	70	70	70	70
Deposits with Federal Reserve Banks	1,559	2,190	1,898	798	36	36	36	36
Reserve balances held by depository institutions	1,435	2,123	1,887	787	25	25	25	25
U.S. Treasury, General Account	100	61	5	5	5	5	5	5
Other Deposits	24	6	6	6	6	6	6	6
Interest of Federal Reserve Notes due to U.S. Treasury	2	0	0	0	0	0	0	0
Total capital	55	71	94	124	165	218	288	381

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

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

Federal Reserve Balance Sheet: End-of-Year Projections -- Alternative A

Billions of dollars

	Oct 31, 2012	2013	2015	2017	2019	2021	2023	2025
Total assets	2,825	3,998	3,895	2,863	1,883	2,099	2,346	2,636
Selected assets								
Liquidity programs for financial firms	13	0	0	0	0	0	0	0
Primary, secondary, and seasonal credit	0	0	0	0	0	0	0	0
Central bank liquidity swaps	13	0	0	0	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	2	1	0	0	0	0	0	0
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC	2	1	0	0	0	0	0	0
Securities held outright	2,579	3,709	3,645	2,664	1,727	1,969	2,226	2,524
U.S. Treasury securities	1,645	2,153	2,153	1,737	1,370	1,969	2,226	2,524
Agency debt securities	82	57	33	4	2	0	0	0
Agency mortgage-backed securities	852	1,499	1,459	922	355	0	0	0
Net portfolio holdings of TALF LLC	1	1	0	0	0	0	0	0
Total other assets	229	287	250	199	156	130	120	111
Total liabilities	2,771	3,927	3,801	2,738	1,718	1,881	2,059	2,255

Selected liabilities								
Federal Reserve notes in circulation	1,100	1,179	1,329	1,466	1,604	1,764	1,942	2,138
Reverse repurchase agreements	100	70	70	70	70	70	70	70
Deposits with Federal Reserve Banks	1,559	2,664	2,389	1,190	36	36	36	36
Reserve balances held by depository institutions	1,435	2,598	2,378	1,179	25	25	25	25
U.S. Treasury, General Account	100	61	5	5	5	5	5	5
Other Deposits	24	6	6	6	6	6	6	6
Interest of Federal Reserve Notes due to U.S. Treasury	2	0	0	0	-2	0	0	0
Total capital	55	71	94	124	165	218	288	381

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

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

Federal Reserve Balance Sheet: End-of-Year Projections -- Alternative C

Billions of dollars

	Oct 31, 2012	2013	2015	2017	2019	2021	2023	2025
Total assets	2,825	2,979	2,692	1,866	1,884	2,097	2,345	2,634
Selected assets								
Liquidity programs for financial firms	13	0	0	0	0	0	0	0
Primary, secondary, and seasonal credit	0	0	0	0	0	0	0	0
Central bank liquidity swaps	13	0	0	0	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	2	1	0	0	0	0	0	0
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC	2	1	0	0	0	0	0	0
Securities held outright	2,579	2,750	2,501	1,711	1,758	1,985	2,240	2,536
U.S. Treasury securities	1,645	1,653	1,652	1,275	1,709	1,985	2,240	2,536
Agency debt securities	82	57	33	4	1	0	0	0
Agency mortgage-backed securities	852	1,040	816	432	48	0	0	0
Net portfolio holdings of TALF LLC	1	1	0	0	0	0	0	0
Total other assets	229	227	191	155	126	112	105	99
Total liabilities	2,771	2,908	2,598	1,742	1,719	1,880	2,057	2,254
Selected liabilities								
Federal Reserve notes in circulation	1,100	1,179	1,329	1,466	1,604	1,764	1,942	2,138
Reverse repurchase agreements	100	70	70	70	70	70	70	70

Deposits with Federal Reserve Banks	1,559	1,648	1,189	195	36	36	36	36
Reserve balances held by depository institutions	1,435	1,581	1,178	184	25	25	25	25
U.S. Treasury, General Account	100	61	5	5	5	5	5	5
Other Deposits	24	6	6	6	6	6	6	6
Interest of Federal Reserve Notes due to U.S. Treasury	2	0	0	0	0	0	0	0
Total capital	55	71	94	124	165	218	288	381

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

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

† Note: Data values for figures are rounded and may not sum to totals. Return to text

Last update: January 5, 2018