

Accessible Material

November 2011 Tealbook Tables and Charts

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Accessible Material

November 2011 Tealbook A Tables and Charts[‡]

Domestic Economic Developments and Outlook

Key Background Factors underlying the Baseline Staff Projection

Figure: Federal Funds Rate

Line chart, 2007 to 2013. Unit is percent. Data are quarterly averages. There are four series, "Current," "Previous Tealbook," "Market, expected rate," and "Market, modal rate." The series begin at about 5.25 and generally decrease together to about 0 in 2009:Q1. They remain about constant until the end of the timeline.

Figure: Long-Term Interest Rates

Line chart, 2007 to 2013. Unit is percent. Data are quarterly averages. There are six series, "BBB Corporate Yield: Current," "BBB Corporate Yield: Previous Tealbook," "Conforming mortgage rate: Current," "Conforming mortgage: Previous Tealbook," "10-year Treasury yield: Current," and "10-year Treasury yield: Previous Tealbook." BBB Corporate Yield: Current and Previous Tealbook begin at about 6 and generally increase together to about 9.5 in 2008:Q4. They generally decrease together to about 5 in 2011:Q3 then generally increase together ending at about 6. Conforming mortgage rate: current and previous Tealbook begin at about 6 and generally decrease together to about 4 in 2011:Q4. They generally increase together ending at about 5.5. 10-year Treasury yield: Current and Previous Tealbook begin at about 5 and fluctuate but generally decrease together to about 2 in 2011:Q4. They generally increase together ending at about 4.

Figure: Equity Prices

Line chart, 2007 to 2013. Unit is an index, 2007:Q1 = 100, ratio scale. Data are quarter-end. There are two series, "Dow Jones U.S. Total Stock Market Index: Current" and "Dow Jones U.S. Total Stock Market Index: Previous Tealbook." The series begin at about 200 and generally decrease together to about 55 in 2009:Q1. They fluctuate but generally increase together to about 100 in 2011:Q1 then generally decrease together to about 80 in 2011:Q3. They generally increase together ending at about 110.

Figure: House Prices

Line chart, 2007 to 2013. Unit is an index, 2007:Q1 = 100, ratio scale. Data are quarterly. There are two series, "CoreLogic Index: Current" and "CoreLogic Index: Previous Tealbook." The series begin at about 100 and generally decrease together to about 73 in 2009:Q1. They generally increase together to about 75 in 2010:Q2. They generally decrease together to about 70 in 2011:Q1 then remain about constant to the end of the timeline.

Figure: Crude Oil Prices

Line chart, 2007 to 2013. Unit is dollars per barrel. Data are quarterly averages. There are two series, "West Texas Intermediate: Current" and "West Texas Intermediate: Previous Tealbook." The series begin at about 60 then generally increase together to about 120 in 2008:Q2. They generally decrease together to about 40 in 2009:Q1 then generally increase together to about 105 in 2011:Q1. They generally decrease together to about 95 in 2011:Q4 then remain about constant to the end of the timeline.

Figure: Broad Real Dollar

Line chart, 2007 to 2013. Unit is an index, 2007:Q1 = 100. Data are quarterly averages. There are two series, "Current" and "Previous Tealbook." The series begin at about 100 and generally decrease together to about 90 in 2008:Q2. They generally increase together in about 100 in 2009:Q1 then generally fluctuate but generally decrease together ending at about 83.

Note: Blue shading represents the projection period, which begins in 2011:Q4.

Summary of the Near-Term Outlook

(Percent change at annual rate except as noted)

Measure	2011:Q3		2011:Q4		2012:Q1	
	Previous Tealbook	Current	Previous Tealbook	Current	Previous Tealbook	Current

Real GDP	2.5	2.7	2.0	2.5	2.2	2.4
Private domestic final purchases	2.1	3.4	1.2	1.9	1.8	1.8
Personal consumption expenditures	1.7	2.2	1.1	2.0	1.7	1.9
Residential investment	-1.3	1.2	-0.8	3.2	3.8	3.5
Nonres. structures	3.7	14.1	-1.6	-5.2	-4.8	-4.2
Equipment and software	6.0	12.3	4.2	3.8	4.0	2.0
Federal purchases	-0.7	-2.2	3.7	4.6	-0.7	-0.7
State and local purchases	-2.6	-0.6	-1.2	-0.8	-0.8	-0.8
	Contribution to change in real GDP (percentage points)					
Inventory investment	.8	-0.3	.2	.4	.1	.6
Net exports	.3	.4	.6	.2	.7	.4

Recent Nonfinancial Developments (1)

Figure: Change in Private Payroll Employment

Line chart, 2001 to September 2011. Unit is thousands of employees. The series begins at about 0 and generally decreases to about -400 in late 2001. It generally increases to about 350 in mid-2004 then generally decreases to about -1000 in early 2009. It generally increases to about 300 in late 2010 then generally decreases ending at about 0. There is a second series labeled 3-month moving average that runs about concurrent with the first.

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

Figure: Unemployment Rate

Line chart, 2001 to September 2011. Unit is percent. The series begins at about 4 and generally increases to about 6.5 in late 2003. It generally decreases to about 4 in early 2007 then generally increases to about 10 in early 2009. It generally decreases to about 9 in early 2011 then generally increases ending at about 9.

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

Figure: Manufacturing IP ex. Motor Vehicles and Parts

Line chart 2001 to September 2011. Unit is 3-month percent change, annual rate. The series begins at about -2.5 and generally decreases to about -10 in late 2001. It generally increases to about 7.5 in late 2002 then generally decreases to about -2.5 in early 2003. It fluctuates but generally increases to about 12.5 in early 2006 then fluctuates but generally decreases to about -25 in early 2009. It generally increases to about 11 in early 2010 then generally decreases to about 0 in mid-2011. It generally increases ending at about 5.

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

Figure: Production of Light Motor Vehicles

Line chart, 2001 to September 2011. Unit is millions of units, annual rate. The series begins at about 11 and generally increases to about 13 in early 2003. It generally decreases to about 3.5 in mid-2009 then generally increases ending at about 8.5.

Source: Ward's Auto Infobank.

Recent Nonfinancial Developments (2)

Figure: Real PCE Goods ex. Motor Vehicles

Line chart, 2001 to September 2011. Unit is billions of chained (2005) dollars. The series begins at about 2250 and generally increases to about 2900 in late 2007. It generally decreases to about 2800 in early 2009 then generally increases ending at about 3050.

Note: Figures for July, August, and September are staff estimates based on available source data.

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

Figure: Sales of Light Motor Vehicles

Line chart, 2001 to September 2011. Unit is millions of units, annual rate. The series begins at about 17 and generally decreases to about 14 in late 2011. It generally

increases to about 22 in early 2002 then generally decreases to about 14 in mid-2002. It fluctuates but remains about constant until early 2005 then generally increases to about 20 in mid-2005 then fluctuates but generally decreases to about 9 in early 2009. It generally increases to about 13 in early 2011. It generally decreases to about 12 in mid-2011 then generally increases ending at about 13.

Source: Ward's Auto Infobank.

Figure: Single-Family Housing Starts

Line chart, 2001 to September 2011. Unit is thousands of units, annual rate. There are two series, "Starts" and "Adjusted Permits." The series begin at about 1300 and generally increase together to about 1800 in late 2005. They generally decrease together to about 300 in early 2009 then generally increase together to about 600 in early 2010. They generally decrease together ending at about 400.

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

Source: U.S. Census Bureau.

Figure: Single-Family Home Sales

Line chart, 2001 to September 2011. Unit is thousands of units, annual rate. There are two series, "New (right scale)" and "Existing (left scale)." New begins at about 900 and generally increases to about 1450 in late 2005. It generally decreases ending at about 300. Existing begins at about 4500 and generally increases to about 6250 in late 2005. It generally decreases to about 4000 in late 2008 and generally increases to about 5750 in late 2009. It generally decreases to about 3250 in mid-2010 then generally increases to about 4750 in early 2011. It generally decreases ending at about 4500.

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

Figure: Nondefense Capital Goods ex. Aircraft

Line chart, 2001 to September 2011. Unit is billions of dollars. There are two series, "Orders" and "Shipments." Orders begins at about 60 and generally decreases to about 45 in early 2002. It generally increases to about 70 in mid-2008 then generally decreases to about 45 in early 2009. It generally increases ending at about 70. Shipments begins at about 63 and generally decreases to about 50 in early 2003. It generally increases to about 65 in mid-2007 then generally decreases to about 51 in early 2009. It generally increases ending at about 66.

Source: U.S. Census Bureau.

Figure: Nonresidential Construction Put in Place

Line chart, 2001 to August 2011. Unit is billions of chained (2005) dollars. The series begins at about 275 and generally decreases to about 225 in late 2002. It generally increases to about 400 in early 2008 then generally decreases to about 250 in early 2011. It generally increases ending at about 275.

Source: U.S. Census Bureau.

[Box:] Consumer Sentiment and Consumer Spending

Figure: Expectations of Real Income Growth

Line chart, 1980 to October 2011 (preliminary). Unit is an index. The series begins at about 70 and generally decreases to about 55 in late 1980. It generally increases to about 95 in late 1984 then generally decreases to about 68 in late 1990. It generally increases to about 100 in late 1996 then fluctuates but generally decreases ending at about 55.

Note: Index is the percent of respondents answering "More" to the following question, "How about the next year or two -- do you expect that your (family) income will go up more than prices will go up, about the same, or less than prices will go up?" minus the percent responding "Less," plus 100.

Source: Michigan Survey.

Figure: Expected Probability of Job Loss

Line chart, 1997 to October 2011 (preliminary). Unit is percent. The series begins at about 20 in 1997 then fluctuates but generally increases to about 27 in mid-2004. It generally decreases to about 20 in early 2006 then generally increases to about 27 in late 2009. It generally decreases to about 23 in early 2011 then generally increases ending at about 27.

Note: Average response to "During the next 5 years, what do you think the chances are that you (or your husband/wife) will lose a job you wanted to keep?"

Source: Michigan survey.

Figure: Index of Consumer Sentiment

Line chart, 1978 to October 2011 (preliminary). Unit is an index, 1966:Q1 = 100. The series begins at about 85 and generally decreases to about 50 in early 1980. It generally increases to about 100 in early 1984 then generally decreases to about 65 in mid-1990. It fluctuates but generally increases to about 115 in late 1999 then

generally decreases to about 80 in early 2002. It generally increases to about 105 in mid-2003 then fluctuates but generally decreases to about 55 in late 2008. It generally increases to about 79 in late 2010 then generally decreases ending at about 55.

Source: Michigan survey.

Figure: Opinions about Government Economic Policy

Line chart, 1978 to October 2011 (preliminary). Unit is an index. The series begins at about 95 and generally decreases to about 60 in late 1980. It generally increases to about 120 in early 1982 then generally decreases to about 75 in mid-1983. It generally increases to about 120 in early 1985 then generally decreases to about 50 in late 1992. It generally increases to about 140 in early 1999 then generally decreases to about 45 in late 2008. It generally increases to about 110 in early 2009 then generally decreases ending at about 40.

Note: Index is the percent of respondents answering "Good" to the following question, "As to the economic policy of the government -- I mean steps taken to fight inflation or unemployment -- would you say the government is doing a good job, only fair, or a poor job?" minus the percent responding "poor," plus 100.

Source: Michigan Survey.

Note: The shaded bars represent a period of business recession as defined by the National Bureau of Economic Research: January 1980-July 1980, July 1981-November 1982, July 1990-March 1991, March 2001-November 2001, and December 2007-June 2009.

Recent Nonfinancial Developments (3)

Figure: Inventory Ratios ex. Motor Vehicles

Line chart, 2001 to 2011. Unit is months. There are two series, "Staff flow-of-goods system" and "Census book-value data." Staff flow-of-goods system begins at about 1.7 and generally decreases to about 1.5 in late 2007. It generally increases to about 1.7 in early 2009 then generally decreases ending at about 1.5 in September 2011. Census book-value data begins at about 1.4 and generally decreases to about 1.2 in late 2005. It generally increases to about 1.4 in early 2009 then generally decreases ending at about 1.2 in August 2011.

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

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

Figure: Defense Spending

Line chart, 2001 to 2011. Unit is billions of chained (2005) dollars. There are two series, "Unified (monthly)" and "NIPA (quarterly)." Unified begins at about 400 and fluctuates but generally increases to about 700 in early 2011. It generally decreases to about 600 in mid-2011 then generally increases to about 660 in late 2011. It generally decreases ending at about 600 in September 2011. NIPA begins at about 400 and generally increases to about 650 in late 2010 then generally decreases to about 600 in early 2011. It generally increases ending at about 625 in 2011:Q2.

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. Dept. of Commerce, Bureau of Economic Analysis.

Figure: Trade Balance

Line chart, 2001 to August 2011. Unit is billions of dollars. The series begins at about -30 and generally decreases to -70 in late 2006. It generally increases to about -20 in early 2009 then generally decreases ending at about -50.

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

Figure: Exports and Non-Oil imports

Line chart, 2001 to August 2011. Unit is billions of dollars. There are two series, "Non-oil imports" and "Exports." Non-oil imports begins at about 115 and generally decreases to about 100 in late 2001. It generally increases to about 180 in mid-2008 then generally decreases to about 140 in mid-2009. It generally increases ending at about 190. Exports begins at about 90 and generally decreases to about 80 in late 2001. It generally increases to about 160 in late 2008 then generally decreases to about 120 in early 2009. It generally increases ending at about 180.

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

Figure: Total PCE Prices

Line chart, 2001 to September 2011 (staff estimate). Unit is percent. There are two series, "12-month change" and "3-month change." 12-month change begins at about 2 and generally decreases to about 0 in late 2001. It fluctuates but generally increases to about 4 in late 2009. It generally decreases to about -1 in mid-2009 then generally increases ending at about 3. 3-month change begins at about 3 and generally decreases to about -2 in late 2001. It fluctuates but generally increases to about 8 in mid-2005. It generally decreases to about -1 in late 2005 then fluctuates but generally increases to about 6 in mid-2008. It generally decreases to about -8 in late 2008 then generally increases to about 4 in early 2009. It generally decreases to about -1 in mid-2010 then generally increases to about 4 in early 2011. It

generally decreases to about 2 in mid-2011 then generally increases ending at about 4.

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

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

Figure: PCE Prices ex. Food and Energy

Line chart, 2001 to September 2011 (staff estimate). Unit is percent. There are two series, "12-month change" and "3-month change." 12-month change begins at about 2 and generally decreases to about 1 in late 2001. It generally increases to about 3 in late 2002 then generally decreases to about 1.25 in late 2004. It generally increases to about 2 in early 2008 then generally decreases to about 1 in late 2010. It generally increases ending at about 1.5. 3-month change begins at about 2.5 and generally decreases to about -1 in late 2001. It generally increases to about 4 in early 2002 then generally decreases to about 1 in early 2003. It fluctuates but generally increases to about 3 in early 2007 then generally decreases to about 0.5 in early 2009. It generally increases to about 2.5 in late 2009 then generally decreases to about 0.5 in early 2011. It generally increases to about 2.5 in mid-2011 then generally decreases ending at about 1.5.

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

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

Projections of Real GDP and Related Components

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

Measure	2011		2012	2013
	H1	H2		
Real GDP	.8	2.6	2.5	3.2
Previous Tealbook	.8	2.2	2.6	3.4
Final sales	.8	2.5	2.3	2.8
Previous Tealbook	.7	1.7	2.4	2.9
Personal consumption expenditures	1.4	2.1	2.4	3.1
Previous Tealbook	1.2	1.4	2.3	3.1
Residential investment	.8	2.2	6.2	9.2
Previous Tealbook	.6	-1.0	7.2	9.6
Nonresidential structures	2.5	4.0	-3.4	.3
Previous Tealbook	2.5	1.0	-3.4	.6
Equipment and software	7.5	8.0	5.3	6.7
Previous Tealbook	7.7	5.1	5.3	6.7
Federal purchases	-3.9	1.1	-.7	-4.1
Previous Tealbook	-3.9	1.5	-.7	-4.0
State and local purchases	-3.1	-.7	-.4	.8
Previous Tealbook	-3.1	-1.9	-.4	.8
Exports	5.7	6.8	6.8	6.7
Previous Tealbook	5.7	8.8	7.4	7.1
Imports	4.8	3.6	3.7	4.9
Previous Tealbook	4.8	4.1	3.4	4.9
	Contributions to change in real GDP (percentage points)			
Inventory change	.0	.1	.2	.4
Previous Tealbook	.1	.5	.2	.5
Net exports	-.1	.3	.3	.1
Previous Tealbook	.0	.5	.5	.2

Figure: Real GDP

Line chart, 1982 to 2013. Unit is 4-quarter percent change. There are two series, "Current" and "Previous Tealbook." The series begin at about -4 and generally increase together to about 8 in early 1984. They generally decrease together to about -1 in late 1990 then fluctuate but generally increase together to about 5 in early 2000. They generally decrease together to about 0 in late 2001 then generally increase together to about 4 in early 2004. They generally decrease together to about -6 in early 2009 then generally increase together to about 4 in mid-2010. They generally decrease together to about 2 in early 2011 then generally increase together

ending at about 3.5.

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research: July 1981-November 1982, July 1990-March 1991, March 2001-November 2001, December 2007-June 2009. Blue shading represents the projection period, which begins in 2011:Q3.

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

[Box:] Why Haven't Gasoline Prices Fallen as Much as Oil Prices?

Figure: Crude Oil Prices

Line chart, 2007 to 2013. Unit is dollars per barrel. There are two series, "Brent" and "WTI." The series begin at about 50 and generally increase together to about 135 in 2008:Q3. They generally decrease together to about 30 in 2009:Q1 then generally increase together to about 80 in 2010:Q2. They generally decrease together to about 75 in 2010:Q3. Brent generally increases to about 125 in 2011:Q2 then generally decreases ending at about 109. WTI generally increases to about 110 in 2011:Q2 then generally decreases to about 80 in 2011:Q4. It generally increases ending at about 100.

Note: Blue shading represents the projection period, which begins in November 2011.

Source: NYMEX and staff forecast.

Figure: Retail Gasoline Price

Line chart, 2007 to 2013. Unit is cents per gallon. There are two series, "October Tealbook" and "September Tealbook." The series begin at about 250 and generally increase together to about 400 in 2008:Q3. They generally decrease together to about 200 in 2008:Q4. They generally increase together to about 375 in 2011:Q1. They generally decrease together to about 340 in 2011:Q2 then generally increase together to about 375 in 2011:Q4. October Tealbook generally decreases to about 355 in 2012:Q1 and remains about constant to the end of the timeline. September Tealbook generally decreases to about 345 in 2012:Q1 and remains about constant to the end of the timeline.

Note: Blue shading represents the projection period, which begins in November 2011.

Source: Energy Information Administration and staff forecast.

Figure: Wholesale Gasoline Margins, by Region

Line chart, 2007 to 2011. Unit is cents per gallon. Average U.S. aggregate margin (2004-2011) is marked by a horizontal dashed line at about 44. There are three series, "U.S. aggregate," "East Coast," and "Midwest." U.S. aggregate begins at about 40 and generally increases to about 104 in 2007:Q2. It generally decreases to about 30 in 2008:Q3 then generally increases to about 65 in 2008:Q3. It generally decreases to about 15 in 2008:Q4 then generally increases to about 45 in 2009:Q2. It generally decreases to about 25 in 2009:Q4 then generally increases to about 60 in 2011:Q2. It generally decreases ending at about 55. East Coast begins at about 30 and generally increases to about 80 in 2007:Q2. It generally decreases to about 20 in 2007:Q4. It fluctuates but generally increases to about 75 in 2008:Q4 then generally decreases to about 5 in 2009:Q1. It fluctuates but generally increases to about 40 in 2009:Q3 then generally decreases to about 15 in 2009:Q4. It generally increases to about 35 in 2010:Q1 then generally decreases to about 0 in 2011:Q1. It generally increases ending at about 45. Midwest begins at about 30 and generally increases to about 110 in 2007:Q2. It generally decreases to about 15 in 2008:Q2 then generally increases to about 55 in 2008:Q3. It generally decreases to about 0 in 2008:Q4 then generally increases to about 50 in 2009:Q3. It generally decreases to about 15 in 2010:Q1 then generally increases ending at about 0- in 2011:Q2. It generally decreases to about 65 in 2011:Q2 then generally increases ending at about 80.

Note: Calculated as wholesale gasoline price minus composite refiner's acquisition cost of crude oil, by region.

Source: Energy Information Administration.

Figure: Refinery Utilization Rates, by Region

Line chart, 2007 to 2011. Unit is percent. There are two series, "East Coast" and "Midwest." East Coast begins at about 90 and generally decreases to about 84 in 2007:Q3. It generally increases to about 86 in 2008:Q1. It generally decreases to about 70 in 2009:Q2 then generally increases to about 85 in 2010:Q4. It generally decreases ending at about 67. Midwest begins at about 93 and generally decreases to about 85 in 2008:Q2 then generally increases to about 90 in 2008:Q3. It generally decreases to about 85 in 2010:Q2 then generally increases to about 90 in 2010:Q4. It generally decreases ending at about 87 then generally increases ending at about 92.

Note: 6-month moving average.

Source: Energy Information Administration.

Components of Final Demand

Figure: Personal Consumption Expenditures

Line chart, 2007 to 2013. Unit is 4-quarter percent change. There are two series, "Current" and "Previous Tealbook." The series begin at about 3 and generally decrease together to about -3 in 2009:Q2. They generally increase together to about 3 in 2010:Q4. Current generally decreases to about 2 in 2012:Q1 and generally increases ending at about 3. Previous Tealbook generally decreases to about 1 in 2012:Q1 and generally increases ending at about 3.

Figure: Residential Investment

Line chart, 2007 to 2013. Unit is 4-quarter percent change. There are two series, "Current" and "Previous Tealbook." The series begin at about -28 and generally decrease together to about -30 in 2009:Q2. They generally increase together to about 5 in 2010:Q2 then generally decrease together to about -10 in 2011:Q2. They generally increase together ending at about 10.

Figure: Equipment and Software

Line chart, 2007 to 2013. Unit is 4-quarter percent change. There are two series, "Current" and "Previous Tealbook." The series begin at about 4 and generally decrease together to about -20 in 2009:Q1. They generally increase together to about 15 in 2010:Q3 then generally decrease together to about 5 in 2012:Q3. They generally increase together ending at about 7.

Figure: Nonresidential Structures

Line chart, 2007 to 2013. Unit is 4-quarter percent change. There are two series, "Current" and "Previous Tealbook." The series begin at about 10 and generally increase together to about 15 in 2007:Q4. They generally decrease together to about -30 in 2009:Q4. They generally increase together to about 5 in 2011:Q4 then generally decrease together to about -5 in 2012:Q3. They generally increase together ending at about 0.

Figure: Government Consumption & Investment

Line chart, 2007 to 2013. Unit is 4-quarter percent change. There are two series, "Current" and "Previous Tealbook." The series begin at about .5 and generally increase together to about 3 in 2008:Q1. They generally decrease together to about -3 in 2011:Q3. They generally increase together to about 0 in 2012:Q3 then generally decrease together ending at about -1.

Figure: Exports and Imports

Line chart, 2007 to 2013. Unit is 4-quarter percent change. There are four series, "Exports: Current," "Exports: Previous Tealbook," "Imports: Current," and "Imports: Previous Tealbook." Exports: Current and Previous Tealbook begin at about 7 and generally increase together to about 12 in 2007:Q4. They generally decrease together to about 2009:Q2 then generally increase together to about 14 in 2010:Q1. They generally decrease together to about 5 in 2011:Q2 and remain about constant to the end of the timeline. Imports: Current and Previous Tealbook begin at about 5 and generally decrease together to about -20 in 2009:Q2. They generally increase together to about 17 in 2010:Q1 then generally decrease together to about 2.5 in 2011:Q3. They remain about constant to the end of the timeline.

Note: Blue shading represents the projection period, which begins in 2011:Q3.

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

Aspects of the Medium-Term Projection

Figure: Personal Saving Rate

Line chart, 1990 to 2013. Unit is percent. There are two series, "Current" and "Previous Tealbook." The series begin at about 6.5 and generally increase together to about 7.5 in 1992. They generally decrease together to about 1.5 in 2001 then generally increase together to about 4 in 2004. They generally decrease together to about 1 in 2005 then generally increase together to about 6 in 2009. They generally decrease together to about 4 in 2010 then fluctuate but generally increase together ending at about 5.

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

Figure: Wealth-to-Income Ratio

Line chart, 1990 to 2013. Unit is ratio. There are two series, "Current" and "Previous Tealbook." The series begin at about 4.8 and generally increase together in 6.2 in 2000. They generally decrease together to about 5.0 in 2002 then generally increase together to about 6.4 in 2007. They generally decrease to about 4.4 in 2009. They fluctuate but generally increase together ending at about 5.0.

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

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

Figure: Single-Family Housing Starts

Line chart, 1990 to 2013. Unit is millions of units. There are two series, "Current" and "Previous Tealbook." The series begin at about 1.00 and generally decrease together to about 0.75 in 1991. They generally increase together to about 1.75 in 2006 then generally decrease together to about 0.25 in 2009. They generally increase together ending at about 0.55.

Source: U.S. Census Bureau.

Figure: Equipment and Software Spending

Line chart, 1990 to 2013. Unit is share of nominal GDP. There are two series, "Current" and "Previous Tealbook." The series begin at about 7.5 and generally decrease together to about 6.75. They generally increase together to about 9.5 in 2000 then generally decrease together to about 6.5 in 2009. They generally increase together ending at about 7.75.

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

Figure: Federal Surplus/Deficit

Line chart, 1990 to 2013. Unit is share of nominal GDP. Data are 4-quarter moving averages. There are two series, "Current" and "Previous Tealbook." The series begin at about -3 and generally decrease together to about -5 in 1992. They generally increase together to about 2 in 2001 then generally decrease together to about -4 in 2004. They generally increase together to about -2 in 2006 then generally decrease together to about -10 in 2009. They generally increase together ending at about -5.

Source: Monthly Treasury Statement.

Figure: Current Account Surplus/Deficit

Line chart, 1990 to 2013. Unit is share of nominal GDP. There are two series, "Current" and "Previous Tealbook." The series begin at about -1.5 and generally increase together to about 1 in 1991. They generally decrease together to about -7 in 2006 then generally increase ending at about -2.5.

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

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research: July 1990-March 1991, March 2001-November 2001, and December 2007-June 2009. Blue shading represents the projection period, which begins in 2011:Q3.

Decomposition of Potential GDP

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

Measure	1974-1995	1996-2000	2001-2009	2010	2011	2012	2013
Potential GDP	3.0	3.5	2.4	1.7	2.1	2.1	2.2
Previous Tealbook	3.0	3.5	2.5	1.7	2.1	2.1	2.2
<i>Selected contributions¹</i>							
Structural labor productivity	1.5	2.7	2.4	1.5	1.7	1.7	1.9
Previous Tealbook	1.5	2.7	2.4	1.5	1.7	1.7	1.9
Capital deepening	.7	1.5	.8	.4	.5	.6	.8
Previous Tealbook	.7	1.5	.8	.4	.6	.6	.8
Multifactor productivity	.5	.9	1.4	1.0	1.0	1.0	1.0
Previous Tealbook	.5	.9	1.4	1.0	1.0	1.0	1.0
Trend hours	1.5	1.0	.6	.5	.6	.7	.6
Previous Tealbook	1.5	1.0	.6	.5	.6	.7	.6
Labor force participation	.4	.0	-.3	-.4	-.3	-.2	-.3
Previous Tealbook	.4	.0	-.3	-.4	-.3	-.2	-.3

Note: Components may not sum to totals because of rounding. 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](#)

Source: Staff assumptions.

Figure: Nonfarm Business Productivity

Line chart, 2001 to 2013. Unit is chained (2005) dollars per hour. The series begins at about 44 and fluctuates but generally increases ending at about 58. There is a second series labeled "Structural productivity" that begins at about 44 and generally increases ending at 58.

Note: Blue shading represents the projection period, which begins in 2011:Q3.

Figure: Labor Force Participation Rate

Line chart, 2001 to 2013. Unit is percent. The series begins at about 67 and fluctuates but generally decreases to about 64 in 2011:Q4. It remains about constant to the end of the timeline. There is a second series labeled "Trend" that begins at about 66.8 and generally decreases ending at about 64.5.

Note: Blue shading represents the projection period, which begins in 2011:Q4.

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

The Outlook for the Labor Market

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

Measure	2010	2011	2012	2013
Output per hour, nonfarm business	2.5	1.0	1.2	1.7
Previous Tealbook	2.5	.8	1.3	1.8
Nonfarm private employment	.9	1.6	1.8	2.3
Previous Tealbook	.9	1.5	1.8	2.3
Labor force participation rate ¹	64.5	64.1	64.0	64.1
Previous Tealbook	64.5	64.0	63.9	64.0
Civilian unemployment rate ¹	9.6	9.1	8.6	8.1
Previous Tealbook	9.6	9.1	8.7	8.1
Memo:				
GDP gap ²	-5.6	-6.0	-5.6	-4.7
Previous Tealbook	-5.6	-6.2	-5.8	-4.7

Note: A negative number indicates that the economy is operating below potential.

1. Percent, average for the fourth quarter. [Return to table](#)

2. Percent difference between actual and potential GDP in the fourth quarter of the year indicated. [Return to table](#)

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

Figure: Private Payroll Employment, Average Monthly Changes

Line chart, 1990 to 2013. Unit is thousands. There are two series, "Current" and "Previous Tealbook." The series begin at about 200 and generally decrease together to about -200 in 1991. They generally increase together to about 350 in 1994 then fluctuate but generally decrease together to about -400 in 2001. They generally increase together to about 400 in 2005 then generally decrease together to about -800 in 2009. They generally increase together ending at about 250.

Note: Blue shading represents the projection period, which begins in 2011:Q4.

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

Figure: Unemployment Rate

Line chart, 1990 to 2013. Unit is percent. There are four series, "Current," "Previous Tealbook," "NAIRU," and "NAIRU with EEB adjustment." Current and Previous Tealbook begin at about 5.25 and generally increase together to about 7.5 in 1992. They generally decrease together to about 4 in 2000 then generally increase together to about 6 in 2003. They generally decrease together to about 4.5 in 2007 then generally increase together to about 10 in 2009. They generally decrease together ending at about 8. NAIRU begins at about 6 and generally decreases to about 5 in 1994. It remains about constant until 2008 then generally increases to about 6 in 2009. It remains about constant until the end of the timeline. NAIRU with EEB adjustment begins at about 6 and generally decreases to about 5 in 1994. It remains about constant until 2009 then generally increases to about 7 in 2009. It generally decreases ending at about 6.

Note: The EEB adjustment is the staff estimate of the effect of extended and emergency unemployment compensation programs on the NAIRU. Blue shading represents the projection period, which begins in 2011:Q4.

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

Figure: GDP Gap

Line chart, 1990 to 2013. Unit is percent. There are two series, "Current" and "Previous Tealbook." The series begin at about 1 and generally decrease together to about -4 in 1992. They generally increase together to about 4 in 1999 then generally decrease together to about -2 in 2003. They generally increase together to about 1 in 2005 then generally decrease together to about -8 in 2009. They generally increase together ending at about -4.

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 2011:Q3.

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

Figure: Manufacturing Capacity Utilization Rate

Line chart, 1990 to 2013. Unit is percent. There are two series, "Current" and "Previous Tealbook." Average Rate from 1972 to 2010 is marked by a horizontal line at about 79. The series begin at about 83 and generally decrease together to about 78 in 1991. They generally increase together to about 85 and generally decrease together to about 70 in 2001. They generally increase together to about 80 in 2006 then generally decrease together to about 65 in 2009. They generally increase together ending at about 79.

Note: Blue shading represents the projection period, which begins in 2011:Q4.

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: July 1990-March 1991, March 2001-November 2001, and December 2007-June 2009.

Inflation Projections

(Percent change, Q4 to Q4)

Measure	2010	2011	2012	2013
PCE chain-weighted price index	1.3	2.7	1.4	1.4
Previous Tealbook	1.3	2.6	1.2	1.3
Food and beverages	1.3	5.3	1.2	1.2
Previous Tealbook	1.3	4.6	1.4	1.4
Energy	6.2	12.1	-4	1.2
Previous Tealbook	6.2	11.6	-3.1	.6
Excluding food and energy	1.0	1.8	1.5	1.4
Previous Tealbook	1.0	1.9	1.5	1.3
Prices of core goods imports ¹	2.6	4.4	1.2	1.7
Previous Tealbook	2.6	4.8	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, 1990 to 2013. Unit is 4-quarter percent change. There are two series, "Current" and "Previous Tealbook." The series begin at about 4 and generally increase together to about 5.5 in 1991. They generally decrease together to about 1 in 1998 then generally increase together to about 4.5 in 2008. They generally decrease together to about -1 in 2009 then generally increase together to about 3 in 2011. They generally decrease together ending at about 1.5.

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

Figure: PCE Prices ex. Food and Energy

Line chart, 1990 to 2013. Unit is 4-quarter percent change. There are four series, "Current," "Previous Tealbook," "Market Based: Current," and "Market Based: Previous Tealbook." Current and Previous Tealbook begin at about 4 and generally increase together to about 4.5 in 1991. They generally decrease together to about 1.25 in 1997 then generally increase together to about 2.5 in 2006. They generally decrease together to about 1 in 2010 then generally increase together to about 2 in 2011. They generally decrease together ending at about 1.5. Market Based: Current and Previous Tealbook begin at about 4.5 and generally increase together to about 5 in 1991. They generally decrease together to about 1 in 1998 then generally increase together to about 2.5 in 2006. They generally decrease together to about 1 in 2009 then generally increase together to about 2 in 2012. They generally decrease together ending at about 1.25.

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

Figure: Compensation per Hour

Line chart, 1990 to 2013. Unit is 4-quarter percent change. There are two series, "Productivity and Costs" and "Employment cost index." Productivity and Costs begins at about 4 and generally increases to about 7.5 in 1991. It generally decreases to about 2 in 1994 then generally increases to about 9 in 1999. It generally decreases to about 2 in 2002 then generally increases to about 6 in 2003. It generally decreases to about 0 in 2009 then generally increases ending at about 2. Employment cost index begins at about 5 and generally decreases to about 2 in 1995. It generally increases to about 4 in 1999 then generally decreases to about 1 in 2009. It generally increases ending at about 2.

Figure: Long-Term Inflation Expectations

Line chart, 1990 to 2011. Unit is percent. 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 at about 4 and generally increases to about 5 in 2009. It generally decreases to about 2.5 in 2001 then generally increases to about 3.5 in 2008. It generally decreases to about 2.5 in 2009 then generally increases to about 3.5 in 2011. It generally decreases ending at about 2.75 in October 2011. SPF, next 10 years begins at about 4, and generally decreases to about 2.25 by 1999. It then fluctuates in a narrow range for the remainder of the timeline, ending at about 2.3 in 2011:Q3.

Note: The Survey of Professional Forecasters (SPF) projection is for the CPI.

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: July 1990-March 1991, March 2001-November 2001, and December 2007-June 2009. Blue shading represents the projection period, which begins in 2011:Q3.

The Long-Term Outlook

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

Item	2011	2012	2013	2014	2015	2016
Real GDP	1.7	2.5	3.2	3.9	4.1	3.6
Civilian unemployment rate ¹	9.1	8.6	8.1	7.3	6.6	6.0
PCE prices, total	2.7	1.4	1.4	1.5	1.5	1.6
Core PCE prices	1.8	1.5	1.4	1.4	1.5	1.6
Federal funds rate ¹	.1	.1	.1	.6	2.0	2.9
10-year Treasury yield ¹	2.3	3.2	3.8	4.0	4.3	4.4

1. Percent, average for the final quarter of the period. [Return to table](#)

Figure: Real GDP

Line chart, 2002 to 2016. Unit is 4-quarter percent change. There are two series, "Potential GDP" and "Real GDP." Potential GDP begins at about 3.5 and generally decreases to about 1 in early 2010. It generally increases ending at about 2.75. Real GDP begins at about 1.5 and generally increases to about 4 in late 2004. It generally decreases to about -5 in early 2009 then generally increases to about 3.75 in mid-2010. It generally decreases to about 2 in early 2011 then generally increases to about 4 in early 2015. It generally decreases ending at about 3.5.

Figure: Unemployment Rate

Line chart, 2002 to 2016. Unit is percent. The series begins at about 5.75 and generally increases to about 6 in late 2003. It generally decreases to about 4.25 in late 2006 then generally increases to about 10 in late 2009. It generally decreases ending at about 6. A second series labeled "NAIRU with EEB adjustment" begins at about 5 and remains about constant until early 2008. It generally increases to about 6.5 then generally decreases ending at about 5. A third series labeled "NAIRU" begins at about 5 and remains about constant until early 2008. It generally increases to about 6 in late 2009 then remains about constant until late 2013. It generally decreases ending at about 5.

Figure: PCE Prices

Line chart, 2002 to 2016. Unit is 4-quarter percent change. There are two series, "Total PCE Prices" and "PCE prices excluding food and energy." Total PCE Prices begins at about 1 and fluctuates but generally increases to about 4.5 in early 2008. It generally decreases to about -1 in mid-2009 then generally increases to about 2.25 in late 2009. It generally decreases to about 1 in late 2010 then generally increases to about 3 in late 2011. It generally decreases to about 1 in mid-2012 then generally increases ending at about 1.75. PCE prices excluding food and energy begins at about 1.5, generally increases to about 2.5 by 2007, and remains near that level through mid-2008. It generally decreases to about 1 by late 2010, increases to about 1.8 by 2012, dips to about 1.4 by mid-2013, and increases to end at about 1.6.

Figure: Interest Rates

Line chart, 2002 to 2016. Unit is percent. There are three series, "BBB Corporate," "10-year Treasury," and "Federal funds rate." BBB Corporate begins at about 7.5 and generally decreases to about 6 in early 2004. It generally increases to about 9.5 in early 2009. It generally decreases to about 5 in late 2011 then generally increases ending at about 6. 10-year Treasury begins at about 5.5 then generally decreases to about 4 in mid-2003. It generally increases to about 5 in early 2006 then generally decreases to about 2 in late 2011. It generally increases ending at about 4.5. Federal funds rate begins at about 1.75 and generally decreases to about 1 in mid-2004. It generally increases to about 5 in early 2007 then generally decreases to about 0 in early 2009. It remains about constant until early 2014 then generally increases ending at about 3.

Note: In each panel, shading represents the projection period, which begins in 2011:Q3.

Evolution of the Staff Forecast

Figure: Change in Real GDP

Line chart, Tealbook publication dates 1/22/2009 to 10/26/2011. Unit is percent, Q4/Q4. There are four series, "2010," "2011," "2012," and "2013." 2010 begins at about 2.5 and generally decreases to about 1.5 on 3/12/2009. It generally increases to about 3.5 on 1/20/2010 then generally decreases to about 2 on 9/15/2010. It generally increases ending at about 3 on 10/26/2011. 2011 begins at about 4.5 on 9/16/2009. It fluctuates but generally decreases to about 1.25 on 9/14/2011. It generally increases ending at about 1.75 on 10/26/2011. 2012 begins at about 4 on 9/15/2010 and generally increases to about 4.5 on 10/27/2010. It generally decreases ending at about 2.5 on 10/26/2011. 2013 begins at about 3.25 on 9/14/2011 and generally decreases ending at about 3 on 10/26/2011.

Figure: Unemployment Rate

Line chart, Tealbook publication dates 1/22/2009 to 10/26/2011. Unit is percent, fourth quarter. There are four series, "2010," "2011," "2012," and "2013." 2010 begins at about 8.0 and generally increases to about 9.5 on 3/12/2009. It generally decreases to about 9.0 on 4/22/2009 then generally increases to about 9.5 on 6/17/2009. It fluctuates but remains about constant ending on 10/26/2011. 2011 begins at about 7.75 on 9/16/2011 and fluctuates but generally increases ending at about 9.0 on 10/26/2011. 2012 begins at about 8.0 on 9/15/2010 and generally decreases to about 7.5 on 3/9/2010. It generally increases ending at about 8.5 on 10/26/2011. 2013 begins at about 8.0 on 9/14/2011 and remains about constant ending on 10/26/2011.

Figure: Change in PCE Prices excluding Food and Energy

Line chart, Tealbook publication dates 1/22/2009 to 10/26/2011. Unit is percent, Q4/Q4. There are four series, "2010," "2011," "2012," and "2013." 2010 begins at about 0.75 and generally decreases to about 0.5 on 3/12/2009. It generally increases to about 1.25 on 1/20/2010 then generally decreases to about 0.75 on 6/16/2010. It generally increases to about 1.25 on 8/4/2010 then remains about constant until 10/27/2010 then generally decreases to about 0.75 on 1/19/2011. It remains about constant until 6/15/2011 then generally increases to about 1.0 on 8/3/2011. It remains about constant ending on 10/26/2011. 2011 begins at about 1.0 and generally decreases to about 0.75 on 6/16/2010. It generally increases to about 2.0 on 9/14/2011 then generally decreases ending at about 1.75 on 10/26/2011. 2012 begins at about 0.75 on 9/15/2010 then generally increases to about 1.5 on 6/5/2011. It remains about constant ending on 10/26/2011. 2013 begins at about 1.25 on 9/14/2011 and generally increases ending at about 1.5 on 10/26/2011.

Note: Because the core PCE price index was redefined as part of the comprehensive revisions to the NIPA, projections prior to the August 2009 Tealbook are not strictly comparable with more recent projections.

† Note: Data values for figures are rounded and may not sum to totals. [Return to text](#)

Last update: February 3, 2017

International Economic Developments and Outlook

Recent Foreign Indicators

Figure: Nominal Exports

Line chart, 2007 to 2011. Unit is an index, January 2007 = 100. There are three series, "Foreign," "AFE," and "EME" (excludes Venezuela). The series all begin at about 100 and generally increase together to about 135 in late 2008. Foreign generally decreases to about 80 in early 2009 then generally increases ending at about 145. AFE generally decreases to about 80 in early 2009 then generally increases ending at about 135. EME generally decreases to about 75 in early 2009 then generally increases ending at about 160.

Figure: Industrial Production

Line chart, 2007 to 2011. Unit is an index, January 2007 = 100. There are three series, "Foreign," "AFE" (excludes Australia and Switzerland), and "EME" (excludes Colombia, Hong Kong, Philippines, and Venezuela). Foreign begins at about 100 and generally increases to about 105 in mid-2008. It generally decreases to about 90 in early 2009 then generally increases ending at about 105. AFE begins at about 100 and generally decreases to about 85 in mid-2009 then generally increases ending at about 95. EME begins at about 100 and generally increases to about 110 in early 2008. It generally decreases to about 95 in early 2009 then generally increases ending at about 120.

Figure: Retail Sales

Line chart, 2007 to 2011. Unit is 12-month percent change. There are three series, "Foreign," "AFE" (excludes Australia and Switzerland), and "EME" (includes Brazil, China, Israel, Korea, Singapore, and Taiwan). Foreign begins at about 5 and generally decreases to about -2.5 in early 2009. It generally increases to about 6 in early 2010 then generally decreases to about 0.25. It generally increases ending at about 2.5. AFE begins at about 4 and generally decreases to about -5 in early 2009. It generally increases to about 5 in early 2010 then generally decreases to about -2.5 then generally increases to about 1 in early 2011. It generally decreases ending at about 0. EME begins at about 5.5 and generally increases to about 11 in early 2007. It generally decreases to about 4 in late 2008 then generally increases to about 11 in early 2010. It generally decreases to about 4 in early 2011 then generally increases ending at about 7.5.

Figure: Employment

Line chart, 2007 to 2011. Unit is 4-quarter percent change. There are three series, "Foreign," "AFE," and "EME" (excludes Argentina and Mexico). Foreign begins at 2 and generally decreases to about -1 in mid-2009. It generally increases ending at about 1.5. AFE begins at about 2 and generally decreases to about -2 in mid-2009. It generally increases ending at about 1. EME begins at about 3 and fluctuates but remains about constant until mid-2008. It generally decreases to about .5 in mid-2009 then generally increases ending at about 3.

Figure: Consumer Prices: Advanced Foreign Economies

Line chart, 2007 to 2011. Unit is 12-month percent change. There are two series, "Headline" and "Core" (excludes all food and energy; staff calculation). Headline begins at about 1.25 and generally increases to about 3.5 in mid-2008. It generally decreases to about 1 in mid-2009 then generally increases ending at about 2.5. Core begins at about 1 and generally increases to about 1.5 in mid-2007. It generally decreases to about .5 in mid-2010 then generally increases ending at about 1.

Note: Excludes Australia, Sweden, and Switzerland.

Source: Haver Analytics and CEIC.

Figure: Consumer Prices: Emerging Market Economies

Line chart, 2007 to 2011. Unit is 12-month percent change. There are three series, "Headline," "Ex. Food - East Asia*," and "Ex. Food - Latin America." Headline begins at about 3 and generally increases to about 7 in mid-2008. It generally decreases to about .5 in mid-2009 then generally increases ending at about 5.5. Ex. Food - East Asia begins at about 2 and generally increases to about 4 in late 2008. It generally decreases to about -2 in mid-2009 then generally increases ending at about 2. Ex. Food - Latin America begins at about 4 and generally increases to about 6 in late 2008. It fluctuates but generally decreases ending at about 3.

The Foreign Outlook

(Percent change, annual rate)

	2010	2011				2012	2013
		Q1	Q2	Q3	Q4		
Real GDP							
Total foreign	4.3	4.0	2.3	3.6	2.8	3.0	3.4
Previous Tealbook	4.3	4.1	2.2	3.5	3.0	3.2	3.4
Advanced foreign economies	2.7	2.2	.1	2.3	1.5	1.6	2.1
Previous Tealbook	2.7	2.2	.1	2.3	1.8	1.9	2.2
Emerging market economies	6.1	6.0	4.7	4.9	4.2	4.5	4.8
Previous Tealbook	6.1	6.2	4.4	4.8	4.4	4.6	4.8
Consumer Prices							
Total foreign	3.2	4.3	3.2	3.1	2.7	2.3	2.4
Previous Tealbook	3.2	4.3	3.2	2.9	2.2	2.3	2.4
Advanced foreign economies	1.7	3.2	2.1	1.1	1.7	1.2	1.5
Previous Tealbook	1.7	3.3	2.1	.8	1.3	1.3	1.4
Emerging market economies	4.4	5.1	4.0	4.7	3.6	3.2	3.2
Previous Tealbook	4.4	5.1	4.0	4.6	2.8	3.2	3.1

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

Figure: Real GDP [Total Foreign]

Line chart, 2008 to 2013. Unit is percent change, annual rate. There are two series, "Current" and "Previous Tealbook." The series begin at about 2.5 and generally decrease together to about -10 in early 2009. They generally increase together to about 5 in late 2009. They fluctuate but generally decrease ending at about 4.5.

Figure: Real GDP [Emerging Market Economies and Advanced Foreign Economies]

Line chart, 2008 to 2013. Unit is percent change, annual rate. There are four series, "Emerging Market Economies: Current," "Emerging Market Economies: Previous Tealbook," "Advanced foreign economies: Current," and "Advanced foreign economies: Previous Tealbook." Emerging Market Economies: Current and Previous Tealbook begin at about 5 and generally decrease together to about -10 in early 2009. They generally increase together to about 10 in late 2009 then generally decrease together to about 5 in late 2011. They remain about constant to the end of the timeline. Advanced foreign economies: Current and Previous Tealbook begin at about 1 and generally decrease together to about -10 in early 2009. They generally increase together to about 4 in early 2010 then generally decrease together to about 0 in mid-2011. They generally increase together to about 2.5 in late 2011 then remain about constant to the end of the timeline.

Figure: Consumer Prices [Total Foreign]

Line chart, 2008 to 2013. Unit is percent change, annual rate. There are two series, "Current" and "Previous Tealbook." The series begin at about 5 and generally increase together to about 6 in early 2008. They generally decrease together to about -1 in early 2009. They generally increase together to about 5 in late 2010 then generally decrease together to about 2 in mid-2012. They remain about constant to the end of the timeline.

Figure: Consumer Prices [Emerging Market Economies and Advanced Foreign Economies]

Line chart, 2008 to 2013. Unit is percent change, annual rate. There are four series, "Emerging Market Economies: Current," "Emerging Market Economies: Previous Tealbook," "Advanced foreign economies: Current," and "Advanced foreign economies: Previous Tealbook." Emerging Market Economies: Current and Previous Tealbook begin at about 7 and generally decrease together to about -5 in early 2009. They generally increase together to about 7 in early 2011 then generally decrease together to about 3.5 in early 2012. They remain about constant to the end of the timeline. Advanced foreign economies: Current and Previous Tealbook begin at about 2.5 and generally increase together to about 4 in late 2008. They generally decrease together to about -2 in late 2008 then generally increase together to about 3 in late 2010. They generally decrease together to about 1 in 2012 then generally increase together ending at about 2.

Note: Blue shading represents the projection period, which begins in 2011:Q3.

Evolution of Staff's International Forecast

Figure: Total Foreign GDP

Line chart, Tealbook publication dates 1/22/2009 to 10/27/2011. Unit is percent change, Q4/Q4. There are four series, "2010," "2011," "2012," and "2013." 2010 begins at about 3 and generally decreases to about 2 on 3/12/2009. It generally increases ending at about 4.25 on 10/27/2011. 2011 begins at about 4 on 9/16/2010 and fluctuates but generally decreases ending at about 3 on 10/27/2011. 2012 begins at about 3.25 on 9/15/2010 and fluctuates but remains about constant until

6/15/2011. It generally decreases ending at about 3 on 10/27/2011. 2013 begins at about 3.5 on 9/14/2011 and generally decreases, ending at about 3.25 on 10/27/2011.

Figure: Total Foreign CPI

Line chart, Tealbook publication dates 1/22/2009 to 10/27/2011. Unit is percent change, Q4/Q4. There are four series, "2010," "2011," "2012," and "2013." 2010 begins at about 2.0 and generally decreases to about 1.5 on 3/12/2009. It fluctuates but generally increases ending at about 3.25 on 10/27/2011. 2011 begins at about 1.75 and fluctuates but generally increases ending at about 3.5 on 10/27/2011. 2012 begins at about 2.25 and fluctuates but remains about constant ending on 10/27/2011. 2013 begins at about 2.25 on 9/14/2011 and generally increases, ending at about 2.5 on 10/27/2011.

Figure: U.S. Current Account Balance

Line chart, Tealbook publication dates 1/22/2009 to 10/27/2011. Unit is percent of GDP. There are four series, "2010," "2011," "2012," and "2013." 2010 begins at about -3.5 and generally decreases to about -4.25 on 3/12/2009. It generally increases to about -3 on 10/29/2009 then fluctuates but remains about constant ending on 10/27/2011. 2011 begins at about -3 on 9/16/2009 and fluctuates but generally increases ending at about -2.75 on 10/27/2009. 2012 begins at about -3 on 9/15/2010 and generally increases to about -2 on 6/15/2011. It generally decreases ending at about -2.5. 2013 begins at about -2 on 9/14/2011 and decreases, ending at about -2.5 on 10/27/2011.

† Note: Data values for figures are rounded and may not sum to totals. [Return to text](#)

Last update: February 3, 2017

November 2011 Tealbook A Tables and Charts[‡]

Financial Developments

Policy Expectations and Treasury Yields

Figure: Selected Interest Rates

Line chart, September 20 to October 25, 2011. Unit is percent. There are two series, "10-year Treasury yield" and "2-year Treasury yield." 10-year Treasury yield begins at about 2.0 and generally decreases to about 1.7 on September 23. It generally increases to about 2.05 on September 28 then generally decreases to about 1.7 on October 3 then fluctuates but generally increases to about 2.25 on October 15. It generally decreases to about 2.1 on October 18 then generally increases to about 2.3 on October 24. It generally decreases ending at about 2.1. 2-year Treasury Yield begins at about 0.15 and fluctuates but generally increases to about 0.3 on October 11. It generally decreases to about 0.2 on October 17 then fluctuates but remains about constant to the end of the timeline.

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

Source: Bloomberg.

Figure: Long-Term Interest Rate Implied Volatility

Line chart, January 2010 to October 25, 2011. Unit is percent. Data are daily. The September 2011 FOMC meeting is marked by a vertical line. The series begins at about 7 and generally decreases to about 5 in March 2010. It generally increases to about 8 in June 2010 then generally decreases to about 6 in July 2010 then generally increases to about 7.5 in August 2010. It generally increases to about 9 in December 2010 then generally decreases to about 6 in June 2011 then generally increases to about 8 in July 2011. It generally decreases to about 6.5 in September 2011 then generally increases ending at about 7.5.

Note: Derived from options on 10-year Treasury note futures.

Source: Bloomberg.

Figure: Implied Federal Funds Rate

Line chart, 2012 to 2015. Unit is percent. There are four series, "Mean: October 25, 2011," "Mean: September 20, 2011," "Mode: October 25, 2011," and "Mode: September 20, 2011." The series all begin at about 0 and remain about constant until 2013:Q1. Mean: October 25, 2011 generally increases ending at about 1.5. Mean: September 20, 2011 generally increases ending at about 1.4. Mode: October 25, 2011 generally increases ending at about 0.25. Mode: September 20, 2011 generally increases ending at about 0.15.

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, 2013:Q1 to 2015:Q4. Unit is percent. Percentages of "Nov. FOMC: 20 respondents" are: 2013:Q1 0; 2013:Q2 10; 2013:Q3 20; 2013:Q4 10; 2014:Q1 10; 2014:Q2 25; 2014:Q3 15; 2014:Q4 5; 2015:Q1 0; 2015:Q2 5; 2015:Q3 0; 2015:Q4 0. There is a second series, presented as a line chart. Percentages of "September FOMC: 20 respondents" are: 2013:Q1 0; 2013:Q2 10; 2013:Q3 15; 2013:Q4 25; 2014:Q1 25; 2014:Q2 15; 2014:Q3 0; 2014:Q4 5; 2015:Q1 0; 2015:Q2 5; 2015:Q3 0; 2015:Q4 0.

Source: Desk's Dealer Survey from October 24, 2011.

Figure: Inflation Compensation

Line chart, 2007 to October 25, 2011. Unit is percent. Data are daily. The September 2011 FOMC meeting is marked by a vertical line. There are two series, "5 to 10 years ahead" and "Next 5 years" (adjusted for the indexation-lag (carry) effect). 5 to 10 years ahead begins at about 2.5 and generally increases to about 3.5 in 2008:Q4. It generally decreases ending at about 2 then generally increases to about 3 in 2009:Q3. It generally decreases to about 2 in 2010:Q3 then generally increases to about 3 in 2010:Q4. It generally decreases ending at about 2. Next 5 years begins at about 2 and remains about constant until 2008:Q3. It generally decreases to about -2 in 2008:Q4 then generally increases to about 2 in 2010:Q1. It generally decreases to about 1 in 2010:Q4 then generally increases to about 2 in 2011:Q1 then generally decreases ending at about 1.5.

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

Source: Barclays PLC and staff estimates.

[Box:] Expected Time and Pace of Tightening

Figure: Expected Time until Tightening (Time When the FFR Exceeds the 25-Basis-Point Threshold)

Line chart, January 2009 to October 25, 2011. Unit is number of quarters. The series begins at about 4 and fluctuates but generally decreases to about 2 in June 2009. It generally increases to about 10 in November 2010 then generally decreases to about 4 in April 2011. It generally increases to about 12 in September 2011 then generally decreases ending at about 10.

Source: Staff estimate.

Figure: Uncertainty about the Expected Time until Tightening

Line chart, January 2009 to October 25, 2011. Unit is number of quarters. The series begins at about 0 and fluctuates but generally increases to about 4 in October 2010. It generally decreases to about 1 in March 2011 then fluctuates but generally increases to about 6 in September 2011. It generally decreases ending at about 3.

Note: Measured by the standard deviation of the probability density function.

Source: Staff estimate.

Figure: Expected Pace of Tightening

Line chart, January 2010 to October 25, 2011. Unit is basis points per month. The series begins at about 5 and fluctuates but generally increases to about 10 in May 2009. It generally decreases to about 4 in October 2010 then generally increases to about 8 in January 2011. It generally decreases to about 5 in August 2011 then generally increases ending at about 7.

Source: Staff estimate.

Financial Institutions and Short-Term Funding Markets

Figure: CDS Spreads of Large Bank Holding Companies

Line chart, January 2010 to October 25, 2011. Unit is basis points. Data are daily. The September 2011 FOMC meeting is marked by a vertical line. The series begins at about 100 and generally increases to about 200 in May 2010. It generally decreases to about 100 in April 2011. It generally increases to about 400 in October 2011 then generally decreases ending at about 300.

Source: Markit.

Figure: Selected Interest Rate Spreads

Line chart, January 2010 to October 26, 2011. Unit is basis points. Data are daily. There are two series, "3-month Libor over OIS" and "1-week Libor over OIS." 3-month Libor over OIS begins at about 10 and generally increases to about 35 in August 2010. It generally decreases to about 10 in September 2010 then fluctuates but generally increases ending at about 35. 1-week Libor over OIS begins at about 10 and fluctuates but generally increases to about 15 in July 2010. It fluctuates but generally decreases to about 5 in June 2011. It generally increases ending at about 10.

Source: Bloomberg.

Figure: Dollar Funding Spreads

Line chart, April 2010 to October 25, 2011. Unit is basis points. Data are daily. The September 2011 FOMC meeting is marked by a vertical line. There are two series, "USD 3x6 FRA-OIS"* and "Euro-dollar implied basis swap." USD 3x6 FRA-OIS begins at about 18 then generally increases to about 70 in May 2010. It generally decreases to about 20 in September 2010 then generally increases to 30 in November 2010. It generally decreases to about 18 in April 2011 then generally increases ending at about 50. Euro-dollar implied basis swap begins at about 18 and generally increases to about 70 in March 2010. It generally decreases to about 5 in October 2010 then generally increases to about 55 in December 2010. It generally decreases to about 0 in April 2011 then fluctuates but generally increases ending at about 75.

* Spread is calculated from a Libor forward rate agreement (FRA) 3 to 6 months in the future and the implied forward overnight index swap (OIS) rate for the same period. [Return to text](#)

Source: Bloomberg; Federal Reserve Bank of New York.

Figure: Unsecured Dollar Financial Commercial Paper Outstanding

Line chart, January 2011 to October 25, 2011. Unit is billions of dollars. Data are daily. The September FOMC meeting is marked by a vertical line. There are two series, "European issuers" and "U.S. issuers." European issuers begins at about 350 and generally increases to about 400 in early May. It generally decreases ending at about 250. U.S. Issuers begins at about 100 and generally decreases ending at about 75.

Source: Depository Trust & Clearing Corporation.

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

Line chart, January 2010 to October 19, 2011. Unit are days. Data are weekly. The September 2011 FOMC meeting is marked by a vertical line. There are two series, "U.S. Parent" and "European Parent." U.S. Parent begins at about 40 and generally increases to about 50 in April 2010. It generally decreases to about 35 in June 2010 then generally increases to about 50 in October 2010. It generally decreases to about 40 in January 2011 then generally increases to about 50 in March 2011. It generally decreases to about 45 in May 2011 then generally increases to about 50 in June 2011. It generally decreases to about 45 in August 2011 then generally increases ending in about 50. European parent begins at about 40 and generally increases to about 50 in March 2010. It generally decreases to about 35 in June 2010 then generally increases to about 60 in November 2010. It generally decreases to about 45 in December 2010 then generally increases to about 55 in June 2011. It generally decreases ending at about 38.

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

Figure: MMF Exposures to Selected European Countries

Line chart, January 2011 to September 30, 2011. Unit is billions of dollars. Data are monthly. There are six series, "France (left scale)," "Germany (left scale)," "U.K. (left scale)," "Belgium (right scale)," "Italy (right scale)," and "Spain (right scale)." France begins at about 300 and generally increases to about 350 in early June. It generally decreases ending at about 175. Germany begins at about 150 and generally increases to about 200 in early March. It fluctuates but generally decreases ending at about 9. U.K. generally fluctuates between about 250 and 275 quarterly to the end of the timeline. Belgium begins at about 25 and generally decreases to about 17 in early February. It generally increases to about 20 in early May then generally decreases to about 5 in early August. It generally increases to about 10 in late August and remains about constant to the end of the timeline. Italy begins at about 20 and generally decreases ending at about 0. Spain begins at about 20 and generally decreases to about 12 in early April. It generally increases to about 17 in early May then generally decreases ending at about 2.5.

Note: MMF is U.S. money market fund.

Source: Securities and Exchange Commission.

Foreign Developments

Figure: Stock Prices Indexes

Line chart, 2010 to October 26, 2011. Unit is an index, January 1, 2010 = 100. Data are daily. The September FOMC meeting is marked by a vertical line. There are four series, "DJ Euro," "Topix," "FTSE," and "MSCI Emerging Markets." DJ Euro begins at about 100 and generally decreases to about 90 in 2010:Q1. It generally increases to about 105 in 2010:Q2 then generally decreases to about 85 in 2010:Q3. It generally increases to about 110 in 2011:Q1. It generally decreases to about 70 in 2011:Q3. It generally increases ending at about 85. Topix begins at about 100 and generally decreases to about 100 in 2010:Q1. It generally increases to about 110 in 2010:Q2 then generally decreases to about 90 in 2010:Q4. It generally increases to about 100 in 2010:Q1 then fluctuates but generally decreases ending at about 80. FTSE begins at about 200 and generally decreases to about 95 in 2010:Q1. It generally increases to about 110 in 2010:Q2 then generally decreases to about 90 in 2010:Q3. It generally increases to about 110 in 2011:Q2. It fluctuates but generally decreases to about 90 in 2011:Q3 then generally increases to about 105. MSCI Emerging Markets begins at about 100 and generally decreases to about 90 in 2010:Q1. It generally increases to about 105 in 2010:Q2 then generally decreases to about 85 in 2010:Q2. It fluctuates but generally increases to about 120 in 2011:Q2 then generally decreases to about 80 in 2011:Q3 then generally increases ending at about 95.

Source: Bloomberg.

Figure: Nominal 10-Year Government Bond Yields

Line chart, 2010 to October 26, 2011. Unit is percent. Data are daily. The September FOMC meeting is marked by a vertical line. There are three series, "Germany," "United Kingdom," and "Japan." Germany begins at about 3.5 and generally decreases to about 2 in 2010:Q3. It generally increases to about 3.25 in 2011:Q2 then generally decreases ending at about 2. United Kingdom begins at about 4 and generally decreases to about 3 in 2010:Q3. It generally increases to about 4 in 2011:Q1. It generally decreases ending at about 2.5. Japan begins at about 1.5 and fluctuates but generally decreases ending at about 1.

Source: Bloomberg.

Figure: Nominal Trade-Weighted Dollar Indexes

Line chart, 2010 to October 25, 2011. Unit is an index, January 1, 2010 = 100. Data are daily. The September FOMC meeting is marked by a vertical line. There are three series, "Broad," "Major," and "OITP" (other important trading partners). Broad begins at about 100 and fluctuates but generally increases to about 105 in 2010:Q2. It generally decreases to about 93 then generally increases to about 100 in 2011:Q3. It generally decreases ending at about 96. Major begins at about 100 and generally increases to about 110 in 2010:Q2. It fluctuates but generally decreases to about 90 in 2011:Q3 then generally increases to about 100 in 2011:Q4. It generally decreases ending at about 95. OITP begins at about 100 and fluctuates but generally decreases to about 92 in 2011:Q3. It generally increases to about 100 in 2011:Q4 then generally increases ending at about 96.

Source: Federal Reserve Board; Bloomberg.

Figure: Euro-Area 10-Year Government Bond Spreads

Line chart, 2010 to October 26, 2011. Unit is percentage points. Data are daily. The September 2011 FOMC meeting is marked by a vertical line. There are five series, "Greece," "Portugal," "Spain," "Ireland," and "Italy." Greece begins at about 3 and fluctuates but generally increases ending at about 24. Portugal begins at about 1 and fluctuates but generally increases ending at about 10. Spain begins at about 1 and fluctuates but generally increases ending at about 3. Ireland begins at about 1.5

and generally increases to about 12. It generally decreases ending at about 6. Italy begins at about 1 and generally increases ending at about 3.5.

Note: Spread over German bunds.

Source: Bloomberg.

Figure: Emerging Market Economies Fund Flows

Stacked bar chart, January 2010 to October 2011. Unit is percent of GDP, annual rate. The September 2011 FOMC meeting is marked by a vertical line. There are two series, "EME bonds" and "EME equities." EME bonds begins at about .25 and generally increases to about .5 in April 2010. It generally decreases to about .05 then generally increases to about .5 in August 2010. It generally decreases to about .15 in November 2010 then fluctuates but generally increases to about .5 in July 2011. It generally decreases to about -1.0 in September 2011 then generally increases ending at about 0.01. EME equities begins at about -0.15 and generally increases to about 1.5 in April 2010. It generally decreases to about -2.5 in March 2010. It fluctuates but generally increases to about 2.5 in September 2010 then generally decreases to about -.25 in February 2011. It generally increases to about 1.75 in March 2011 then generally decreases to about -1.5 in May 2011. It generally increases to about 0.5 in June 2011 then generally decreases to about -4.0. It generally increases ending at about -1.0.

Source: EPFR Global.

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

Bar chart, 2009 to August 2011. Unit is billions of dollars, annual rate. There are two series, "Official" and "Private." Approximate data are: 2009: Official 550, Private -25; 2010: Official 400, Private 200; 2011:H1: Official 200, Private -100; July 2011: Official 150, Private, -400; August 2011: Official 150, Private 800.

Source: Treasury International Capital data adjusted for staff estimates.

Domestic Asset Market Developments

Figure: Selected Stock Price Indexes

Line chart, January 2010 to October 25, 2011. Log scale. Data are daily. There are two series, "S&P 500" and "S&P Diversified Financials." S&P 500 begins at about 100 and generally decreases to about 85 in February 2010. It generally increases to about 110 in April 2010 then fluctuates but generally decreases to about 80 in September 2010. It generally increases to about 100 in February 2011 then fluctuates but generally decreases to about 60 in October 2011. It generally increases ending at about 75. S&P 500 Diversified Financials begins at about 85 and generally decreases to about 80 in February 2010. It generally increases to about 95 in April 2010 then generally decreases to about 80 in June 2010. It fluctuates but generally increases to about 105 in July 2011 then generally decreases to about 85 in October 2011. It generally increases ending at about 100.

Source: Bloomberg.

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

Line chart, 2007 to October 25, 2011. Unit is percent, log scale. Data are daily. The September 2011 FOMC meeting is marked by a vertical line. The series begins at about 10 and fluctuates but generally increases to about 35 in 2008:Q1. It generally decreases to about 15 in 2008:Q2 then fluctuates but generally increases to about 80 in 2009:Q1. It generally decreases to about 15 in 2010:Q2. It generally increases to about 40 in late 2010:Q2 then generally decreases to about 15 in 2011:Q2. It generally increases to about 50 in 2011:Q3. It generally decreases ending at about 35.

Source: Chicago Board Options Exchange.

Figure: Equity Risk Premium

Line chart, 1990 to October 25, 2011. Unit is percent. Data are monthly. The ends of the series are marked with plus signs which denote the latest observation using daily interest rates and stock prices and latest earnings data. There are two series, "Expected 10-year real equity return" and "Expected real yield on 10-year Treasury" (off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation). Expected 10-year real equity return begins at about 8 and generally increases to about 9.5 in 1991 then fluctuates but generally decreases to about 2 in 1999. It generally increases to about 12 in 2008 then generally decreases to about 8 in 2009. It generally increases to about 10 in 2010 then generally decreases to about 8 in early 2011. It generally increases ending at about 10. Expected real yield on 10-year Treasury begins at about 4.5 and generally decreases to about 2 in 1993. It generally increases to about 4 in 1994 then generally decreases to about 2.5 in 1993. It generally increases to about 4 in 1994 then fluctuates but generally decreases to about 2 in 1998. It generally increases to about 4.5 in 2000 then fluctuates but generally decreases ending at about 0.

Source: Thomson Financial.

Figure: Corporate Bond Spreads

Line chart, 2007 to October 25, 2011. Unit is basis points. Data are daily. The September 2011 FOMC meeting is marked by a vertical line. There are two series, "10-year high-yield (right scale)" and "10-year BBB (left scale)." 10-year high yield begins at about 250 and generally increases to about 1750 in 2009:Q1. It fluctuates but generally decreases to about 260 in 2011:Q1 then generally increases to about 750 in 2011:Q4. It generally decreases ending at about 550. 10-year BBB begins at about 100 and generally increases to about 650 in 2009:Q1. It generally decreases to about 150 in 2010:Q2. It generally increases to about 350 in 2011:Q4 then generally decreases ending at about 300.

Note: Measured relative to a smoothed nominal off-the-run Treasury yield curve.

Source: Merrill Lynch and staff estimates.

Figure: Average Bid Price for Syndicated Leveraged Loans

Line chart, 2007 to October 25, 2011. Unit is percent of par. Data are daily. The September 2011 FOMC meeting is marked by a vertical line. The series begins at about 100 and remains about constant until 2007:Q4. It generally decreases to about 60 in 2008:Q4 then generally increases to about 90 in 2011:Q2. It generally decreases ending at about 90.

Source: LSTA/LPC Mark-to-Market Pricing.

Figure: Spreads on 30-Day Commercial Paper

Line chart, March 2009 to October 25, 2011. Unit is basis points. Data are 5-day moving averages. The September 2011 FOMC meeting is marked by a vertical line. The ends of the series are marked with plus signs which denote the latest available single-day observation. There are two series "A2/P2" and "ABCP." A2/P2 begins at about 100 and generally decreases to about 5 in January 2010. It fluctuates but generally increases ending at about 25. ABCP begins at about 45 and generally decreases to about 10 in May 2010. It generally increases to about 25 in July 2010 then generally decreases to about 0 in October 2010. It generally increases ending at about 25.

Note: The ABCP spread is the AA ABCP rate minus the AA nonfinancial rate. The A2/P2 spread is the A2/P2 nonfinancial rate minus the AA nonfinancial rate.

Source: Depository Trust & Clearing Corporation.

Business Finance

Figure: Selected Components of Net Debt Financing, Nonfinancial Firms

Stacked bar chart, 2007 to October 2011. Unit is billions of dollars. Data are monthly rate. There are three series, "Bonds," "C&I Loans" (period-end basis, seasonally adjusted), and "Commercial paper" (period-end basis, seasonally adjusted). There is a fourth series, presented as a line chart that sums the total of the others. Approximate values are: 2007: Bonds 25, C&I Loans 20, Commercial Paper 0, Total 45; 2008: Bonds 18, C&I Loans 10, Commercial Paper 2, Total 30; 2009: Bonds 35, C&I Loans -25, Commercial Paper -10, Total 10; 2010: Bonds 38, C&I Loans -5, Commercial Paper 2, Total 35; 2011:H1: Bonds 35, C&I Loans 5, Commercial Paper 5, Total 40; July 2011: Bonds 15, C&I Loans 20, Commercial Paper 10, Total 45; August 2011: Bonds 30, C&I Loans 20, Commercial Paper 5, Total 55; September 2011: Bonds 30, C&I Loans 5, Commercial Paper -5, Total 30; October 2011 (preliminary): Bonds 5, C&I Loans 10, Commercial Paper 15, Total 25.

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

Figure: Institutional Leveraged Loan Issuance

Bar chart, 2007 to 2011:Q3. Unit is billions of dollars. Data are quarterly rate. Approximate values are: 2007: 110; 2008: 20; 2009: 15; 2010:H1: 40; 2010:H2: 60; 2011:Q1: 115; 2011:Q2: 100; 2011:Q3: 38.

Source: Reuters Loan Pricing Corporation.

Figure: Selected Components of Net Equity Issuance, Nonfinancial Firms

Stacked bar chart, 2007 to 2011:Q2. Unit is billions of dollars. Data are monthly rate. There are four series, "Public issuance," "Private issuance," "Repurchases," and "Cash mergers." There is a fourth series, presented as a line chart that sums the total of the others. Approximate values are: 2007: Public issuance 5, Private issuance 20, Repurchases -45, Cash mergers -35, Total -55; 2008: Public Issuance 2, Private issuance 23, Repurchases -25, Cash mergers -10, Total -10; 2009: Public issuance 15, Private issuance 10, Repurchases -13, Cash mergers -12, Total 0; 2010:H1: Public issuance 5, Private issuance 10, Repurchases -25, Cash mergers -5, Total -15; 2010:H2: Public issuance 5, Private issuance 10, Repurchases -25, Cash mergers -10, Total -20; 2011:Q1: Public issuance 5, Private issuance 10, Repurchases -25, Cash mergers -15, Total -25; 2011:Q2: Public issuance 15, Private issuance 10, Repurchases -30, Cash mergers -15, Total -20.

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

Figure: S&P 500 Earnings per Share

Line chart, 2000 to 2011:Q3 (preliminary). Unit is dollars per share. Data are quarterly. The series begins at about 14 and generally decreases to about 10 in 2001:Q1. It generally increases to about 24 in 2007:Q2 then generally decreases to about 5 in 2008:Q4. It generally increases ending at about 26.

Note: Data are seasonally adjusted by Board staff.

Source: Thomson Financial.

Figure: Bond Ratings Changes of Nonfinancial Firms

Bar chart, 1990 to 2011:Q3. Unit is percent of outstandings. Data are annual rate. There are two series, "Upgrades" and "Downgrades." Upgrades begins at about 10 and generally increases to about 18 in 1991. It fluctuates but generally decreases to about 8 in 1994 then generally increases to about 21 in 1995. It generally

decreases to about 10 in 1997 then generally increases to about 17 in 1998. It generally decreases to about 5 in 2002 then generally increases to about 10 in 2007. It generally decreases to about 5 in 2008 then generally increases to about 17 in 2011:Q2. It generally decreases ending at about 10. Downgrades begins at about 35 and generally increases to about 45 in 1992. It generally decreases to about 10 in 1995 then generally increases to about 40 in 2002. It generally increases to about 5 in 2004 then generally increases to about 20 in 2008. It generally decreases to about 5 in 2011:Q1 then generally increases to about 10 in 2011:Q2. It generally increases ending at about 5.

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

Figure: CMBS Issuance

Bar chart, 2007 to 2011:Q3. Unit is billions of dollars. Data are annual rate. Approximate values are: 2007: 235; 2008: 10; 2009: 5; 2010:H1: 5, 2010:H2: 20; 2011:Q1: 40; 2011:Q2: 35; 2011:Q3: 30.

Source: Commercial Mortgage Alert.

Household Finance

Figure: Mortgage Rate and MBS Yield

Line chart, 2007 to October 25, 2011. Unit is percent. The September 2011 FOMC meeting is marked by a vertical line. There are two series, "30-year conforming fixed mortgage rate" and "MBS yield." 30-year conforming fixed mortgage rate begins at about 6.4 and generally increases to about 6.6 in 2007:Q3. It generally decreases to about 5.5 in 2008:Q1 then generally increases to about 6.5 in 2008:4. It fluctuates but generally decreases to about 4.0 in 2010:Q4 then generally increases to about 5.0 in 2011:Q1. It generally decreases ending at about 4.0. MBS yield begins at about 5.5 and generally increases to about 6.5 in 2007:Q2. It generally decreases to about 4.5 in 2008:Q1 then fluctuates but generally increases to about 6.4 in 2008:Q3. It generally decreases to about 3.5 in 2009:Q1 then generally increases to about 5.0 in 2009:Q3. It fluctuates but generally decreases to about 3.4 in 2010:Q4. It generally increases to about 4.5 in 2011:Q1. It generally decreases ending at about 3.0.

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 (after 2010).

Figure: Purchase and Refinance Activity

Line chart, 2002 to October 21, 2011. Units are indexes, March 16, 1990 = 100. Data are weekly. The September 2011 FOMC meeting is marked by a vertical line. There are two series, "Purchase Index (left scale)" and "Refi Index (right scale)." Purchase index begins at about 300 and generally increases to about 500 in late 2005. It fluctuates but generally decreases ending at about 200. Refi index begins at about 2000 and generally increases to about 10000 in early 2003. It fluctuates but generally decreases to about 1000 in early 2006. It fluctuates but generally increases to about 6000 in mid-2009 then generally decreases to 2000 in mid-2010. It generally increases to about 6000 in mid-2010 then generally decreases to about 2000. It generally increases to about 4000 in mid-2011 then generally decreases ending at about 3500.

Note: Seasonally adjusted by FRB staff.

Source: Mortgage Bankers Association.

Figure: Prices of Existing Homes

Line chart, 2005 to August 2011. Unit is an index, with peak normalized to 100. Data are monthly. The series begins at about 85 and generally increases to about 100 in early 2006. It fluctuates but generally decreases ending at about 70.

Source: CoreLogic.

Figure: Delinquencies on Prime Mortgages, Transition Rate

Line chart, 2003 to September 2011. Unit is percent of loans. There are two series, "3-month moving average" and "Monthly rate." 3-month moving average begins at about 1.1 and generally increases to about 1.2 in mid-2003. It generally decreases to about 0.8 in early 2006 then generally increases to about 1.4 in early 2009. It generally decreases ending at about 1.2. Monthly rate begins at about 1.0 and fluctuates but generally decreases to about 0.8 in early 2006. It generally increases to about 1.8 in early 2009 then fluctuates but generally decreases ending at about 1.0.

Note: Percent of previously current mortgages that transition to being at least 30 days delinquent each month.

Source: LPS Applied Analytics.

Figure: Consumer Credit

Line chart, 2004 to August 2011. Unit is percent change, annual rate. Data are 3-month moving averages. There are two series, "Nonrevolving" and "Revolving." Nonrevolving begins at about 6 and generally increases to about 9 in late 2004. It fluctuates but generally decreases to about -2 in early 2009 then generally increases ending at about 4. Revolving begins at about 4 and fluctuates but generally increases to about 10 in late 2007. It generally decreases to about -12 in early 2010 then generally increases to about 2 in late 2011. It generally decreases ending at about -2.

Source: Federal Reserve Board.

Figure: Gross Consumer ABS Issuance

Stacked bar chart, 2006 to October 2011. Unit is billions of dollars. Data are monthly rate. There are three series, "Student loan," "Credit card," and "Auto." Approximate data are: 2006: student loan 6, credit card 5, auto 8; 2007: student loan 5, credit card 8, auto 6; 2008:H1: student loan 4, credit card 9, auto 5; 2008:H2: student loan 1, credit card 2, auto 1; 2009:H1: student loan 3, credit card 8, auto 7; 2009:H2: student loan 3, credit card 5, auto 10; 2010:H1: student loan 2, credit card 1, auto 5; 2010:H2: student loan 2, credit card 1, auto 5; 2011:H1: student loan 3, credit card 2, auto 4; 2011:Q3: student loan 2, credit card 1, auto 5; October 2011 (through Oct. 21): student loan 1, credit card 2, auto 4.

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

[Box:] Why Haven't More Borrowers Refinanced?

Figure: "In the Money" Mortgages

Line chart, incentive to finance (pps) 0.0 to 2.0. Unit is number of mortgages (millions). There are four series, "All," "Positive equity," "LTV \leq 80," and "Good credit." All begins at about 32 million, decreases to about 26 million by 75 basis points, and decreases further ending at about 8 million. Positive equity begins at about 28 million, decreases to about 22 million by 75 basis points, and decreases further ending at about 6 million. LTV \leq 80 begins at about 22 million, decreases to about 17 million by 75 basis points, and decreases further ending at about 4 million. Good credit begins at about 18 million, decreases to about 14 million by 75 basis points, and decreases further ending at about 2.5 million.

Note: Yellow shading marks incentive to refinance of 75 basis points or more, and is labeled "In the money."

Source: LPS Applied Analytics and staff calculations.

Figure: Percent of Lenders Offering GSE-Eligible Loans by Credit Quality

Bar chart, low, medium, and high credit quality. Unit is percent. There are two series, "2010" and "2011 to date." Approximate values are: Low credit quality: 2010: 42, 2011 to date: 45; Medium credit quality: 2010: 70, 2011 to date: 85; High credit quality: 2010: 100, 2011 to date: 100.

Note: For hypothetical owner-occupied 30-year conventional fully documented mortgage.

Source: Loansifter.

Commercial Banking and Money

Figure: Changes in Bank Credit

Line chart, 2005 to September 2011. Unit is percent. Data are 3-month change, annual rate. There are two series, "Total bank credit" and "C&I loans." Total bank credit begins at about 10 and fluctuates but generally decreases to about -10 in 2009:Q4. It generally increases ending at about 5. C&I loans begins at about 10 and generally increases to about 25 in 2006:Q3. It generally increases to about 30 in 2007:Q4 then generally decreases to about -30 in 2009:Q4. It generally increases ending at about 10.

Source: Federal Reserve Board.

Figure: Changes in Standards and Demand for Bank Loans

Line chart, 1990 to 2011. Unit is an index. Data are quarterly. The 2011 July Survey is marked by a vertical line. There are two series, "Standards" and "Demand." Standards begins at about 0.4 and generally increases to about 0.6 in 1991:Q1. It generally decreases to about -0.1 in 1993:Q2. It fluctuates but generally increases to about 0.5 in 2001:Q1 then generally decreases to about -0.2 in 2005:Q1. It generally increases to about 0.9 in 2008:Q4 then generally decreases ending at about -0.2. Demand begins at about -0.2 and fluctuates but generally increases to about 0.4 in 1998:Q3. It generally decreases to about -0.4 in 2001:Q1 then generally increases to about 0.3 in 2005:Q1. It generally decreases to about -0.6 in 2009:Q1 then generally increases ending at about 0.0.

Note: A composite index that represents the net percentage of loans on respondents' balance sheets that were in categories for which banks reported tighter lending standards or stronger loan demand over the past 3 months.

Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Figure: Change in Premiums on Riskier C&I Loans

Line chart, 1998 to 2011. Unit is net percent. Data are quarterly. The 2011 July survey is marked by a vertical line. There are two series, "Large and middle-market firms" and "Small firms." Large and middle-market firms begins at about 60 and generally decreases to about 20 in 1999:Q1. It generally increases to about 60 in 2001:Q1 then generally decreases to about -20 in 2004:Q4. It generally increases to about 80 in 2009:Q4 then generally decreases to about -20 in 2011:Q2. It generally increases ending at about 10. Small firms begins at about 30 and generally increases to about 60 in 2001:Q1. It generally decreases to about -20 in 2007:Q3. It generally increases to about 80 in 2008:Q4 then generally decreases ending at about 0.

Note: Net percent of respondents that raised premiums on riskier loans over the past 3 months.

Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Figure: Changes in Standards on C&I Loans at Foreign Respondents

Line chart, 2000 to 2011. Unit is net percent. Data are quarterly. The 2011 July survey is marked by a vertical line. There are two series, "European respondents" and "Non-European foreign respondents." European respondents begins at about 40 and generally decreases to about 20 in 2000:Q4. It generally increases to about 80 in 2001:Q1 then generally decreases to about -50 in 2004:Q2. It generally increases to about 80 in 2007:Q4 then fluctuates but generally decreases to about -20 in 2011:Q1. It generally increases ending at about 40. Non-European foreign respondents begins at about 30 and generally increases to about 80 in 2001:Q1. It generally decreases to about -40 in 2004:Q4 then generally increases to about 60 in 2009:Q1. It generally decreases to about -20 in 2011:Q2 then generally increases ending at about 0.

Note: Net percent of respondents that tightened lending standards over the past 3 months.

Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Growth of M2 and Its Components

Percent, s.a.a.r.

	M2	Liquid deposits	Small time deposits	Retail MMMFs	Curr.
2010	3.2	10.9	-21.5	-15.5	5.9
2011:H1	5.6	10.0	-18.8	-6.7	10.1
2011:Q3	19.8	27.9	-20.6	11.2	7.9
Aug.	30.0	39.1	-22.8	33.5	8.0
Sept.	5.9	9.7	-21.4	-1.2	6.4
Oct.(e)	4.3	6.5	-21.5	13.3	2.8

Note: Retail MMMFs are retail money market mutual funds.

e Estimate. [Return to table](#)

Source: Federal Reserve Board.

Figure: Level of Liquid Deposits

Line chart, 2008 to October 17, 2011. Unit is trillions of dollars. Data are weekly. The September 2011 FOMC meeting is marked by a vertical line. The series begins at about 4.5 and generally increases ending at about 7.0.

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.

[Box:] Balance Sheet Developments over the Intermeeting Period

Federal Reserve Balance Sheet

Billions of dollars

	Change since last FOMC	Current (10/24/11)
Total assets	-3	2,858
Selected assets:		
Liquidity programs for financial firms	1	2
Primary, secondary, and seasonal credit	-0	+0
Foreign central bank liquidity swaps	1	2
Term Asset-Backed Securities Loan Facility (TALF)	-0	11
Net portfolio holdings of Maiden Lane LLCs	-3	44
Maiden Lane	-2	13
Maiden Lane II	-0	10

Maiden Lane III	-0	21
Securities held outright [†]	-10	2,640
U.S. Treasury securities	8	1,671
Agency debt securities	-1	108
Agency mortgage-backed securities	-18	862
Total liabilities	-3	2,806
Selected liabilities:		
Federal Reserve notes in circulation	5	1,000
Reverse repurchase agreements	-16	79
Foreign official and international accounts	-16	79
Others	0	0
Reserve balances of depository institutions ^{**}	-20	1,521
Term deposits held by depository institutions	0	0
U.S. Treasury, General Account	-12	68
U.S. Treasury, Supplementary Financing Account	0	0
Other deposits	43	118
Total capital	+0	52

Note: +0 (-0) denotes positive (negative) value rounded to zero. [Return to table](#)

[†] Par value. [Return to table](#)

^{**} Includes required clearing balances and overdrafts. Excludes as-of adjustments. [Return to table](#)

Appendix: Senior Loan Officer Opinion Survey on Bank Lending Practices

Measures of Supply and Demand for Commercial and Industrial Loans, by Size of Firm Seeking Loan

Figure: Net Percentage of Domestic Respondents Tightening Standards for Commercial and Industrial Loans

Line chart, 1990 to 2011. Unit is percent. The 2011 July survey is marked by a vertical line. There are two series, "Loans to large and middle-market firms" and "Loans to small firms." Loans to large and middle-market firms begins at about 60 and generally decreases to about -20 in 1994:Q4. It generally increases to about 60 in 2000:Q4 then generally decreases to about -20 in 2005:Q2. It generally increases to about 90 in 2008:Q4 then generally decreases to about -20 in 2011:Q3. It generally increases ending at about 5. Loans to small firms begins at about 55 and generally decreases to about -20 in 1994:Q4. It generally increases to about 40 in 2001:Q1 then generally decreases to about -20 in 2005:Q2. It generally increases to about 75 in 2009:Q1 then generally decreases ending at about -5.

Figure: Net Percentage of Domestic Respondents Increasing Spreads of Loan Rates over Banks' Cost of Funds

Line chart, 1990 to 2011. Unit is percent. The 2011 July survey is marked by a vertical line. There are two series, "Loans to large and middle-market firms" and "Loans to small firms." Loans to large and middle-market firms begins at about 10 and generally increases to about 60 in 1991:Q1. It generally decreases to about -60 in 1994:Q2 then fluctuates but generally increases to about 60 in 2001:Q4. It generally decreases to about -75 in 2005:Q2 then generally increases to about 100 in 2008:Q4. It generally decreases to about -60 in 2011:Q2 then generally increases ending at about -40. Loans to small firms begins at about 5 and generally increases to about 40 in 1991:Q1. It generally decreases to about -40 in 1997:Q4 then generally increases to about 40 in 2001:Q4. It generally decreases to about -60 in 2005:Q2 then generally increases to about 100 in 2009:Q1. It generally decreases ending at about -40.

Figure: Net Percentage of Domestic Respondents Reporting Stronger Demand for Commercial and Industrial Loans

Line chart, 1991 to 2011. Unit is percent. The 2011 July survey is marked by a vertical line. There are two series, "Loans to large and middle-market firms" and "Loans to small firms." Loans to large and middle-market firms begins at about -30 and generally increases to about 40 in 1994:Q2. It generally decreases to about -5 in 1996:Q1 then generally increases to about 25 in 1998:Q1. It generally decreases to about -80 in 2001:Q4 then generally increases to about 40 in 2005:Q1. It generally decreases to about -60 in 2009:Q1 It generally increases to about 40 in 2010:Q3 then generally decreases ending at about -20. Loans to small firms begins at about -25 and generally increases to about 40 in 1994:Q1. It generally decreases to about -60 in 2001:Q4 then generally increases to about 40 in 2004:Q1. It generally decreases to about -65 in 2009:Q2 then generally increases to about 10 in 2011:Q2. It generally decreases ending at about -20.

Measures of Supply and Demand for Commercial Real Estate Loans

Figure: Net Percentage of Domestic Respondents Tightening Standards for Commercial Real Estate Loans

Line chart, 1990 to 2011. Unit is percent. The 2011 July survey is marked by a vertical line. The series begins at about 70 and generally decreases to about -10 in 1994:Q1. It generally increases to about 10 in 1996:Q1 then generally decreases to about -15 in 1997:Q3. It generally increases to about 45 in 1999:Q1 then generally decreases to about 5 in 1999:Q2. It generally increases to about 40 in 2002:Q2. It generally decreases to about -20 in 2005:Q1 then generally increases to about 90 in 2009:Q3 then generally decreases ending at about -5.

Figure: Net Percentage of Domestic Respondents Reporting Stronger Demand for Commercial Real Estate Loans

Line chart, 1995 to 2011. Unit is percent. The 2011 July survey is marked by a vertical line. The series begins at about 15 in 1995:Q1 then generally increases to about 25 in 1996:Q1. It generally increases to about 50 in 1998:Q1 then generally decreases to about 0 in 1998:Q4. It generally increases to about 30 in 1999:Q3 then generally decreases to about -55 in 2001:Q4. It generally increases to about 20 in 2005:Q1 then generally decreases to about -60 in 2009:Q2. It generally increases to about 35 in 2011:Q2 then generally decreases ending at about 15.

Measures of Supply and Demand for Residential Mortgage Loans

Figure: Net Percentage of Domestic Respondents Tightening Standards for Residential Mortgage Loans

Line chart, 1990:Q3 to 2007:Q1. Unit is percent. The series is "All residential." It begins at about 10 and generally increases to about 35 in 1991:Q1. It generally decreases to about -15 in 1993:Q4, then fluctuates but generally increases to about 15 in 2003:Q1. It fluctuates between about -15 and 0 until 2006:Q4 then generally increases ending at about 20.

There is a second panel showing a line chart from 2007:Q2 to 2011:Q4. Unit is percent. There are three series, "Prime," "Nontraditional," and "Subprime." Prime begins at about 20 and generally increases to about 75 in 2008:Q3. It generally decreases to about -5 in 2010:Q3 then generally increases to about 10 in 2011:Q1. It generally decreases ending at about 0. Nontraditional begins at about 40 and generally increases to about 90 in 2009:Q1. It fluctuates but generally decreases ending at about 0. Subprime begins at about 60 and generally increases to about 100 in 2009:Q1. It generally decreases ending at about 40 in 2009:Q1.

Note: For data starting in 2007:Q2, changes in standards for prime, nontraditional, and subprime mortgage loans are reported separately. Series are not reported when the number of respondents is three or fewer.

Figure: Net Percentage of Domestic Respondents Reporting Stronger Demand for Residential Mortgage Loans

Line chart, 1990:Q4 to 2007:Q1. Unit is percent. The series is "All residential." It begins at about -60 and generally increases to about 60 in 1991:Q1. It fluctuates but generally decreases to about -80 in 1995:Q1 then fluctuates but generally increases to about 60 in 1998:Q3. It generally decreases to about -60 in 2000:Q1 then fluctuates but generally increases to about 40 in 2003:Q4. It generally decreases to about -40 in 2004:Q1 Then generally increases to about 20 in 2005:Q4. It generally decreases to about -60 in 2006:Q4 then generally increases ending at about -40.

There is a second panel showing a line chart from 2007:Q2 to 2011:Q4. Unit is percent. There are three series, "Prime," "Nontraditional," and "Subprime." Prime begins at about -20 and generally decreases to about -60 in 2008:Q1. It generally increases to about 40 in 2009:Q1. It generally decreases to about -25 in 2011:Q2. It generally increases ending at about 18. Nontraditional begins at about -20 and generally decreases to about -65 in 2008:Q1. It generally increases to about -25 then generally decreases to about -75 in 2008:Q4. It generally increases to about -5 in 2010:Q1 then generally decreases to about -40 in 2010:Q2. It generally increases to about 0 in 2010:Q2 then generally decreases to about -20 in 2011:Q1. It generally increases ending at about 0. Subprime begins at about -20 and generally decreases to about -65 in 2008:Q1. It generally increases to about -20 in 2008:Q4 then generally decreases to about -100 in 2008:Q4. It generally increases ending at about -55 in 2009:Q1.

Note: For data starting in 2007:Q2, changes in demand for prime, nontraditional, and subprime mortgage loans are reported separately. Series are not reported when the number of respondents is three or fewer.

Measures of Supply and Demand for Consumer Loans

Figure: Net Percentage of Domestic Respondents Tightening Standards for Consumer Loans

Line chart, 1996:Q1 to 2011:Q1. Unit is percent. There are two series, "Credit card loans" and "Other consumer loans." Credit card loans begins at about 20 in 1996:Q1 then generally increases to about 50 in 1996:Q3. It generally decreases to about 0 in 2000:Q4 then generally increases to about 20 in 2001:Q1. It generally decreases to about -10 in 2007:Q3 then generally increases to about 60 in 2008:Q4. It generally decreases ending at about -10. Other consumer loans begins at about 20 in 1996:Q1 and generally decreases to about 0 in 1999:Q4. It generally increases to about 20 in 2002:Q2 then generally decreases to about -10 in 2005:Q2. It generally increases to about 70 in 2008:Q2. It generally decreases ending at about -10.

There is a second panel showing 2011:Q2 to 2011:Q4. Unit is percent. There are three series, "Credit card loans," "Auto loans," and "Other consumer loans." Credit card loans begins at about -20 and generally increases to about -10 in 2011:Q3. It remains about constant to the end of the timeline. Auto loans begins at about -10 and generally decreases to about -20 in 2011:Q3. It remains about constant to then end of the timeline. Other consumer loans begins at about -5 and generally decreases ending at about -10.

Note: For data starting in 2011:Q2, changes in standards for auto loans and consumer loans excluding credit card and auto loans are reported separately. In 2011:Q2 only, new and used auto loans are reported separately and equally weighted to calculate the auto loans series.

Figure: Net Percentage of Domestic Respondents Reporting Increased Willingness to Make Consumer Installment Loans

Line chart, 1990:Q2 to 2011:Q4. Unit is percent. The series begins at about 10 and generally decreases to about -15 in 1991:Q1. It generally increases to about 25 in 1994:Q2. It generally decreases to about -5 in 1996:Q2. It generally increases to about 10 in 1999:Q2 then generally decreases to about -5 in 2001:Q4. It generally increases to about 2005:Q3 then generally decreases to about -60 in 2008:Q4. It generally increases to about 30 in 2011:Q1 then generally decreases ending at about 20.

Figure: Net Percentage of Domestic Respondents Reporting Stronger Demand for Consumer Loans

Line chart, 1991:Q4 to 2011:Q1. Unit is percent. The series is "All consumer loans." It begins at about -30 generally increases to about 40 in 1994:Q4. It generally decreases to about -40 in 2001:Q1 then generally increases to about 40 in 2003:Q2. It fluctuates but generally decreases to about -40 in 2009:Q1 then generally increases ending at about 10.

There is a second panel showing 2011:Q2 to 2011:Q4. Unit is percent. There are three series, "Credit card loans," "Auto loans," and "Other consumer loans." Credit card loans begins at about 0 and generally increases ending at about 10. Auto loans begins at about 20 and generally decreases ending at about 10. Other consumer loans begins at about 0 and generally decreases ending at about -10.

Note: For data starting in 2011:Q2, changes in demand for credit card loans, auto loans, and consumer loans excluding credit card and auto loans are reported separately.

† Note: Data values for figures are rounded and may not sum to totals. [Return to text](#)

Last update: February 3, 2017

Risks and Uncertainty

Alternative Scenarios

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

Measure and scenario	2011 H2	2012	2013	2014	2015-16
<i>Real GDP</i>					
Extended Tealbook baseline	2.6	2.5	3.2	3.9	3.8
Recession	-2.5	-1.9	3.7	4.6	5.5
Lost decade	2.3	1.9	1.9	2.1	2.4
Greater supply-side damage	2.3	1.6	1.8	1.8	2.2
Faster snapback	2.9	3.2	3.7	3.8	3.0
Faster global recovery	2.7	3.3	4.1	3.7	3.3
European crisis with severe spillovers	1.6	-3.8	.4	4.6	5.3
<i>Unemployment rate¹</i>					
Extended Tealbook baseline	9.1	8.6	8.1	7.3	6.0
Recession	9.6	11.6	11.5	10.4	7.3
Lost decade	9.2	9.0	8.9	9.1	9.3
Greater supply-side damage	9.1	8.6	8.4	8.5	8.9
Faster snapback	9.1	8.2	7.3	6.4	5.9
Faster global recovery	9.1	8.3	7.4	6.6	5.6
European crisis with severe spillovers	9.2	10.9	11.8	10.9	8.3
<i>Total PCE prices</i>					
Extended Tealbook baseline	1.8	1.4	1.4	1.5	1.6
Recession	1.8	1.0	.3	-2	-.1
Lost decade	1.8	1.4	1.3	1.3	1.0
Greater supply-side damage	1.8	2.0	2.6	2.7	2.5
Faster snapback	1.8	1.4	1.5	1.8	2.0
Faster global recovery	1.9	2.2	2.2	1.6	1.4
European crisis with severe spillovers	1.1	-1.4	-.1	1.1	2.1
<i>Core PCE prices</i>					
Extended Tealbook baseline	1.8	1.5	1.4	1.4	1.5
Recession	1.8	1.1	.3	-.3	-.2
Lost decade	1.8	1.5	1.3	1.2	.9
Greater supply-side damage	1.8	2.1	2.6	2.6	2.4
Faster snapback	1.8	1.5	1.5	1.7	1.9
Faster global recovery	1.8	1.8	1.9	1.6	1.5
European crisis with severe spillovers	1.6	-.3	.1	.9	1.8
<i>Federal funds rate¹</i>					
Extended Tealbook baseline	.1	.1	.1	.6	2.9
Recession	.1	.1	.1	.1	.3
Lost decade	.1	.1	.1	.1	.1

Greater supply-side damage	.1	.1	1.0	1.7	1.8
Faster snapback	.1	.1	.7	1.7	2.9
Faster global recovery	.1	.1	.1	1.3	3.3
European crisis with severe spillovers	.1	.1	.1	.1	1.9

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, 2008 to 2016. Unit is 4-quarter percent change. There are seven series, "Extended Tealbook baseline," "Recession," "Lost decade," "Greater supply-side damage," "Faster snapback," "Faster global recovery," and "European crisis with severe spillovers." Extended Tealbook baseline begins at about 2 and generally decreases to about -5 in 2009:Q2. It generally increases to about 3.5 in 2010:Q4 then generally decreases to about 2 in 2011:Q1. It generally increases to about 4.25 in 2015:Q1 then generally decreases ending at about 3.5. Recession begins at about 2 in 2011:Q4 and generally decreases to about -4 in 2012:Q3. It generally increases ending at about 5.5. Lost decade begins at about 2 in 2011:Q4 and generally increases ending at about 2.5. Greater supply-side damage begins at about 2 in 2011:Q4 and generally increases ending at about 2.25. Faster snapback begins at about 2 in 2011:Q4 and generally increases to about 4 in 2014:Q2. It generally decreases ending at about 3. Faster global recovery begins at about 2 in 2011:Q4. It generally increases to about 4 in 2013:Q3 then generally decreases ending at about 3. European crisis with severe spillovers begins at about 2 in 2011:Q4 and generally decreases to about -4 in 2012:Q4. It generally increases to about 6 then generally decreases ending at about 5. 70 percent interval is presented as a dark shaded range that begins at about 2 in 2011:Q4 and generally increases ending at about [1.75, 6]. 90 percent interval is presented as a light shaded range that begins at about 2 in 2011:Q4 and generally increases ending at about [.25, 7.25].

Figure: Unemployment Rate

Line chart, 2008 to 2016. Unit is percent. There are seven series, "Extended Tealbook baseline," "Recession," "Lost decade," "Greater supply-side damage," "Faster snapback," "Faster global recovery," and "European crisis with severe spillovers." Extended Tealbook baseline begins at about 10.0 and generally increases to about 10.0 in 2010:Q1. It generally decreases ending at about 6.0. Recession begins at about 9.0 in 2011:Q4 and generally increases to about 11.75 in 2013:Q1. It generally decreases ending at about 7.5. Lost decade begins at about 9.0 in 2011:Q4 and generally decreases to about 8.75 in 2013:Q1. It generally increases ending at about 9.4. Greater supply-side damage begins at about 9.0 in 2011:Q4 and generally decreases to about 8.25 in 2014:Q3. It generally increases ending at about 9.0. Faster snapback begins at about 9.0 in 2011:Q4 and generally decreases ending at about 6.0. Faster global recovery begins at about 9.0 in 2011:Q4 and generally decreases ending at about 5.75. European crisis with severe spillovers begins at about 9.0 in 2011:Q4 and generally increases to about 12.0 in 2014:Q1. It generally decreases ending at about 8.5. 70 percent interval is presented as a dark shaded range that begins at about 9.0 in 2011:Q4 and generally decreases ending at about [5.0, 7.5]. 90 percent interval is presented as a light shaded range that begins at about 9.0 in 2011:Q4 and generally decreases ending at about [4.5, 8.25].

Figure: PCE Prices excluding Food and Energy

Line chart, 2008 to 2016. Unit is 4-quarter percent change. There are seven series, "Extended Tealbook baseline," "Recession," "Lost decade," "Greater supply-side damage," "Faster snapback," "Faster global recovery," and "European crisis with severe spillovers." Extended Tealbook Baseline begins at about 2.25 and fluctuates but generally decreases to about 1.0 in 2010:Q4. It generally increases to about 2.0 in 2012:Q1 then generally decreases ending at about 1.5. Recession begins at about 1.75 in 2011:Q4 and generally decreases to about -0.25 in 2015:Q1. It generally increases ending at about 0.0. Lost decade begins at about 1.75 in 2011:Q4 and generally increases to about 2.0 in 2012:Q1. It generally decreases ending at about 0.75. Greater supply-side damage begins at about 1.75 in 2011:Q4 and generally increases to about 2.6 in 2014:Q4. It generally decreases ending at about 2.4. Faster snapback begins at about 1.75 in 2011:Q4 and generally decreases to about 2013:Q1. It generally increases ending at about 2.0. Faster global recovery begins at about 1.75 in 2011:Q4 and generally decreases ending at about 1.5. European crisis with severe spillovers begins at about 1.75 in 2011:Q4 and generally decreases to about -0.5. It generally increases ending at about 2.1. 70 percent interval is presented as a dark shaded range that begins at about 1.75 in 2011:Q4 and generally increases ending at about [0.5, 2.5]. 90 percent interval is presented as a light shaded range that begins at about 1.75 in 2011:Q4 and generally increases ending at about [0.0, 3.1].

Figure: Federal Funds Rate

Line chart, 2008 to 2016. Unit is percent. There are seven series, "Extended Tealbook baseline," "Recession," "Lost decade," "Greater supply-side damage," "Faster snapback," "Faster global recovery," and "European crisis with severe spillovers." Extended Tealbook baseline begins at about 3.25 and generally decreases to about 0 in 2009:Q1. It remains about constant to the end of the timeline. Recession begins at about 0 in 2011:Q4 and remains about constant until 2016:Q3. It generally increases ending at about 0.25. Lost decade begins at about 0 in 2011:Q4 and remains about constant to the end of the timeline. Greater supply-side damage begins at about 0 in 2011:Q4 and remains about constant until 2013:Q1. It generally increases to about 1.75 in 2014:Q3 and remains about constant to the end of the timeline. Faster snapback begins at about 0 in 2011:Q4 and remains about constant until 2013:Q2. It generally increases ending at about 3. Faster global recovery begins at about 0 and remains about constant until 2014:Q1. It generally increases ending at about 3.25. European crisis with severe spillovers begins at about 0 in 2011:Q4 and remains about constant until 2015:Q4. It generally increases ending at about 2. 70 percent interval is presented as a dark shaded range that begins at about 0 in 2011:Q4 and generally increases ending at about [1, 5]. 90 percent interval is presented as a light shaded range that begins at about 0 in 2011:Q4 and generally increases ending at about [0, 6].

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

Measure	2011	2012	2013	2014	2015	2016
<i>Real GDP (percent change, Q4 to Q4)</i>						
Projection	1.7	2.5	3.2	3.9	4.1	3.6
Confidence interval						
Tealbook forecast errors	1.2-2.2	.8-4.2	1.5-5.0	...	...	...
FRB/US stochastic simulations	1.0-2.4	1.0-4.2	1.3-5.1	1.6-5.5	1.9-6.1	1.6-5.9
<i>Civilian unemployment rate (percent, Q4)</i>						
Projection	9.1	8.6	8.1	7.3	6.6	6.0
Confidence interval						
Tealbook forecast errors	9.0-9.2	7.9-9.3	6.9-9.3	...	...	...
FRB/US stochastic simulations	8.9-9.3	7.8-9.3	7.0-9.2	6.2-8.6	5.6-8.0	5.0-7.4
<i>PCE prices, total (percent change, Q4 to Q4)</i>						
Projection	2.7	1.4	1.4	1.5	1.5	1.6
Confidence interval						
Tealbook forecast errors	2.4-2.9	.1-2.6	.2-2.6	...	...	...
FRB/US stochastic simulations	2.2-3.1	.3-2.5	.1-2.6	.1-2.8	.1-2.8	.2-2.9
<i>PCE prices excluding food and energy (percent change, Q4 to Q4)</i>						
Projection	1.8	1.5	1.4	1.4	1.5	1.6
Confidence interval						
Tealbook forecast errors	1.6-2.1	.8-2.2	.6-2.2	...	...	...
FRB/US stochastic simulations	1.6-2.1	.8-2.3	.5-2.3	.4-2.3	.5-2.4	.6-2.5
<i>Federal funds rate (percent, Q4)</i>						
Projection	.1	.1	.1	.6	2.0	2.9
Confidence interval						
FRB/US stochastic simulations	.1-2	.1-9	.1-1.9	.1-2.8	.2-4.0	.9-5.0

Note: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969-2009 set of model equation residuals.

Intervals derived from Tealbook forecast errors are based on projections made from 1979-2009, except for PCE prices excluding food and energy, where the sample is 1981-2009.

... Not applicable. The Tealbook forecast horizon has typically extended about 2 years. [Return to table](#)

Tealbook Forecast Compared with Blue Chip

(Blue Chip survey released October 10, 2011)

Figure: Real GDP

Line chart, 2008 to 2012. Unit is percent change, annual rate. There are two series, "Blue Chip consensus" and "Staff forecast." The series begin at about -2 and generally increase together to about 2 in 2008:Q2. They generally decrease together to about -9 in 2008:Q4 then generally increase together to about 4 in 2010:Q1. They generally decrease together to about 0 in 2011:Q1 then generally increase together ending at about 3. There is a shaded area that begins at about 2 in 2011:Q2 and generally increases ending at about [2, 4].

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

Figure: Real PCE

Line chart, 2008 to 2012. Unit is percent change, annual rate. There are two series, "Blue Chip consensus" and "Staff forecast." The series begin at about -1 and generally increase together to about 0 in 2008:Q2. They generally decrease together to about -5 in 2008:Q4. They fluctuate but generally increase together to about 4 in 2011:Q1. They generally decrease together to about 1 in 2011:Q2. Blue Chip consensus generally increases ending at about 2.5 and Staff forecast generally increases ending at about 3. There is a shaded area that begins at about 1 in 2011:Q2 and generally increases ending at about [2, 3.5].

Figure: Unemployment Rate

Line chart, 2008 to 2012. Unit is percent. There are two series, "Blue Chip consensus" and "Staff forecast." The series begin at about 5 and generally increase together to about 10 in 2009:Q4. They generally decrease together to about 9 in 2011:Q1. Blue chip consensus remains about constant until 2012:Q2 then generally decreases ending at about 8.75. Staff forecast remains about constant until 2012:Q1 then generally decreases ending at about 8.5. There is a shaded area that begins at about 9 in 2011:Q2 and generally increases ending at about [8, 9.5].

Figure: Consumer Price Index

Line chart, 2008 to 2012. Unit is percent change, annual rate. There are two series, "Blue Chip consensus" and "Staff forecast." The series begin at about 4.25 and generally increase together to about 6.5 in 2008:Q3. They generally decrease together to about -10 in 2008:Q4 then generally increase together to about 4 in 2009:Q3. They generally decrease together to about -1 in 2010:Q2 then generally increase together to about 6 in 2011:Q1. They generally decrease together to about 2 in 2011:Q4 and remain about constant to the end of the timeline. There is a shaded area that begins at about 3 in 2011:Q3 and generally decreases ending at about [1.5, 3].

Figure: Treasury Bill Rate

Line chart, 2008 to 2012. Unit is percent. There are two series, "Blue Chip consensus" and "Staff forecast." The series begin at about 2 and generally decrease together to about 0 in 2008:Q4. They remain about constant until the end of the timeline. There is a red shaded area that begins at about 0 in 2011:Q3 and generally increases ending at about [0, .5].

Figure: 10-Year Treasury Yield

Line chart, 2008 to 2012. Unit is percent. There are two series, "Blue Chip consensus" and "Staff forecast." The series begin at about 3.75 and generally increase together to about 4 in 2008:Q2. They generally decrease together to about 2.75 in 2009:Q1 then generally increase together to about 3.75 in 2010:Q1. They generally decrease together to about 2.75 in 2010:Q3 then generally increase together to about 3.5 in 2011:Q1. They generally decrease together to about 2.0 in 2011:Q4 then generally increase together ending at about 3.0. There is a shaded area that begins at about 2.5 in 2011:Q3 and generally decreases to about [1.75, 2.5]. It generally increases ending at about [2.0, 3.5].

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.

† Note: Data values for figures are rounded and may not sum to totals. [Return to text](#)

Last update: February 3, 2017

November 2011 Tealbook A Tables and Charts

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	
	09/14/11	10/26/11	09/14/11	10/26/11	09/14/11	10/26/11	09/14/11	10/26/11	09/14/11	10/26/11
<i>Quarterly</i>										
2011: Q1	3.1	3.1	.4	.4	3.9	3.9	1.6	1.6	8.9	8.9
Q2	3.8	4.0	1.2	1.3	3.2	3.3	2.2	2.3	9.1	9.1
Q3	5.3	5.2	2.5	2.7	2.2	2.3	2.1	2.1	9.1	9.1
Q4	3.9	3.9	2.0	2.5	1.2	1.2	1.7	1.5	9.1	9.1
2012: Q1	2.9	3.5	2.2	2.4	.9	1.4	1.6	1.6	9.1	9.0
Q2	4.5	5.0	2.3	2.5	1.3	1.4	1.5	1.6	9.0	8.9
Q3	4.0	4.0	2.7	2.6	1.3	1.3	1.4	1.5	8.9	8.8
Q4	4.2	3.9	3.0	2.7	1.3	1.3	1.4	1.4	8.7	8.6
2013: Q1	4.1	4.0	3.2	2.9	1.3	1.4	1.3	1.4	8.5	8.4
Q2	5.5	5.5	3.3	3.1	1.3	1.4	1.3	1.4	8.4	8.4
Q3	4.9	4.8	3.5	3.4	1.3	1.4	1.3	1.4	8.3	8.3
Q4	4.8	4.8	3.6	3.5	1.3	1.4	1.4	1.4	8.1	8.1
<i>Two-quarter²</i>										
2011: Q2	3.5	3.5	.8	.8	3.6	3.6	1.9	1.9	-5	-5
Q4	4.6	4.6	2.2	2.6	1.7	1.8	1.9	1.8	.0	.0
2012: Q2	3.7	4.2	2.3	2.4	1.1	1.4	1.6	1.6	-1	-2
Q4	4.1	4.0	2.9	2.6	1.3	1.3	1.4	1.4	-3	-3
2013: Q2	4.8	4.7	3.2	3.0	1.3	1.4	1.3	1.4	-3	-2
Q4	4.9	4.8	3.5	3.4	1.3	1.4	1.3	1.4	-3	-3
<i>Four-quarter³</i>										
2010:Q4	4.7	4.7	3.1	3.1	1.3	1.3	1.0	1.0	-4	-4
2011:Q4	4.0	4.1	1.5	1.7	2.6	2.7	1.9	1.8	-5	-5
2012:Q4	3.9	4.1	2.6	2.5	1.2	1.4	1.5	1.5	-4	-5
2013:Q4	4.8	4.8	3.4	3.2	1.3	1.4	1.3	1.4	-6	-5
<i>Annual</i>										
2010	4.2	4.2	3.0	3.0	1.8	1.8	1.4	1.4	9.6	9.6
2011	4.0	4.0	1.7	1.8	2.4	2.5	1.5	1.5	9.0	9.0
2012	3.9	4.2	2.3	2.4	1.4	1.6	1.7	1.6	8.9	8.8
2013	4.6	4.5	3.1	2.9	1.3	1.4	1.4	1.4	8.3	8.3

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	2011				2012				2013				2011 ¹	2012 ¹	2013 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Real GDP	.4	1.3	2.7	2.5	2.4	2.5	2.6	2.7	2.9	3.1	3.4	3.5	1.7	2.5	3.2
<i>Previous Tealbook</i>	.4	1.2	2.5	2.0	2.2	2.3	2.7	3.0	3.2	3.3	3.5	3.6	1.5	2.6	3.4
Final sales	.0	1.6	3.0	2.1	1.7	2.3	2.3	2.9	2.7	2.8	2.9	2.8	1.7	2.3	2.8
<i>Previous Tealbook</i>	.0	1.5	1.7	1.8	2.0	2.2	2.4	3.0	2.8	3.0	3.0	2.8	1.2	2.4	2.9
Priv. dom. final purch.	2.0	1.9	3.4	1.9	1.8	2.4	2.8	3.2	3.1	3.4	3.7	3.8	2.3	2.5	3.5
<i>Previous Tealbook</i>	2.0	1.7	2.1	1.2	1.8	2.2	2.7	3.2	3.2	3.5	3.7	3.8	1.7	2.5	3.5
Personal cons. expend.	2.1	.7	2.2	2.0	1.9	2.2	2.5	2.8	2.9	3.0	3.2	3.3	1.7	2.4	3.1
<i>Previous Tealbook</i>	2.1	.4	1.7	1.1	1.7	2.1	2.4	2.7	2.9	3.1	3.2	3.4	1.3	2.3	3.1
Durables	11.7	-5.3	9.4	10.7	4.8	6.2	6.6	7.7	7.8	8.5	8.6	8.7	6.4	6.3	8.4
Nondurables	1.6	.2	-2.1	.6	1.1	1.4	1.6	1.8	1.8	1.9	2.3	2.5	.1	1.5	2.1
Services	.8	1.9	2.6	1.1	1.7	1.9	2.2	2.4	2.4	2.5	2.7	2.7	1.6	2.0	2.6
Residential investment	-2.4	4.2	1.2	3.2	3.5	6.9	7.1	7.5	8.9	9.5	9.3	9.1	1.5	6.2	9.2
<i>Previous Tealbook</i>	-2.4	3.8	-1.3	-.8	3.8	7.2	8.7	9.1	8.8	9.7	9.7	10.3	-.2	7.2	9.6
Business fixed invest.	2.1	10.3	12.8	1.3	.3	2.6	4.0	4.7	3.4	4.8	5.9	5.9	6.5	2.9	5.0
<i>Previous Tealbook</i>	2.1	10.7	5.4	2.6	1.6	1.9	3.6	4.7	4.0	5.2	5.9	5.4	5.1	2.9	5.1
Equipment & software	8.7	6.2	12.3	3.8	2.0	5.1	6.7	7.3	4.8	6.4	7.9	7.6	7.7	5.3	6.7
<i>Previous Tealbook</i>	8.7	6.7	6.0	4.2	4.0	3.9	6.1	7.1	5.5	6.7	7.7	7.0	6.4	5.3	6.7
Nonres. structures	-14.3	22.6	14.1	-5.2	-4.2	-3.8	-3.2	-2.3	-.7	.2	.5	1.1	3.2	-3.4	.3
<i>Previous Tealbook</i>	-14.3	22.6	3.7	-1.6	-4.8	-3.6	-3.2	-1.8	-.1	.8	.9	1.0	1.7	-3.4	.6
Net exports ²	-424	-416	-403	-397	-382	-369	-366	-354	-348	-342	-338	-336	-410	-368	-341
<i>Previous Tealbook²</i>	-424	-416	-405	-384	-361	-344	-337	-322	-313	-304	-297	-293	-407	-341	-302
Exports	7.9	3.6	6.0	7.6	7.2	6.8	6.6	6.6	6.8	6.9	6.7	6.5	6.2	6.8	6.7
Imports	8.3	1.4	2.2	5.0	3.2	3.3	5.0	3.4	4.7	4.7	4.9	5.2	4.2	3.7	4.9
Gov't. cons. & invest.	-5.9	-.9	-1.2	1.4	-.8	-.5	-.4	-.3	-.3	-.8	-1.5	-2.2	-1.7	-.5	-1.2
<i>Previous Tealbook</i>	-5.9	-1.0	-1.8	.8	-.8	-.5	-.4	-.3	-.3	-.8	-1.5	-2.2	-2.0	-.5	-1.2
Federal	-9.4	1.9	-2.2	4.6	-.7	-.6	-.8	-.8	-1.4	-3.0	-5.0	-6.8	-1.4	-.7	-4.1
Defense	-12.6	7.0	-.2	5.1	-.5	.2	.0	.1	-.8	-3.1	-6.0	-8.7	-.5	-.1	-4.7
Nondefense	-2.7	-7.6	-6.2	3.6	-1.1	-2.2	-2.6	-2.6	-2.6	-2.7	-2.7	-2.7	-3.3	-2.2	-2.7
State & local	-3.4	-2.8	-.6	-.8	-.8	-.5	-.2	.0	.5	.7	.9	.9	-1.9	-.4	.8
Change in bus. inventories ²	49	39	34	47	67	73	80	72	81	91	105	130	42	73	102
<i>Previous Tealbook²</i>	49	45	69	75	79	83	92	93	105	114	132	158	59	87	127
Nonfarm ²	60	51	36	49	66	72	79	71	80	90	104	129	49	72	101
Farm ²	-8	-9	-2	-2	1	1	1	1	1	1	1	1	-5	1	1

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	2005	2006	2007	2008	2009	2010	2011	2012	2013
Real GDP	2.8	2.4	2.2	-3.3	-.5	3.1	1.7	2.5	3.2
<i>Previous Tealbook</i>	2.8	2.4	2.2	-3.3	-.5	3.1	1.5	2.6	3.4
Final sales	2.7	2.8	2.4	-2.6	-.8	2.4	1.7	2.3	2.8
<i>Previous Tealbook</i>	2.7	2.8	2.4	-2.6	-.8	2.4	1.2	2.4	2.9
Priv. dom. final purch.	3.2	2.4	1.2	-4.5	-2.5	3.6	2.3	2.5	3.5

<i>Previous Tealbook</i>	3.2	2.4	1.2	-4.5	-2.5	3.6	1.7	2.5	3.5
Personal cons. expend.	2.8	3.2	1.7	-2.5	-2	3.0	1.7	2.4	3.1
<i>Previous Tealbook</i>	2.8	3.2	1.7	-2.5	-2	3.0	1.3	2.3	3.1
Durables	2.8	7.0	4.6	-13.0	3.0	10.9	6.4	6.3	8.4
Nondurables	3.1	2.9	.8	-3.1	.6	3.5	.1	1.5	2.1
Services	2.7	2.6	1.4	-.5	-.9	1.6	1.6	2.0	2.6
Residential investment	5.3	-15.7	-20.7	-24.4	-12.9	-6.3	1.5	6.2	9.2
<i>Previous Tealbook</i>	5.3	-15.7	-20.7	-24.4	-12.9	-6.3	-.2	7.2	9.6
Business fixed invest.	4.5	7.8	7.9	-9.4	-14.4	11.1	6.5	2.9	5.0
<i>Previous Tealbook</i>	4.5	7.8	7.9	-9.4	-14.4	11.1	5.1	2.9	5.1
Equipment & software	6.2	6.0	3.9	-13.6	-5.8	16.6	7.7	5.3	6.7
<i>Previous Tealbook</i>	6.2	6.0	3.9	-13.6	-5.8	16.6	6.4	5.3	6.7
Nonres. structures	-.1	13.0	17.3	-1.2	-29.3	-1.8	3.2	-3.4	.3
<i>Previous Tealbook</i>	-.1	13.0	17.3	-1.2	-29.3	-1.8	1.7	-3.4	.6
Net exports ¹	-723	-729	-649	-495	-359	-422	-410	-368	-341
<i>Previous Tealbook</i> ¹	-723	-729	-649	-495	-359	-422	-407	-341	-302
Exports	6.7	10.2	10.1	-2.5	-.1	8.8	6.2	6.8	6.7
Imports	5.2	4.1	.8	-5.9	-6.5	10.7	4.2	3.7	4.9
Gov't. cons. & invest.	.7	1.5	1.9	2.7	1.1	.1	-1.7	-.5	-1.2
<i>Previous Tealbook</i>	.7	1.5	1.9	2.7	1.1	.1	-2.0	-.5	-1.2
Federal	1.2	2.2	3.1	8.8	4.6	2.9	-1.4	-.7	-4.1
Defense	.4	4.4	2.6	9.8	3.5	1.5	-.5	-.1	-4.7
Nondefense	2.6	-2.3	4.2	6.8	6.9	5.7	-3.3	-2.2	-2.7
State & local	.4	1.2	1.2	-.9	-1.1	-1.7	-1.9	-.4	.8
Change in bus. inventories ¹	50	59	28	-36	-145	59	42	73	102
<i>Previous Tealbook</i> ¹	50	59	28	-36	-145	59	59	87	127
Nonfarm ¹	50	63	29	-38	-144	61	49	72	101
Farm ¹	0	-4	-1	1	-1	-1	-5	1	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	2011				2012				2013				2011 ¹	2012 ¹	2013 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Real GDP	.4	1.3	2.7	2.5	2.4	2.5	2.6	2.7	2.9	3.1	3.4	3.5	1.7	2.5	3.2
<i>Previous Tealbook</i>	.4	1.2	2.5	2.0	2.2	2.3	2.7	3.0	3.2	3.3	3.5	3.6	1.5	2.6	3.4
Final sales	.0	1.6	3.0	2.1	1.7	2.3	2.3	2.9	2.7	2.8	2.9	2.8	1.7	2.3	2.8
<i>Previous Tealbook</i>	.0	1.5	1.7	1.8	2.0	2.2	2.4	3.0	2.8	3.0	2.9	2.8	1.2	2.4	2.9
Priv. dom. final purch.	1.6	1.6	2.8	1.6	1.5	2.0	2.4	2.6	2.6	2.8	3.1	3.2	1.9	2.1	2.9
<i>Previous Tealbook</i>	1.6	1.4	1.8	1.0	1.5	1.8	2.3	2.6	2.6	2.9	3.0	3.1	1.4	2.0	2.9
Personal cons. expend.	1.5	.5	1.6	1.4	1.4	1.6	1.8	2.0	2.0	2.1	2.3	2.4	1.2	1.7	2.2
<i>Previous Tealbook</i>	1.5	.3	1.2	.8	1.2	1.5	1.7	1.9	2.0	2.2	2.2	2.4	.9	1.6	2.2
Durables	.9	-.4	.7	.8	.4	.5	.5	.6	.6	.7	.7	.7	.5	.5	.6
Nondurables	.3	.0	-.3	.1	.2	.2	.3	.3	.3	.3	.4	.4	.0	.2	.3
Services	.4	.9	1.2	.5	.8	.9	1.0	1.1	1.1	1.2	1.3	1.3	.7	1.0	1.2

Output per hour	-6	-1	3.4	1.5	.9	1.2	1.3	1.4	1.5	1.7	1.7	1.8	1.0	1.2	1.7
<i>Previous Tealbook</i>	-6	-3	3.0	1.0	.8	1.2	1.6	1.7	1.7	1.6	1.8	1.8	.8	1.3	1.8
Compensation per hour	5.6	2.7	1.7	1.7	2.4	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.9	2.3	2.2
<i>Previous Tealbook</i>	5.6	2.7	1.4	1.7	2.4	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.8	2.3	2.2
Unit labor costs	6.2	2.8	-1.6	.2	1.5	1.0	1.0	.9	.7	.5	.5	.5	1.9	1.1	.6
<i>Previous Tealbook</i>	6.2	3.0	-1.6	.8	1.6	1.0	.8	.6	.5	.6	.4	.4	2.1	1.0	.5
Core goods imports chain-wt. price index ³	8.3	7.2	2.6	-3	.0	1.5	1.5	1.8	1.8	1.7	1.6	1.6	4.4	1.2	1.7
<i>Previous Tealbook</i> ³	8.3	7.4	2.6	1.0	.9	1.4	1.6	1.6	1.6	1.5	1.4	1.4	4.8	1.4	1.5

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	2005	2006	2007	2008	2009	2010	2011	2012	2013
GDP chain-wt. price index	3.5	2.9	2.6	2.1	.7	1.6	2.2	1.5	1.5
<i>Previous Tealbook</i>	3.5	2.9	2.6	2.1	.7	1.6	2.4	1.3	1.4
PCE chain-wt. price index	3.2	1.9	3.5	1.7	1.5	1.3	2.7	1.4	1.4
<i>Previous Tealbook</i>	3.2	1.9	3.5	1.7	1.5	1.3	2.6	1.2	1.3
Energy	21.5	-3.7	19.3	-8.8	2.6	6.2	12.1	-.4	1.2
<i>Previous Tealbook</i>	21.5	-3.7	19.3	-8.8	2.6	6.2	11.6	-3.1	.6
Food	1.5	1.7	4.7	7.0	-1.7	1.3	5.3	1.2	1.2
<i>Previous Tealbook</i>	1.5	1.7	4.7	7.0	-1.7	1.3	4.6	1.4	1.4
Ex. food & energy	2.3	2.3	2.4	2.0	1.7	1.0	1.8	1.5	1.4
<i>Previous Tealbook</i>	2.3	2.3	2.4	2.0	1.7	1.0	1.9	1.5	1.3
Ex. food & energy, market based	2.0	2.2	2.1	2.2	1.7	.7	1.8	1.4	1.3
<i>Previous Tealbook</i>	2.0	2.2	2.1	2.2	1.7	.7	1.9	1.4	1.2
CPI	3.7	2.0	4.0	1.6	1.5	1.2	3.4	1.4	1.5
<i>Previous Tealbook</i>	3.7	2.0	4.0	1.6	1.5	1.2	3.3	1.2	1.4
Ex. food & energy	2.1	2.7	2.3	2.0	1.7	.6	2.2	1.6	1.5
<i>Previous Tealbook</i>	2.1	2.7	2.3	2.0	1.7	.6	2.2	1.6	1.4
ECl, hourly compensation ¹	2.9	3.2	3.0	2.4	1.2	2.1	2.5	2.4	2.3
<i>Previous Tealbook</i> ¹	2.9	3.2	3.0	2.4	1.2	2.1	2.5	2.4	2.3
Nonfarm business sector									
Output per hour	1.6	.8	2.5	-1.1	5.3	2.5	1.0	1.2	1.7
<i>Previous Tealbook</i>	1.6	.8	2.5	-1.1	5.3	2.5	.8	1.3	1.8
Compensation per hour	3.5	4.5	3.6	2.5	1.8	1.6	2.9	2.3	2.2
<i>Previous Tealbook</i>	3.5	4.5	3.6	2.5	1.8	1.6	2.8	2.3	2.2
Unit labor costs	1.9	3.6	1.1	3.7	-3.3	-.9	1.9	1.1	.6
<i>Previous Tealbook</i>	1.9	3.6	1.1	3.7	-3.3	-.9	2.1	1.0	.5
Core goods imports chain-wt. price index ²	2.2	2.5	2.9	3.7	-1.7	2.6	4.4	1.2	1.7
<i>Previous Tealbook</i> ²	2.2	2.5	2.9	3.7	-1.7	2.6	4.8	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

Item	2011				2012				2013				2011 ¹	2012 ¹	2013 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
<i>Employment and production</i>															
Nonfarm payroll employment ²	.4	.5	.2	.3	.4	.4	.5	.5	.6	.6	.7	.8	1.4	1.8	2.7
Unemployment rate ³	8.9	9.1	9.1	9.1	9.0	8.9	8.8	8.6	8.4	8.4	8.3	8.1	9.1	8.6	8.1
<i>Previous Tealbook</i> ³	8.9	9.1	9.1	9.1	9.1	9.0	8.9	8.7	8.5	8.4	8.3	8.1	9.1	8.7	8.1
NAIRU ³	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
<i>Previous Tealbook</i> ³	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
GDP gap ⁴	-6.0	-6.2	-6.1	-6.0	-5.9	-5.8	-5.7	-5.6	-5.4	-5.2	-4.9	-4.7	-6.0	-5.6	-4.7
<i>Previous Tealbook</i> ⁴	-6.0	-6.2	-6.2	-6.2	-6.2	-6.1	-6.0	-5.8	-5.6	-5.3	-5.0	-4.7	-6.2	-5.8	-4.7
Industrial production ⁵	4.8	.5	5.1	4.5	2.4	2.8	2.7	2.5	3.5	3.6	3.5	3.5	3.7	2.6	3.5
<i>Previous Tealbook</i> ⁵	4.8	1.0	5.9	4.2	1.2	2.4	3.7	3.0	3.4	3.7	3.5	3.6	4.0	2.6	3.5
Manufacturing industr. prod. ⁵	7.2	-.1	4.3	4.4	2.0	3.0	3.2	3.0	3.9	4.1	3.9	3.8	3.9	2.8	3.9
<i>Previous Tealbook</i> ⁵	7.1	1.0	5.1	4.0	.6	2.6	4.5	3.6	3.7	4.1	3.9	3.9	4.3	2.8	3.9
Capacity utilization rate - mfg. ³	74.5	74.3	74.9	75.5	75.7	76.1	76.5	76.8	77.3	77.8	78.2	78.7	75.5	76.8	78.7
<i>Previous Tealbook</i> ³	74.5	74.5	75.3	75.8	75.7	76.0	76.6	77.1	77.5	78.0	78.4	78.9	75.8	77.1	78.9
Housing starts ⁶	.6	.6	.6	.6	.7	.7	.8	.8	.9	.9	1.0	1.0	.6	.7	.9
Light motor vehicle sales ⁶	13.0	12.1	12.5	13.2	13.2	13.3	13.5	13.8	14.0	14.3	14.5	14.7	12.7	13.5	14.4
<i>Income and saving</i>															
Nominal GDP ⁵	3.1	4.0	5.2	3.9	3.5	5.0	4.0	3.9	4.0	5.5	4.8	4.8	4.1	4.1	4.8
Real disposable pers. income ⁵	1.2	.6	.6	3.8	-.6	3.3	3.7	3.5	2.7	2.9	3.3	3.5	1.5	2.5	3.1
<i>Previous Tealbook</i> ⁵	1.2	.9	.4	3.2	-.1	3.4	3.8	3.7	2.4	2.9	3.0	3.1	1.4	2.7	2.9
Personal saving rate ³	5.0	5.1	4.7	5.1	4.5	4.7	5.0	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
<i>Previous Tealbook</i> ³	5.0	5.2	5.0	5.4	5.0	5.3	5.5	5.7	5.6	5.6	5.5	5.5	5.4	5.7	5.5
Corporate profits ⁷	4.2	13.7	10.8	2.7	-2.6	.2	-2.6	2.3	3.2	6.3	4.2	5.1	7.7	-.7	4.7
Profit share of GNP ³	12.4	12.7	12.8	12.8	12.6	12.5	12.3	12.2	12.2	12.3	12.2	12.3	12.8	12.2	12.3
Net federal saving ⁸	-1,201	-1,265	-1,185	-1,194	-1,004	-980	-962	-939	-863	-836	-812	-777	-1,211	-971	-822
Net state & local saving ⁸	-57	-40	-63	-68	-65	-53	-53	-48	-48	-38	-41	-42	-57	-55	-42
Gross national saving rate ³	12.6	12.7	12.9	13.0	13.2	13.4	13.5	13.6	13.7	13.9	13.9	14.1	13.0	13.6	14.1
Net national saving rate ³	-.1	-.1	.4	.5	.7	1.0	1.0	1.1	1.3	1.5	1.6	1.9	.5	1.1	1.9

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	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>Employment and production</i>									

Nonfarm payroll employment ¹	2.4	2.1	1.2	-2.8	-5.6	.7	1.4	1.8	2.7
Unemployment rate ²	5.0	4.5	4.8	6.9	10.0	9.6	9.1	8.6	8.1
<i>Previous Tealbook</i> ²	5.0	4.5	4.8	6.9	10.0	9.6	9.1	8.7	8.1
NAIRU ²	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0
<i>Previous Tealbook</i> ²	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0	6.0
GDP gap ³	.1	.0	-2	-5.4	-7.0	-5.6	-6.0	-5.6	-4.7
<i>Previous Tealbook</i> ³	.1	.0	-1	-5.4	-6.9	-5.6	-6.2	-5.8	-4.7
Industrial production ⁴	2.3	2.3	2.5	-9.1	-5.5	6.2	3.7	2.6	3.5
<i>Previous Tealbook</i> ⁴	2.3	2.3	2.5	-9.1	-5.5	6.2	4.0	2.6	3.5
Manufacturing industr. prod. ⁴	3.4	2.0	2.8	-11.8	-6.1	6.1	3.9	2.8	3.9
<i>Previous Tealbook</i> ⁴	3.4	2.0	2.8	-11.8	-6.1	6.1	4.3	2.8	3.9
Capacity utilization rate - mfg. ²	78.5	78.4	79.0	70.1	67.7	73.3	75.5	76.8	78.7
<i>Previous Tealbook</i> ²	78.5	78.4	79.0	70.1	67.7	73.3	75.8	77.1	78.9
Housing starts ⁵	2.1	1.8	1.4	.9	.6	.6	.6	.7	.9
Light motor vehicle sales ⁵	16.9	16.5	16.1	13.1	10.3	11.5	12.7	13.5	14.4
<i>Income and saving</i>									
Nominal GDP ⁴	6.4	5.3	4.9	-1.2	.0	4.7	4.1	4.1	4.8
Real disposable pers. income ⁴	.6	4.6	1.6	1.0	-2.4	3.5	1.5	2.5	3.1
<i>Previous Tealbook</i> ⁴	.6	4.6	1.6	1.0	-2.4	3.5	1.4	2.7	2.9
Personal saving rate ²	1.6	2.8	2.5	6.2	4.3	5.2	5.1	5.1	5.1
<i>Previous Tealbook</i> ²	1.6	2.8	2.5	6.2	4.3	5.2	5.4	5.7	5.5
Corporate profits ⁶	19.6	3.7	-8.1	-33.5	61.8	18.2	7.7	-.7	4.7
Profit share of GNP ²	11.8	11.6	10.1	6.8	11.0	12.4	12.8	12.2	12.3
Net federal saving ⁷	-283	-204	-245	-613	-1218	-1274	-1211	-971	-822
Net state & local saving ⁷	26	51	12	-72	-78	-25	-57	-55	-42
Gross national saving rate ²	15.6	16.5	13.9	12.6	11.3	12.3	13.0	13.6	14.1
Net national saving rate ²	3.6	4.4	1.7	-.6	-1.9	-.4	.5	1.1	1.9

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				2011				2012				2013			
	2010 ^a	2011 ^a	2012	2013	Q1 ^a	Q2 ^a	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget					Not seasonally adjusted											
Receipts ¹	2163	2302	2578	2776	488	714	568	571	552	797	659	638	572	854	712	665
Outlays ¹	3456	3601	3626	3621	949	855	897	921	959	894	852	937	929	892	863	947
Surplus/deficit ¹	-1293	-1299	-1048	-845	-460	-141	-328	-350	-408	-98	-193	-298	-357	-38	-152	-282

	2	3.9	-2.1	-2.5	-3.3	-1.7		-3	22.5	5.4
	3	3.9	-2.1	-2.5	-2.2	1.4		4.8	16.0	3.9
	4	5.1	-.7	-1.8	2.3	2.2		8.9	16.4	4.2
2011:	1	1.9	-2.0	-2.7	2.2	2.8		-4.2	7.9	3.1
	2	3.0	-.6	-2.4	3.4	4.0		-3.1	8.6	4.0
	3	4.9	-.1	-1.2	2.5	3.3		1.8	14.1	5.2
	4	5.0	.3	-1.0	3.8	3.2		3.7	13.6	3.9
2012:	1	4.6	.7	-.5	4.2	2.9		3.0	11.6	3.5
	2	4.0	1.1	-.2	4.7	3.2		2.8	8.6	5.0
	3	3.4	1.3	.0	5.3	3.3		2.8	6.2	4.0
	4	5.2	1.6	.1	6.0	3.7		2.8	11.6	3.9
2013:	1	5.0	1.6	.1	6.2	3.8		2.8	10.5	4.0
	2	3.6	1.7	.1	6.2	3.9		2.7	5.8	5.5
	3	3.2	1.7	.1	6.3	4.1		2.7	4.3	4.8
	4	5.0	1.7	.1	6.3	4.1		2.7	10.1	4.8

Note: Quarterly data are at seasonally adjusted annual rates.

1. Data after 2011:Q2 are staff projections. Changes are measured from end of the preceding period to end of period indicated except for annual nominal GDP growth, which is calculated from Q4 to Q4. [Return to table](#)

Flow of Funds Projections: Highlights

(Billions of dollars at seasonally adjusted annual rates except as noted)

Category	2010	2011	2012	2013	2011		2012				2013			
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<i>Domestic nonfinancial sectors</i>														
Net funds raised														
Total	1173.2	914.0	1246.8	1333.2	1279.3	1439.2	1350.8	1140.2	901.8	1594.4	1623.3	1121.5	933.8	1654.3
Net equity issuance	-278.0	-437.4	-380.0	-340.0	-493.1	-420.0	-360.0	-360.0	-400.0	-400.0	-320.0	-320.0	-360.0	-360.0
Net debt issuance	1451.1	1351.4	1626.8	1673.2	1772.5	1859.2	1710.8	1500.2	1301.8	1994.4	1943.3	1441.5	1293.8	2014.3
Borrowing indicators														
Debt (percent of GDP) ¹	243.4	243.2	242.9	242.5	241.6	242.2	243.0	242.7	242.5	242.8	243.5	242.8	242.0	241.7
Borrowing (percent of GDP)	10.0	8.9	10.3	10.2	11.7	12.1	11.0	9.6	8.2	12.5	12.0	8.8	7.8	12.0
Households														
Net borrowing ²	-272.2	-81.9	157.9	226.1	-16.9	37.9	98.3	143.0	179.5	210.6	219.4	223.1	229.3	232.8
Home mortgages	-298.3	-183.5	-14.8	9.9	-119.1	-99.0	-49.4	-19.7	0.0	9.9	9.9	9.9	9.9	9.9
Consumer credit	-44.2	73.2	129.1	168.4	61.3	95.1	105.5	119.8	135.4	155.5	163.1	165.7	171.0	173.7
Debt/DPI (percent) ³	120.3	114.2	110.6	107.2	113.5	112.1	112.0	111.0	109.9	109.0	108.4	107.7	106.9	106.1
Business														
Financing gap ⁴	-197.3	-215.0	-113.8	16.0	-255.9	-247.9	-163.6	-136.9	-86.1	-68.4	-15.2	-5.7	21.7	63.3
Net equity issuance	-278.0	-437.4	-380.0	-340.0	-493.1	-420.0	-360.0	-360.0	-400.0	-400.0	-320.0	-320.0	-360.0	-360.0
Credit market borrowing	36.2	364.5	371.1	468.8	363.6	358.6	325.9	359.3	375.8	423.5	445.2	462.6	480.8	486.6
State and local governments														
Net borrowing	106.8	-12.1	70.8	69.8	43.2	89.8	73.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8
Current surplus ⁵	257.0	207.3	195.4	215.5	179.8	176.9	182.2	195.7	198.6	205.1	206.9	218.7	217.5	219.0
Federal government														
Net borrowing	1580.2	1080.8	1027.0	908.5	1382.6	1372.9	1212.8	928.1	676.6	1290.5	1208.8	685.9	514.0	1225.1
Net borrowing (n.s.a.)	1580.2	1080.8	1027.0	908.5	389.1	338.9	378.0	118.1	212.6	318.3	377.0	57.6	171.9	302.0
Unified deficit (n.s.a.)	1275.1	1279.7	996.4	828.5	328.1	350.0	407.8	97.8	192.6	298.3	357.0	37.6	151.9	282.0

Depository institutions														
Funds supplied	-191.1	26.7	336.4	393.5	235.5	187.9	318.3	345.2	336.2	345.9	362.0	369.1	409.8	433.2

Note: Data after 2011:Q2 are staff projections.

1. Average debt levels in the period (computed as the average of period-end debt positions) divided by nominal GDP. [Return to table](#)
 2. Includes change in liabilities not shown in home mortgages and consumer credit. [Return to table](#)
 3. Average debt levels in the period (computed as the average of period-end debt positions) divided by disposable personal income. [Return to table](#)
 4. For corporations, excess of capital expenditures over U.S. internal funds. [Return to table](#)
 5. NIPA state and local government saving plus consumption of fixed capital and net capital transfers. [Return to table](#)
- n.s.a. Not seasonally adjusted. [Return to table](#)

Foreign Real GDP and Consumer Prices: Selected Countries

(Quarterly percent changes at an annual rate)

Measure and country	Projected											
	2011				2012				2013			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP¹												
Total foreign	4.0	2.3	3.6	2.8	2.8	2.9	3.0	3.1	3.3	3.4	3.4	3.4
<i>Previous Tealbook</i>	4.1	2.2	3.5	3.0	3.1	3.1	3.2	3.2	3.4	3.4	3.4	3.5
Advanced foreign economies	2.2	.1	2.3	1.5	1.4	1.5	1.6	1.8	1.9	2.1	2.1	2.2
Canada	3.6	-.4	2.4	2.5	2.1	2.1	2.1	2.2	2.4	2.4	2.5	2.5
Japan	-3.7	-2.1	6.7	2.2	2.3	2.0	1.8	1.7	1.6	1.6	1.6	1.6
United Kingdom	1.6	.4	1.6	1.0	1.4	1.7	1.9	2.1	2.4	2.5	2.6	2.6
Euro area	3.1	.7	.9	-.2	-.2	.2	.5	.8	1.2	1.5	1.6	1.6
Germany	5.5	.5	1.6	.7	.7	.9	1.2	1.6	1.9	2.2	2.4	2.4
Emerging market economies	6.0	4.7	4.9	4.2	4.4	4.4	4.6	4.6	4.7	4.7	4.8	4.8
Asia	8.3	5.1	6.1	5.2	5.5	5.5	5.7	5.7	5.9	5.9	6.0	6.0
Korea	5.4	3.6	4.3	3.6	3.6	3.7	3.8	3.8	3.9	4.1	4.3	4.5
China	8.2	10.0	9.5	8.5	8.2	8.1	8.1	8.1	8.2	8.2	8.3	8.3
Latin America	3.8	4.4	3.7	3.2	3.2	3.2	3.4	3.4	3.4	3.4	3.4	3.5
Mexico	2.4	4.5	4.0	3.2	3.1	3.1	3.3	3.3	3.3	3.3	3.3	3.3
Brazil	5.0	3.1	2.2	2.7	3.2	3.3	3.3	3.3	3.7	3.8	3.8	4.0
Consumer prices²												
Total foreign	4.3	3.2	3.1	2.7	2.5	2.2	2.3	2.3	2.3	2.4	2.5	2.5
<i>Previous Tealbook</i>	4.3	3.2	2.9	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4
Advanced foreign economies	3.2	2.1	1.1	1.7	1.3	1.1	1.2	1.3	1.3	1.4	1.5	1.6
Canada	3.6	3.1	1.0	2.3	2.2	1.8	1.9	1.9	1.9	2.0	2.0	2.0
Japan	.4	-.8	.4	-.3	-.4	-.3	-.3	-.3	-.3	-.3	-.3	-.2
United Kingdom	7.5	3.8	3.3	4.0	1.8	1.3	1.5	2.9	1.9	1.7	1.9	3.2
Euro Area	3.6	2.8	1.3	1.8	1.1	1.1	1.2	1.3	1.4	1.7	1.9	2.0
Germany	3.6	2.2	1.6	1.8	1.5	1.6	1.6	1.6	1.6	1.8	1.9	2.0
Emerging market economies	5.1	4.0	4.7	3.6	3.4	3.1	3.1	3.1	3.2	3.2	3.2	3.2
Asia	5.3	4.7	5.3	3.3	3.2	2.9	2.9	2.8	3.0	3.0	3.0	3.0
Korea	5.7	2.2	6.1	4.0	3.1	2.9	2.9	2.9	3.0	2.9	2.9	2.9
China	4.6	5.8	6.2	3.2	3.2	2.7	2.7	2.7	2.8	2.9	2.9	2.9
Latin America	4.3	2.5	3.6	4.3	4.1	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Mexico	3.6	1.8	3.3	4.0	3.8	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Brazil	9.5	7.5	5.6	6.1	5.7	5.3	4.9	4.9	5.3	5.1	4.9	4.9

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)

Measure and country	2005	2006	2007	2008	2009	2010	Projected		
							2011	2012	2013
Real GDP¹									
Total foreign	4.1	4.2	4.4	-9	.8	4.3	3.2	3.0	3.4
<i>Previous Tealbook</i>	4.0	4.2	4.3	-8	.7	4.3	3.2	3.2	3.4
Advanced foreign economies	2.8	2.6	2.6	-1.9	-1.4	2.7	1.5	1.6	2.1
Canada	3.1	1.9	2.5	-7	-1.4	3.3	2.0	2.1	2.4
Japan	2.9	2.1	1.8	-4.7	-1.8	2.5	.7	2.0	1.6
United Kingdom	2.8	2.1	4.1	-5.4	-8	1.3	1.2	1.8	2.5
Euro area	2.1	3.8	2.4	-2.1	-2.1	1.9	1.1	.3	1.5
Germany	1.6	4.9	2.4	-1.9	-2.2	3.8	2.0	1.1	2.2
Emerging market economies	5.8	6.3	6.7	.4	3.4	6.1	5.0	4.5	4.8
Asia	7.6	7.8	8.8	.9	7.9	7.5	6.2	5.6	6.0
Korea	5.2	4.6	5.8	-3.2	6.3	4.7	4.2	3.7	4.2
China	10.3	12.8	13.7	7.7	11.4	9.6	9.1	8.1	8.2
Latin America	3.9	4.8	4.4	-.4	-.9	4.5	3.8	3.3	3.4
Mexico	3.6	4.1	3.5	-1.2	-2.3	4.2	3.5	3.2	3.3
Brazil	2.2	4.8	6.6	.8	5.0	5.0	3.3	3.3	3.8
Consumer prices²									
Total foreign	2.3	2.2	3.7	3.3	1.3	3.2	3.3	2.3	2.4
<i>Previous Tealbook</i>	2.3	2.2	3.7	3.3	1.3	3.2	3.1	2.3	2.4
Advanced foreign economies	1.6	1.4	2.2	2.0	.2	1.7	2.0	1.2	1.5
Canada	2.3	1.4	2.5	1.8	.8	2.2	2.5	2.0	2.0
Japan	-.7	.3	.5	1.0	-2.0	-.3	-.1	-.4	-.3
United Kingdom	2.1	2.7	2.1	3.9	2.1	3.4	4.6	1.9	2.2
Euro Area	2.3	1.8	2.9	2.3	.4	2.0	2.4	1.2	1.7
Germany	2.2	1.3	3.1	1.7	.3	1.6	2.3	1.6	1.8
Emerging market economies	3.0	2.9	5.1	4.6	2.1	4.4	4.3	3.2	3.2
Asia	2.5	2.4	5.5	3.6	1.3	4.3	4.7	2.9	3.0
Korea	2.5	2.1	3.4	4.5	2.4	3.6	4.5	2.9	2.9
China	1.4	2.1	6.7	2.5	.6	4.7	4.9	2.8	2.9
Latin America	3.8	4.2	4.2	6.7	3.9	4.4	3.6	3.8	3.7
Mexico	3.1	4.1	3.8	6.2	4.0	4.3	3.2	3.5	3.4
Brazil	6.1	3.2	4.3	6.2	4.2	5.4	7.1	5.2	5.1

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](#)

U.S. Current Account

Quarterly Data

	Projected		
	2011	2012	2013

	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	<i>Billions of dollars, s.a.a.r.</i>											
U.S. current account balance	-478.4	-472.0	-426.8	-416.4	-422.7	-376.4	-381.9	-390.2	-416.1	-386.0	-397.7	-416.4
<i>Previous Tealbook</i>	-473.8	-476.6	-438.8	-401.5	-393.4	-346.9	-351.9	-355.2	-371.1	-340.1	-349.9	-363.2
Current account as percent of GDP	-3.2	-3.1	-2.8	-2.7	-2.7	-2.4	-2.4	-2.4	-2.6	-2.4	-2.4	-2.5
<i>Previous Tealbook</i>	-3.2	-3.2	-2.9	-2.6	-2.5	-2.2	-2.2	-2.2	-2.3	-2.1	-2.1	-2.2
Net goods & services	-559.9	-580.0	-549.1	-542.3	-553.3	-502.7	-501.6	-498.4	-516.7	-476.2	-474.5	-482.8
Investment income, net	219.5	253.5	259.4	265.0	268.2	260.0	256.8	247.4	238.2	223.9	213.8	205.6
Direct, net	315.9	339.3	332.3	320.2	316.4	311.7	313.5	310.6	309.5	302.8	301.4	301.3
Portfolio, net	-96.4	-85.8	-72.9	-55.1	-48.2	-51.6	-56.7	-63.2	-71.3	-78.8	-87.6	-95.7
Other income and transfers, net	-138.0	-145.5	-137.0	-139.1	-137.6	-133.7	-137.0	-139.1	-137.6	-133.7	-137.0	-139.1

Annual Data

	2005	2006	2007	2008	2009	2010	Projected		
							2011	2012	2013
	<i>Billions of dollars</i>								
U.S. current account balance	-745.8	-800.6	-710.3	-677.1	-376.6	-470.9	-448.4	-392.8	-404.1
<i>Previous Tealbook</i>	-745.8	-800.6	-710.3	-677.1	-376.6	-470.9	-447.7	-361.8	-356.1
Current account as percent of GDP	-5.9	-6.0	-5.1	-4.7	-2.7	-3.2	-3.0	-2.5	-2.5
<i>Previous Tealbook</i>	-5.9	-6.0	-5.1	-4.7	-2.7	-3.2	-3.0	-2.3	-2.2
Net goods & services	-708.6	-753.3	-696.7	-698.3	-381.3	-500.0	-557.8	-514.0	-487.5
Investment income, net	78.7	54.7	111.1	157.8	137.1	174.5	249.4	258.1	220.4
Direct, net	173.2	174.0	244.6	284.3	262.2	280.6	326.9	313.0	303.7
Portfolio, net	-94.5	-119.4	-133.5	-126.5	-125.1	-106.2	-77.6	-55.0	-83.4
Other income and transfers, net	-115.9	-102.0	-124.7	-136.6	-132.3	-145.3	-139.9	-136.9	-136.9

Last update: February 3, 2017

November 2011 Tealbook B Tables and Charts[‡]

Monetary Policy Strategies

Equilibrium Real Federal Funds Rate

Figure: Short-Run Estimates with Confidence Intervals

Line chart, by percent, 1991 to 2011. There are five series, "The actual real funds rate based on lagged core inflation", "Tealbook-consistent measure (FRB/US)", "Range of four model-based estimates", "70 Percent confidence interval", and "90 Percent confidence interval". The actual real funds rate series starts at about 2.0 in 1991, decreases to about -0.2 by 1992, generally increases to about 4.5 by 2000, generally decreases to about -0.7 by 2004, generally increases to about 3 by 2006, generally decreases to about -2 by late 2008 and generally increases to about -1.6 by 2011:Q4. Tealbook-consistent measure starts at about 4 in 1997. It generally increases to about 5.5 by 2000, generally decreases to about 0 by 2003, generally increases to about 3.3 by 2007, decreases to about -4 by 2009, generally increases to about -1.6 by 2011:Q1 and generally decreases to about -3.3 by 2011:Q4. The other three series closely track each other throughout the chart, with the 70 percent confidence interval being about 0.5 percent both lesser and greater than the Range of model-based estimates, and the 90 Percent confidence interval being about 1 percent both lesser and greater than the Range of model-based estimates at any given point. The Range of model-based estimates begins at a range of about [-0.7, 1.8] in 1991, increases to about [2, 5] by 2000, generally decreases to about [-0.5, 0] by 2003, increases to about [0, 2] by 2006, decreases to about [-7.5, -2.5] by 2009 and then increases to about [-4.2, -0.3] by 2011:Q4.

Short-Run and Medium-Run Measures (Percent)

	Current Tealbook	Current Quarter Estimate as of Previous Tealbook	Previous Tealbook
Short-Run Measures			
Single-equation model	-2.2	-2.1	-2.4
Small structural model	-4.2	-3.8	-2.2
EDO model	-0.3	-0.2	-0.4
FRB/US model	-3.2	-3.2	-3.4
Confidence intervals for four model-based estimates			
70 percent confidence interval	-4.6 to -0.3		
90 percent confidence interval	-5.6 to 1.0		
Tealbook-consistent measures			
EDO model	-4.3	-4.3	-4.7
FRB/US model	-3.3	-3.3	-3.5
Medium-Run Measures			
Single-equation model	0.9	0.9	0.9
Small structural model	0.6	0.7	0.7
Confidence intervals for two model-based estimates			
70 percent confidence interval	-0.2 to 1.7		
90 percent confidence interval	-0.7 to 2.4		
TIPS-based factor model	1.8		1.7
Memo			
Actual real federal funds rate	-1.5		-1.1

Note: Explanatory Note A provides background information regarding the construction of these measures and confidence intervals. The actual real federal funds rate shown is generated using lagged core inflation as a proxy for inflation expectations. For information regarding alternative measures, see Explanatory Note A. Estimates of r^* may change at the beginning of a quarter even when the staff outlook is unchanged because the twelve-quarter horizon covered by the calculation has rolled forward one quarter. Therefore, whenever the Tealbook is published early in the quarter, this table includes a third column labeled "Current Quarter Estimate as of Previous Tealbook."

Constrained vs. Unconstrained Monetary Policy (2 Percent Inflation Goal)

Figure: Nominal Federal Funds Rate

Line chart, by percent, 2011 to 2020. There are three series, "Current Tealbook: Constrained", "Previous Tealbook: Constrained", and "Current Tealbook: Unconstrained". Current Tealbook: Constrained begins in 2011:Q1 at about 0.1 and remains constant here until 2015:Q3. It then generally increases to about 5.1 by 2020:Q4. Previous Tealbook: Constrained begins in 2011:Q1 at about 0.1 and remains constant there until 2015:Q3. It then increases to about 5.1 by 2019:Q3 and then decreases to about 4.9 by 2020:Q4. Current Tealbook: Unconstrained begins in 2011:Q1 at about 0.1. It then decreases to about -3.1 by 2013:Q1 and then increases to about 4.5 by 2020:Q4.

Figure: Real Federal Funds Rate

Line chart, by percent, 2011 to 2020. There are three series, "Current Tealbook: Constrained", "Previous Tealbook: Constrained", and "Current Tealbook: Unconstrained". Current Tealbook: Constrained begins in 2011:Q1 at about -1.0. It then generally decreases to about -2 by 2012:Q1 and remains constant here until 2015:Q3. It then generally increases to about 3.0 by 2020:Q4. Previous Tealbook: Constrained begins in 2011:Q1 at about -1.0. It then decreases to about -2.0 by 2012:Q1 and remains relatively stable here until 2015:Q3. It then generally increases to about 2.85 by 2020:Q4. Current Tealbook: Unconstrained begins in 2011:Q1 at about -1.0. It then decreases to about -5.1 by 2013:Q1 and then increases to about 2.7 by 2020:Q4.

Figure: Civilian Unemployment Rate

Line chart, by percent, 2011 to 2020. There are three series, "Current Tealbook: Constrained", "Previous Tealbook: Constrained", and "Current Tealbook: Unconstrained". Current Tealbook: Constrained begins in 2011:Q1 at about 8.95 and generally increases to about 9.1 by 2011:Q3. It then generally decreases to about 4.8 by 2017:Q4 and then generally increases to about 5.4 by 2020:Q4. Previous Tealbook: Constrained begins in 2011:Q1 at about 8.95 and increases to about 9.1 by 2012:Q1. It then generally decreases to about 4.7 by 2017:Q2 and then generally decreases to about 5.4 by 2020:Q4. Current Tealbook: Unconstrained begins in 2011:Q1 at about 8.95 and generally increases to about 9.1 by 2011:Q3. It then generally decreases to about 5.2 by 2016:Q1 and then generally increases to about 5.4 by 2020:Q4.

Figure: PCE Inflation

Line chart, by percent (four-quarter average), 2011 to 2020. There are three series, "Current Tealbook: Constrained", "Previous Tealbook: Constrained", and "Current Tealbook: Unconstrained". Current Tealbook: Constrained begins in 2011:Q1 at about 1.8 and increases to about 2.83 by 2011:Q4. It then generally decreases to about 1.9 by 2012:Q3 and then generally increases to about 2.25 by 2018:Q1. By 2020:Q4 it has generally decreased to about 2.0. Previous Tealbook: Constrained begins in 2011:Q1 at about 1.8 and increases to about 2.8 by 2011:Q4. It then generally decreases to about 1.75 by 2012:Q3 and then generally increases to about 2.3 by 2018:Q1. By 2020:Q4 it has generally decreased to about 2.03. Current Tealbook: Unconstrained begins in 2011:Q1 at about 1.8 and increases to about 2.83 by 2011:Q4. It then decreases to about 1.85 by 2012:Q3 and then generally increases to about 2.2 by 2015:Q4. By 2020:Q4 it has decreased to about 1.85.

Policy Rules and Market-Based Expectations for the Federal Funds Rate

Figure: FRB/US Model Simulations of Estimated Outcome-Based Rule

Line chart, by percent, 2011 to 2016. There are four series, "Current Tealbook", "Previous Tealbook", "70 percent confidence interval" and "90 percent confidence interval". The Current Tealbook begins at about 0.1 in 2011:Q3 and remains stable here until 2014:Q1. It then increases to about 2.95 by 2016:Q4. The Previous Tealbook begins at about 0.1 in 2011:Q3 and remains constant here until 2014:Q1. It then increases to about 3.05 by 2016:Q4. The 70 percent confidence interval begins at a range of about [0.1, 0.13] in 2011:Q3 and generally increases to about [0.95, 5.0] by 2016:Q4. The 90 percent confidence interval begins at a range of about [0.1, 0.2] in 2011:Q3 and generally increases to about [0.1, 6.2] by 2016:Q4.

Note: The staff baseline projection for the federal funds rate is derived from the outcome-based policy rule. Dark and light shadings represent the 70 and 90 percent confidence intervals respectively. Explanatory Note B provides further background information.

Figure: Market-Based Expectations for the Federal Funds Rate

Line chart, by percent, 2011 to 2016. There are six series, "Current Tealbook", "Previous Tealbook", "Current 70 percent confidence interval", "Current 90 percent confidence interval", "Previous 70 percent confidence interval" and "Previous 90 percent confidence interval". The Current Tealbook begins at about 0.1 in 2011:Q4 and then generally increases to about 2.3 by 2016:Q4. The Previous Tealbook begins at about 0.1 in 2011:Q4 and then increases to about 2.2 by 2016:Q4. The other two Current series closely track the Current Tealbook series throughout the chart. The Current 70 percent confidence interval begins at a range of about [0.05, 0.15] in 2011:Q4 and then increases to about [0.8, 4.0] by 2016:Q4. The Current 90 percent confidence interval begins at a range of about [0.05, 0.2] in 2011:Q4 and then increases to about [0.4, 5.7] by 2016:Q4. The other two Previous series closely track the Previous Tealbook series throughout the chart. The Previous 70 percent confidence interval begins at a range of about [0.05, 0.15] in 2011:Q4 and then increases to about [0.6, 3.9] by 2016:Q4. The Previous 90 percent confidence interval begins at a range of about [0.05, 0.21] in 2011:Q4 and then increases to about [0.35, 5.7] by 2016:Q4.

Note: The figure depicts the mean path and confidence intervals of future federal funds rates derived from market quotes as of October 26. Dark and light shadings represent the 70 and 90 percent confidence intervals respectively. Explanatory Note B provides further background information.

Near-Term Prescriptions of Simple Policy Rules

Constrained Policy		Unconstrained Policy	
2011Q4	2012Q1	2011Q4	2012Q1

Taylor (1993) rule	0.81	0.86	0.81	0.86
<i>Previous Tealbook</i>	0.72	0.74	0.72	0.74
Taylor (1999) rule	0.13	0.13	-2.17	-2.09
<i>Previous Tealbook</i>	0.13	0.13	-2.37	-2.35
Estimated outcome-based rule	0.13	0.13	-0.12	-0.36
<i>Previous Tealbook</i>	0.13	0.13	-0.23	-0.57
Estimated forecast-based rule	0.13	0.13	-0.20	-0.58
<i>Previous Tealbook</i>	0.13	0.13	-0.30	-0.77
First-difference rule	0.13	0.13	0.03	-0.02
<i>Previous Tealbook</i>	0.13	0.13	-0.07	-0.14

Memo

	2011Q4	2012Q1
Staff assumption	0.08	0.13
Fed funds futures	0.08	0.10
Median expectation of primary dealers	0.13	0.13
Blue Chip forecast (October 1, 2011)	0.10	0.10

Note: In calculating the near-term prescriptions of these simple policy rules, policymakers' long-run inflation objective is assumed to be 2 percent. Explanatory Note B provides further background information.

† Note: Data values for figures are rounded and may not sum to totals. [Return to text](#)

Last update: February 3, 2017

Monetary Policy Alternatives

Table 1: Overview of Alternatives for the November 2 FOMC Statement

Selected Elements	September Statement	November Alternatives			
		A1	A2	B	C
Balance Sheet					
MEP	\$400 billion; complete by end of June 2012	unchanged	unchanged	unchanged	cut to \$200 billion; complete by end of March 2012
Reinvestments	payments of agency debt and MBS into agency MBS; Treasuries into Treasuries	unchanged	unchanged	unchanged	unchanged
Additional Purchases	none	none	\$600 billion of Treasuries by end of Sept. 2012 OR \$300 billion each of Treasuries and agency MBS by end of June 2012	none	none
Forward Guidance					
First Option	at least through mid-2013	at least through mid-2014	unchanged	unchanged	at least through 2012
Second Option		through end of 2014 and forecasts of unemployment and inflation at that time		at least for the next six to seven quarters	at least for the next four quarters
Third Option		at least as long as unemployment and inflation conditions hold; expect such conditions to prevail through end of 2014			

[Note: In the November 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.]

November FOMC Statement--Alternative A1

1. Information received since the Federal Open Market Committee met in ~~August~~ **September** indicates that economic growth ~~remains slow~~ **strengthened somewhat in the third quarter, but the pickup was due predominantly to a reversal of the temporary factors that had weighed on growth earlier in the year**. Recent indicators point to continuing weakness in overall labor market conditions, and the unemployment rate remains elevated. Household spending has ~~been increasing~~ **at only a modest a somewhat faster** pace in recent months ~~despite some recovery in sales of motor vehicles as supply-chain disruptions have eased~~. ~~However,~~ Business investment in equipment and software ~~has continued~~ **to expand, but** investment in nonresidential structures is still weak and the housing sector remains depressed. Inflation ~~appears to have~~ **has** moderated since earlier in the year as prices of energy and some commodities have declined from their peaks. 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 continues to expect ~~some pickup in~~ **the a moderate** pace of ~~recovery~~ **economic growth** over coming quarters ~~but~~ **and consequently** anticipates that the unemployment rate will decline only gradually toward levels that the Committee judges to be consistent with its dual mandate. ~~Moreover~~ **However**, there are significant downside risks to the economic outlook, including strains in global financial markets. The Committee ~~also~~ anticipates that inflation will settle, over coming quarters, at levels at or below those consistent with the Committee's dual mandate ~~as the effects of past energy and other commodity price increases dissipate further~~. ~~However,~~ The Committee will continue to pay close attention to the evolution of inflation and inflation expectations.

3. To support a stronger economic recovery and to help ensure that inflation, over time, is at levels consistent with the dual mandate, the Committee decided today to **continue its program** to extend the average maturity of its holdings of securities **as announced in September**. ~~The Committee intends to purchase, by the end of~~

June 2012, \$400 billion of Treasury securities with remaining maturities of 6 years to 30 years and to sell an equal amount of Treasury securities with remaining maturities of 3 years or less. This program should put downward pressure on longer-term interest rates and help make broader financial conditions more accommodative. To help support conditions in mortgage markets, The Committee will now **is maintaining its existing policies of** reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. ~~In addition the Committee will maintain its existing policy and of rolling over maturing Treasury securities at auction.~~ The Committee will regularly review the size and composition of its securities holdings and is prepared to adjust those holdings as appropriate.

4. The Committee also decided to keep the target range for the federal funds rate at 0 to ¼ percent. ~~and currently~~ The Committee **now** anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant exceptionally low levels for the federal funds rate at least through ~~mid-2013~~ **mid-2014**.

OR

4'. The Committee also decided to keep the target range for the federal funds rate at 0 to ¼ percent. ~~and currently~~ The Committee **now** anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant **this** exceptionally low levels **range** for the federal funds rate ~~at least through mid-2013~~ **through the end of 2014**. **On the basis of currently available information, the Committee projects the unemployment rate to be about [6½ to 7] percent and the inflation rate (as measured by the price index for Personal Consumption Expenditures) to be around [1½ to 2¼] percent at that time.**

OR

4". The Committee also decided to keep the target range for the federal funds rate at 0 to ¼ percent. ~~and currently~~ **The Committee** anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant **this** exceptionally low levels **range** for the federal funds rate **will be appropriate at least as long as the unemployment rate exceeds [7] percent, inflation (as measured by the price index for Personal Consumption Expenditures) is projected to be at or below [2½] percent in the medium term, and longer-term inflation expectations continue to be well anchored. On the basis of currently available information, the Committee expects these conditions to prevail through the end of 2014.**

5. The Committee ~~discussed the range of policy tools available~~ will continue to assess the economic outlook in light of incoming information and is prepared to employ its tools as appropriate to promote a stronger economic recovery in a context of price stability.

November FOMC Statement--Alternative A2

1. Information received since the Federal Open Market Committee met in ~~August~~ **September** indicates that economic growth ~~remains slow~~ **strengthened somewhat in the third quarter, but the pickup was due predominantly to a reversal of the temporary factors that had weighed on growth earlier in the year**. Recent indicators point to continuing weakness in overall labor market conditions, and the unemployment rate remains elevated. Household spending has ~~been increased~~ **increased** at ~~only a modest~~ **a somewhat faster** pace in recent months ~~despite some recovery in sales of motor vehicles as supply chain disruptions have eased.~~ ~~However,~~ Business investment in equipment and software **has** continued to expand, ~~but~~ investment in nonresidential structures is still weak and the housing sector remains depressed. Inflation ~~appears to have~~ **has** moderated since earlier in the year as prices of energy and some commodities have declined from their peaks. 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 ~~continues to expect some pickup in~~ the pace of ~~recovery~~ **economic growth** over coming quarters **to be relatively modest but and consequently** anticipates that the unemployment rate will decline only gradually toward levels that the Committee judges to be consistent with its dual mandate. ~~Moreover~~ **However**, there are significant downside risks to the economic outlook, including strains in global financial markets. The Committee ~~also~~ anticipates that inflation will settle, over coming quarters, at levels at or below those consistent with the Committee's dual mandate ~~as the effects of past energy and other commodity price increases dissipate further.~~ ~~However,~~ The Committee will continue to pay close attention to the evolution of inflation and inflation expectations.

3. To support a stronger economic recovery and to help ensure that inflation, over time, is at levels consistent with the dual mandate, the Committee decided today to **continue its program** to extend the average maturity of its holdings of securities **as announced in September**. ~~The Committee intends to purchase, by the end of June 2012, \$400 billion of Treasury securities with remaining maturities of 6 years to 30 years and to sell an equal amount of Treasury securities with remaining maturities of 3 years or less. In addition, the Committee intends to purchase a further [\$600 billion of longer-term Treasury securities by the end of September 2012 | \$300 billion of agency mortgage-backed securities by the end of June 2012].~~ **These** programs should put downward pressure on longer-term interest rates and help make broader financial conditions more accommodative. ~~To help support conditions in mortgage markets, The Committee will now is maintaining its existing policies of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. In addition the Committee will maintain its existing policy and of rolling over maturing Treasury securities at auction.~~ The Committee will regularly review the size and composition of its securities holdings and is prepared to adjust those holdings as appropriate.

4. The Committee also decided to keep the target range for the federal funds rate at 0 to ¼ percent and currently anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013.

5. The Committee ~~discussed the range of policy tools available~~ will continue to assess the economic outlook in light of incoming information and is prepared to employ its tools as appropriate to promote a stronger economic recovery in a context of price stability.

Note: If policymakers decide it is appropriate to reduce the remuneration rate on reserve balances, the Board of Governors would issue an accompanying statement that might read:

In a related action, the Board of Governors voted today to reduce the interest rate paid on required and excess reserve balances from 25 basis points to 10 basis points effective with the reserve maintenance period that begins on November 17, 2011.

November FOMC Statement--Alternative B

1. Information received since the Federal Open Market Committee met in ~~August~~ **September** indicates that economic growth ~~remains slow~~ **strengthened somewhat in the third quarter, reflecting in part a reversal of the temporary factors that had weighed on growth earlier in the year. Nonetheless**, recent indicators point to continuing weakness in overall labor market conditions, and the unemployment rate remains elevated. Household spending has ~~been increased~~ **increased** at ~~only a modest~~ **a somewhat faster** pace in recent months ~~despite some recovery in sales of motor vehicles as supply chain disruptions have eased.~~ ~~However,~~ Business investment in equipment and software **has** continued to expand, ~~but~~ investment in nonresidential structures is still weak, and the housing sector remains depressed. Inflation

appears to have moderated since earlier in the year as prices of energy and some commodities have declined from their peaks. 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 continues to expect ~~some pickup in~~ **a moderate** pace of ~~recovery~~ **economic growth** over coming quarters ~~but~~ **and consequently** anticipates that the unemployment rate will decline only gradually toward levels that the Committee judges to be consistent with its dual mandate. Moreover, ~~there are significant~~ downside risks to the economic outlook **remain**, including strains in global financial markets. The Committee also anticipates that inflation will settle, over coming quarters, at levels at or below those consistent with the Committee's dual mandate as the effects of past energy and other commodity price increases dissipate further. However, the Committee will continue to pay close attention to the evolution of inflation and inflation expectations.

3. To support a stronger economic recovery and to help ensure that inflation, over time, is at levels consistent with the dual mandate, the Committee decided today to **continue its program** to extend the average maturity of its holdings of securities **as announced in September**. ~~The Committee intends to purchase, by the end of June 2012, \$400 billion of Treasury securities with remaining maturities of 6 years to 30 years and to sell an equal amount of Treasury securities with remaining maturities of 3 years or less. This program should put downward pressure on longer-term interest rates and help make broader financial conditions more accommodative. To help support conditions in mortgage markets, The Committee will now~~ **is maintaining its existing policies** of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. ~~In addition the Committee will maintain its existing policy and~~ of rolling over maturing Treasury securities at auction. The Committee will regularly review the size and composition of its securities holdings and is prepared to adjust those holdings as appropriate.

4. The Committee also decided to keep the target range for the federal funds rate at 0 to ¼ percent and currently anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant exceptionally low levels for the federal funds rate at least [through mid-2013 | **for the next six to seven quarters**].

5. The Committee ~~discussed the range of policy tools available~~ will continue to assess the economic outlook in light of incoming information and is prepared to employ its tools to promote a stronger economic recovery in a context of price stability.

November FOMC Statement--Alternative C

1. Information received since the Federal Open Market Committee met in ~~August~~ **September** indicates that economic growth ~~remains slow of late has been somewhat stronger than the Committee had expected~~. Recent indicators point to ~~continuing weakness in overall labor market conditions, and~~ **Although** the unemployment rate remains elevated, household spending has ~~been increasing at only a modest~~ **a faster** pace in recent months ~~despite some recovery in sales of motor vehicles as supply chain disruptions have eased~~. However, Business investment in equipment and software continues to expand, **and** investment in nonresidential structures ~~is still weak~~ **has increased**. ~~and~~ The housing sector remains depressed. Inflation appears to have moderated **only somewhat** since earlier in the year, ~~despite a decline in the~~ as prices of energy and some commodities ~~have declined from their peaks~~. 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 continues to expect ~~some pickup in~~ **a moderate** pace of ~~recovery~~ **growth** over coming quarters ~~but~~ **and** anticipates that the unemployment rate will decline ~~only~~ gradually toward levels that the Committee judges to be consistent with its dual mandate. Moreover, ~~there are significant~~ downside risks to the economic outlook, including ~~strains in global financial markets~~. The Committee also anticipates that inflation will settle, over coming quarters, at levels ~~at or below those~~ consistent with the Committee's dual mandate as the effects of past energy and other commodity price increases dissipate further. However, the Committee will continue to pay close attention to the evolution of inflation and inflation expectations.

3. To support a stronger economic recovery and to help ensure that inflation, over time, is at levels consistent with the dual mandate ~~In light of the recent improvement in the economic outlook~~, the Committee decided today to **reduce by half the size of the program** to extend the average maturity of its holdings of securities **that it announced in September**. ~~The Committee intends to purchase, by the end of June 2012, \$400 billion of Treasury securities with remaining maturities of 6 years to 30 years and to sell an equal amount of Treasury securities with remaining maturities of 3 years or less. This program should put downward pressure on longer-term interest rates and help make broader financial conditions more accommodative. In particular, the Committee intends to limit purchases and sales of securities under this program to \$200 billion each and to complete these operations by the end of March 2012. To help support conditions in mortgage markets, The Committee will now~~ **is maintaining its existing policies** of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities. ~~In addition the Committee will maintain its existing policy and~~ of rolling over maturing Treasury securities at auction. The Committee will regularly review the size and composition of its securities holdings and is prepared to adjust those holdings as appropriate.

4. The Committee also decided to keep the target range for the federal funds rate at 0 to ¼ percent and ~~currently~~, **now** anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant exceptionally low levels for the federal funds rate at least [through ~~2012 mid-2013~~ | **for the next four quarters**].

5. The Committee ~~discussed the range of policy tools available to promote a stronger economic recovery in the context of price stability~~. It will continue to assess the economic outlook in light of incoming information and is prepared to employ its tools as appropriate **to promote its objectives of maximum employment and stable prices**.

Long-Run Projections of the Balance Sheet and Monetary Base

Figure: Total Assets

Line chart, by billions of dollars, 2006 to 2020. Data are monthly. There are four series, Alt A2, Alt B and A1, Alt C, and September Alt B. Alt A2 begins in 2006 at about 800 and generally increases slowly to about 900 by August 2008. It then steeply inclines to about 2250 by November 2008 and then generally decreases to about 1850 by December 2008. By 2012 it has generally increased to about 3550 and by May 2018 it has generally decreased to about 1750. It then increases to about 2000 by the end of 2020. Alt B and A1 begins in 2006 at about 800 and generally increases slowly to about 900 by August 2008. It then steeply inclines to about 2250 by November 2008 and then generally decreases to about 1850 by December 2008. By 2012 it has generally increased to about 2950 and by September 2017 it has generally decreased to about 1650. It then increases to about 2000 by the end of 2020. Alt C begins in 2006 at about 800 and generally increases slowly to about 900 by August 2008. It then steeply inclines to about 2250 by November 2008 and then generally decreases to about 1850 by December 2008. By 2012 it has generally increased to about 2925 and by May 2016 it has generally decreased to about 1525. It then increases to about 2000 by the end of 2020. September Alt B begins in 2006 at about 800 and generally increases slowly to about 900 by August 2008. It then steeply inclines to about 2250 by November 2008 and then generally decreases to about 1850 by December 2008. By 2012 it has generally increased to about 2950 and by March 2018 it has generally decreased to about 1700. It then increases to about 2000 by the end of 2020.

Growth Rates for the Monetary Base

Date	Alternatives B and A1	Alternative A2	Alternative C	Memo: September Tealbook
Percent, annual rate				
Monthly				
Aug-10	-2.4	-2.4	-2.4	-2.4
Sep-10	-10.2	-10.2	-10.2	-10.2
Oct-10	-9.8	-9.8	-9.8	-9.8
Nov-10	3.2	3.2	3.2	3.2
Dec-10	16.8	16.8	16.8	16.8
Jan-11	23.3	23.3	23.3	23.3
Feb-11	57.6	57.6	57.6	57.6
Mar-11	97.8	97.8	97.8	97.8
Apr-11	74.4	74.4	74.4	74.4
May-11	42.1	42.1	42.1	42.1
Jun-11	35.9	35.9	35.9	35.9
Jul-11	27.0	27.0	27.0	27.0
Aug-11	2.0	2.0	2.0	3.6
Sep-11	-10.5	-10.5	-10.5	-10.3
Oct-11	1.5	1.4	1.1	2.2
Nov-11	10.6	24.6	9.7	15.2
Dec-11	0.8	28.7	-0.1	4.5
Quarterly				
2010 Q3	-6.4	-6.4	-6.4	-6.4
2010 Q4	-3.2	-3.2	-3.2	-3.2
2011 Q1	36.8	36.8	36.8	36.8
2011 Q2	69.4	69.4	69.4	69.4
2011 Q3	21.1	21.1	21.1	21.4
2011 Q4	0.8	7.0	0.4	2.7
2012 Q1	2.4	28.5	1.5	12.5
2012 Q2	7.1	31.9	5.4	7.7
Annual - Q4 to Q4				
2009	52.5	52.5	52.5	52.5
2010	0.9	0.9	0.9	0.9
2011	35.2	37.3	35.0	35.9
2012	3.1	26.3	-2.6	5.0
2013	-0.8	-0.9	-10.3	-1.2
2014	-6.1	-5.4	-14.9	-4.9
2015	-12.2	-12.7	-16.5	-9.3

Note: Not seasonally adjusted.

Growth Rates for M2

(Percent, seasonally adjusted annual rate)

Tealbook Forecast *	
Monthly Growth Rates	
Jan-11	3.3

Feb-11	8.3
Mar-11	3.8
Apr-11	4.3
May-11	6.9
Jun-11	11.7
Jul-11	26.6
Aug-11	30.0
Sep-11	5.9
Oct-11	4.3
Nov-11	3.0
Dec-11	2.0
Quarterly Growth Rates	
2011 Q1	5.0
2011 Q2	6.1
2011 Q3	19.8
2011 Q4	6.9
Annual Growth Rates	
2010	3.2
2011	9.8
2012	1.9
2013	3.0

* This forecast is consistent with nominal GDP and interest rates in the Tealbook forecast. Actual data through October 2011; projections thereafter. [Return to table](#)

[Note: In the November 2011 FOMC 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.]

November 2011 FOMC Directive -- Alternative A1

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 the maturity extension program it began in September to** purchase, by the end of June 2012, Treasury securities with remaining maturities of approximately 6 years to 30 years with a total face value of \$400 billion, and to sell Treasury securities with remaining maturities of 3 years or less with a total face value of \$400 billion. The Committee also directs the Desk to maintain its existing ~~policy~~**ies** of rolling over maturing Treasury securities into new issues and ~~to~~ **of** reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities in order to maintain the total face value of domestic securities at approximately \$2.6 trillion. The Committee directs the Desk to engage in dollar roll 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.

November 2011 FOMC Directive -- Alternative A2

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 the maturity extension program it began in September to** purchase, by the end of June 2012, Treasury securities with remaining maturities of approximately 6 years to 30 years with a total face value of \$400 billion, and to sell Treasury securities with remaining maturities of 3 years or less with a total face value of \$400 billion. **The Committee also directs the Desk to execute purchases of longer-term Treasury securities in order to increase the total face value of domestic securities held in the System Open Market Account to approximately \$3.3 trillion by the end of September 2012.** The Committee also directs the Desk to maintain its existing ~~policy~~**ies** of rolling over maturing Treasury securities into new issues and ~~to~~ **of** reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities ~~in order to maintain the total face value of domestic securities at approximately \$2.6 trillion.~~ The Committee directs the Desk to engage in dollar roll 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.

OR

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 the maturity extension program it began in September to** purchase, by the end of June 2012, Treasury securities with remaining maturities of approximately 6 years to 30 years with a total face value of \$400 billion, and to sell Treasury securities with remaining maturities of 3 years or less with a total face

value of \$400 billion. **The Committee also directs the Desk to execute purchases of longer-term Treasury securities and of agency mortgage-backed securities of approximately equal face amounts in order to increase the total face value of domestic securities held in the System Open Market Account to approximately \$3.3 trillion by the end of June 2012.** The Committee also directs the Desk to maintain its existing policies of rolling over maturing Treasury securities into new issues and ~~to~~ **of** reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities in order to maintain the total face value of domestic securities at approximately \$2.6 trillion. The Committee directs the Desk to engage in dollar roll 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.

November 2011 FOMC 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 the maturity extension program it began in September** to purchase, by the end of June 2012, Treasury securities with remaining maturities of approximately 6 years to 30 years with a total face value of \$400 billion, and to sell Treasury securities with remaining maturities of 3 years or less with a total face value of \$400 billion. The Committee also directs the Desk to maintain its existing policies of rolling over maturing Treasury securities into new issues and ~~to~~ **of** reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities in order to maintain the total face value of domestic securities at approximately \$2.6 trillion. The Committee directs the Desk to engage in dollar roll 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.

November 2011 FOMC 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 **modify the maturity extension program it began in September so as to** purchase, by the end of ~~June~~ **March** 2012, Treasury securities with remaining maturities of approximately 6 years to 30 years with a total face value of ~~\$200~~ **\$400** billion, and to sell Treasury securities with remaining maturities of 3 years or less with a total face value of ~~\$200~~ **\$400** billion. The Committee also directs the Desk to maintain its existing policies of rolling over maturing Treasury securities into new issues and ~~to~~ **of** reinvesting principal payments on all agency debt and agency mortgage-backed securities in the System Open Market Account in agency mortgage-backed securities in order to maintain the total face value of domestic securities at approximately \$2.6 trillion. The Committee directs the Desk to engage in dollar roll 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.

† Note: Data values for figures are rounded and may not sum to totals. [Return to text](#)

Last update: February 3, 2017

Explanatory Notes

A. Measures of the Equilibrium Real Rate

Measure	Description
Single-equation Model	The measure of the equilibrium real rate in the single-equation model is based on an estimated aggregate-demand relationship between the current value of the output gap and its lagged values as well as the lagged values of the real federal funds rate.
Small Structural Model	The small-scale model of the economy consists of equations for six variables: the output gap, the equity premium, the federal budget surplus, the trend growth rate of output, the real bond yield, and the real federal funds rate.
EDO Model	Estimates of the equilibrium real rate using EDO--an estimated dynamic-stochastic-general-equilibrium (DSGE) model of the U.S. economy--depend on data for major spending categories, prices and wages, and the federal funds rate as well as the model's structure and estimate of the output gap.
FRB/US Model	Estimates of the equilibrium real rate using FRB/US--the staff's large-scale econometric model of the U.S. economy--depend on a very broad array of economic factors, some of which take the form of projected values of the model's exogenous variables.
Tealbook-consistent	Two measures are presented based on the FRB/US and the EDO models. Both models are matched to the extended Tealbook forecast. Model simulations determine the value of the real federal funds rate that closes the output gap conditional on the exogenous variables in the extended baseline forecast.
TIPS-based Factor Model	Yields on TIPS (Treasury Inflation-Protected Securities) reflect investors' expectations of the future path of real interest rates. The TIPS-based measure of the equilibrium real rate is constructed using the seven-year-ahead instantaneous real forward rate derived from TIPS yields as of the Tealbook publication date. This forward rate is adjusted to remove estimates of the term and liquidity premiums based on a three-factor, arbitrage-free term-structure model applied to TIPS yields, nominal yields, and inflation.

Proxy used for expected inflation	Actual real federal funds rate (current value)	Tealbook-consistent FRB/US-based measure of the equilibrium real funds rate (current value)	Projected real funds rate (twelve-quarter-ahead average)
Lagged core inflation	-1.5	-3.3	-1.4
Lagged headline inflation	-2.7	-3.5	-1.5
Projected headline inflation	-1.2	-3.2	-1.3

B. Analysis of Policy Paths and Confidence Intervals

Rule Specifications

For the following rules, i_t denotes the federal funds rate for quarter t , while the right-hand-side variables include the staff's projection of trailing four-quarter core PCE inflation (π_t), inflation two and three quarters ahead ($\pi_{t+2|t}$ and $\pi_{t+3|t}$), the output gap in the current period and one quarter ahead ($y_t - y_t^*$ and $y_{t+1|t} - y_{t+1|t}^*$), and the forecast of three-quarter-ahead annual average GDP growth relative to potential ($\Delta^4 y_{t+3|t} - \Delta^4 y_{t+3|t}^*$), and π^* denotes an assumed value of policymakers' long-run outcome-based and forecast-based rules were estimated using real-time data over the sample 1988:1-2006:4; each specification was chosen using the Bayesian information criterion. Each rule incorporates a 75 basis point shift in the intercept, specified as a sequence of 25 basis point increments during the first three quarters of 1998. The first two simple rules were proposed by Taylor (1993, 1999). The prescriptions of the first-difference rule do not depend on assumptions regarding r or the level of the output gap; see Orphanides (2003).

Rule	Specification
Outcome-based rule	$i_t = 1.20i_{t-1} - 0.39i_{t-2} + 0.19[1.17 + 1.73\pi_t + 3.66(y_t - y_t^*) - 2.72(y_{t-1} - y_{t-1}^*)]$
Forecast-based rule	$i_t = 1.18i_{t-1} - 0.38i_{t-2} + 0.20[0.98 + 1.72\pi_{t+2|t} + 2.29(y_{t+1|t} - y_{t+1|t}^*) - 1.37(y_{t-1} - y_{t-1}^*)]$
Taylor (1993) rule	$i_t = 2 + \pi_t + 0.5(\pi_t - \pi^*) + 0.5(y_t - y_t^*)$
Taylor (1999) rule	$i_t = 2 + \pi_t + 0.5(\pi_t - \pi^*) + (y_t - y_t^*)$
First-difference rule	$i_t = i_{t-1} + 0.5(\pi_{t+3|t} - \pi^*) + 0.5(\Delta^4 y_{t+3|t} - \Delta^4 y_{t+3|t}^*)$

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

Federal Reserve Balance Sheet: End-of-Year Projections -- Alternative A2

Billions of dollars

	Sep 30, 2011	2012	2014	2016	2018	2020
Total assets	2,853	3,546	3,310	2,385	1,778	1,985
Selected assets						
Liquidity programs for financial firms	1	0	0	0	0	0
Primary, secondary, and seasonal credit	0	0	0	0	0	0
Central bank liquidity swaps	0	0	0	0	0	0
Lending through other credit facilities	11	4	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	11	4	0	0	0	0
Support for specific institutions	47	46	32	18	7	4
Credit extended to AIG	0	0	0	0	0	0
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC	47	46	32	18	7	4
Securities held outright	2,644	3,234	3,066	2,198	1,629	1,854
U.S. Treasury securities	1,665	2,255	2,175	1,651	1,432	1,854
Agency debt securities	108	77	39	16	2	0
Agency mortgage-backed securities	871	902	852	531	195	0
Net portfolio holdings of TALF LLC	1	1	1	0	0	0
Total other assets	150	261	211	170	142	126
Total liabilities	2,801	3,476	3,218	2,263	1,616	1,770
Selected liabilities						
Federal Reserve notes in circulation	996	1,070	1,203	1,351	1,498	1,652
Reverse repurchase agreements	84	70	70	70	70	70
Deposits with Federal Reserve Banks	1,656	2,318	1,928	826	33	33
Reserve balances held by depository institutions	1,597	2,306	1,920	819	25	25
U.S. Treasury, General Account	56	10	5	5	5	5
U.S. Treasury, Supplementary Financing Account	0	0	0	0	0	0
Other balances	3	3	3	3	3	3
Interest of Federal Reserve Notes due to U.S. Treasury	1	0	0	0	0	0
Total capital	52	70	93	123	162	215

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 -- Alternatives B and A1

Billions of dollars

	Sep 30, 2011	2012	2014	2016	2018	2020
Total assets	2,853	2,878	2,681	1,923	1,778	1,985
Selected assets						
Liquidity programs for financial firms	1	0	0	0	0	0
Primary, secondary, and seasonal credit	0	0	0	0	0	0
Central bank liquidity swaps	0	0	0	0	0	0
Lending through other credit facilities	11	4	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	11	4	0	0	0	0
Support for specific institutions	47	46	32	18	7	4
Credit extended to AIG	0	0	0	0	0	0
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC	47	46	32	18	7	4

Securities held outright	2,644	2,634	2,487	1,772	1,657	1,877
U.S. Treasury securities	1,665	1,655	1,597	1,226	1,460	1,877
Agency debt securities	108	77	39	16	2	0
Agency mortgage-backed securities	871	902	852	530	195	0
Net portfolio holdings of TALF LLC	1	1	1	0	0	0
Total other assets	150	192	160	133	114	104
Total liabilities	2,801	2,808	2,588	1,800	1,616	1,770
Selected liabilities						
Federal Reserve notes in circulation	996	1,070	1,203	1,351	1,498	1,652
Reverse repurchase agreements	84	70	70	70	70	70
Deposits with Federal Reserve Banks	1,656	1,650	1,299	364	33	33
Reserve balances held by depository institutions	1,597	1,637	1,291	356	25	25
U.S. Treasury, General Account	56	10	5	5	5	5
U.S. Treasury, Supplementary Financing Account	0	0	0	0	0	0
Other balances	3	3	3	3	3	3
Interest of Federal Reserve Notes due to U.S. Treasury	1	0	0	0	0	0
Total capital	52	70	93	123	162	215

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

	Sep 30, 2011	2012	2014	2016	2018	2020
Total assets	2,853	2,696	2,088	1,592	1,778	1,985
Selected assets						
Liquidity programs for financial firms	1	0	0	0	0	0
Primary, secondary, and seasonal credit	0	0	0	0	0	0
Central bank liquidity swaps	0	0	0	0	0	0
Lending through other credit facilities	11	4	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	11	4	0	0	0	0
Support for specific institutions	47	46	28	18	7	4
Credit extended to AIG	0	0	0	0	0	0
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC	47	46	28	18	7	4
Securities held outright	2,644	2,480	1,924	1,461	1,671	1,888
U.S. Treasury securities	1,665	1,595	1,356	1,218	1,671	1,888
Agency debt securities	108	77	39	16	0	0
Agency mortgage-backed securities	871	809	529	227	0	0
Net portfolio holdings of TALF LLC	1	1	1	0	0	0
Total other assets	150	164	135	113	100	93
Total liabilities	2,801	2,625	1,995	1,469	1,616	1,770
Selected liabilities						
Federal Reserve notes in circulation	996	1,070	1,203	1,351	1,498	1,652
Reverse repurchase agreements	84	70	70	70	70	70
Deposits with Federal Reserve Banks	1,656	1,468	706	33	33	33
Reserve balances held by depository institutions	1,597	1,455	699	25	25	25
U.S. Treasury, General Account	56	10	5	5	5	5
U.S. Treasury, Supplementary Financing Account	0	0	0	0	0	0
Other balances	3	3	3	3	3	3
Interest of Federal Reserve Notes due to U.S. Treasury	1	0	0	0	0	0

Total capital	52	70	93	123	162	215
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Source: Federal Reserve H.4.1 statistical releases and staff calculations.

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

Last update: February 3, 2017
