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June 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, by percent, 2007 to 2012. Data are quarterly average. There are four series, Current Tealbook, Previous Tealbook, Market expected rate, Market modal rate. Current Tealbook begins in 2007:Q1 at about 5.25 and generally decreases to about 0.13 by 2009:Q4. It remains relatively constant here until 2012:Q3. By 2012:Q4 it has increased to about 0.2. Previous Tealbook follows Current Tealbook almost exactly until 2012:Q2 when it begins increasing. By 2012:Q4 it has increased to about 0.5. Market expected rate begins in 2011:Q2 at about 0.13 and increases to about 0.4 by 2012:Q4. Market modal rate begins in 2011:Q2 at about 0.13 and decreases to about 0.02 by 2011:Q4. It then generally increases to about 0.25 by 2012:Q4.

Figure: Long-Term Interest Rates

Line chart, by percent, 2007 to 2012. Data are quarterly average. There are six series, "Current Tealbook: BBB corporate yield", "Current Tealbook: Conforming mortgage rate", "Current Tealbook: 10-year Treasury yield", "Previous Tealbook: BBB corporate yield", "Previous Tealbook: Conforming mortgage rate", and "Previous Tealbook: 10-year Treasury yield". Current Tealbook: BBB corporate yield begins in 2007 at about 6.1 and generally increases to about 9.4 by late 2008. It then generally decreases to about 5.0 by late 2010 and then generally increases to about 6.1 by late 2012. Current Tealbook: Conforming mortgage rate begins in 2007 at about 6.2 and fluctuates but generally decreases to about 4.5 by late 2010. It then increases to about 5.9 by late 2012. Current Tealbook: 10-year Treasury yield begins in 2007 at about 4.8 and fluctuates but generally decreases to about 3.2 by early 2009. It then generally increases to about 3.9 by early 2010 and then generally decreases to about 2.9 by late 2010. By late 2012 it has generally increased to about 4.3. Previous Tealbook: BBB corporate yield begins in 2007 at about 6.1 and generally increases to about 9.4 by late 2008. It then generally decreases to about 5.0 by late 2010 and then generally increases to about 6.2 by late 2012. Previous Tealbook: Conforming mortgage rate begins in 2007 at about 6.2 and fluctuates but generally decreases to about 4.5 by late 2010. It then increases to about 6.1 by late 2012. Previous Tealbook: 10-year Treasury yield begins in 2007 at about 4.8 and fluctuates but generally decreases to about 3.2 by early 2009. It then generally increases to about 3.9 by early 2010 and then generally decreases to about 2.9 by late 2010. By late 2012 it has generally increased to about 4.5.

Figure: Equity Prices

Line chart, by ratio scale where 2007:Q1 = 100, 2007 to 2012. Data are quarter-end. There are two series, Current Tealbook: Dow Jones U.S. Total Stock Market Index and Previous Tealbook: Dow Jones U.S. Total Stock Market Index. Current Tealbook: Dow Jones U.S. Total Stock Market Index begins in early 2007 at about 100 and generally increases to about 107 by mid-2007. It then generally decreases to about 56 by 2009 and then generally increases to about 85 by early 2010. By mid-2010 it has generally decreased to about 74 and by late 2012 it has generally increased to about 107. Previous Tealbook: Dow Jones U.S. Total Stock Market Index begins in early 2007 at about 100 and generally increases to about 107 by mid-2007. It then generally decreases to about 56 by 2009 and then generally increases to about 85 by early 2010. By mid-2010 it has generally decreased to about 74 and by late 2012 it has generally increased to about 111.

Figure: House Prices

Line chart, by ratio scale, 2007:Q1 = 100, 2007 to 2012. Data are quarterly. There are two series, Current Tealbook: CoreLogic index and Previous Tealbook: CoreLogic index. Current Tealbook: CoreLogic index begins in 2007 at about 100 and generally decreases to about 72.5 by early 2009. It then generally increases to about 74.5 by mid-2010 and then generally decreases to about 67 by late 2012. Previous Tealbook: CoreLogic index begins in 2007 at about 100 and generally decreases to about 72 by early 2009. It then generally increases to about 74.5 by mid-2010 and then generally decreases to about 67 by late 2012.

Figure: Crude Oil Prices

Line chart, by dollars per barrel, 2007 to 2012. Data are quarterly average. There are two series, Current Tealbook: West Texas Intermediate and Previous Tealbook: West Texas Intermediate. Current Tealbook: West Texas Intermediate begins in early 2007 at about 58 and generally increases to about 124 by 2008. By 2009 it has generally decreased to about 42 and by early 2011 it has generally increased to about 103. It then generally decreases to about 98 by mid-2011 and then increases to about 101 by late 2012. Previous Tealbook: West Texas Intermediate begins in early 2007 at about 58 and generally increases to about 124 by 2008. By 2009 it has generally decreased to about 42 and by 2011 it has generally increased to about 108. It then generally decreases to about 104 by late 2012.

Figure: Broad Real Dollar

Line chart, by scale where 2007:Q1 = 100, 2007 to 2012. Data are quarterly average. There are two series, Current Tealbook and Previous Tealbook. Current Tealbook begins in 2007 at about 100 and generally decreases to about 89 by 2008. It then generally increases to about 101 by early 2009 and then generally decreases to about 92 by late 2009. By 2010 it has generally increased to about 94 and by late 2012 it has generally decreased to about 82.5. Previous Tealbook begins in 2007 at about 100 and generally decreases to about 89 by 2008. It then generally increases to about 101 by early 2009 and then generally decreases to about 92 by late 2009. By 2010 it has generally increased to about 94 and by late 2012 it has generally decreased to about 82.5.

Note: The period from 2011:Q2 to 2012:Q4 is shaded to represent the forecast period.

Summary of the Near-Term Outlook

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

Measure	2011:Q1		2011:Q2		2011:Q3	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
Real GDP	1.7	2.1	3.1	1.9	4.1	3.9
Private domestic final purchases	2.3	2.2	3.6	2.1	3.8	3.4
Personal consumption expenditures	2.5	2.3	3.0	1.5	3.1	2.6
Residential investment	-1.8	-2.9	.4	1.3	2.6	1.6
Nonres. structures	-17.3	-15.2	-1.4	6.1	-.7	-.6
Equipment and software	10.1	10.1	12.2	7.0	12.6	13.2
Federal purchases	-11.5	-7.9	8.0	2.1	3.9	4.7
State and local purchases	-3.9	-3.9	-1.2	-2.3	-.4	-1.3
	Contribution to change in real GDP (percentage points)					
Inventory investment	1.1	1.3	-.3	-.6	1.1	1.2
Net exports	.1	.1	-.1	.9	-.4	-.4

Recent Nonfinancial Developments (1)

Figure: Change in Private Payroll Employment

Line chart, by thousands of employees, 2001 to 2011. There is a horizontal line at zero. There are two series, Change in Private Payroll Employment and 3-month moving average. Change in Private Payroll Employment begins in early 2001 at about -40 and generally decreases to about -360 by late 2001. It then generally increases to about 150 by late 2002 and then generally decreases to about -210 by early 2003. By early 2005 it has generally increased to about 350 and by early 2009 it has generally decreased to about -820. It then generally increases to about 280 by early 2011 and then generally decreases to about 80 by May 2011. 3-month moving average begins in early 2001 at about 90 and generally decreases to about -320 by late 2001. It then generally increases to about 25 by late 2002 and then generally decreases to about -140 by early 2003. By early 2006 it has generally increased to about 300 and by early 2009 it has generally decreased to about -790. It then generally increases to about 190 by May 2011.

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

Figure: Unemployment Rate

Line chart, by percent, 2001 to 2011. The series begins in 2001 at about 4.2 and generally increases to about 6.4 by 2003. It then generally decreases to about 4.4 by 2007 and then generally increases to about 10.1 by 2009. By May 2011 it has generally decreased to about 9.05.

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

Figure: Manufacturing IP excluding Motor Vehicles and Parts

Line chart, by 3-month percent change, annual rate, 2001 to 2011. There is a horizontal line at zero. The series begins in early 2001 at about -3 and then generally decreases to about -8 by mid-2001. It then generally increases to about 7 by mid-2002 and then generally decreases to about -2.5 by late 2002. By early 2005 it has generally increased to about 9 and by mid-2005 it has generally decreased to about -5. It then generally increases to about 11 by late 2005 and then generally decreases to about -0.5 by late 2006. By early 2007 it has generally increased to about 7.5 and by early 2009 it has generally decreased to about -25. It then generally increases to about 11 by early 2010 and then generally decreases to about 0 by early 2011. By May 2011 it has generally increased to about 3.5.

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

Figure: Production of Light Motor Vehicles

Line chart, by millions of units, annual rate, 2001 to 2011. The series begins in 2001 at about 10.6 and generally increases to about 13.2 by 2003. It then generally decreases to about 3.8 by early 2009 and then generally increases to about 7.95 by May 2011.

Source: Ward's Auto Infobank

[Box:] Forecasting Commodity Prices

Figure: Consensus Forecasts for Emerging Asian IP

Line chart, by percent change over previous year, 2003 to 2016. There are eight series, 2003, 2004, 2005, 2006, 2007, 2008, 2009, and 2010. Each series represents futures prices or forecasts made in April of the indicated year. 2003 begins in 2003 at about 6.9 and decreases to about 6.6 by 2004. It then increases to about 6.8 by 2005 and then decreases to about 6.7 by 2007. By 2008 it has increased to about 6.75 and by 2009 it has decreased to about 6.55. 2004 begins in 2004 at about 9.4 and decreases to about 8 by 2005. It then increases to about 8.8 by 2008 and then decreases to about 8.2 by 2009. By 2010 it has increased to about 8.3. 2005 begins in 2005 at about 8.9 and decreases to about 8.2 by 2006. It then increases to about 9.2 by 2008 and then decreases to about 8.1 by 2011. 2006 begins in 2006 at about 11.2 and decreases to about 10.6 by 2007. It then increases to about 10.7 by 2009 and then decreases to about 9.8 by 2012. 2007 begins in 2007 at about 10.8 and decreases to about 10.5 by 2009. It remains relatively constant here until 2011 and then decreases to about 9.9 by 2013. 2008 begins in 2008 at about 11.6 and decreases to about 9.7 by 2014. 2009 begins in 2009 at about 2.8 and increases to about 10.1 by 2012. It then generally decreases to about 7.8 by 2015. 2010 begins in 2010 at about 12 and generally decreases to about 10 by 2014. It then increases to about 10.2 by 2015 and then decreases to about 9.4 by 2016.

Source: Consensus Economics and staff estimates based on GDP weights.

Figure: WTI Crude Oil Futures

Line chart, by dollars per barrel, 2003 to 2016. There are eight series, 2003, 2004, 2005, 2006, 2007, 2008, 2009, and 2010. Each series represents futures prices or forecasts made in April of the indicated year. 2003 begins in 2003 at about 28 and decreases to about 24 by 2004. It remains constant here until 2010. 2004 begins in 2004 at about 35 and decreases to about 28 by 2011. 2005 begins in 2005 at about 53 and increases to about 56 by 2006. It then decreases to about 48 by 2012. 2006 begins in 2006 at about 69 and increases to about 71 by 2007. It then decreases to about 65 by 2013. 2007 begins in 2007 at about 62 and increases to about 72 by 2009. It then decreases to about 66 by 2014. 2008 begins in 2008 at about 111 and decreases to about 100 by 2012. It remains constant here until 2015. 2009 begins in 2009 at about 48 and increases to about 79 by 2016. 2010 begins in 2010 at about 83 and increases to about 92 by 2016.

Source: Bloomberg

Forecasts of Oil Prices

Figure: Forecasts of Oil Prices - Growth Scenarios

Line chart, by dollars per barrel, 2010 to 2012. There are four series, June Tealbook, Proposed forecast, World GDP growth $\frac{1}{2}$ percentage point faster, and World GDP growth $\frac{1}{2}$ percentage point slower. June Tealbook begins in early 2010 at about 79 and decreases to about 76 by mid-2010. It then increases to about 104 by early 2011 and then decreases to about 99.5 by mid-2011. By late 2012 it has increased to about 102.5. Proposed forecast begins in early 2011 at about 104 and decreases to about 99.5 by mid-2011. It then increases to about 103 by late 2012. World GDP growth $\frac{1}{2}$ percentage point faster begins in early 2011 at about 104 and decreases to about 101 by mid-2011. It then increases to about 115 by late 2012. World GDP growth $\frac{1}{2}$ percentage point slower begins in early 2011 at about 104 and decreases to about 92 by late 2012.

Figure: Forecasts of Oil Prices - Dollar Scenarios

Line chart, by dollars per barrel, 2010 to 2012. There are four series, June Tealbook, Proposed forecast, Additional 5 percent dollar depreciation, and Additional 5 percent dollar appreciation. June Tealbook begins in early 2010 at about 79 and decreases to about 76 by mid-2010. It then increases to about 104 by early 2011 and then decreases to about 99.5 by mid-2011. By late 2012 it has increased to about 102.5. Proposed forecast begins in early 2011 at about 104 and decreases to about 99.5 by mid-2011. It then increases to about 103 by late 2012. Additional 5 percent dollar depreciation begins in early 2011 at about 104 and decreases to about 101 by mid-2011. It then increases to about 111 by late 2012. Additional 5 percent dollar appreciation begins in early 2011 at about 104 and generally decreases to about 95.5 by late 2012.

Recent Nonfinancial Developments (2)

Figure: Real PCE Goods excluding Motor Vehicles

Line chart, by billions of chained (2005) dollars, 2001 to 2011. The series begins in 2001 at about 2250 and generally increases to about 2925 by 2007. It then generally decreases to about 2775 by late 2008 and then generally increases to about 2980 by May 2011.

Note: Figures for March, April, and May are staff estimates based on available source data.

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

Figure: Sales of Light Motor Vehicles

Line chart, by millions of units, annual rate, 2001 to 2011. The series begins in early 2001 at about 17.5 and generally decreases to about 16 by mid-2001. Within a month or so it increases to about 21.7 and then decreases to about 15.6 by late 2001. From late 2001 to early 2005 it fluctuates between about 15.2 and 18.1. It then generally increases to about 20.5 by mid-2005 and then decreases to about 14.5 by late 2005. By early 2006 it has generally increased to about 18 and by early 2009

it has generally decreased to about 9.0. It then generally increases to about 14 by mid-2009 and within a month or so decreases to about 8.8. By early 2011 it has generally increased to about 13.5 and by May 2011 it has generally decreased to about 11.8.

Source: Ward's Auto Infobank.

Figure: Single-Family Housing Starts

Line chart, thousands of units, annual rate, 2001 to 2011. There are two series, Starts and Adjusted permits. Starts begins in 2001 at about 1280 and generally increases to about 1820 by 2006. It then generally decreases to about 350 by 2009 and then generally increases to about 580 by early 2010. By April 2011 it has generally decreased to about 400. Adjusted permits begins in 2001 at about 1280 and generally increases to about 1850 by 2005. It then generally decreases to about 350 by 2009 and then generally increases to about 575 by early 2010. By April 2011 it has generally decreased to 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, by thousands of units, annual rate, 2001 to 2011. There are two series, New and Existing. New begins in 2001 at about 950 and generally increases to about 1400 by 2005. It then generally decreases to about 305 by April 2011. Existing begins in 2001 at about 4550 and generally increases to about 6350 by 2005. It then generally decreases to about 4000 by late 2008 and then generally increases to about 5700 by late 2009. By mid-2010 it has generally decreased to about 3400 and by April 2011 it has generally increased to about 4450.

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

Figure: Nondefense Capital Goods Excluding Aircraft

Line chart, by billions of dollars, 2001 to 2011. There are two series, Orders and Shipments. Orders begins in 2001 at about 61.5 and generally decreases to about 46.5 by early 2002. It then generally increases to about 68.5 by early 2008 and then generally decreases to about 47 by 2009. By April 2011 it has generally increased to about 64. Shipments begins in 2001 at about 62.3 and generally decreases to about 49 by early 2003. It then generally increases to about 66 by 2008 and then generally decreases to about 51.7 by 2009. By April 2011 it has generally increased to about 62.2.

Source: U.S. Census Bureau.

Figure: Nonresidential Construction Put in Place

Line chart, by billions of chained (2005) dollars, 2001 to 2011. The series begins in 2001 at about 275 and generally decreases to about 220 by late 2002. It then generally increases to about 410 by late 2007. From late 2007 to late 2008 it fluctuates between about 400 and 415. It then generally decreases to about 250 by April 2011.

Source: U.S. Census Bureau.

Recent Nonfinancial Developments (3)

Figure: Inventory Ratios ex. Motor Vehicles

Line chart, by months, 2001 to 2011. There are two series, Staff flow-of-goods system and Census book-value data. Staff flow-of-goods system begins in 2001 at about 1.69 and generally decreases to about 1.48 by late 2007. It then generally increases to about 1.65 by early 2009 and then generally decreases to about 1.51 by May 2011. Census book-value data begins in 2001 at about 1.39 and generally decreases to about 1.18 by 2005. It then generally increases to about 1.25 by 2006 and then generally decreases to about 1.18 by 2008. By early 2009 it has generally increased to about 1.41 and by April 2011 it has generally decreased to about 1.22.

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, by billions of chained (2005) dollars, 2001 to 2011. There are two series, "Unified" in which the data are monthly and "NIPA" in which the data are quarterly. Unified begins in 2001 at about 385 and generally increases to about 555 by 2004. From 2004 to early 2007 it fluctuates between about 460 and 570. It then generally increases to about 695 by late 2010 and then generally decreases to about 625 by May 2011. NIPA begins in 2001 at about 390 and generally increases to about 525 by 2004. From 2004 to early 2007 it fluctuates between about 505 and 540. It then generally increases to about 650 by mid-2010 and then generally decreases to about 625 by 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. Department of Commerce, Bureau of Economic Analysis.

Figure: Trade Balance

Line chart, by billions of dollars, 2001 to 2011. The series begins in early 2001 at about -35 and generally increases to about -26 by late 2001. It then generally decreases to about -68 by 2005 and then generally increases to about -56 by 2007. By 2008 it has generally decreased to about -68 and by 2009 it has generally increased to about -26. It then generally decreases to about -49 by mid-2010 and then generally increases to about -39 by late 2010. By April 2011 it has generally decreased to about -43.

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

Figure: Exports and Non-Oil Imports

Line chart, by billions of dollars, 2001 to 2011. There are two series, Non-oil imports and Exports. Non-oil imports begins in early 2001 at about 114 and generally decreases to about 97 by late 2001. It then generally increases to about 180 by 2008 and then generally decreases to about 132 by 2009. By April 2011 it has generally increased to about 183. Exports begins in early 2001 at about 89 and generally decreases to about 77 by late 2001. It then generally increases to about 165 by 2008 and then generally decreases to about 123 by 2009. By April 2011 it has generally increased to about 175.

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

Figure: Total PCE Prices

Line chart, by percent, 2001 to 2011. There is a horizontal line at zero. There are two series, 12-month change and 3-month change. 12-month change begins in 2001 at about 2.5 and generally decreases to about 0.7 by early 2002. It then generally increases to about 4 by 2005 and then generally decreases to about 1.5 by 2006. By 2008 it has generally increased to about 4.5 and by 2009 it has generally decreased to about -1. It then generally increases to about 2.5 by early 2010 and then generally decreases to about 1.0 by late 2010. By May 2011 it has generally increased to about 2.4. 3-month change begins in early 2002 at about 0.7. From early 2002 to mid-2005 it fluctuates between about -1.8 and 4.0. It then generally increases to about 8.8 by mid-2005 and then generally decreases to about -1 by late 2005. By mid-2008 it has generally increased to about 7 and by late 2008 it has generally decreased to about -9.5. It then generally increases to about 4.0 by 2009 and then generally decreases to about -1.2 by 2010. By May 2011 it has generally increased to about 3.9.

Note: 3-month changes are at an annual rate. The May 2011 values are staff estimates.

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

Figure: PCE Prices ex. Food and Energy

Line chart, by percent, 2001 to 2011. There is a horizontal line at zero. There are two series, 12-month change and 3-month change. 12-month change begins in early 2001 at about 1.9 and generally decreases to about 1 by late 2001. It then generally increases to about 2.7 by late 2002 and then generally decreases to about 1.3 by 2003. By mid-2008 it has generally increased to about 2.6 and by 2009 it has generally decreased to about 1.25. It then generally increases to about 1.75 by early 2010 and then generally decreases to about 0.7 by late 2010. By May 2011 it generally increases to about 1.1. 3-month change begins in early 2001 at about 2.45 and generally decreases to about -1.1 by late 2001. It then generally increases to about 4.0 by the end of 2001 and then generally decreases to about 0.75 by 2003. It then generally increases to about 3.5 by 2005. From 2005 to early 2008 it fluctuates between about 1 and 3.5. It then generally decreases to about 0.1 by 2008 and then generally increases to about 2.5 by 2009. By 2010 it has generally decreased to about 0.2 and by May 2011 it has increased to about 2.3.

Note: 3-month changes are at an annual rate. May 2011 values are staff estimates.

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

[Box:] The Outlook for Consumer Food Prices

Figure: Crop and Livestock Prices

Line chart, by scale where December 2009 = 100, 2007 to 2012. There are two series, Crop index and Livestock index. Crop index begins in 2007:Q1 at about 79 and generally increases to about 158 by 2008:Q2. It then generally decreases to about 81 by 2008:Q4 and then generally increases to about 123 by 2009:Q2. By 2009:Q3 it has generally decreased to about 90 and by 2011:Q2 it has generally increased to about 170. It then generally decreases to about 155 by 2012:Q4. Livestock index begins in 2007:Q1 at about 99 and generally increases to about 119 by 2007:Q3. It then generally decreases to about 108 by 2008:Q1 and generally increases to about 122 by 2008:Q3. By 2009:Q3 it has generally decreased to about 88 and by 2012:Q4 it has generally increased to about 140.

Note: Staff aggregate of producer prices for corn, wheat, soybeans, and sugar (crops), and for cattle, hogs, and milk (livestock), projected using futures prices. Data for 2011:Q2 to 2012:Q4 are forecast values.

Source: For PPI, U.S. Dept. of Labor, Bureau of Labor Statistics; for futures, Commodity Research Bureau.

Figure: World Production and Consumption of Corn, Wheat, and Soybeans

Line chart, by million metric tons, 2007 to 2011. There are two series, Production and Consumption. Production begins in 2007 at about 1625 and increases to about 1755 by 2009. It then decreases to about 1730 by 2010 and then increases to about 1795 by 2011. Consumption begins in 2007 at about 1620 and increases to about 1800 by 2011.

Note: 2011 values are the USDA forecast.

Figure: Contributions to PCE Food Inflation and Total PCE Inflation (Percentage points, annual rate)

Bar chart, 2010 to 2012. There are three series, Other food and beverages, Fruits and vegetables, and Meats, poultry, and fish and they are all measured on two scales; Contribution to PCE food inflation and Contribution to total PCE inflation. Approximate values are: 2010: Other food and beverages (contribution to PCE food inflation) 0.18, Other food and beverages (contribution to total PCE inflation) 0.015, Fruits and vegetables (contribution to PCE food inflation) 0.15, Fruits and vegetables (contribution to total PCE inflation) 0.01, Meats, poultry, and fish (contribution to PCE food inflation) 0.9, Meats, poultry, and fish (contribution to total PCE inflation) 0.07. 2011:H1: Other food and beverages (contribution to PCE food inflation) 3.35, Other food and beverages (contribution to total PCE inflation) 0.27, Fruits and vegetables (contribution to PCE food inflation) 1.2, Fruits and vegetables (contribution to total PCE inflation) 0.1, Meats, poultry, and fish (contribution to PCE food inflation) 1.75, Meats, poultry, and fish (contribution to total PCE inflation) 0.125. 2011:H2: Other food and beverages (contribution to PCE food inflation) 1.7, Other food and beverages (contribution to total PCE inflation) 0.155, Fruits and vegetables (contribution to PCE food inflation) 0, Fruits and vegetables (contribution to total PCE inflation) 0, Meats, poultry, and fish (contribution to PCE food inflation) 0.7, Meats, poultry, and fish (contribution to total PCE inflation) 0.04. 2012: Other food and beverages (contribution to PCE food inflation) 1.0, Other food and beverages (contribution to total PCE inflation) 0.082, Fruits and vegetables (contribution to PCE food inflation) 0.1, Fruits and vegetables (contribution to total PCE inflation) 0.008, Meats, poultry, and fish (contribution to PCE food inflation) 0.2, Meats, poultry, and fish (contribution to total PCE inflation) 0.015.

Note: PCE food refers to PCE food and beverages for off-premises consumption. Contributions for years measured as Q4/Q4; half-years measured as Q2/Q4 and Q4/Q2.

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

Projections of Real GDP and Related Components

Projections of Real GDP and Related Components

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

Measure	2010	2011		2012
		H1	H2	
Real GDP	2.8	2.0	3.4	3.5
Previous Tealbook	2.8	2.4	4.0	4.2
Final sales	2.4	1.7	3.1	3.2
Previous Tealbook	2.4	1.9	3.9	3.9
Personal consumption expenditures	2.6	1.9	2.5	2.8
Previous Tealbook	2.6	2.8	3.1	3.7
Residential investment	-4.6	-.8	2.2	6.0
Previous Tealbook	-4.6	-.7	4.0	8.7
Nonresidential structures	-4.0	-5.1	.0	-.8
Previous Tealbook	-4.0	-9.7	.0	-.4
Equipment and software	16.9	8.6	11.4	8.0
Previous Tealbook	16.9	11.1	13.0	9.1
Federal purchases	4.8	-3.0	2.1	-.8
Previous Tealbook	4.8	-2.2	1.7	-.8
State and local purchases	-1.3	-3.1	-.9	.1
Previous Tealbook	-1.3	-2.6	-.3	.4
Exports	9.0	9.1	10.0	9.0
Previous Tealbook	9.0	7.6	9.4	9.0
Imports	11.0	4.0	5.8	4.0
Previous Tealbook	11.0	6.0	3.9	5.1
	Contributions to change in real GDP (percentage points)			
Inventory change	.4	.4	.3	.3
Previous Tealbook	.4	.4	.0	.3
Net exports	-.6	.5	.4	.6
Previous Tealbook	-.6	.0	.6	.4

Figure: Real GDP

Line chart, by 4-quarter percent change, 1981 to 2012. There are two series, Current and Previous Tealbook. Current begins in early 1981 at about 1.7 and increases to about 4.6 by late 1981. It then generally decreases to about -3 by 1982. By 1984 it has generally increased to about 8.5 and by 1991 it has generally decreased to about -1.2. It then generally increases to about 4.5 by late 1992. From late 1992 to early 2000 it fluctuates between about 2 and 5.7. It then generally decreases to about 0.2 by 2001 and then generally increases to about 4.2 by 2004. By 2009 it has generally decreased to about -4.2 and by late 2012 it has generally increased to about 3.5. Previous Tealbook follows the Current series almost exactly until 2011 when it begins increasing at a faster rate. By late 2012 it has increased to about 4.0.

Note: The gray shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): January 1980-July 1980, July 1981-November 1982, July 1990-March 1991, and March 2001-November 2001. Another shaded bar indicates the NBER Peak in December 2007. Blue shading represents the projection period, which begins in 2011:Q1.

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

Components of Final Demand

Figure: Personal Consumption Expenditures

Line chart, by 4-quarter percent change, 2007 to 2012. There is a horizontal line at zero. There are two series, Current and Previous Tealbook. Current begins in 2007:Q1 at about 2.75 and generally decreases to about -2.3 by 2009:Q2. By 2011:Q1 it has generally increased to about 2.75 and by 2011:Q4 it has generally decreased to about 2.1. It then generally increases to about 2.8 by 2012:Q4. Previous Tealbook begins in 2007:Q1 at about 2.75 and generally decreases to about -2.3 by 2009:Q2. It then increases to about 3.8 by 2012:Q4.

Figure: Residential Investment

Line chart, by 4-quarter percent change, 2007 to 2012. There is a horizontal line at zero. There are two series, Current and Previous Tealbook. Current begins in 2007:Q1 at about -18.5 and generally decreases to about -28 by 2009:Q2. It then generally increases to about 5 by 2010:Q2 and then generally decreases to about -5.5 by 2010:Q3. By 2011:Q1 it has generally increased to about -2.5 and by 2011:Q2 it has generally decreased to about -7.5. It then generally increases to about 6 by 2012:Q4. Previous Tealbook follows the Current Tealbook series almost exactly until 2011:Q3 when it begins increasing at a faster rate. By 2012:Q4 it has increased to about 9.

Figure: Equipment and Software

Line chart, by 4-quarter percent change, 2007 to 2012. There is a horizontal line at zero. There are two series, Current and Previous Tealbook. Current begins in 2007:Q1 at about 3 and generally increases to about 4.8 by 2007:Q4. It then generally decreases to about -20.3 by 2009:Q1. By 2010:Q3 it has generally increased to about 19 and by 2012:Q4 it has generally decreased to about 7.7. Previous Tealbook begins in 2007:Q1 at about 3 and generally increases to about 4.8 by 2007:Q4. It then generally decreases to about -20.3 by 2009:Q1. By 2010:Q3 it has generally increased to about 19 and by 2011:Q3 it has generally decreased to about 10. It then generally increases to about 12.5 by 2011:Q4 and then generally decreases to about 9.2 by 2012:Q4.

Figure: Nonresidential Structures

Line chart, by 4-quarter percent change, 2007 to 2012. There is a horizontal line at zero. There are two series, Current and Previous Tealbook. Current begins in 2007:Q1 at about 11 and generally increases to about 17.5 by 2007:Q4. By 2009:Q4 it has generally decreased to about -26.5 and by 2012:Q2 it has generally increased to about -0.5. It remains constant here until 2012:Q4. Previous Tealbook begins in 2007:Q1 at about 11 and generally increases to about 17.5 by 2007:Q4. By 2009:Q4 it has generally decreased to about -27 and by 2011:Q3 it has generally increased to about -4.5. It remains relatively stable here until 2011:Q4 and then increases to about -0.4 by 2012:Q1. It remains constant here until 2012:Q4.

Figure: Government Consumption & Investment

Line chart, by 4-quarter percent change, 2007 to 2012. There are two series, Current and Previous Tealbook. Current begins in 2007:Q1 at about 0.4 and generally increases to about 3.1 by 2008:Q4. By 2011:Q3 it has generally decreased to about -1.7. It then generally increases to about 0 by 2012:Q2 and then generally decreases to about -0.2 by 2012:Q4. Previous Tealbook begins in 2007:Q1 at about 0.4 and generally increases to about 3.1 by 2008:Q4. By 2011:Q3 it has generally decreased to about -1.4. It then generally increases to about 0.75 by 2012:Q1 and then generally decreases to about -0.05 by 2012:Q4.

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

Figure: Exports and Imports

Line chart, by 4-quarter percent change, 2007 to 2012. There is a horizontal line at zero. There are four series, Exports Current Tealbook, Imports Current Tealbook, Exports Previous Tealbook and Imports Previous Tealbook. Exports Current Tealbook begins in 2007:Q1 at about 8 and generally increases to about 11.5 by 2008:Q2. It then generally decreases to about -15 by 2009:Q2 and then generally increases to about 14 by 2010:Q2. By 2011:Q1 it has generally decreased to about 8 and generally increases to about 10 by 2012:Q1. It then generally decreases to about 9 by 2012:Q4. Exports Previous begins in 2007:Q1 at about 8 and generally increases to about 11.5 by 2008:Q2. It then generally decreases to about -15 by 2009:Q2 and then generally increases to about 14 by 2010:Q2. By 2011:Q2 it has generally decreased to about 7.5 and generally increases to about 9 by 2012:Q4. Imports Current Tealbook begins in 2007:Q1 at about 3.5 and generally decreases to about -18.5 by 2009:Q2. It then generally increases to about 17.5 by 2010:Q2 and then generally decreases to about 0.8 by 2011:Q3. By 2011:Q4 it has generally increased to about 5 and by 2012:Q3 it has generally decreased to about 3.5. It then increases to about 4.5 by 2012:Q4. Imports Previous Tealbook begins in 2007:Q1 at about 3.5 and generally decreases to about -18.5 by 2009:Q2. It then generally increases to about 17.5 by 2010:Q2 and then generally decreases to about 1.2 by 2011:Q3. By 2011:Q4 it has generally increased to about 5 and by 2012:Q3 it has generally decreased to about 3.5. It then increases to about 5 by 2012:Q4.

Note: Blue shading represents the projection period, which begins in 2011:Q1.

Aspects of the Medium-Term Projection

Figure: Personal Saving Rate

Line chart, by percent, 1990 to 2012. There are two series, Current and Previous Tealbook. Current begins in 1990 at about 6.4 and generally increases to about 7.7 by 1992. It then generally decreases to about 1.1 by 2005 and then generally increases to about 7.2 by 2009. By 2012 it has generally decreased to about 5.2. Previous Tealbook follows the Current Tealbook series almost exactly until 2010. It generally decreases to about 5.35 by 2012.

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

Figure: Wealth-to-Income Ratio

Line chart, by ratio, 1990 to 2012. There are two series, Current and Previous Tealbook. Current begins in 1990 at about 4.82. From 1990 to 1995 it fluctuates between about 4.65 and 4.9. It then generally increases to about 6.15 by 2000 and then generally decreases to about 4.97 by 2002. By 2005 it has generally increased to about 6.35 and by 2009 it has generally decreased to about 4.5. It then generally increases to about 4.95 by the end of 2012. Previous Tealbook follows Current Tealbook almost exactly.

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

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

Figure: Single-Family Housing Starts

Line chart, by millions of units, 1990 to 2012. There are two series, Current and Previous Tealbook. Current begins in 1990 at about 1.05 and generally decreases to about 0.7 by 1991. It then generally increases to about 1.75 by 2006 and then generally decreases to about 0.33 by 2009. By then end of 2012 it has generally increased to about 0.50. Previous Tealbook follows the Current Tealbook series exactly until 2011 when it begins increasing at a faster rate. By the end of 2012 it has generally increased to about 0.55.

Source: U.S. Census Bureau.

Figure: Equipment and Software Spending

Line chart, by share of nominal GDP, 1990 to 2012. There are two series, Current and Previous Tealbook. Current begins in 1990 at about 7.4 and generally decreases to about 6.7 by 1992. It then generally increases to about 9.6 by 2000 and then generally decreases to about 7.5 by 2004. By 2006 it has generally increased to about 8.03 and by 2009 it has generally decreased to about 6.45. It then generally increases to about 7.8 by the end of 2012. Previous Tealbook follows the Current Tealbook series almost exactly until 2011 when it begins increasing at a faster rate. By the end of 2012 it has generally increased to about 8.0.

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

Figure: Federal Surplus/Deficit

Line chart, by share of nominal GDP, 1990 to 2012. There is a horizontal line at zero. There are two series, Current and Previous Tealbook. Current begins in 1990 at about -3.1 and generally decreases to about -5.4 by 1992. It then generally increases to about 2.5 by 2000 and then generally decreases to about -3.8 by 2004. By 2007 it has generally increased to about -1.2 and by 2009 it has generally decreased to about -10.5. It has generally increased to about -6.6 by the end of 2012. Previous Tealbook follows the Current Tealbook series almost exactly.

Note: Share of federal government surplus/deficit is shown as a 4-quarter moving average.

Source: Monthly Treasury Statement.

Figure: Current Account Surplus/Deficit

Line chart, by share of nominal GDP, 1990 to 2012. There is a horizontal line at zero. There are two series, Current and Previous Tealbook. Current begins in 1990 at about -1.6 and generally increases to about 0.9 by 1991. It then generally decreases to about -6.7 by 2005 and then generally increases to about -2.35 by 2009. By 2011 it has generally decreased to about -3.7 and by the end of 2012 it has generally increased to about -2.0. Previous Tealbook follows the Current Tealbook series almost exactly until 2011 when it begins increasing at a slower rate. By the end of 2012 it has generally increased to 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:Q1.

Decomposition of Potential GDP

Decomposition of Potential GDP

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

Measure	1974-1995	1996-2000	2001-2008	2009	2010	2011	2012
Potential GDP	3.0	3.5	2.7	1.9	1.9	2.3	2.4
Previous Tealbook	3.0	3.5	2.7	2.0	2.0	2.3	2.5
<i>Selected contributions¹</i>							
Structural labor productivity	1.5	2.7	2.5	2.3	2.0	2.0	2.1
Previous Tealbook	1.5	2.7	2.5	2.3	1.9	1.9	2.0
Capital deepening	.7	1.5	.7	.3	.4	.5	.7
Previous Tealbook	.7	1.5	.7	.3	.4	.6	.8
Multifactor productivity	.5	.9	1.6	1.9	1.4	1.3	1.3
Previous Tealbook	.5	.9	1.6	1.9	1.3	1.2	1.2
Trend hours	1.5	1.0	.8	-.2	.5	.6	.7
Previous Tealbook	1.5	1.0	.8	-.1	.5	.6	.7
Labor force participation	.4	.0	-.2	-.4	-.4	-.3	-.2
Previous Tealbook	.4	.0	-.2	-.3	-.4	-.3	-.2

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, by chained (2005) dollars per hour, 2001 to 2012. There is a shaded bar from 2011:Q1 to 2012:Q4 that represents the forecast period. There are two series, Nonfarm business productivity and Structural productivity. Nonfarm business productivity begins in 2001:Q1 at about 43.7 and generally increases to about 58.1 by 2012:Q4. Structural productivity begins in 2001:Q1 at about 44 and increases to about 58.05 by 2012:Q4.

Figure: Labor Force Participation Rate

Line chart, by percent, 2001 to 2012. There is a shaded bar from 2011:Q2 to 2012:Q4 that represents the forecast period. There are two series, Labor Force Participation Rate and Trend. Labor Force Participation Rate begins in 2001:Q1 at about 67.15 and generally decreases to about 65.95 by 2005:Q1. It then generally increases to about 66.3 by 2007:Q1 and then generally decreases to about 64.1 by 2011:Q1. By 2012:Q4 it has generally increased to about 64.45. Trend begins in 2001:Q1 at about 66.8 and generally decreases to about 64.6 by 2012:Q4.

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

The Outlook for the Labor Market

The Outlook for the Labor Market

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

Measure	2009	2010	2011	2012
Output per hour, nonfarm business	6.5	2.0	1.3	1.7
Previous Tealbook	6.5	2.0	1.1	1.8
Nonfarm private employment	-5.0	.9	2.1	2.4
Previous Tealbook	-5.0	.9	2.5	2.9
Labor force participation rate ¹	64.9	64.5	64.3	64.4
Previous Tealbook	64.9	64.5	64.3	64.4
Civilian unemployment rate ¹	10.0	9.6	8.9	8.1
Previous Tealbook	10.0	9.6	8.7	7.7
Memo:				
GDP gap ²	-6.4	-5.7	-5.2	-4.2
Previous Tealbook	-6.6	-5.9	-5.0	-3.5

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, by thousands, 1990 to 2012. There is a horizontal line at zero. There are two series, Current and Previous Tealbook. Current begins in 1990 at about 200 and generally decreases to about -220 by 1991. It then generally increases to about 320 by 1994. From 1994 to 1999 it fluctuates between about 100 and 320. It then generally decreases to about -350 by 2001 and then generally increases to about 320 by 2006. By 2009 it has generally decreased to about -810 and by the end of 2012 it has generally increased to about 280. Previous Tealbook follows the Current Tealbook series almost exactly.

Note: Blue shading represents the projection period, which begins in 2011:Q1.

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

Figure: Unemployment Rate

Line chart, by percent, 1990 to 2012. There are four series, Current Tealbook, Previous Tealbook, NAIRU, and NAIRU with EEB adjustment. Current Tealbook begins in 1990 at about 5.25 and generally increases to about 7.7 by 1992. It then generally decreases to about 3.95 by 2000 and then generally increases to about 6.2 by 2003. By 2007 it has generally decreased to about 4.5 and by 2009 it has generally increased to about 10. It then generally decreases to about 8.1 by the end of 2012. Previous Tealbook follows Current Tealbook exactly until 2011 when it begins decreasing at a faster pace. By the end of 2012 it has decreased to about 7.8. NAIRU begins in 1990 at about 5.8 and generally decreases to about 5.0 by 1996. It remains constant at 5.0 until 2008. It then generally increases to about 6 by 2009 and remains constant here until the end of 2012. NAIRU with EEB adjustment begins in 1990 at about 5.8 and decreases to about 5.5 by 1991. It then generally increases to about 5.7 by 1992 and then generally decreases to about 5 by 1996. It remains relatively constant at 5 until 2001 and then increases to about 5.1 by 2002. It then generally decreases to about 5 by 2004 and remains constant here until 2008. By 2010 it has increased to about 6.85 and by the end of 2012 it has generally decreased to about 6.05.

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:Q1.

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

Figure: GDP Gap

Line chart, by percent, 1990 to 2012. There is a horizontal line at zero. There are two series, Current and Previous Tealbook. Current begins in 1990 at about 1.0 and generally decreases to about -3.5 by 1991. It then generally increases to about 3.5 by 2000 and then generally decreases to about -2.8 by 2003. By 2006 it has generally increased to about 0.8 and by 2009 it has generally decreased to about -7.2. It then generally increases to about -4.2 by the end of 2012. Previous Tealbook follows Current Tealbook exactly until 2009. By the end of 2012 it has generally increased to about -3.5.

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:Q1.

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

Figure: Manufacturing Capacity Utilization Rate

Line chart, by percent, 1990 to 2012. There is a horizontal line at about 79 which represents the average rate from 1972 to 2010. There are two series, Current and Previous Tealbook. Current begins in 1990 at about 82.3 and generally decreases to about 77.5 by 1991. It then generally increases to about 84.5 by 1995 and then generally decreases to about 71 by 2001. By 2007 it has generally increased to about 79.7 and by 2009 it has generally decreased to about 64. It then generally increases to about 78.5 by the end of 2012. Previous Tealbook follows the Current Tealbook series almost exactly until 2010 when it begins increasing at a faster rate. By the end of 2012 it has generally increased to about 80.

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

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

Inflation Projections

Inflation Projections
(Percent change, Q4 to Q4)

Measure	2009	2010	2011	2012
PCE chain-weighted price index	1.5	1.1	2.3	1.5
Previous Tealbook	1.5	1.1	2.2	1.2
Food and beverages	-1.6	1.3	4.5	1.4
Previous Tealbook	-1.6	1.3	4.3	1.4
Energy	2.7	5.9	9.6	1.0
Previous Tealbook	2.7	5.9	12.9	-1.1

Excluding food and energy	1.7	.8	1.7	1.5
Previous Tealbook	1.7	.8	1.4	1.4
Prices of core goods imports ¹	-1.9	2.7	5.0	1.4
Previous Tealbook	-1.9	2.7	4.9	1.4

1. Core goods imports exclude computers, semiconductors, oil, and natural gas. [Return to table](#)

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

Figure: Total PCE Prices

Line chart, by 4-quarter percent change, 1990 to 2012. There is a shaded bar from 2011:Q1 to 2012:Q4 that represents the forecast period. There is a horizontal line at zero. There are two series, Current and Previous Tealbook. Current begins in early 1990 at about 4.2 and generally increases to about 5.4 by late 1990. It then generally decreases to about 1 by 1998 and then generally increases to about 2.6 by 2000. By 2002 it has generally decreased to about 0.7 and by 2005 it has generally increased to about 3.2. It then generally decreases to about 1.8 by 2006 and then generally increases to about 4.4 by 2008. By 2009 it has generally decreased to about -0.9 and by early 2010 it has generally increased to about 2.5. It then generally decreases to about 1.03 by late 2010 and then increases to about 2.5 by 2011. By the end of 2012 it has generally decreased to about 1.4. Previous Tealbook follows the Current series almost exactly until 2010. By the end of 2012 it has generally decreased to about 1.2.

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

Figure: PCE Prices excluding Food and Energy

Line chart, by 4-quarter percent change, 1990 to 2012. There is a shaded bar from 2011:Q1 to 2012:Q4 that represents the forecast period. There 4 series, Current Tealbook, Previous Tealbook, and Current Market based and Previous Market based. Current Tealbook begins in early 1990 at about 3.8 and generally increases to about 4.6 by mid-1990. It then generally decreases to about 1.3 by 1998 and then generally increases to about 2.6 by 2008. By late 2010 it has generally decreased to about 0.8 and by the end of 2012 it has generally increased to about 1.5. Previous Tealbook follows Current Tealbook almost exactly until 2010 when it starts increasing at a slower rate. By the end of 2012 it has increased to about 1.3. Current Market based begins in early 1990 at about 4.35 and generally increases to about 4.8 by mid-1990. It then generally decreases to about 1.0 by 1998 and then generally increases to about 1.9 by 2001. By 2003 it has generally decreased to about 1.3 and by 2008 it has generally increased to about 2.6. It then generally decreases to about 0.8 by late 2010 and then generally increases to about 1.35 by the end of 2012. Previous Market based follows Current Market based almost exactly until 2010 when it starts increasing at a slower rate. By the end of 2012 it has generally increased to about 1.2.

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

Figure: Compensation per Hour

Line chart, by 4-quarter percent change, 1990 to 2012. There is a shaded bar from 2011:Q1 to 2012:Q4 that represents the forecast period. There is a horizontal line at zero. There are four series, Current Productivity and Costs, Previous Productivity and Costs, Current Employment cost index, and Previous Employment cost index. Current Productivity and Costs begins in early 1990 at about 4.4 and generally increases to about 7.25 by mid-1990. It then generally decreases to about 1 by 1995 and then generally increases to about 7 by 1998. By 1999 it has generally decreased to about 3 and by 2000 it has generally increased to about 8.7. It then generally decreases to about 2.5 by 2002 and then generally increases to about 5.7 by 2003. By 2009 it has generally decreased to about 0.1 and by early 2010 it has generally increased to about 3.9. It then generally decreases to about 1.2 by late 2010 and then generally increases to about 2.4 by the end of 2012. Previous Productivity and Costs follows Current Productivity and Costs almost exactly until the end 2009. It generally decreases to about 1.9 by late 2010 and then generally increases to about 2.5 by the end of 2012. Current Employment cost index begins in 1990 at about 5.1 and generally decreases to about 2.5 by 1995. It then generally increases to about 4.7 by 2000 and then generally decreases to about 1.2 by 2009. By the end of 2012 it has generally increased to about 2.45. Previous Employment cost index follows the Current Employment cost index almost exactly until 2011 when it starts increasing at a faster rate. By the end of 2012 it is at about 2.7.

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

Figure: Long-Term Inflation Expectations

Line chart, by percent, 1990 to 2010. There are two series, Thomson Reuters/Michigan next 5 to 10 yrs. and SPF next 10 yrs. Thomson Reuters/Michigan begins in early 1990 at about 4 and generally increases to about 4.75 by mid-1990. It then generally decreases to about 2.65 by 1998. From 1998 to early 2005 it fluctuates between about 2.4 and 3.25. From early 2005 to late 2007 it fluctuates between about 2.7 and 3.3. It then generally increases to about 3.4 by 2008 and then generally decreases to about 2.9 by May 2011. SPF begins in early 1990 at about 3.99 and generally increases to about 4.2 by mid-1990. It then generally decreases to about 2.3 by early 1999 and then generally increases to about 2.5 by mid-1999. It remains relatively stable here at 2.5 until late 2009 and then generally decreases to about 2.4 by 2011:Q2.

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.

The Long-Term Outlook

The Long-Term Outlook
(Percent change, Q4 to Q4, except as noted)

Item	2010	2011	2012	2013	2014	2015
Real GDP	2.8	2.7	3.5	4.2	4.3	3.3
Civilian unemployment rate ¹	9.6	8.9	8.1	7.1	6.1	5.5
PCE prices, total	1.1	2.3	1.5	1.5	1.6	1.7
Core PCE prices	.8	1.7	1.5	1.5	1.6	1.7
Federal funds rate ¹	.2	.1	.2	1.4	3.1	3.9
10-year Treasury yield ¹	3.0	3.5	4.3	4.5	4.8	4.9

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

Figure: Real GDP

Line chart, by 4-quarter percent change, 2002 to 2015. There is a horizontal line at zero. There are two series, Real GDP and Potential GDP. Real GDP begins in 2002 at about 1.6 and generally increases to about 4.1 by 2004. It then generally decreases to about -4.1 by 2009 and then generally increases to about 4.5 by 2014. By the end of 2015 it has decreased to about 3.2. Potential GDP begins in 2002 at about 3.4 and generally decreases to about 2.1 by late 2004. It then generally increases to about 2.3 by 2007 and then generally decreases to about 1.9 by late 2010. By the end of 2015 it has generally increased to about 2.6.

Figure: Unemployment Rate

Line chart, by percent, 2002 to 2015. There are three series, Unemployment rate, NAIRU with EEB adjustment and NAIRU. Unemployment rate begins in 2002 at about 5.7 and generally increases to about 6.1 by 2003. It then generally decreases to about 4.3 by late 2006 and then generally increases to about 10 by 2009. By the end of 2015 it has generally decreased to about 5.5. NAIRU with EEB adjustment begins in early 2002 at about 5 and generally increases to about 5.2 by mid-2002. It then generally decreases to about 5 by 2004 and remains constant here until 2008. It then generally increases to about 6.75 by 2010 and then generally decreases to about 5.2 by the end of 2015. NAIRU begins in 2002 at about 5 and remains constant here until 2008. It then generally increases to about 6 by 2009 and remains constant here until late 2012. By the end of 2015 it has decreased to about 5.2.

Figure: PCE Prices

Line chart, by 4-quarter percent change, 2002 to 2015. There are two series, PCE prices excluding food and energy and Total PCE prices. PCE prices excluding food and energy begins in early 2002 at about 1.5 and generally increases to about 2 by mid-2002. It then generally decreases to about 1.4 by 2003 and then generally increases to about 2.5 by 2008. By 2009 it has generally decreased to about 1.3 and by early 2010 it has generally increased to about 1.8. It then generally decreases to about 0.8 by late 2010 and generally increases to about 1.75 by the end of 2015. Total PCE prices begins in 2002 at about 0.8 and generally increases to about 3.25 by 2005. It then generally decreases to about 1.8 by 2006 and then generally increases to about 4.3 by 2008. By 2009 it has generally decreased to about -0.75 and by early 2010 it has generally increased to about 2.35. It then generally decreases to about 1.05 by late 2010 and then generally increases to about 2.4 by 2011. By 2012 it has decreased to about 1.2 and by end of 2015 it has generally increased to about 1.75.

Figure: Interest Rates

Line chart, by percent, 2002 to 2015. There are three series, Federal funds rate, 10-year Treasury and BBB corporate. Federal funds rate begins in 2002 at about 1.75 and generally decreases to about 1 by 2003. It then generally increases to about 5.25 by 2006 and then generally decreases to about 0.13 by 2009. It remains relatively stable here until mid-2012. It then generally increases to about 3.9 by the end of 2015. 10-year Treasury begins in 2002 at about 5.4 and generally decreases to about 3.75 by 2003. It then generally increases to about 5.1 by 2006 and then generally decreases to about 2.9 by 2010. By the end of 2015 it has generally increased to about 4.9. BBB corporate begins in 2002 at about 7.6 and generally decreases to about 5.4 by 2004. It then generally increases to about 9.4 by 2008 and then generally decreases to about 5.0 by 2010. By the end of 2015 it has generally increased to about 6.6.

Note: In each panel, shading represents the projection period (beginning in 2011:Q2).

Evolution of the Staff Forecast

Figure: Change in Real GDP

Line chart, by percent, 2009 to 2011. Data are Q4 over Q4 and are plotted on the Tealbook publication dates. There are three series 2010, 2011 and 2012. 2010 begins on January 22, 2009 at about 2.6 and decreases to about 1.5 by March 12, 2009. By January 20, 2010 it has generally increased to about 3.5 and by October 27, 2010 it has generally decreased to about 2.3. It then generally increases to about 2.8 by June 15, 2011. 2011 begins on September 16, 2009 at about 4.5 and generally increases to about 4.75 by January 20, 2010. It then generally decreases to about 3.25 by September 15, 2010 and then generally increases to about 3.8 by January 19, 2011. By June 15, 2011 it has decreased to about 2.7. 2012 begins on September 15, 2010 at about 4.3 and increases to about 4.75 by October 27, 2010. It then decreases to about 4.3 by December 8, 2010 and remains constant here until March 9, 2011. By June 15, 2011 it has decreased to about 3.4.

Figure: Unemployment Rate

Line chart, by percent, 2009 to 2011. Data are from the fourth quarter and are plotted on the Tealbook publication dates. There are three series, 2010, 2011 and 2012. 2010 begins on January 22, 2009 at about 8.1 and generally increases to about 9.5 by March 12, 2009. It then decreases to about 9.1 by April 22, 2009 and then

increases to about 9.7 by June 17, 2009. By September 16, 2009 it has decreased to about 9.2 and by December 9, 2009 it has increased to about 9.6. It then decreases to about 9.3 by April 21, 2010 and then generally increases to about 9.6 by June 15, 2011. 2011 begins on September 16, 2009 at about 7.9 and generally increases to about 9.1 by September 15, 2010. It then generally decreases to about 8.6 by March 9, 2011 and then increases to about 8.9 by June 15, 2011. 2012 begins on September 15, 2010 at about 8.0 and decreases to about 7.9 by October 27, 2010. It then increases to about 8.0 by December 8, 2010 and then decreases to about 7.5 by March 9, 2011. By June 15, 2011 it has increased to about 8.1.

Figure: Change in PCE Prices excluding Food and Energy

Line chart, by percent 2009 to 2011. Data are Q4 over Q4 and are plotted on the Tealbook publication dates. There are three series, 2010, 2011 and 2012. 2010 begins on January 22, 2009 at about 0.8 and decreases to about 0.5 by March 12, 2009. It then generally increases to about 1.2 by December 9, 2009 and then generally decreases to about 0.8 by June 16, 2010. By August 4, 2010 it has generally increased to about 1.1 and it remains here until October 27, 2010. It then generally decreases to about 0.75 by January 19, 2011 and remains constant here until June 15, 2011. 2011 begins on September 16, 2009 at about 1 and generally increases to about 1.1 by December 9, 2009. It then generally decreases to about 0.8 by June 16, 2010 and then generally increases to about 1.0 by October 27, 2010. By December 8, 2010 it has decreased to about 0.9 and by June 5, 2011 it has increased to about 1.65. 2012 begins on September 15, 2010 at about 0.9 and increases to about 1.0 by October 27, 2010. By December 8, 2010 it has decreased to about 0.9 and by June 15, 2011 it has increased to about 1.5.

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, by scale where January 2007 = 100, 2007 to 2011. There is a horizontal line at 100. There are three series, Foreign, AFE, and EME. Foreign begins in early 2007 at about 100 and generally increases to about 132 by mid-2008. It then generally decreases to about 85 by early 2009 and then generally increases to about 142 by early 2011. AFE begins in early 2007 at about 100 and generally increases to about 130 by mid-2008. It then generally decreases to about 81 by early 2009 and then generally increases to about 125 by early 2011. EME begins in early 2007 at about 100 and generally increases to about 133 by mid-2008. By early 2009 it has generally decreased to about 89 and by early 2011 it has generally increased to about 160.

Note: EME excludes Venezuela.

Figure: Industrial Production

Line chart, by scale where January 2007 = 100, 2007 to 2011. There is a horizontal line at 100. There are three series, Foreign, AFE and EME. Foreign begins in early 2007 at about 100 and generally increases to about 104 by early 2008. It then generally decreases to about 90 by early 2009 and then generally increases to about 104.5 by early 2011. AFE begins in early 2007 at about 100 and generally increases to about 101.5 by mid-2007. It then generally decreases to about 83.5 by early 2009 and then generally increases to about 91.5 by early 2011. EME begins in early 2007 at about 100 and generally increases to about 108 by early 2008. It then generally decreases to about 95 by early 2009 and then generally increases to about 124 by early 2011.

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

Figure: Retail Sales

Line chart, by 12-month percent change, 2007 to 2011. There is a horizontal line at zero. There are three series, Foreign, AFE and EME. Foreign begins in early 2007 at about 4.5. From early 2007 to early 2008 it fluctuates between about 4 and 5.3. It then generally decreases to about -2.3 by early 2009 and then generally increases to about 6 by early 2010. By early 2011 it has generally decreased to about 1.3. AFE begins in early 2007 at about 3.5. From early 2007 to early 2008 it fluctuates between about 2.5 and 4.5. It then generally decreases to about -4.3 by early 2009 and then generally increases to about 5.0 by early 2010. By early 2011 it has generally decreased to about -1. EME begins in early 2007 at about 6 and generally increases to about 10.5 within a month or so. It then generally decreases to about 3.3 by late 2008. By early 2010 it has generally increased to about 10.6 and by early 2011 it has generally decreased to about 4. Within a few weeks increases to about 7.5.

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

Figure: Employment

Line chart, by 4-quarter percent change, 2007 to 2011. There is a horizontal line at zero. There are three series, Foreign, AFE and EME. Foreign begins in early 2007 at about 2.1 and decreases to about 2.02 by mid-2007. It then generally increases to about 2.3 by late 2007 and then generally decreases to about -1.2 by mid-2009. By late 2010 it has generally increased to about 1.3. AFE begins in early 2007 at about 1.95 and generally decreases to about 1.8 by mid-2007. It generally increases to about 1.95 by late 2007. It then generally decreases to about -1.9 by mid-2009 and then generally increases to about 1 by late 2010. EME begins in early 2007 at about 2.9 and generally increases to about 3.3 by late 2007. It then generally decreases to about 0.4 by mid-2009 and then generally increases to about 2.6 by early 2011.

Note: EME excludes Argentina and Mexico.

Figure: Consumer Prices: Advanced Foreign Economies

Line chart, by 12-month percent change, 2007 to 2011. There is a horizontal line at zero. There are two series, Headline and Core. Headline begins in early 2007 at about 1.3 and generally increases to about 3.5 by mid-2008. It then generally decreases to about -1 by mid-2009. By early 2011 it has generally increased to about 2.7. Core begins in early 2007 at about 1.28 and generally increases to about 1.5 by mid-2007. It then generally decreases to about 0.95 by early 2008 and then generally increases to about 1.3 by late 2008. By mid-2010 it has generally decreased to about 0.6 and by early 2011 it has generally increased to about 1.45.

Note: Excludes Australia, Sweden, and Switzerland. Core is a staff calculation that excludes all food and energy.

Source: Haver Analytics and CEIC.

Figure: Consumer Prices: Emerging Market Economies

Line chart, by 12-month percent change, 2007 to 2011. There is a horizontal line at zero. There are three series, Headline, Excluding food -- East Asia*, and Excluding food -- Latin America. Headline begins in early 2007 at about 2.9. It then generally increases to about 6.8 by mid-2008 and then generally decreases to about 0.6 by mid-2009. By early 2011 it has generally increased to about 4.5. Excluding food -- East Asia begins in early 2007 at about 1.3. It then generally increases to about 3.8 by mid-2008 and then generally decreases to about -2.2 by mid-2009. By early 2011 it has generally increased to about 2.1. Excluding food -- Latin America begins in early 2007 at about 3.6 and then generally decreases to about 3.2 by late 2007. It then generally increases to about 5.5 by late 2008 and then generally decreases to about 3.4 by late 2009. By early 2010 it has generally increased to about 4.6 and by early 2011 it has generally decreased to about 3.5.

The Foreign Outlook

The Foreign Outlook (Percent change, annual rate)

	2010			2011			2012
	H1	Q3	Q4	Q1	Q2	H2	
Real GDP							
Total foreign	5.1	3.4	3.3	4.1	2.8	3.6	3.5
Previous Tealbook	5.0	3.2	3.5	3.7	3.0	3.5	3.6
Advanced foreign economies	3.5	2.3	1.4	2.3	1.4	2.4	2.3
Previous Tealbook	3.5	2.0	1.7	2.5	1.5	2.3	2.4
Emerging market economies	7.0	4.7	5.5	6.2	4.4	5.1	4.9
Previous Tealbook	6.9	4.8	5.7	5.1	4.8	4.9	5.0
Consumer Prices							
Total foreign	2.6	2.4	5.3	4.4	2.9	2.4	2.4
Previous Tealbook	2.5	2.4	5.3	4.4	3.3	2.5	2.4
Advanced foreign economies	1.3	1.1	3.5	3.4	2.4	1.3	1.4
Previous Tealbook	1.3	1.1	3.5	3.4	2.3	1.5	1.4
Emerging market economies	3.6	3.4	6.7	5.3	3.3	3.3	3.1
Previous Tealbook	3.4	3.5	6.9	5.3	4.0	3.3	3.1

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

Figure: Real GDP

Line chart, by percent change, 2008 to 2012. Data are annual rate. There is a horizontal line at zero. The period from 2011:Q2 to 2012:Q4 is shaded to indicate forecast data. There are two series, Total Foreign Current Tealbook and Total Foreign Previous Tealbook. Total Foreign Current Tealbook begins in early 2008 at about 3 and generally decreases to about -9.8 by early 2009. It then generally increases to about 5.5 by late 2009 and then generally decreases to about 2.5 by early 2011. By late 2011 it has generally increased to about 4 and it remains relatively constant here until late 2012. Total Foreign Previous Tealbook follows the Current Tealbook series almost exactly.

Figure: Real GDP

Line chart, by percent change, 2008 to 2012. Data are annual rate. There is a horizontal line at zero. The period from 2011:Q2 to 2012:Q4 is shaded to indicate forecast data. There are four series, Advanced Foreign Economies Current Tealbook, Advanced Foreign Economies Previous Tealbook, Emerging Market Economies Current Tealbook and Emerging Market Economies Previous Tealbook. Advanced Foreign Economies Current Tealbook begins in early 2008 at about 1 and generally decreases to about -9.7 by early 2009. It then generally increases to about 4 by early 2010 and then generally decreases to about 1 by late 2010. By mid-2011 it has generally increased to about 2.5 and it remains relatively constant here until late 2012. Advanced Foreign Economies Previous Tealbook follows the Advanced Foreign Economies Current Tealbook series almost exactly. Emerging Market Economies Current Tealbook begins in early 2008 at about 5.2 and generally decreases to about -9.7 by early 2009. By mid-2009 it has generally increased to about 10 and by early 2010 it has generally decreased to about 6. It then generally increases to about 7.5 by mid-2010 and then generally decreases to about 4.5 within a few months. By early 2011 it has generally increased to about 6 and by late 2011 it has generally decreased to about 5. It remains constant here until late 2012. Emerging Market Economies Previous Tealbook follows the Emerging Market Economies Current Tealbook series almost exactly.

Note: Shading represents the projection period, which begins in 2011:Q2.

[Box:] Developments in Greece

Figure: 10-Year Sovereign Bonds Spreads

Line chart, by basis points, 2009 to 2011. There are six series, Greece, Ireland, Portugal, Spain, Italy and Belgium. Greece begins in 2009:Q3 at about 150 and generally increases to about 940 by 2010:Q2. It then generally decreases to about 430 within a week or so and then generally increases to about 930 by 2010:Q3. By 2010:Q4 it has generally decreased to about 620 and by early 2011:Q1 it has generally increased to about 940. It then generally decreases to about 730 by mid-2011:Q1 and then generally increases to about 1460 by 2011:Q2. Ireland begins in 2009:Q3 at about 220 and generally decreases to about 100 by 2010:Q1. It then generally increases to about 850 by 2011:Q2. Portugal begins in 2009:Q3 at about 100 and generally decreases to about 40 by 2009:Q4. It then generally increases to about 460 by early 2010:Q4 and then generally decreases to about 300 by late 2010:Q4. By 2011:Q2 it has generally increased to about 760. Spain begins in 2009:Q3 at about 60 and remains relatively stable here until 2010:Q1. It then generally increases to about 220 by 2010:Q2. From 2010:Q2 to early 2010:Q4 it fluctuates between about 130 and 220. It then generally increases to about 290 by late 2010:Q4 and then generally decreases to about 160 by early 2011:Q2. By late 2011:Q2 it has generally increased to about 260. Italy begins in 2009:Q3 at about 100 and remains relatively constant here until early 2010:Q2. It then generally increases to about 160 by late 2010:Q2. From late 2010:Q2 to 2011:Q2 it fluctuates between about 120 and 170 and ends at about 160 in 2011:Q2. Belgium begins in 2009:Q3 at about 50. From 2009:Q3 to 2010:Q2 it fluctuates between about 20 and 50. It then increases to about 100 by 2010:Q2. From 2010:Q2 to 2011:Q2 it fluctuates between about 50 and 120 and ends at about 100 in 2011:Q2.

Note: Relative to Germany.

Source: Bloomberg.

Figure: Greek Government: Expected Funding Sources

Bar chart, by billions of euros, 2011 to 2013. There are five series, EU-IMF, Issuance of medium- and long-term debt, Issuance of short-term debt, Privatization, and Other. Approximate values are: 2011: EU-IMF 47, Issuance of medium- and long-term debt 0, Issuance of short-term debt 11, Privatization 2, Other -1. 2012: EU-IMF 24, Issuance of medium- and long-term debt 27, Issuance of short-term debt 12, Privatization 3, Other -0.4. 2013: EU-IMF 8, Issuance of medium- and long-term debt 38, Issuance of short-term debt 14, Privatization 2, Other -1.5. It is specifically noted on the chart that Issuance of medium- and long-term debt grows over the three years.

Note: Under existing EU-IMF program as of March.

Source: IMF.

Evolution of Staff's International Forecast

Figure: Total Foreign GDP

Line chart, by percent change, Q4 over Q4, January 22, 2009 to June 15, 2011. The x-axis is Tealbook publication dates. There are three series, 2010, 2011 and 2012. 2010 begins on January 22, 2009 at about 2.9 and generally decreases to about 2.2 by March 12, 2009. It then generally increases to about 4.2 by June 15, 2011. 2011 begins on September 16, 2009 at about 4.0 and remains relatively stable here until January 20, 2010. It then generally decreases to about 3.1 by December 8, 2010 and then generally increases to about 3.5 by June 15, 2011. 2012 begins on September 15, 2010 at about 3.5. From September 15, 2010 to June 15, 2011 it fluctuates between about 3.5 and 3.7. It ends on June 15, 2011 at about 3.5.

Figure: Total Foreign CPI

Line chart, by percent change, Q4 over Q4, January 22, 2009 to June 15, 2011. The x-axis is Tealbook publication dates. There are three series, 2010, 2011 and 2012. 2010 begins on January 22, 2009 at about 2.0 and generally decreases to about 1.5 by March 12, 2009. It then generally increases to about 2.5 by April 21, 2010 and then generally decreases to about 2.1 by August 4, 2010. By June 15, 2011 it has generally increased to about 3.2. 2011 begins on September 16, 2009 at about 1.75 and generally increases to about 3.17 by April 20, 2011. It then decreases to about 3.0 by June 15, 2011. 2012 begins on September 15, 2010 at about 2.25 and generally increases to about 2.3 by June 15, 2011.

Figure: U.S. Current Account Balance

Line chart, by percent of GDP, January 22, 2009 to June 15, 2011. The x-axis is Tealbook publication dates. There are three series, 2010, 2011 and 2012. 2010 begins on January 22, 2009 at about -3.5 and generally decreases to about -4.2 by March 12, 2009. It then generally increases to about -3 by October 29, 2009. From October 29, 2009 to September 15, 2010 it fluctuates between about -3.25 and -3. It then decreases to about -3.4 by October 27, 2010 and then generally increases to about -3.05 by June 15, 2011. 2011 begins on September 16, 2009 at about -3.1 and generally increases to about -2.9 by October 29, 2009. It then generally decreases to about -3.25 by June 16, 2010 and then generally increases to about -2.9 by August 4, 2010. By December 8, 2010 it has decreased to about -3.4 and by June 15, 2011 it has increased to about -2.5. 2012 begins on September 15, 2010 at about -2.9 and decreases to about -3.1 by December 8, 2010. It then increases to about -2.1 by June 15, 2011.

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

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June 2011 Tealbook A Tables and Charts[‡]

Financial Developments

Policy Expectations and Treasury Yields

Figure: Selected Interest Rates

Line chart, by percent, April 25, 2011 to June 14, 2011. There is a vertical line on April 27th noting the April FOMC, on May 6th noting the April employment report, on May 8th noting FOMC minutes, on June 1st noting the ADP employment report, on June 3rd noting the May employment report, and on June 8th noting Chairman's Atlanta speech. There are two series, June 2012 Eurodollar and 10-year Treasury yield. June 2012 Eurodollar begins on April 25th at about 0.93 and generally decreases to about 0.54 by June 9th. It then generally increases to about 0.6 by June 14th. 10-year Treasury yield begins on April 25th at about 3.39 and generally decreases to about 3.13 by May 6th. It then generally increases to about 3.23 by May 12th and then generally decreases to about 3.09 by May 17th. By May 19th it has generally increased to about 3.24 and by June 2nd it has generally decreased to about 2.94. It then generally increases to about 3.05 by June 7th and then generally decreases to about 2.92 by June 10th. By June 14th it has generally increased to about 3.1.

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

Source: Bloomberg.

Figure: Implied Federal Funds Rate

Line chart, by percent, 2011:Q2 to 2013:Q2. There are four series, "Mean: June 14, 2011", "Mean: April 26, 2011", "Mode: June 14, 2011" and "Mode: April 26, 2011". "Mean: June 14, 2011" begins in 2011:Q2 at about 0.1. It then generally increases to about 0.9 by 2013:Q2. "Mean: April 26, 2011" begins in 2011:Q2 at about 0.1 and generally increases to about 1.5 by 2013:Q2. "Mode: June 14, 2011" begins in 2011:Q2 at about 0.1 and generally decreases to about 0.05 by 2012:Q1. It then generally increases to about 0.27 by 2013:Q2. "Mode: April 26, 2011" begins in 2011:Q2 at about 0.1 and generally decreases to about 0.06 by 2011:Q3. It then generally increases to about 0.57 by 2013:Q2.

Note: Mean is estimated from federal funds and Eurodollar futures. Mode is estimated from distribution of federal funds rate implied by interest rate caps. Both include an allowance for term premiums and other adjustments.

Source: Bloomberg and CME Group.

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

Bar chart, by percent, from 2011:Q2 to greater than or equal to 2013:Q2. There are two series, "Recent: 20 respondents" and "April FOMC: 20 respondents". "Recent: 20 respondents" begins in 2011:Q2 at about 0 and increases to about 21 by 2012:Q2. It then decreases to about 9 by greater than or equal to 2013:Q2. "April FOMC: 20 respondents" begins in 2011:Q1 at about 1 and increases to about 20 by 2012:Q1. It then generally decreases to about 7 by greater than or equal to 2013:Q2.

Source: Desk's Dealer Survey from June 13, 2011.

Figure: Long-Term Interest Rate Implied Volatility

Line chart, by percent, January 2010 to June 2011. There is a vertical line in late April 2011 representing the April FOMC meeting. The series begins in January 2010 at about 7 and generally decreases to about 5 by March 2010. It then generally increases to about 8.1 by May 2010 and then generally decreases to about 5.75 by early August 2010. By late August 2010 it has generally increased to about 7.5 and by November 2010 it has generally decreased to about 6. It then generally increases to about 9.1 by December 2010 and then generally decreases to about 5.8 by May 2011. By June 14, 2011 it has generally increased to about 6.75.

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

Source: Bloomberg.

Figure: Inflation Compensation

Line chart, by percent, 2007 to 2011. Data are daily. There is a label in April 2011 representing the April FOMC. There is also a horizontal line at zero. There are two series, 5 to 10 years ahead and Next 5 years. 5 to 10 years ahead begins in 2007:Q1 at about 2.5 and generally increases to about 3.1 by 2008:Q1. It then generally decreases to about 2.5 by early 2008:Q4 and then generally increases to about 3.7 by mid-2008:Q4. By late 2008:Q4 it has generally decreased to about 2 and by 2010:Q1 it has generally increased to about 3.25. It then generally decreases to about 2.1 by 2010:Q3 and then generally increases to about 3.25 by 2010:Q4. By June 14, 2011 it has generally decreased to about 2.8. Next 5 years begins in 2007:Q1 at about 2.3. From 2007:Q1 to 2008:Q1 it fluctuates between about 1.75 and 2.4. It then generally increases to about 2.6 by 2008:Q3 and then generally decreases to about -1.7 by 2008:Q4. By 2010:Q1 it has generally increased to about 2.1 and by 2010:Q3 it has generally decreased to about 1.1. It then generally increases to about 2.4 by 2011:Q1 and then generally decreases to about 2.0 by June 14, 2011.

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

Source: Barclays PLC and staff estimates.

Figure: Model-Implied Expected Inflation

Line chart, by percent, 0 to 10 years. There are two series, April 26, 2011 and June 14, 2011. April 26, 2011 begins in year 0 at about 1.8 and increases to about 2.45 by year 10. June 14, 2011 begins in year 0 at about 1.76 and increases to about 2.4 by year 10.

Note: Expected inflation as implied by the staff's 4-factor real term structure model estimated using nominal Treasury and TIPS yields and survey forecasts of Treasury bill yields and CPI inflation.

Source: Staff estimate.

Asset Market Developments

Figure: Selected Stock Price Indexes

Line chart, by log scale, January 2010 to June 2011. Data are daily. There is a label in April 2011 representing the April FOMC. There are two series, S&P 500 and S&P 500 Diversified Financials. S&P 500 begins in January 2010 at about 87.5 and generally decreases to about 81 by February 2010. It then generally increases to about 94 by April 2010 and then generally decreases to about 79 by July 2010. By April 2011 it has generally increased to about 106 and by June 14, 2011 it has generally decreased to about 99. S&P 500 Diversified Financials begins in January 2010 at about 96 and generally decreases to about 87 by February 2010. It then generally increases to about 110.5 by April 2010 and then generally decreases to about 81 by September 2010. By February 2011 it has generally increased to about 106 and by June 14, 2011 it has generally decreased to about 90.

Source: Bloomberg.

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

Line chart, by percent, log scale, 2007 to 2011. Data are daily. There is a label in April 2011 representing the April FOMC. The series begins in 2007:Q1 at about 9 and generally increases to about 33 by 2008:Q1. It then generally decreases to about 13 by 2008:Q2 and then generally increases to about 80 by 2008:Q4. By early 2010:Q2 it has generally decreased to about 13 and by mid-2010:Q2 it has generally increased to about 45. It then generally decreases to about 17 by June 14, 2011.

Source: Chicago Board Options Exchange.

Figure: Equity Risk Premium

Line chart, by percent, 1990 to 2011. Data are monthly. There are two series, Expected 10-year real equity return and Expected real yield on 10-year Treasury. Expected 10-year real equity return begins in early 1990 at about 7.6 and then increases to about 9.6 by late 1990. It then generally decreases to about 7 by 1992 and then generally increases to about 8.7 by 1995. By 2000 it has generally decreased to about 2.1 and by 2002 it has generally increased to about 6.9. It then generally decreases to about 5 by 2004 and then generally increases to about 12 by 2008. By 2009 it has generally decreased to about 8 and by mid-2010 it has generally increased to about 10. It then generally decreases to about 8.7 by June 14, 2011. Expected real yield on 10-year Treasury begins in 1990 at about 4.3 and generally decreases to about 2 by 1993. It then generally increases to about 4.6 by 1995. From 1995 to 2000 it fluctuates between about 2.2 and 4.6. It then generally decreases to about 0.8 by 2003 and then generally increases to about 2.7 by 2007. By June 14, 2011 it has generally decreased to about 0.8.

Note: Expected real yield on 10-year Treasury is off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation. June 14, 2011 values are the latest observations using daily interest rates and stock prices and latest earnings data from I/B/E/S.

Source: Thomson Financial.

Figure: Corporate Bond Spreads

Line chart, by basis points, 2007 to 2011. Data are daily. There is a label in April 2011 representing the April FOMC. There are two series, 10-year high-yield and 10-year BBB. 10-year high-yield begins in 2007:Q1 at about 350 and generally increases to about 1680 by 2008:Q4 and then generally decreases to about 430 by early 2010:Q2 and generally increases to about 550 by mid-2010:Q2. It then generally decreases to about 350 by 2011:Q1 and then generally increases to about 450 by June 14, 2011. 10-year BBB begins in 2007:Q1 at about 140 and then generally increases to about 660 by 2008:Q4. It then generally decreases to about 160 by early 2010:Q2 and then generally increases to about 240 by late 2010:Q2. By June 14, 2011 it has generally decreased to about 200.

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

Source: Merrill Lynch and staff estimates.

Figure: Libor over OIS Spreads

Line chart, by basis points, 2009 to 2011. Data are daily. There is a label in April 2011 representing the April FOMC. There are three series, 1-month, 3-month and 6-month. 1-month begins in 2009:Q2 at about 13. From 2009:Q2 to 2010:Q1 it fluctuates between about 7 and 13. It then generally decreases to about 4 by 2010:Q2 and then generally increases to about 15 by early 2010:Q3. By late 2010:Q3 it has generally decreased to about 5 and by April 2011 it has generally increased to about 13. It then generally decreases to about 9 by June 15, 2011. 3-month begins in 2009:Q2 at about 44 and generally decreases to about 10 by 2009:Q3. From 2009:Q3 to 2010:Q2 it fluctuates between about 6 and 13. It then generally increases to about 33 by early 2010:Q3 and then generally decreases to about 10 by late 2010:Q3. By April 2011 it has generally increased to about 19 and by June 15, 2011 it has generally decreased to about 12. 6-month begins in 2009:Q2 at about 100 and generally decreases to about 18 by 2010:Q1. It then generally increases to about 55 by 2010:Q2 and then generally decreases to about 26 by 2010:Q4. By March 2011 it has generally increased to about 32 and by June 15, 2011 it has generally decreased to about 25.

Note: OIS is an overnight index swap.

Source: British Bankers' Association and Prebon.

Figure: Spread on 30-Day Commercial Paper

Line chart, by basis points, 2009 to 2011. Data are 5-day moving average. There is a label in April 2011 representing the April FOMC. There are two series, A2/P2 and ABCP. A2/P2 begins in April 2009 at about 85 and generally decreases to about 7 by January 2010. It then generally increases to about 25 by July 2010. From July 2010 to June 2011 it fluctuates between about 13 and 25. By June, 2011 it is at about 25. ABCP begins in April 2009 at about 35 and generally decreases to about 12 by May 2009. From May 2009 to December 2009 it fluctuates between about 7 and 25. It then generally decreases to about 5 by April 2010 and then generally increases to about 23 by June 2010. By October 2010 it has generally decreased to about 4 and by November 2010 it has generally increased to about 23. It then generally decreases to about 8 by June 14, 2011.

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.

Foreign Developments

Figure: Stock Price Indexes

Line chart, by scale where January 1, 2010=100, 2010 to 2011. Data are daily. There is a label in April 2011 representing the April FOMC. There are four series, DJ Euro, Topix, FTSE, and MSCI Emerging Markets. DJ Euro begins in early 2010:Q1 at about 100 and generally decreases to about 90 by mid-2010:Q1. It then generally increases to about 103 by early 2010:Q2 and then generally decreases to about 87 by late 2010:Q2. By mid-2011:Q1 it has generally increased to about 109 and by late 2011:Q1 it has generally decreased to about 97. It then generally increases to about 107 by April 2011 and then generally decreases to about 100 by June 14, 2011. Topix begins in early 2010:Q1 at about 100 and generally increases to about 107 within a few weeks. It then generally decreases to about 97 by mid-2010:Q1 and then generally increases to about 110 by early 2010:Q2. By 2010:Q4 it has generally decreased to about 89 and by mid-2011:Q1 it has generally increased to about 108. It then generally decreases to about 84 by late 2011:Q4. Within a week or so it generally increases to about 97 and by June 14, 2011 it has generally decreased to about 90. FTSE begins in early 2010:Q1 at about 100 and generally decreases to about 93 by mid-2010:Q1. It then generally increases to about 108 by early 2010:Q2 and then generally decreases to about 89 by early 2010:Q3. It then generally increases to about 113 by early 2011:Q1 and then generally decreases to about 103 by late 2011:Q1. By April 2011 it has generally increased to about 112 and by June 14, 2011 it has generally decreased to about 107. MSCI Emerging Markets begins in early 2010:Q1 at about 100 and generally increases to about 104 within a few weeks. It then generally decreases to about 90 by mid-2010:Q1 and then generally increases to about 106 by early 2010:Q2. By mid-2010:Q2 it has generally decreased to about 86 and by 2010:Q4 it has generally increased to about 117. From early 2010:Q4 to mid-2011:Q1 it fluctuates between about 109 and 119. It then generally increases to about 122 by April 2011 and then generally decreases to about 114 by June 14, 2011.

Source: Bloomberg.

Figure: Nominal 10-year Government Bond Yields

Line chart, by percent, 2010 to 2011. Data are daily. There is a label in April 2011 representing the April FOMC. There are three series, Germany, United Kingdom and Japan. Germany begins in 2010:Q1 at about 3.3 and generally decreases to about 2.05 by 2010:Q3. It then generally increases to about 3.5 by April 2011 and then generally decreases to about 3 by June 14, 2011. United Kingdom begins in early 2010:Q1 at about 4.0. From early 2010:Q1 to early 2010:Q2 it fluctuates between about 3.9 and 4.2. It then generally decreases to about 2.7 by 2010:Q3 and then generally increase to about 3.9 by 2011:Q1. By June 14, 2011 it has generally decreased to about 3.3. Japan begins in early 2010:Q1 at about 1.3. From early 2010:Q1 to early 2010:Q2 it fluctuates between about 1.25 and 1.4. It then generally decreases to about 1.0 by mid-2010:Q3 and then increases to about 1.25 by late 2010:Q3. By early 2010:Q4 it generally decreases to about 0.9 and by April 2011 it generally increases to about 1.4. It then generally decreases to about 1.2 by June 14, 2011.

Source: Bloomberg.

Figure: Nominal Trade-Weighted Dollar Indexes

Line chart, by scale where January 1, 2010 = 100, 2010 to 2011. Data are daily. There is a label in April 2011 representing the April FOMC. There are three series, Broad, Major, and OITP (other important trading partners). Broad begins in early 2010:Q1 at about 100 and generally increases to about 102 by mid-2010:Q1. It then generally decreases to about 99 by early 2010:Q2 and then generally increases to about 105.3 by mid-2010:Q2. By early 2010:Q3 it has generally decreased to about 99.8 and by mid-2010:Q3 it has generally increased to about 102. It then generally decreases to about 95.4 by early 2010:Q4 and then generally increases to about 99.6 by mid-2010:Q4. By April 2011 it has generally decreased to about 92 and by June 14, 2011 it has generally increased to about 94. Major begins in early 2010:Q1 at about 100 and generally increases to about 103 by mid-2010:Q1. From mid-2010:Q1 to early 2010:Q2 it fluctuates between about 100.3 and 103. It then generally increases to about 109.7 by mid-2010:Q2. By early 2010:Q3 it has generally decreased to about 100.5 and by mid-2010:Q3 it has generally increased to about 104.8. It then generally decreases to about 96 by early 2010:Q4 and then generally increases to about 101 by mid-2010:Q4. By April 2011 it has generally decreased to about 91.8 and by June 14, 2011 it has generally increased to about 94. OITP begins in early 2010:Q1 at about 100 and generally increases to about 102 by mid-2010:Q1. It then generally decreases to about 98 by early 2010:Q2 and then generally increases to about 102 by mid-2010:Q2. By April 2011 it has generally decreased to about 92.1 and by June 14, 2011 it has generally increased to about 94.

Source: Federal Reserve Board and Bloomberg.

Figure: Euro-Area 10-Year Government Bond Spreads

Line chart, by percentage points, 2010 to 2011. Data are daily. There is a label in April 2011 representing the April FOMC. There is a horizontal line at zero. There are

four series, Greece, Portugal, Spain, and Ireland. Greece begins in 2010:Q1 at about 2.2 and generally increases to about 9.7 by early 2010:Q2. It then generally decreases to about 4.2 by mid-2010:Q2 and then generally increases to about 9.56 by late 2010:Q3. By early 2010:Q4 it has generally decreased to about 6.5 and by early 2011:Q1 has generally increased to about 9.8. It then generally decreases to about 7.5 by mid-2011:Q1 and then generally increases to about 14.4 by June 14, 2011. Portugal begins in 2010:Q1 at about 0.6 and generally increases to about 3.7 by mid-2010:Q2. It then generally decreases to about 1.5 within a week or so. By mid-2010:Q4 it has generally increased to about 4.5 and by late 2010:Q4 it has generally decreased to about 3. It then generally increases to about 7.8 by June 14, 2011. Spain begins in early 2010:Q1 at about 0.6 and generally increases to about 2.2 by late 2010:Q2. From late 2010:Q2 to early 2010:Q4 it generally fluctuates between 1.1 and 2.2. It then generally increases to about 3.0 by mid-2010:Q3. From mid-2010:Q3 to June 2011 it fluctuates between 1.7 and 3.0. On June 14, 2011 it is at about 2.5. Ireland begins in 2010:Q1 at about 1.4 and generally increases to about 3.0 by mid-2010:Q2. It then generally decreases to about 1.7 within a week or so. By mid-2010:Q4 it has generally increased to about 7.0 and by late 2010:Q4 it has generally decreased to about 5.0. It then generally increases to about 8.4 by June 14, 2011.

Note: Spread over German bunds.

Source: Bloomberg.

Figure: Selected Market Stress Indicators

Line chart, by basis points, 2010 to 2011. Data are daily. There is a label in April 2011 representing the April FOMC. There are two series, Euro/USD 1-month volatility and Euro/USD swaps. Euro/USD 1-month volatility begins in early 2010:Q1 at about 11.3 and generally increases to about 12.7 by mid-2010:Q1. It then generally decreases to about 9 by late 2010:Q1 and then generally increases to about 17.9 by mid-2010:Q2. By late 2010:Q3 it has generally decreased to about 10.3 and by mid-2010:Q4 it has generally increased to about 15.5. It then generally decreases to about 9 by April 2011 and then generally increases to about 12.8 by June 15, 2011. Euro/USD swaps begins in early 2010:Q1 at about 33 and generally increases to about 70 by mid-2010:Q2. It then generally decreases to about 19 by early 2010:Q3 and then generally increases to about 49 by mid-2010:Q3. By early 2010:Q4 it has generally decreased to about 17 and by late 2010:Q4 it has generally increased to about 59. It then generally decreases to about 3 by April 2011 and then generally increases to about 22 by May 2011. By June 15, 2011 it has generally decreased to about 9.

Note: Euro/USD 1-month volatility is the 1-month euro/USD exchange rate implied volatility. Euro/USD swaps is the implied basis spreads from 3-month euro/USD swaps.

Source: Bloomberg.

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

Bar chart, by billions of dollars, annual rate, 2009 to 2011. There is a horizontal line at zero. There are two series, Official and Private. Approximate values: 2009: Official 570, Private 10. 2010:H1: Official 210, Private 400. 2010:Q3: Official 730, Private 270. 2010:Q4: Official 330, Private 130. 2011:Q1: Official 120, Private 35. April 2011: Official 430, Private -310.

Source: Treasury International Capital data adjusted for staff estimates.

Business Finance

Figure: Selected Components of Net Debt Financing, Nonfinancial Firms

Bar chart, by billions of dollars, 2007 to 2011. Data are monthly rate. There is a horizontal line at zero. There are three series, Commercial paper, C&I loans and Bonds. Commercial paper and C&I loans are seasonally adjusted on a period-end basis, bonds are not. There is also a "Total" series presented as a line chart which sums the total of the other series. Approximate values are: 2007: Bonds 25, C&I 22, Commercial paper 0, Total 47. 2008: Bonds 17, C&I 10, Commercial paper 2, Total 29. 2009: Bonds 32, C&I -25, Commercial paper -7, Total 0. 2010:H1: Bonds 28, C&I -16, Commercial paper 5, Total 17. 2010:H2: Bonds 42, C&I 2, Commercial paper 0, Total 44. 2011:Q1: Bonds 32, C&I 6, Commercial paper 3, Total 41. April 2011: Bonds 17, C&I 7, Commercial paper 13, Total 37. May 2011: Bonds 72, C&I 19, Commercial paper 1, Total 92.

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

Figure: Institutional Leveraged Loan Issuance

Bar chart, by billions of dollars, 2005 to 2011. Data are quarterly rate. The series begins in 2005 at about 60 and increases to about 103 by 2007. It then decreases to about 12 by 2009 and then increases to about 101 by 2011:Q1. By April 2011 it has decreased to about 95.

Source: Reuters Loan Pricing Corporation.

Figure: Selected Components of Net Equity Issuance, Nonfinancial Firms

Bar chart, by billions of dollars, 2007 to 2011. Data are monthly rate. There is a horizontal line at zero. There are four series, Private issuance, Public issuance, Repurchases and Cash mergers. There is also a "Total" series presented as a line chart which sums the total of the other series. Approximate values are: 2007: Private issuance 20, Public issuance 5, Repurchases -46, Cash mergers -39, Total -60. 2008: Private issuance 22, Public issuance 4, Repurchases -34, Cash mergers -14, Total -22. 2009: Private issuance 13, Public issuance 7, Repurchases -12, Cash mergers -12, Total -4. 2010:H1: Private issuance 11, Public issuance 4, Repurchases -24, Cash mergers -13, Total -22. 2010:H2: Private issuance 10, Public issuance 5, Repurchases -26, Cash mergers -15, Total -26. 2011:Q1: Private issuance 11, Public issuance 5, Repurchases -28, Cash mergers -16, Total -30.

Note: The 2011:Q1 values are preliminary.

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, dollars per share, and 2000 to 2011. Data are quarterly. The series begins in early 2000 at about 14 and generally increases to about 14.4 by mid-2000. It then generally decreases to about 10.3 by late 2001 and then generally increases to about 24 by mid-2007. By late 2007 it has generally decreased to about 16 and by early 2008 it has generally increased to about 19.5. It then generally decreases to about 5.6 by late 2008 and then generally increases to about 24 by 2011:Q1.

Note: 2011:Q1 value is a staff estimate. Data are seasonally adjusted by staff.

Source: Thomson Financial

Figure: Bond Ratings Changes of Nonfinancial Firms

Bar chart, by percent of outstandings, 1990 to 2011. Data are annual rate. There is a horizontal line at zero. There are two series, Upgrades and Downgrades. Upgrades begins in 1990 at about 10 and increases to about 16 by 1991. It then decreases to about 8 by 1992 and then increases to about 10 by 1993. By 1994 it has decreased to about 7 and by 1995 it has increased to about 21. It then decreases to about 9 by 1997 and then increases to about 14 by 1998. By 2002 it has decreased to about 3 and by 2007 it has generally increased to about 10. It then decreases to about 4 by 2008 and then generally increases to about 17 by April-May 2011. Downgrades begins in 1990 at about 32 and increases to about 44 by 1992. It then decreases to about 8 by 1995 and generally increases to about 37 by 2002. By 2004 it has decreased to about 10 and by 2009 it has generally increased to about 20. It then decreases to about 3 by 2011:Q1 and increases to about 4 by April-May 2011.

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

Figure: Delinquency Rates on Commercial Mortgages on Existing Properties

Line chart, by percent, 1996 to 2011. There are two series, CMBS and at commercial banks. CMBS begins in 1999 at about 0.4 and generally increases to about 2.0 by 2003. It then generally decreases to about 0.2 by 2007 and then generally increases to about 10.3 by 2010. By May 2011 it has generally increased to about 9.0. At commercial banks begins in 1996 at about 3.2 and generally decreases to about 0.9 by 2006. It then generally increases to about 5.7 by 2010 and then generally decreases to about 5.0 by 2011:Q1.

Note: CMBS are commercial mortgage-backed securities. At commercial banks is excluding farmland. All series are seasonally adjusted.

Source: Citigroup; Call Report.

Household Finance

Figure: Mortgage Rate and MBS Yield

Line chart, by percent, 2007 to 2011. Data are weekly. There is a label in April 2011 representing the April FOMC. There are two series, 30-year conforming fixed mortgage rate and MBS yield. 30-year conforming fixed mortgage rate begins in 2007:Q1 at about 6.3 and generally increases to about 6.75 by 2007:Q2. It then generally decreases to about 5.48 by 2008:Q1 and then generally increases to about 6.6 by 2008:Q3. By early 2009:Q2 it has generally decreased to about 4.75 and by late 2009:Q2 it has generally increased to about 5.6. It then generally decreases to about 4.1 by 2010:Q4 and then generally increases to about 5.05 by 2011:Q1. By June 8, 2011 it has generally decreased to about 4.5. MBS yield begins in 2007:Q1 at about 5.8 and generally increases to about 6.45 by 2007:Q2. It then generally decreases to about 4.7 by 2008:Q1 and then generally increases to about 6.1 by 2008:Q4. By 2009:Q1 it has generally decreased to about 3.6 and by 2009:Q2 it has generally increased to about 5.1. It then generally decreases to about 3.85 by 2009:Q4 and then generally increases to about 4.6 by 2010:Q2. By 2010:Q4 it has generally decreased to about 3.2 and by 2011:Q1 it has generally increased to about 4.5. It then generally decreases to about 4.0 by June 14, 2011.

Note: For mortgage-backed securities (MBS) yield, Fannie Mae 30-year current coupon rate.

Source: For mortgage rate, Freddie Mac; for MBS yield, Bloomberg.

Figure: Purchase and Refinance Activity

Line chart, by scale where March 16, 1990=100, 2002 to 2011. Data are weekly. There are two series, Purchase Index and Refinance Index. Purchase Index begins in 2002 at about 305 and generally increases to about 510 by 2005. It then generally decreases to about 340 by 2006 and then generally increases to about 460 by 2007. By June 3, 2011 it has generally decreased to about 198. Refinance Index begins in 2002 at about 1500 and generally increases to about 10,200 by 2003. It then generally decreases to about 1100 by 2006 and then generally increases to about 4000 by early 2008. By late 2008 it has generally decreased to about 1000 and by the end of 2008 it has generally increased to about 6100. It then generally decreases to about 2000 by early 2010 and then generally increases to about 5200 by late 2010. By early 2011 it has generally decreased to about 1800 and by June 3, 2011 it has generally increased to about 2700.

Note: Seasonally adjusted by FRB staff.

Source: Mortgage Bankers Association.

Figure: Prices of Existing Homes

Line chart, by index peaks normalized to 100, 2005 to 2011. Data are monthly. There are three series, FHFA, CoreLogic, and 20-city S&P/Case-Shiller. FHFA begins in 2005 at about 89 and generally increases to about 100 by 2007. It then generally decreases to about 80 by March 2011. CoreLogic begins in 2005 at about 86 and generally increases to about 100 by early 2006. It then generally decreases to about 70 by early 2009 and then generally increases to about 72.5 by early 2010. By April 2011 it has generally decreased to about 62. 20-city S&P/Case-Shiller begins in 2005 at about 86 and generally increases to about 100 by early 2006. It then

generally decreases to about 98 by late 2006 and then generally increases to about 99 by early 2007. By 2009 it has generally decreased to about 68 and by mid-2010 it has generally increased to about 71. It then generally decreases to about 68 by March 2011.

Source: For FHFA, Federal Housing Finance Agency; for CoreLogic, CoreLogic; for S&P/Case-Shiller, Standard & Poor's.

Figure: Delinquencies on Prime Mortgages

Line chart, by percent of loans, 2003 to 2011. Data are monthly. There is one series, Transition rate, which begins in 2003 at about 1.1 and generally decreases to about 0.76 by 2005. It then generally increases to about 1.71 by 2008 and then generally decreases to about 1.2 by April 2011.

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, by percent change, annual rate, 2004 to 2011. Data are 3-month moving average. There is a horizontal line at zero. There are two series, Nonrevolving and Revolving. Nonrevolving begins in early 2004 at about 5.8. From early 2004 to mid-2005 it fluctuates between about 3.7 and 9. It then generally decreases to about 2.2 by late 2005 and then generally increases to about 6.5 by 2007. By 2009 it has generally decreased to about -3 and by April 2011 it has generally increased to about 5.8. Revolving begins in early 2004 at about 2.5 and generally increases to about 9.5 by 2007. It then generally decreases to about -12.4 by early 2010 and then generally increases to about -2.4 by April 2011.

Figure: Gross Consumer ABS Issuance

Bar chart, by billions of dollars, 2006 to 2011. Data are monthly rate. There are three series, Auto, Credit card, and Student loan. Approximate values are: 2006: Auto 7.5, Credit card 5.5, Student loan 6.5. 2007: Auto 6, Credit card 8, Student loan 5.6. 2008:H1: Auto 5, Credit card 8.5, Student loan 4.5. 2008:H2: Auto 0.8, Credit card 1.7, Student loan 1. 2009:H1: Auto 6.3, Credit card 7.8, Student loan 2.4. 2009:H2: Auto 9.5, Credit card 6, Student loan, 2.5. 2010:H1: Auto 4.5, Credit card 0.8, Student loan 2.2. 2010:Q3: Auto 4.7, Credit card 0.5, Student loan 2.5. 2010:Q4: Auto 3.6, Credit card 0, Student loan 2.2. 2011:Q1: Auto 4.1, Credit card 0.5, Student loan 1.7. April 2011: Auto 3.2, Credit card 0.4, Student loan 1.2. May 2011: Auto 5.8, Credit card 0, Student loan 2.2. June 2011: Auto 0, Credit card 1, Student loan 0.5.

Note: The June 2011 value is through June 10, 2011.

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

Commercial Banking and Money

Figure: Changes in Bank Credit

Line chart, by percent, 2005 to 2011. Data are 3-month change, a.r. There is a horizontal line at zero. There are two series, Total bank credit and C&I loans. Total bank credit begins in 2005:Q1 at about 11. From 2005:Q1 to 2008:Q1 it fluctuates between about 4 and 13. It then generally decreases to about -2 by 2008:Q2 and then generally increases to about 10.2 by 2008:Q4. By 2009:Q4 it has generally decreased to about -12 and by 2010:Q3 it has generally increased to about 1.5. It then generally decreases to about -3 by 2011:Q1 and then generally increases to about 0 by May 2011. C&I loans begins in 2005:Q1 at about 13 and generally increases to about 16 by 2005:Q2. It then generally decreases to about 9.8 by 2005:Q3 and then generally increases to about 19.7 by 2006:Q2. By 2006:Q4 it has generally decreased to about 5 and by 2007:Q3 it has generally increased to about 29.5. It then generally decreases to about 4 by 2008:Q2 and then generally increases to about 16.5 by 2008:Q4. By 2009:Q3 it has generally decreased to about -28.5 and by May 2011 it has generally increased to about 11.

Source: Federal Reserve Board, Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States."

Figure: Pre-Tax Net Income and Loan Loss Provisions

Stack area chart, by percent, 2005 to 2011. Data are quarterly, s.a.a.r. There is a horizontal line at zero. There are two series, Pre-tax net income and loan loss provisions. Pre-tax net income begins in 2005:Q1 with a range of about [0, 1.75] and remains relatively stable here until about 2006:Q3. It then increases to about [0, 1.98] by 2006:Q4 and then generally decreases to about [-0.05, 0] by 2007:Q4. By 2008:Q1 it has increased to about [0, 0.2] and by 2008:Q4 it has decreased to about [-2.25, -2]. It then generally increases to about [0, 1.1] by 2010:Q4 and then generally decreases to about [0, 0.9] by 2011:Q1. Loan loss provisions begins in 2005:Q1 with a range of about [1.75, 2] and remains relatively stable here until 2006:Q3. It then increases to about [1.98, 2.2] by 2006:Q4 and then generally decreases to about [0, 1.8] by 2007:Q4. By 2008:Q1 it has increased to about [0.2, 1.2] and by 2008:Q4 it has decreased to about [-2, -0.05]. It then increases to about [0.6, 2] by 2010:Q1 and then decreases to about [0.9, 1.25] by 2011:Q1.

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

Figure: Regulatory Capital Ratios

Line chart, by percent, 1997 to 2011. Data are quarterly. There are two series, Tier 1 ratio and Leverage ratio. Tier 1 ratio begins in 1997 at about 9.4 and generally decreases to about 8.6 by 2000. It then generally increases to about 9.5 by 2003 and then generally decreases to about 8.0 by 2007. By 2011:Q1 it has generally increased to about 12.4. Leverage ratio begins in 1997 at about 7.3 and generally decreases to about 5.5 by 2007. It then generally increase to about 7.75 by 2011:Q1.

Figure: Weighted-Average C&I Loan Rate Spread

Line chart, by basis points, 1997 to 2011. Data are quarterly. The series begins in 1997 at about 154 and generally increases to about 187 by 2002. It then generally decreases to about 136 by 2008 and then generally increases to about 240 by 2010. By 2011:Q2 it has generally decreased to about 218.

Note: The rate on C&I loans of less than \$25 million over a market interest rate on an instrument of comparable maturity, adjusted for changes in nonprice loan characteristics.

Source: Survey of Terms of Business Lending.

Growth of M2 and Its Components

Percent, s.a.a.r.

	M2	Liquid deposits	Small time deposits	RMMMF	Curr.
2009	5.0	17.1	-15.7	-22.1	6.9
2010	3.2	11.0	-21.6	-15.6	5.9
2011					
Q1	4.3	9.6	-23.0	-9.1	7.7
Apr.	4.5	7.7	-17.9	-9.6	13.7
May (p)	7.3	10.6	-20.0	4.7	12.3

Note: RMMMF are retail money market mutual funds.

p Preliminary. [Return to table](#)

Source: Federal Reserve Board.

Figure: Interest Rates on Selected Components of M2

Line chart, by percent, 2008 to 2011. Data are monthly. There are three series, Retail money market mutual funds, Small time deposits and Liquid deposits. Retail money market mutual funds begins in January 2008 at about 3.4 and generally decreases to about 1.7 by June 2008. It remains relatively stable here until September 2008. It then generally decreases to about 0 by September 2009 and remains relatively stable here until May 2011. Small time deposits begins in January 2008 at about 3 and generally decreases to about 1.7 by March 2008. It then generally increases to about 2.05 by October 2008 and then generally decreases to about 0.2 by May 2011. Liquid deposits begins in January 2008 at about 2.1 and generally decreases to about 1.1 by March 2008. It then generally increases to about 1.4 by June 2008 and then generally decreases to about 0.3 by May 2011.

Note: Interest rates on small time deposits and liquid deposits reflect the deposit-weighted average interest rate paid at banks and thrifts for each component. May 2011 values are preliminary.

Source: Federal Reserve Board.

[Box:] Debt Subject to Limit

Figure: Debt Subject to Limit

Line chart, by trillions of dollars, December 2010 to September 2011. Data are daily. There is a horizontal line at \$14.294 trillion to represent the statutory debt limit. There is a vertical line in May 2011 to label when Treasury invokes extraordinary measures and a vertical line in August 2011 to label where extraordinary measures are exhausted. The series begins in December 2010 at about 13.78 and generally increases to about 14.294 by May 2011. It remains constant here until August 2011 and then generally increases to about 14.55 by September 2011.

Note: The values from mid-June 2011 on are forecast values.

Figure: Treasury Bill Yield Curve

Line chart, by percent, June 2011 to December 2011. The x-axis represents maturity date. The series begins on June 15, 2011 at about 0.04 and generally decreases to about 0.022 by June 16, 2011. It then generally increases to about 0.036 by June 30, 2011 and then generally decreases to about 0.015 by July 21, 2011. By December 15, 2011 it has generally increased to about 0.10.

Note: Data are current as of June 14, 2011.

Figure: Five-Year CDS Spread on U.S. Government Debt

Line chart, by percent, April 2010 to June 2011. Data are daily. The series begins in April 2010 at about 0.403 and fluctuates, but generally decreases to about 0.345 by July 2010. It then generally increases to about 0.50 by early August 2010 and then generally decreases to about 0.34 by mid-August 2010. From mid-August 2010 to early October 2010 it fluctuates between about 0.335 and 0.397. It then generally decreases to about 0.257 by late October 2010 and then generally increases to about 0.41 by January 2011. By April 2011 it fluctuates, but generally decreases to about 0.27 and by June 2011 it fluctuates, but generally increases to about 0.448.

Note: No data were available for July 20, 2010.

[Box:] Balance Sheet Developments over the Intermeeting Period

Federal Reserve Balance Sheet

Billions of dollars

	Change since last FOMC	Current (06/13/11)
Total assets	140	2,830
Selected assets:		
Liquidity programs for financial firms	±0	+0
Primary, secondary, and seasonal credit	+0	+0
Foreign central bank liquidity swaps	0	0
Term Asset-Backed Securities Loan Facility (TALF)	-4	13
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC	-2	62
Securities held outright†	140	2,605
U.S. Treasury securities	157	1,568
Agency debt securities	-7	119
Agency mortgage-backed securities	-9	918
Total liabilities	140	2,777
Selected liabilities:		
Federal Reserve notes in circulation	10	981
Reverse repurchase agreements	10	66
Foreign official and international accounts	7	63
Others	3	3
Reserve balances of depository institutions**	215	1,657
Term deposits held by depository institutions	+0	5
U.S. Treasury, general account	-95	37
U.S. Treasury, supplementary financing account	+0	5
Funds from AIG asset dispositions, held as agent	0	0
Other deposits	+0	2
Total capital	+0	53

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](#)

† 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

Alternative Scenarios

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

Measure and scenario	2011		2012	2013	2014-15
	H1	H2			
Real GDP					
Extended Tealbook baseline	2.0	3.4	3.5	4.2	3.8
Labor market damage	2.0	3.2	3.2	3.8	3.4
Stronger recovery	2.0	3.9	4.4	4.7	3.1
Weaker recovery	2.0	2.7	2.2	3.2	4.6
Weaker recovery, further disinflation	2.0	2.6	2.1	3.1	4.7
Fiscal consolidation	2.0	3.3	3.4	4.2	3.9
Mild recession in Europe	2.0	3.3	3.2	4.2	3.9
Severe recession in Europe	2.0	2.7	1.6	3.9	4.3
Unemployment rate ¹					
Extended Tealbook baseline	9.0	8.9	8.1	7.1	5.5
Labor market damage	9.0	9.0	8.4	7.6	6.3
Stronger recovery	9.0	8.8	7.6	6.2	5.1
Weaker recovery	9.0	9.0	8.7	8.3	6.4
Weaker recovery, further disinflation	9.0	9.0	8.8	8.4	6.4
Fiscal consolidation	9.0	8.9	8.2	7.2	5.6
Mild recession in Europe	9.0	8.9	8.2	7.3	5.6
Severe recession in Europe	9.0	9.0	8.9	8.2	6.2
Core PCE prices					
Extended Tealbook baseline	1.8	1.5	1.5	1.5	1.6
Labor market damage	1.8	1.6	1.7	1.7	1.8
Stronger recovery	1.8	1.5	1.5	1.6	1.9
Weaker recovery	1.8	1.5	1.4	1.3	1.1
Weaker recovery, further disinflation	1.8	1.4	1.1	.5	.3
Fiscal consolidation	1.8	1.5	1.4	1.4	1.5
Mild recession in Europe	1.8	1.4	1.3	1.4	1.6
Severe recession in Europe	1.8	1.1	.5	1.1	1.5
Federal funds rate ¹					
Extended Tealbook baseline	.1	.1	.2	1.4	3.9
Labor market damage	.1	.1	.4	1.8	3.9
Stronger recovery	.1	.3	1.2	2.8	4.2
Weaker recovery	.1	.1	.1	.1	3.1
Weaker recovery, further disinflation	.1	.1	.1	.1	1.8
Fiscal consolidation	.1	.1	.2	1.0	3.3
Mild recession in Europe	.1	.1	.1	1.2	3.7
Severe recession in Europe	.1	.1	.1	.4	3.1

[Box:] Uncertainty about the Macroeconomic Outlook

Figure: Forecast Disagreement (Interquartile range)

Line chart, 1970 to 2010. There are two series, Unemployment, measured in percentage points, and CPI inflation, measured in annualized percentage points. There is a dashed line at about 0.7 to represent the CPI inflation 20-year average and a dashed line at about 0.45 to represent the Unemployment 20-year average. Unemployment begins in 1970 at about 0.77 and then generally decreases to about 0.29 by 1973. It then generally increases to about 0.77 by 1975 and then generally decreases to about 0.47 by 1978. By 1979 it has generally increased to about 1.26 and by 1994 it has generally decreased to about 0.26. It then generally increases to about 0.55 by 2002 and generally decreases to about 0.2 by 2005. By 2011 it has generally increased to about 0.55. CPI inflation begins in 1980 at about 1.1 and generally increases to about 1.6 by 1984. It then generally decreases to about 0.5 by 2002 and then generally increases to about 1.03 by 2009. By 2010 it has generally decreased to about 0.71 and by 2011 it has generally increased to about 1.0.

Source: Survey of Professional Forecasters.

Figure: Standard Deviation of Residuals from a Statistical Model

Line chart, 1970 to 2010. There are two series, Unemployment, measured in percentage points, and PCE inflation, measured in annualized percentage points. There is a dashed line at about 1.25 to represent the PCE inflation 20-year average and a dashed line at about 0.21 to represent the Unemployment 20-year average. Unemployment begins in 1970 at about 0.29 and generally decreases to about 0.13 by 1973. It then generally increases to about 0.82 by 1975 and generally decreases to about 0.15 by 1978. By 1982 it has generally increased to about 0.61 and by 1984 it has generally decreased to about 0.16. From 1984 to 2000 it fluctuates between 0.11 and 0.27. It then generally increases to about 0.38 by 2002 and then generally decreases to about 0.12 by 2007. By 2009 it has generally increased to about 0.61 and by 2010 it has generally decreased to about 0.26. PCE inflation begins in 1970 at about 1 and generally increases to about 4.65 by 1975. It then generally decreases to about 1.65 by 1978 and then generally increases to about 3.5 by 1980. By 1986 it has generally decreased to about 0.9 and by 1990 it has generally increased to about 2. It then generally decrease to about 0.8 by 1994 and then generally increases to about 3 by 2009. By 2010 it has generally increased to about 1.9.

Source: Staff calculations.

Figure: S&P VIX and Oil VIX

Line chart, by percent, 1990 to 2011. There are two series, Oil VIX and VIX. There is a horizontal line at about 20.5 that represents the VIX 20-year average. Oil VIX begins in 2007 at about 26 and generally increases to about 81 by 2008. It then generally decreases to about 35 by 2011. VIX begins in 1990 at about 21 and generally decreases to about 12 by 1994. It then generally increases to about 30 by 1998 and then generally decreases to about 19 by 2000. By 2002 it has generally increased to about 34 and by 2006 it has generally decreased to about 10. It then generally increases to about 59 by 2008 and then generally decreases to about 17 by 2011.

Source: Standard and Poor's.

Forecast Confidence Intervals and Alternative Scenarios

Confidence Intervals Based on FRB/US Stochastic Simulations

Figure: Real GDP

Line chart, by 4-quarter percent change, 2008 to 2015. There is a horizontal line at zero. There are ten series, Extending Tealbook baseline, Labor market damage, Stronger recovery, Weaker recovery, Weaker recovery, further disinflation, Fiscal consolidation, Mild recession in Europe, Severe recession in Europe, 70 percent interval and 90 percent interval. Extending Tealbook baseline begins in 2008:Q1 at about 2 and generally decreases to about -4.2 by 2009:Q2. It then generally increases to about 3.3 by 2010:Q3 and then generally decreases to about 2.3 by 2011:Q1. By 2014:Q2 it has generally increased to about 4.4 and by 2015:Q4 it has generally decreased to about 3.3. Labor market damage begins in 2011:Q2 at about 2.4 and generally increases to about 4 by 2014:Q2. It then generally decreases to about 3 by 2015:Q4. Stronger recovery begins in 2011:Q2 at about 2.4 and generally increases to about 4.8 by 2013:Q2. It then generally decreases to about 2.4 by 2015:Q4. Weaker recovery begins in 2011:Q2 at about 2.4 and generally decreases to about 2.1 by 2012:Q3. It then generally increases to about 4.7 by 2015:Q1 and remains relatively constant here until 2015:Q4. Weaker recovery, further disinflation begins in 2011:Q2 at about 2.4 and generally decreases to about 2.0 by 2012:Q3. It then generally increases to about 5.0 by 2015:Q4. Fiscal consolidation begins in 2011:Q2 at about 2.4 and generally increases to about 4.5 by 2014:Q2. It then generally decreases to about 3.4 by 2015:Q4. Mild recession in Europe begins in 2011:Q2 at about 2.4 and generally increases to about 4.6 by 2014:Q2. It then generally decreases to about 3.5 by 2015:Q4. Severe recession in Europe begins in 2011:Q2 at about 2.4 and generally decreases to about 1.3 by 2012:Q3. It then generally increases to about 4.8 by 2014:Q3 and then generally decreases to about 4 by 2015:Q4. The other 2 series track each other closely throughout the chart with the 70 percent interval beginning in 2011:Q2 at about 0.1 percent both lesser and greater than the Extended Tealbook baseline and widening out to about 2.0 percent both lesser and greater than the Extended Tealbook baseline by 2015:Q4. The 90 percent interval begins in 2011:Q2 at about 0.2 percent both lesser and greater than the Extended Tealbook baseline and widens out to about 3.25 percent both lesser and greater than the Extended Tealbook baseline by 2015:Q4.

Figure: Unemployment Rate

Line chart, by percent, 2008 to 2015. There are ten series, Extending Tealbook baseline, Labor market damage, Stronger recovery, Weaker recovery, Weaker recovery, further disinflation, Fiscal consolidation, Mild recession in Europe, Severe recession in Europe, 70 percent interval and 90 percent interval. Extending Tealbook baseline begins in 2008:Q1 at about 4.9 and generally increases to about 10.1 by 2009:Q4. It then generally decreases to about 8.9 by 2011:Q2 and then generally increases to about 9.0 by 2011:Q3. It then generally decreases to about 5.5 by 2015:Q4. Labor market damage begins in 2011:Q2 at about 8.9 and generally increases to about 9.05 by 2011:Q4. It then generally decreases to about 6.3 by 2015:Q4. Stronger recovery begins in 2011:Q2 at about 8.9 and generally increases to about 9.0 by 2011:Q3. It then generally decreases to about 5.0 by 2015:Q4. Weaker recovery begins in 2011:Q2 at about 8.9 and generally increases to about 9.0 by 2011:Q4. It then generally decreases to about 6.4 by 2015:Q4. Weaker recovery, further disinflation begins in 2011:Q2 at about 8.9 and generally increases to about 9.0 by 2011:Q4. It then generally decreases to about 6.5 by 2015:Q4. Fiscal consolidation begins in 2011:Q2 at about 8.9 and generally increases to about 9.0 by 2011:Q3. It then generally decreases to about 5.6 by 2015:Q4. Mild recession in Europe begins in 2011:Q2 at about 8.9 and generally increases to about 9.0 by 2011:Q3. It then generally decreases to about 5.55 by 2015:Q4. Severe recession in Europe begins in 2011:Q2 at about 8.9 and generally increases to about 9.0 by 2012:Q4. It then generally decreases to about 6.25 by 2015:Q4. The other 2 series track each other closely throughout the chart with the 70 percent interval beginning in 2011:Q2 at about 0.1 percent both lesser and greater than the Extended Tealbook baseline and widening out to about 1 percent both lesser and greater than the Extended Tealbook baseline by 2015:Q2. The 90 percent interval begins in 2011:Q2 at about 0.2 percent both lesser and greater than the Extended Tealbook baseline and widens out to about 1.5 percent both lesser and greater than the Extended Tealbook baseline by 2015:Q4.

Figure: PCE Prices excluding Food and Energy

Line chart, by 4-quarter percent change, 2008 to 2015. There is a horizontal line at zero. There are ten series, Extending Tealbook baseline, Labor market damage, Stronger recovery, Weaker recovery, Weaker recovery, further disinflation, Fiscal consolidation, Mild recession in Europe, Severe recession in Europe, 70 percent interval and 90 percent interval. Extending Tealbook baseline begins in 2008:Q1 at about 2.3 and generally increases to about 2.55 by 2008:Q2. It then generally decreases to about 1.3 by 2009:Q3 and then generally increases to about 1.75 by 2010:Q1. By 2010:Q4 it has generally decreased to about 0.8 and by 2012:Q1 it has generally increased to about 1.65. It then generally decreases to about 1.45 by 2012:Q3 and then generally increases to about 1.7 by 2015:Q4. Labor market damage begins in 2011:Q2 at about 0.9 and generally increases to about 1.75 by 2012:Q1. It then generally decreases to about 1.55 by 2012:Q3 and then generally increases to about 1.85 by 2015:Q4. Stronger recovery begins in 2011:Q2 at about 0.9 and generally increases to about 1.65 by 2012:Q1. It then generally decreases to about 1.45 by 2012:Q3 and then generally increases to about 2.1 by 2015:Q4. Weaker recovery begins in 2011:Q2 at about 0.9 and generally increases to about 1.65 by 2012:Q1. It then generally decreases to about 1.1 by 2015:Q4. Weaker recovery, further disinflation begins in 2011:Q2 at about 0.9 and generally increases to about 1.6 by 2011:Q4. It then generally decreases to about 0.25 by 2014:Q4 and then generally increases to about 0.5 by 2015:Q4. Fiscal consolidation begins in 2011:Q2 at about 0.9 and generally increases to about 1.6 by 2011:Q4. It then generally decreases to about 1.3 by 2014:Q1 and then generally increases to about 1.55 by 2015:Q4. Mild recession in Europe begins in 2011:Q2 at about 0.9 and generally increases to about 1.6 by 2011:Q4. It then generally decreases to about 1.25 by 2012:Q3 and then generally increases to about 1.7 by 2015:Q4. Severe recession in Europe begins in 2011:Q2 at about 0.9 and generally increases to about 1.5 by 2011:Q4. It then generally decreases to about 0.5 by 2012:Q4 and then generally increases to about 1.6 by 2015:Q4. The other 2 series track each other closely throughout the chart with the 70 percent interval beginning in 2011:Q2 at about 0.05 percent both lesser and greater than the Extended Tealbook baseline and widening out to about 1 percent both lesser and greater than the Extended Tealbook baseline by 2015:Q4. The 90 percent interval begins in 2011:Q2 at about 0.1 percent both lesser and greater than the Extended Tealbook baseline and widens out to about 1.5 percent both lesser and greater than the Extended Tealbook baseline by 2015:Q4.

Figure: Federal Funds Rate

Line chart, by percent, 2008 to 2015. There are ten series, Extending Tealbook baseline, Labor market damage, Stronger recovery, Weaker recovery, Weaker recovery, further disinflation, Fiscal consolidation, Mild recession in Europe, Severe recession in Europe, 70 percent interval and 90 percent interval. Extending Tealbook baseline begins in 2008:Q1 at about 3.2 and generally decreases to about 0.13 by 2010:Q1. It remains relatively stable here until 2012:Q3. It then generally increases to about 3.8 by 2015:Q4. Labor market damage increases begins in 2011:Q2 at about 0.13 and remains stable here until 2012:Q2. It then generally increases to about 3.9 by 2015:Q4. Stronger recovery begins in 2011:Q2 at about 0.13. It then generally increases to about 4.25 by 2015:Q2 and then generally decreases to about 4.1 by 2015:Q4. Weaker recovery begins in 2011:Q2 at about 0.13 and remains stable here until 2014:Q1. It then generally increases to about 3.0 by 2015:Q4. Weaker recovery, further disinflation begins in 2011:Q2 at about 0.13 and remains stable here until 2014:Q3. It then generally increases to about 1.7 by 2015:Q4. Fiscal consolidation begins in 2011:Q2 at about 0.13 and remains relatively stable here until 2013:Q1. It then generally increases to about 3.25 by 2015:Q4. Mild recession in Europe begins in 2011:Q2 at about 0.13 and remains stable here until 2013:Q1. It then generally increases to about 3.7 by 2015:Q4. Severe recession in Europe begins in 2011:Q2 at about 0.13 and remains relatively stable here until 2013:Q3. It then generally increases to about 3.0 by 2015:Q4. The other 2 series track each other closely throughout the chart with the 70 percent interval beginning in 2012:Q3 at about 1 percent both lesser and greater than the Extended Tealbook baseline and widening out to about 2 percent both lesser and greater than the Extended Tealbook baseline by 2015:Q4. The 90 percent interval begins in 2012:Q3 at about 1.25 percent both lesser and greater than the Extended Tealbook baseline and widens out to about 3 percent both lesser and greater than the Extended Tealbook baseline by 2015:Q4.

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

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

Measure	2011	2012	2013	2014	2015
Real GDP (percent change, Q4 to Q4)					
Projection	2.7	3.5	4.2	4.3	3.3
Confidence interval					
Tealbook forecast errors	1.4-4.0	1.7-5.3	...	...	...
FRB/US stochastic simulations	1.7-3.8	1.7-5.2	2.1-5.9	2.2-6.5	1.3-5.6

<i>Civilian unemployment rate (percent, Q4)</i>					
Projection	8.9	8.1	7.1	6.1	5.5
Confidence interval					
Tealbook forecast errors	8.4-9.4	7.3-8.9	...	...	...
FRB/US stochastic simulations	8.4-9.3	7.3-9.0	6.0-8.3	5.1-7.3	4.4-6.6
<i>PCE prices, total (percent change, Q4 to Q4)</i>					
Projection	2.3	1.5	1.5	1.6	1.7
Confidence interval					
Tealbook forecast errors	1.6-3.1	.2-2.7	...	...	...
FRB/US stochastic simulations	1.6-3.1	.3-2.7	.2-2.7	.2-2.8	.4-3.0
<i>PCE prices excluding food and energy (percent change, Q4 to Q4)</i>					
Projection	1.7	1.5	1.5	1.6	1.7
Confidence interval					
Tealbook forecast errors	1.2-2.1	.8-2.2	...	...	...
FRB/US stochastic simulations	1.3-2.1	.7-2.3	.6-2.4	.6-2.5	.7-2.7
<i>Federal funds rate (percent, Q4)</i>					
Projection	.1	.2	1.4	3.1	3.9
Confidence interval					
FRB/US stochastic simulations	.1-.7	.1-2.0	.1-3.6	1.2-5.1	2.0-5.9

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 June 10, 2011)

Figure: Real GDP

Line chart, by percent change, annual rate, 2008 to 2012. There are two series, Blue Chip consensus and Staff forecast. Blue chip consensus begins in 2008:Q1 at about -0.8 and generally increases to about 0.6 by 2008:Q2. It then generally decreases to about -7 by 2008:Q4 and then generally increases to about 5 by 2009:Q4. By 2010:Q2 it has generally decreased to about 1.8 and by 2010:Q4 it has generally increased to about 3. It then generally decreases to about 1.9 by 2011:Q1 and then generally increases to about 3.2 by 2012:Q4. Staff forecast begins in 2008:Q1 at about -0.8 and generally increases to about 0.6 by 2008:Q2. It then generally decreases to about -7 by 2008:Q4 and then generally increases to about 5 by 2009:Q4. By 2010:Q2 it has generally decreased to about 1.8 and by 2010:Q4 it has generally increased to about 3. It then generally decreases to about 2 by 2011:Q2 and then generally increases to about 4 by 2011:Q3. By 2011:Q4 it has generally decreased to about 2.7 and by 2012:Q4 it has generally increased to about 3.9. There is a shaded area that represents the area between the Blue Chip top 10 and bottom 10 averages. It begins in 2011:Q1 at about 0.1 percent both lesser and greater than the Blue Chip consensus and widens out to about 1 percent both lesser and greater than the Blue Chip consensus by 2011:Q3. It then generally narrows to about 0.8 percent both lesser and greater than the Blue Chip consensus by 2012:Q4.

Figure: Real PCE

Line chart, by percent change, annual rate, 2008 to 2012. There are two series, Blue Chip consensus and Staff forecast. Blue chip consensus begins in 2008:Q1 at about -0.9 and generally increases to about 0.1 by 2008:Q2. It then generally decreases to about -3.7 by 2008:Q3 and then generally increases to about 4.0 by 2010:Q4. By 2011:Q1 it has generally decreased to about 2.0 and by 2012:Q4 it has generally increased to about 2.95. Staff forecast begins in 2008:Q1 at about -0.9 and generally increases to about 0.1 by 2008:Q2. It then generally decreases to about -3.7 by 2008:Q3 and then generally increases to about 4.0 by 2010:Q4. By 2011:Q2 it has generally decreased to about 1.3 and by 2012:Q4 it has generally increased to about 3.02. There is a shaded area that represents the area between the Blue Chip top 10 and bottom 10 averages. It begins in 2011:Q1 at about 0.1 percent both lesser and greater than the Blue Chip consensus and widens out to about 0.8 percent both lesser and greater than the Blue Chip consensus by 2012:Q4.

Figure: Unemployment Rate

Line chart, by percent change, annual rate, 2008 to 2012. There are two series, Blue Chip consensus and Staff forecast. Blue chip consensus begins in 2008:Q1 at about 5 and generally increases to about 10 by 2009:Q4. It then generally decreases to about 9.5 by 2010:Q2 and remains constant here until 2010:Q4. By 2011:Q1 it has generally decreased to about 8.9 and by 2011:Q2 it has generally increased to about 9.0. It then generally decreases to about 8.1 by 2012:Q4. Staff forecast

begins in 2008:Q1 at about 5 and generally increases to about 10 by 2009:Q4. It then generally decreases to about 9.5 by 2010:Q2 and remains constant here until 2010:Q4. By 2012:Q4 it has generally decreased to about 8.0. There is a shaded area that represents the area between the Blue Chip top 10 and bottom 10 averages. It begins in 2011:Q1 at about 0.1 percent both lesser and greater than the Blue Chip consensus and widens out to about 0.5 percent both lesser and greater than the Blue Chip consensus by 2012:Q4.

Figure: Consumer Price Index

Line chart, by percent change, annual rate, 2008 to 2012. There are two series, Blue Chip consensus and Staff forecast. Blue chip consensus begins in 2008:Q1 at about 4.4 and increases to about 6.3 by 2008:Q3. It then decreases to about -9.5 by 2008:Q4 and then increases to about 3.9 by 2009:Q3. By 2010:Q2 it has generally decreased to about -0.7 and by 2011:Q1 it has generally increased to about 5.0. It then generally decreases to about 2.1 by 2011:Q3 and remains relatively stable here until 2012:Q4. Staff forecast begins in 2008:Q1 at about 4.4 and increases to about 6.3 by 2008:Q3. It then decreases to about -9.5 by 2008:Q4 and then increases to about 3.9 by 2009:Q3. By 2010:Q2 it has generally decreased to about -0.7 and by 2011:Q1 it has generally increased to about 5.0. It then generally decreases to about 0.5 by 2011:Q3 and then increases to about 1.5 by 2011:Q4. It remains constant here until 2012:Q4. There is a shaded area that represents the area between the Blue Chip top 10 and bottom 10 averages. It begins in 2011:Q1 at about 0.1 percent both lesser and greater than the Blue Chip consensus and widens out to about 1.2 percent both lesser and greater than the Blue Chip consensus by 2011:Q4. It then generally narrows to about 0.8 percent both lesser and greater than the Blue Chip consensus by 2012:Q4.

Figure: Treasury Bill Rate

Line chart, by percent, 2008 to 2012. There are two series, Blue Chip consensus and Staff forecast. Blue chip consensus begins in 2008:Q1 at about 2.02 and generally decreases to about 0.02 by 2009:Q4. It generally increases to about 0.1 by 2010:Q3 and then generally decreases to about 0.02 by 2011:Q2. By 2012:Q4 it has generally increased to about 1.7. Staff forecast begins in 2008:Q1 at about 2.02 and generally decreases to about 0.02 by 2009:Q4. It generally increases to about 0.1 by 2010:Q3 and then generally decreases to about 0.02 by 2011:Q2. By 2012:Q4 it has generally increased to about 0.4. There is a shaded area that represents the area between the Blue Chip top 10 and bottom 10 averages. It begins in 2011:Q1 at about 0.1 percent both lesser and greater than the Blue Chip consensus and widens out to about 1.0 percent both lesser and greater than the Blue Chip consensus by 2012:Q4.

Figure: 10-Year Treasury Yield

Line chart, by percent, 2008 to 2012. There are two series, Blue Chip consensus and Staff forecast. Blue chip consensus begins in 2008:Q1 at about 3.6 and generally increases to about 3.9 by 2008:Q2. It then generally decreases to about 2.7 by 2009:Q1 and then generally increases to about 3.7 by 2010:Q1. By 2010:Q3 it has generally decreased to about 2.75 and by 2012:Q4 it has generally increased to about 4.4. Staff forecast begins in 2008:Q1 at about 3.6 and generally increases to about 3.9 by 2008:Q2. It then generally decreases to about 2.7 by 2009:Q1 and then generally increases to about 3.7 by 2010:Q1. By 2010:Q3 it has generally decreased to about 2.75 and by 2011:Q1 it has generally increased to about 3.5. It then generally decreases to about 3.1 by 2011:Q3 and then generally increases to about 4.1 by 2012:Q4. There is a shaded area that represents the area between the Blue Chip top 10 and bottom 10 averages. It begins in 2011:Q1 at about 0.05 percent both lesser and greater than the Blue Chip consensus and widens out to about 0.5 percent both lesser and greater than the Blue Chip consensus by 2012:Q4.

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

June 2011 Tealbook A Tables and Charts

Greensheets

Changes in GDP, Prices, and Unemployment

Changes in GDP, Prices, and Unemployment

(Percent, annual rate except as noted)

Interval	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate ¹	
	04/20/11	06/15/11	04/20/11	06/15/11	04/20/11	06/15/11	04/20/11	06/15/11	04/20/11	06/15/11
<i>Quarterly</i>										
2010: Q1	4.8	4.8	3.7	3.7	2.1	2.1	1.2	1.2	9.7	9.7
Q2	3.7	3.7	1.7	1.7	.0	.0	1.0	1.0	9.6	9.6
Q3	4.6	4.6	2.6	2.6	.8	.8	.5	.5	9.6	9.6
Q4	3.5	3.5	3.1	3.1	1.7	1.7	.4	.4	9.6	9.6
2011: Q1	3.6	4.1	1.7	2.1	3.8	3.8	1.4	1.4	8.9	8.9
Q2	6.1	5.8	3.1	1.9	2.8	3.4	1.5	2.2	8.9	9.0
Q3	5.4	5.6	4.1	3.9	1.2	.8	1.3	1.7	8.8	9.0
Q4	5.1	4.3	3.8	2.9	1.2	1.4	1.2	1.4	8.7	8.9
2012: Q1	5.5	4.7	4.0	3.1	1.2	1.4	1.3	1.5	8.5	8.8
Q2	5.6	4.8	4.2	3.3	1.2	1.5	1.4	1.5	8.2	8.6
Q3	5.6	5.2	4.2	3.7	1.2	1.5	1.4	1.5	7.9	8.4
Q4	5.7	5.4	4.3	3.9	1.3	1.5	1.4	1.5	7.7	8.1
<i>Two-quarter²</i>										
2010: Q2	4.3	4.3	2.7	2.7	1.0	1.0	1.1	1.1	-.4	-.4
Q4	4.1	4.1	2.8	2.8	1.2	1.2	.5	.5	.0	.0
2011: Q2	4.8	4.9	2.4	2.0	3.3	3.6	1.4	1.8	-.7	-.6
Q4	5.3	4.9	4.0	3.4	1.2	1.1	1.3	1.5	-.2	-.1
2012: Q2	5.6	4.8	4.1	3.2	1.2	1.5	1.4	1.5	-.5	-.3
Q4	5.7	5.3	4.2	3.8	1.2	1.5	1.4	1.5	-.5	-.5
<i>Four-quarter³</i>										
2009:Q4	.6	.6	.2	.2	1.5	1.5	1.7	1.7	3.1	3.1
2010:Q4	4.2	4.2	2.8	2.8	1.1	1.1	.8	.8	-.4	-.4
2011:Q4	5.0	4.9	3.2	2.7	2.2	2.3	1.4	1.7	-.9	-.7
2012:Q4	5.6	5.1	4.2	3.5	1.2	1.5	1.4	1.5	-1.0	-.8
<i>Annual</i>										
2009	-1.7	-1.7	-2.6	-2.6	.2	.2	1.5	1.5	9.3	9.3
2010	3.8	3.8	2.9	2.9	1.7	1.7	1.3	1.3	9.6	9.6
2011	4.5	4.5	2.8	2.6	2.1	2.2	1.1	1.3	8.8	9.0
2012	5.5	5.0	4.0	3.3	1.3	1.5	1.3	1.5	8.1	8.5

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

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

Item	2010				2011				2012				2010 ¹	2011 ¹	2012 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Real GDP	3.7	1.7	2.6	3.1	2.1	1.9	3.9	2.9	3.1	3.3	3.7	3.9	2.8	2.7	3.5
<i>Previous Tealbook</i>	3.7	1.7	2.6	3.1	1.7	3.1	4.1	3.8	4.0	4.2	4.2	4.3	2.8	3.2	4.2
Final sales	1.1	.9	.9	6.7	.8	2.5	2.6	3.5	3.2	3.2	3.1	3.4	2.4	2.4	3.2
<i>Previous Tealbook</i>	1.1	.9	.9	6.7	.5	3.4	3.0	4.9	3.6	3.9	3.8	4.2	2.4	2.9	3.9
Priv. dom. final purch.	2.1	4.4	2.3	4.4	2.2	2.1	3.4	3.0	2.6	3.1	3.5	3.7	3.3	2.7	3.2
<i>Previous Tealbook</i>	2.1	4.4	2.3	4.2	2.3	3.6	3.8	4.0	3.7	4.2	4.4	4.6	3.2	3.4	4.2
Personal cons. expend.	1.9	2.2	2.4	4.0	2.3	1.5	2.6	2.4	2.5	2.7	2.9	3.1	2.6	2.2	2.8
<i>Previous Tealbook</i>	1.9	2.2	2.4	4.0	2.5	3.0	3.1	3.1	3.3	3.7	3.9	4.0	2.6	2.9	3.7
Durables	8.8	6.8	7.6	21.1	9.0	-.7	7.8	7.1	9.9	10.5	11.6	10.5	10.9	5.7	10.6
Nondurables	4.2	1.9	2.5	4.1	1.1	.1	1.5	1.1	.8	.7	.5	.6	3.2	1.0	.7
Services	.1	1.6	1.6	1.5	1.7	2.3	2.2	2.1	1.9	2.2	2.3	2.7	1.2	2.1	2.3
Residential investment	-12.3	25.7	-27.3	3.3	-2.9	1.3	1.6	2.7	3.0	5.5	7.3	8.3	-4.6	.7	6.0
<i>Previous Tealbook</i>	-12.3	25.7	-27.3	3.3	-1.8	.4	2.6	5.3	6.1	7.8	9.3	11.8	-4.6	1.6	8.7
Business fixed invest.	7.8	17.2	10.0	7.7	2.9	6.8	9.5	7.2	3.7	5.6	6.9	6.8	10.6	6.6	5.7
<i>Previous Tealbook</i>	7.8	17.2	10.0	7.7	2.2	8.6	9.2	10.2	5.7	7.0	7.3	7.3	10.6	7.5	6.8
Equipment & software	20.4	24.8	15.4	7.7	10.1	7.0	13.2	9.5	5.6	7.8	9.3	9.2	16.9	10.0	8.0
<i>Previous Tealbook</i>	20.4	24.8	15.4	7.7	10.1	12.2	12.6	13.4	8.0	9.3	9.6	9.7	16.9	12.1	9.1
Nonres. structures	-17.8	-.5	-3.5	7.6	-15.2	6.1	-.6	.7	-1.8	-.7	-.3	-.3	-4.0	-2.6	-.8
<i>Previous Tealbook</i>	-17.8	-.5	-3.5	7.6	-17.3	-1.4	-.7	.8	-1.4	-.3	.1	.1	-4.0	-5.0	-.4
Net exports ²	-338	-449	-505	-398	-393	-364	-374	-338	-305	-283	-273	-258	-422	-367	-279
<i>Previous Tealbook</i> ²	-338	-449	-505	-398	-393	-396	-407	-357	-336	-321	-316	-302	-422	-388	-319
Exports	11.4	9.1	6.8	8.6	7.8	10.4	10.3	9.7	9.5	9.0	8.7	8.6	9.0	9.5	9.0
Imports	11.2	33.5	16.8	-12.6	5.5	2.6	10.6	1.3	1.7	3.6	5.7	4.9	11.0	4.9	4.0
Gov't. cons. & invest.	-1.6	3.9	3.9	-1.7	-5.6	-.5	1.1	-.4	-.3	-.3	-.2	-.2	1.1	-1.4	-.2
<i>Previous Tealbook</i>	-1.6	3.9	3.9	-1.7	-7.0	2.4	1.3	-.3	-.3	.0	.1	-.1	1.1	-1.0	-.1
Federal	1.8	9.1	8.8	-.3	-7.9	2.1	4.7	-.4	-.4	-.7	-.7	-1.2	4.8	-.5	-.8
Defense	.4	7.4	8.5	-2.2	-11.7	1.6	7.3	.1	.4	.0	.0	-.2	3.4	-.9	.1
Nondefense	5.0	12.8	9.5	3.7	.1	3.3	-.2	-1.3	-2.1	-2.2	-2.2	-3.3	7.7	.5	-2.4
State & local	-3.8	.6	.7	-2.6	-3.9	-2.3	-1.3	-.5	-.1	.0	.2	.4	-1.3	-2.0	.1
Change in bus. inventories ²	44	69	121	16	57	38	76	58	57	60	78	93	63	57	72
<i>Previous Tealbook</i> ²	44	69	121	16	51	44	79	46	58	66	78	80	63	55	70
Nonfarm ²	37	61	117	15	59	35	73	55	54	57	74	90	57	55	69
Farm ²	8	8	5	1	-1	4	4	4	4	4	4	4	5	2	4

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

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	2004	2005	2006	2007	2008	2009	2010	2011	2012
Real GDP	3.1	2.7	2.4	2.3	-2.8	.2	2.8	2.7	3.5
<i>Previous Tealbook</i>	3.1	2.7	2.4	2.3	-2.8	.2	2.8	3.2	4.2
Final sales	2.8	2.7	2.8	2.5	-1.9	-.3	2.4	2.4	3.2

<i>Previous Tealbook</i>	2.8	2.7	2.8	2.5	-1.9	-.3	2.4	2.9	3.9
Priv. dom. final purch.	4.2	3.1	2.5	1.3	-3.8	-2.0	3.3	2.7	3.2
<i>Previous Tealbook</i>	4.2	3.1	2.5	1.3	-3.8	-2.0	3.2	3.4	4.2
Personal cons. expend.	3.5	2.7	3.3	1.7	-1.9	.2	2.6	2.2	2.8
<i>Previous Tealbook</i>	3.5	2.7	3.3	1.7	-1.9	.2	2.6	2.9	3.7
Durables	5.5	2.1	6.3	3.9	-12.3	4.8	10.9	5.7	10.6
Nondurables	3.0	3.3	3.2	.8	-2.9	1.1	3.2	1.0	.7
Services	3.4	2.6	2.8	1.7	.3	-.8	1.2	2.1	2.3
Residential investment	6.6	5.3	-15.7	-20.7	-24.6	-13.4	-4.6	.7	6.0
<i>Previous Tealbook</i>	6.6	5.3	-15.7	-20.7	-24.6	-13.4	-4.6	1.6	8.7
Business fixed invest.	7.0	4.4	7.8	8.2	-8.3	-12.7	10.6	6.6	5.7
<i>Previous Tealbook</i>	7.0	4.4	7.8	8.2	-8.3	-12.7	10.6	7.5	6.8
Equipment & software	8.8	6.1	6.0	4.3	-11.8	-4.9	16.9	10.0	8.0
<i>Previous Tealbook</i>	8.8	6.1	6.0	4.3	-11.8	-4.9	16.9	12.1	9.1
Nonres. structures	1.7	-.1	13.0	17.3	-1.5	-26.5	-4.0	-2.6	-.8
<i>Previous Tealbook</i>	1.7	-.1	13.0	17.3	-1.5	-26.5	-4.0	-5.0	-.4
Net exports ¹	-688	-723	-729	-655	-504	-363	-422	-367	-279
<i>Previous Tealbook</i> ¹	-688	-723	-729	-655	-504	-363	-422	-388	-319
Exports	7.1	6.7	10.2	10.1	-2.9	-.1	9.0	9.5	9.0
Imports	10.9	5.2	4.1	.7	-6.0	-7.2	11.0	4.9	4.0
Gov't. cons. & invest.	.6	.7	1.5	1.9	3.1	.8	1.1	-1.4	-.2
<i>Previous Tealbook</i>	.6	.7	1.5	1.9	3.1	.8	1.1	-1.0	-.1
Federal	2.3	1.2	2.2	3.1	9.2	3.6	4.8	-.5	-.8
Defense	2.4	.4	4.4	2.6	9.5	3.3	3.4	-.9	.1
Nondefense	2.3	2.6	-2.3	4.2	8.5	4.5	7.7	.5	-2.4
State & local	-.4	.4	1.2	1.2	-.4	-1.0	-1.3	-2.0	.1
Change in bus. inventories ¹	66	50	59	28	-38	-113	63	57	72
<i>Previous Tealbook</i> ¹	66	50	59	28	-38	-113	63	55	70
Nonfarm ¹	58	50	63	29	-39	-117	57	55	69
Farm ¹	8	0	-4	-1	1	3	5	2	4

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

Contributions to Changes in Real Gross Domestic Product

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

Item	2010				2011				2012				2010 ¹	2011 ¹	2012 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Real GDP	3.7	1.7	2.6	3.1	2.1	1.9	3.9	2.9	3.1	3.3	3.7	3.9	2.8	2.7	3.5
<i>Previous Tealbook</i>	3.7	1.7	2.6	3.1	1.7	3.1	4.1	3.8	4.0	4.2	4.2	4.3	2.8	3.2	4.2
Final sales	1.1	.9	.9	6.5	.8	2.5	2.7	3.5	3.2	3.2	3.1	3.4	2.4	2.4	3.2
<i>Previous Tealbook</i>	1.1	.9	.9	6.5	.5	3.3	3.0	4.8	3.6	3.9	3.8	4.2	2.4	2.9	3.9
Priv. dom. final purch.	1.7	3.6	1.9	3.6	1.8	1.7	2.8	2.5	2.2	2.6	2.9	3.0	2.7	2.2	2.7
<i>Previous Tealbook</i>	1.7	3.6	1.9	3.5	1.9	3.0	3.2	3.3	3.1	3.5	3.7	3.8	2.7	2.8	3.5
Personal cons. expend.	1.3	1.5	1.7	2.8	1.6	1.0	1.9	1.7	1.7	1.9	2.0	2.2	1.9	1.6	2.0
<i>Previous Tealbook</i>	1.3	1.5	1.7	2.8	1.7	2.2	2.2	2.2	2.4	2.6	2.7	2.8	1.9	2.1	2.6
Durables	.6	.5	.5	1.5	.7	-.1	.6	.5	.7	.8	.9	.8	.8	.4	.8

Nondurables	.7	.3	.4	.7	.2	.0	.3	.2	.1	.1	.1	.1	.5	.2	.1
Services	.0	.8	.7	.7	.8	1.1	1.0	1.0	.9	1.0	1.1	1.3	.6	1.0	1.1
Residential investment	-.3	.6	-.8	.1	-.1	.0	.0	.1	.1	.1	.2	.2	-.1	.0	.1
<i>Previous Tealbook</i>	-.3	.6	-.8	.1	.0	.0	.1	.1	.1	.2	.2	.3	-.1	.0	.2
Business fixed invest.	.7	1.5	.9	.7	.3	.7	.9	.7	.4	.6	.7	.7	1.0	.6	.6
<i>Previous Tealbook</i>	.7	1.5	.9	.7	.2	.8	.9	1.0	.6	.7	.7	.7	1.0	.7	.7
Equipment & software	1.2	1.5	1.0	.5	.7	.5	.9	.7	.4	.6	.7	.7	1.1	.7	.6
<i>Previous Tealbook</i>	1.2	1.5	1.0	.5	.7	.9	.9	1.0	.6	.7	.7	.7	1.1	.9	.7
Nonres. structures	-.5	.0	-.1	.2	-.4	.2	.0	.0	.0	.0	.0	.0	-.1	-.1	.0
<i>Previous Tealbook</i>	-.5	.0	-.1	.2	-.5	.0	.0	.0	.0	.0	.0	.0	-.1	-.1	.0
Net exports	-.3	-3.5	-1.7	3.3	.1	.9	-.4	1.1	1.0	.7	.3	.4	-.6	.4	.6
<i>Previous Tealbook</i>	-.3	-3.5	-1.7	3.3	.1	-.1	-.4	1.6	.6	.4	.1	.4	-.6	.3	.4
Exports	1.3	1.1	.8	1.1	1.0	1.3	1.4	1.3	1.3	1.3	1.2	1.2	1.1	1.3	1.3
Imports	-1.6	-4.6	-2.5	2.2	-.9	-.4	-1.8	-.2	-.3	-.6	-1.0	-.8	-1.6	-.8	-.7
Gov't. cons. & invest.	-.3	.8	.8	-.3	-1.2	-.1	.2	-.1	.0	.0	.0	.0	.2	-.3	.0
<i>Previous Tealbook</i>	-.3	.8	.8	-.3	-1.5	.5	.3	-.1	-.1	.0	.0	.0	.2	-.2	.0
Federal	.2	.7	.7	.0	-.7	.2	.4	.0	.0	-.1	-.1	-.1	.4	.0	-.1
Defense	.0	.4	.5	-.1	-.7	.1	.4	.0	.0	.0	.0	.0	.2	-.1	.0
Nondefense	.1	.3	.3	.1	.0	.1	.0	.0	-.1	-.1	-.1	-.1	.2	.0	-.1
State & local	-.5	.1	.1	-.3	-.5	-.3	-.2	-.1	.0	.0	.0	.1	-.2	-.2	.0
Change in bus. inventories	2.6	.8	1.6	-3.4	1.3	-.6	1.2	-.6	.0	.1	.6	.5	.4	.3	.3
<i>Previous Tealbook</i>	2.6	.8	1.6	-3.4	1.1	-.3	1.1	-1.0	.4	.2	.4	.1	.4	.2	.3
Nonfarm	2.6	.8	1.7	-3.3	1.4	-.8	1.2	-.6	.0	.1	.5	.5	.5	.3	.3
Farm	.1	.0	-.1	-.2	-.1	.2	.0	.0	.0	.0	.0	.0	-.1	.0	.0

1. Change from fourth quarter of previous year to fourth quarter of year indicated. [Return to table](#)

Changes in Prices and Costs

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

Item	2010				2011				2012				2010 ¹ 2011 ¹ 2012 ¹		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
GDP chain-wt. price index	1.0	1.9	2.1	.4	2.0	3.8	1.6	1.3	1.6	1.5	1.5	1.5	1.3	2.2	1.5
<i>Previous Tealbook</i>	1.0	1.9	2.1	.4	1.9	2.9	1.2	1.2	1.5	1.4	1.4	1.4	1.3	1.8	1.4
PCE chain-wt. price index	2.1	.0	.8	1.7	3.8	3.4	.8	1.4	1.4	1.5	1.5	1.5	1.1	2.3	1.5
<i>Previous Tealbook</i>	2.1	.0	.8	1.7	3.8	2.8	1.2	1.2	1.2	1.2	1.2	1.3	1.1	2.2	1.2
Energy	16.4	-17.5	5.4	24.3	40.6	17.1	-13.1	1.0	1.0	1.3	1.0	.5	5.9	9.6	1.0
<i>Previous Tealbook</i>	16.4	-17.5	5.4	24.3	40.6	18.8	-2.1	-.5	-.7	-1.0	-1.4	-1.1	5.9	12.9	-1.1
Food	1.8	1.6	.3	1.4	6.3	6.7	3.0	2.0	1.4	1.3	1.4	1.4	1.3	4.5	1.4
<i>Previous Tealbook</i>	1.8	1.6	.3	1.4	6.4	5.5	2.9	2.2	1.4	1.3	1.4	1.4	1.3	4.3	1.4
Ex. food & energy	1.2	1.0	.5	.4	1.4	2.2	1.7	1.4	1.5	1.5	1.5	1.5	.8	1.7	1.5
<i>Previous Tealbook</i>	1.2	1.0	.5	.4	1.4	1.5	1.3	1.2	1.3	1.4	1.4	1.4	.8	1.4	1.4
Ex. food & energy, market based	.7	1.0	1.1	.3	1.3	2.4	1.7	1.2	1.4	1.4	1.4	1.4	.8	1.6	1.4
<i>Previous Tealbook</i>	.7	1.0	1.1	.3	1.3	1.4	1.2	1.1	1.2	1.2	1.3	1.3	.8	1.2	1.2
CPI	1.3	-.5	1.4	2.6	5.2	4.2	.6	1.5	1.5	1.5	1.5	1.5	1.2	2.8	1.5
<i>Previous Tealbook</i>	1.3	-.5	1.4	2.6	5.2	3.7	1.2	1.2	1.2	1.2	1.2	1.3	1.2	2.8	1.2
Ex. food & energy	.0	.8	1.1	.6	1.7	2.4	1.9	1.4	1.5	1.6	1.6	1.6	.6	1.8	1.6
<i>Previous Tealbook</i>	.0	.8	1.1	.6	1.7	1.8	1.3	1.2	1.4	1.4	1.5	1.5	.6	1.5	1.5

ECI, hourly compensation ²	2.6	1.8	1.8	2.2	2.1	2.2	2.3	2.3	2.5	2.5	2.6	2.6	2.1	2.2	2.6
<i>Previous Tealbook</i> ²	2.6	1.8	1.8	1.8	2.5	2.2	2.3	2.3	3.0	2.7	2.7	2.7	2.1	2.3	2.8
Nonfarm business sector															
Output per hour	4.6	-1.7	2.3	2.9	2.2	-8	2.4	1.5	1.8	1.6	1.7	1.9	2.0	1.3	1.7
<i>Previous Tealbook</i>	4.6	-1.7	2.3	2.9	.8	.0	2.0	1.5	1.7	1.8	1.8	1.9	2.0	1.1	1.8
Compensation per hour	-2	3.1	2.5	.1	2.5	1.7	2.1	2.2	2.6	2.4	2.4	2.5	1.4	2.1	2.5
<i>Previous Tealbook</i>	-2	3.1	2.5	2.1	2.8	1.7	2.1	2.2	2.8	2.6	2.6	2.7	1.9	2.2	2.7
Unit labor costs	-4.6	4.9	.1	-2.7	.3	2.5	-.3	.6	.8	.9	.7	.7	-.6	.8	.7
<i>Previous Tealbook</i>	-4.6	4.9	.1	-.8	2.0	1.7	.1	.7	1.1	.8	.8	.8	-.2	1.1	.9
Core goods imports chain-wt. price index ³	4.2	3.1	-.8	4.3	8.1	7.2	3.5	1.5	1.4	1.5	1.5	1.5	2.7	5.0	1.4
<i>Previous Tealbook</i> ³	4.2	3.1	-.8	4.3	8.2	5.7	3.6	2.0	1.5	1.4	1.4	1.4	2.7	4.9	1.4

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

Changes in Prices and Costs

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

Item	2004	2005	2006	2007	2008	2009	2010	2011	2012
GDP chain-wt. price index	3.2	3.5	2.9	2.6	2.1	.5	1.3	2.2	1.5
<i>Previous Tealbook</i>	3.2	3.5	2.9	2.6	2.1	.5	1.3	1.8	1.4
PCE chain-wt. price index	3.0	3.3	1.9	3.5	1.7	1.5	1.1	2.3	1.5
<i>Previous Tealbook</i>	3.0	3.3	1.9	3.5	1.7	1.5	1.1	2.2	1.2
Energy	18.6	21.5	-3.7	19.4	-9.0	2.7	5.9	9.6	1.0
<i>Previous Tealbook</i>	18.6	21.5	-3.7	19.4	-9.0	2.7	5.9	12.9	-1.1
Food	2.7	1.5	1.7	4.8	6.9	-1.6	1.3	4.5	1.4
<i>Previous Tealbook</i>	2.7	1.5	1.7	4.8	6.9	-1.6	1.3	4.3	1.4
Ex. food & energy	2.2	2.3	2.3	2.4	2.0	1.7	.8	1.7	1.5
<i>Previous Tealbook</i>	2.2	2.3	2.3	2.4	2.0	1.7	.8	1.4	1.4
Ex. food & energy, market based	1.9	2.1	2.2	2.2	2.2	1.7	.8	1.6	1.4
<i>Previous Tealbook</i>	1.9	2.1	2.2	2.2	2.2	1.7	.8	1.2	1.2
CPI	3.4	3.7	2.0	4.0	1.6	1.5	1.2	2.8	1.5
<i>Previous Tealbook</i>	3.4	3.7	2.0	4.0	1.6	1.5	1.2	2.8	1.2
Ex. food & energy	2.2	2.1	2.7	2.3	2.0	1.7	.6	1.8	1.6
<i>Previous Tealbook</i>	2.2	2.1	2.7	2.3	2.0	1.7	.6	1.5	1.5
ECI, hourly compensation ¹	3.8	2.9	3.2	3.0	2.4	1.2	2.1	2.2	2.6
<i>Previous Tealbook</i> ¹	3.8	2.9	3.2	3.0	2.4	1.2	2.1	2.3	2.8
Nonfarm business sector									
Output per hour	1.5	1.4	.9	2.6	-.4	6.5	2.0	1.3	1.7
<i>Previous Tealbook</i>	1.5	1.4	.9	2.6	-.4	6.5	2.0	1.1	1.8
Compensation per hour	3.3	3.5	4.5	3.6	2.3	2.8	1.4	2.1	2.5
<i>Previous Tealbook</i>	3.3	3.5	4.5	3.6	2.3	2.8	1.9	2.2	2.7
Unit labor costs	1.9	2.0	3.5	.9	2.7	-3.5	-.6	.8	.7
<i>Previous Tealbook</i>	1.9	2.0	3.5	.9	2.7	-3.5	-.2	1.1	.9
Core goods imports chain-wt. price index ²	3.6	2.2	2.5	2.9	3.5	-1.9	2.7	5.0	1.4
<i>Previous Tealbook</i> ²	3.6	2.2	2.5	2.9	3.5	-1.9	2.7	4.9	1.4

1. Private-industry workers. [Return to table](#)

2. Core goods imports exclude computers, semiconductors, oil, and natural gas. [Return to table](#)

Other Macroeconomic Indicators

Other Macroeconomic Indicators

Item	2010				2011				2012				2010 ¹	2011 ¹	2012 ¹
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Employment and production															
Nonfarm payroll employment ²	-.1	.6	-.1	.2	.4	.5	.5	.6	.5	.6	.7	.8	.7	2.0	2.5
Unemployment rate ³	9.7	9.6	9.6	9.6	8.9	9.0	9.0	8.9	8.8	8.6	8.4	8.1	9.6	8.9	8.1
<i>Previous Tealbook</i> ³	9.7	9.6	9.6	9.6	8.9	8.9	8.8	8.7	8.5	8.2	7.9	7.7	9.6	8.7	7.7
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	-6.1	-5.9	-5.7	-5.7	-5.8	-5.4	-5.2	-5.1	-4.9	-4.6	-4.2	-5.7	-5.2	-4.2
<i>Previous Tealbook</i> ⁴	-6.2	-6.2	-6.1	-5.9	-6.0	-5.8	-5.4	-5.0	-4.7	-4.3	-3.9	-3.5	-5.9	-5.0	-3.5
Industrial production ⁵	8.1	7.1	6.7	3.1	4.2	2.0	7.6	4.5	3.0	3.7	4.1	4.0	6.2	4.5	3.7
<i>Previous Tealbook</i> ⁵	8.1	7.1	6.7	3.2	6.0	5.4	5.7	3.6	3.1	4.7	5.1	4.3	6.3	5.2	4.3
Manufacturing industr. prod. ⁵	7.1	8.7	5.1	3.4	6.5	1.4	8.4	4.7	3.3	4.3	4.6	4.6	6.1	5.2	4.2
<i>Previous Tealbook</i> ⁵	7.1	8.7	5.1	3.5	9.1	5.0	6.3	4.2	4.0	5.6	5.6	4.8	6.1	6.1	5.0
Capacity utilization rate - mfg. ³	69.4	71.4	72.6	73.3	74.4	74.5	75.8	76.5	76.8	77.4	77.9	78.5	73.3	76.5	78.5
<i>Previous Tealbook</i> ³	69.4	71.4	72.6	73.3	74.9	75.6	76.6	77.2	77.6	78.4	79.1	79.7	73.3	77.2	79.7
Housing starts ⁶	.6	.6	.6	.5	.6	.5	.6	.6	.7	.7	.8	.8	.6	.6	.7
Light motor vehicle sales ⁶	11.0	11.3	11.6	12.3	13.0	12.3	13.2	13.3	13.7	14.1	14.6	14.9	11.5	13.0	14.3
Income and saving															
Nominal GDP ⁵	4.8	3.7	4.6	3.5	4.1	5.8	5.6	4.3	4.7	4.8	5.2	5.4	4.2	4.9	5.1
Real disposable pers. income ⁵	1.3	5.6	1.0	1.1	.8	1.7	3.0	2.6	.1	3.6	3.6	4.1	2.2	2.0	2.8
<i>Previous Tealbook</i> ⁵	1.3	5.6	1.0	1.9	2.7	3.2	3.3	3.7	.5	4.2	4.0	4.5	2.4	3.2	3.3
Personal saving rate ³	5.5	6.2	6.0	5.4	5.1	5.2	5.3	5.3	4.7	4.9	5.0	5.2	5.4	5.3	5.2
<i>Previous Tealbook</i> ³	5.5	6.2	6.0	5.6	5.7	5.7	5.8	5.9	5.3	5.3	5.4	5.5	5.6	5.9	5.5
Corporate profits ⁷	48.9	12.7	6.6	9.7	9.0	12.1	8.8	5.6	4.7	4.2	5.1	4.7	18.3	8.9	4.7
Profit share of GNP ³	10.7	10.9	11.0	11.2	11.3	11.4	11.5	11.5	11.5	11.5	11.5	11.5	11.2	11.5	11.5
Net federal saving ⁸	-1,314	-1,337	-1,343	-1,340	-1,280	-1,264	-1,263	-1,257	-1,093	-1,046	-1,028	-1,005	-1,333	-1,266	-1,043
Net state & local saving ⁸	29	16	48	40	9	14	22	16	30	32	42	45	33	15	37
Gross national saving rate ³	11.1	11.7	11.6	11.4	11.2	11.6	12.0	12.1	12.4	12.8	13.0	13.2	11.4	12.1	13.2
Net national saving rate ³	-1.8	-1.1	-1.1	-1.3	-1.4	-.8	-.4	-.2	.1	.6	.8	1.1	-1.3	-.2	1.1

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

Other Macroeconomic Indicators

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

Item	2004	2005	2006	2007	2008	2009	2010	2011	2012
<i>Employment and production</i>									
Nonfarm payroll employment ¹	2.0	2.4	2.1	1.2	-2.8	-5.6	.7	2.0	2.5
Unemployment rate ²	5.4	5.0	4.5	4.8	6.9	10.0	9.6	8.9	8.1
<i>Previous Tealbook</i> ²	5.4	5.0	4.5	4.8	6.9	10.0	9.6	8.7	7.7
NAIRU ²	5.0	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0
<i>Previous Tealbook</i> ²	5.0	5.0	5.0	5.0	5.3	6.0	6.0	6.0	6.0
GDP gap ³	-.4	.1	.1	.1	-4.8	-6.4	-5.7	-5.2	-4.2
<i>Previous Tealbook</i> ³	-.5	-.1	.0	-.1	-4.9	-6.6	-5.9	-5.0	-3.5
Industrial production ⁴	3.1	2.3	2.3	2.5	-9.1	-5.5	6.2	4.5	3.7
<i>Previous Tealbook</i> ⁴	3.1	2.3	2.3	2.5	-9.1	-5.5	6.3	5.2	4.3
Manufacturing industr. prod. ⁴	3.7	3.4	2.0	2.8	-11.8	-6.1	6.1	5.2	4.2
<i>Previous Tealbook</i> ⁴	3.7	3.4	2.0	2.8	-11.8	-6.1	6.1	6.1	5.0
Capacity utilization rate - mfg. ²	77.3	78.5	78.4	79.0	70.1	67.7	73.3	76.5	78.5
<i>Previous Tealbook</i> ²	77.3	78.5	78.4	79.0	70.1	67.7	73.3	77.2	79.7
Housing starts ⁵	2.0	2.1	1.8	1.4	.9	.6	.6	.6	.7
Light motor vehicle sales ⁵	16.8	16.9	16.5	16.1	13.1	10.3	11.5	13.0	14.3
<i>Income and saving</i>									
Nominal GDP ⁴	6.4	6.3	5.4	5.0	-.7	.6	4.2	4.9	5.1
Real disposable pers. income ⁴	3.5	.6	4.6	1.5	1.0	.4	2.2	2.0	2.8
<i>Previous Tealbook</i> ⁴	3.5	.6	4.6	1.5	1.0	.4	2.4	3.2	3.3
Personal saving rate ²	3.6	1.5	2.5	2.1	5.2	5.5	5.4	5.3	5.2
<i>Previous Tealbook</i> ²	3.6	1.5	2.5	2.1	5.2	5.5	5.6	5.9	5.5
Corporate profits ⁶	21.9	19.6	3.7	-8.1	-31.9	42.5	18.3	8.9	4.7
Profit share of GNP ²	10.5	11.8	11.6	10.1	6.9	9.8	11.2	11.5	11.5
Net federal saving ⁷	-379	-283	-204	-245	-616	-1252	-1333	-1266	-1043
Net state & local saving ⁷	-8	26	51	12	-47	-20	33	15	37
Gross national saving rate ²	14.3	15.5	16.3	13.6	11.8	10.8	11.4	12.1	13.2
Net national saving rate ²	2.7	3.5	4.2	1.3	-1.4	-2.3	-1.3	-.2	1.1

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

Staff Projections of Federal Sector Accounts and Related Items

(Billions of dollars except as noted)

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Item	Fiscal year				2010				2011				2012			
	2009 ^a	2010 ^a	2011	2012	Q1 ^a	Q2 ^a	Q3 ^a	Q4 ^a	Q1 ^a	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget					Not seasonally adjusted											
Receipts ¹	2105	2163	2324	2543	466	643	565	532	488	712	592	561	548	767	667	641
Outlays ¹	3518	3456	3657	3671	795	930	855	901	949	880	927	923	973	909	865	963
Surplus/deficit ¹	-1413	-1293	-1333	-1128	-329	-287	-290	-369	-460	-168	-336	-362	-425	-143	-198	-322
<i>Previous Tealbook</i>	-1413	-1293	-1393	-1132	-329	-287	-290	-369	-460	-228	-335	-360	-419	-155	-199	-324
On-budget	-1550	-1370	-1362	-1176	-359	-351	-267	-390	-451	-221	-300	-380	-416	-199	-179	-360
Off-budget	137	77	29	48	30	64	-23	21	-10	53	-36	19	-9	57	-19	37
Means of financing																
Borrowing	1743	1474	1093	1342	478	344	390	368	260	113	352	501	430	183	228	327
Cash decrease	96	-35	194	-135	-25	-71	-20	-33	225	23	-20	-120	15	-20	-10	15
Other ²	-427	-146	45	-80	-124	14	-80	34	-24	32	4	-20	-20	-20	-20	-20
Cash operating balance, end of period	275	310	115	250	219	290	310	343	118	95	115	235	220	240	250	235
NIPA federal sector					Seasonally adjusted annual rates											
Receipts	2261	2334	2493	2751	2323	2365	2417	2436	2478	2520	2539	2564	2772	2812	2854	2898
Expenditures	3355	3660	3780	3856	3637	3701	3761	3776	3758	3784	3802	3821	3865	3857	3882	3903
Consumption expenditures	977	1030	1063	1091	1017	1038	1062	1056	1052	1065	1080	1084	1091	1094	1096	1097
Defense	659	691	705	728	684	695	711	703	696	703	717	720	727	730	734	736
Nondefense	318	339	359	363	333	343	350	354	356	362	363	364	364	363	362	360
Other spending	2378	2630	2717	2765	2620	2663	2699	2720	2706	2719	2721	2737	2774	2764	2786	2807
Current account surplus	-1094	-1326	-1287	-1106	-1314	-1337	-1343	-1340	-1280	-1264	-1263	-1257	-1093	-1046	-1028	-1005
Gross investment	151	165	176	177	161	168	172	182	171	173	177	177	177	177	178	178
Gross saving less gross investment ³	-1122	-1363	-1326	-1138	-1348	-1376	-1385	-1390	-1316	-1300	-1300	-1292	-1126	-1077	-1057	-1032
Fiscal indicators⁴																
High-employment (HEB) surplus/deficit	-813	-1020	-1010	-850	-1010	-1035	-1051	-1062	-999	-982	-998	-994	-828	-792	-786	-780
Change in HEB, percent of potential GDP	2.0	1.2	-.3	-1.2	.1	.1	.0	.0	-.5	-.2	.0	-.1	-1.1	-.3	-.1	-.1
Fiscal impetus (FI), percent of GDP	1.2	0.6	-0.0	-1.1	1.0	1.0	0.6	-0.2	-0.3	0.2	0.3	-0.3	-1.5	-1.0	-1.0	-0.8
<i>Previous Tealbook</i>	1.2	0.6	-0.0	-1.1	1.0	1.0	0.6	-0.2	-0.6	0.6	0.3	-0.3	-1.6	-0.9	-0.9	-0.8

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

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

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

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

a Actual. [Return to table](#)

Change in Debt of the Domestic Nonfinancial Sectors

Change in Debt of the Domestic Nonfinancial Sectors (Percent)

Period ¹	Total	Households			Business	State and local governments	Federal government	Memo: Nominal GDP
		Total	Home mortgages	Consumer credit				
Year								
2005	9.5	11.1	13.3	4.5	8.6	10.2	7.0	6.3
2006	9.0	10.0	11.1	4.1	10.6	8.3	3.9	5.4
2007	8.6	6.7	6.8	5.8	13.1	9.5	4.9	5.0
2008	6.0	.2	-.5	1.5	5.5	2.3	24.2	-.7

2009		3.0	-1.7	-1.5	-4.4	-2.7	4.8	22.7	.6
2010		4.2	-1.9	-2.8	-1.8	.3	4.4	20.2	4.2
2011		4.3	-6	-2.0	3.8	3.6	-0	13.1	4.9
2012		5.2	1.7	-.2	7.9	4.2	4.1	11.0	5.1
Quarter									
2009:	1	4.6	-.7	-.2	-3.7	-.3	5.6	24.4	-3.9
	2	4.5	-1.8	-1.8	-4.8	-2.3	4.2	28.9	-.4
	3	2.1	-2.3	-2.6	-3.9	-4.3	5.7	19.0	2.3
	4	.9	-1.9	-1.3	-5.6	-3.9	3.6	11.9	4.7
2010:	1	3.7	-3.0	-5.2	-4.1	-.4	5.7	20.5	4.8
	2	4.4	-2.2	-2.2	-3.1	-1.3	-1.4	24.4	3.7
	3	3.9	-2.0	-2.6	-1.9	1.1	5.4	16.0	4.6
	4	4.6	-.6	-1.1	2.0	1.9	7.9	14.6	3.5
2011:	1	2.3	-2.0	-3.4	2.4	4.0	-2.9	7.8	4.1
	2	3.6	-.8	-2.0	2.9	4.0	-4.3	11.3	5.8
	3	4.4	.1	-1.4	4.7	3.0	1.4	12.6	5.6
	4	6.5	.3	-1.2	5.2	3.3	5.8	18.3	4.3
2012:	1	5.5	1.1	-.6	6.5	3.7	4.1	13.3	4.7
	2	5.6	1.5	-.3	7.3	4.1	4.1	12.4	4.8
	3	4.1	1.9	.0	8.3	4.3	4.0	6.6	5.2
	4	5.3	2.1	.1	8.6	4.4	4.0	10.1	5.4

Flow of Funds Projections: Highlights

Category	2009	2010	2011	2012	2010		2011				2012			
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Domestic nonfinancial sectors														
Net funds raised														
Total	957.9	1178.9	1172.1	1624.5	1039.2	1277.5	496.5	925.1	1237.6	2029.4	1758.0	1804.4	1239.9	1695.6
Net equity issuance	-64.6	-279.2	-368.0	-340.0	-338.4	-363.1	-331.9	-380.0	-380.0	-380.0	-320.0	-320.0	-360.0	-360.0
Net debt issuance	1022.4	1458.1	1540.1	1964.5	1377.6	1640.6	828.4	1305.1	1617.6	2409.4	2078.0	2124.4	1599.9	2055.6
Borrowing indicators														
Debt (percent of GDP) ¹	241.6	241.3	240.7	240.2	241.0	241.5	241.1	239.5	238.6	239.3	240.1	240.6	240.4	240.1
Borrowing (percent of GDP)	7.2	9.9	10.0	12.2	9.3	11.0	5.5	8.6	10.5	15.4	13.2	13.3	9.9	12.5
Households														
Net borrowing ²	-232.6	-262.7	-79.8	220.3	-270.6	-76.1	-270.9	-102.0	7.4	46.2	141.6	198.6	257.9	282.9
Home mortgages	-153.7	-285.6	-199.6	-19.7	-268.4	-110.2	-341.4	-199.4	-138.9	-118.7	-59.1	-29.5	0.0	9.8
Consumer credit	-115.3	-44.2	93.7	199.6	-47.1	47.7	58.5	70.0	115.3	130.9	163.9	188.3	216.6	229.8
Debt/DPI (percent) ³	124.4	118.7	112.9	109.2	117.7	116.5	114.8	113.0	111.9	110.8	110.6	109.6	108.7	107.7
Business														
Financing gap ⁴	-44.7	69.2	62.2	184.0	156.4	56.8	37.8	58.6	86.6	66.0	125.9	153.9	203.1	253.0
Net equity issuance	-64.6	-279.2	-368.0	-340.0	-338.4	-363.1	-331.9	-380.0	-380.0	-380.0	-320.0	-320.0	-360.0	-360.0
Credit market borrowing	-298.0	35.7	393.1	474.2	123.1	205.4	435.1	436.6	333.0	367.8	421.8	469.1	492.3	513.7

State and local governments														
Net borrowing	109.1	105.0	-0.6	101.7	129.1	191.2	-71.6	-106.3	33.7	141.7	101.7	101.7	101.7	101.7
Current surplus ⁵	248.2	304.5	246.6	278.2	327.4	321.2	233.1	245.8	255.7	251.7	267.7	271.7	284.0	289.4
Federal government														
Net borrowing	1443.9	1580.2	1226.6	1168.3	1395.9	1320.2	735.8	1076.7	1243.5	1853.6	1412.9	1355.0	747.9	1157.2
Net borrowing (n.s.a.)	1443.9	1580.2	1226.6	1168.3	390.1	367.9	260.2	113.2	351.9	501.4	430.2	182.7	228.0	327.3
Unified deficit (n.s.a.)	1471.3	1275.1	1325.7	1088.3	290.2	369.0	460.4	167.8	335.6	361.9	425.2	142.7	198.0	322.3
Depository institutions														
Funds supplied	-633.7	-192.7	118.4	299.3	719.6	-507.1	-301.3	180.4	297.6	296.8	290.8	296.4	322.3	287.7

Note: Data after 2011:Q1 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

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

Measure and country	Projected											
	2010				2011				2012			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP ¹												
Total foreign	5.1	5.1	3.4	3.3	4.1	2.8	3.8	3.5	3.4	3.5	3.5	3.6
Previous Tealbook	4.7	5.4	3.2	3.5	3.7	3.0	3.5	3.5	3.6	3.6	3.6	3.7
Advanced foreign economies	4.0	2.9	2.3	1.4	2.3	1.4	2.4	2.3	2.3	2.3	2.3	2.4
Canada	5.6	2.3	2.5	3.1	3.9	2.2	2.5	2.5	2.4	2.4	2.5	2.5
Japan	9.4	-0	3.6	-2.9	-3.5	-3.8	4.5	4.3	3.5	2.9	2.5	2.2
United Kingdom	.8	4.3	2.9	-1.9	1.9	2.2	2.1	2.2	2.2	2.3	2.3	2.4
Euro area	1.3	3.9	1.6	1.0	3.4	1.6	1.5	1.4	1.5	1.7	1.9	2.3
Germany	2.1	8.7	3.2	1.5	6.1	2.0	1.6	1.6	1.9	2.1	2.3	2.6
Emerging market economies	6.4	7.7	4.7	5.5	6.2	4.4	5.4	4.9	4.9	4.9	4.9	4.9
Asia	10.6	7.2	6.6	5.9	8.8	5.4	6.2	5.7	5.9	5.9	6.0	6.0
Korea	8.6	5.7	2.6	2.0	5.4	3.5	4.0	3.8	3.9	4.1	4.3	4.3
China	9.3	8.9	10.1	10.0	8.7	8.1	8.5	8.5	8.4	8.4	8.3	8.3
Latin America	2.3	8.6	2.6	4.4	3.6	3.3	4.7	4.1	3.8	3.8	3.8	3.8
Mexico	1.3	8.4	2.8	4.6	2.1	2.9	5.0	4.2	3.8	3.8	3.8	3.8
Brazil	8.9	6.4	1.8	3.2	5.4	3.4	3.5	3.5	3.6	3.6	3.6	3.6
Consumer prices ²												
Total foreign	3.3	1.8	2.4	5.3	4.4	2.9	2.4	2.4	2.4	2.3	2.3	2.4
Previous Tealbook	3.4	1.6	2.4	5.3	4.4	3.3	2.6	2.4	2.4	2.3	2.4	2.4
Advanced foreign economies	2.0	.6	1.1	3.5	3.4	2.4	1.3	1.4	1.4	1.3	1.4	1.5
Canada	2.2	-1	2.4	4.4	3.6	3.5	1.6	2.1	2.1	1.8	1.9	1.9
Japan	.7	-1.2	-1.3	2.3	.4	-4	-7	-6	-5	-5	-4	-3
United Kingdom	4.8	2.6	1.9	4.4	7.6	4.1	2.0	2.1	2.1	1.6	1.9	3.2
Euro Area	1.9	1.7	1.2	3.3	3.7	2.5	1.7	1.6	1.6	1.6	1.7	1.7

Germany	1.4	.7	1.0	3.2	3.8	2.6	1.8	1.7	1.7	1.7	1.8	1.8
Emerging market economies	4.4	2.8	3.4	6.7	5.3	3.3	3.3	3.3	3.2	3.1	3.1	3.1
Asia	3.6	2.7	3.6	7.4	5.5	3.6	3.1	2.9	2.9	2.8	2.8	2.8
Korea	2.5	3.0	3.8	5.2	5.7	3.2	2.9	2.8	2.8	2.8	2.8	2.7
China	2.9	3.2	4.1	8.6	4.6	4.1	3.1	2.8	2.7	2.7	2.7	2.7
Latin America	6.9	3.1	2.9	5.0	4.3	2.6	3.8	4.1	4.0	3.9	3.9	3.9
Mexico	6.9	2.5	2.9	4.8	3.6	2.0	3.5	3.9	3.7	3.7	3.7	3.7
Brazil	7.4	5.9	1.1	7.4	9.5	7.7	5.1	4.9	4.9	4.9	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

Foreign Real GDP and Consumer Prices: Selected Countries

(Percent change, Q4 to Q4)

Measure and country	2004	2005	2006	2007	2008	2009	2010	Projected	
								2011	2012
Real GDP ¹									
Total foreign	3.9	4.0	4.2	4.2	-8	.7	4.2	3.5	3.5
<i>Previous Tealbook</i>	3.9	4.0	4.1	4.3	-8	.7	4.2	3.4	3.6
Advanced foreign economies	2.6	2.8	2.6	2.4	-1.7	-1.6	2.7	2.1	2.3
Canada	3.7	3.1	1.9	2.5	-.7	-1.4	3.3	2.8	2.5
Japan	1.0	2.9	2.1	1.8	-4.7	-1.8	2.4	.3	2.8
United Kingdom	2.4	2.4	2.7	2.4	-2.7	-2.8	1.5	2.1	2.3
Euro area	1.8	2.1	3.7	2.2	-2.1	-2.1	1.9	1.9	1.8
Germany	.2	1.7	4.5	1.8	-1.9	-2.0	3.8	2.8	2.2
Emerging market economies	5.6	5.8	6.3	6.7	.4	3.4	6.1	5.2	4.9
Asia	6.0	7.6	7.8	8.8	.9	7.9	7.5	6.5	5.9
Korea	2.7	5.2	4.6	5.8	-3.2	6.3	4.7	4.2	4.1
China	9.9	10.3	12.8	13.7	7.7	11.4	9.6	8.4	8.3
Latin America	5.2	3.9	4.8	4.4	-.4	-.9	4.4	3.9	3.8
Mexico	4.6	3.6	4.1	3.5	-1.2	-2.3	4.2	3.5	3.8
Brazil	6.1	2.2	4.8	6.6	.8	5.0	5.0	4.0	3.6
Consumer prices ²									
Total foreign	2.8	2.3	2.2	3.7	3.3	1.3	3.2	3.0	2.4
<i>Previous Tealbook</i>	2.8	2.3	2.2	3.7	3.3	1.3	3.2	3.2	2.4
Advanced foreign economies	1.8	1.6	1.4	2.2	2.0	.2	1.8	2.1	1.4
Canada	2.3	2.3	1.4	2.5	1.8	.8	2.2	2.7	1.9
Japan	.5	-1.0	.3	.5	1.0	-1.9	.1	-.3	-.4
United Kingdom	1.4	2.1	2.7	2.1	3.9	2.1	3.4	3.9	2.2
Euro Area	2.3	2.3	1.8	2.9	2.3	.4	2.0	2.4	1.6
Germany	2.1	2.2	1.3	3.1	1.7	.3	1.6	2.5	1.7
Emerging market economies	3.9	3.0	2.9	5.1	4.6	2.1	4.3	3.8	3.1
Asia	3.1	2.5	2.4	5.5	3.6	1.3	4.3	3.8	2.8
Korea	3.4	2.5	2.1	3.4	4.5	2.4	3.6	3.7	2.8
China	3.2	1.4	2.1	6.7	2.5	.6	4.7	3.7	2.7
Latin America	5.6	3.8	4.2	4.2	6.7	3.9	4.5	3.7	4.0
Mexico	5.3	3.1	4.1	3.8	6.2	4.0	4.3	3.2	3.7
Brazil	7.2	6.1	3.2	4.3	6.2	4.2	5.4	6.8	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](#)

U.S. Current Account

Quarterly Data

	Projected											
	2010				2011				2012			
	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	-457.8	-483.0	-495.9	-461.5	-528.9	-444.8	-443.3	-392.2	-366.8	-334.6	-333.9	-326.1
<i>Previous Tealbook</i>	-434.7	-490.9	-502.0	-453.4	-515.1	-499.3	-515.5	-450.9	-439.7	-409.1	-408.4	-395.4
Current account as percent of GDP	-3.2	-3.3	-3.4	-3.1	-3.5	-2.9	-2.9	-2.5	-2.3	-2.1	-2.1	-2.0
<i>Previous Tealbook</i>	-3.0	-3.4	-3.4	-3.0	-3.4	-3.3	-3.3	-2.9	-2.8	-2.5	-2.5	-2.4
Net goods & services	-478.6	-522.1	-524.5	-475.0	-563.2	-506.1	-500.2	-461.1	-422.8	-399.4	-390.9	-376.4
Investment income, net	168.5	180.1	173.8	162.8	179.8	191.5	190.8	199.3	200.4	195.0	190.8	180.7
Direct, net	275.6	286.3	276.6	261.2	288.5	291.2	284.4	294.7	300.5	307.2	314.4	319.9
Portfolio, net	-107.1	-106.2	-102.8	-98.4	-108.7	-99.7	-93.7	-95.4	-100.1	-112.2	-123.7	-139.2
Other income and transfers, net	-147.7	-141.0	-145.3	-149.3	-145.5	-130.2	-133.8	-130.4	-144.3	-130.2	-133.8	-130.4

Annual Data

	2004	2005	2006	2007	2008	2009	Projected		
							2010	2011	2012
	<i>Billions of dollars</i>								
U.S. current account balance	-626.5	-742.0	-796.7	-712.7	-668.4	-384.8	-474.5	-452.3	-340.4
<i>Previous Tealbook</i>	-630.5	-747.6	-802.6	-718.1	-668.9	-378.4	-470.2	-495.2	-413.2
Current account as percent of GDP	-5.3	-5.9	-5.9	-5.1	-4.6	-2.7	-3.2	-3.0	-2.1
<i>Previous Tealbook</i>	-5.3	-5.9	-6.0	-5.1	-4.7	-2.7	-3.2	-3.2	-2.6
Net goods & services	-605.4	-708.6	-753.3	-696.7	-698.3	-381.3	-500.0	-507.6	-397.4
Investment income, net	73.4	78.8	54.7	106.6	159.3	129.2	171.3	190.3	191.7
Direct, net	150.9	173.2	174.0	241.6	287.7	252.1	274.9	289.7	310.5
Portfolio, net	-77.5	-94.4	-119.4	-134.9	-128.4	-122.8	-103.6	-99.4	-118.8
Other income and transfers, net	-94.5	-112.2	-98.1	-122.6	-129.3	-132.8	-145.8	-135.0	-134.7

Last update: February 3, 2017

Monetary Policy Strategies

Equilibrium Real Federal Funds Rate

Figure: Short-Run Estimates with Confidence Intervals

Line chart, 1990 to 2011. Unit is percent. There are five series, "The actual real funds rate based on lagged core inflation," "Range of four model-based estimates," "70 percent confidence interval," "90 percent confidence interval," and "Tealbook consistent measure (FRB/US)." The actual real funds rate based on lagged core inflation begins at about 4.5 and generally decreases to about 0 in 1992:Q4. It generally increases to about 5 in 2000:Q4 then generally decreases to about -1 in 2004:Q2. It generally increases to about 3.5 in 2007:Q4 then generally decreases to about -2 in 2010:Q1. It generally increases ending at about -1. Range of four model-based estimates begins at a range of about [1.5, 4] and fluctuates but generally increases to about [2, 5] in 2000:Q1. It generally decreases to about [-7, -2] in 2009:Q2 then generally increases ending at about [-2, -.5]. 70 percent confidence interval begins at a range of about [1, 4] and generally increases to about [2, 5] in 2000:Q1. It generally decreases to about [-7, -2] in 2009:Q2 then generally increases ending at about [-7, -2] in 2009:Q2 then generally increases ending at about [-3, 0]. 90 percent confidence interval begins at a range of about [0, 5.5] and generally increases to about [-1, 6] in 1999:Q4. It generally decreases to about [-8, 0] in 2009:Q2 then generally increases ending at about [-4, 1]. Tealbook consistent measure (FRB/US) begins at about 4 in 1997:Q3 then generally increases to about 6 in 2000:Q3. It generally decreases to about 0 in 2002LQ2 then generally increases to about 3.5 in 2007:Q2. It generally decreases to about -4 in 2009:Q1 then fluctuates but generally increases ending at about -2.

Short-Run and Medium-Run Measures

	Current Tealbook	Previous Tealbook
Short-Run Measures		
Single-equation model	-1.6	-1.8
Small structural model	-1.1	-1.1
EDO model	-0.4	-0.5
FRB/US model	-2.7	-2.5
Confidence intervals for four model-based estimates		
70 percent confidence interval	-3.2 to 0.3	
90 percent confidence interval	-4.2 to 1.2	
Tealbook-consistent measures		
EDO model	-1.9	-0.8
FRB/US model	-2.2	-1.5
Medium-Run Measures		
Single-equation model	1.1	1.0
Small structural model	1.1	1.2
Confidence intervals for two model-based estimates		
70 percent confidence interval	0.2 to 2.0	
90 percent confidence interval	-0.4 to 2.6	
TIPS-based factor model	1.8	2.0
Memo		
Actual real federal funds rate	-1.0	-0.7

Note: Explanatory Note A provides background information regarding the construction of these measures and confidence intervals. The actual real federal funds rate shown is based on lagged core inflation as a proxy for inflation expectations. For information regarding alternative measures, see Explanatory Note A. Since April, the EDO model has been re-specified and re-estimated. EDO estimates for the "Previous Tealbook" have been computed from the revised model, using the data available at the time of the April Tealbook.

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

Figure: Nominal Federal Funds Rate

Line chart, 2010 to 2015. Unit is percent. There are three series, "Current Tealbook: Constrained," "Previous Tealbook: Constrained," and "Current Tealbook: Unconstrained." Current Tealbook: Constrained begins at about 0 and remains about constant until 2013:Q4. It generally increases ending at about 3.5. Previous

Tealbook: Constrained begins at about 0 and remains about constant until 2013:Q3. It generally increases ending at about 3.5. Current Tealbook: Unconstrained begins at about 0 and remains about constant until 2011:Q3. It generally decreases to about -2 in 2012:Q3 then generally increases ending at about 4.

Figure: Real Federal Funds Rate

Line chart, 2010 to 2015. Unit is percent. There are three series, "Current Tealbook: Constrained," "Previous Tealbook: Constrained," and "Current Tealbook: Unconstrained." Current Tealbook: Constrained begins at about -1 and generally increases to about -.5 in 2011:Q1. It generally decreases to about -2 in 2012:Q1 then remains about constant until 2013:Q4. It generally increases ending at about 1.5. Previous Tealbook: Constrained begins at about -1 and generally increases to about -.5 in 2011:Q1. It generally decreases to about -2 in 2012:Q1 then remains about constant until 2013:Q3 then generally increases ending at about 1.5. Current Tealbook: Unconstrained begins at about -1 and generally increases to about -.5 in 2011:Q1. It generally decreases to about -4 in 2012:Q2 then generally increases ending at about 2.

Figure: Civilian Unemployment Rate

Line chart, 2010 to 2015. Unit is percent. There are three series, "Current Tealbook: Constrained," "Previous Tealbook: Constrained," and "Current Tealbook: Unconstrained." The series begin at about 9.5 and generally decrease together ending at about 4.75.

Figure: Core PCE Inflation

Line chart, 2010 to 2015. Unit is percent. Data are four-quarter average. There are three series, "Current Tealbook: Constrained," "Previous Tealbook: Constrained," and "Current Tealbook: Unconstrained." Current Tealbook: Constrained begins at about 1.5 and generally decreases to about 0.75 in 2010:Q4. It generally increases to about 2.0 in 2012:Q2 then generally decreases to about 1.75 in 2012:Q3. It generally increases ending at about 2.1. Previous Tealbook: Constrained begins at about 1.5 and generally decreases to about 0.75 in 2010:Q4. It fluctuates but generally increases ending at about 2.1. Current Tealbook: Unconstrained begins at about 1.5 and generally decreases to about 0.75 in 2010:Q4. It generally increases to about 2.0 in 2012:Q2 then generally decreases to about 1.75 in 2012:Q3. It generally increases ending at about 2.1.

Policy Rules and Market-Based Expectations

Note: As in the March Tealbook, the staff baseline projection for the federal funds rate is based on the outcome-based policy rule. Accordingly, the top-left panel does not report a separate series for the staff's projected funds rate. In both panels, the dark and light shading represent the 70 and 90 percent confidence intervals respectively. Financial market quotes are as of June 15.

Near-Term Prescriptions of Simple Policy Rules

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

Line chart, 2011 to 2014. Unit is percent. There are two series, "Current Tealbook" and "Previous Tealbook." Current Tealbook begins at about 0 and remains about constant until 2012:Q3. It generally increases ending at about 3. Previous Tealbook begins at about 0 and remains about constant until 2012:Q1. It generally increases ending at about 3.25. There is a dark shaded area that begins at about 0 and generally increases ending at a range of about [1, 5]. There is a light shaded area that begins at 0 and generally increases ending at a range of about [0, 6.25].

Figure: Information from Financial Markets. Line chart, 2011 to 2014

Unit is percent. There are two series, "Current Tealbook" and "Previous Tealbook." Current Tealbook begins at about 0 and remains about constant until 2012:Q2. It generally increases ending at about 2. Previous Tealbook begins at about 0 and remains about constant until 2011:Q4. It generally increases ending at about 3. There is a dark shaded area that begins at about 0 and generally increases ending at a range of about [.75, 3]. There is a light shaded area that begins at about 0 and generally increases ending at a range of about [.5, 4.5].

Note: As in the March Tealbook, the staff baseline projection for the federal funds rate is based on the outcome-based policy rule. Accordingly, the top-left panel does not report a separate series for the staff's projected funds rate. In both panels, the dark and light shading represent the 70 and 90 percent confidence intervals respectively. Financial market quotes are as of June 15.

Near-Term Prescriptions of Simple Policy Rules

	Constrained Policy		Unconstrained Policy	
	2011Q3	2011Q4	2011Q3	2011Q4
Taylor (1993) rule	0.45	0.90	0.45	0.90
Previous Tealbook	0.13	0.52	0.03	0.52
Taylor (1999) rule	0.13	0.13	-2.25	-1.73
Previous Tealbook	0.13	0.13	-2.66	-2.00
Estimated outcome-based rule	0.13	0.13	-0.02	-0.15

<i>Previous Tealbook Outlook</i>	<i>0.13</i>	<i>0.13</i>	<i>-0.09</i>	<i>-0.19</i>
Estimated forecast-based rule	0.13	0.13	0.02	-0.15
<i>Previous Tealbook Outlook</i>	<i>0.13</i>	<i>0.13</i>	<i>0.00</i>	<i>-0.06</i>
First-difference rule	0.31	0.46	0.31	0.46
<i>Previous Tealbook Outlook</i>	<i>0.52</i>	<i>0.94</i>	<i>0.52</i>	<i>0.94</i>

Memo

	2011Q3	2011Q4
Staff assumption	0.13	0.13
Fed funds futures	0.10	0.11
Median expectation of primary dealers	0.13	0.13
Blue Chip forecast (June 1, 2011)	0.20	0.20

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

† 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 June 22 FOMC Statement

Table 1: Overview of Alternatives for the June 22 FOMC Statement

Key Components	April Statement	June Alternatives		
		A	B	C
Economic Activity				
Economic Recovery	proceeding at a moderate pace	continuing at a moderate pace, though more slowly than the Committee had expected	continuing at a moderate pace, though somewhat more slowly than the Committee had expected	
		slower pace of the recovery reflects in part some factors likely to be temporary, including the damping effect of higher food and energy prices on consumer purchasing power and spending as well as supply chain disruptions associated with the tragic events in Japan		
Labor Market	overall conditions in the labor market are improving gradually	number of indicators suggest a loss of momentum in the labor market	some indicators suggest a loss of momentum in the labor market	
	unemployment rate remains elevated	unemployment rate remains elevated		
Household Spending	continues to expand	continues to expand; damping effect of higher food and energy prices on purchasing power and spending		
Inflation				
Recent Developments	inflation has picked up in recent months; measures of underlying inflation still subdued and somewhat low	inflation has picked up in recent months; inflation has moved up recently		
	expectations have remained stable	expectations have remained stable		
	increases in the prices of energy and other commodities have pushed up inflation in recent months	pick-up mainly reflects higher prices for some commodities and imported goods, as well as recent supply chain disruptions; relatively limited pass-through to non-energy consumer prices	pick-up mainly reflects higher prices for some commodities and imported goods, as well as recent supply chain disruptions	firms are facing cost pressures from increased commodity prices and import prices have risen
	Committee will pay close attention to inflation and inflation expectations	n.a.	Committee will continue to pay close attention to inflation and inflation expectations	
Outlook				
Outlook	Committee continues to anticipate gradual return to higher levels of resource utilization in context of price stability	Committee expects pace of recovery to pick up over coming quarters and unemployment to resume its gradual decline		
		increased downside risks to economic outlook	n.a.	

	Committee expects effects of commodity price rises on inflation to be transitory	Committee anticipates inflation will subside to levels at or below those consistent with the Committee's dual mandate as the effects on inflation of past energy and other commodity price increases dissipate		
		n.a.		increased upside risks to inflation
Federal Funds Rate Target Range				
Intermeeting Period	0 to ¼ percent	0 to ¼ percent		
Forward Guidance	exceptionally low levels for an extended period	exceptionally low levels at least through the end of 2012	exceptionally low levels for an extended period	exceptionally low levels for some time
SOMA Portfolio Policy				
Approach	complete purchase program by end of June	complete purchase program by end of June		
	maintain reinvestment policy	maintain reinvestment policy at least through mid-2012	maintain reinvestment policy	end reinvestment policy in July
Future Policy Action				
Asset Purchases / Holdings	will regularly review the size and composition of its securities holdings and prepared to adjust as needed	will regularly review securities holdings; will expand if needed	will regularly review the size and composition of its securities holdings and prepared to adjust as appropriate	
Overall	will continue to monitor economic outlook and financial developments; will employ tools to support recovery and help ensure inflation at mandate-consistent levels	will monitor the economic outlook and financial developments and will act as needed to best foster maximum employment and price stability		

[Note: In the June FOMC Statement Alternatives, strong emphasis (bold) indicates bold red underlined text in the original document.]

June FOMC Statement--Alternative A

- Information received since the Federal Open Market Committee met in **April suggests** that the economic recovery is **continuing** at a moderate pace, **though more slowly than the Committee had expected. Moreover, a number of indicators suggest a loss of momentum in the labor market. The slower pace of the recovery reflects in part some factors that are likely to be temporary, including the damping effect of higher food and energy prices on consumer purchasing power and spending as well as supply chain disruptions associated with the tragic events in Japan.** Household spending and business investment in equipment and software continue to expand. However, investment in nonresidential structures is still weak, and the housing sector continues to be depressed. Inflation has picked up in recent months, **mainly reflecting higher prices for some commodities and imported goods, as well as the recent supply chain disruptions. Although firms are facing cost pressures from high commodity prices, the pass-through into the prices of non-energy consumer goods and services has been relatively limited, and** longer-term inflation expectations have remained stable.
- Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The unemployment rate remains elevated; **however, the Committee expects the pace of recovery to pick up over coming quarters and the unemployment rate to resume its gradual decline toward** levels that the Committee judges to be consistent with its dual mandate. **The Committee perceives that the downside risks to the economic outlook have increased somewhat. Inflation has moved up recently, but** the Committee anticipates **that inflation will subside to levels at or below those consistent with the Committee's dual mandate as the effects on inflation of past energy and other commodity price increases dissipate.**
- To promote **the ongoing** economic recovery and to help ensure that inflation, over time, is at levels consistent with its mandate, the Committee **is keeping** the target range for the federal funds rate at 0 to ¼ percent and **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 the end of 2012.** The Committee **likewise anticipates that economic conditions will warrant the maintenance of** its existing policy of reinvesting principal payments from its securities holdings **at least through mid-2012.** The Committee will complete **its** purchases of \$600 billion of longer-term Treasury securities by the end of **this month. The Committee** will regularly review the size and composition of its securities holdings and is prepared to **expand** those holdings **if needed.**

4. The Committee will monitor the economic outlook and financial developments **and will act** as needed to best foster maximum employment and price stability.

June FOMC Statement--Alternative B

1. Information received since the Federal Open Market Committee met in **April** indicates that the economic recovery is **continuing** at a moderate pace, **though somewhat more slowly than the Committee had expected. Some indicators also suggest a loss of momentum in the labor market. The slower pace of the recovery reflects in part some factors that are likely to be temporary, including the damping effect of higher food and energy prices on consumer purchasing power and spending as well as supply chain disruptions associated with the tragic events in Japan.** Household spending and business investment in equipment and software continue to expand. However, investment in nonresidential structures is still weak, and the housing sector continues to be depressed. Inflation has picked up in recent months, **mainly reflecting higher prices for some commodities and imported goods, as well as the recent supply chain disruptions. However,** longer-term inflation expectations have remained stable.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The unemployment rate remains elevated; **however, the Committee expects the pace of recovery to pick up over coming quarters and the unemployment rate to resume its gradual decline toward** levels that the Committee judges to be consistent with its dual mandate. Inflation **has moved up recently, but the** Committee anticipates **that inflation will subside to levels at or below those consistent with the Committee's dual mandate as the effects on inflation of past energy and other commodity price increases dissipate. However,** the Committee will **continue** to pay close attention to the evolution of inflation and inflation expectations.
3. To promote **the ongoing** economic recovery and to help ensure that inflation, over time, is at levels consistent with its mandate, the Committee decided today to **maintain the current degree of monetary policy accommodation.** In particular, the Committee will **keep** the target range for the federal funds rate at 0 to ¼ percent and continues to anticipate 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 for an extended period. The Committee will complete **its** purchases of \$600 billion of longer-term Treasury securities by the end of **this month** and will maintain its existing policy of reinvesting principal payments from its securities holdings. 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 will monitor the economic outlook and financial developments **and will act** as needed to best foster maximum employment and price stability.

June FOMC Statement--Alternative C

1. Information received since the Federal Open Market Committee met in **April** indicates that the economic recovery is **continuing** at a moderate pace, **though somewhat more slowly than the Committee had expected. Some indicators also suggest a loss of momentum in the labor market. The slower pace of the recovery reflects in part some factors that are likely to be temporary, including the damping effect of higher food and energy prices on consumer purchasing power and spending as well as supply chain disruptions associated with the tragic events in Japan.** Household spending and business investment in equipment and software continue to expand. However, investment in nonresidential structures is still weak, and the housing sector continues to be depressed. Inflation has picked up in recent months, **as firms are facing cost pressures from increased commodity prices and import prices have risen.** Longer-term inflation expectations have remained stable.
2. Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The unemployment rate remains elevated; **however, the Committee expects the pace of recovery to pick up over coming quarters and the unemployment rate to resume its gradual decline toward** levels that the Committee judges to be consistent with its dual mandate. Inflation **has moved up recently, but the** Committee anticipates **that inflation will subside to levels at or below those consistent with the Committee's dual mandate as the effects on inflation of past energy and other commodity price increases dissipate. However, the upside risks to inflation have increased somewhat, and the Committee will continue** to pay close attention to the evolution of inflation and inflation expectations.
3. **In order** to help ensure that **economic activity and** inflation, over time, **are** at levels consistent with its mandate, the Committee decided today to **keep** the target range for the federal funds rate at 0 to ¼ percent and 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 **for some time.** The Committee will complete **its** purchases of \$600 billion of longer-term Treasury securities by the end of **this month. In July, the Committee will begin a gradual reduction in the current extraordinary degree of policy accommodation by discontinuing its** policy of reinvesting principal payments from its **holdings of agency securities and Treasury securities.** 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 will monitor the economic outlook and financial developments **and will act** as needed to best foster maximum employment and price stability.

[Box:] Declining Stimulus from Large-Scale Asset Purchases

Figure: SOMA Holdings. Line chart, 2011 to 2020

Unit for left scale is billions of dollars. Unit for right scale is percent. Data are quarterly. There are two series, "Level (left scale)" and "Relative to GDP (right scale)." Level begins at about 2100 and generally increases to about 2600 in 2011:Q4. It generally decreases to about 1250 in 2015:Q4 then generally increases ending at about 1750. Relative to GDP begins at about 15 and generally increases to about 17 in 2011:Q4. It generally decreases to about 7.5 in 2015:Q4 then remains about constant to the end of the timeline.

Figure: Term Premium Effects

Line chart, 2011 to 2020. Unit is basis points. Data are quarterly. The series begins at about -5 and generally increases to about 0 in 2015:Q4. It remains about

constant to the end of the timeline.

Long-Run Projections of the Balance Sheet and Monetary Base

Figure: Total Assets

Line chart, 2006 to 2020. Unit is billions of dollars. Data are monthly. There are three series, "Alt A and B," "Alt C," and "April Alt B." Alt A and B begins at about 99 and remains about constant until late 2008. It fluctuates but generally increases to about 2900 in late 2011. It remains about constant until late 2012 then generally decreases to about 1400 in early 2016. It generally increases ending at about 2000. Alt C begins at about 99 and remains about constant until late 2008. It fluctuates but generally increases to about 2900 in late 2011. It generally decreases to about 1500 in early 2015 then generally increases ending at about 2000. April Alt B begins at about 99 and remains about constant until late 2008. It fluctuates but generally increases to about 2900 in late 2011. It remains about constant until mid-2012 then generally decreases to about 1400 in mid-2015. It generally increases ending at about 2000.

Growth Rates for the Monetary Base

Growth Rates for the Monetary Base

Date	Alternatives A and B	Alternative C	Memo: April Tealbook
	Percent, annual rate		
	Monthly		
Aug-10	-2.4	-2.4	-2.4
Sep-10	-10.1	-10.1	-10.1
Oct-10	-9.8	-9.8	-9.8
Nov-10	3.2	3.2	3.2
Dec-10	16.8	16.8	16.8
Jan-11	23.3	23.3	23.3
Feb-11	57.6	57.6	57.6
Mar-11	97.8	97.8	99.1
Apr-11	74.4	74.4	81.5
May-11	42.1	42.1	56.6
Jun-11	39.6	39.5	31.7
Jul-11	31.1	21.7	12.8
Aug-11	5.5	-9.9	-20.8
Sep-11	-14.4	-27.5	-49.4
Oct-11	-7.6	-20.2	-19.4
Nov-11	7.6	-5.8	5.9
Dec-11	7.4	-6.5	-4.1
	Quarterly		
2010 Q3	-6.4	-6.4	-6.4
2010 Q4	-3.2	-3.2	-3.2
2011 Q1	36.8	36.8	37.0
2011 Q2	69.8	69.8	75.4
2011 Q3	23.6	15.3	7.1
2011 Q4	-2.7	-15.8	-18.9
2012 Q1	5.6	-6.4	-6.0
2012 Q2	-11.5	-13.2	-12.7
	Annual - Q4 to Q4		
2009	52.5	52.5	52.5
2010	0.9	0.9	0.9
2011	34.9	27.9	25.9

2012	-8.7	-12.2	-11.9
2013	-16.3	-18.4	-18.0
2014	-16.5	-17.6	-20.3
2015	-21.0	-10.3	-7.3

Note: Not seasonally adjusted.

M2 Growth Rates

Tealbook Forecast [*]	
Monthly Growth Rates	
Dec-10	4.0
Jan-11	2.7
Feb-11	7.4
Mar-11	2.9
Apr-11	4.5
May-11	7.4
Jun-11	5.7
Jul-11	2.4
Aug-11	1.6
Sep-11	1.4
Oct-11	1.2
Nov-11	1.1
Dec-11	1.0
Quarterly Growth Rates	
2010 Q4	5.6
2011 Q1	4.3
2011 Q2	5.2
2011 Q3	3.4
2011 Q4	1.2
Annual Growth Rates	
2009	5.0
2010	3.2
2011	3.6
2012	2.5

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

[Note: In the June 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.]

June 2011 FOMC Directive -- Alternative A

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. The Committee directs the Desk to ~~execute complete~~ purchases of **\$600 billion 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 \$2.6 trillion by the end of June 2011~~ **this month**. The Committee also directs the Desk to **maintain its existing policy** of reinvesting principal payments from agency debt and agency mortgage-backed ~~on all domestic~~ securities **in the System Open Market Account** in longer-term Treasury securities **in order to maintain the total face value of domestic securities at approximately \$2.6 trillion**. 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.

June 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 ¼ percent. The Committee directs the Desk to ~~execute complete~~ purchases of **\$600 billion 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 \$2.6 trillion by the end of June 2014~~ **this month**. The Committee also directs the Desk to **maintain its existing policy of** reinvesting principal payments from agency debt and agency mortgage-backed ~~on all domestic securities in the System Open Market Account~~ **on all domestic securities in the System Open Market Account** in longer-term Treasury securities **in order to maintain the total face value of domestic securities at approximately \$2.6 trillion**. 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.

June 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 ¼ percent. The Committee directs the Desk to ~~execute complete~~ purchases of **\$600 billion 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 \$2.6 trillion by the end of June 2014~~ **this month**. The Committee also directs the Desk to **cease all reinvestment of** principal payments from agency debt and agency mortgage-backed securities in longer-term Treasury ~~on domestic securities in the System Open Market Account from the beginning of July 2011~~. 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 extended baseline.
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)	Average actual real funds rate (twelve-quarter average)
Lagged core inflation	-1	-2.2	-0.8
Lagged headline inflation	-2.2	-2.4	-1
Projected headline inflation	-1.2	-2.2	-0.8

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 three-quarter-ahead forecast of 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 -- Alternatives A & B

Billions of dollars

	May 31, 2011	2012	2014	2016	2018	2020
Total assets	2,791	2,500	1,794	1,587	1,758	1,952
Selected assets						
Liquidity programs for financial firms	0	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	14	4	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	14	4	0	0	0	0
Support for specific institutions	64	36	26	18	9	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	64	36	26	18	9	4
Securities held outright	2,567	2,314	1,644	1,461	1,649	1,853
U.S. Treasury securities	1,530	1,540	1,147	1,255	1,649	1,853
Agency debt securities	119	77	39	16	0	0
Agency mortgage-backed securities	918	697	458	190	0	0
Special drawing rights certificate account	5	7	7	7	7	7
Net portfolio holdings of TALF LLC	1	1	1	0	0	0
Total other assets	145	144	123	109	100	95
Total liabilities	2,738	2,430	1,701	1,465	1,596	1,737
Selected liabilities						
Federal Reserve notes in circulation	983	1,083	1,223	1,356	1,488	1,630
Reverse repurchase agreements	60	60	60	60	60	60
Deposits with Federal Reserve Banks	1,670	1,267	400	31	31	31
Reserve balances held by depository institutions	1,552	1,256	389	25	25	25
U.S. Treasury, General Account	113	5	5	5	5	5
U.S. Treasury, Supplementary Financing Account	5	5	5	0	0	0
Other balances	1	1	1	1	1	1
Interest of Federal Reserve Notes due to U.S. Treasury	3	0	0	0	0	0
Total capital	53	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

	May 31, 2011	2012	2014	2016	2018	2020
Total assets	2,791	2,286	1,590	1,587	1,758	1,952
Selected assets						
Liquidity programs for financial firms	0	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	14	4	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	14	4	0	0	0	0
Support for specific institutions	64	36	26	18	9	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	64	36	26	18	9	4
Securities held outright	2,567	2,102	1,439	1,459	1,646	1,850
U.S. Treasury securities	1,530	1,340	999	1,325	1,646	1,850
Agency debt securities	119	77	39	16	0	0
Agency mortgage-backed securities	918	686	402	118	0	0
Special drawing rights certificate account	5	7	7	7	7	7
Net portfolio holdings of TALF LLC	1	1	1	0	0	0
Total other assets	145	142	123	110	103	98
Total liabilities	2,738	2,215	1,497	1,465	1,596	1,738
Selected liabilities						
Federal Reserve notes in circulation	983	1,083	1,223	1,356	1,488	1,630
Reverse repurchase agreements	60	60	60	60	60	60
Deposits with Federal Reserve Banks	1,670	1,053	196	31	31	31
Reserve balances held by depository institutions	1,552	1,042	185	25	25	25
U.S. Treasury, General Account	113	5	5	5	5	5
U.S. Treasury, Supplementary Financing Account	5	5	5	0	0	0
Other balances	1	1	1	1	1	1
Interest of Federal Reserve Notes due to U.S. Treasury	3	0	0	0	0	0
Total capital	53	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.

Last update: February 3, 2017