

# Accessible Material

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## April 2009 Bluebook and Greenbook Tables and Charts

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## April 2009 Bluebook Tables and Charts<sup>†</sup>

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### Recent Developments

#### Chart 1 Financial Institutions

##### *Figure: Bank ETF*

Line chart, January 2007 to April 23, 2009. January 3, 2007=100. Data are daily. The March 2009 FOMC meeting is marked in the time series. The series begins at about 100 and generally decreases to about 41 by July 2008. It then generally increases to about 65 by late September 2008, and generally decreases to end at about 30. It is at about 21 at the time of the March 2009 FOMC meeting.

Note. There are 24 banks included.

Source. Bloomberg, Keefe Bruyette & Woods.

##### *Figure: Preferred equity*

Line chart, August 2008 to April 23, 2009. August 15, 2008=100. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are four series, "Citigroup", "JPMorgan Chase", "Bank of America", and "Wells Fargo". They track closely together in the beginning, starting at about 100. Citigroup generally decreases to about 55 by September 2008, and generally increases to about 86 by November 2008. It then generally decreases to about 37.5 by late November 2008, and generally increases to about 82 by early January 2009. It then generally decreases to about 18 by late February 2009, and generally increases to about 95 by April 2009. It then generally decreases to end at about 80. It is at about 62 at the time of the March 2009 FOMC meeting. JPMorgan Chase fluctuates but remains about constant until the end of January 2009, and generally decreases to about 60 by early March 2009. It generally increases to end at about 98. It is at about 80 at the time of the March 2009 FOMC meeting. Bank of America fluctuates but remains about constant until late December 2008, and generally increases to about 95 by early January 2009. It then generally decreases to about 23 by February 2009, and generally increases to end at about 60. It is at about 45 at the time of the March 2009 FOMC meeting. Wells Fargo generally decreases to about 31 by late September 2008, and generally increases to about 118 by early January 2009. It then generally decreases to about 55 by early March 2009, and generally increases to end at about 97. It is at about 77 at the time of the March 2009 FOMC meeting.

Source. Bloomberg.

##### *Figure: Bank CDS spreads*

Line chart, January 2007 to April 22, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "Major bank holding companies" and "Other banks". Major bank holding companies begins at about 5 and generally increases to about 205 by March 2008. It then generally decreases to about 60 by May 2008, and generally increases to about 290 by late September 2008. It then generally decreases to about 145 by January 2009, and generally increases to about 370 by March 2009. It then generally decreases to end at about 275. It is at about 275 at the time of the March 2009 FOMC meeting. Other banks begins at about 5 and fluctuates but generally increases to end at about 190. It is at about 160 at the time of the March 2009 FOMC meeting.

Note. Median spreads for 6 major bank holding companies and 11 other banks.

Source. Markit.

##### *Figure: Insurance ETF*

Line chart, January 2007 to April 23, 2009. January 3, 2007=100. Data are daily. The series begins at about 100 and generally decreases to about 25 by early March 2009. It then generally increases to end at about 40. It is at about 32 at the time of the March 2009 FOMC meeting.

Note. There are 24 insurance companies included.

Source. Bloomberg, Keefe Bruyette & Woods.

##### *Figure: CDS spreads for insurance companies*

Line chart, January 2007 to April 22, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. The series begins at about 20 and generally increases to about 260 by early April 2009. It then generally decreases to end at about 175. It is at about 170 at the time of the March 2009 FOMC meeting.

Note. Median spread for 54 insurance companies.

Source. Markit.

### *Figure: Selected FDIC-guaranteed spreads*

Line chart, December 2008 to April 23, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are six series, "Citigroup", "GE Capital", "JPMorgan Chase", "Morgan Stanley", "Wells Fargo", and "Fannie Mae". Citigroup, GE Capital, JPMorgan Chase, and Morgan Stanley track closely together throughout the chart, beginning at about 180. They then generally decrease to about 80 by late December 2008, and remain about constant until early March 2009. They then generally increase to about 100 by mid-March, and generally decrease to end at about 60. They are at about 95 at the time of the March 2009 FOMC meeting. Wells Fargo begins at about 190 and generally decreases to about 60 by early January 2009. It then generally increases to about 75 by January 2009, and generally decreases to end at about 55. It is at about 75 at the time of the March 2009 FOMC meeting. Fannie Mae begins at about 155 and generally decreases to end at about 25. It is at about 58 at the time of the March 2009 FOMC meeting.

Note. Spreads to comparable-maturity Treasury securities for issues maturing around year-end 2011.

Source. Bloomberg.

## Chart 2 Market Functioning

### *Figure: Spreads of Libor over OIS*

Line chart, January 2007 to April 23, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are three series, "1-month", "3-month", and "6-month". They track closely together to start, beginning at about 1. They then remain about constant until about August 2007, and generally increase to about 100 by December 2007. 1-month then generally decreases to about 5 by January 2008, and generally increases to about 340 by October 2008. It then generally decreases to end at about 25. It is at about 40 at the time of the March 2009 FOMC meeting. 3-month generally decreases to about 40 by late January 2008, and generally increases to about 360 by October 2008. It then generally decreases to end at about 95. It is at about 102 at the time of the March 2009 FOMC meeting. 6-month generally decreases to about 50 by January 2008, and generally increases to about 325 by October 2008. It then generally decreases to end at about 148. It is at about 155 at the time of the March 2009 FOMC meeting.

Note. Libor quotes are taken at 6:00 a.m., and OIS quotes are observed at the close of business of the previous trading day.

Source. Bloomberg.

### *Figure: Treasury fails to deliver*

Line chart, by billions of dollars, January 2007 to April 8, 2009. Data are weekly. The March 2009 FOMC meeting is marked in the time series. The series begins at about 250 and generally increases to about 1150 by April 2008. It then generally decreases to about 0 by May 2008, and generally increases to about 2650 by late October 2008. It then generally decreases to end at about 0.

Source. FR2004.

### *Figure: Spreads on 30-day commercial paper*

Line chart, July 2007 to April 22, 2009. Unit is basis points. Data are daily. There are two series, "ABCP" and "A2/P2". ABCP begins at about 10 and generally increases to about 125 by September 2007. It then generally decreases to about 40 by November 2007, and generally increases to about 150 by late December 2007. It then generally decreases to about 40 by January 2008, and generally increases to about 395 by October 2008. It then generally decreases to end at about 25. A2/P2 begins at about 10 and generally increases to about 100 by September 2007. It then generally decreases to about 35 by November 2007, and generally increases to about 150 by January 2008. It then generally decreases to about 50 by January 2008, and generally increases to about 610 by January 2009. It then generally decreases to end at about 75. It is at about 95 at the time of the March 2009 FOMC meeting.

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.

### *Figure: Treasury on-the-run premium*

Line chart showing the 10-year note, 2001 to April 2009. Unit is basis points. Data are monthly averages. The March 2009 FOMC meeting is marked in the time series. The series begins at about 15 and generally increases to about 28 by early 2002. It then generally decreases to about 5 by late 2006, and generally increases to about 60 by early 2009. It then generally decreases to end at about 40. It is at about 52 at the time of the March 2009 FOMC meeting.

Note. Computed as the spread of the yield read from an estimated off-the-run yield curve over the on-the-run Treasury yield. April observation is the month-to-date average.

Source. Board staff estimates.

### *Figure: On-the-run Treasury market volume and turnover*

Line chart, by billions of dollars, 2003 to 2009. Data are monthly averages. The March 2009 FOMC meeting is marked in the time series. There are two series, "Trading volume" and "Turnover". These two series use two different scales. Trading volume begins at about 90, and generally increases to about 240 by early 2007. It then generally decreases to about 110 by 2007, and generally increases to about 290 by early 2008. It then generally decreases to end at about 90 by April. It is at about 95 at the time of March 2009 FOMC meeting. Turnover begins at about 1.2 and generally increases to about 4.5 by early 2007. It then generally decreases to about 2.2 by 2007, and generally increases to about 5.4 by late 2007. It then generally decreases to end at about 1 by March. It is at about 1 at the

time of the March 2009 FOMC meeting.

Note. Turnover is divided by total outstanding at the end of the month.

Source. BrokerTec Interdealer Market Data and Bloomberg.

*Figure: Pricing in the secondary market for leveraged loans*

Line chart, 2007 to March 11, 2009. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "Average bid price", which is by percent of par value, and "Average bid-asked spread", which is in basis points. These two series use two different scales. Average bid price begins at about 97 and generally decreases to about 86 by February 2008. It then remains about constant until June, and then generally decreases to about 60 by December 2008. It then generally increases to end at about 67. It is at about 62.5 at the time of the March 2009 FOMC meeting. Average bid-asked spread begins at about 51 and generally increases to about 225 by February 2008. It then generally decreases to about 160 by late June, and generally increases to about 410 by January 2009. It then generally decreases to an end at about 305. It is at about 350 at the time of the March 2009 FOMC meeting.

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

**[Box:] Balance Sheet Developments During the Intermeeting Period**

**Federal Reserve Balance Sheet**

Billions of dollars

	Change since last FOMC	Current (4/22/2009)	Maximum level	Date of maximum level
<b>Total assets</b>	<b>129</b>	<b>2,198</b>	<b>2,256</b>	<b>12/17/2008</b>
Selected assets:				
Liquidity programs for financial firms	-105	791	1247	11/06/2008
Primary, secondary, and seasonal credit	-25	44	114	10/28/2008
Term auction credit (TAF)*	-13	456	493	03/11/2009
Foreign central bank liquidity swaps*	-47	283	586	12/04/2008
Primary Dealer Credit Facility (PDCF)	-12	8	156	09/29/2008
Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF)	-7	1	152	10/01/2008
Lending through other credit facilities	8	249	351	01/23/2009
Net portfolio holdings of Commercial Paper Funding Facility LLC (CPFF)	1	242	351	01/23/2009
Term Asset-Backed Securities Loan Facility (TALF)	6	6	6	04/22/2009
Support for specific institutions	0	116	118	04/02/2009
Credit extended to AIG	0	44	91	10/27/2008
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC	0	72	75	12/30/2008
Securities held outright	215	967	967	04/22/2009
U.S. Treasury securities	60	535	741	08/14/2007
Agency securities	17	65	65	04/22/2009
Agency mortgage-backed securities**	139	368	368	04/22/2009
Memo: Term Securities Lending Facility (TSLF)	-62	44	236	10/01/2008
<b>Total liabilities</b>	<b>128</b>	<b>2,152</b>	<b>2,213</b>	<b>12/04/2008</b>
Selected liabilities:				
Currency in circulation	1	863	866	04/21/2009
Reserve balances of depository institutions	145	916	939	04/17/2009
U.S. Treasury, general account	-15	94	137	10/23/2008
U.S. Treasury, supplemental financing account	0	200	559	10/22/2008
Other deposits	-1	0	53	04/14/2009
<b>Total capital</b>	<b>1</b>	<b>46</b>	<b>46</b>	<b>04/14/2009</b>

\* The amount of term auction credit and the amount of foreign central bank liquidity swaps are expected to decline \$52 billion and \$32 billion respectively, on April 23, 2009. [Return to table](#)

\*\* Includes only mortgage-backed security purchases that have already settled. [Return to table](#)

## Chart 3 Interest Rate Developments

### *Figure: Expected federal funds rates*

Line chart, by percent, 2009 to 2011. There are two series, "April 23, 2009" and "March 17, 2009". April 23, 2009 begins at about 0.15 and generally increases to end at about 1.9. March 17, 2009 begins at about 0.2 and generally increases to end at about 1.9.

Note. Estimates from federal funds and Eurodollar futures, with an allowance for term premiums and other adjustments.

Source. Chicago Mercantile Exchange and CBOT.

### *Figure: Implied distribution of federal funds rate six months ahead*

Line chart, by percent, 0.00 to 3.00. There are two series, "Recent: 4/23/2009" and "Last FOMC: 3/17/2009". Recent: 4/23/2009 begins at about 20 and increases to about 59 at 0.25. It then generally decreases to about 6 at 0.50, and increases to about 10 at 0.75. It then decreases to 0 by 1.75, and it remains at 0 until the end. Last FOMC: 3/17/2009 begins at about 5 and increases to about 54 at 0.25. It then decreases to about 1 at 1.00, and increases to about 3 at 1.25. It then decreases to 0 at 1.50, and it remains at 0 until 2.00. It then increases to 5 at 2.25, and generally decreases to end at about 0.

Note. Derived from options on Eurodollar futures contracts, with term premium and other adjustments to estimate expectations for the federal funds rate.

Source. CBOT.

### *Figure: Distribution of expected quarter of first rate increase from the Desk's Dealer Survey*

Bar graph, by percent, 2010:Q1 to 2012:Q2. There are two series, "Recent: 14 respondents" and "Last FOMC: 14 respondents". Recent: 14 respondents begins at about 8 and generally increases to about 21 by 2010:Q2. It then generally decreases to about 8 by 2010:Q4, and generally increases to about 37 by 2011:Q1. It then generally decreases to about 0 by 2011:Q2, and remains about constant until 2011:Q4. It then generally increases to end at about 8. FOMC: 14 respondents begins at about 8 and generally increases to about 28 by 2010:Q2. It then generally decreases to about 0 by 2010:Q3, and generally increases to about 28 by 2011:Q1. It then generally decreases to about 0 by 2011:Q4, and generally increases to end at about 8.

Source. Federal Reserve Bank of New York.

### *Figure: Nominal Treasury yields*

Line chart, by percent, 2007 to April 23, 2009. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "10-year" and "2-year". They begin at about 4.8 and generally increase together until they reach about 5.2 by 2007. 10-year then generally decreases to about 3.5 by early 2008, and generally increases to about 4.6 by 2008. It then generally decreases to about 2.7 by late 2008, and generally increases to end at about 3.3. It is at about 3.3 at the time of the March 2009 FOMC meeting. 2-year generally decreases to about 1.4 by early 2008, and generally increases to about 3 by mid-2008. It then generally decreases to about 0.3 by late 2008, and generally increases to end at about 1. It is at about 0.9 at the time of the March 2009 FOMC meeting.

Note. Par yields from a smoothed nominal off-the-run Treasury yield curve.

Source. Board staff estimates.

### *Figure: Inflation compensation*

Line chart, by percent, 2007 to April 23, 2009. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "Next 5 years" and "5-to-10 year forward". Next 5 years begins at about 2.3 and remains about constant until about early 2008. It then generally increases to about 2.5 by mid-2008. It then generally decreases to about -1.5 by late 2008, and generally increases to end at about 0.4. It is at about 0 at the time of the March 2009 FOMC meeting. 5-to-10 year forward begins at about 2.5 and generally increases to about 3.5 by late 2008. It then generally decreases to end at about 2.5. It is at about 2.5 at the time of the March 2009 FOMC meeting.

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

Source. Barclays, PLC.; Bloomberg; Board staff estimates.

### *Figure: Survey measures of inflation expectations*

Line chart, by percent, 2002 to April 2009. Data are monthly. There are two series, "Michigan Survey 1-year" and "Michigan Survey 10-year". Michigan Survey 1-year begins at about 1.9 and generally increases to about 3.1. It then generally decreases to about 1.7 by 2003, and generally increases to about 4.6 by late 2005. It then generally decreases to about 2.9 by early 2007, and generally increases to about 5.1 by 2008. It then generally decreases to about 1.8 by early 2009, and generally increases to end at about 3. Michigan Survey 10-year begins at about 2.8 and remains about constant until about early 2005. It then generally increases to about 3.3 by mid-2008, and generally decreases to end at about 2.8.

Source. Reuters/University of Michigan.

## Chart 4 Asset Market Developments

### *Figure: Equity prices*

Line chart, 2002 to April 23, 2009. December 31, 2001=100. Data are daily. The March 2009 FOMC meeting is marked in the time series. The series begins at about 100 and generally decreases to about 70 by late 2002. It then generally increases to about 148 by late 2007, and generally decreases to end at about 81. It is at about 70 at the time of the March 2009 FOMC meeting.

Source. Bloomberg.

### *Figure: Implied volatility on S&P 500 (VIX)*

Line chart, by percent, 2002 to April 23, 2009. The March 2009 FOMC meeting is marked in the time series. Data are weekly, as measured on Fridays or the most recent business day. The series begins at about 20 and generally decreases to about 19 by early 2002. It then generally increases to about 43 by mid-2002, and generally decreases to about 2 by early 2007. It then generally increases to about 80 by late 2008, and generally decreases to end at about 35. It is at about 42 at the time of the March 2009 FOMC meeting.

Source. Chicago Board of Exchange.

### *Figure: Corporate bond spreads*

Line chart, 2002 to April 22, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "10-year BBB" and "10-year High Yield". These two series use two different scales. 10-year BBB begins at about 200 and generally increases to about 325 by late 2002. It then generally decreases to about 55 by early 2005, and generally increases to about 655 by early 2009. It then generally decreases to end at about 540. It is at about 565 at the time of the March 2009 FOMC meeting. 10-year High Yield begins at about 550 and generally increases to about 800 by late 2002. It then generally decreases to about 250 by early 2005, and generally increases to about 1625 by early 2009. It then generally decreases to end at about 999. It is at about 1250 at the time of the March 2009 FOMC meeting.

Note. Measured relative to an estimated off-the-run Treasury yield curve.

Source. Merrill Lynch and Board staff estimates.

### *Figure: Fannie Mae debt and MBS spreads*

Line chart, January 2008 to April 23, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "10-year debt" and "MBS spread". 10-year debt begins at about -10 and generally increases to about 50 by March 2008. It then generally decreases to about 0 by September, and generally increases to about 190 by November 2008. It then generally decreases to about 58 by mid-March 2009, and generally increases to end at about 80. It is at about 78 at the time of the March 2009 FOMC meeting. MBS spread begins at about 85 and generally increases to about 140 by early March 2008. It then generally decreases to about 98 by May, and generally increases to about 150 by September. It then generally decreases to about 85 by late September, and generally increases to about 220 by November 2008. It then generally decreases to end at about 98. It is at about 120 at the time of the March 2009 FOMC meeting.

Note. Spreads over swaps of comparable maturity.

Source. Bloomberg.

### *Figure: Residential mortgage rates and spreads*

Line chart, January 2007 to April 22, 2009. Data are weekly. The March 2009 FOMC meeting is marked in the time series. There are two series, "FRM rate", which is by percent, and "FRM spread", which is by basis points. These two series use two different scales. FRM rate begins at about 6.2 and generally increases to about 6.75 by June 2007. It then generally decreases to about 5.5 by late January 2008, and generally increases to about 6.6 by July 2008. It then generally decreases to end at about 4.8. It is at about 5.0 at the time of the March 2009 FOMC meeting. FRM spread begins at about 150 and generally increases to about 255 by March 2008. It then generally decreases to about 206 by June 2008, and generally increases to about 300 by late December 2008. It then generally decreases to end at about 85. It is at about 215 at the time of the March 2009 FOMC meeting.

Note. FRM spread is relative to 10-year Treasury.

Source. Freddie Mac.

### *Figure: AAA ABS spreads*

Line chart, January 2007 to April 2009. Unit is basis points. Data are weekly. The March 2009 FOMC meeting is marked in the time series. There are three series, "2-year credit card", "2-year auto", and "3-year FFELP". They begin at about 0 and track closely together until they reach about 20 by November 2007. 2-year credit card generally increases to about 100 by April 2008, and generally decreases to about 50 by June 2008. It then generally increases to about 550 by December 2008, and generally decreases to end at about 230. It is at about 300 at the time of the March 2009 FOMC meeting. 2-year auto generally increases to about 150 by April 2008, and generally decreases to about 80 by June 2008. It then generally increases to about 450 by November 2008, and generally decreases to end at about 190. It is at about 240 at the time of the March 2009 FOMC meeting. 3-year FFELP generally increases to about 100 by April 2008, and generally

decreases to about 50 by June 2008. It then generally increases to about 350 by late November 2008, and generally decreases to end at about 145. It is at about 180 at the time of the March 2009 FOMC meeting.

Note. Last observation for 2-year auto and credit card ABS spreads is April 24. Last observation for 3-year FFELP is April 10.

Source. For credit card and auto spreads, trader estimates provided by Citigroup. For FFELP spreads, trader estimates provided by Merrill Lynch.

## Chart 5 International Financial Indicators

### *Figure: Stock price indexes: Industrial countries*

Line chart, 2006 to 2009. Index(12/29/05=100). Data are daily. The March 2009 FOMC meeting is marked in the time series. There are three series, "UK (FTSE-350)", "Euro Area (DJ Euro)", and "Japan (Topix)". UK (FTSE-450) begins at about 101 and generally increases to about 120 by mid-2007. It then generally decreases to about 65 by 2009, and generally increases to end at about 72. It is at about 69 at the time of the March 2009 FOMC meeting. Euro Area (DJ Euro) begins at about 105 and generally increases to about 115 by 2006. It then generally decreases to about 82 by mid-2006, and generally increases to about 140 by 2007. It then generally decreases to about 55 by 2009, and generally increases to end at about 68. It is at about 60 at the time of the March 2009 FOMC meeting. Japan (TOPIX) begins at about 100 and generally increases to about 108 by 2006. It then generally decreases to about 89 by mid-2006, and generally increases to about 109 by early 2007. It then generally decreases to end at about 50. It is at about 45 at the time of the March 2009 FOMC meeting.

Note. Last daily observation is for April 23, 2009.

Source. Bloomberg.

### *Figure: Stock price indexes: Emerging market economies*

Line chart, 2006 to 2009. Index(12/29/05=100). Data are daily. The March 2009 FOMC meeting is marked in the time series. There are three series, "Brazil (Bovespa)", "Korea (KOSPI)", and "Mexico (Bolsa)". Brazil begins at about 113 and generally increases to about 125 by 2006. It then generally decreases to about 102 by mid-2006, and generally increases to about 218 by 2008. It then generally decreases to about 90 by early 2009, and generally increases to end at about 130. It is at about 120 at the time of the March 2009 FOMC meeting. Korea (KOSPI) begins at about 100 and generally increases to about 104 by 2006. It then generally decreases to about 88 by mid-2006, and generally increases to about 150 by late 2007. It then generally decreases to about 70 by late 2008, and generally increases to end at about 100. It is at about 86 at the time of the March 2009 FOMC meeting. Mexico (Bolsa) begins at about 100 and generally increases to about 124 by 2006. It then generally decreases to about 95 by mid-2006, and generally increases to about 185 by late 2007. It then generally decreases to about 145 by early 2008, and generally increases to about 179 by 2008. It then generally decreases to about 90 by late 2008, and generally increases to end at about 125. It is at about 105 at the time of the March 2009 FOMC meeting.

Note. Last daily observation is for April 23, 2009.

Source. Bloomberg.

### *Figure: Ten-year government bond yields (nominal)*

Line chart, by percent, 2006 to 2009. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are three series, "UK", "Germany", and "Japan". UK and Germany use one scale and Japan uses another. UK begins at about 4.05 and generally increases to about 5.55 by mid-2007. It then generally decreases to about 4.3 by early 2008, and generally increases to about 5.3 by mid-2008. It then generally decreases to about 3.05 by early 2009, and generally increases to about 3.95 by early 2009. It then generally decreases to about 3.0 by 2009, and generally increases to end at about 3.5. It is at about 3.1 at the time of the March 2009 FOMC meeting. Germany begins at about 3.35 and generally increases to about 4.1 by mid-2006. It then generally decreases to about 3.6 by late 2006, and generally increases to about 4.6 by mid-2007. It then generally decreases to about 3.75 by early 2008, and generally increases to about 4.6 by mid-2008. It then generally decreases to end at about 3.2. It is at about 3.1 at the time of the March 2009 FOMC meeting. Japan begins at about 1.44 and generally increases to about 2.0 by 2006. It then generally decreases to about 1.55 by early 2006, and generally increases to about 1.95 by mid-2007. It then generally decreases to about 1.3 by early 2008, and generally increases to about 1.9 by mid-2008. It then generally decreases to about 1.3 by early 2009, and generally increases to end at about 1.5. It is at about 1.35 at the time of the March 2009 FOMC meeting.

Note. Last daily observation is for April 23, 2009.

Source. Bloomberg.

### *Figure: Nominal trade-weighted dollar indexes*

Line chart, 2006 to 2009. Index(12/30/05=100). Data are daily. The March 2009 FOMC meeting is marked in the time series. There are three series, "Broad", "Major Currencies", and "Other Important Trading Partners". Broad begins at about 99.5 and generally decreases to about 85 by mid-2008. It then generally increases to about 100.5 by late 2008, and generally decreases to about 95 by late 2008. It then generally increases to about 103.5 by early 2009, and generally decreases to end at about 99. It is at about 100 at the time of the March 2009 FOMC meeting. Major Currencies begins at about 99.5 and generally decreases to about 94 by 2006. It then generally increases to about 96.5 by late 2006, and generally decreases to about 80.5 by early 2008. It then generally increases to about 99.5 by late 2008, and generally decreases to about 90.5 by late 2008. It then generally increases to about 100 by early 2009, and generally decreases to end at about 96.5. It is at about 96 at the time of the March 2009 FOMC meeting. Other Important Trading Partners begins at about 100 and generally decreases to about 88.5 by mid-2008. It then generally increases to about 106.5 by early 2009, and generally decreases to end at about 101. It is at about 104 at the time of the March 2009 FOMC meeting.

Note. Last daily observation is for April 23, 2009.



## Chart 6 Debt and Money

### Growth of debt of nonfinancial sectors

Percent, s.a.a.r.

	Total	Business	Household	Government
2007	8.6	13.1	6.6	6.1
2008	5.8	4.8	0.4	17.5
Q1	5.2	7.2	3.0	6.7
Q2	3.1	5.8	0.3	4.4
Q3	8.1	4.1	0.2	28.6
Q4	6.3	1.7	-1.9	26.7
2009				
Q1	4.5	2.2	-2.2	18.3

Source. Flow of Funds.

### Figure: Growth of debt of household sector

Line chart, by percent, 1991 to 2009:Q1. Data are quarterly, s.a.a.r. There are two series, "Consumer credit" and "Home mortgage". Consumer credit begins at about 0 and generally decreases to about -2.5 by late 1991. It then generally increases to about 17 by 1995, and generally decreases to about 2.5 by 1998. It then generally increases to about 13 by 2001, and generally decreases to about 3 by 2006. It then generally increases to about 7.5 by 2007, and generally decreases to end at about -3. Home mortgage begins at about 8, and fluctuates but generally increases to about 15.5 by 2003. It then generally decreases to end at about -2.5.

Source. Flow of Funds, Federal Reserve G.19 release.

### Figure: Growth of house prices

Line chart, by percent, 1996 to 2008:Q4. Data are s.a.a.r. There are two series, "FHFA purchase-only index" and "S&P Case-Shiller national index". FHFA purchase-only index begins at about 5 and generally increases to about 10 by 2005. It then generally decreases to end at about -14. S&P Case-Shiller national index begins at about 3 and generally increases to about 18 by early 2005. It then generally decreases to end at about -24.

Source. Federal Housing Finance Agency (FHFA), Standard & Poor's.

### Figure: Changes in selected components of debt of nonfinancial business sector

Bar chart, by billions of dollars, 2006 to 2009:Q1. Data are monthly rate. There are three series, "C&I loans", "Commercial paper", and "Bonds". There is also a "Sum" series presented as a line chart which sums the total of the other series. Approximate values are: 2006: Bonds 20, C&I 10, Commercial paper 3, Sum 33. 2007: Bonds 27, C&I 22, Commercial paper 0, Sum 49. 2008:Q1: Bonds 15, C&I 13, Commercial paper 4, Sum 32. 2008:Q2: Bonds 30, C&I 10, Commercial paper -5, Sum 35. 2008:Q3: Bonds 8, C&I 20, Commercial paper 5, Sum 33. 2008:Q4: Bonds 15, C&I loans 2, Commercial paper 1, Sum 18. 2009:Q1: Bonds 45, C&I loans -10, Commercial paper -12, Sum 23.

Note. Commercial paper and C&I loans are seasonally adjusted, bonds are not.

Source. Securities Data Company, Depository Trust & Clearing Corporation, and Federal Reserve H.8 release.

### Figure: Bank credit

Line chart, January 2007 to April 2009. January 2008=100. Data are monthly. The series begins at about 90 and generally increases to about 102 by April 2008. It then generally decreases to about 101 by September 2008, and generally increases to about 104.5 by November 2008. It then generally decreases to end at about 100.

Note. April 2009 is estimated.

### Figure: Growth of M2

Bar chart, by percent, 2006 to 2009:Q1. The series starts at about 5 and fluctuates but remains about constant until 2008:Q1, when it reaches about 8. It then generally decreases to about 4 by 2008:Q3, and generally increases to about 14.5 by 2008:Q4. It then generally decreases to end at about 13.

Source. Federal Reserve.



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

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## April 2009 Bluebook Tables and Charts<sup>†</sup>

### Monetary Policy Strategies

#### Chart 7

#### Equilibrium Real Federal Funds Rate

*Figure: Short-Run Estimates with Confidence Intervals*

Line chart, by percent, 1990 to 2009. There are five series, "The actual real funds rate based on lagged core inflation", "Greenbook-consistent measure", "Range of model based estimates", "70 Percent confidence interval", and "90 Percent confidence interval". The actual real funds rate series starts about 4.5, decreases to about -1.5 by 1992, generally increases to about 5 by late 2000, generally decreases to about -1 by 2004, increases to about 3 by 2007, and generally decreases to end at about -1.5. Greenbook-consistent measure starts at about 4 in 1997. It generally increases to about 5.5 by 2000, generally decreases to about 0 by late 2002, generally increases to about 3 by 2007, and generally decreases to end at about -5. The other three series closely track each other throughout the chart, with the 70 percent confidence interval being about 1 percent both lesser and greater than the Range of model-based estimates, and the 90 Percent confidence interval being about 2 percent both lesser and greater than the Range of model-based estimates at any given point. The Range of model-based estimates starts at between about 1.5 and 4, decreases to about -0.5 and 2 by late 1991, generally increases to between 2 and 5 by early 1999, generally decreases to about -1.6 and 0.8, generally increases to about 1.8 and 3.5, then generally decreases to end at about -9 and -1.5.

#### Short-Run and Medium-Run Measures

	Current Estimate	Previous Bluebook
<b>Short-Run Measures</b>		
Single-equation model	-1.7	-2.0
Small structural model	-9.1	-10.0
Large model (FRB/US)	-6.7	-8.6
Confidence intervals for three model-based estimates		
70 percent confidence interval	-9.3 to -1.6	
90 percent confidence interval	-10.5 to -0.2	
Greenbook-consistent measure	-3.2	-5.2
<b>Medium-Run Measures</b>		
Single-equation model	1.5	1.4
Small structural model	1.2	0.3
Confidence intervals for two model-based estimates		
70 percent confidence interval	0.4 to 2.2	
90 percent confidence interval	-0.2 to 2.9	
TIPS-based factor model	2.0	2.0
<b>Memo</b>		
Actual real federal funds rate	-1.7	-1.4

Note: Appendix 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 expectation. For information regarding alternative measures, see Appendix A.

#### Chart 8

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

(The results labeled as "Previous Bluebook" have been generated using the new specification for long-run inflation expectations.)

*Figure: Nominal Federal Funds Rate*

Line chart, by percent, 2009 to 2013. There are three series, "Current Bluebook: Constrained", "Current Bluebook: Unconstrained" and "Previous Bluebook:

Unconstrained". Current Bluebook: Constrained begins at about 0.1 and remains about constant until the end. Current Bluebook: Unconstrained begins at about 0.1, generally decreases to about -7.2 by late 2010, and generally increases to end at about 2.2. Previous Bluebook: Unconstrained begins at about 0.1, generally decreases to about -9 by late 2010, and generally increases to end at about 1.2.

#### *Figure: Real Federal Funds Rate*

Line chart, by percent, 2009 to 2013. There are three series, "Current Bluebook: Constrained", "Current Bluebook: Unconstrained" and "Previous Bluebook: Unconstrained". Current Bluebook: Constrained begins at about -1.5 and generally increases to about -0.8 by 2010. It then remains about constant but generally decreases to end at about -1. Current Bluebook: Unconstrained begins at about -1.5, generally decreases to about -8.8, and generally increases to end at about 0.9. Previous Bluebook: Unconstrained begins at about -1.5, generally decreases to about -10 by late 2010, and generally increases to end at about 0.

#### *Figure: Civilian Unemployment Rate*

Line chart, by percent, 2009 to 2013. There are three series, "Current Bluebook: Constrained", "Current Bluebook: Unconstrained" and "Previous Bluebook: Unconstrained". Current Bluebook: Constrained begins at about 8, generally increases to about 9.2 by 2009, and generally decreases to end at about 4.5. Current Bluebook: Unconstrained begins at about 8, generally increases to about 9.1 by 2009, and generally decreases to end at about 3.8. Previous Bluebook: Unconstrained begins at about 8, generally increases to about 8.8 by 2009, and generally decreases to end at about 3.8.

#### *Figure: Core PCE Inflation*

Line chart, by percent, 2009 to 2013. Data are four-quarter averages. There are three series, "Current Bluebook: Constrained", "Current Bluebook: Unconstrained" and "Previous Bluebook: Unconstrained". Current Bluebook: Constrained begins at about 1.7, generally decreases to about 0.65 by early 2011, and generally increases to end at about 1.1. Current Bluebook: Unconstrained begins at about 1.7, generally decreases to about 1.3 by 2010, and generally increases to end at about 1.55. Previous Bluebook: Unconstrained begins at about 1.55, generally increases to about 1.6 by 2009, and generally decreases to about 1.45 by 2009. It then generally increases to about 1.6 by early 2010, generally decreases to about 1.1 by 2011, and generally increases to end at about 1.5.

### [Box:] Policy Paths for Large-scale Asset Purchases

#### *Figure: LSAP holdings*

Line chart, by billions, 2009 to 2013. There are three series, "Optimal control LSAP", "Greenbook baseline", and "Unconstrained policy". Optimal control LSAP begins at about 250, generally increases to about 3900, and generally decreases to end at about 1100. Greenbook baseline and Unconstrained policy track closely together throughout the chart. They begin at about 250, generally increase to about 1800 by late 2009, and generally decrease to end at about 700.

#### *Figure: Unemployment rate*

Line chart, by percent, 2009 to 2013. There are three series, "Optimal control LSAP", "Greenbook baseline", and "Unconstrained policy". Optimal control LSAP begins at about 8, generally increases to about 9.2 by 2009, and generally decreases to end at about 3.8. Greenbook baseline begins at about 8, generally increases to about 9.2, and generally decreases to end at about 4.9. Unconstrained policy begins at about 8, generally increases to about 9.2 and generally decreases to end at about 3.7.

#### *Figure: Core PCE inflation*

Line chart, by percent, 2009 to 2013. There are three series, "Optimal control LSAP", "Greenbook baseline", and "Unconstrained policy". Optimal control LSAP begins at about 1.78, generally decreases to about 0.76 by 2011, and generally increases to end at about 1.26. Greenbook baseline begins at about 1.78, generally decreases to about 62.5 by 2011, and generally increases to end at about 1.05. Unconstrained policy begins at about 1.78, generally decreases to about 1.25 by 2010, and generally increases to end at about 1.55.

## Chart 9

### *The Policy Outlook in an Uncertain Environment*

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

Line chart, by percent, 2009 to 2013. There are three series, "Current Bluebook", "Previous Bluebook", and "Greenbook assumption". They begin at about 0. Current Bluebook begins to generally increase by the end of 2011, and continues to generally increase to end at about 3. Previous Bluebook begins to generally increase by 2012, and continues to generally increase to end at about 1.5. Greenbook assumption begins to generally increase by late 2012, and continues to generally increase to end at about 2.

Note: There is dark and light shading that represents the 70 and 90 percent confidence intervals respectively. The 70 percent interval covers about 1 to 5 and the 90 percent interval covers about 0 to 6.3 by the end of the chart.

## Figure: Information from Financial Markets

Line chart, by percent, 2009 to 2013. There are two series, "Current Bluebook", and "Previous Bluebook". Current Bluebook begins at about 0.1 and generally increases to end at about 2.95. Previous Bluebook begins at about 0.1 and generally increases to end at about 2.8.

Note: There is dark and light shading that represents the 70 and 90 percent confidence intervals respectively. The 90 percent interval covers about 1.7 to 5.1 and the 70 percent interval covers about 2 to 3.9. In the previous Bluebook, the 90 percent interval covers about 1 to 5.7 and the 70 percent interval covers about 1.5 to 4.3.

## Near-Term Prescriptions of Simple Policy Rules

	Constrained Policy		Unconstrained Policy	
	2009Q2	2009Q3	2009Q2	2009Q3
Taylor (1993) rule	<b>0.29</b>	<b>0.13</b>	<b>0.29</b>	<b>-0.47</b>
<i>Previous Bluebook</i>	0.13	0.13	-0.29	-1.14
Taylor (1999) rule	<b>0.13</b>	<b>0.13</b>	<b>-2.91</b>	<b>-3.87</b>
<i>Previous Bluebook</i>	0.13	0.13	-3.62	-4.77
First-difference rule	<b>0.13</b>	<b>0.13</b>	<b>-1.05</b>	<b>-1.94</b>
<i>Previous Bluebook</i>	0.13	0.13	-1.57	-2.98
Estimated outcome-based rule	<b>0.13</b>	<b>0.13</b>	<b>-0.79</b>	<b>-1.79</b>
<i>Previous Bluebook</i>	0.13	0.13	-1.06	-2.39
Estimated forecast-based rule	<b>0.13</b>	<b>0.13</b>	<b>-0.95</b>	<b>-2.09</b>
<i>Previous Bluebook</i>	0.13	0.13	-1.28	-2.76

## Memo

	2009Q2	2009Q3
Greenbook assumption	0.13	0.13
Fed funds futures	0.17	0.21
Median expectation of primary dealers	0.13	0.13
Blue Chip forecast (April 1, 2009)	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. Appendix B provides further background information.

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

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### Long-Run Projections of the Balance Sheet and Monetary Base

#### Growth of Monetary Base

Date	Baseline	Alternative
percent, annual rate		
Monthly		
May-09	123.0	150.0
Jun-09	113.2	135.0
Jul-09	134.9	151.7
Aug-09	121.3	134.6
Sep-09	110.1	121.1
Oct-09	78.7	110.0
Nov-09	73.9	100.7
Dec-09	62.8	86.8
Quarterly		
Q2 2009	50.9	60.1
Q3 2009	135.9	157.2
Q4 2009	93.1	120.2
Q1 2010	10.8	19.9
Q2 2010	-15.9	-13.9
Q3 2010	-16.6	-14.4
Q4 2010	-17.4	-15.1
Annual		
2009	129.2	143.2
2010	30.8	42.1
2011	-13.1	-11.7
2012	-14.5	-14.3
2013	-24.3	-23.7
2014	-18.5	-19.6
2015	-10.4	-18.0
2016	-1.2	-7.8

Note: Growth rates are based on period averages, not seasonally adjusted

#### Baseline Scenario

Figure: Federal Reserve Assets

Stacked line chart, by billions of dollars, 2006 to late 2016. There are eight series, "Treasury Securities", "Swaps", "Agency debt", "TALF", "MBS", "Other liquidity facilities", "Repurchase agreements", and "Other assets". Approximate values of all series are given as of the beginning of each year. 2006: Treasury Securities 800, Repurchase agreements 25, Other assets 100, all others 0. 2007: Treasury Securities 850, Repurchase agreements 25, Other assets 100, all others 0. 2008: Treasury Securities 700, Repurchase agreements 25, Swaps 10, Other liquidity facilities 25, Other assets 25, all others 0. 2009: Treasury securities 500, Agency debt 25, MBS 25, Swaps 400, Other liquidity facilities 900, Other assets 25, all others 0. 2010: Treasury securities 800, Agency debt 200, MBS 1250, Swaps 100, TALF 200, Other liquidity facilities 1100, Other assets 30, all others 0. 2011: Treasury securities 800, Agency debt 200, MBS 1250, Swaps 1, TALF 450, Other liquidity facilities 200, Other assets 30, all others 0. 2012: Treasury securities 800, Agency debt 200, MBS 1250, TALF 450, Other liquidity facilities 20, Other assets 30, all others 0. 2013: Treasury securities 800, Agency debt 150, MBS 950, TALF 150, Other liquidity facilities 2, Other assets 30, all others 0. 2014:

Treasury securities 650, Agency debt 50, MBS 750, Other assets 30, all others 0. 2015: Treasury securities 600, Agency debt 10, MBS 650, Other assets 30, all others 0. 2016: Treasury securities 600, Agency debt 5, MBS 750, Other assets 30, all others 0.

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

### Figure: Federal Reserve Liabilities and Capital

Line chart, by billions of dollars, 2006 to late 2016. There are six series, "Federal Reserve notes", "Deposits, other than reserve balances", "Other liabilities", "Reverse repurchase agreements", "Reserve balances" and "Capital". Approximate values of all series are given as of the beginning of each year. 2006: Federal Reserve notes 750, Deposits, other than reserve balances 1, Other liabilities 1.5, Reverse repurchase agreements 25, Reserve balances 35, Capital 30. 2007: Federal Reserve notes 750, Deposits, other than reserve balances 1, Other liabilities 1.5, Reverse repurchase agreements 25, Reserve balances 35, Capital 30. 2008: Federal Reserve notes 750, Deposits, other than reserve balances 1, Other liabilities 1.5, Reverse repurchase agreements 25, Reserve balances 10, Capital 30. 2009: Federal Reserve notes 800, Deposits, other than reserve balance 100, Other liabilities 1.5, Reverse repurchase agreements 30, Reserve balances 1250, Capital 30. 2010: Federal Reserve notes 850, Deposits, other than reserve balances 1, Other liabilities 1.5, Reverse repurchase agreements 25, Reserve balances 2250, Capital 30. 2011: Federal Reserve notes 900, Deposits, other than reserve balances 1, Other liabilities 1.5, Reverse repurchase agreements 25, Reserve balances 1750, Capital 30. 2012: Federal Reserve notes 1000, Deposits, other than reserve balances 1, Other liabilities 1.5, Reverse repurchase agreements 25, Reserve balances 1450, Capital 30. 2013: Federal Reserve notes 1050, Deposits, other than reserve balances 1, Other liabilities 1.5, Reverse repurchase agreements 25, Reserve balances 850, Capital 30. 2014: Federal Reserve notes 1100, Deposits, other than reserve balances 1, Other liabilities 1.5, Reverse repurchase agreements 25, Reserve balances 350, Capital 30. 2015: Federal Reserve notes 1150, Deposits, other than reserve balances 1, Other liabilities 1.5, Reverse repurchase agreements 25, Reserve balances 100, Capital 30. 2016: Federal Reserve notes 1200, Deposits, other than reserve balances 1, Other liabilities 1.5, Reverse repurchase agreements 25, Reserve balances 20, Capital 30.

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

## Expanded Purchases Scenario

### Figure: Federal Reserve Assets

Line chart, by billions of dollars, 2006 to late 2016. There are eight series, "Treasuries", "Swaps", "Agency debt", "TALF", "MBS", "Other liquidity facilities", "Repurchase agreements", and "Other assets". Approximate values of all series are given as of the beginning of each year. 2006: Treasuries 750, Repurchase agreements 20, Other assets 50, all others 0. 2007: Treasuries 750, Repurchase agreements 22, Other assets 50, all others 0. 2008: Treasuries 675, Repurchase agreements 20, Swaps 10, Other liquidity facilities 30, Others assets 45, all others 0. 2009: Treasuries 500, Agency debt 20, MBS 50, Swaps 350, Other liquidity facilities 850, Other assets 20, all others 0. 2010: Treasuries 1200, Agency debt 120, MBS 1150, Swaps 50, TALF 300, Other liquidity facilities 600, Other assets 30, all others 0. 2011: Treasuries 1200, Agency debt 120, MBS 1075, TALF 500, Other liquidity facilities 100, Other assets 30, all others 0. 2012: Treasuries 1100, Agency debt 120, MBS 1050, TALF 500, Other liquidity facilities 10, Other assets 30, all others 0. 2013: Treasuries 1000, Agency debt 100, MBS 900, TALF 200, Other liquidity facilities 2, Other assets 30, all others 0. 2014: Treasuries 800, Agency debt 50, MBS 900, Other liquidity facilities 2, Other assets 30, all others 0. 2015: Treasuries 700, Agency debt 20, MBS 900, Other liquidity facilities 1, Other assets 30, all others 0. 2016: Treasuries 600, Agency debt 10, MBS 900, Other liquidity facilities 1, Other assets 30, all others 0.

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

### Figure: Federal Reserve Liabilities and Capital

Line chart, by billions of dollars, 2006 to late 2016. There are six series, "Federal Reserve notes", "Deposits, other than reserve balances", "Other liabilities", "Reverse repurchase agreements", "Reserve balances", and "Capital". Approximate values of all series are given as of the beginning of each year. 2006: Federal Reserve notes 750, Reverse repurchase agreements 20, Reserve balances 25, Other liabilities 1, Capital 20, all others 0. 2007: Federal Reserve notes 750, Reverse repurchase agreements 25, Reserve balances 5, Other liabilities 1, Capital 30, all others 0. 2008: Federal Reserve notes 750, Reverse repurchase agreements 25, Reserve balances 5, Other liabilities 1, Capital 30, all others 0. 2009: Federal Reserve notes 800, Reverse repurchase agreements 30, Deposits, other than reserve balances 125, Reserve balances 700, Other liabilities 1, Capital 30. 2010: Federal Reserve notes 850, Reverse repurchase agreements 30, Deposits, other than reserve balances 0.5, Reserve balances 2750, Other liabilities 1, Capital 30. 2011: Federal Reserve notes 900, Reverse repurchase agreements 25, Deposits, other than reserve balances 0.5, Reserve balances 2250, Other liabilities 1, Capital 30. 2012: Federal Reserve notes 1000, Reverse repurchase agreements 20, Deposits, other than reserve balance 0.5, Reserve balances 1900, Other liabilities 1, Capital 30. 2013: Federal Reserve notes 1020, Reverse repurchase agreements 20, Deposits, other than reserve balances 0.5, Reserve balances 1250, Other liabilities 1, Capital 30. 2014: Federal Reserve notes 1100, Reverse repurchase agreements 20, Deposits, other than reserve balances 0.5, Reserve balances 1200, Other liabilities 1, Capital 30. 2015: Federal Reserve notes 1150, Reverse repurchase agreements 20, Deposits, other than reserve balances 0.5, Reserve balances 250, Other liabilities 1, Capital 30. 2016: Federal Reserve notes 1250, Reverse repurchase agreements 20, Deposits, other than reserve balances 0.5, Reserve balances 10, Other liabilities 1, Capital 30.

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

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

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## April 2009 Bluebook Tables and Charts

### Bank Credit, Debt, and Money Forecasts

#### Growth Rates for M2

(percent, annual rate)

Greenbook Forecast*			
Monthly Growth Rates			
	Jul-08	7.0	
	Aug-08	-3.0	
	Sep-08	17.0	
	Oct-08	18.3	
	Nov-08	7.7	
	Dec-08	26.0	
	Jan-09	12.4	
	Feb-09	4.5	
	Mar-09	11.4	
	Apr-09	-2.7	
	May-09	-0.5	
	Jun-09	0.0	
	Jul-09	0.0	
	Aug-09	0.0	
	Sep-09	-1.0	
	Oct-09	-0.5	
	Nov-09	-0.5	
	Dec-09	-0.5	
Quarterly Growth Rates			
	2008 Q1	8.1	
	2008 Q2	5.4	
	2008 Q3	4.3	
	2008 Q4	14.3	
	2009 Q1	13.1	
	2009 Q2	2.0	
	2009 Q3	-0.2	
	2009 Q4	-0.6	
Annual Growth Rates			
	2007	5.8	
	2008	8.3	
	2009	3.6	
	2010	2.4	
Growth	From	To	
	Mar-09	Sep-09	-0.7
	2009 Q1	Jun-09	1.5
	2009 Q1	Sep-09	0.7



\* This forecast is consistent with nominal GDP and interest rates in the Greenbook forecast. Actual data through March 2009; projections after. [Return to table](#)

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### Appendix A: Measures of the Equilibrium Real Rate

Measure	Description
<b>Single-equation Model</b>	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.
<b>Small Structural Model</b>	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.
<b>Large Model (FRB/US)</b>	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.
<b>Greenbook-consistent</b>	The FRB/US model is used in conjunction with an extended version of the Greenbook forecast to derive a Greenbook-consistent measure. FRB/US is first add-factored so that its simulation matches the extended Greenbook forecast, and then a second simulation is run off this baseline to determine the value of the real federal funds rate that closes the output gap.
<b>TIPS-based Factor Model</b>	Yields on TIPS (Treasury Inflation-Protected Securities) reflect investors' expectations of the future path of real interest rates, but also include term and liquidity premiums. 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 Bluebook 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. Because TIPS indexing is based on the total CPI, this measure is also adjusted for the medium-term difference--projected at 40 basis points--between total CPI inflation and core PCE inflation.

Proxy used for expected inflation	Actual real federal funds rate (current value)	Greenbook-consistent measure of the equilibrium real funds rate (current value)	Average actual real funds rate (twelve-quarter average)
Lagged core inflation	-1.7	-3.2	-0.8
Lagged headline inflation	-0.7	-2.9	-0.6
Projected headline inflation	-1.2	-3.1	-0.8

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### Appendix C: Long-run Projections of the Balance Sheet and Monetary Base

#### Individual Balance Sheet Item Profiles

Note: All values are in billions.

##### *Securities*

##### **Figure: Temporary Holdings of Longer-term Treasuries**

Line chart, December 2008 to December 2016. There are two series, "Baseline" and "Expanded Purchases". Baseline begins at about 0 and generally increases to about 300 by late December 2008. It remains about constant until about December 2011, and then generally decreases to end at about 50. Extended purchases begins at about 0 and generally increases to about 750 by December 2009. It then generally decreases to end at about 100.

##### **Figure: Agency Debt**

Line chart, December 2008 to December 2016. The series begins at about 25 and generally increases to about 200 by December 2009. It then remains about constant until about December 2011, and then generally decreases to end at about 25.

##### **Figure: MBS**

Line chart, December 2008 to December 2016. The series begins at about 0 and generally increases to about 1250 by December 2009. It then generally decreases to end at about 600.

##### *Federal Reserve liquidity and credit facilities*

##### **Figure: PCF/SCF**

Line chart, December 2008 to December 2016. The series begins at about 95 and generally decreases to about 0 by December 2011. It then remains about constant until the end.

##### **Figure: TAF**

Line chart, December 2008 to December 2016. The series begins at about 450 and generally increases to about 470 by December 2008. It then generally decreases to about 0 by December 2011, and remains about constant until the end.

##### **Figure: Swap Lines**

Line chart, December 2008 to December 2016. The series begins at about 550 and generally decreases to about 0 by December 2010. It then remains about constant until the end.

##### **Figure: CPFF**

Line chart, December 2008 to December 2016. The series begins at about 340, generally decreases to about 0 by December 2010, and remains about constant until the end.

### Figure: TALF v 1.0

Line chart, December 2008 to December 2016. The series begins at about 0 and generally increases to about 100 by December 2009. It then remains about a constant 100 until December 2011, and then generally decreases to about 0 by December 2012. It remains about constant until the end.

### Figure: TALF v 2.0/3.0

Line chart, December 2008 to December 2016. The series begins at about 0 and generally increases to about 400 by December 2010. It remains about constant until December 2011, and generally decreases to about 0 by December 2013. It remains about constant until the end.

### Figure: Credit extended to AIG

Line chart, December 2008 to December 2016. The series begins at about 40 and generally increases to about 45 by December 2008. It then generally decreases to about 0 by December 2014, and remains about constant until the end.

### Figure: AMLF

Line chart, December 2008 to December 2016. The series begins at about 24 and generally decreases to about 2 by December 2008. It then generally decreases to about 0 by December 2010, and remains about constant until the end.

### Figure: Maiden Lanes

Line chart, December 2008 to December 2016. There are three series, "Maiden Lane LLC", "Maiden Lane LLC II", and "Maiden Lane LLC III". Maiden Lane LLC begins at about 26 and generally increases to about 29 by December 2009. It then generally decreases to end at about 0 by December 2015. Maiden Lane LLC II begins at about 20 and generally decreases to end at about 0 by December 2012. Maiden Lane LLC III begins at about 26 and generally decreases to about 0 by December 2011. It then remains about constant until the end.

### *Federal Reserve liabilities*

### Figure: Federal Reserve Notes

Line chart, December 2008 to December 2016. The series begins at about 850 and generally increases to end at about 1300.

### Figure: Reserves Balances

Line chart, December 2008 to December 2016. There are two series, "Baseline" and "Expanded Purchases". Baseline begins at about 800 and generally increases to about 2400 by December 2009. It then generally decreases to end at about 0. Expanded Purchases begins at about 800 and generally increases to about 2800. It then generally decreases to end at about 0.

### Figure: TGA and SFP

Line chart, December 2008 to December 2016. There are two series, "TGA" and "SFP". TGA begins at about 110 and generally decreases to about 25 by December 2008. It then generally increases to about 90 by December 2008, and generally decreases to about 0 by December 2009. It remains about constant until the end. SFP begins at about 260 and generally decreases to about 0 by December 2009. It remains about constant until the end.

## Federal Reserve Balance Sheet: End-of-Year Projections--Baseline Scenario

End-of-Year										
Apr. 15 2009	2009	2010	2011	2012	2013	2014	2015	2016		

	\$Billions								
<b>Total Assets</b>	2,183	3,430	2,897	2,613	2,085	1,643	1,451	1,355	1,410
Selected assets:									
Liquidity programs for financial firms	809	608	130	1	1	1	1	1	1
Primary, secondary, and seasonal credit	47	47	30	1	1	1	1	1	1
TAF	456	400	100	-	-	-	-	-	-
Foreign central bank liquidity swaps	294	150	-	-	-	-	-	-	-
PDCF	10	10	-	-	-	-	-	-	-
AMLF	2	1	-	-	-	-	-	-	-
Lending through other credit facilities	245	420	500	500	200	-	-	-	-
CPFF	238	120	-	-	-	-	-	-	-
TALF	6	300	500	500	200	-	-	-	-
Support of specific institutions	118	108	74	34	16	9	2	-	-
Credit extended to AIG	45	45	30	20	10	5	-	-	-
Net portfolio holdings of Maiden Lane LLC, Maiden Lane LLC II, and Maiden Lane LLC III	72	63	44	14	6	4	2	-	-
Securities held outright	943	2,225	2,125	2,010	1,800	1,565	1,380	1,285	1,340
U.S. Treasury securities	526	775	775	760	700	640	580	615	720
Agency Securities	61	200	200	200	150	75	50	20	20
Mortgage-backed securities	356	1,250	1,150	1,050	950	850	750	650	600
Memo: TSLF	54	54	-	-	-	-	-	-	-
Repurchase agreements	0	-	-	-	-	-	-	-	-
<b>Total Liabilities</b>	2,137	3,384	2,851	2,567	2,039	1,597	1,405	1,309	1,364
Selected Liabilities									
Federal Reserve Notes in circulation	865	890	921	972	1,038	1,111	1,170	1,224	1,280
Reserve Balances w. Federal Reserve Banks	890	2,401	1,871	1,536	941	426	176	25	25
U.S. Treasury, general account	95	5	5	5	5	5	5	5	5
U.S. Treasury, supplemental financing account	200	-	-	-	-	-	-	-	-
<b>Total Capital</b>	46	46	46	46	46	46	46	46	46

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

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

**Last update: April 1, 2015**

## April 2009 Greenbook Part 1 Tables and Charts<sup>†</sup>

### Domestic Developments

#### [Box:] Large-Scale Asset Purchases and the Economic Outlook

##### *Figure: Holdings of Long-Term Treasury and Agency Securities*

Line chart, by billions of dollars, 2008 to 2013. There are three series, "Greenbook baseline", "Optimal path (lower cost)", and "Optimal path (higher cost)". Greenbook baseline begins at about 0 and generally increases to about 1,900 by late 2009. It then generally decreases to end at about 750. Optimal path (lower cost) begins at about 300 and generally increases to about 4,200 by 2011. It then generally decreases to end at about 1,450. Optimal path (higher cost) begins at about 300 and generally increases to about 1,800 by 2010. It then generally decreases to end at about 750.

Note: Net of usual Federal Reserve holdings

##### *Figure: Effect of LSAP Programs on the Unemployment Rate*

Line chart, by percentage points, 2008 to 2013. There are three series, "Greenbook baseline", "Optimal path (lower cost)", and "Optimal path (higher cost)". Greenbook baseline begins at about 0.0 and generally decreases to about -0.6 by 2012. It then generally increases to end at about -0.48. Optimal path (lower cost) begins at about 0.0 and generally decreases to about -1.36 by 2012. It then generally increases to end at about -0.9. Optimal path (higher cost) begins at about 0.0 and generally decreases to about -0.6 by 2012. It then generally increases to end at about -0.46.

Note: Reported as changes from a path with no LSAP program

### Key Background Factors Underlying the Baseline Staff Projection

Note: In each panel, shading represents the projection period, which begins in 2009:Q2, except where noted. In the upper-left panel that reports the federal funds rate, the dashed line is not apparent because the paths of the federal funds rate in the March and current Greenbooks are the same.

##### *Figure: Federal Funds Rate*

Line chart, by percent, 2005 to 2010. Data are quarterly averages. There are three series, "Current Greenbook", "March Greenbook", and "Market forecast". They track closely together throughout the chart. They begin at about 2.5 and generally increase to about 5.2 by mid-2006. They remain about constant until late 2007. They then generally decrease to about 0.1 by early 2009. Current Greenbook and March Greenbook remain at 0 to the end. Market forecast generally increases to end at about 1.2.

##### *Figure: Long-Term Interest Rates*

Line chart, by percent, 2005 to 2010. Data are quarterly averages. There are six series, "BBB corporate rate", "Conforming mortgage rate" and "10-year Treasury rate". The March Greenbook is also marked separately for each series. BBB corporate rate and the March Greenbook begin at about 5.4 and generally increase to about 9.4 by the end of 2008. BBB corporate rate generally decreases to end at about 7.2, and March Greenbook generally decreases to end at about 7.8. Conforming mortgage rate and the March Greenbook begin at about 5.8 and then generally increase to about 6.5 by 2007. They continue to track closely together, generally decreasing, until early 2009 at about 5.1. Conforming mortgage rate generally decreases to end at about 5 and March Greenbook remains about constant to end at about 5.2. 10-year Treasury rate and March Greenbook begin at about 4.3 and then generally increase to about 5.1 by 2006. They then generally decrease to about 3.2 by 2009. 10-year Treasury rate generally increases to end at about 3.4 and March Greenbook generally increases to end at about 3.8.

##### *Figure: Equity Prices*

Line chart, 2005 to 2010. 2005:Q1 = 100, ratio scale. Quarter-end data. There are two series, "Dow Jones Total Stock Market Index" and "March Greenbook". They begin at about 100 and generally increase to about 131 by 2007. They track closely together, generally decreasing until about they reach about 77 by late 2008. Dow Jones generally decreases to about 70 by early 2009, and generally increases to end at about 95. March Greenbook generally decreases to about 64 by early 2009, and generally increases to end at about 80.

##### *Figure: House Prices*

Line chart, 2005 to 2010. 2005:Q1 = 100, ratio scale. Data are quarterly. There are two series, "Loan Performance index" and "March Greenbook". They track very closely together throughout the chart. They begin at about 100 and generally increase to about 110 by late 2005. They then generally decrease to end at about 77.

Note: The projection period begins in 2009:Q1.

### Figure: Crude Oil Prices

Line chart, by dollars per barrel, 2005 to 2010. Data are quarterly averages. There are two series, "West Texas intermediate", and "March Greenbook". They begin at about 50 and generally increase to about 70 by 2006. They then generally decrease to about 60 by early 2007, and generally increase to about 126 by 2008. They continue to track closely together, generally decreasing until they reach about 45 by early 2009. West Texas intermediate generally increases to end at about 65. March Greenbook generally increases to end at about 58.

### Figure: Broad Real Dollar

Line chart, 2005 to 2010. 2005:Q1 = 100. Data are quarterly averages. There are two series, "Current Greenbook" and "March Greenbook". They begin at about 100 and generally increase to about 104 by late 2005. They generally decrease to about 89 by 2008. They continue to track closely together, generally increasing until about 99 by the end of 2008. Current Greenbook generally increases to about 100.5 by early 2009 and generally decreases to end at about 97. March Greenbook generally increases to about 103 by 2009 and then generally decreases to end at about 100.

## Summary of the Near-Term Outlook

(Percent change at annual rate except as noted)

Measure	2009:Q1		2009:Q2	
	March Greenbook	April Greenbook	March Greenbook	April Greenbook
<b>Real GDP</b>	<b>-6.5</b>	<b>-6.3</b>	<b>-2.0</b>	<b>-1.5</b>
Private domestic final purchases	-5.3	-5.0	-4.3	-4.0
Personal consumption expenditures	.4	1.1	.0	-.5
Residential investment	-41.2	-38.2	-34.3	-27.4
Business fixed investment	-27.3	-30.1	-23.4	-20.8
Government outlays for consumption and investment	-.2	-5.3	5.5	6.7
	Contribution to growth (percentage points)			
Inventory investment	-2.2	-2.2	.5	-.1
Net exports	.1	1.0	.0	.6

## Projections of Real GDP

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

Measure	2009		2010
	H1	H2	
<b>Real GDP</b>	<b>-3.9</b>	<b>.8</b>	<b>2.6</b>
Previous Greenbook	-4.2	-.3	1.5
Final sales	-2.8	-.6	2.4
Previous Greenbook	-3.4	-1.5	1.4
Personal consumption expenditures	.3	.8	2.7
Previous Greenbook	.2	.6	1.9
Residential investment	-33.0	-.9	11.0
Previous Greenbook	-37.9	-9.5	6.7
Business fixed investment	-25.6	-15.5	3.4
Previous Greenbook	-25.4	-19.7	-.9
Government purchases	.5	4.9	1.9
Previous Greenbook	2.6	4.3	1.8
Exports	-18.6	-.7	2.3
Previous Greenbook	-15.1	-2.3	1.0



Imports	-20.1	4.1	5.1
Previous Greenbook	-12.5	3.2	3.8
	Contribution to growth (percentage points)		
Inventory change	-1.1	1.4	.3
Previous Greenbook	-.8	1.2	.1
Net exports	.9	-6	-5
Previous Greenbook	.1	-.7	-.4

## [Box:] Judgmental Effects of Financial Market Turmoil in the Staff Projection

Figure: Measures of Financial Turmoil

Line chart, 1989 to 2009. There are two series, "9-variable financial stress index" and "Index of change in bank credit standards". These two series use two different series. 9-variable financial stress index begins at about 103 and generally increases to about 107 by early 1991. It then generally decreases to about 99 by 1994, and generally increases to about 114 by 1999. It then generally decreases to about 103.5 by 2000, and generally increases to about 112.5 by 2003. It then generally decreases to about 100 by 2005, and generally increases to about 129 by 2009. It then generally decreases to end at about 119.5. Index of change in bank credit standards begins at about 20 and generally increases to about 55 by 1990. It then generally decreases to about -20 by 1993, and generally increases to about 41 by early 2001. It then generally decreases to about -20 by early 2005, and generally increases to about 88 by 2008. It then generally decreases to end at about 58.

### Recent Movements in Measures of Financial Turmoil

<i>SLOOS index</i>	
October 2008 survey	87.0
January 2009 survey	76.0
April 2009 survey	51.9
<i>Financial stress index</i>	
October 2008 average	124.0
March 2009 average	124.2
Early April 2009 average	119.1

### Selected Econometric Estimates of the Effects of Financial Turmoil on Real GDP

Date of Estimate and Data Source	Methodology	Percent deviation from Q4 baseline level			
		2007	2008	2009	2010
<i>Senior Loan Officer Opinion Survey</i>					
Index of survey responses	FRB/US <sup>1</sup>	-.4	-2.9	-1.8	-0.1
Commercial loan credit standards	VAR <sup>2</sup>	-.1	-2.8	-4.4	-3.1
Change in bank credit standards <sup>3</sup>	VAR <sup>2</sup>	-.1	-1.2	-2.3	-1.5
<i>Capital markets data</i>					
9-variable stress index	FRB/US <sup>2</sup>	-.1	-1.1	-2.0	-1.3
9-variable stress index	FRB/US <sup>1</sup>	-.4	-1.7	-4.6	-4.5
9-variable stress index	VAR <sup>2</sup>	.0	-.1	-1.6	-2.6
<i>Revision in estimates since March Greenbook</i>					
Average				.5	.8
Range				(.1,.9)	(.1,1.5)
<i>Memo item: Staff judgmental projection adjustments<sup>4</sup></i>					
April Greenbook		-.3	-3.5	-5.2	-3.5
March Greenbook		-.3	-3.5	-5.4	-4.0
Revision		.0	.0	.2	.5

1. Stress treated as exogenous and phased out over four quarters. [Return to table](#)

2. Stress treated as endogenous and simulated as part of a system of equations. [Return to table](#)
3. Series shown as the dashed line in the chart; includes both business and consumer lending standards. [Return to table](#)
4. Includes the effects of financial stress and adjustments for recession dynamics. [Return to table](#)

## Decomposition of Structural Labor Productivity

**Nonfarm Business Sector**  
(Percent change, Q4 to Q4, except as noted)

Measure	1974-95	1996-2000	2001-06	2007	2008	2009	2010
<b>Structural labor productivity</b>	<b>1.5</b>	<b>2.5</b>	<b>2.6</b>	<b>2.1</b>	<b>1.9</b>	<b>1.6</b>	<b>1.6</b>
Previous Greenbook	1.5	2.5	2.6	2.1	1.9	1.6	1.5
<i>Contributions<sup>1</sup></i>							
Capital deepening	.7	1.4	.7	.6	.4	-.3	-.2
Previous Greenbook	.7	1.4	.7	.6	.4	-.3	-.3
Multifactor productivity	.5	.7	1.6	1.2	1.3	1.6	1.6
Previous Greenbook	.5	.7	1.6	1.2	1.3	1.7	1.7
Labor composition	.3	.3	.3	.2	.2	.2	.1
MEMO							
Potential GDP	3.0	3.4	2.6	2.5	2.5	2.0	2.0
Previous Greenbook	3.0	3.4	2.6	2.5	2.5	2.0	2.0

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](#)

## The Outlook for the Labor Market

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

Measure	2007	2008	2009	2010
Output per hour, nonfarm business	2.6	2.2	1.3	2.1
Previous Greenbook	2.6	2.1	.9	2.0
Nonfarm private payroll employment	.8	-2.1	-3.7	1.2
Previous Greenbook	.8	-2.1	-3.8	-.1
Household survey employment	.4	-1.5	-2.7	1.0
Previous Greenbook	.4	-1.5	-2.6	.4
Labor force participation rate <sup>1</sup>	66.0	65.9	65.3	65.1
Previous Greenbook	66.0	65.9	65.3	65.1
Civilian unemployment rate <sup>1</sup>	4.8	6.9	9.3	9.1
Previous Greenbook	4.8	6.9	9.2	9.5
MEMO				
GDP gap <sup>2</sup>	-.4	-3.6	-7.0	-6.4
Previous Greenbook	-.4	-3.7	-7.7	-8.2

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

2. Actual less potential GDP in the fourth quarter of the year indicated as a percent of potential GDP. A negative number thus indicates that the economy is operating below potential. [Return to table](#)

## Inflation Projections

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

Measure	2007	2008	2009	2010
PCE chain-weighted price index	3.5	1.9	.7	1.0
Previous Greenbook	3.5	1.9	.4	.8
Food and beverages	4.5	6.3	1.7	1.2
Previous Greenbook	4.5	6.3	1.9	1.2
Energy	19.1	-8.5	-8.9	6.1
Previous Greenbook	19.1	-8.6	-11.3	4.5
Excluding food and energy	2.2	1.9	1.2	.7
Previous Greenbook	2.2	1.9	1.0	.5
Consumer price index	4.0	1.5	.4	1.3
Previous Greenbook	4.0	1.5	.3	1.1
Excluding food and energy	2.3	2.0	1.3	.9
Previous Greenbook	2.3	2.0	1.3	.7
GDP chain-weighted price index	2.6	2.0	1.6	.9
Previous Greenbook	2.6	2.0	1.6	.8
ECI for compensation of private industry workers <sup>1</sup>	3.0	2.4	1.8	1.3
Previous Greenbook	3.0	2.4	1.8	1.1
Compensation per hour, nonfarm business sector	3.6	4.1	2.3	1.3
Previous Greenbook	3.6	4.1	2.2	1.1
Prices of core goods imports <sup>2</sup>	3.4	3.5	-3.3	1.1
Previous Greenbook	3.4	3.6	-4.2	1.1

1. December to December. [Return to table](#)

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

## The Long-Term Outlook

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

Measure	2008	2009	2010	2011	2012	2013
Real GDP	-0.8	-1.6	2.6	4.8	5.4	5.2
Civilian unemployment rate <sup>1</sup>	6.9	9.3	9.1	7.7	5.9	4.7
PCE prices, total	1.9	0.7	1.0	0.8	0.9	1.1
Core PCE prices	1.9	1.2	0.7	0.7	0.8	1.1
Federal funds rate <sup>1</sup>	0.5	0.1	0.1	0.1	0.1	2.0

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

## Alternative Scenarios

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

Measure and scenario	2009		2010	2011	2012-13
	H1	H2			
<i>Real GDP</i>					
Extended Greenbook baseline	-3.9	.8	2.6	4.8	5.3
False dawn	-5.8	-3.5	1.5	4.6	5.3
Typical recovery	-3.9	6.2	3.6	4.6	4.2
Labor market damage	-3.9	.1	2.2	4.8	5.0
Anchored inflation expectations	-3.9	.8	2.7	5.0	5.4
Deflation	-3.9	.8	2.5	4.6	4.9
<i>Unemployment rate<sup>1</sup></i>					

Extended Greenbook baseline	9.0	9.3	9.1	7.7	4.7
False dawn	9.2	10.1	10.5	9.1	5.7
Typical recovery	9.0	8.7	7.9	6.6	4.5
Labor market damage	9.2	9.9	9.9	8.5	5.8
Anchored inflation expectations	9.0	9.3	9.1	7.6	4.5
Deflation	9.0	9.3	9.1	7.8	5.0
<i>Core PCE inflation</i>					
Extended Greenbook baseline	1.7	.8	.7	.7	.9
False dawn	1.7	.7	.4	.4	.5
Typical recovery	1.7	.8	.9	.9	1.1
Labor market damage	1.8	.8	.7	.8	1.0
Anchored inflation expectations	1.7	.9	.9	1.1	1.4
Deflation	1.1	-.4	-.4	-.6	-.3
<i>Federal funds rate<sup>1</sup></i>					
Extended Greenbook baseline	.1	.1	.1	.1	2.0
False dawn	.1	.1	.1	.1	.1
Typical recovery	.1	.1	.1	.1	2.2
Labor market damage	.1	.1	.1	.1	2.0
Anchored inflation expectations	.1	.1	.1	.1	3.0
Deflation	.1	.1	.1	.1	.2

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

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

Measure	2009	2010	2011	2012	2013
<i>Real GDP (percent change, Q4 to Q4)</i>					
Projection	-1.6	2.6	4.8	5.4	5.2
Confidence interval					
Greenbook forecast errors	-2.8 - -.3	1.0-4.3	...	...	...
FRB/US stochastic simulations	-2.6 - -.5	1.3-4.2	3.3-6.5	3.7-7.2	3.0-6.8
<i>Civilian unemployment rate (percent, Q4)</i>					
Projection	9.3	9.1	7.7	5.9	4.7
Confidence interval					
Greenbook forecast errors	8.8-9.8	8.3-9.8	...	...	...
FRB/US stochastic simulations	8.8-9.7	8.3-9.7	6.7-8.5	4.8-6.8	3.8-5.7
<i>PCE prices, total (percent change, Q4 to Q4)</i>					
Projection	0.7	1.0	0.8	0.9	1.1
Confidence interval					
Greenbook forecast errors	.0-1.4	-.2-2.2	...	...	...
FRB/US stochastic simulations	.2-1.3	.2-1.9	-.1-1.8	.0-1.9	.2-2.0
<i>PCE prices excluding food and energy (percent change, Q4 to Q4)</i>					
Projection	1.2	0.7	0.7	0.8	1.1
Confidence interval					
Greenbook forecast errors	.8-1.7	-.1-1.4	...	...	...
FRB/US stochastic simulations	.8-1.7	.0-1.4	-.1-1.5	.0-1.7	.2-1.8

Federal funds rate (percent, Q4)					
Projection	0.1	0.1	0.1	0.1	2.0
Confidence interval					
FRB/US stochastic simulations	.1-.1	.1-.1	.1-.1	.1-2.9	.1-5.2

Notes: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969-2008 set of model equation residuals.

Intervals derived from Greenbook forecast errors are based on projections made from 1979-2008, except for PCE prices excluding food and energy, where the sample is 1981-2008.

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

## Forecast Confidence Intervals and Alternative Scenarios

### *Confidence Intervals Based on FRB/US Stochastic Simulations*

#### **Figure: Real GDP**

Line chart, by 4-quarter percent change, 2007 to 2013. There are six series, "Extended Greenbook baseline", "False dawn", "Typical recovery", "Labor market damage", "Anchored inflation expectations" and "Deflation". They begin at about 1.9 and generally increase to about 2.8 by late 2007. They then generally decrease together until about early 2009, when they reach about -3.5. Extended Greenbook generally decreases to about -3.8 by 2009, and generally increases to end at about 5.2. False dawn generally decreases to about -5.5 by 2009, and generally increases to end at about 5.5. Typical recovery generally increases to about 5 by 2010, and generally decreases to about 3.8 by the end of 2010. It then generally increases to about 5 by early 2013, and generally decreases to end at about 3.5. Labor market damage generally increases to end at about 5.1. Anchored inflation expectations generally increases to end at about 5.45. Deflation generally increases to end at about 4.8. There is a 90 percent confidence interval shown, which ranges from about 1.9 to 8 and a 70 percent confidence interval, which ranges from about 3.1 to 6.9.

#### **Figure: Unemployment Rate**

Line chart, by percent, 2007 to 2013. There are six series, "Extended Greenbook baseline", "False dawn", "Typical recovery", "Labor market damage", "Anchored inflation expectations" and "Deflation". They begin at about 4.5 and generally increase together until about 2009, when they reach about 9.0. Extended Greenbook generally increases to about 9.3 by late 2009, and generally decreases to end at about 4.8. False dawn generally increases to about 10.5 by late 2010, and generally decreases to end at about 5.9. Typical recovery generally decreases to end at about 4.6. Labor market damage generally increases to about 10.0 by 2010, and generally decreases to end at about 5.9. Anchored inflation expectations generally increases to about 9.3 by late 2009, and generally decreases to end at about 4.7. Deflation generally increases to about 9.3 by late 2009, and generally decreases to end at about 5.1. There is a 90 percent confidence interval shown, which ranges from about 3.4 to 6.4 and a 70 percent confidence interval, which ranges from about 3.8 to 5.7.

#### **Figure: PCE Prices excluding Food and Energy**

Line chart, by 4-quarter percent change, 2007 to 2013. There are six series, "Extended Greenbook baseline", "False dawn", "Typical recovery", "Labor market damage", "Anchored inflation expectations" and "Deflation". They begin at about 2.35 and generally decrease to about 2.0 by 2007. They then generally increase to about 2.35 by 2008, and generally decrease together until about 1.75 by early 2009. Extended Greenbook generally decreases to about 0.7 by 2011 and generally increases to end at about 1.05. False dawn generally decreases to about 0.3 by 2011, and generally increases to end at about 0.6. Typical recovery generally decreases to about 0.8 by 2010, and generally increases to end at about 1.3. Labor market damage generally decreases to about 0.65 by 2010, and generally increases to end at about 1.2. Anchored inflation expectations generally decreases to about 0.8 and generally increases to end at about 1.55. Deflation generally decreases to about 0.4 by late 2011, and generally increases to end at about 0.0. There is a 90 percent interval shown, which ranges from about -0.3 to 2.3 and a 70 percent confidence interval, which ranges from about 0.28 to 1.7.

#### **Figure: Federal Funds Rate**

Line chart, by percent, 2007 to 2013. There are six series, "Extended Greenbook baseline", "False dawn", "Typical recovery", "Labor market damage", "Anchored inflation expectations" and "Deflation". They begin at about 5.2 and generally decrease to about 0.1 by early 2009. They then remain about constant together until about early 2012. Extended Greenbook generally increases to end at about 1.9. False dawn remains about constant until the end at about 0.1. Typical recovery generally increases to end at about 2.2. Labor market damage generally increases to end at about 2. Anchored inflation expectations generally increases to end at about 3. Deflation remains about constant until the end at about 0.15. There is a 90 percent interval shown, which ranges from about 0 to 6.8 and a 70 percent confidence interval, which ranges from about 0 to 5.

## Evolution of the Staff Forecast

### *Figure: Change in Real GDP*

Line chart, by percent, Q4/Q4, January 24, 2007 to April 22, 2009. There are three series, "2008", "2009", and "2010". 2008 begins at about 2.5 and generally decreases to about 0.1 by March 13, 2008. It then generally increases to about 1.5 by September 10, 2008, and generally decreases to end at about -0.8. 2009 begins at about 2.2 on September 12, 2007, and generally increases to about 3.0 by March 13, 2008. It then generally decreases to about -2.4 by March 12, 2009, and generally increases to end at about -1.5. 2010 begins at about 2.65 on September 10, 2008, and generally decreases to about 2.35 by October 22, 2008. It then generally increases to about 2.55 by January 22, 2009, and generally decreases to about 1.5 by March 12, 2009. It then generally increases to end at about 2.6.

Figure: Unemployment Rate

Line chart, by percent, fourth quarter, January 24, 2007 to April 22, 2009. There are three series, "2008", "2009", and "2010". 2008 begins at about 4.9 and generally increases to about 5.15 by March 14, 2007. It then generally decreases to about 4.8 by June 20, 2007, and generally increases to end at about 6.9. 2009 begins at about 4.9 on September 12, 2007, and generally increases to end at about 9.3. 2010 begins at about 5.9 on September 10, 2010 and generally increases to about 9.5 by March 12, 2010. It then generally decreases to end at about 9.1.

Figure: Change in PCE Prices excluding Food and Energy

Line chart, by percent, Q4/Q4, January 24, 2007 to April 22, 2009. There are three series, "2008", "2009", and "2010". 2008 begins at about 2.0 and generally increases to about 2.1 by May 2, 2007. It then generally decreases to about 1.9 by September 12, 2007, and generally increases to about 2.45 by September 10, 2008. It then generally decreases to end at about 1.9. 2009 begins at about 1.9 on September 12, 2007 and remains about constant until about March 13, 2008. It then generally increases to about 2.2 by June 18, 2008, and generally decreases to about 1.0 by January 22, 2009. It then generally increases to end at about 1.2.

## Changes in GDP, Prices, and Unemployment

(Percent, annual rate except as noted)

Interval	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate <sup>1</sup>		
	3/12/09	4/22/09	3/12/09	4/22/09	3/12/09	4/22/09	3/12/09	4/22/09	3/12/09	4/22/09	
<i>Quarterly</i>											
2008:	Q1	3.5	3.5	.9	.9	3.6	3.6	2.3	2.3	4.9	4.9
	Q2	4.1	4.1	2.8	2.8	4.3	4.3	2.2	2.2	5.4	5.4
	Q3	3.4	3.4	-5	-5	5.0	5.0	2.4	2.4	6.0	6.0
	Q4	-6.3	-5.8	-6.7	-6.3	-5.0	-4.9	.8	.9	6.9	6.9
2009:	Q1	-3.3	-3.1	-6.5	-6.3	-1.4	-9	.9	1.7	8.0	8.1
	Q2	-1.1	-1.0	-2.0	-1.5	1.0	.8	1.4	1.7	8.7	9.0
	Q3	.6	1.9	-5	.4	1.1	1.6	.9	.9	9.0	9.2
	Q4	.8	2.3	-1	1.2	1.0	1.4	.7	.7	9.2	9.3
2010:	Q1	1.6	2.9	.7	1.9	.9	1.2	.6	.7	9.4	9.3
	Q2	2.2	3.5	1.4	2.5	.8	1.1	.5	.7	9.5	9.2
	Q3	2.6	3.9	1.9	3.0	.7	1.0	.5	.7	9.5	9.1
	Q4	2.8	4.1	2.1	3.3	.7	.8	.4	.6	9.5	9.1
<i>Two-quarter<sup>2</sup></i>											
2008:	Q2	3.8	3.8	1.8	1.8	3.9	3.9	2.2	2.2	.6	.6
	Q4	-1.6	-1.3	-3.6	-3.5	-1	.0	1.6	1.7	1.5	1.5
2009:	Q2	-2.2	-2.0	-4.2	-3.9	-2	-1	1.2	1.7	1.8	2.1
	Q4	.7	2.1	-3	.8	1.0	1.5	.8	.8	.5	.3
2010:	Q2	1.9	3.2	1.1	2.2	.8	1.1	.5	.7	.3	-1
	Q4	2.7	4.0	2.0	3.1	.7	.9	.4	.6	.0	-1
<i>Four-quarter<sup>3</sup></i>											
2007:	Q4	4.9	4.9	2.3	2.3	3.5	3.5	2.2	2.2	.4	.4
2008:	Q4	1.1	1.2	-9	-8	1.9	1.9	1.9	1.9	2.1	2.1
2009:	Q4	-8	.0	-2.3	-1.6	.4	.7	1.0	1.2	2.3	2.4
2010:	Q4	2.3	3.6	1.5	2.6	.8	1.0	.5	.7	.3	-2
<i>Annual</i>											
2007		4.8	4.8	2.0	2.0	2.6	2.6	2.2	2.2	4.6	4.6

2008	3.3	3.3	1.1	1.1	3.3	3.3	2.2	2.2	5.8	5.8
2009	-1.5	-1.0	-3.2	-2.8	-.1	.1	1.2	1.5	8.7	8.9
2010	1.5	2.7	.6	1.7	.9	1.2	.7	.8	9.5	9.2

1. Level, except for two-quarter and four-quarter intervals. [Return to table](#)

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

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

## Changes in Real Gross Domestic Product and Related Items

(Percent, annual rate except as noted)

Item	2008				2009				2010				2008 <sup>1</sup>	2009 <sup>1</sup>	2010 <sup>1</sup>
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Real GDP	.9	2.8	-.5	-6.3	-6.3	-1.5	.4	1.2	1.9	2.5	3.0	3.3	-.8	-1.6	2.6
<i>Previous Greenbook</i>	.9	2.8	-.5	-6.7	-6.5	-2.0	-.5	-.1	.7	1.4	1.9	2.1	-.9	-2.3	1.5
Final sales	.9	4.4	-1.3	-6.2	-4.1	-1.4	-.6	-.5	.7	3.0	3.0	2.9	-.7	-1.7	2.4
<i>Previous Greenbook</i>	.9	4.4	-1.3	-6.5	-4.3	-2.5	-1.9	-1.2	-.3	1.9	2.1	1.9	-.7	-2.5	1.4
Priv. dom. final purch.	-.3	.7	-4.1	-7.5	-5.0	-4.0	-1.8	-.5	1.3	2.8	3.6	4.3	-2.8	-2.9	3.0
<i>Previous Greenbook</i>	-.3	.7	-4.1	-7.5	-5.3	-4.3	-3.0	-1.2	.1	1.7	2.4	2.9	-2.8	-3.5	1.8
Personal cons. expend.	.9	1.2	-3.8	-4.3	1.1	-.5	.4	1.2	1.9	2.5	3.0	3.3	-1.5	.5	2.7
<i>Previous Greenbook</i>	.9	1.2	-3.8	-4.3	.4	.0	.0	1.2	1.3	1.8	2.1	2.4	-1.5	.4	1.9
Durables	-4.3	-2.8	-14.8	-22.1	6.0	-6.0	.8	3.9	6.9	7.6	6.5	6.1	-11.4	1.1	6.8
Nondurables	-.4	3.9	-7.1	-9.4	1.1	-.1	.3	1.1	1.8	2.2	2.7	3.0	-3.4	.6	2.4
Services	2.4	.7	-.1	1.5	.4	.2	.3	.8	1.2	1.8	2.6	3.0	1.1	.4	2.2
Residential investment	-25.1	-13.3	-16.0	-22.8	-38.2	-27.4	-1.7	.0	8.2	13.8	11.3	10.7	-19.4	-18.5	11.0
<i>Previous Greenbook</i>	-25.1	-13.3	-16.0	-23.4	-41.2	-34.3	-13.4	-5.5	2.5	9.0	8.7	6.8	-19.6	-25.0	6.7
Business fixed invest.	2.4	2.5	-1.7	-21.7	-30.1	-20.8	-17.4	-13.6	-5.3	2.1	6.8	10.8	-5.2	-20.7	3.4
<i>Previous Greenbook</i>	2.4	2.5	-1.7	-21.6	-27.3	-23.4	-21.7	-17.8	-11.1	-1.6	3.2	6.6	-5.2	-22.6	-.9
Equipment & software	-.6	-5.0	-7.5	-28.1	-32.4	-13.6	-12.5	-8.9	-1.1	9.2	14.8	19.1	-11.0	-17.4	10.2
<i>Previous Greenbook</i>	-.6	-5.0	-7.5	-28.1	-26.6	-17.9	-17.4	-13.6	-8.3	5.2	11.1	14.3	-11.0	-19.0	5.2
Nonres. structures	8.6	18.5	9.7	-9.4	-26.4	-31.6	-25.4	-21.5	-13.0	-10.5	-7.9	-5.4	6.3	-26.3	-9.2
<i>Previous Greenbook</i>	8.6	18.5	9.7	-9.0	-28.4	-31.9	-28.8	-24.9	-16.1	-13.4	-11.0	-8.1	6.4	-28.5	-12.2
Net exports <sup>2</sup>	-462	-381	-353	-364	-333	-314	-325	-351	-383	-378	-383	-407	-390	-331	-388
<i>Previous Greenbook</i> <sup>2</sup>	-462	-381	-353	-373	-370	-369	-384	-411	-438	-436	-442	-464	-392	-383	-445
Exports	5.1	12.3	3.0	-23.6	-31.4	-3.4	-1.5	.2	1.2	2.1	2.7	3.2	-1.8	-10.1	2.3
Imports	-.8	-7.3	-3.5	-17.5	-31.1	-7.2	1.4	6.9	8.9	.3	3.3	8.2	-7.5	-8.8	5.1
Gov't. cons. & invest.	1.9	3.9	5.8	1.3	-5.3	6.7	6.1	3.7	3.1	2.4	1.3	.9	3.2	2.7	1.9
<i>Previous Greenbook</i>	1.9	3.9	5.8	1.2	-.2	5.5	5.5	3.1	2.6	2.1	1.5	1.2	3.2	3.4	1.8
Federal	5.8	6.6	13.8	7.0	-9.4	14.8	12.5	5.7	5.3	3.2	-.2	-.4	8.2	5.5	2.0
Defense	7.3	7.3	18.0	3.4	-13.8	19.8	15.5	3.9	1.9	1.8	.6	.2	8.9	5.5	1.1
Nondefense	2.9	5.0	5.1	15.3	.7	4.9	6.5	9.6	12.9	6.0	-1.7	-1.7	6.9	5.3	3.7
State & local	-.3	2.5	1.3	-2.0	-2.6	2.0	2.2	2.4	1.7	2.0	2.2	1.8	.4	1.0	1.9
Change in bus. inventories <sup>2</sup>	-10	-51	-30	-26	-93	-97	-66	-16	18	4	3	14	-29	-68	10
<i>Previous Greenbook</i> <sup>2</sup>	-10	-51	-30	-31	-101	-87	-46	-16	13	0	-6	0	-30	-62	2
Nonfarm <sup>2</sup>	-18	-55	-33	-31	-96	-99	-70	-19	15	1	-1	11	-34	-71	6
Farm <sup>2</sup>	6	2	2	4	3	3	3	3	3	3	3	3	4	3	3

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





Real GDP	.9	2.8	-5	-6.3	-6.3	-1.5	.4	1.2	1.9	2.5	3.0	3.3	-8	-1.6	2.6
<i>Previous Greenbook</i>	.9	2.8	-5	-6.7	-6.5	-2.0	-5	-1	.7	1.4	1.9	2.1	-9	-2.3	1.5
Final sales	.9	4.3	-1.4	-6.2	-4.0	-1.4	-.6	-.5	.7	2.9	3.0	2.9	-7	-1.7	2.4
<i>Previous Greenbook</i>	.9	4.3	-1.4	-6.6	-4.2	-2.5	-1.9	-1.2	-.3	1.9	2.1	1.9	-7	-2.5	1.4
Priv. dom. final purch.	-.3	.6	-3.5	-6.4	-4.1	-3.4	-1.5	-.4	1.1	2.2	2.9	3.5	-2.4	-2.4	2.4
<i>Previous Greenbook</i>	-.3	.6	-3.5	-6.4	-4.4	-3.6	-2.5	-1.0	.1	1.4	2.0	2.4	-2.4	-2.9	1.4
Personal cons. expend.	.6	.9	-2.8	-3.0	.9	-.3	.3	.8	1.4	1.7	2.1	2.3	-1.1	.4	1.9
<i>Previous Greenbook</i>	.6	.9	-2.8	-3.0	.4	.0	.0	.8	1.0	1.3	1.5	1.7	-1.1	.3	1.4
Durables	-.3	-.2	-1.2	-1.7	.4	-.4	.1	-.3	.4	.5	.4	.4	-.9	.1	.4
Nondurables	-.1	.8	-1.6	-2.0	.2	.0	.1	.2	.4	.4	.5	.6	-.7	.1	.5
Services	1.0	.3	.0	.7	.2	.1	.1	.4	.6	.8	1.1	1.3	.5	.2	1.0
Residential investment	-1.1	-.5	-.6	-.8	-1.4	-.8	.0	.0	.2	.3	.3	.3	-.8	-.6	.3
<i>Previous Greenbook</i>	-1.1	-.5	-.6	-.9	-1.5	-1.1	-.3	-.1	.1	.2	.2	.2	-.8	-.8	.2
Business fixed invest.	.3	.3	-.2	-2.6	-3.6	-2.2	-1.7	-1.3	-.5	.2	.5	.9	-.6	-2.2	.3
<i>Previous Greenbook</i>	.3	.3	-.2	-2.6	-3.2	-2.6	-2.2	-1.7	-1.0	-.1	.3	.5	-.6	-2.4	-.1
Equipment & software	.0	-.4	-.6	-2.2	-2.4	-.9	-.8	-.5	-.1	.5	.8	1.0	-.8	-1.1	.6
<i>Previous Greenbook</i>	.0	-.4	-.6	-2.2	-2.0	-1.2	-1.1	-.8	-.5	.3	.6	.7	-.8	-1.2	.3
Nonres. structures	.3	.6	.4	-.4	-1.2	-1.3	-1.0	-.7	-.4	-.3	-.2	-.1	.2	-1.0	-.3
<i>Previous Greenbook</i>	.3	.6	.4	-.4	-1.3	-1.4	-1.1	-.9	-.5	-.4	-.3	-.2	.2	-1.1	-.4
Net exports	.8	2.9	1.1	-.2	1.0	.6	-.4	-.9	-1.1	.2	-.2	-.8	1.1	.1	-.5
<i>Previous Greenbook</i>	.8	2.9	1.1	-.6	.1	.0	-.5	-.9	-.9	.0	-.2	-.7	1.0	-.3	-.4
Exports	.6	1.5	.4	-3.4	-4.4	-.4	-.2	.0	.1	.2	.3	.3	-.2	-1.2	.2
Imports	.1	1.4	.7	3.3	5.3	1.0	-.2	-.9	-1.2	.0	-.5	-1.1	1.3	1.3	-.7
Gov't. cons. & invest.	.4	.8	1.1	.3	-1.1	1.3	1.2	.8	.7	.5	.3	.2	.6	.5	.4
<i>Previous Greenbook</i>	.4	.8	1.1	.3	.0	1.1	1.1	.7	.6	.5	.3	.3	.6	.7	.4
Federal	.4	.5	1.0	.5	-.7	1.1	1.0	.5	.4	.3	.0	.0	.6	.4	.2
Defense	.3	.4	.9	.2	-.8	1.0	.8	.2	.1	.1	.0	.0	.4	.3	.1
Nondefense	.1	.1	.1	.3	.0	.1	.2	.2	.3	.2	.0	.0	.2	.1	.1
State & local	.0	.3	.2	-.3	-.3	.3	.3	.3	.2	.3	.3	.2	.0	.1	.3
Change in bus. inventories	.0	-1.5	.8	-.1	-2.2	-.1	1.0	1.7	1.1	-.5	-.1	.4	-.2	.1	.3
<i>Previous Greenbook</i>	.0	-1.5	.8	-.1	-2.2	.5	1.4	1.1	1.0	-.4	-.2	.2	-.2	.2	.1
Nonfarm	.2	-1.4	.8	-.2	-2.2	-.1	1.0	1.7	1.2	-.5	-.1	.4	-.1	.1	.3
Farm	-.2	-.1	.0	.1	.0	.0	.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

(Percent, annual rate except as noted)

Item	2008				2009				2010				2008 <sup>1</sup>	2009 <sup>1</sup>	2010 <sup>1</sup>
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
GDP chain-wt. price index	2.6	1.1	3.9	.5	3.3	.5	1.5	1.1	1.0	1.0	.9	.8	2.0	1.6	.9
<i>Previous Greenbook</i>	2.6	1.1	3.9	.3	3.4	.9	1.1	.9	.8	.8	.7	.6	2.0	1.6	.8
PCE chain-wt. price index	3.6	4.3	5.0	-4.9	-.9	.8	1.6	1.4	1.2	1.1	1.0	.8	1.9	.7	1.0
<i>Previous Greenbook</i>	3.6	4.3	5.0	-5.0	-1.4	1.0	1.1	1.0	.9	.8	.7	.7	1.9	.4	.8
Energy	19.0	27.4	31.7	-65.0	-36.0	-13.1	12.2	10.5	8.2	6.6	5.2	4.4	-8.5	-8.9	6.1
<i>Previous Greenbook</i>	19.0	27.4	31.7	-65.1	-36.0	-7.8	1.9	2.6	4.4	4.8	4.4	4.3	-8.6	-11.3	4.5
Food	4.9	6.4	8.5	5.6	.9	1.0	2.5	2.2	1.6	1.3	1.0	.8	6.3	1.7	1.2

<i>Previous Greenbook</i>	4.9	6.4	8.5	5.6	1.8	1.8	2.1	1.9	1.3	1.2	1.1	1.1	6.3	1.9	1.2
Ex. food & energy	2.3	2.2	2.4	.9	1.7	1.7	.9	.7	.7	.7	.7	.6	1.9	1.2	.7
<i>Previous Greenbook</i>	2.3	2.2	2.4	.8	.9	1.4	.9	.7	.6	.5	.5	.4	1.9	1.0	.5
CPI	4.5	4.5	6.2	-8.3	-2.4	.3	2.1	1.8	1.6	1.4	1.2	1.1	1.5	.4	1.3
<i>Previous Greenbook</i>	4.5	4.5	6.2	-8.3	-2.4	.9	1.4	1.3	1.2	1.1	1.0	1.0	1.5	.3	1.1
Ex. food & energy	2.5	2.0	2.8	.6	1.5	1.5	1.2	1.0	.9	.9	.9	.8	2.0	1.3	.9
<i>Previous Greenbook</i>	2.5	2.0	2.8	.6	1.3	1.6	1.2	1.0	.8	.7	.7	.6	2.0	1.3	.7
ECl, hourly compensation <sup>2</sup>	3.0	2.3	2.6	1.9	2.0	1.9	1.8	1.5	1.4	1.3	1.3	1.2	2.4	1.8	1.3
<i>Previous Greenbook</i> <sup>2</sup>	3.0	2.3	2.6	1.9	2.0	1.9	1.8	1.5	1.3	1.2	1.1	1.0	2.4	1.8	1.1
Nonfarm business sector															
Output per hour	2.6	4.7	2.2	-.5	-1.0	3.1	1.6	1.6	2.2	2.1	2.0	1.9	2.2	1.3	2.1
<i>Previous Greenbook</i>	2.6	4.7	2.2	-.9	-1.1	2.4	1.3	1.2	2.1	2.0	1.9	1.8	2.1	.9	2.0
Compensation per hour	3.7	1.7	5.7	5.2	3.2	2.9	1.9	1.4	1.4	1.4	1.3	1.3	4.1	2.3	1.3
<i>Previous Greenbook</i>	3.7	1.7	5.7	5.2	2.5	2.7	2.1	1.5	1.3	1.2	1.1	1.0	4.1	2.2	1.1
Unit labor costs	1.1	-2.8	3.5	5.7	4.3	-.2	.3	-.3	-.8	-.7	-.7	-.7	1.8	1.0	-.7
<i>Previous Greenbook</i>	1.1	-2.8	3.5	6.2	3.7	.3	.8	.3	-.8	-.8	-.8	-.7	1.9	1.3	-.8
Core goods imports chain-wt price index <sup>3</sup>	8.5	10.6	4.6	-8.5	-9.7	-3.0	-.7	.5	1.0	1.1	1.1	1.0	3.5	-3.3	1.1
<i>Previous Greenbook</i> <sup>3</sup>	8.5	10.6	4.6	-8.3	-10.0	-4.7	-2.1	.4	1.0	1.2	1.1	1.1	3.6	-4.2	1.1

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

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

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

## Changes in Prices and Costs

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

Item	2002	2003	2004	2005	2006	2007	2008	2009	2010
GDP chain-wt. price index	1.7	2.2	3.2	3.5	2.8	2.6	2.0	1.6	.9
<i>Previous Greenbook</i>	1.7	2.2	3.2	3.5	2.8	2.6	2.0	1.6	.8
PCE chain-wt. price index	1.8	1.9	3.1	3.3	1.9	3.5	1.9	.7	1.0
<i>Previous Greenbook</i>	1.8	1.9	3.1	3.3	1.9	3.5	1.9	.4	.8
Energy	7.7	7.6	18.3	23.1	-4.0	19.1	-8.5	-8.9	6.1
<i>Previous Greenbook</i>	7.7	7.6	18.3	23.1	-4.0	19.1	-8.6	-11.3	4.5
Food	1.3	2.6	2.9	2.1	2.3	4.5	6.3	1.7	1.2
<i>Previous Greenbook</i>	1.3	2.6	2.9	2.1	2.3	4.5	6.3	1.9	1.2
Ex. food & energy	1.6	1.4	2.2	2.2	2.3	2.2	1.9	1.2	.7
<i>Previous Greenbook</i>	1.6	1.4	2.2	2.2	2.3	2.2	1.9	1.0	.5
CPI	2.3	2.0	3.4	3.8	1.9	4.0	1.5	.4	1.3
<i>Previous Greenbook</i>	2.3	2.0	3.4	3.8	1.9	4.0	1.5	.3	1.1
Ex. food & energy	2.1	1.2	2.2	2.1	2.7	2.3	2.0	1.3	.9
<i>Previous Greenbook</i>	2.1	1.2	2.2	2.1	2.7	2.3	2.0	1.3	.7
ECl, hourly compensation <sup>1</sup>	3.1	4.0	3.8	2.9	3.2	3.0	2.4	1.8	1.3
<i>Previous Greenbook</i> <sup>1</sup>	3.1	4.0	3.8	2.9	3.2	3.0	2.4	1.8	1.1
Nonfarm business sector									
Output per hour	2.9	4.7	1.8	1.5	.6	2.6	2.2	1.3	2.1
<i>Previous Greenbook</i>	2.9	4.7	1.8	1.5	.6	2.6	2.1	.9	2.0
Compensation per hour	3.2	5.3	3.9	3.6	4.2	3.6	4.1	2.3	1.3
<i>Previous Greenbook</i>	3.2	5.3	3.9	3.6	4.2	3.6	4.1	2.2	1.1
Unit labor costs	.2	.5	2.1	2.1	3.7	.9	1.8	1.0	-.7

<i>Previous Greenbook</i>	.2	.5	2.1	2.1	3.7	.9	1.9	1.3	-8
Core goods imports chain-wt. price index <sup>2</sup>	.1	1.6	3.6	2.2	2.4	3.4	3.5	-3.3	1.1
<i>Previous Greenbook</i> <sup>2</sup>	.1	1.6	3.6	2.2	2.4	3.4	3.6	-4.2	1.1

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

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

## Other Macroeconomic Indicators

Item	2008				2009				2010				2008 <sup>1</sup>	2009 <sup>1</sup>	2010 <sup>1</sup>
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
<i>Employment and production</i>															
Nonfarm payroll employment <sup>2</sup>	-1	-4	-5	-1.3	-2.0	-1.6	-4	.0	.2	.5	.3	.5	-2.3	-4.1	1.5
Unemployment rate <sup>3</sup>	4.9	5.4	6.0	6.9	8.1	9.0	9.2	9.3	9.3	9.2	9.1	9.1	6.9	9.3	9.1
<i>Previous Greenbook</i> <sup>3</sup>	4.9	5.4	6.0	6.9	8.0	8.7	9.0	9.2	9.4	9.5	9.5	9.5	6.9	9.2	9.5
GDP gap <sup>4</sup>	-8	-7	-1.4	-3.6	-5.6	-6.4	-6.8	-7.0	-7.0	-6.9	-6.7	-6.4	-3.6	-7.0	-6.4
<i>Previous Greenbook</i> <sup>4</sup>	-8	-7	-1.4	-3.7	-5.7	-6.7	-7.3	-7.7	-8.0	-8.2	-8.2	-8.2	-3.7	-7.7	-8.2
<i>Industrial production</i>															
Industrial production <sup>5</sup>	.2	-4.6	-9.0	-12.7	-20.0	-9.2	.5	2.0	3.9	3.5	4.7	4.4	-6.7	-7.1	4.1
<i>Previous Greenbook</i> <sup>5</sup>	.4	-3.4	-8.9	-12.1	-18.3	-9.3	-2.6	-.2	2.7	3.0	3.1	3.5	-6.1	-7.9	3.1
Manufacturing industr. prod. <sup>5</sup>	-1.2	-5.4	-9.3	-17.7	-22.5	-8.9	1.5	2.5	3.9	3.4	4.4	4.2	-8.6	-7.4	4.0
<i>Previous Greenbook</i> <sup>5</sup>	-1.0	-4.1	-8.7	-17.4	-21.7	-9.9	-2.0	.3	2.5	2.9	2.9	3.1	-8.0	-8.7	2.9
Capacity utilization rate - mfg. <sup>3</sup>	78.1	76.7	74.6	71.0	66.7	65.3	65.8	66.5	67.5	68.5	69.7	70.8	71.0	66.5	70.8
<i>Previous Greenbook</i> <sup>3</sup>	78.7	77.5	75.5	71.7	67.4	65.8	65.6	65.8	66.6	67.5	68.3	69.2	71.7	65.8	69.2
<i>Housing and vehicle sales</i>															
Housing starts <sup>6</sup>	1.1	1.0	.9	.7	.5	.5	.6	.6	.7	.7	.8	.9	.9	.5	.8
Light motor vehicle sales <sup>6</sup>	15.2	14.1	12.9	10.3	9.5	9.9	10.1	10.5	11.2	12.0	12.5	13.0	13.1	10.0	12.2
<i>Income and saving</i>															
Nominal GDP <sup>5</sup>	3.5	4.1	3.4	-5.8	-3.1	-1.0	1.9	2.3	2.9	3.5	3.9	4.1	1.2	.0	3.6
Real disposable pers. income <sup>5</sup>	-7	10.7	-8.5	2.7	3.9	6.6	-1.5	1.6	.9	1.5	2.1	2.2	.8	2.6	1.7
<i>Previous Greenbook</i> <sup>5</sup>	-7	10.7	-8.5	3.3	6.4	4.3	-1.6	1.5	1.7	1.1	1.4	1.3	1.0	2.6	1.4
Personal saving rate <sup>3</sup>	.2	2.5	1.3	3.2	3.9	5.6	5.1	5.3	5.1	4.9	4.7	4.5	3.2	5.3	4.5
<i>Previous Greenbook</i> <sup>3</sup>	.2	2.5	1.3	3.2	4.6	5.6	5.3	5.4	5.5	5.4	5.2	5.0	3.2	5.4	5.0
<i>Corporate profits and profit share</i>															
Corporate profits <sup>7</sup>	-4.3	-14.3	-4.7	-51.5	-18.9	-6.5	-3.3	-5.0	24.5	6.7	6.8	8.3	-21.5	-8.7	11.3
Profit share of GNP <sup>3</sup>	11.2	10.6	10.4	8.8	8.5	8.4	8.3	8.1	8.5	8.6	8.6	8.7	8.8	8.1	8.7
<i>Net federal and state &amp; local saving</i>															
Net federal saving <sup>8</sup>	-331	-650	-544	-561	-803	-1,030	-1,097	-1,146	-1,138	-1,116	-1,157	-1,138	-521	-1,019	-1,137
Net state & local saving <sup>8</sup>	-52	-67	-104	-97	-15	-67	-42	-42	-36	-42	-29	-28	-80	-42	-34
<i>Gross national and net national saving rate</i>															
Gross national saving rate <sup>3</sup>	12.4	11.3	11.5	12.0	11.1	10.5	9.9	9.6	9.5	9.6	9.4	9.4	12.0	9.6	9.4
Net national saving rate <sup>3</sup>	.0	-1.3	-1.8	-1.0	-2.4	-3.3	-4.1	-4.5	-4.6	-4.5	-4.8	-4.7	-1.0	-4.5	-4.7

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

2. Change, millions. [Return to table](#)

3. Percent, annual values are for the fourth quarter of the year indicated. [Return to table](#)

4. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential. Annual values are for the fourth quarter of the year indicated. [Return to table](#)

5. Percent change, annual rate. [Return to table](#)

6. Level, millions, annual values are annual averages. [Return to table](#)

7. Percent change, annual rate, with inventory valuation and capital consumption adjustments. [Return to table](#)

8. Billions of dollars, annual values are annual averages. [Return to table](#)

## Other Macroeconomic Indicators

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

Item	2002	2003	2004	2005	2006	2007	2008	2009	2010
<i>Employment and production</i>									
Nonfarm payroll employment <sup>1</sup>	-.7	-.1	2.0	2.4	2.1	1.2	-2.3	-4.1	1.5
Unemployment rate <sup>2</sup>	5.8	5.8	5.4	4.9	4.4	4.8	6.9	9.3	9.1
<i>Previous Greenbook</i> <sup>2</sup>	5.8	5.8	5.4	4.9	4.4	4.8	6.9	9.2	9.5
GDP gap <sup>3</sup>	-2.6	-1.8	-8	-3	-2	-4	-3.6	-7.0	-6.4
<i>Previous Greenbook</i> <sup>3</sup>	-2.6	-1.8	-8	-3	-2	-4	-3.7	-7.7	-8.2
<i>Industrial production</i>									
Industrial production <sup>4</sup>	2.5	1.6	3.0	2.6	1.8	1.8	-6.7	-7.1	4.1
<i>Previous Greenbook</i> <sup>4</sup>	2.6	1.5	3.1	2.6	1.7	2.1	-6.1	-7.9	3.1
Manufacturing industr. prod. <sup>4</sup>	2.5	1.8	3.6	3.8	1.2	1.9	-8.6	-7.4	4.0
<i>Previous Greenbook</i> <sup>4</sup>	2.6	1.7	3.7	3.7	1.1	2.3	-8.0	-8.7	2.9
Capacity utilization rate - mfg. <sup>2</sup>	73.0	74.6	77.3	79.2	79.0	78.7	71.0	66.5	70.8
<i>Previous Greenbook</i> <sup>2</sup>	73.2	74.8	77.5	79.2	79.0	79.3	71.7	65.8	69.2
<i>Housing and vehicle sales</i>									
Housing starts <sup>5</sup>	1.7	1.8	2.0	2.1	1.8	1.4	.9	.5	.8
Light motor vehicle sales <sup>5</sup>	16.7	16.6	16.8	16.9	16.5	16.1	13.1	10.0	12.2
<i>Income and saving</i>									
Nominal GDP <sup>4</sup>	3.6	5.9	6.5	6.3	5.3	4.9	1.2	.0	3.6
Real disposable pers. income <sup>4</sup>	2.9	3.7	4.1	.9	3.6	1.8	.8	2.6	1.7
<i>Previous Greenbook</i> <sup>4</sup>	2.9	3.7	4.1	.9	3.6	1.8	1.0	2.6	1.4
Personal saving rate <sup>2</sup>	1.8	2.2	2.5	.8	.9	.4	3.2	5.3	4.5
<i>Previous Greenbook</i> <sup>2</sup>	1.8	2.2	2.5	.8	.9	.4	3.2	5.4	5.0
<i>Corporate profits and GNP</i>									
Corporate profits <sup>6</sup>	20.6	12.6	20.3	18.8	6.9	-2.0	-21.5	-8.7	11.3
Profit share of GNP <sup>2</sup>	9.0	9.5	10.8	12.0	12.2	11.3	8.8	8.1	8.7
<i>Federal and state saving</i>									
Net federal saving <sup>7</sup>	-248	-372	-371	-292	-201	-229	-521	-1019	-1137
Net state & local saving <sup>7</sup>	-34	-20	2	29	46	10	-80	-42	-34
<i>National saving</i>									
Gross national saving rate <sup>2</sup>	13.6	13.7	13.8	15.0	15.5	13.4	12.0	9.6	9.4
Net national saving rate <sup>2</sup>	1.5	1.9	2.1	2.8	3.4	1.2	-1.0	-4.5	-4.7

1. Change, millions. [Return to table](#)

2. Percent, values are for the fourth quarter of the year indicated. [Return to table](#)

3. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential. Values are for the fourth quarter of the year indicated. [Return to table](#)

4. Percent change. [Return to table](#)

5. Level, millions, values are annual averages. [Return to table](#)

6. Percent change, with inventory valuation and capital consumption adjustments. [Return to table](#)

7. Billions of dollars, values are annual averages. [Return to table](#)

## Staff Projections of Federal Sector Accounts and Related Items

(Billions of dollars except as noted)

Item	Fiscal year				2008				2009				2010			
	2007 <sup>a</sup>	2008 <sup>a</sup>	2009	2010	Q1 <sup>a</sup>	Q2 <sup>a</sup>	Q3 <sup>a</sup>	Q4 <sup>a</sup>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Unified budget</b>					Not seasonally adjusted											
Receipts <sup>1</sup>	2568	2524	2185	2292	540	788	590	547	442	640	555	524	506	689	574	562
Outlays <sup>1</sup>	2729	2978	3832	3766	746	761	759	1033	914	899	986	1084	987	861	834	899
Surplus/deficit <sup>1</sup>	-162	-455	-1647	-1473	-206	27	-169	-485	-472	-259	-431	-561	-481	-172	-260	-338
<i>Previous Greenbook</i>	-162	-455	-1915	-1221	-206	27	-169	-485	-520	-494	-416	-408	-346	-194	-273	-348
On-budget	-343	-638	-1779	-1607	-237	-64	-171	-538	-490	-325	-425	-616	-486	-253	-252	-392
Off-budget	181	183	132	134	31	91	2	53	19	66	-6	55	5	81	-8	55
Means of financing																
Borrowing	206	768	1770	1283	200	-48	526	561	465	263	481	340	471	197	275	328
Cash decrease	-23	-296	111	210	11	-7	-318	5	98	24	-15	225	15	-20	-10	15
Other <sup>2</sup>	-22	-17	-235	-20	-5	29	-39	-81	-92	-27	-35	-5	-5	-5	-5	-5
Cash operating balance, end of period	75	372	260	50	46	53	372	367	269	245	260	35	20	40	50	35
<b>NIPA federal sector</b>					Seasonally adjusted annual rates											
Receipts	2624	2607	2425	2469	2673	2479	2596	2544	2418	2370	2366	2389	2470	2505	2513	2554
Expenditures	2832	3047	3298	3609	3003	3128	3140	3106	3222	3400	3463	3535	3608	3621	3670	3692
Consumption expenditures	842	910	975	1055	898	918	954	957	948	981	1013	1031	1053	1066	1069	1072
Defense	569	624	664	710	614	629	660	657	641	668	692	701	708	714	718	721
Nondefense	273	286	311	345	284	289	295	301	308	313	321	331	345	352	352	351
Other spending	1990	2136	2323	2554	2105	2210	2186	2148	2273	2418	2450	2504	2555	2555	2601	2620
Current account surplus	-209	-440	-873	-1139	-331	-650	-544	-561	-803	-1030	-1097	-1146	-1138	-1116	-1157	-1138
Gross investment	123	134	149	160	129	138	144	150	141	149	156	158	159	160	161	161
Gross saving less gross investment <sup>3</sup>	-221	-458	-899	-1169	-344	-671	-569	-590	-822	-1055	-1128	-1177	-1168	-1146	-1186	-1166
<b>Fiscal indicators<sup>4</sup></b>																
High-employment (HEB) surplus/deficit	-222	-426	-654	-810	-322	-641	-502	-447	-599	-771	-799	-824	-809	-783	-826	-813
Change in HEB, percent of potential GDP	-0.3	1.3	1.4	0.9	0.6	2.2	-1.0	-0.4	1.0	1.1	0.1	0.1	-0.1	-0.2	0.2	-0.1
Fiscal impetus (FI), percent of GDP	0.2	0.8	0.8	0.9	0.1	0.5	0.7	-0.3	-0.2	0.8	0.3	0.2	0.3	0.1	0.1	-0.0
<i>Previous Greenbook</i>	0.2	0.8	0.9	0.9	0.1	0.5	0.7	-0.3	0.0	0.6	0.2	0.2	0.3	0.2	0.1	0.0

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. Quarterly figures for change in HEB and FI are not at annual rates. 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 (2000) dollars, scaled by real GDP. The annual FI estimates are on a calendar year basis. Also, for FI and the change in HEB, positive values indicate aggregate demand stimulus. [Return to table](#)

a--Actual [Return to table](#)

## Change in Debt of the Domestic Nonfinancial Sectors

(Percent)

Period <sup>1</sup>	Total	Households		Business	State and local governments	Federal government	Memo: Nominal GDP	
		Total	Home mortgages					Consumer credit
<i>Year</i>								
2003	8.1	11.6	14.2	5.2	2.5	8.3	10.9	5.9
2004	8.9	11.2	13.6	5.5	6.2	7.4	9.0	6.5
2005	9.5	11.1	13.3	4.3	8.7	10.2	7.0	6.3
2006	8.9	10.0	10.9	4.5	10.5	8.2	3.9	5.3

2007		8.6	6.6	6.6	5.5	13.1		9.3	4.9	4.9
2008		5.8	.4	-.4	1.8	4.8		1.8	24.2	1.2
2009		4.8	-1.3	-1.6	-1.5	1.5		3.3	24.4	.0
2010		5.0	1.4	.7	2.8	2.1		2.7	16.1	3.6
<b>Quarter</b>										
2008:	1	5.2	3.0	2.4	4.7	7.2		3.5	8.1	3.5
	2	3.1	.3	-.3	3.9	5.8		.9	5.9	4.1
	3	8.1	.2	-2.3	1.4	4.1		3.2	39.2	3.4
	4	6.3	-1.9	-1.5	-2.9	1.7		-.4	37.0	-5.8
2009:	1	4.5	-2.2	-2.7	-2.0	2.2		4.6	23.2	-3.1
	2	4.2	-1.7	-2.0	-2.2	.3		2.4	23.1	-1.0
	3	6.0	-.9	-1.1	-1.6	1.9		3.1	26.7	1.9
	4	4.3	-.4	-.6	-.5	1.7		3.0	16.8	2.3
2010:	1	5.3	.6	.1	1.2	1.9		2.9	18.9	2.9
	2	4.9	1.1	.5	2.5	2.0		2.8	15.6	3.5
	3	4.4	1.6	.9	3.4	2.0		2.5	12.4	3.9
	4	5.1	2.1	1.4	4.2	2.4		2.5	13.8	4.1

Note. Quarterly data are at seasonally adjusted annual rates.

1. Data after 2008:Q4 are staff projections. Changes are measured from end of the preceding period to end of period indicated except for annual nominal GDP growth, which is calculated from Q4 to Q4. [Return to table](#)

2.6.3 FOF

## Flow of Funds Projections: Highlights

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

Category	2007	2008	2009	2010	2008		2009				2010			
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Domestic nonfinancial sectors</b>														
<b>Net funds raised</b>														
Total	1668.9	1444.9	1398.6	1595.2	2235.0	1600.8	1213.5	1206.5	1866.4	1308.2	1695.5	1576.1	1418.3	1691.1
Net equity issuance	-831.2	-395.1	-214.3	-160.0	-393.2	-450.0	-297.0	-200.0	-180.0	-180.0	-160.0	-160.0	-160.0	-160.0
Net debt issuance	2500.1	1840.0	1612.9	1755.2	2628.2	2050.9	1510.5	1406.5	2046.4	1488.2	1855.5	1736.1	1578.3	1851.1
<b>Borrowing indicators</b>														
Debt (percent of GDP) <sup>1</sup>	220.3	228.5	243.1	248.3	226.7	234.2	239.2	242.4	244.3	246.0	247.2	248.2	248.7	249.1
Borrowing (percent of GDP)	18.1	12.9	11.4	12.1	18.2	14.4	10.7	10.0	14.5	10.5	13.0	12.0	10.8	12.6
<b>Households</b>														
Net borrowing <sup>2</sup>	848.7	53.5	-179.6	184.4	26.7	-265.7	-308.6	-230.2	-129.7	-49.7	76.5	148.5	220.8	291.6
Home mortgages	651.5	-43.7	-168.9	73.5	-238.1	-155.9	-287.2	-203.8	-118.5	-66.3	9.5	47.4	94.8	142.2
Consumer credit	133.6	45.0	-40.1	72.3	35.4	-77.1	-51.1	-56.0	-40.5	-12.6	30.3	63.5	87.0	108.4
Debt/DPI (percent) <sup>3</sup>	131.2	129.6	126.2	123.0	129.8	130.3	128.6	125.7	125.3	124.2	123.5	123.0	122.5	122.2
<b>Business</b>														
Financing gap <sup>4</sup>	185.6	181.3	-65.8	-33.7	127.9	110.0	-37.6	-86.7	-89.7	-49.2	-20.2	-43.4	-48.0	-22.9
Net equity issuance	-831.2	-395.1	-214.3	-160.0	-393.2	-450.0	-297.0	-200.0	-180.0	-180.0	-160.0	-160.0	-160.0	-160.0
Credit market borrowing	1228.4	507.1	168.6	238.7	451.4	169.3	242.6	28.2	208.4	195.3	217.2	229.2	228.7	279.9
<b>State and local governments</b>														
Net borrowing	185.9	40.1	74.1	61.7	71.6	-7.9	103.0	54.1	69.7	69.7	65.7	65.7	57.7	57.7
Current surplus <sup>5</sup>	246.6	171.9	174.9	188.2	153.1	118.5	199.5	148.8	175.3	176.1	184.0	179.5	193.3	195.9



Federal government														
Net borrowing	237.1	1239.2	1549.7	1270.4	2078.5	2155.2	1473.4	1554.4	1898.0	1272.8	1496.0	1292.6	1071.1	1221.9
Net borrowing (n.s.a.)	237.1	1239.2	1549.7	1270.4	526.5	560.9	465.4	262.6	481.4	340.3	471.1	197.1	274.6	327.6
Unified deficit (n.s.a.)	187.9	833.2	1722.4	1250.4	168.9	485.2	471.6	259.3	431.0	560.6	481.1	172.1	259.6	337.6
Depository institutions														
Funds supplied	858.7	422.6	79.2	309.4	549.5	503.4	-498.1	-117.5	544.4	388.0	293.0	406.0	373.7	164.9

Note. Data after 2008:Q4 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](#)

2.6.4 FOF

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

**Last update: April 1, 2015**

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# Accessible Material

## April 2009 Greenbook Part 1 Tables and Charts<sup>†</sup>

### International Developments

#### Summary of Staff Projections

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

Indicator	2008		Projection			
	H1	H2	2009			2010
			Q1	Q2	H2	
Foreign output	1.7	-3.5	-7.2	-2.4	.8	2.8
Previous GB	1.7	-3.4	-6.7	-2.9	.3	2.3
Foreign CPI	5.0	1.8	-.8	1.5	1.6	1.6
Previous GB	5.0	1.7	-1.5	1.1	1.5	1.5
	Contribution to growth (percentage points)					
U.S. net exports	1.8	.4	1.0	.6	-.6	-.5
Previous GB	1.8	.2	.1	.0	-.7	-.4

Note. Changes for years are measured as Q4/Q4; half-years are Q2/Q4 or Q4/Q2.

#### Staff Projections of Selected Trade Prices

(Percent change from end of previous period, annual rate, excepted as noted)

Trade category	2008		Projection			
	H1	H2	2009			2010
			Q1	Q2	H2	
<i>Imports</i>						
Core goods	9.5	-2.2	-9.7	-3.0	-.1	1.1
Previous GB	9.5	-2.0	-10.0	-4.7	-.8	1.1
Oil (dollars per barrel)	108.65	68.74	43.40	47.32	51.32	58.86
Previous GB	108.65	68.74	41.46	43.09	44.79	50.51
<i>Exports</i>						
Core goods	13.0	-12.0	-10.1	-2.3	.7	1.2
Previous GB	13.0	-10.9	-10.9	-5.2	-.3	1.2

Note: Prices for core exports exclude computers and semiconductors. Prices for core imports exclude computers, semiconductors, oil, and natural gas. Both prices are on a national income and product account chain-weighted basis.

The price of imported oil for multi-quarter periods is the price for the final quarter of the period. Imported oil includes both crude oil and refined products.

#### Staff Projections for Trade in Goods and Services

(Percent change from end of previous period, annual rate)

Measure	2008		Projection			
	H1	H2	2009			2010
			Q1	Q2	H2	
Real imports	-4.1	-10.8	-31.1	-7.2	4.1	5.1

Previous GB	-4.1	-10.0	-19.7	-4.7	3.2	3.8
Real exports	8.6	-11.3	-31.4	-3.4	-.7	2.3
Previous GB	8.6	-11.3	-23.6	-5.6	-2.3	1.0

Note: Changes for years are measured as Q4/Q4; half-years are measured as Q2/Q4 or Q4/Q2.

## Alternative Simulation: Weaker Foreign GDP and Stronger Dollar

(Percent change from previous period, annual rate, except as noted)

Indicator and simulation	2009		2010		2011	2012-13
	H1	H2	H1	H2		
<i>U.S. real GDP</i>						
Baseline	-3.9	.8	2.2	3.1	4.8	5.3
Weaker foreign GDP and stronger dollar	-4.2	-.9	.0	1.9	4.5	5.6
<i>U.S. PCE prices excluding food and energy</i>						
Baseline	1.7	.8	.7	.6	.7	.9
Weaker foreign GDP and stronger dollar	1.4	.1	.0	.2	.5	.9
<i>U.S. federal funds rate (percent)</i>						
Baseline	.1	.1	.1	.1	.1	2.0
Weaker foreign GDP and stronger dollar	.1	.1	.1	.1	.1	1.6
<i>U.S. trade balance (percent share of GDP)</i>						
Baseline	-2.7	-2.9	-3.3	-3.4	-3.6	-3.9
Weaker foreign GDP and stronger dollar	-3.1	-4.0	-4.8	-4.8	-4.7	-4.0

Note. H1 is Q2/Q4; H2 is Q4/Q2. U.S. real GDP and U.S. PCE prices are the average rates over the period. The federal funds rate and the trade balance are the values for the final quarter of the period.

## [Box:] The Role of the Zero Lower Bound in Amplifying Foreign Shocks

### Figure 1

(Deviation from Baseline)

#### Figure: Federal Funds Rate

Line chart, by percentage points, 2009 to 2012. There are two series, "ZLB Binds" and "ZLB Does Not Bind". ZLB begins at about 0 and remains about constant until the end at about 0. ZLB Does Not Bind begins at about 0 and generally decreases to about -0.88 by late 2010. It then generally increases to end at about -0.7.

#### Figure: GDP

Line chart, by percent, 2009 to 2012. There are two series, "ZLB Binds" and "ZLB Does Not Bind". ZLB begins at about 0 and generally decreases to end at about -3. ZLB Does Not Bind begins at about 0 and generally decreases to end at about -1.4.

#### Figure: Inflation, AR

Line chart, by percentage points, 2009 to 2012. There are two series, "ZLB Binds" and "ZLB Does Not Bind". ZLB Binds begins at about 0 and generally decreases to about -0.85 by 2010. It then generally increases to end at about -0.15. ZLB Does Not Bind begins at about 0 and generally decreases to about -0.6 by 2010. It then generally increases to end at about -0.1.

### Figure: Private Absorption

Line chart, by percent, 2009 to 2012. There are two series, "ZLB Binds" and "ZLB Does Not Bind". ZLB Binds begins at about 0 and generally decreases to end at about -4.3. ZLB Does Not Bind begins at about 0 and generally decreases to end at about -1.

### Figure: Real Short Interest Rate, AR

Line chart, by percentage points, 2009 to 2012. There are two series, "ZLB Binds" and "ZLB Does Not Bind". ZLB Binds begins at about 0 and generally increases to about 0.59 by 2010. It then generally decreases to end at about 0. ZLB Does Not Bind begins at about 0 and generally decreases to about -0.8 by 2011. It then generally increases to end at about -0.72.

### Figure: Net Exports (contribution to GDP)

Line chart, by percent, 2009 to 2012. There are two series, "ZLB Binds" and "ZLB Does Not Bind". ZLB Binds begins at about 0 and generally decreases to about -0.95 by late 2010. It then generally increases to end at about -0.5. ZLB Does Not Bind begins at about 0 and generally decreases to about -1 by late 2010. It then generally increases to end at about -0.73.

## Evolution of the Staff Forecast

### Figure: Current Account Balance

Line chart, by percent of GDP, January 24, 2007 to April 22, 2009 (Greenbook publication dates). There are three series, "2008", "2009", and "2010". 2008 begins at about -6.65 and generally increases to end at about -4.75. 2009 begins at about -5.3 on September 12, 2007, and generally increases to about -4.1 by April 23, 2008. It then generally decreases to about -4.5 by June 18, 2008, and generally increases to about -3.0 by December 10, 2008. It then generally decreases to end at about -3.4. 2009 begins at about -3.4 on September 10, 2008, and generally decreases to about -4.0 by March 12, 2009. It then generally increases to end at about -3.9.

### Figure: Foreign Real GDP

Line chart, by percent change, Q4/Q4, January 24, 2007 to April 22, 2009 (Greenbook publication dates). There are three series, "2008", "2009", and "2010". 2008 begins at about 3.5 and generally decreases to about 2.2 by March 13, 2008. It then generally increases to about 2.5 by June 18, 2008, and generally decreases to end at about -1. 2009 begins at about 3.2 on September 12, 2007, and generally increases to about 3.6 by March 13, 2008. It then generally decreases to end at about -2. 2010 begins at about 3.5 on September 10, 2008, and generally decreases to about 2.4 by March 12, 2009. It then generally increases to end at about 2.

### Figure: Core Import Prices

Line chart, by percent change, Q4/Q4, January 24, 2007 to April 22, 2009 (Greenbook publication dates). There are three series, "2008", "2009", and "2010". 2008 begins at about 1 and generally increases to about 7 by September 30, 2008. It then generally decreases to end at about 3.6. 2009 begins at about 1 on September 12, 2007, and generally increases to about 1.5 by September 30, 2008. It then generally decreases to end at about -3.2. 2010 begins at about 1.2 on September 10, 2008, and remains about constant until the end at about 1.1.

Note: Prices for merchandise imports excluding computers, semiconductors, oil, and natural gas.

## Outlook for Foreign Real GDP and Consumer Prices: Selected Countries

(Percent changes)

Measure and country	2008				Projected							
					2009				2010			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>REAL GDP<sup>1</sup></b>	Quarterly changes at an annual rate											
Total Foreign	2.2	1.1	0.4	-7.3	-7.2	-2.4	0.4	1.3	2.1	2.8	3.2	3.3
Advanced Foreign Economies	0.7	-0.5	-0.3	-5.4	-7.8	-3.8	-0.6	0.5	1.0	1.7	2.0	2.1
of which:												
Canada	-0.9	0.6	0.9	-3.4	-6.4	-3.8	-0.0	0.7	1.0	2.1	2.3	2.4

Japan	1.4	-4.5	-1.4	-12.1	-17.8	-5.7	-2.1	-0.3	0.7	1.0	1.3	1.3
United Kingdom	1.2	-0.1	-2.8	-6.1	-7.0	-2.8	-1.0	1.0	1.0	1.3	2.2	2.3
Euro Area <sup>2</sup>	2.7	-1.0	-1.0	-6.3	-6.5	-3.6	-1.0	0.2	1.1	1.5	1.8	1.8
Germany	6.2	-2.0	-2.1	-8.2	-7.0	-3.8	-1.1	0.0	1.0	1.4	1.5	1.7
Emerging Market Economies	4.3	3.3	1.4	-9.6	-6.3	-0.5	1.7	2.4	3.5	4.3	4.8	4.9
Asia	7.0	3.5	0.7	-10.6	-4.7	0.6	2.7	3.6	4.5	5.3	5.8	6.0
Korea	4.4	1.7	1.0	-18.8	-5.3	-4.1	1.6	2.3	3.3	4.2	4.2	4.2
China	10.3	10.9	5.3	1.6	6.5	6.9	7.4	8.0	8.3	8.8	9.2	9.2
Latin America	1.4	2.9	2.1	-9.4	-8.5	-1.8	0.6	1.2	2.3	3.2	3.8	3.9
Mexico	1.2	1.3	1.6	-10.3	-10.0	-2.0	0.6	1.0	2.0	3.2	4.0	4.2
Brazil	6.7	6.5	6.9	-13.6	-4.0	-0.5	1.0	2.3	3.2	3.2	3.2	3.2
<b>CONSUMER PRICES<sup>3</sup></b>	<b>Four-quarter changes</b>											
Total Foreign	4.1	4.7	4.8	3.3	1.9	1.0	0.4	0.9	1.6	1.6	1.6	1.6
Advanced Foreign Economies	2.3	2.7	3.4	2.0	1.0	0.5	-0.2	0.5	1.1	1.0	0.9	0.9
of which:												
Canada	1.9	2.3	3.4	1.9	1.1	0.4	-0.4	0.8	1.3	1.3	1.2	1.2
Japan	1.0	1.4	2.2	1.0	0.4	-0.3	-1.2	-0.7	-0.6	-0.4	-0.5	-0.5
United Kingdom <sup>4</sup>	2.4	3.4	4.8	3.9	3.0	2.2	0.9	1.2	2.0	1.6	1.7	1.6
Euro Area <sup>2</sup>	3.4	3.6	3.8	2.3	1.0	0.7	0.4	0.9	1.6	1.3	1.3	1.2
Germany	3.1	3.0	3.2	1.7	0.8	0.6	0.2	0.7	1.0	1.0	1.0	1.1
Emerging Market Economies	6.0	6.6	6.1	4.7	2.8	1.6	1.0	1.4	2.1	2.2	2.2	2.2
Asia	6.6	7.0	6.0	3.7	1.1	-0.2	-0.7	0.3	1.4	1.7	1.8	1.8
Korea	3.8	4.8	5.5	4.5	3.9	2.5	1.7	1.8	1.8	1.8	1.8	1.8
China	8.1	7.7	5.1	2.7	-0.6	-1.5	-1.3	-0.4	1.0	1.3	1.4	1.4
Latin America	4.5	5.5	6.1	6.6	6.4	5.5	4.5	3.6	3.3	3.1	3.1	3.0
Mexico	3.9	4.9	5.5	6.2	6.2	5.4	4.4	3.4	2.9	2.6	2.6	2.6
Brazil	4.6	5.5	6.3	6.2	5.9	5.0	4.1	4.0	3.7	3.7	3.7	3.7

1. Foreign GDP aggregates calculated using shares of U.S. exports. [Return to table](#)

2. Harmonized data for euro area from Eurostat. [Return to table](#)

3. Foreign CPI aggregates calculated using shares of U.S. non-oil imports. [Return to table](#)

4. CPI excluding mortgage interest payments, which is the targeted inflation rate. [Return to table](#)

## Outlook for Foreign Real GDP and Consumer Prices: Selected Countries

(Percent, Q4 to Q4)

Measure and country	2002	2003	2004	2005	2006	2007	2008	Projected	
								2009	2010
<b>REAL GDP<sup>1</sup></b>									
Total Foreign	3.0	2.9	3.8	4.0	4.1	4.2	-0.9	-2.0	2.8
Advanced Foreign Economies	2.5	1.8	2.6	2.7	2.7	2.6	-1.4	-3.0	1.7
of which:									
Canada	3.5	1.5	3.7	3.0	2.2	2.8	-0.7	-2.4	1.9
Japan	2.1	2.4	1.1	2.9	2.2	2.1	-4.3	-6.7	1.0
United Kingdom	2.4	3.2	2.3	2.0	3.2	3.2	-2.0	-2.5	1.7
Euro Area <sup>2</sup>	1.1	1.2	1.7	2.1	3.4	2.1	-1.5	-2.8	1.6
Germany	0.0	0.2	0.2	1.6	4.1	1.7	-1.6	-3.0	1.4
Emerging Market Economies	3.9	4.6	5.5	5.9	5.9	6.3	-0.3	-0.7	4.4
Asia	6.4	6.9	6.0	7.7	7.2	8.1	-0.1	0.5	5.4

Korea	7.5	3.7	2.5	5.2	4.6	5.7	-3.4	-1.4	4.0
China	8.6	10.3	9.9	10.3	10.8	12.3	6.9	7.2	8.9
Latin America	1.6	2.0	5.0	4.1	4.7	4.5	-0.9	-2.2	3.3
Mexico	2.0	1.5	4.5	3.6	4.0	3.7	-1.7	-2.7	3.3
Brazil	4.9	1.0	4.7	3.7	4.6	6.1	1.2	-0.3	3.2
<b>CONSUMER PRICES<sup>3</sup></b>									
Total Foreign	2.5	2.1	2.8	2.3	2.1	3.6	3.3	0.9	1.6
Advanced Foreign Economies	2.1	1.3	1.8	1.6	1.4	2.2	2.0	0.5	0.9
of which:									
Canada	3.8	1.7	2.3	2.3	1.4	2.5	1.9	0.8	1.2
Japan	-0.5	-0.3	0.5	-1.0	0.3	0.5	1.0	-0.7	-0.5
United Kingdom <sup>4</sup>	1.5	1.3	1.4	2.1	2.7	2.1	3.9	1.2	1.6
Euro Area <sup>2</sup>	2.3	2.0	2.3	2.3	1.8	2.9	2.3	0.9	1.2
Germany	1.2	1.1	2.1	2.2	1.3	3.1	1.7	0.7	1.1
Emerging Market Economies	2.9	3.1	3.9	3.0	2.9	5.1	4.7	1.4	2.2
Asia	0.8	2.3	3.2	2.6	2.4	5.4	3.7	0.3	1.8
Korea	3.3	3.5	3.4	2.5	2.1	3.4	4.5	1.8	1.8
China	-0.6	2.7	3.3	1.4	2.1	6.7	2.7	-0.4	1.4
Latin America	6.4	4.9	5.6	3.8	4.1	4.3	6.6	3.6	3.0
Mexico	5.2	3.9	5.3	3.1	4.1	3.8	6.2	3.4	2.6
Brazil	10.7	11.5	7.2	6.1	3.2	4.3	6.2	4.0	3.7

1. Foreign GDP aggregates calculated using shares of U.S. exports. [Return to table](#)

2. Harmonized data for euro area from Eurostat. [Return to table](#)

3. Foreign CPI aggregates calculated using shares of U.S. non-oil imports. [Return to table](#)

4. CPI excluding mortgage interest payments, which is the targeted inflation rate. [Return to table](#)

## Outlook for U.S. International Transactions

	2002	2003	2004	2005	2006	2007	2008	Projected	
								2009	2010
<b>NIPA REAL EXPORTS and IMPORTS</b>									
Percentage point contribution to GDP growth, Q4/Q4									
Net Goods & Services	-0.9	-0.1	-0.9	-0.1	0.4	0.8	1.1	0.1	-0.5
Exports of G&S	0.4	0.6	0.7	0.7	1.1	1.0	-0.2	-1.2	0.2
Imports of G&S	-1.3	-0.7	-1.7	-0.8	-0.6	-0.2	1.3	1.3	-0.7
Percentage change, Q4/Q4									
Exports of G&S	3.8	5.8	7.4	7.0	10.1	8.9	-1.8	-10.1	2.3
Services	10.2	3.0	8.3	4.0	11.5	9.3	2.5	-7.0	2.2
Computers	-1.1	11.3	5.8	14.2	8.1	0.9	-2.2	3.2	9.5
Semiconductors	10.1	38.3	-6.0	17.6	2.9	29.3	-13.8	-13.1	11.1
Core Goods <sup>1</sup>	0.6	4.9	8.0	7.4	10.0	8.2	-3.4	-12.0	1.7
Imports of G&S	9.7	4.8	11.5	4.8	3.8	1.1	-7.5	-8.8	5.1
Services	8.8	2.2	9.3	-0.1	8.0	1.8	-1.7	-3.1	3.6
Oil	3.8	1.2	10.8	1.0	-9.2	0.6	-1.1	-13.5	-0.0
Natural Gas	19.5	1.3	4.9	13.7	-12.6	12.1	-27.3	11.4	2.0
Computers	13.2	17.0	23.2	12.5	13.8	8.4	-11.6	1.6	15.5

Semiconductors	11.0	-0.1	9.8	7.5	-0.3	3.8	-10.0	-15.0	5.0
Core Goods <sup>2</sup>	10.0	5.2	11.4	5.9	5.7	0.1	-9.8	-10.9	6.0
Billions of Chained 2000 Dollars									
Net Goods & Services	-471.3	-518.9	-593.8	-616.6	-615.7	-546.5	-390.2	-330.8	-387.7
Exports of G&S	1013.3	1026.1	1126.1	1205.3	1314.8	1425.9	1514.1	1313.2	1324.2
Imports of G&S	1484.6	1545.0	1719.9	1821.9	1930.5	1972.4	1904.3	1644.0	1711.9
Billions of dollars									
<b>US CURRENT ACCOUNT BALANCE</b>	<b>-461.3</b>	<b>-523.4</b>	<b>-625.0</b>	<b>-729.0</b>	<b>-788.1</b>	<b>-731.2</b>	<b>-673.3</b>	<b>-478.9</b>	<b>-552.3</b>
Current Acct as Percent of GDP	-4.4	-4.8	-5.3	-5.9	-6.0	-5.3	-4.7	-3.4	-3.8
Net Goods & Services (BOP)									
Net Goods & Services (BOP)	-423.7	-496.9	-607.7	-711.6	-753.3	-700.3	-681.1	-393.8	-486.5
Investment Income, Net									
Investment Income, Net	33.0	51.0	73.4	78.8	63.8	88.8	134.8	46.8	64.2
Direct, Net									
Direct, Net	102.4	112.7	150.9	173.2	184.1	233.9	267.9	172.1	197.0
Portfolio, Net									
Portfolio, Net	-69.4	-61.7	-77.5	-94.4	-120.3	-145.1	-133.1	-125.2	-132.8
Other Income & Transfers, Net									
Other Income & Transfers, Net	-70.5	-77.5	-90.6	-96.2	-98.6	-119.7	-127.0	-132.0	-130.0

1. Merchandise exports excluding computers and semiconductors. [Return to table](#)

2. Merchandise imports excluding oil, natural gas, computers, and semiconductors. [Return to table](#)

## Outlook for U.S. International Transactions

	2005				2006				2007			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>NIPA REAL EXPORTS and IMPORTS</b>												
Percentage point contribution to GDP growth												
Net Goods & Services	0.3	0.8	-0.1	-1.3	0.1	0.6	-0.1	1.3	-1.2	1.7	2.0	0.9
Exports of G&S	0.8	0.9	0.0	1.1	1.7	0.6	0.4	1.7	0.1	1.0	2.5	0.5
Imports of G&S	-0.5	-0.1	-0.1	-2.4	-1.6	0.0	-0.5	-0.3	-1.2	0.7	-0.5	0.4
Percentage change from previous period, s.a.a.r.												
Exports of G&S	8.1	8.8	0.4	10.9	16.7	5.5	3.5	15.6	0.6	8.8	23.0	4.4
Services	10.2	-2.8	3.2	5.7	13.4	2.7	3.2	28.6	-2.7	13.3	25.9	2.7
Computers	16.8	27.9	8.3	5.2	12.0	17.5	-7.9	12.7	3.9	-4.0	14.4	-9.2
Semiconductors	-5.2	11.7	30.7	38.0	20.3	16.1	-5.6	-15.0	15.9	23.7	20.5	61.7
Core Goods <sup>1</sup>	7.3	13.8	-2.9	12.4	18.3	5.6	4.8	11.8	1.3	6.6	22.1	3.7
Imports of G&S	3.2	0.6	0.8	15.3	10.3	0.1	3.1	2.0	7.7	-3.7	3.0	-2.3
Services	-5.7	-0.0	-1.0	6.8	17.7	-2.0	-0.3	18.4	4.2	-2.0	6.3	-0.9
Oil	5.1	-27.1	-11.6	53.6	-2.8	-27.1	7.5	-10.6	30.9	-22.3	-13.5	16.5
Natural Gas	58.6	-14.1	111.1	-41.9	-50.7	91.9	26.6	-51.2	70.8	74.2	28.2	-58.6
Computers	3.2	11.6	20.4	15.4	20.7	21.1	19.7	-4.3	34.9	-6.5	-0.2	9.7
Semiconductors	-9.2	7.7	14.0	20.0	0.2	-0.5	17.7	-15.8	1.2	6.7	1.0	6.4
Core Goods <sup>2</sup>	4.8	6.1	0.3	12.7	13.7	4.9	1.2	3.2	2.2	-1.1	5.8	-6.0
Billions of Chained 2000 Dollars, s.a.a.r.												
Net Goods & Services	-623.7	-601.3	-603.6	-637.8	-636.0	-619.4	-623.0	-584.2	-618.6	-571.2	-511.8	-484.5
Exports of G&S	1177.9	1203.1	1204.3	1235.7	1284.3	1301.4	1312.6	1361.1	1363.2	1392.2	1466.2	1482.1
Imports of G&S	1801.7	1804.4	1807.9	1873.6	1920.2	1920.9	1935.7	1945.3	1981.8	1963.4	1978.0	1966.5
Billions of dollars, s.a.a.r.												

<b>US CURRENT ACCOUNT BALANCE</b>	-696.2	-711.3	-675.6	-832.9	-783.8	-799.6	-843.6	-725.4	-787.7	-776.4	-691.8	-669.0
Current Account as % of GDP	-5.7	-5.8	-5.4	-6.6	-6.0	-6.1	-6.4	-5.4	-5.8	-5.7	-5.0	-4.8
Net Goods & Services (BOP)	-664.0	-682.9	-721.4	-778.0	-756.4	-767.4	-789.9	-699.5	-718.2	-715.3	-672.5	-695.1
Investment Income, Net	88.6	77.8	88.7	59.9	65.2	70.7	51.7	67.7	57.8	45.8	98.9	152.6
Direct, Net	170.2	168.5	187.8	166.3	177.2	189.2	171.9	198.2	201.1	196.2	238.8	299.3
Portfolio, Net	-81.6	-90.7	-99.0	-106.5	-112.0	-118.5	-120.3	-130.5	-143.2	-150.4	-139.9	-146.7
Other Inc. & Transfers, Net	-120.9	-106.2	-42.9	-114.8	-92.6	-103.0	-105.4	-93.6	-127.4	-106.9	-118.3	-126.4

1. Merchandise exports excluding computers and semiconductors. [Return to table](#)

2. Merchandise imports excluding oil, natural gas, computers, and semiconductors. [Return to table](#)

## Outlook for U.S. International Transactions

	2008				2009				Projected			
	2008		2009		2009		2010		2010		2010	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>NIPA REAL EXPORTS and IMPORTS</b>												
Percentage point contribution to GDP growth												
Net Goods & Services	0.8	2.9	1.1	-0.2	1.0	0.6	-0.4	-0.9	-1.1	0.2	-0.2	-0.8
Exports of G&S	0.6	1.5	0.4	-3.4	-4.4	-0.4	-0.2	0.0	0.1	0.2	0.3	0.3
Imports of G&S	0.1	1.4	0.7	3.3	5.3	1.0	-0.2	-0.9	-1.2	0.0	-0.5	-1.1
Percentage change from previous period, s.a.a.r.												
Exports of G&S	5.1	12.3	3.0	-23.6	-31.4	-3.4	-1.5	0.2	1.2	2.1	2.7	3.2
Services	6.4	3.8	1.4	-1.5	-14.4	-7.8	-3.8	-1.6	0.1	1.7	3.2	3.9
Computers	0.4	57.4	5.4	-45.2	-18.5	15.8	9.5	9.5	9.5	9.5	9.5	9.5
Semiconductors	4.6	-6.8	21.3	-53.4	-64.8	31.2	11.1	11.1	11.1	11.1	11.1	11.1
Core Goods <sup>1</sup>	4.7	16.1	2.9	-30.4	-38.1	-2.6	-1.1	0.6	1.1	1.7	1.9	2.2
Imports of G&S	-0.8	-7.3	-3.5	-17.5	-31.1	-7.2	1.4	6.9	8.9	0.3	3.3	8.2
Services	5.5	-8.0	3.3	-6.7	-15.7	0.5	2.2	1.8	6.7	-0.8	4.1	4.6
Oil	17.6	-38.1	-6.6	40.7	7.6	-52.5	-15.8	30.3	29.9	-28.5	-17.7	30.9
Natural Gas	-40.5	3.7	-38.0	-27.2	81.6	-1.0	37.1	-37.4	15.6	11.8	27.0	-34.1
Computers	6.3	26.0	-13.1	-47.4	-26.4	8.6	15.5	15.5	15.5	15.5	15.5	15.5
Semiconductors	-3.3	14.4	-4.5	-37.9	-55.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Core Goods <sup>2</sup>	-6.4	2.4	-2.5	-29.2	-41.8	-0.0	2.8	5.2	5.7	6.0	6.1	6.1
Billions of Chained 2000 Dollars, s.a.a.r.												
Net Goods & Services	-462.0	-381.3	-353.0	-364.5	-333.4	-314.0	-324.7	-351.2	-383.3	-377.9	-382.9	-406.5
Exports of G&S	1500.6	1544.7	1556.1	1454.9	1324.1	1312.7	1307.6	1308.4	1312.2	1318.9	1327.7	1338.1
Imports of G&S	1962.6	1926.0	1909.1	1819.4	1657.5	1626.7	1632.3	1659.6	1695.5	1696.7	1710.6	1744.7
Billions of dollars, s.a.a.r.												
<b>US CURRENT ACCOUNT BALANCE</b>	-707.6	-728.9	-725.2	-531.3	-470.2	-462.7	-474.7	-508.2	-550.5	-542.1	-544.6	-571.9
Current Account as % of GDP	-5.0	-5.1	-5.0	-3.7	-3.3	-3.3	-3.4	-3.6	-3.8	-3.8	-3.7	-3.9
Net Goods & Services (BOP)	-713.8	-725.7	-723.5	-561.5	-389.2	-374.7	-386.4	-424.9	-473.3	-472.4	-483.4	-516.7
Investment Income, Net	140.3	120.0	125.5	153.5	59.1	41.3	41.0	46.0	52.1	59.6	68.1	77.1



Direct, Net	281.3	259.7	256.3	274.2	171.1	167.0	171.7	178.4	185.7	193.7	201.3	207.2
Portfolio, Net	-141.1	-139.7	-130.8	-120.7	-112.0	-125.7	-130.7	-132.4	-133.6	-134.1	-133.2	-130.2
Other Inc. & Transfers, Net	-134.1	-123.3	-127.2	-123.2	-140.1	-129.3	-129.3	-129.3	-129.3	-129.3	-129.3	-132.3

1. Merchandise exports excluding computers and semiconductors. [Return to table](#)
2. Merchandise imports excluding oil, natural gas, computers, and semiconductors. [Return to table](#)

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

**Last update: April 1, 2015**

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### Domestic Nonfinancial Developments

#### Changes in Employment

(Thousands of employees; seasonally adjusted)

Measure and sector	2008				2009		
	2008	Q3	Q4	Q1	Jan.	Feb.	Mar.
	Average monthly change				Monthly change		
Nonfarm payroll employment (establishment survey)	-257	-208	-553	-685	-741	-651	-663
Private	-270	-212	-552	-687	-749	-654	-658
Natural resources and mining	4	8	-2	-12	-8	-9	-18
Manufacturing	-73	-61	-140	-197	-262	-169	-161
Ex. motor vehicles	-58	-43	-121	-170	-192	-176	-144
Construction	-57	-34	-97	-123	-135	-107	-126
Residential	-35	-21	-51	-57	-60	-53	-59
Nonresidential	-22	-12	-45	-66	-76	-54	-68
Wholesale trade	-16	-12	-32	-34	-31	-40	-31
Retail trade	-44	-42	-80	-48	-46	-51	-48
Financial activities	-19	-16	-35	-48	-56	-44	-43
Temporary help services	-44	-40	-70	-80	-90	-77	-72
Nonbusiness services <sup>1</sup>	19	16	-19	-29	-13	-19	-55
Total government	14	4	-1	2	8	3	-5
Total employment (household survey)	-246	-236	-564	-817	-1239	-351	-861
Memo:							
Aggregate hours of private production workers (percent change) <sup>2</sup>	-3.3	-2.8	-7.4	-8.7	-.7	-.6	-1.0
Average workweek (hours) <sup>3</sup>	33.6	33.6	33.4	33.3	33.3	33.3	33.2
Manufacturing (hours)	40.8	40.8	40.2	39.5	39.8	39.5	39.3

1. Nonbusiness services comprises education and health, leisure and hospitality, and "other." [Return to table](#)

2. Establishment survey. Annual data are percent changes from Q4 to Q4. Quarterly data are percent changes from preceding quarter at an annual rate. Monthly data are percent changes from preceding month. [Return to table](#)

3. Establishment survey. [Return to table](#)

#### Figure: Changes in Private Payroll Employment

Line chart, by thousands, 1999 to March 2009. Data are 3-month moving average. The series begins at about 200 and generally decreases to about -300 by late 2001. It then generally increases to about 300 by 2004, and then generally decreases to end at about -700.

#### Figure: Aggregate Hours and Workweek of Production and Nonsupervisory Workers

Line chart, 1999 to March 2009. There are two series, "Aggregate hours", an index where 2002=100, and "Workweek", which is by hours. These two series use two different scales. Aggregate hours begins at about 100.5 and generally increases to about 104 by late 2000. It then generally decreases to about 98.1 by 2003, and generally increases to about 107.9 by late 2007. It then generally decreases to end at about 101. Workweek begins at about 34.4 and generally decreases to about 33.6 by 2003. It then generally increases to about 34.0 by the end of 2006, and generally decreases to end at about 33.2.

## Selected Unemployment and Labor Force Participation Rates

(Percent; seasonally adjusted)

Rate and group	2008			2009			
	2008	Q3	Q4	Q1	Jan.	Feb.	Mar.
<i>Civilian unemployment rate</i>							
Total	5.8	6.0	6.9	8.1	7.6	8.1	8.5
Teenagers	18.7	19.7	20.7	21.3	20.8	21.6	21.7
20-24 years old	10.2	10.6	11.3	13.0	12.1	12.9	14.0
Men, 25 years and older	4.8	5.1	6.0	7.4	6.9	7.5	7.9
Women, 25 years and older	4.4	4.5	5.2	6.2	5.8	6.2	6.5
<i>Labor force participation rate</i>							
Total	66.0	66.1	65.9	65.6	65.5	65.6	65.5
Teenagers	40.2	40.3	38.7	38.3	38.3	38.7	38.0
20-24 years old	74.4	74.8	74.1	73.7	72.8	74.0	74.5
Men, 25 years and older	75.4	75.6	75.2	74.6	74.7	74.7	74.4
Women, 25 years and older	60.0	60.0	60.1	60.0	60.1	60.0	60.0

*Figure: Labor Force Participation Rate and Unemployment Rate*

Line chart, by percent, 1973 to March 2009. There are two series, "Participation rate" and "Unemployment rate". The NBER peak is marked in the time series. These two series use two different scales. Participation rate begins at about 60.4 and generally increases to about 66.7 by early 1990. It then fluctuates but remains about constant to end at about 65.6. It is at about 65.8 at the time of the NBER peak. Unemployment rate begins at about 5.8 and generally decreases to about 4.6 by late 1973, then generally increases to about 9 by 1975. It then generally decreases to about 5.5 by 1979, and generally increases to about 10.9 by late 1982. It then generally decreases to about 5 by early 1989, and generally increases to about 7.8 by 1992. It then generally decreases to about 3.7 by 2000, and then generally increases to end at about 8.5. It is at about 5 at the time of the NBER peak.

Note: Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): November 1973-March 1975, January 1980-July 1980, July 1981-November 1982, July 1990-March 1991, and March 2001-November 2001. The NBER peak is the last business cycle peak as defined by the NBER (December 2007).

*Figure: Persons Working Part Time for Economic Reasons*

Line chart, by percent of household employment, 2000 to March 2009. The series begins at about 2.4 and generally increases to about 3.6 by mid-2003. It then generally decreases to about 2.7 by early 2006, and then generally increases to end at about 6.4.

*Figure: Job Losers Unemployed Less Than 5 Weeks*

Line chart, by percent of household employment, 2000 to March 2009. There are two series, "Job Losers Unemployed Less Than 5 Weeks", and the "3-month moving average" of that series. The two series track very closely together throughout the chart. They begin at about 0.8. They then generally increase to about 1.3 by the end of 2001. They then generally decrease to about 0.8 by 2007. Then then generally increase to about 1.6 by early 2009 and then generally decrease to end at about 1.5.

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

## Labor Market Indicators

*Figure: Unemployment Insurance*

Line chart, 1999 to 2009. There are two series, "Insured unemployment", which is by millions, and "Initial claims", which is by thousands. These two series use two different scales. Insured unemployment begins at about 2.3 and generally decreases to about 2.0 by early 2000. It then generally increases to about 3.75 by 2003, and generally decreases to about 2.5 by early 2007. It then generally increases to end at about 5.7 on April 4. Initial claims begins at about 340 and generally decreases to about 260 by 2000. It then generally increases to about 490 by late 2001, and then generally decreases to about 260 by early 2006. It then generally increases to end at about 655 on April 11.

Note: 4-week moving averages.

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

### Figure: Layoffs and Job Cuts

Line chart, 1999 to 2009. There are two series, "Layoffs and discharges", which is by percent of private employment, and "Announced job cuts", which is by thousands. These two series use two different scales. Layoffs and discharges begins at about 1.6 by the beginning of 2001 and fluctuates but generally decreases to about 1.3 by early 2006. It then fluctuates but generally increases to end at about 2.1 by February. Announced job cuts begins at about 55 and generally decreases to about 2 by late 1999. It then generally increases to about 250 by late 2001. It then fluctuates but generally decreases to about 49 by early 2008, and generally increases to about 230 by early 2009. It then generally decreases to end at about 160 by March.

Note: Job cuts seasonally adjusted by FRB staff.

Source: For layoffs and discharges, Job Openings and Labor Turnover Survey; for job cuts, Challenger, Gray, and Christmas, Inc.

### Figure: Job Openings

Line chart, 1999 to 2009. There are two series, "Job openings" (percent of private employment plus job openings), and "Composite Help Wanted Index" (index of staff composite help wanted advertising as a percent of private payroll employment, 1980=100). These two series use two different scales. Job openings begins at about 4.0 in early 2001, and generally decreases to about 2.5 by early 2003. It then generally increases to about 3.6 by 2006, and generally decreases to end at about 2.3 by February. Composite Help Wanted Index begins at about 90 and generally decreases to about 48 by early 2003. It then generally increases to about 72 by early 2007, and generally decreases to end at about 41 by March.

Source: For job openings, Job Openings and Labor Turnover Survey; for Help Wanted Index, Conference Board and staff calculations.

### Figure: Job Availability and Hard-to-Fill Positions

Line chart, 1999 to March 2009. There are two series, "Job availability", which is an index, and "Hard-to-fill", which is by percent (3-month moving average). These two series use two different scales. Job availability begins at about 134 and generally increases to about 145 by early 2000. It then generally decreases to about 75 by mid-2003, and generally increases to about 110 by 2007, and generally decreases to end at about 55. Hard-to-fill begins at about 30, generally increases to about 34 by 2000, and then decreases to about 16 by mid-2003. It then generally increases to about 26 by 2006, and then generally decreases to end at about 10.

Note: Job availability is the proportion of households believing jobs are plentiful, minus the proportion believing jobs are hard to get, plus 100. Hard-to-fill is the percent of small businesses surveyed with at least one "hard-to-fill" job opening; seasonally adjusted by FRB staff.

Source: For job availability, Conference Board; for hard-to-fill, National Federation of Independent Business.

### Figure: Net Hiring Plans

Line chart, by percent, 1999 to 2009. There are two series, "Manpower, Inc." and "NFIB net hiring plans". NFIB net hiring plans data is a 3-month moving average. Manpower, Inc. begins at about 21 and generally increases to about 25 by 2000. It then generally decreases to about 7 by early 2002, and generally increases to about 15 by early 2003. It then generally decreases to about 7 by 2003, and generally increases to about 21 by early 2005. It then generally decreases to end at about 0 by 2009:Q2. NFIB net hiring plans begins at about 16 and generally increases to about 19 by late 1999. It then generally decreases to about 6 by early 2003, and generally increases to about 16 by late 2006. It then generally decreases to end at about -5 by March.

Note: Percent planning an increase in employment minus the percent planning a reduction.

Source: National Federation of Independent Business (NFIB); Manpower, Inc.

### Figure: Expected Labor Market Conditions

Line chart, an index, 1999 to 2009. There are two series, "Conference Board" and "Reuters/Michigan". Conference Board begins at about 100 and fluctuates between about 85 and 107 until early 2004 when it is at about 100. It then remains about constant until mid-2007. It then generally decreases to end at about 64 by March. Reuters/Michigan begins at about 90 and generally decreases to about 49 by late 2001. It then generally increases to about 106 by mid-2004, and generally decreases to about 38 by late 2008. It then generally increases to end at about 55 by April.

Note: The proportion of households expecting labor market conditions to improve, minus the proportion expecting conditions to worsen, plus 100. Reuters/Michigan April 2009 value is preliminary.

Source: Conference Board; Reuters/University of Michigan Surveys of Consumers.

## Output per Hour

(Percent change from preceding period at an annual rate; seasonally adjusted)

Sector	2006:Q4	2007:Q4	2008			
	to 2007:Q4	to 2008:Q4	Q1	Q2	Q3	Q4
Nonfarm business						
All persons	2.6	2.2 <sup>1</sup>	2.6	4.7	2.1	-5 <sup>1</sup>
2		1				1

All employees_	2.0	1.6	2.3	4.9	1.6	-2.2
Nonfinancial corporations <sup>3</sup>	1.9	n.a.	-4	8.5	6.4	n.a.

1. Staff estimates. [Return to table](#)

2. Assumes that the growth rate of hours of non-employees equals the growth rate of hours of employees. [Return to table](#)

3. All corporations doing business in the United States except banks, stock and commodity brokers, and finance and insurance companies. The sector accounts for about two-thirds of business employment. Nonfinancial corporate output is calculated as an income-side measure. [Return to table](#)

n.a. Not available. [Return to table](#)

Source: For output, U.S. Dept. of Commerce, Bureau of Economic Analysis; for hours, U.S. Dept. of Labor, Bureau of Labor Statistics.

## Selected Components of Industrial Production

(Percent change from preceding comparable period)

Component	Proportion 2008 (percent)	2008 <sup>1</sup>	2008	2009	2009		
			Q4	Q1	Jan.	Feb.	Mar.
			Annual rate		Monthly rate		
<b>Total</b>	<b>100.0</b>	<b>-6.7</b>	<b>-12.7</b>	<b>-20.0</b>	<b>-2.1</b>	<b>-1.5</b>	<b>-1.5</b>
Previous	100.0	-6.6	-12.7	...	-2.0	-1.5	...
<b>Manufacturing</b>	<b>79.0</b>	<b>-8.6</b>	<b>-17.7</b>	<b>-22.5</b>	<b>-2.7</b>	<b>-.6</b>	<b>-1.7</b>
Ex. motor veh. and parts	74.5	-7.7	-16.5	-19.2	-1.5	-1.0	-1.9
Ex. high-tech industries	70.3	-7.7	-15.0	-18.5	-1.6	-.9	-1.8
<b>Mining</b>	<b>10.6</b>	<b>.7</b>	<b>2.9</b>	<b>-14.8</b>	<b>-1.3</b>	<b>-1.0</b>	<b>-3.2</b>
<b>Utilities</b>	<b>10.4</b>	<b>.3</b>	<b>12.5</b>	<b>-6.2</b>	<b>1.2</b>	<b>-7.7</b>	<b>1.8</b>
<i>Selected industries</i>							
<b>Energy</b>	<b>23.9</b>	<b>1.2</b>	<b>10.9</b>	<b>-8.7</b>	<b>-.3</b>	<b>-3.7</b>	<b>-.6</b>
<b>High technology</b>	<b>4.2</b>	<b>-6.8</b>	<b>-37.8</b>	<b>-29.5</b>	<b>-.5</b>	<b>-3.1</b>	<b>-3.1</b>
Computers	1.0	-11.5	-30.4	-35.4	-3.9	-3.7	-3.3
Communications equipment	1.3	10.7	7.4	1.2	1.8	-2.8	-1.0
Semiconductors <sup>2</sup>	1.8	-15.2	-61.2	-47.0	-.7	-3.1	-5.0
<b>Motor vehicles and parts</b>	<b>4.5</b>	<b>-23.0</b>	<b>-36.5</b>	<b>-66.9</b>	<b>-25.0</b>	<b>9.4</b>	<b>1.5</b>
<b>Aircraft and parts</b>	<b>2.3</b>	<b>-12.9</b>	<b>-20.9</b>	<b>76.3</b>	<b>-3.5</b>	<b>.5</b>	<b>-.9</b>
<b>Total ex. selected industries</b>	<b>65.1</b>	<b>-8.2</b>	<b>-17.1</b>	<b>-22.0</b>	<b>-1.5</b>	<b>-1.1</b>	<b>-1.9</b>
<b>Consumer goods</b>	<b>20.7</b>	<b>-4.1</b>	<b>-8.3</b>	<b>-11.8</b>	<b>-.7</b>	<b>-.3</b>	<b>-.9</b>
Durables	3.5	-14.6	-26.2	-25.3	-.8	-2.7	-2.5
Nondurables	17.1	-1.8	-4.2	-9.0	-.6	.1	-.6
<b>Business equipment</b>	<b>6.6</b>	<b>-4.7</b>	<b>-11.6</b>	<b>-22.6</b>	<b>-2.4</b>	<b>-2.2</b>	<b>-2.7</b>
<b>Defense and space equipment</b>	<b>1.1</b>	<b>-2.1</b>	<b>-.1</b>	<b>-4.0</b>	<b>.5</b>	<b>-2.4</b>	<b>1.5</b>
<b>Construction supplies</b>	<b>4.8</b>	<b>-11.7</b>	<b>-26.4</b>	<b>-36.3</b>	<b>-4.2</b>	<b>-1.9</b>	<b>-2.8</b>
<b>Business supplies</b>	<b>7.3</b>	<b>-9.7</b>	<b>-17.2</b>	<b>-25.5</b>	<b>-2.2</b>	<b>-2.0</b>	<b>-2.0</b>
<b>Materials</b>	<b>24.6</b>	<b>-11.5</b>	<b>-24.0</b>	<b>-27.0</b>	<b>-1.4</b>	<b>-1.0</b>	<b>-2.6</b>
Durables	12.4	-11.3	-28.8	-37.2	-3.4	-2.8	-3.6
Nondurables	12.2	-11.8	-18.9	-15.5	.7	.7	-1.7

1. From fourth quarter of preceding year to fourth quarter of year shown. [Return to table](#)

2. Includes related electronic components. [Return to table](#)

... Not applicable. [Return to table](#)

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

## Capacity Utilization

(Percent of capacity)

Sector	1972-2008 average	1994-95 high	2001-02 low	2008		2009		
				Q3	Q4	Q1	Feb.	Mar.
<b>Total industry</b>	<b>80.9</b>	<b>84.9</b>	<b>73.5</b>	<b>76.9</b>	<b>74.3</b>	<b>70.3</b>	<b>70.3</b>	<b>69.3</b>
Manufacturing	79.6	84.5	71.4	74.6	71.0	66.7	66.9	65.8
Mining	87.6	89.1	84.9	89.1	89.5	85.9	86.5	83.8
Utilities	86.8	93.3	84.2	81.5	83.6	81.9	79.2	80.5
<i>Stage-of-process groups</i>								
Crude	86.6	89.9	81.7	85.2	83.9	80.7	81.3	79.5
Primary and semifinished	82.0	87.9	74.3	76.8	73.5	68.2	67.9	66.8
Finished	77.7	80.3	70.0	73.5	71.1	68.3	68.5	67.9

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

## Production of Domestic Light Vehicles

(Millions of units at an annual rate except as noted)

Item	2008		2009		2009			
	Q3	Q4	Q1	Q2	Mar.	Apr.	May	June
U.S. production <sup>1</sup>	8.4	7.1	4.4	5.9	4.8	5.8	6.1	5.7
Autos	4.1	3.3	1.6	2.6	1.9	2.5	2.7	2.5
Light trucks	4.3	3.7	2.8	3.3	3.0	3.3	3.4	3.1
Days' supply <sup>2</sup>	76	98	93	n.a.	89	n.a.	n.a.	n.a.
Autos	67	98	94	n.a.	86	n.a.	n.a.	n.a.
Light trucks	84	99	92	n.a.	91	n.a.	n.a.	n.a.
Inventories <sup>3</sup>	2.41	2.47	2.04	n.a.	2.04	n.a.	n.a.	n.a.
Autos	0.96	1.14	0.92	n.a.	0.92	n.a.	n.a.	n.a.
Light trucks	1.44	1.33	1.11	n.a.	1.11	n.a.	n.a.	n.a.
Memo: U.S. production, total motor vehicles <sup>4</sup>	8.6	7.3	4.6	6.1	5.1	6.0	6.3	5.9

Note: FRB seasonals. Components may not sum to totals because of rounding.

1. Production rates for April, May, June, and the second quarter of 2009 reflect the latest industry schedules. [Return to table](#)

2. Quarterly values are calculated with end-of-period stocks and average reported sales. [Return to table](#)

3. End-of-period stocks. [Return to table](#)

4. Includes medium and heavy trucks. [Return to table](#)

n.a. Not available.

Source: Ward's Communications.

### *Figure: Inventories of Light Vehicles*

Line chart, by millions of units, 1998 to March 2009. The series begins at about 2.88 and generally decreases to about 2.50 by 1998. It then generally increases to about 3.26 by the end of 2000, and generally decreases to about 2.48 by the end of 2001. It then generally increases to about 3.40 by mid-2004, and generally

decreases to about 2.58 by 2005. It then generally increases to about 3.00 by 2006, and generally decreases to end at about 2.01.

Source: Ward's Communications. Adjusted using FRB seasonals.

### *Figure: Days' Supply of Light Vehicles*

Line chart, by days, 1998 to March 2009. There are two series, "Using sales in current month" and "Using 3-month moving average of sales". The two series track closely together throughout the chart. They begin at about 70 and fluctuate but remain about constant until mid-2001. They then generally decrease to about 40 by the end of 2001. They then generally increase to about 81 by mid-2004, generally decrease to about 45 by mid-2005 and then generally increase to about 100. They then end at about 90.

Source: Constructed from Ward's Communications data. Adjusted using FRB seasonals.

## Indicators of High-Tech Manufacturing Activity

### *Figure: MPU Shipments and Intel Revenue*

Line chart, by billions of dollars, ratio scale, 2002 to 2009. There are two series, "Intel revenue" and "Worldwide MPU shipments". Intel revenue begins at about 6.8 and generally decreases to about 6.5 by 2002. It then generally increases to about 9.9 by early 2005, and generally decreases to about 8.5 by 2006. It then generally increases to about 10.1 by early 2008, and generally decreases to end at about 7.6 by 2009:Q2. Worldwide MPU shipments begins at about 6.35 and generally decreases to about 5.7 by 2002. It then generally increases to about 8.9 by 2005, and generally decreases to about 7.3 by 2006. It then generally increases to about 9.3 by 2007, and generally decreases to end at about 6.3 by 2009:Q1.

Note: FRB seasonals. MPU is a microprocessor unit. Q2 Intel revenue is the company's internal forecast as of April 14, 2009. MPU shipments include Semiconductor Industry Association (SIA) data through February and a staff estimate for March.

Source: Intel; SIA.

### *Figure: FRB Chip Inventory Index*

Line chart, 2002 to 2008:Q4. 2006=100. The series begins at about 119, generally increases to about 130 by mid-2002, and then generally decreases to about 95 by 2004. It then generally increases to about 135 by early 2007, and then generally decreases to about 110 by early 2008. It then generally increases to end at about 130.

Note: The staff's chip inventory index is a sales-weighted chain-type index constructed from financial data for 10 major chip manufacturers.

Source: Financial reports.

### *Figure: U.S. Personal Computer and Server Absorption*

Line chart, by millions of units, ratio scale, 2002 to 2009. There are two series, "Servers", and "PCs". These two series use two different scales. Servers begins at about 0.44 and generally increases to about 0.77 by mid-2008. It then generally decreases to end at about 0.64. PCs begins at about 11.3 and generally increase to end at about 16.0. 2009:Q1 is marked at about 13.2.

Note: FRB seasonals. Q1 server units are a forecast produced by International Data Corporation (IDC). Q1 PCs are constructed using IDC's Top 5.

Source: IDC.

### *Figure: High-Tech Spending Plans*

Line chart, a diffusion index, 2003 to 2009:Q1. The series begins at about 65 and generally increases to about 80 by 2005. It then generally decreases to about 43 by late 2008, and generally increases to end at about 52.

Note: Based on survey question on firms' plans to increase or decrease their spending on high-tech equipment in the next 12 months.

Source: NABE Industry Survey.

### *Figure: Circuit Board Orders and Shipments*

Line chart, by billions of dollars, 2002 to February 2009. There are two series, "Orders" and "Shipments". They begin at about 92, generally increase to about 100 by 2002, and generally decrease to about 70 by early 2003. Orders then generally increases to about 128 by 2004, and generally decreases to about 77 by late 2004. It then generally increases to about 132 by late 2005, and generally decreases to end at about 71. Shipments generally increases to about 113 by 2006, and generally decreases to about 96 by early 2007. It then generally increases to about 110 by late 2007, and generally decreases to end at about 78.

Note: U.S. and Canadian shipments of bare and loaded circuit boards.

Source: Institute for Printed Circuits.

### *Figure: Bookings and Billings for Semiconductor Equipment*

Line chart, by billions of dollars, 2002 to March 2009. There are two series, "Bookings" and "Billings". Bookings begins at about 0.7 and generally increases to about 1.12. It then generally decreases to about 0.68 by 2003, and generally increases to about 1.55 by 2004. It then generally decreases to about 0.98 by early 2005, generally increases to about 1.7 by 2006, and generally decreases to end at about 0.28. Billings begins at about 0.82 and generally increases to about 1.01 by late 2002. It then generally decreases to about 0.75 by 2003, and generally increases to about 1.49 by 2004. It then generally decreases to about 1.02 by 2005, and generally increases to about 1.7 by 2007. It then generally decreases to end at about 0.5.

Note: FRB seasonals.

Source: Semiconductor Equipment and Materials International.

## Indicators of Industrial Activity

### *Figure: IP Diffusion Index*

Line chart, 1975 to March 2009. The series begins at about 16 and generally increases to about 75 by early 1976. It then fluctuates between about 20 and 80 until early 2007 when it is at about 65. It then decreases to end at about 25.

Note: The diffusion index equals the percentage of series that increases relative to three months earlier plus one-half the percentage that were unchanged. Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): 1973:Q4-1975:Q1, 1980:Q1-1980:Q3, 1981:Q3-1982:Q4, 1990:Q3-1991:Q1, and 2001:Q1-2001:Q4.

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

### *Figure: Manufacturing Capacity Utilization*

Line chart, by percent, 1972 to March 2009. The NBER peak is marked in the time series. The series begins at about 83 and generally increases to about 88 by 1973, then generally decreases to about 69 by early 1983. It then generally increases to about 86 by 1989, and then generally decreases to about 71 by 2002. It then increases to about 80 by 2006 and decreases to end at about 66. It is at about 79 at the time of the NBER peak.

Note: Horizontal line is 1972-2008 average, approximately 79.5 percent. Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): 1973:Q4-1975:Q1, 1980:Q1-1980:Q3, 1981:Q3-1982:Q4, 1990:Q3-1991:Q1, and 2001:Q1-2001:Q4. The NBER peak is the last business cycle peak as defined by the NBER (December 2007).

Source: Federal Reserve.

### *Figure: New Orders: ISM, FRB New York, and FRB Philadelphia Surveys*

Line chart, a diffusion index, 2002 to 2009. There are three series, "Philadelphia", "New York", and "ISM". They begin at about 55 and generally increase to about 65 by 2002. They then generally decrease to about 47 by early 2003, and generally increase to about 70 by early 2004. They then generally decrease to about 53 by late 2008. Philadelphia generally decreases to about 28 by early 2009, and generally increases to end at about 39 by April. New York generally decreases to about 28 by early 2009, and generally increases to end at about 49 by April. ISM generally decreases to about 21 by early 2009, and generally increases to end at about 40.5 by March.

Note: The diffusion index equals the percentage of respondents reporting greater levels of new orders plus one-half the percentage of respondents reporting that new orders were unchanged.

Source: Institute for Supply Management (ISM); Federal Reserve.

### *Figure: Change in Real Adjusted Durable Goods Orders*

Line chart, by percent, 1975 to February 2009. The series begins at about -4.5 and generally increases to about 4 by 1978. It then fluctuates between about 4 and -4, except that in 1980 it reaches -6 and in 2008 it reaches -5. It ends at about -3.

Note: The measure for real adjusted durable goods orders (RADGO) is a 3-month moving average. Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): 1973:Q4-1975:Q1, 1980:Q1-1980:Q3, 1981:Q3-1982:Q4, 1990:Q3-1991:Q1, and 2001:Q1-2001:Q4.

Source: Staff calculation based on data from the U.S. Census Bureau and the Bureau of Labor Statistics.

### *Figure: Trade Shares*

Line chart, by percent, 2002 to February 2009. There are two series, "Imports/domestic absorption" and "Exports/shipments". These two series use two different scales. Imports/domestic absorption begins at about 22.9 and generally increases to about 28.5 by early 2007. It then generally decreases to about 27.8 by 2007, and generally increases to about 29 by late 2008. It then generally decreases to end at about 27.3. Exports/shipments begins at about 15.9 and generally increases to about 22.4 by 2008. It then generally decreases to end at about 20.8.

Note: Trade shares are 3-month moving averages.

Source: U.S. Department of Commerce.

### *Figure: Three-Month Changes in Months' Supply*

Line chart, a diffusion index, 2000 to March 2009. The series begins at 40 and generally increases to about 79 by 2000. It then generally decreases to about 10 by early 2002, and fluctuates generally increases to about 90 by late 2008. It then generally decreases to end at about 54.



Note: The diffusion index equals 50 plus one-half of the share of industries whose inventories are up relative to three months earlier minus one half of the share of industries whose inventories are down relative to three months earlier. A shaded bar indicates a period of business recession as defined by the National Bureau of Economic Research (NBER): March 2001-November 2001.

Source: Staff's flow-of-goods system.

## Sales of Light Vehicles

(Millions of units at an annual rate; FRB seasonals)

Category	2008	2008		2009			
		Q3	Q4	Q1	Jan.	Feb.	Mar.
Total	13.1	12.9	10.3	9.5	9.5	9.1	9.8
Autos	6.7	6.6	5.2	4.8	4.6	4.6	5.1
Light trucks	6.4	6.3	5.1	4.7	5.0	4.5	4.7
North American <sup>1</sup>	9.8	9.7	7.7	6.8	6.9	6.3	7.1
Autos	4.5	4.4	3.6	3.0	2.9	2.9	3.3
Light trucks	5.3	5.3	4.1	3.7	4.0	3.5	3.8
Foreign-produced	3.3	3.2	2.6	2.7	2.7	2.8	2.8
Autos	2.2	2.2	1.7	1.7	1.7	1.7	1.8
Light trucks	1.1	1.0	.9	1.0	1.0	1.0	1.0
Memo:							
Detroit Three domestic market share (percent) <sup>2</sup>	47.6	46.7	47.5	43.2	43.1	43.4	44.5

Note: Components may not sum to totals because of rounding.

1. Excludes some vehicles produced in Canada that are classified as imports by the industry. [Return to table](#)

2. Domestic market share excludes sales of foreign brands affiliated with the Detroit Three. [Return to table](#)

Source: Ward's Communications. Adjusted using FRB seasonals.

[Content redacted.]

[Content redacted.]

### Figure: Car-Buying Attitudes

Line chart, 2002 to April 2009. There are two series, "Appraisal of car-buying conditions", which is an index, and "Rates are high/credit is tight", which is by percent. These two series use two different scales. Appraisal of car-buying conditions begins at about 155 and generally decreases to about 140 by early 2003. It then generally increases to about 160 by early 2004, and generally decreases to about 110 by 2006. It then generally increases to about 140 by late 2007, and generally decreases to about 90 by 2008. It then generally increases to end at about 132. Rates are high/credit is tight begins at about 3 and remains about constant until about 2008. It then generally increases to about 19 by late 2008, and generally decreases to end at about 5.

Source: Reuters/University of Michigan Surveys of Consumers.

### Figure: Average Value of Incentives on Light Vehicles

Line chart, by current dollars per vehicle, ratio scale, 2002 to April 2009. The series begins at about 1150 and generally increases to about 2750 by 2004. It then generally decreases to about 1200 by 2005, and generally increases to about 1600 by late 2005. It then generally decreases to about 1175 by 2007, and generally increases to about 2290 by late 2008. It then generally decreases to end at about 2000.

Note: Seasonally adjusted weighted average of customer cash rebate and the present value of interest rate reduction. April figure is based on data through April 12.

Source: J.D. Power and Associates.

## Real Personal Consumption Expenditures

(Percent change from preceding comparable period)

Category	2008	2009	2009	2009		
	2008	Q4	Q1	Jan.	Feb.	Mar.
	Annual rate			Monthly rate		
<b>Total real PCE<sup>1</sup></b>	<b>.2</b>	<b>-4.3</b>	<b>n.a.</b>	<b>.7</b>	<b>-.1</b>	<b>n.a.</b>
Motor vehicles	-13.3	-37.9	11.9	5.3	-4.0	-.8
Goods ex. motor vehicles	-.2	-10.2	1.3	1.4	.2	-.8
Ex. energy	.3	-12.2	.6	1.3	.1	-.9
Services	1.5	1.5	n.a.	.1	.0	n.a.
Ex. energy	1.6	.9	n.a.	-.1	.1	n.a.
Memo:						
Nominal retail control <sup>2</sup>	3.4	-22.6	-3.1	1.9	1.1	-.9

1. The values for Q1, January, February, and March are staff estimates based on available data. [Return to table](#)

2. Total sales less outlays at building material and supply stores and automobile and other motor vehicle dealers. [Return to table](#)

n.a. Not available.

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

### Figure: Change in Real PCE Goods

Line chart, by percent, 1991 to March 2009. The NBER peak is marked in the time series. The series "6-month moving average" begins at about -.25 and generally increases to about 0.55 by 1991. It then fluctuates but remains about constant until 2007. It then generally decreases to about -1.0 by early 2009, and generally increases to end at about -0.4. It is at about -0.0 at the time of the NBER peak.

There is a second line chart, by percent, 2006 to March 2009. There are two series, "6-month moving average" and "Monthly". The Monthly series begins at about 1.6 and generally decreases to about -0.2. It then fluctuates but generally increases to about -1.4 by early 2007, and fluctuates but generally decreases to about -2.3 by late 2008. It then generally increases to about 1.8 by early 2009, and generally decreases to end at about -0.8. 6-month moving average begins at about 0.2 and generally decreases to about -1.0 by early 2009. It then generally increases to end at about -0.4.

Note: Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): July 1990-March 1991, and March 2001-November 2001. The NBER peak is the last business cycle peak as defined by the NBER (December 2007).

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

### Figure: Change in Real PCE Services

Line chart, by percent, 1990 to February 2009. The NBER peak is marked in the time series. The series "6-month moving average", begins at about 0.38 and generally decreases to about 0.09 by early 1991. It then fluctuates but generally increases to about 0.46 by 2000, and generally decreases to about 0.05 by 2001. It then generally increases to about 0.37 by early 2007, generally decreases to about 0.01 by 2008, and generally increases to end at about 0.1.

There is a second line chart, by percent, 2006 to February 2009. There are two series, "6-month moving average" and "Monthly". The Monthly series begins at about -0.7 and generally increases to about 0.95 by early 2006. It then generally decreases to about -0.1 by 2006, and generally increases to about 0.9 by late 2006. It then generally decreases to about -0.5 by 2007, and fluctuates but generally increases to about 0.25 by late 2008. It then generally decreases to end at about -0.01. 6-month moving average begins at about 0.1, generally increases to about 0.35 by early 2007, and generally decreases to end at about 0.1.

Note: Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): July 1990-March 1991, and March 2001-November 2001. The NBER peak is the last business cycle peak as defined by the NBER (December 2007).

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

## Fundamentals of Household Spending

### Figure: Household Net Worth and Dow Jones Total Market Index

Line chart, 1999 to 2009. There are two series, "Ratio of household net worth to DPI" and "Total Market Index". Ratio of household net worth to DPI begins at about 5.7 and generally increases to about 6.1 by late 1999. It then generally decreases to about 5.0 by 2002, and generally increases to about 6.4 by 2007. It then generally decreases to end at about 4.9 by 2008:Q4. Total Market Index begins at about 11500 and generally increases to about 14150 by 2000. It then generally decreases to about 7700 by 2002, and generally increases to about 15500 by late 2007. It then generally decreases to about 7600 by early 2009, and generally increases to end at about 8000 by April 21.

Note: For ratio of household net worth to DPI, the value for 2004:Q4 excludes the effect on income of the one-time Microsoft dividend in December 2004.

### Figure: Change in Real Disposable Personal Income

Line chart, by 12-month percent change, 1999 to February 2009. The series begins at about 4.4 and generally decreases to about 1.9 by late 1999. It then generally increases to about 6 by 2000, and generally decreases to about 0.8 by late 2001. It then generally increases to about 4.8 by 2002, and generally decreases to about -1 by 2005. It then generally increases to about 6 by 2006, and generally decreases to about 0.5 by early 2008. It then generally increases to about 6 by 2008, generally decreases to about -0.1 by late 2008, and generally increases to end at about 2.8.

Note: Values for December 2004 and December 2005 exclude the effect on income of the one-time Microsoft dividend in December 2004.

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

### Figure: Personal Saving Rate

Line chart, by percent, 1999 to February 2009. The series begins at about 4 and generally decreases to about 1.5 by late 1999. It then generally increases to about 4.1 by late 2001. It then generally decreases to about -2.6 by 2005, and generally increases to about 4.6 by 2008. It then generally decreases to about 1 by 2008, and generally increases to end at about 4.2.

Note: The value for December 2004 excludes the effect on income of the one-time Microsoft dividend in that month.

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

### Figure: Target Federal Funds Rate and 10-Year Treasury Yield

Line chart, by percent, 1999 to April 21, 2009. There are two series, "Treasury yield" and "Federal funds rate". Treasury yield begins at about 4.8 and generally increases to about 6.8 by early 2000. It then generally decreases to about 3.4 by 2003, and generally increases to about 5.1 by 2006. It then generally decreases to about 2.1 by early 2009, and generally increases to end at about 3. Federal funds rate begins at about 4.8 and generally increases to about 6.5 by 2000. It then generally decreases to about 1 by 2003, and generally increases to about 5.2 by 2006. It then generally decreases to end at about 0.

Source: Federal Reserve Board.

### Figure: Consumer Confidence

Line chart, 1990 to 2009. The NBER peak is marked in the time series. There are two series, "Conference Board", which is by an index 1985=100, and "Reuters/Michigan", which is by an index 1966=100. Conference Board begins at about 109 and generally decreases to about 49 by early 1992. It then generally increases to about 145 by early 2000, and generally decreases to about 60 by early 2003. It then generally increases to about 110 by 2007, and generally decreases to end at about 25 by March. Reuters/Michigan begins at about 94 and generally decreases to about 65 by late 1990. It then generally increases to about 113 by early 2000, and generally decreases to end at about 62 by April. They are at about 75 at the time of the NBER peak.

Note: Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): July 1990-March 1991, and March 2001-November 2001. The NBER peak is the last business cycle peak as defined by the NBER (December 2007). April 2009 value is preliminary.

Source: Reuters/University of Michigan Surveys of Consumers; Conference Board.

## Private Housing Activity

(Millions of units, seasonally adjusted; annual rate except as noted)

Sector	2008	2008		2009			
		Q3	Q4	Q1	Jan.	Feb.	Mar.
<i>All units</i>							
Starts	.91	.88	.66	.52	.49	.57	.51
Permits	.89	.87	.63	.54	.53	.56	.51
<i>Single-family units</i>							
Starts	.62	.60	.46	.36	.36	.36	.36
Permits	.57	.56	.42	.36	.34	.39	.36
Adjusted permits <sup>1</sup>	.58	.57	.43	.37	.35	.40	.37
Permit backlog <sup>2</sup>	.068	.082	.068	.060	.064	.062	.060
<i>New homes</i>							
Sales	.49	.46	.39	n.a.	.32	.34	n.a.
Months' supply <sup>3</sup>	10.65	10.64	11.35	n.a.	12.67	11.75	n.a.

Existing homes							
Sales	4.35	4.43	4.23	n.a.	4.05	4.23	n.a.
Months' supply <sup>3</sup>	9.98	9.56	9.79	n.a.	9.99	9.66	n.a.
Multifamily units							
Starts	.284	.273	.198	.166	.132	.214	.152
Permits	.323	.308	.215	.174	.195	.174	.152
Permit backlog <sup>2</sup>	.053	.062	.053	.050	.055	.052	.050
Mobile homes							
Shipments	.082	.080	.066	n.a.	.054	.051	n.a.
Condos and co-ops							
Existing home sales	.563	.573	.506	n.a.	.440	.490	n.a.

1. Adjusted permits equal permit issuance plus total starts outside of permit-issuing areas. [Return to table](#)

2. Number outstanding at end of period. Excludes permits that have expired or have been canceled, abandoned, or revoked. Not at an annual rate. [Return to table](#)

3. At current sales rate; expressed as the ratio of seasonally adjusted inventories to seasonally adjusted sales. Quarterly and annual figures are averages of monthly figures. [Return to table](#)

n.a. Not available.

Source: Census Bureau.

### Figure: Private Housing Starts and Permits

Line chart, by millions of units (seasonally adjusted annual rate), 1999 to March 2009. There are three series, "Single-family starts", "Single-family adjusted permits", and "Multifamily starts". Single-family starts and Single-family adjusted permits track closely together throughout the chart. They begin at about 1.32, and generally decrease to about 1.2 by 1999. They then generally increase to about 1.4 by late 1999, and generally decrease to about 1.12 by 2000. They then generally increase to about 1.88 by early 2006, and generally decrease to end at about .38. Multifamily begins at about .4 and generally decreases to about .3 by 1999. It then generally increases to about .5 by early 2000, and then generally decreases to about .3 by 2000. It then remains about constant until mid-2008, and then generally decreases to end at about .15.

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

Source: Census Bureau.

## Indicators of Single-Family Housing

### Figure: New Single-Family Home Sales

Line chart, by millions of units (annual rate), 2001 to 2009. There are two series, "Total" and "Large homebuilders". These two series use two different scales. Total begins at about 0.98 and generally increases to about 1.4 by mid-2005. It then generally decreases to end at about 0.32 by February. Large homebuilders begins at about 0.23 and generally increases to about 0.42 by mid-2005. It then generally decreases to end at about 0.11 by March.

Source: For total, Census Bureau; for large homebuilders, National Association of Home Builders.

### Figure: Inventories of New Homes and Months' Supply

Line chart, 2001 to February 2009. There are two series, "Inventories of new homes", which is by thousands of units, and "Months' supply", which is by months. These two series use two different scales. Inventories of new homes begins at about 300 and generally increases to about 570 by mid-2006. It then generally decreases to end at about 340. Months' supply begins at about 3.8 and remains about constant until mid-2005 before generally increasing to end at about 11.5.

Note: Months' supply is calculated using the 3-month moving average of sales.

Source: Census Bureau.

### Figure: Existing Single-Family Home Sales

Line chart, 2001 to February 2009. There are two series, "Pending home sales", which is an index (2001=100), and "Existing home sales", which is by millions of units (annual rate). These two series use two different scales. Pending home sales begins at about 101 and generally decreases to about 89 by late 2001. It then generally increases to about 128 by early 2005. It then generally decreases to end at about 81. Existing home sales begins at about 4.5 and generally increases to about 6.4 by 2005. It then generally decreases to end at about 4.15.

Source: National Association of Realtors.

### Figure: Mortgage Rates

Line chart showing 30-year conforming FRM, by percent, 2001 to April 2009. The series begins at about 7.0 and generally decreases to about 5.3 by 2003. It then generally increases to about 6.75 by mid-2006, and then generally decreases to end at about 4.8.

Note: The April reading is a 2-week moving average of data available through April 15, 2009. FRM is a fixed-rate mortgage.

Source: Federal Home Loan Mortgage Corporation.

### Figure: Prices of Existing Homes

Line chart, by percent change from year earlier, 2001 to 2009. There are three series, "Monthly FHFA purchase-only index", "LP price index" and "20-city S&P/Case-Shiller monthly price index". Monthly FHFA purchase-only index begins at about 6 and remains about constant until about 2004. It then generally increases to about 10 by early 2005, and generally decreases to end at about -7.5 by February. LP price index begins at about 7.5 and generally increases to about 15.5 by 2005. It then generally decreases to end at about -13 by February. 20-city S&P/Case-Shiller monthly price index begins at about 30 and generally decreases to about 7 by early 2002. It then generally increases to about 17 by 2004, and generally decreases to end at about -21 by January.

Source: For FHFA, Federal Housing Finance Agency; for S&P/Case-Shiller, Standard & Poor's; for LP, LoanPerformance, a division of First American CoreLogic.

### Figure: House Price Expectations

Line chart, a diffusion index, 2007 to April 2009. There are two series, "5 years ahead" and "1 year ahead". 5 years ahead begins at about 64 and generally decreases to about 45 by early 2008. It then generally increases to about 60 by 2008, and generally decreases to about 40 by 2008. It then generally increases to about 59 by late 2008, and generally decreases to end at about 48. 1 year ahead begins at about 30 and generally decreases to about -10 by 2008. It then generally increases to about 4 by 2008, and generally decreases to end at about -15.

Note: Diffusion index is constructed by subtracting expectations of decrease from expectations of increase. April 2009 value is Preliminary.

Source: Reuters/University of Michigan Surveys of Consumers.

## Orders and Shipments of Nondefense Capital Goods

(Percent change; seasonally adjusted current dollars)

Category	2008			2009	
	Q3	Q4	Dec.	Jan.	Feb.
	Annual rate			Monthly rate	
Shipments	-8	-19.8	2.6	-6.6	-2.5
Excluding aircraft	-3	-15.5	.1	-9.4	.6
Computers and peripherals	-28.7	-25.3	7.5	-2.0	1.3
Communications equipment	-10.7	-16.6	-8.8	-10.4	-2.6
All other categories <sup>1</sup>	4.0	-14.4	.3	-9.9	.8
Orders	-14.0	-49.9	-10.3	-9.9	7.9
Excluding aircraft	-5.2	-36.5	-5.9	-12.3	7.1
Computers and peripherals	-36.6	-20.8	-5.8	-9.9	11.4
Communications equipment	16.7	-28.7	-8.4	-20.3	6.9
All other categories <sup>1</sup>	-3.5	-38.4	-5.7	-11.7	6.7
Memo:					
Shipments of complete aircraft <sup>2</sup>	38.1	26.0	44.9	50.5	30.3

1. Excludes most terrestrial transportation equipment. [Return to table](#)

2. From Census Bureau, Current Industrial Reports; billions of dollars, annual rate. [Return to table](#)

Source: Census Bureau.

### Figure: Communications Equipment

Line chart, by billions of chained (2000) dollars, ratio scale, 2000 to February 2009. There are two series, "Shipments" and "Orders". Shipments begins at about 9 and generally increases to about 10 by late 2000. It then generally decreases to about 4.8 by late 2002, and generally increases to about 7 by early 2006. It then generally decreases to end at about 5. Orders begins at about 9 and generally increases to about 14 by 2000. It then generally decreases to about 2.5 by 2002, and generally increases to about 8.2 by early 2006. It then generally decreases to end at about 4.8.

Note: Shipments and orders are deflated by a price index that is derived from the quality-adjusted price indexes of the Bureau of Economic Analysis and uses the producer price index for communications equipment for monthly interpolation.

Source: Census Bureau.

### *Figure: Non-High Tech, Nontransportation Equipment*

Line chart, by billions of chained (2000) dollars, ratio scale, 2000 to February 2009. There are two series, "Shipments" and "Orders". They track closely together throughout the chart, beginning at about 45. They then generally decrease to about 37 by early 2002. Orders generally increases to about 50 by late 2006, and then generally decreases to end at about 36. Shipments generally increases to about 46, and then generally decreases to end at about 38.

Note: Shipments and orders are deflated by the staff price indexes for the individual equipment types included in this category. Indexes are derived from the quality-adjusted price indexes of the Bureau of Economic Analysis.

Source: Census Bureau.

### *Figure: Computers and Peripherals*

Line chart, 2000 to 2009. There are two series, "Industrial production", which is an index (2000=100), and "Real M3 shipments", which is by billions of chained (2000) dollars. These two series use two different scales. Industrial production begins at about 98 and generally increases to about 230 by early 2008. It then generally decreases to end at about 160 by March. Real M3 shipments begins at about 8.4 and generally increase to about 15 by 2006. It then generally decreases to about 12.1 by late 2006, and generally increases to end at about 18 by February.

Note: Ratio scales. Shipments are deflated by the staff price index for computers and peripheral equipment, which is derived from the quality-adjusted price indexes of the Bureau of Economic Analysis.

Source: Census Bureau; FRB Industrial Production.

### *Figure: Medium and Heavy Trucks*

Line chart, by thousands of units, ratio scale, 2000 to March 2009. There are two series, "Net new orders of class 5-8 trucks" and "Sales of class 4-8 trucks". Net new orders of class 5-8 trucks begins at about 400 and generally decreases to about 280 by late 2001. It then generally increases to about 539 by 2002, and generally decreases to about 258 by the end of 2002. It then generally increases to about 960 by early 2006, and generally decreases to about 300 by early 2007. It then generally increases to about 500 by late 2007, generally decreases to about 130 by early 2009, and generally increases to end at about 200. Sales of class 4-8 trucks begins at about 540 and generally decreases to about 275 by early 2003. It then generally increases to about 550 by early 2007, and generally decreases to end at about 200.

Note: Annual rate, FRB seasonals.

Source: For sales, Ward's Communications; for orders, ACT Research.

## Fundamentals of Equipment and Software Investment

Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): July 1990-March 1991, and March 2001-November 2001. The NBER peak is the last business cycle peak as defined by the NBER (December 2007).

### *Figure: Real Business Output*

Line chart, by 4-quarter percent change, 1990 to 2008:Q4. The NBER peak is marked in the time series. The series begins at about 2.7 and generally decreases to about -2 by early 1991. It then generally increases to about 5 by late 1992, and generally decreases to about 3 by 1993. It then generally increases to about 5 by 1994, and generally decreases to about 3 by late 1995. It then increases to about 5.3 by early 1998, and generally decreases to about -0.5 by late 2001. It then generally increases to about 5 by 2004, and generally decreases to end at about -1.8. It is at about 2.5 at the time of the NBER peak.

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

### *Figure: User Cost of Capital*

Line chart, by 4-quarter percent change, 1990 to 2008:Q4. The NBER peak is marked in the time series. There are two series, "Non-high-tech" and "High-tech". Non-high tech begins at about -2 and fluctuates but generally increases to about 14 by late 1994. It then generally decreases to about -10.5 by 2003, and generally increases to end at about 18. It is at about 0 at the time of the NBER peak. High-tech begins at about -8 and generally decreases to about -12 by 1992. It then generally increases to about -2 by late 1994. It then generally decreases to about -14 by early 2002, and generally increases to end at 1.5. It is at about -5 at the time of the NBER peak.

Source: Staff calculation.

### *Figure: Corporate Bond Yields*

Line chart, by percent, 1991 to April 2009. The NBER peak is marked in the time series. There are two series, "10-year high-yield" and "10-year BBB". 10-year high-yield begins at about 14.5 and generally decreases to about 9 by 1996. It then generally increases to about 14 by late 2000, and generally decreases to about 7.2 by early 2005. It then generally increases to about 17.8 by late 2008, and generally decreases to end at about 13.5. It is at about 9.5 at the time of the NBER

peak. 10-year BBB begins at about 10 and generally decreases to about 7 by early 1994. It then generally increases to about 9 by late 1994, and generally decreases to about 5.2 by 2003. It then generally increases to end at about 9. It is at about 6.5 at the time of the NBER peak.

Note: End of month. April value as of April 21.

Source: Merrill Lynch.

### *Figure: NFIB: Survey on Loan Availability*

Line chart, by percent, 1990 to March 2009. The NBER peak is marked in the time series. There are two series, "Credit expected to be tighter" and "Credit more difficult to obtain". Credit expected to be tighter begins at about 8 and generally increases to about 13 by late 1990. It then generally decreases to about 0 by 1998, and generally increases to end at about 15. It is at about 9 at the time of the NBER peak. Credit more difficult to obtain begins at about 7 and generally increases to about 13 by early 1991. It then generally decreases to about -0.5 by early 1998, and generally increases to about 7 by 2000. It then generally decreases to about 0 by 2003, and generally increases to end at about 13. It is at about 7 at the time of the NBER peak.

Note: Of borrowers who sought credit in the past three months, the proportion that reported or expected more difficulty in obtaining credit less the proportion that reported or expected more ease in obtaining credit. Seasonally adjusted.

Source: National Federation of Independent Business (NFIB).

### *Figure: Surveys of Business Conditions*

Line chart, a diffusion index, 1990 to 2009. The NBER peak is marked in the time series. There are two series, "ISM" and "Philadelphia Fed". ISM begins at about 48 and generally decreases to about 40 by early 1991. It then generally increases to about 59 by late 1994, and generally decreases to about 30 by late 2001. It then generally increases to about 63 by 2003, and generally decreases to end at about 36 by March. It is at about 50 at the time of the NBER peak. Philadelphia Fed begins at about 50 and generally decreases to about 35 by late 1990. It then generally increases to about 80 by 1994 and generally decreases to about 45 by early 2001. It then generally increases to about 18 by early 2004, and generally decreases to end at about 47 by April. It is at about 60 at the time of the NBER peak.

Source: Institute for Supply Management (ISM), Manufacturing ISM Report on Business; Philadelphia Fed Business Outlook Survey.

## Nonresidential Construction and Indicators

(All spending series are seasonally adjusted at an annual rate; nominal CPIP deflated by BEA prices through Q4 and by staff projection thereafter)

### *Figure: Total Structures*

Line chart, by billions of chained (2000) dollars, 1999 to February 2009. The series begins at about 258 and fluctuates but generally increases to about 288 by late 2000. It then generally decreases to about 200 by 2005, generally increases to about 288 by 2008, and generally decreases to end at about 255.

Source: Census Bureau.

### *Figure: Office, Commercial, Communication, and Other*

Line chart, by billions of chained (2000) dollars, 1999 to February 2009. There are four series, "Communication", "Office", "Commercial", and "Other". Communication begins at about 15 and generally increases to about 23 by 2000. It then generally decreases to about 11 by early 2004, and generally increases to about 20 by 2007. It then generally decreases to end at about 11. Office begins at about 48 and generally decreases to about 42 by early 2000. It then generally increases to about 58 by late 2000, and generally decreases to about 27 by early 2003. It then generally increases to about 38 by 2008, and generally decreases to about 31. Commercial begins at about 59 and generally increases to about 57 by early 2000. It then generally decreases to about 50 by early 2003, and generally increases to about 60 by late 2007. It then generally decreases to end at about 43. Other begins at about 70 and generally decreases to about 60 by 2005. It then generally increases to about 88 by 2008, and generally decreases to end at about 78.

Note: Other consists of structures for religious organizations, education, lodging, amusement and recreation, transportation, and health care.

Source: Census Bureau.

### *Figure: Manufacturing and Power*

Line chart, by billions of chained (2000) dollars, 1999 to February 2009. There are two series, "Power" and "Manufacturing". Power begins at about 25 and fluctuates but generally increases to about 42 by early 2002. It then generally decreases to about 17 by 2004, and generally increases to about 44 by late 2008. It then generally decreases to end at about 36. Manufacturing begins at about 40 and generally decreases to about 33 by early 2000. It then generally increases to about 43 by early 2001, and generally decreases to about 18 by early 2003. It then generally increases to about 50.5 by 2008, generally decreases to about 45 by 2008, and generally increases to end at about 53.

Source: Census Bureau.

### *Figure: Drilling and Mining Indicators*



Line chart, 1999 to 2009. There are two series, "Footage drilled", which is by Millions of feet, and "Drilling rigs in operation", which is by Number. Footage drilled begins at about 8 and generally increases to about 16 by 2001. It then generally decreases to about 12 by 2002, and generally increases to about 32 by late 2008. It then generally decreases to end at about 23.5 by February. Drilling rigs begins at about 600 and generally increases to about 1250 by early 2001. It then generally decreases to about 800 by early 2002, and generally increases to about 2000 by late 2008. It then generally decreases to end at about 1020 by April.

Note: The April readings for drilling rigs are based on data through April 17, 2009. Both series are seasonally adjusted by FRB staff.

Source: For footage drilled, U.S. Department of Energy, Energy Information Agency; for drilling rigs, Baker Hughes.

### Figure: Vacancy Rates

Line chart, by percent, 1999 to 2009:Q1. There are three series, "Office", "Industrial", and "Retail". Office begins at about 9.5 and generally decreases to about 8 by 2000. It then generally increases to about 17 by early 2003, and generally decreases to about 12.5 by 2007. It then generally increases to end at about 14.5. Industrial begins at about 7.5 and generally decreases to about 6.5 by 2000. It then generally increases to about 11.8 by early 2004, and generally decreases to about 9 by 2007. It then generally increases to end at about 12.2. Retail begins at about 8.5 and generally decreases to about 7.5 by 2000. It then generally increases to about 8.8 by early 2002, and generally decreases to about 7 by early 2006. It then generally increases to end at about 11.5.

Note: Industrial space includes both manufacturing structures and warehouses. 2009:Q1 values are preliminary.

Source: Torto Wheaton Research.

### Figure: Architectural Billings and Nonresidential Construction Employment

Line chart, 1999 to March 2009. There are two series, "Billings", which is a diffusion index, and "Change in employment", which is by percent. Billings begins at about 54.5 and generally decreases to about 44 by late 2001. It then generally increases to about 59 by late 2005, and generally decreases to about 51 by 2006. It then generally increases to about 57 by 2007, and generally decreases to end at about 37. Change in employment begins at about 0.0 by early 2001 and generally decreases to about -0.7 by 2002. It then generally increases to about 0.8 by early 2006, and generally decreases to end at about -1.8.

Note: Both series are 3-month moving averages. Employment consists of industrial, commercial, and specialty trade construction.

Source: For billings, American Institute of Architects; for employment, U.S. Department of Labor, Bureau of Labor Statistics.

## Nonfarm Inventory Investment

(Billions of dollars; seasonally adjusted annual rate)

Measure and sector	2008				2009	
	Q2	Q3	Q4	Dec.	Jan.	Feb.
<i>Real inventory investment (chained 2000 dollars)</i>						
<b>Total nonfarm business</b>	<b>-55.1</b>	<b>-33.3</b>	<b>-31.1</b>	...	...	...
Motor vehicles	-10.9	8.1	-7.1	...	...	...
Nonfarm ex. motor vehicles	-44.2	-41.3	-23.9	...	...	...
<b>Manufacturing and trade ex. wholesale and retail motor vehicles and parts</b>	<b>-24.1</b>	<b>-16.8</b>	<b>-19.9</b>	<b>-52.2</b>	<b>33.4<sup>e</sup></b>	<b>n.a.</b>
Manufacturing	-26.0	-25.6	-.7	-23.6	13.7 <sup>e</sup>	n.a.
Wholesale trade ex. motor vehicles & parts	4.9	10.4	-.1	-6.6	28.1 <sup>e</sup>	n.a.
Retail trade ex. motor vehicles & parts	-3.1	-1.6	-19.1	-22.1	-8.3 <sup>e</sup>	n.a.
<i>Book-value inventory investment (current dollars)</i>						
<b>Manufacturing and trade ex. wholesale and retail motor vehicles and parts</b>	<b>86.9</b>	<b>40.0</b>	<b>-159.3</b>	<b>-246.0</b>	<b>-127.1</b>	<b>-128.5</b>
Manufacturing	39.3	10.7	-65.2	-123.2	-73.6	-74.2
Wholesale trade ex. motor vehicles & parts	37.9	18.5	-55.7	-74.3	-26.8	-38.6
Retail trade ex. motor vehicles & parts	9.6	10.9	-38.3	-48.5	-26.7	-15.7

n.a. Not available.

... Not applicable.

<sup>e</sup> Staff estimate of real inventory investment based on revised book-value data. [Return to table](#)

Source: For real inventory investment, U.S. Dept. of Commerce, Bureau of Economic Analysis; for book-value data, Census Bureau.

### Figure: Inventory Ratios ex. Motor Vehicles

Line chart, by months, 2000 to 2009. There are two series, "Staff flow-of-goods system" and "Census book-value data. Staff flow-of-goods system begins at about



1.77 and generally decreases to about 1.72 by 2000. It then generally increases to about 1.77 by early 2002, and generally decreases to about 1.55 by late 2007. It then generally increases to end at about 1.78 by March. Census book-value data begins at about 1.35 and generally increases to about 1.4 by early 2001. It then generally decreases to about 1.18 by 2008, and then generally increases to end at about 1.36 by February.

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: Census Bureau; staff calculation.

### Figure: ISM Customers' Inventories: Manufacturing

Line chart, an index, 2000 to March 2009. The series begins at about 46 and generally increases to about 56 by early 2001. It then generally decreases to about 36 by 2004, and fluctuates but generally increases to about 57 by early 2009. It then generally decreases to end at about 49.

Note: A number above 50 indicates inventories are "too high."

Source: Institute for Supply Management (ISM), Manufacturing ISM Report on Business.

## Federal Government Budget

(Unified basis; adjusted for payment-timing shifts and financial transactions; data from Monthly Treasury Statement)

### Figure: Surplus or Deficit (-)

Line chart, by billions of dollars, 1995 to March 2009. Data are 12-month moving sum. The series begins at about -200 and generally increases to about 290 by 2001. It then generally decreases to about -450 by 2004, and generally increase to about -180 by early 2007. It then generally decreases to end at about -710. There is a second series that begins at about -480 in late 2008 and generally decreases to end at about -1000.

Note: Thin line includes deficit effects of financial transactions related to Troubled Asset Relief Program (TARP) and government-sponsored enterprise equity purchase programs.

### Figure: Outlays and Receipts

Line chart, by percent change from year earlier, 1995 to March 2009. Data are 12-month moving sums. There are two series, "Receipts" and "Outlays". Receipts begins at about 9 and remains about constant until about 1998. It then generally increases to about 11 by late 2000, and generally decreases to about -14 by 2002. It then generally increases to about 15 by late 2005, and generally decreases to end at about -9. Outlays begins at about 3, and remains about constant until it reaches about 4 by early 2000. It then generally increases to about 7 by late 2003, and generally decreases to about 4 by late 2007. It then generally increases to end at about 9.

### Recent Federal Outlays and Receipts

(Billions of dollars except as noted; adjusted for payment-timing shifts and financial transactions)

Function or source	Sum of January-March			12 months ending in March		
	2008	2009	Percent change	2008	2009	Percent change
Outlays	755.6	824.0	9.1	2,829.1	3,100.0	9.6
Net interest	64.3	40.1	-37.6	252.1	217.4	-13.8
National defense	147.4	154.6	4.9	587.1	647.8	10.3
Major transfers <sup>1</sup>	430.8	505.8	17.4	1,554.0	1,755.7	13.0
Other	113.1	123.6	9.2	435.8	479.2	9.9
Receipts	539.8	442.4	-18.0	2,592.7	2,367.5	-8.7
Individual income and payroll taxes	451.9	397.3	-12.1	2,023.8	1,925.8	-4.8
Corporate income taxes	36.9	5.9	-84.1	345.7	231.1	-33.2
Other	50.9	39.3	-22.8	223.2	210.6	-5.6
Surplus or deficit (-)	-215.8	-381.6	...	-236.4	-732.5	...
<b>Memo:</b>						
Unadjusted surplus or deficit (-)	-205.9	-471.6	...	-215.9	-1,098.8	...

1. Includes Social Security, Medicare, Medicaid, and income security programs. [Return to table](#)

... Not applicable.

## State and Local Indicators

### *Figure: Real Spending on Consumption & Investment*

Line chart, by percent change, annual rate, 1998 to 2008:Q4. There are two series, "Spending" and "4-quarter moving average". Spending begins at about 1.5 and generally increases to about 7.8 by late 1998. It then fluctuates but generally decreases to about -2.2 by 2001, and generally increases to about 8.5 by late 2001. It then generally decreases to about -2 by early 2003, and fluctuates but generally comes to end at about -2. 4-quarter moving average begins at about 2.1 and generally increases to about 6 by early 1999. It then generally decreases to about -0.5 by late 2004, and generally increases to about 2.4 by late 2005. It then generally decreases to end at about 0.5.

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; national income and product accounts.

### *Figure: Net Change in Employment*

Bar chart, by thousands of jobs, monthly average, 1998 to 2009:Q1. The series begins at about 27 and generally increases to about 40 by early 1999. It then generally decreases to about 23 by 2000, and generally increases to about 46 by early 2001. It then generally decreases to about 0 by 2003, and generally increases to end at about 22 by 2007. It then generally decreases to end at about -7.

Note: Q1 is the average of January and February.

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

### *Figure: Real Construction*

Line chart, by billions of chained (2000) dollars, annual rate, 1998 to 2009. The series begins at about 154 and generally decreases to about 148 by early 1998. It then generally increases to about 189 by early 2002, and generally decreases to about 170 by late 2004. It then generally increases to end at about 179. 2009:Q1 is marked at about 170.

Note: Nominal CIPPI deflated by BEA prices through Q4 and by a staff projection thereafter. Observation for Q1 is the average for January and February.

Source: Census Bureau, Construction Spending.

### *Figure: State Fiscal Reserve Balances at Year-End*

Line chart, by percent of expenditures, 1988 to 2009. The series begins at about 4.2 and generally decreases to about 1 by 1991. It then generally increases to about 10.5 by 2000, and generally decreases to about 3.1 by 2003. It then generally increases to about 11.6 by 2006, and then generally decreases to end at about 7. A dot is marked at about 7.

Note: Dot indicates estimated fiscal reserve balances; value for FY2009 is based on appropriated budgets. The shaded bars are periods of business recession as defined by the Natl. Bureau of Economic Research: 1990:Q3-1991:Q1, and 2001:Q1-2001:Q4.

Source: Natl. Governors Assn. and Natl. Assn. of State Budget Officers (2008), *The Fiscal Survey of States* (December).

### *Figure: State Revenues*

Line chart, by percent change from year earlier, 1998 to 2008:Q4. Data are 4-quarter moving averages. There are two series, "Individual and corporate income taxes" and "Total revenues". Individual and corporate income taxes begins at about 7 and fluctuates but generally increases to about 13 by 2000. It then generally decreases to about -13 by 2002, and generally increases to about 16 by 2005. It then generally decreases to end at about 2. Total revenues begins at about 5.5 and fluctuates but generally increases to about 10 by 2000. It then generally decreases to about -4.5 by 2002, and generally increases to about 11 by 2005. It then generally decreases to end at about 1.

Source: Census Bureau, *Quarterly Summary of State and Local Government Tax Revenue*.

### *Figure: Local Revenues*

Line chart, by percent change from year earlier, 1998 to 2008:Q4. Data are 4-quarter moving averages. There are two series, "Property taxes" and "Total revenues". Property taxes begins at 4 and generally decreases to about 2.5 by late 1998. It then generally increases to about 11 by late 2002, and generally decreases to about 3 by 2003. It then generally increases to about 8.8 by 2005, and generally decreases to end at about 4.5. Total revenues begins at about 5.5 and generally decreases to about 1.2 by 1999. It then generally increases to about 8 by late 2002, and generally decreases to about 2.6 by 2003. It then generally increases to about 9.5 by 2005, and generally decreases to end at about 3.5.

Source: Census Bureau, *Quarterly Summary of State and Local Government Tax Revenue*.

## Price Measures

(Percent change)

Measures	12-month change		3-month change		1-month change	
	Mar. 2008	Mar. 2009	Annual rate		Monthly rate	
			Dec. 2008	Mar. 2009	Feb. 2009	Mar. 2009
<i>CPI</i>						
<b>Total</b>	<b>4.0</b>	<b>-.4</b>	<b>-12.4</b>	<b>2.2</b>	<b>.4</b>	<b>-.1</b>
Food	4.5	4.4	2.5	-8	-.1	-.1
Energy	17.0	-23.0	-76.7	7.9	3.3	-3.0
<b>Ex. food and energy</b>	<b>2.4</b>	<b>1.8</b>	<b>.2</b>	<b>2.2</b>	<b>.2</b>	<b>.2</b>
Core goods	.0	.4	-2.4	3.8	.4	.4
Core services	3.3	2.3	1.2	1.5	.1	.1
Shelter	3.0	1.5	1.3	.1	-.1	-.1
Other services	3.7	3.5	1.3	2.6	.3	.1
Chained CPI (n.s.a.) <sup>1</sup>	3.6	-8	...	...	...	...
Ex. food and energy <sup>1</sup>	2.0	1.3	...	...	...	...
<i>PCE prices</i> <sup>2</sup>						
<b>Total</b>	<b>3.4</b>	<b>.7</b>	<b>-7.7</b>	<b>2.4</b>	<b>.3</b>	<b>.0</b>
Food and beverages	4.3	4.9	3.9	-3	-.1	-.1
Energy	18.0	-23.4	-78.0	7.2	3.3	-3.2
<b>Ex. food and energy</b>	<b>2.2</b>	<b>1.9</b>	<b>.3</b>	<b>2.6</b>	<b>.2</b>	<b>.2</b>
Core goods	-.3	.9	-1.9	4.7	.5	.5
Core services	3.2	2.3	1.2	1.9	.1	.1
Housing services	2.9	2.0	1.5	1.6	.1	.1
Other services	3.4	2.4	1.1	2.0	.2	.1
Core market-based	1.7	1.8	.2	2.6	.2	.2
Core non-market-based	4.3	1.9	.7	2.8	.3	.2
<i>PPI</i>						
<b>Total finished goods</b>	<b>6.7</b>	<b>-3.5</b>	<b>-24.9</b>	<b>-.9</b>	<b>.1</b>	<b>-1.2</b>
Food	5.8	-1.1	-4.8	-10.1	-1.6	-.7
Energy	20.4	-25.4	-76.7	-2.7	1.3	-5.5
<b>Ex. food and energy</b>	<b>2.5</b>	<b>3.8</b>	<b>2.6</b>	<b>2.6</b>	<b>.2</b>	<b>.0</b>
Core consumer goods	3.0	4.2	2.7	3.4	.4	.1
Capital equipment	1.8	3.4	2.6	1.5	.1	-.2
Intermediate materials	10.7	-8.9	-39.7	-11.7	-.9	-1.5
Ex. food and energy	5.8	-1.6	-23.6	-7.7	-.6	-.3
Crude materials	29.7	-39.0	-78.0	-27.2	-4.5	-.3
Ex. food and energy	16.7	-33.2	-81.7	-.4	1.5	-1.6

1. Higher-frequency figures are not applicable for data that are not seasonally adjusted (n.s.a.). [Return to table](#)

2. PCE prices in March 2009 are staff estimates. [Return to table](#)

... Not applicable.

Source: For consumer price index (CPI) and producer price index (PPI), U.S. Dept. of Labor, Bureau of Labor Statistics; for personal consumption expenditures (PCE), U.S. Dept. of Commerce, Bureau of Economic Analysis.

## Consumer Prices

(12-month change except as noted; PCE prices in March are staff estimates)

### *Figure: PCE Prices*

Line chart, by percent, 2000 to March 2009. There are two series, "Total PCE" and "Core PCE". Total PCE begins at about 2.4 and generally increases to about 3.1 by early 2000. It then generally decreases to about 1 by 2002, and generally increases to about 4 by late 2005. It then generally decreases to about 1.5 by late 2006, and generally increases to about 4.5 by 2008. It then generally decreases to end at about 0.8. Core PCE begins at about 1.8 and generally increases to about 2 by early 2000. It then generally decreases to about 1.5 by late 2000, and generally increases to about 2.4 by 2002. It then generally decreases to about 1.3 by 2003, and generally increases to about 2.5 by 2006. It then generally decreases to end at about 1.9.

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

### *Figure: CPI and PCE ex. Food and Energy*

Line chart, by percent, 2000 to March 2009. There are three series, "CPI", "PCE" and "CPI chained". CPI begins at about 2 and generally increases to about 2.8 by late 2001. It then generally decreases to about 1.2 by late 2003, and generally increases to about 3 by 2006. It then generally decreases to end at about 1.8. PCE begins at about 1.7 and generally increases to about 2 by 2000. It then generally decreases to about 1.5 by late 2000, and generally increases to about 2.4 by late 2002. It then generally decreases to about 1.3 by 2003, and generally increases to about 2.5 by 2006. It then generally decreases to end at about 1.8. CPI chained begins at about 1.9 by early 2001, and generally decreases to about 0.8 by late 2003. It then generally increases to about 2.6 by 2006, and generally decreases to end at about 1.2.

Source: For CPI, U.S. Dept. of Labor, Bureau of Labor Statistics ; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.

### *Figure: PCE excluding Food and Energy*

Line chart, by percent, 2000 to March 2009. There are two series, "PCE excluding Food and Energy" and "Market-based components". PCE begins at about 1.7 and generally increases to about 2.1 by early 2000. It then generally decreases to about 1.5 by late 2001, and generally increases to about 2.4 by late 2002. It then generally decreases to about 1.3 by 2003, and generally increases to about 2.5 by late 2006. It then generally decreases to end at about 1.8. Market-based components begins at about 1.2 and generally increases to about 1.8 by 2001. It then generally decreases to about 0.9 by 2003, and generally increases to about 2.2 by early 2007. It then fluctuates but generally decreases to end at about 1.8.

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

### *Figure: PCE Goods and Services*

Line chart, by percent, 2000 to March 2009. There are two series, "Services ex. energy" and "Goods ex. food and energy". Services ex. energy begins at about 2.8 and generally decreases to about 2.2 by late 2000. It then generally increases to about 3.9 by late 2002, and generally decreases to about 2.8 by late 2002. It then remains about constant but generally increases to about 3.1 by 2008, and generally decreases to end at about 2.2. Goods ex. food and energy begins at about -0.8 and generally increases to about 0.4 by early 2001. It then generally decreases to about -2.8 by late 2003, and generally increases to about 0.2 by early 2005. It then generally decreases to about -1 by 2007, and generally increases to end at about 0.9.

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

### *Figure: PCE excluding Food and Energy*

Line chart, by percent, 2000 to March 2009. There are two series, "PCE excluding Food and Energy" and "3-month change, annual rate". PCE excluding Food and Energy begins at about 1.8 and generally increases to about 2 by 2000. It then generally decreases to about 1.6 by late 2000, and generally increases to about 2.5 by late 2002. It then generally decreases to about 1.2 by 2003, and generally increases to about 2.2 by 2004. It then remains about constant until about 2008, and then generally decreases to end at about 1.9. 3-month change, annual rate begins at about 2.2 and generally decreases to about 0.7 by 2000. It then generally increases to about 3 by early 2001, and generally decreases to about -0.7 by late 2001. It then generally increases to about 4.1 by early 2002, and generally decreases to about 0.8 by early 2003. It then generally increases to about 3.1 by 2006, and generally decreases to about 0.2 by early 2009. It then generally increases to end at about 2.7.

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

### *Figure: CPI excluding Food and Energy*

Line chart, by percent, 2000 to 2009. There are two series, "CPI excluding Food and Energy" and "3-month change, annual rate". CPI begins at about 2 and generally increases to about 2.8 by 2001. It then generally decreases to about 1.1 by late 2003, and generally increases to about 3 by late 2006. It then generally decreases to end at about 1.8. 3-month change begins at about 2.7 and generally increases to about 3.1 by early 2001. It then generally decreases to about 0.2 by 2003, and fluctuates but generally increases to about 3.6 by 2006. It then generally decreases to about 0.1 by late 2008, and generally increases to end at about 2.1.

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

## Energy and Food Price Indicators

(Data from U.S. Department of Energy, Energy Information Administration, except as noted)

### Figure: Total Gasoline Margin

Line chart, by cents per gallon, 2005 to April 20, 2009. Data are retail price less average spot crude price: Regular grade seasonally adjusted by FRB staff, less average spot crude price: 60% West Texas intermediate, 40% Maya heavy crude; includes gasoline taxes. The series begins at about 100 and generally decreases to about 71 by 2005. It then generally increases to about 155 by late 2005, and generally decreases to about 100 by late 2006. It then generally increases to about 160 by 2007, and generally decreases to about 72 by 2008. It then generally increases to about 155 by 2008, and generally decreases to end at about 80.

### Figure: Gasoline Price Decomposition

Line chart, by cents per gallon, 2005 to April 20, 2009. There are three series, "Retail price", "Rack price" and "Average spot crude price". Retail price begins at about 198 and generally increases to about 300 by late 2005. It then generally decreases to about 225 by late 2005, and generally increases to about 300 by 2006. It then generally decreases to about 235 by early 2007, and generally increases to about 405 by 2008. It then generally decreases to end at about 198. Rack price begins at about 140 and generally increases to about 240 by 2005. It then generally decreases to about 160 by late 2005, and generally increases to about 240 by 2006. It then generally decreases to about 155 by early 2007, and generally increases to about 350 by 2008. It then generally decreases to end at about 140. Average spot crude price begins at about 100 and generally increases to about 165 by 2006. It then generally decreases to about 105 by early 2007, and generally increases to about 230 by 2008. It then generally decreases to about 70 by late 2008, and generally increases to end at about 110.

Note: Retail price is regular grade seasonally adjusted by FRB staff. Average spot crude price is 60% West Texas intermediate, 40% Maya heavy crude.

### Figure: Gasoline Inventories

Line chart, by millions of barrels, 2006 to April 17, 2009. Data are adjusted for ethanol use: The RBOB component of total motor gasoline inventories is adjusted for ethanol use after 2006, boosting reported stocks; estimated by FRB staff. The series begins at about 196 and generally increases to about 225 by 2006. It then generally decreases to about 209 by late 2006, and generally increases to about 230 by early 2007. It then generally decreases to about 198 by 2007, and generally increases to about 239 by early 2008. It then generally decreases to about 195 by 2008, and generally increases to end at about 220.

Note: Bounds are defined as the monthly mean over the preceding five years, plus or minus the standard deviation for each month. The bounds generally track the series throughout the chart, typically being about 20 million barrels wide, with the series typically being toward the center of the bounds. Monthly data through December 2008, weekly data thereafter.

### Figure: Natural Gas Prices

Line chart, by dollars per million BTU, 2005 to April 21, 2009. The series begins at about 5.5 and generally increases to about 15.2 by late 2005. It then generally decreases to about 4.1 by 2006, and generally increases to about 11.6 by early 2007. It then generally decreases to about 5 by 2007, and generally increases to about 13.5 by 2008. It then generally decreases to end at about 3.5.

Note: National average spot price.

Source: Bloomberg.

### Figure: PCE: Food and Core Prices

Line chart, by 12-month percent change, 2005 to March 2009. The March 2009 values are staff estimates. There are two series, "Food and beverages" and "Core (ex. food and energy)". Food and beverages begins at about 2.7 and remains about constant until about early 2007. It then generally increases to about 6.2 by late 2008, and generally decreases to end at about 5. Core begins at about 2.1 and generally remains constant until about 2008. It then generally decreases to end at about 1.9.

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

### Figure: Spot Agricultural Commodity Prices

Line chart, by dollars per bushel, 2005 to April 21, 2009. There are three series, "Corn", "Soybeans", and "Wheat". There are two different scales: Soybeans and Wheat share one, and Corn uses the other. Corn begins at about 2 and generally increases to about 7 by 2008. It then generally decreases to end at about 3.8. Soybeans begins at about 5 and generally increases to about 7 by 2005. It then generally decreases to about 5 by 2006, and generally increases to about 16 by 2008. It then generally decreases to about 8 by late 2008, and generally increases to end at about 10. Wheat begins at about 4 and generally increases to about 13 by early 2008. It then generally decreases to end at about 5.9.

Source: Commodity Research Bureau.

## Broad Measures of Inflation

(Percent change, Q4 to Q4)

Measure	2005	2006	2007	2008

Product prices				
GDP price index	3.5	2.8	2.6	2.0
Less food and energy	3.3	3.0	2.3	1.7
Nonfarm business chain price index	3.6	2.4	2.0	2.0
Expenditure prices				
Gross domestic purchases price index	4.0	2.5	3.3	2.0
Less food and energy	3.2	2.9	2.3	2.1
PCE price index	3.3	1.9	3.5	1.9
Less food and energy	2.2	2.3	2.2	1.9
PCE price index, market-based components	3.1	1.6	3.3	1.8
Less food and energy	1.7	2.0	1.8	1.8
CPI	3.8	1.9	4.0	1.5
Less food and energy	2.1	2.7	2.3	2.0
Chained CPI	3.2	1.7	3.6	1.1
Less food and energy	1.8	2.3	1.9	1.5
Median CPI	2.5	3.1	3.0	3.0
Trimmed mean CPI	2.6	2.6	2.8	2.9
Trimmed mean PCE	2.5	2.8	2.6	2.4

Source: For CPI, U.S. Dept. of Labor, Bureau of Labor Statistics; for all else, U.S. Dept. of Commerce, Bureau of Economic Analysis.

## Surveys of Inflation Expectations

(Percent)

Period	Actual CPI inflation <sup>1</sup>	Reuters/Michigan Survey				Professional forecasters (10 years) <sup>4</sup>	
		1 year <sup>2</sup>		5 to 10 years <sup>3</sup>		CPI	PCE
		Mean	Median	Mean	Median		
2007: Q2	2.7	4.2	3.3	3.5	3.0	2.4	2.0
Q3	2.4	4.1	3.2	3.5	3.0	2.4	2.1
Q4	4.0	4.1	3.3	3.3	2.9	2.4	2.1
2008: Q1	4.1	4.2	3.8	3.3	3.0	2.5	2.2
Q2	4.4	6.4	5.0	3.8	3.3	2.5	2.2
Q3	5.3	5.4	4.7	3.6	3.1	2.5	2.2
Q4	1.6	3.0	2.8	2.9	2.8	2.5	2.2
2009: Q1	.0	2.4	2.0	3.3	2.9	2.4	2.2
2008: Dec.	.1	1.7	1.7	2.6	2.6	...	...
2009: Jan.	.0	2.5	2.2	3.4	2.9	...	...
Feb.	.2	2.3	1.9	3.5	3.1	2.4	2.2
Mar.	-.4	2.4	2.0	2.9	2.6	...	...
2009: Apr. (p)	n.a.	3.4	3.0	2.8	2.7	...	...

1. Percent change from the same period in the preceding year. [Return to table](#)

2. Responses to the question, By about what percent do you expect prices to go up, on average, during the next 12 months? [Return to table](#)

3. Responses to the question, By about what percent per year do you expect prices to go up, on average, during the next 5 to 10 years? [Return to table](#)

4. Median CPI and PCE price projections. [Return to table](#)

... Not applicable.

n.a. Not available.

Source: For CPI, U.S. Dept. of Labor, Bureau of Labor Statistics; for Reuters/Michigan Survey, Reuters/University of Michigan Surveys of Consumers; for professional forecasters, the Federal Reserve Bank of Philadelphia.

## Measures of Expected Inflation

### *Figure: Survey Measures (Reuters/University of Michigan)*

Line chart, by percent, 1972 to 2009:Q1. Data are quarterly. There are two series, "Median, next 5 to 10 years" and "Median, next 12 months". Median, next 5 to 10 years begins at about 6.5 by 1981 and generally decreases to about 4.5 by 1985. There is no data from late 1985 to mid-1990, where it begins at about 4.2 and remains about constant but generally decreases to end at about 3. Median, next 12 months begins at about 6 by 1978 and generally increases to about 10.1 by 1980. It then generally decreases to about 2.8 by 1983, and generally increases to about 4.8 by late 1990. It then generally decreases to about 1 by 2002, and generally increases to about 5 by 2008. It then generally decreases end at about 2.

There is a second line chart, by percent, 2005 to April 2009. Data are monthly. There are two series, "Median, next 5 to 10 years" and "Median, next 12 months". Median, next 5 to 10 years begins at about 2.8 and generally increases to about 3 by 2005. It then generally remains about constant until about early 2008, and then generally increases to about 3.4 by 2008. It then generally decreases to end at about 2.7. Median, next 12 months begins at about 2.9 and generally increases to about 4.6 by late 2005. It then generally decreases to about 3 by late 2006, and generally increases to about 5.2 by 2008. It then generally decreases to about 1.7 by late 2008, and generally increases to end at about 3.

Note: The April 2009 values are preliminary.

Source: Reuters/University of Michigan Surveys of Consumers.

### *Figure: Inputs to Models of Inflation*

Line chart, by percent, 1972 to 2009:Q1. Data are quarterly. There are two series, "FRB/US long-run expectations measure for PCE inflation" and "Distributed lag of core PCE inflation". FRB/US begins at about 3 and generally increases to about 7.8 by 1981. It then generally decreases to about 2 by early 1999, and remains about constant until about 2007. It then generally increases to end at about 2.2.

There is a second line chart, by percent, 2005 to 2009:Q1. Data are quarterly. There are two series, "FRB/US long-run expectations measure for PCE inflation" and "Distributed lag of core PCE inflation". FRB/US begins at about 2 and remains about constant until about 2007. It then generally increases to end at about 2.2. Distributed lag of core PCE inflation begins at about 1.9 and generally increases to about 2.4 by 2006. It then generally decreases to end at about 1.8.

Note: The distributed lag of core PCE inflation is derived from one of the reduced-form Phillips curves used by Board staff.

Source: For the distributed lag of core PCE inflation, FRB staff calculations; for the FRB/US measure, for 2007 forward, the median projection for PCE inflation over the next 10 years from the Survey of Professional Forecasters (SPF); for 1990 to 2006, the equivalent SPF projection for the CPI; for 1981 to 1989, a related survey for the CPI conducted by Richard Hoey; and for the period preceding 1981, a model-based estimate constructed by Board staff. The survey data before 2007 are adjusted down 0.5 percentage point to put the CPI projections approximately on a PCE basis.

### *Figure: Inflation Compensation for TIPS*

Line chart, by percent, 2001 to 2009:Q1. Data are quarterly. There are two series, "5 to 10 years ahead" and "Next 5 years". 5 to 10 years ahead begins at about 2.1 and generally increases to about 3.1 by late 2003. It then generally decreases to about 2.5 by 2005, and generally increases to about 2.9 by early 2008. It then generally decreases to end at about 2.5. Next 5 years begins at about 1.5 and generally increases to about 1.9 by 2001. It then generally decreases to about 1.1 by late 2002, and generally increases to about 2.7 by early 2005. It remains about constant until about 2008 when it hits 2.1 and then generally decreases to about -0.5. It then generally increases to end at about 0.

There is a second line chart, by percent, 2005 to April 21, 2009. Data are weekly. There are two series, "5 to 10 years ahead" and "Next 5 years". They begin at about 2.5 and track closely together until about 2006. 5 to 10 years ahead then generally increases to about 3.4 by late 2008, and generally decreases to end at about 2.4. Next 5 years generally decreases to about 1.9 by early 2008, and generally increases to about 2.5 by 2008. It then generally decreases to about -1.7 by late 2008, and generally increases to end at about 0.5.

Note: Based on a comparison of an estimated TIPS (Treasury inflation-protected securities) yield curve with an estimated nominal off-the-run Treasury yield curve, with an adjustment for the indexation-lag effect.

Source: FRB staff calculations.

## Commodity Price Indexes

### *Figure: Journal of Commerce*

Line chart, 1991 to March 10, 2009. Ratio scale, 2006 = 100. There are two series, "Industrials" and "Metals". Industrials begins at about 58 and generally decreases to about 50 by early 1992. It then generally increases to about 65 by early 1995, and generally decreases to about 50 by 2001. It then generally increases to about 138 by 2008, and generally decreases to about 65. Metals begins at about 45 and generally decreases to about 38 by 1993. It then generally increases to about 58 by early 1995, and generally decreases to about 32 by late 2001. It then generally increases to about 150 by 2008, and generally decreases to end at about 60.

Note: The *Journal of Commerce* (JOC) industrial price index is based almost entirely on industrial commodities, with a small weight given to energy commodities. Copyright for JOC data is held by CIBCR, 1994.

### Figure: Commodity Research Bureau

Line chart, 1991 to March 10, 2009. Ratio scale, 1967 = 100. There are two series, "Spot industrials" and "Futures". Spot industrials begins at about 300 and generally decreases to about 250 by 1993. It then generally increases to about 350 by 1995, and generally decreases to about 230 by late 2001. It then generally increases to about 550 by 2008, and generally decreases to end at about 340. Futures begins at about 220 and generally decreases to about 200 by 1992. It then generally increases to about 255 by 1996, and generally decreases to about 190 by 2001. It then generally increases to about 610 by 2008, and generally decreases to end at about 375.

Note: The Commodity Research Bureau (CRB) spot industrials index consists entirely of industrial commodities, excluding energy. The CRB futures index gives about a 60 percent weight to food commodities and splits the remaining weight roughly equally among energy commodities, industrial commodities, and precious metals.

#### Selected Commodity Price Indexes

(Percent change)

Index	2008 <sup>1</sup>	12/30/08 to 3/10/09 <sup>2</sup>	3/10/09 <sup>2</sup> to 4/21/09	52-week change to 4/21/09
JOC industrials	-41.4	1.0	8.3	-45.5
JOC metals	-48.2	8.2	13.3	-51.8
CRB spot industrials	-34.3	1.5	8.2	-31.3
CRB spot foodstuffs	-14.1	-3.0	7.9	-23.4
CRB futures	-24.7	-1.3	6.0	-33.0

1. From the last week of the preceding year to the last week of the year indicated. [Return to table](#)

2. March 10, 2009, is the Tuesday preceding publication of the March Greenbook. [Return to table](#)

### Hourly Compensation and Unit Labor Costs

(Percent change from preceding period at compound annual rate; based on seasonally adjusted data)

Category	2006:Q4 to 2007:Q4		2007:Q4 to 2008:Q4 <sup>e</sup>		2008	
			Q1	Q2	Q3	Q4 <sup>e</sup>
<i>Compensation per hour</i>						
Nonfarm business	3.6	4.1	3.7	1.7	5.7	5.2
<i>Output per hour</i>						
Nonfarm business	2.6	2.2	2.6	4.7	2.2	-5
<i>Unit labor costs</i>						
Nonfarm business	.9	1.8	1.1	-2.8	3.5	5.7

<sup>e</sup> Staff estimate. [Return to table](#)

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

### Figure: Compensation per Hour

Line chart, by percent change from year-earlier period, 1996 to 2008:Q4. There are two series, "Productivity and costs" and "ECI". Productivity and costs begins at about 3.1 and generally decreases to about 2.8 by 1997. It then generally increases to about 8 by 2000, and generally decreases to about 3 by early 2003. It then generally increases about 5.3 by late 2003, and then fluctuates but generally decreases to end at about 4. ECI begins at about 2.9 and generally increases to about 4.8 by 2000. It then fluctuates but generally decreases to end at about 2.4.

Note: Productivity and costs value for 2008:Q4 is a staff estimate.

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

### Figure: Unit Labor Costs

Line chart, by percent change from year-earlier period, 1996 to 2008:Q4. The series begins at about 1 and generally increases to about 4 by 1998. It then generally decreases to about 1.5 by 1999, and generally increases to about 5 by 2000. It then generally decreases to about -1.5 by early 2002, and generally increases to about 4.3 by early 2007. It then generally decreases to about 0 by early 2008, and generally increases to end at about 1.8.

Note: Value for 2008:Q4 is a staff estimate.



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

*Figure: Average Hourly Earnings*

Line chart, by percent change from year-earlier period, 1997 to March 2009. The series begins at about 3.2 and generally increases to about 4.4 by 1998. It then generally decreases to about 1.5 by early 2004, and generally increases to about 4.25 by early 2007. It then generally decreases to end at about 3.4.

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

*Figure: Markup, Nonfarm Business*

Line chart, by ratio, 1996 to 2008:Q4. The series begins at about 1.62 and generally increases to about 1.64 by 1997. It then generally decreases to about 1.53 by 2001, and generally increases to about 1.652 by 2006. It then generally decreases to about 1.61 by early 2007, and generally increases to about 1.658 by 2008. It then generally decreases to end at about 1.638. There is a horizontal line at about 1.575, marking the average ratio from 1968 to present.

Note: The markup is the ratio of output price to unit labor costs. Value for 2008:Q4 is a staff estimate.

Source: For output price, U.S. Dept. of Commerce, Bureau of Economic Analysis; for unit labor costs, U.S. Dept. of Labor, Bureau of Labor Statistics.

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

**Last update: April 1, 2015**

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# Accessible Material

## April 2009 Greenbook Part 2 Tables and Charts<sup>†</sup>

### Domestic Financial Developments

#### Selected Financial Market Quotations

(One-day quotes in percent except as noted)

Instrument	2007		2009		Change to Apr. 21 from selected dates (percentage points)		
	Aug. 6	Jan. 27	Mar. 17	Apr. 21	2007 Aug. 6	2009 Jan. 27	2009 Mar. 17
<i>Short-term</i>							
FOMC intended federal funds rate	5.25	.13	.13	.13	-5.12	.00	.00
Treasury bills <sup>1</sup>							
3-month	4.74	.13	.24	.15	-4.59	.02	-.09
6-month	4.72	.32	.44	.34	-4.38	.02	-.10
Commercial paper (A1/P1 rates) <sup>2</sup>							
1-month	5.26	.29	.44	.29	-4.97	.00	-.15
3-month	5.29	2.04	.66	.35	-4.94	-1.69	-.31
Large negotiable CDs <sup>1</sup>							
3-month	5.34	1.08	1.08	.90	-4.44	-.18	-.18
6-month	5.27	1.57	1.83	1.50	-3.77	-.07	-.33
Eurodollar deposits <sup>3</sup>							
1-month	5.33	.75	1.00	.90	-4.43	.15	-.10
3-month	5.35	1.75	1.65	1.50	-3.85	-.25	-.15
Bank prime rate	8.25	3.25	3.25	3.25	-5.00	.00	.00
<i>Intermediate- and long-term</i>							
U.S. Treasury <sup>4</sup>							
2-year	4.49	.68	1.04	.90	-3.59	.22	-.14
5-year	4.52	1.74	2.14	1.96	-2.56	.22	-.18
10-year	4.82	3.17	3.47	3.27	-1.55	.10	-.20
U.S. Treasury indexed notes <sup>5</sup>							
5-year	2.43	1.84	2.04	1.61	-.82	-.23	-.43
10-year	2.48	1.97	2.26	1.99	-.49	.02	-.27
Municipal general obligations (Bond Buyer) <sup>6</sup>							
	4.51	5.13	5.03	4.78	.27	-.35	-.25
Private instruments							
10-year swap	5.44	2.84	3.14	2.99	-2.45	.15	-.15
10-year FNMA <sup>7</sup>	5.34	3.65	4.04	3.88	-1.46	.23	-.16
10-year AA <sup>8</sup>	6.12	6.03	6.99	6.29	.17	.26	-.70
10-year BBB <sup>8</sup>	6.57	8.94	9.25	8.63	2.06	-.31	-.62
10-year high yield <sup>8</sup>	9.21	14.68	16.41	13.37	4.16	-1.31	-3.04
Home mortgages (FHLMC survey rate)							
30-year fixed	6.59	5.10	4.98	4.82	-1.77	-.28	-.16

1-year adjustable	5.65	4.90	4.91	4.91	-74	.01	.00
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Stock exchange index	Record high		2009			Change to Apr. 21 from selected dates (percent)		
	Level	Date	Jan. 27	Mar. 17	Apr. 21	Record high	2009 Jan. 27	2009 Mar. 17
Dow Jones Industrial	14,165	10-9-07	8,175	7,396	7,970	-43.74	-2.51	7.76
S&P 500 Composite	1,565	10-9-07	846	778	850	-45.69	.52	9.25
Nasdaq	5,049	3-10-00	1,505	1,462	1,644	-67.44	9.23	12.43
Russell 2000	856	7-13-07	456	404	470	-45.07	3.18	16.47
D.J. Total Stock Index	15,807	10-9-07	8,524	7,878	8,695	-44.99	2.00	10.37

1. Secondary market. [Return to table](#)
2. Financial commercial paper. [Return to table](#)
3. Bid rates for Eurodollar deposits collected around 9:30 a.m. eastern time. [Return to table](#)
4. Derived from a smoothed Treasury yield curve estimated using off-the-run securities. [Return to table](#)
5. Derived from a smoothed Treasury yield curve estimated using all outstanding securities and adjusted for the carry effect. [Return to table](#)
6. Most recent Thursday quote. [Return to table](#)
7. Constant-maturity yields estimated from Fannie Mae domestic noncallable coupon securities. [Return to table](#)
8. Derived from smoothed corporate yield curves estimated using Merrill Lynch bond data. [Return to table](#)

#### NOTES:

August 6, 2007, is the day before the August 2007 FOMC meeting.

January 27, 2009, is the day before the January 2009 FOMC monetary policy announcement.

March 17, 2009, is the day before the most recent FOMC monetary policy announcement.

## Policy Expectations and Treasury Yields

### Figure: Interest Rates

Line chart, by percent, March 17 to April 20. There are two series, "10-year Treasury yield" and "March 2010 Eurodollar". These two series use two different scales. 10-year Treasury yield begins at about 2.93 and generally increases to about 3.0 by March 18. It then generally decreases to about 2.5 by March 18, and generally increases to about 2.82 by March 26. It then generally decreases to about 2.65 by April 1, and generally increases to about 2.95 by April 9. It then generally decreases to about 2.8 by April 21, and generally increases to end at about 2.9. March 2010 Eurodollar begins at about 1.61 and generally decreases to about 1.4 by March 18. It then generally increases to about 1.5 by March 26, and generally decreases to about 1.3 by April 1. It then generally increases to about 1.5 by April 7, and generally decreases to about 1.3 by late April 15. It then generally increases to end at about 1.55.

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

Source: Bloomberg.

### Figure: Treasury Yield Curve

Line chart, by percent, 1-20 years ahead. There are two series, "March 17, 2009" and "April 21, 2009". March 17, 2009 begins at about 0.6 and generally increases to about 3.9 by 13 years ahead. It then remains about constant to end at about 4.05. April 21, 2009 begins at about 0.5 and generally increases to end at about 3.95.

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

Source: Federal Reserve Bank of New York.

### Figure: 10-Year Treasury Implied Volatility

Line chart, January 2007 to April 21, 2009. Unit is basis points. The March 2009 FOMC meeting is marked in the time series. The series begins at about 4.5 and generally decreases to about 3.5 by May 2007. It then generally increases to about 13.7 by October 2008, and fluctuates but generally decreases to end at about 8. It is at about 9 at the time of the March 2009 FOMC meeting.

Note: 10-year Treasury note implied volatility derived from options on futures contracts.

Source: Bloomberg.

### Figure: Implied Federal Funds Rate

Line chart, by percent, April 2009 to May 2011. There are two series, "April 21, 2009" and "March 17, 2009". April 21, 2009 begins at about 0.1 and generally increases to end at about 1.8. March 17, 2009 begins at about 0.2 and generally increases to end at about 1.9.

Note: Estimated from federal funds and Eurodollar futures, with an allowance for term premiums and other adjustments.

Source: Chicago Mercantile Exchange; Chicago Board of Trade.

### *Figure: Inflation Compensation*

Line chart, by percent, January 2007 to April 21, 2009. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "5 to 10 years ahead" and "Next 5 years". 5 to 10 years ahead begins at about 2.5 and remains about constant until about September 2008. It then generally increases to about 3.5 by early November 2008, and generally decreases to end at about 2.4. Next 5 years begins at about 2.2 and remains about constant until about early March 2008. It then generally increases to about 2.5 by early July 2008, and generally decreases to about -1.6 by early December 2008. It then generally increases to end at about 0.3.

Note: Estimates based on smoothed nominal and inflation-indexed Treasury yields. "Next 5 years" is adjusted for lagged indexation of Treasury inflation-protected securities.

Source: Federal Reserve Bank of New York.

## Federal Reserve Purchase Programs and Facilities

### *Figure: Total Federal Reserve Assets*

Line chart, by billions of dollars, January 2007 to April 15, 2009. Data are weekly. The March 2009 FOMC meeting is marked in the time series. The series begins at about 850 and remains about constant until about June 2008. It then generally increases to about 2250 by December 2008, and generally decreases to about 1820 by early February 2009. It then generally increases to end at about 2200. It is at about 2020 at the time of the March 2009 FOMC meeting.

Source: Board of Governors of the Federal Reserve System, Statistical Release H.4.1, "Factors Affecting Reserve Balances."

### *Figure: Securities Held Outright*

Line chart, by billions of dollars, September 2008 to April 20, 2009. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are four series, "Treasury notes and bonds", "Treasury bills", "Agency MBS", and "Agency debt". Treasury notes and bonds begins at about 455 and remains about constant until about March 2009. It then generally increases to end at about 510. It is at about 455 at the time of the March 2009 FOMC meeting. Treasury bills begins at about 25 and generally decreases to about 20 by September 2008. It then remains about constant until the end. It is at about 20 at the time of the March 2009 FOMC meeting. Agency MBS begins at about 0 and remains about constant until January 2009. It then generally increases to end at about 370. It is at about 240 at the time of the March 2009 FOMC meeting. Agency debt begins at about 0 and generally increases to about 15 by late September 2008. It then remains about constant until about January 2009, and generally increases to end at about 60. It is at about 50 at the time of the March 2009 FOMC meeting.

Source: Federal Reserve Board.

### *Figure: Primary Credit*

Line chart, by billions of dollars, March 2008 to April 21, 2009. There are two series, "Total" and "Foreign". The March 2009 FOMC meeting is marked in the time series. Total begins at about 0 and generally increases to about 112.5 by October 2008. It then generally decreases to end at about 40. It is at about 68 at the time of the March 2009 FOMC meeting. Foreign begins at about 0 and generally increases to about 20 by late May 2008. It then generally decreases to about 8 by early July 2008, and generally increases to about 87 by November 2008. It then generally decreases to about 52 by January 2009, generally increases to about 72 by early April 2009, and generally decreases to end at about 37. It is at about 62 at the time of the March 2009 FOMC meeting.

Source: Federal Reserve Board.

### *Figure: Term Auction Facility*

Line chart, by billions of dollars, December 2007 to April 2009. The data are Daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "Total" and "Foreign". Total begins at about 40 and generally increases to about 150 by late May 2008. It then remains about constant until October 2008, and generally increases to about 450 by late December 2008. It then generally decreases to about 370 by January 2009, and generally increases to end at about 451. It is at about 470 at the time of the March 2009 FOMC meeting. Foreign begins at about 20 and generally increases to about 100 by late June 2008. It then generally decreases to about 80 by September 2008, and generally increases to end at about 200. It is at about 200 at the time of the March 2009 FOMC meeting.

Source: Federal Reserve Board.

### *Figure: Other Credit Extensions*

Line chart, by billions of dollars, Sept. 2008 to April 21, 2009. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are four series, "CPFF", "AMLF", "AIG" and "PDCF". CPFF begins at about 0 and generally increases to about 350 by January 2009. It then generally decreases to end at about 240. It is at about 245 at the time of the March 2009 FOMC meeting. AMLF begins at about 45 and generally increases to about 151 by late September 2008. It then generally decreases to end at about 5. It is at about 20 at the time of the March 2009 FOMC meeting. AIG begins at about 0 and generally increases to about 150 by early October 2008. It then generally decreases to end at about 0. It is at about 2 at the time of the January 2009 FOMC meeting. PDCF begins at about 10 and generally increases to about 95 by late November 2008. It then generally decreases to about 46 by December 2008, and remains about constant until late February 2009. It then generally increases to end at about 49.5. It is at about 49 at the time of the March 2009 FOMC meeting.

Note: AMLF is the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility; AIG is American International Group, Inc.; CPFF is the Commercial Paper Funding Facility; PDCF is the Primary Dealer Credit Facility. Data for AIG extend through April 20.

Source: Federal Reserve Board.

## Financial Institutions and Short-Term Funding Markets

### *Figure: S&P Banks Equity Index*

Line chart, July 2007 to April 21, 2009. March 17, 2009 = 100, ratio scale. Data are daily. The March 2009 FOMC meeting is marked in the time series. The series begins at about 525 and generally decreases to about 175 by July 2008. It then generally increases to about 300 by September 2008, and generally decreases to about 65 by March 2009. It then generally increases to end at about 180. It is at about 105 at the time of the March 2009 FOMC meeting.

Source: Bloomberg.

### *Figure: Senior CDS Spreads for Bank Holding Companies*

Line chart, July 2007 to April 21, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. The series begins at about 10 and generally increases to about 205 by March 2008. It then generally decreases to about 60 by early May 2008, and generally increases to about 280 by September 2008. It then generally decreases to about 145 by January 2009, and generally increases to about 370 by March 2009. It then generally decreases to end at about 260. It is at about 280 at the time of the March 2009 FOMC meeting.

Note: Median spreads for 6 bank holding companies.

Source: Markit.

### *Figure: S&P Insurance Equity Index*

Line chart, July 2007 to April 21, 2009. March 17, 2009 = 100, ratio scale. Data are daily. The March 2009 FOMC meeting is marked in the time series. The series begins at about 400 and generally decreases to about 100 by late November 2008. It then generally increases to about 150 by early January 2009, and generally decreases to about 80 by early March 2009. It then generally increases to end at about 125. It is at about 105 at the time of the March 2009 FOMC meeting.

Source: Standard & Poor's.

### *Figure: Selected FDIC-Guaranteed Spreads*

Line chart, December 2008 to April 21, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are three series, "Citigroup", "JPMorgan Chase", and "Wells Fargo". Citigroup begins at about 1.95 and generally decreases to about 0.7 by early January 2009. It then generally increases to about 0.95 by March 2009, and generally decreases to end at about 0.62. It is at about 0.9 at the time of the March 2009 FOMC meeting. JPMorgan Chase begins at about 1.75 and generally decreases to about 0.7 by early January 2009. It then generally increases to about 0.95 by March 2009, and generally decreases to end at about 0.6. It is at about 0.9 at the time of the March 2009 FOMC meeting. Wells Fargo begins at about 1.95 and generally decreases to about 0.6 by early January 2009. It then generally increases to about 0.75 by January 2009, and generally decreases to end at about 0.58.

Note: Spreads to comparable-maturity Treasury securities for issues maturing around year-end 2011.

Source: Bloomberg.

### *Figure: Libor over OIS Spread*

Line chart, July 2007 to April 22, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are three series, "1-month", "3-month", and "6-month". 1-month begins at about 10 and generally increases to about 100 by December 2007. It then generally decreases to about 10 by January 2008, and generally increases to about 100 by October 2008. It then generally decreases to end at about 20. It is at about 40 at the time of the March 2009 FOMC meeting. 3-month begins at about 10 and generally increases to about 100 by early December 2007. It then generally decreases to about 40 by late January 2008, and generally increases to about 350 by October 2008. It then generally decreases to end at about 95. It is at about 101 at the time of the March 2009 FOMC meeting. 6-month begins at about 10 and generally increases to about 102 by early January 2008. It then generally decreases to about 50 by late January 2008, and generally increases to about 345 by October 2008. It then generally decreases to end at about 148. It is at about 151 at the time of the March 2009 FOMC meeting.

Source: British Bankers' Association and Prebon.

### *Figure: Spreads on 30-day Commercial Paper*

Line chart, July 2007 to April 21, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "ABCP" and "A2/P2". They begin at about 0 and generally increase to about 190 by December 2007. They then generally decrease to about 30 by early February 2008, and generally increase together until about 400 by late September 2008. ABCP generally decreases to end at about 30. It is at about 70 at the time of the March 2009 FOMC meeting. A2/P2 generally increases to about 610 by early January 2009, and generally decreases to end at about 50. It is at about 100 at the time of the March 2009 FOMC meeting.

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.

## Corporate Yields, Risk Spreads, and Stock Prices

### *Figure: Selected Stock Price Indexes*

Line chart, January 2008 to April 21, 2009. March 17, 2009 = 100. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "S&P Financial" and "S&P 500". S&P Financial begins at about 330 and generally increases to about 350 by early February 2008. It then generally decreases to about 70 by early March 2009, and generally increases to end at about 121. It is at about 100 at the time of the March 2009 FOMC meeting. S&P 500 begins at about 180 and generally decreases to about 90 by early March 2009. It then generally increases to end at about 110. It is at about 95 at the time of the March 2009 FOMC meeting.

Source: Standard & Poor's.

### *Figure: Ratio of Trend Earnings to Price for S&P 500 and Long-Run Treasury Yield*

Line chart, by percent, 1985 to April 21, 2009. Data are monthly. There are two series, "(Trend earnings) / P" and "Long-run real Treasury yield". (Trend earnings) / P begins at about 11 and generally decreases to about 3.9 by 1999. It then generally increases to end at about 9.5. Long-run real Treasury yield begins at about 7.9 and generally decreases to about 4 by 1986. It then fluctuates but generally remains about constant until about 2000. It then generally decreases to end at about 2.

Note: Trend earnings are estimated using analysts' forecasts of year-ahead earnings from I/B/E/S. There are two marks on the chart, at about 8.9 for (Trend earnings)/P and about 2 for long-run real Treasury yield that denote the latest observations using daily interest rates and stock prices and latest earnings data from I/B/E/S.

Source: Thomson Financial.

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

Line chart, by percent, 2002 to April 21, 2009. Data are weekly, as measured on Fridays or the most recent business day. The March 2009 FOMC meeting is marked in the time series. The series begins at about 20 and generally increases to about 40 by 2002. It then generally decreases to about 10 by early 2007, and generally increases to about 79 by 2008. It then generally decreases to end at about 36. It is at about 46 at the time of the March 2009 FOMC meeting.

Source: Chicago Board of Exchange.

### *Figure: Corporate Bond Yields*

Line chart, by percent, 2002 to April 21, 2009. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "10-year high-yield" and "10-year BBB". 10-year high-yield begins at about 11 and generally increases to about 12 by late 2002. It then generally decreases to about 7.1 by early 2005, and generally increases to about 19.5 by late 2008. It then generally decreases to end at about 13. It is at about 17 at the time of the March 2009 FOMC meeting. 10-year BBB begins at about 7.5 and generally decreases to about 5 by 2003. It then generally increases to about 10 by late 2008, and generally decreases to end at about 8.9. It is at about 9 at the time of the March 2009 FOMC meeting.

Note: Yields from smoothed yield curves based on Merrill Lynch bond data.

### *Figure: Corporate Bond Spreads*

Line chart, 2002 to April 21, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "10-year high-yield" and "10-year BBB". 10-year high-yield begins at about 550 and generally increases to about 880 by 2002. It then generally decreases to about 298 by early 2005, and generally increases to about 1650 by early 2009. It then generally decreases to end at about 950. It is at about 1250 at the time of the March 2009 FOMC meeting. 10-year BBB begins at about 250 and generally increases to about 300 by late 2002. It then generally decreases to about 100 by early 2005, and generally increases to about 610 by early 2009. It then generally decreases to end at about 580. It is at about 598 at the time of the March 2009 FOMC meeting.

Note: Corporate yields from smoothed yield curves based on Merrill Lynch bond data and spreads measured relative to comparable-maturity Treasury securities.

### *Figure: Estimated Median Bid-Asked Spread for Corporate Bonds*

Line chart, 2005 to April 21, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. There are two series, "High-yield" and "Investment-grade". High-yield begins at about 125 and generally increases to about 225 by late 2005. It then generally decreases to about 125 by early 2006, and fluctuates but remains about constant until 2008. It then generally increases to about 355 by early 2009, and generally decreases to end at about 145. It is at about 200 at the time of the March 2009 FOMC meeting. Investment-grade begins at about 80 and generally increases to about 105 by 2005. It then generally decreases to about 50 by late 2006, and generally increases to about 150 by 2008. It then generally decreases to end at about 108. It is at about 110 at the time of the March 2009 FOMC meeting.

Source: Staff estimate using data from the National Assn. of Securities Dealers' Trade Reporting and Compliance Engine.

## Corporate Earnings and Credit Quality

### *Figure: S&P 500 Earnings Per Share*

Line chart, by percent, 1998 to 2009:Q1. Data are change from 4 quarters earlier. There are two series, "All firms" and "Nonfinancials". All firms begins at about -0.1 and generally increases to about 22 by early 2000. It then generally decreases to about -28 by 2001, and generally increases to about 33 by 2004. It then generally decreases to about -38. Nonfinancials begins at about 0 and generally decreases to about -0.7. It then generally increases to about 21 by 1999, and generally decreases to about -25 by late 2001. It then generally increases to about 26 by early 2004, and generally decreases to about -65 by late 2008. It then generally increases to end at about -39.

Note: 2009:Q1 values are estimated based on firms that have reported and analysis' forecasts.

Source: Thomson Financial.

### *Figure: Revisions to Expected S&P 500 Earnings*

Line chart, by percent, 2002 to Mid-March 2009. Data are monthly. There are two series, "All firms" and "Nonfinancials". They begin at about -1 and generally increase to about 0.8. They then generally decrease to about -3.5 by late 2002, and generally increase to about 2.5 by 2004. They remain at about a constant of 0 until 2007, and generally decrease to about -17 by early 2009. They then generally increase to end at about -5.

Note: Index is a weighted average of the percent change in the consensus forecasts of current-year and following-year earnings per share for a fixed sample.

Source: Thomson Financial.

### *Figure: Financial Ratios for Nonfinancial Corporations*

Line chart, by ratio, 1989 to 2008:Q4. There are two series, "Debt over total assets" and "Liquid assets over total assets". These two series use two different scales. Debt over total assets begins at about 0.325 and generally decreases to about 0.278 by 1996. It then generally increases to about 0.305 by 1999, and generally decreases to about 0.245 by 2005. It then generally increases to end at about 0.285. Liquid assets over total assets begins at about 0.052 and generally increases to about 0.102 by 2004. It then generally decreases to about 0.088 by 2008, and generally increases to end at about 0.009.

Note: Data are annual through 1999 and quarterly starting in 2000:Q1. 2008:Q4 values are preliminary.

Source: Calculated using Compustat data.

### *Figure: Bond Ratings Changes of Nonfinancial Companies*

Bar chart, by percent of outstandings, 1991 to February 2009. There are two series, "Upgrades" and "Downgrades". Upgrades begins at about 11 and generally decreases to about 8 by 1994. It then generally increases to about 20 by 1995, and generally decreases to about 9 by 1997. It then generally increases to about 15 by 1998, and generally decreases to about 2 by 2002. It then generally increases to about 10 by 2007, and generally decreases to about 2 by 2008. It then generally increases to about 8 by January 2009, and generally decreases to end at about 0. Downgrades begins at about 28 and generally decreases to about 35 by 1992. It then generally increases to about 9 by 1995, and generally decreases to about 38 by 2002. It then generally increases to about 10 by early 2004, and generally decreases to about 14 by 2006. It then generally increases to about 9 by 2008, and generally decreases to end at about 38.

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

### *Figure: Expected Year-Ahead Defaults*

Line chart, by percent of liabilities, 1990 to March 2009. Data are monthly. The series begins at about 0.8 and generally increases to about 1.3 by late 1990. It then generally decreases to about 0.1 by late 1996, and generally increases to about 1.6 by 2002. It then generally decreases to about 0.1 by 2007, and generally increases to end at about 9.

Note: Firm-level estimates of default weighted by firm liabilities as a percent of total liabilities, excluding defaulted firms.

Source: Calculated using Moody's KMV.

### *Figure: Selected Default and Delinquency Rates*

Line chart, by percent of outstandings, 1990 to March 2009. There are two series, "C&I loan delinquency rate" and "Bond default rate". C&I loan delinquency rate begins at about 5 and generally increases to about 6.1 by 1991. It then generally decreases to about 1.7 by 1997, and generally increases to about 4 by 2002. It then generally decreases to about 1.1 by late 2006, and generally increases to end at about 2.6 by 2008:Q4. Bond default rate begins at about 1.7 and generally increases to about 3.2 by 1991. It then generally decreases to about 0 by late 1993, and generally increases to about 3.8 by early 2003. It then generally decreases to about 0.1 by early 2008, and generally increases to about 7.2 by early 2009. It then generally decreases to end at about 2.5.

Note: Bond default rate is 6-month trailing defaults divided by beginning-of-period outstandings, at an annual rate.

Source: For default rate, Moody's Investors Service; for delinquency rate, Call Report.

## Business Finance

## Gross Issuance of Securities by U.S. Corporations

(Billions of dollars; monthly rates, not seasonally adjusted)

Type of security	2005	2006	2007	2008		2009	
				H1	H2	Q1	Apr. <sup>p</sup>
<i>Nonfinancial corporations</i>							
Stocks <sup>1</sup>	4.6	4.7	5.5	3.5	4.0	2.9	2.5
Initial public offerings	1.7	1.8	1.6	.6	.1	.3	.0
Seasoned offerings	2.8	2.9	3.8	2.9	3.9	2.6	2.5
Bonds <sup>2</sup>	18.7	29.3	35.1	36.0	19.4	55.0	28.0
Investment grade	8.7	13.1	17.5	24.9	14.2	41.6	20.0
Speculative grade	5.2	6.2	7.5	3.1	.4	2.5	4.0
Other (sold abroad/unrated)	4.8	10.1	10.0	8.0	4.8	10.9	4.0
<i>Memo</i>							
Net issuance of commercial paper <sup>3</sup>	-.2	2.4	-.4	-.5	3.7	-12.7	11.0
Change in C&I loans at commercial banks <sup>3</sup>	9.6	11.7	20.9	13.4	9.0	-10.6	-16.0
<i>Financial corporations</i>							
Stocks <sup>1</sup>	5.0	5.3	8.6	17.2	9.9	.9	8.0
Bonds <sup>2</sup>	170.4	180.6	151.7	66.2	24.6	38.4	20.0

Note: Components may not sum to totals because of rounding.

1. Excludes private placements and equity-for-equity swaps that occur in restructurings. [Return to table](#)

2. Data include regular and 144a private placements. Bond totals reflect gross proceeds rather than par value of original discount bonds. Bonds are categorized according to Moody's bond ratings or to Standard & Poor's if unrated by Moody's. [Return to table](#)

3. End-of-period basis, seasonally adjusted. [Return to table](#)

<sup>p</sup> Forecast based on preliminary data. [Return to table](#)

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

### Figure: Selected Components of Net Debt Financing

Bar chart, by billions of dollars, 2005 to April 2009. Data are monthly rate, nonfinancial firms. There are three series, "Commercial Paper", "C&I loans" and "Bonds". They are seasonally adjusted, period-end basis. There is also a "Sum" series presented as a line chart which sums the total of the other series. Approximate values are: 2005: Bonds 5, C&I loans 7, Commercial paper 0, Sum 12. 2006: Bonds 18, C&I loans 11, Commercial paper 3, Sum 32. 2007: Bonds 25, C&I loans 23, Commercial paper 0, Sum 48. 2008:H1: Bonds 22, C&I loans 13, Commercial paper 0, Sum 35. 2008:H2: Bonds 10, C&I loans 10, Commercial paper 4, Sum 24. 2009:Q1: Bonds 45, C&I loans -10, Commercial paper -12, Sum 23. April 2009: Bonds 15, C&I loans -15, Commercial paper 10, Sum 10.

Note: April 2009 values are preliminary.

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

### Figure: Components of Net Equity Issuance

Bar chart, by billions of dollars, 2005 to 2008:Q4. Data are monthly rate, nonfinancial firms. There are four series, "Public issuance", "Private issuance", "Repurchases", and "Cash mergers". There is also a "Total" series presented as a line chart which sums the total of other series. Approximate values are: 2005: Private issuance 8, Public issuance 4, Repurchases -28, Cash mergers -14, Total -30. 2006: Private issuance 10, Public issuance 5, Repurchases -35, Cash mergers -25, Total -45. 2007: Private issuance 15, Public issuance 5, Repurchases -42, Cash mergers -40, Total -62. 2008:H1: Private issuance 18, Public issuance 3, Repurchases -35, Cash mergers -14, Total -28. 2008:Q3: Private issuance 19, Public issuance 2, Repurchases -32, Cash mergers -18. 2008:Q4: Private issuance 19, Public issuance 3, Repurchases -19, Cash mergers -19, Total -16.

Note: 2009:Q4 values are staff estimates.

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

## Commercial Real Estate

### Figure: Commercial Mortgage Debt

Line chart, by percent change, annual rate, 2000 to 2008:Q4. Data are quarterly. The series begins at about 1.5 and generally decreases to about 7 by 2002. It then generally increases to about 16.5 by late 2005, and generally decreases to about 9 by 2007. It then generally increases to about 15.5 by 2007, and generally



decreases to end at about 1.5.

Source: Federal Reserve.

### *Figure: Sales of Commercial Real Estate*

Line chart, by billions of dollars, 2001 to March 2009. There are two series, "3-month moving average" and "Monthly". 3-month moving average begins at about 8 and generally increases to about 72 by 2007. It then generally decreases to end at about 5. Monthly begins at about 8 and generally increases to about 120 by early 2007. It then generally decreases to about 35 by 2007, and generally increases to about 80 by 2007. It then generally decreases to end at about 5.

Note: March 2009 values are preliminary.

Source: Real Capital Analytics.

### *Figure: Prices of Commercial Real Estate*

Line chart, 1994 to January 2009. Index, 2001:Q1=100. There are two series, "NCREIF TPI (quarterly)" and "Moody's index (monthly)". NCREIF TPI begins at about 75 and generally increases to about 200 by 2007. It then generally decreases to end at about 163 by 2008:Q4. Moody's index begins at about 100 by 2001 and generally increases to about 195 by late 2007. It then generally decreases to end at about 150.

Source: NCREIF; MIT Center for Real Estate; Moody's.

### *Figure: Delinquency Rates on Commercial Mortgages on Existing Properties*

Line chart, by percent, 1997 to March 2009. There are three series, "At commercial banks" (excluding farmland), "At life insurance companies" and "CMBS". At commercial banks begins at about 3.4 and generally decreases to about 1.3 by 2000. It then generally increases to about 1.8 by 2001, and generally decreases to about 1 by 2006. It then generally increases to end at about 2.7 by 2008:Q4. At life insurance companies begins at about 2.3 and generally decreases to about 0.1 by late 2001. It then remains about constant but generally decreases to end at about 0 by 2008:Q4. CMBS begins at about 0.5 by early 1999 and generally increases to about 1.9 by 2003. It then generally decreases to about 0.3 by 2007, and generally increases to end at about 2.

Note: CMBS are commercial mortgage-backed securities.

Source: Citigroup; Call Report, ACLI.

### *Figure: Delinquency Rates on Commercial Construction Loans at Banks*

Line chart, by percent, 2007:Q1 to 2008:Q4. Data are quarterly. There are two series, "Residential construction" and "Commercial construction". Residential construction begins at about 2.8 and generally increases to end at about 17.2. Commercial construction begins at about 1.9 and generally increases to end at about 9.

Note: Data series for residential and commercial construction begin in 2007:Q1. Existing properties include nonresidential and multifamily.

Source: Call Report.

### *Figure: Commercial Mortgage CDS Index Prices (CMBX)*

Line chart, by percent, April 2007 to April 21, 2009. Data are daily, by rating. The March 2009 FOMC meeting is marked in the time series. There are three series, "Senior AAA", "Junior AAA" and "BBB-". Senior AAA begins at about 100 and remains about constant until about January 2008. It then generally decreases to about 85 by March 2008, and generally increases to about 95 by June 2008. It then generally decreases to about 57 by November 2008, and generally increases to end at about 68. It is at about 60 at the time of the March 2009 FOMC meeting. Junior AAA begins at about 98 by January 2008 and generally decreases to about 67 by March 2008. It then generally increases to about 90 by May 2008, and generally decreases to about 30 by November 2008. It then generally increases to about 42 by late January 2009, and generally decreases to end at about 27. It is at about 28 at the time of the March 2009 FOMC meeting. BBB- begins at about 101 and generally decreases to about 30 by March 2008. It then generally increases to about 48 by May 2008, and generally decreases to end at about 9. It is at about 10 at the time of the March 2009 FOMC meeting.

Note: Each index corresponds to pools of mortgages securitized in 2006:H1.

Source: JPMorgan Chase & Co.

## Residential Mortgages

### *Figure: Mortgage Rate and MBS Yield*

Line chart, by percent, October 2006 to April 15, 2009. Data are weekly. The March 2009 FOMC meeting is marked in the time series. There are two series, "30-year conforming fixed-rate mortgage rate" and "MBS yield". 30-year conforming fixed-rate mortgage rate begins at about 6.4 and generally decreases to about 6.01 by December 2006. It then generally increases to about 6.7 by June 2007, and generally decreases to about 5.5 by late January 2008. It then generally increases to about 6.6 by July 2008, and generally decreases to end at about 4.9. It is at about 5.0 at the time of the March 2009 FOMC meeting. MBS yield begins at about 5.8 and generally increases to about 6.0 by October 2006. It then generally decreases to about 5.6 by December 2006, and generally increases to about 6.5 by June 2007. It then generally decreases to about 5.1 by January 2008, and generally increases to about 6.1 by August 2008. It then generally decreases to about

3.7 by January 2009, and generally increases to about 4.45 by late February 2009. It then generally decreases to end at about 3.9. It is at about 4.05 at the time of the March 2009 FOMC meeting.

Note: For MBS yield, Fannie Mae 30-year current coupon rate.

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

### *Figure: Spread of Mortgage Rate to Treasury Yield*

Line chart, October 2006 to April 15, 2009. Unit is basis points. Data are weekly. The March 2009 FOMC meeting is marked in the time series. The series begins at about 170 and generally decreases to about 148 by April 2007. It then generally increases to about 255 by March 2008, and generally decreases to about 208 by June 2008. It then generally increases to about 299 by late December 2008, and generally decreases to end at about 198. It is at about 212.5 at the time of the March 2009 FOMC meeting.

Note: Spread is of 30-year conforming fixed mortgage rate relative to the on-the-run 10-year Treasury yield.

Source: Bloomberg; Freddie Mac.

### *Figure: Agency and Non-Agency MBS Issuance*

Bar chart, by billions of dollars, 2002 to February 2009. Data are monthly rate. There are three series, "Non-agency", "GSEs" and "Ginnie Mae". Approximate values are: 2002: Ginnie Mae 15, GSEs 105, and Non-agency 45. 2003: Ginnie Mae 20, GSEs 155, and Non-agency 60. 2004: Ginnie Mae 5, GSEs 75, and Non-agency 75. 2005: Ginnie Mae 3, GSEs 77, and Non-agency 91. 2006: Ginnie Mae 2, GSEs 72, and Non-agency 82. 2007:H1: Ginnie Mae 2, GSEs 88, and Non-agency 82. 2007:H2: Ginnie Mae 3, GSEs 98, and Non-agency 77. 2008:H1: Ginnie Mae 20, GSEs 90, and Non-agency 1. 2008:Q3: Ginnie Mae 25, GSEs 55, and Non-agency 0. October 2008: Ginnie Mae 26, GSEs 42, and Non-agency 0. November 2008: Ginnie Mae 25, GSEs 35, and Non-agency 0. December 2008: Ginnie Mae 24, GSEs 51, and Non-agency 0. January 2009: Ginnie Mae 25, GSEs 30, and Non-agency 0. February 2009: Ginnie Mae 25, GSEs 75, and Non-agency 0.

Source: For agency issuance, Fannie Mae, Freddie Mac, and Ginnie Mae; for non-agency, Inside Mortgage Finance.

### *Figure: Mortgage Debt*

Line chart, by percent change, annual rate, 2001 to 2008:Q4. Data are quarterly. The series begins at about 9 and generally increases to about 12 by 2001. It then generally decreases to about 8.9 by late 2001, and generally increases to about 16 by 2003. It then generally decreases to end at about -1.8.

Source: Federal Reserve.

### *Figure: Prices of Existing Homes*

Line chart, by percent change from a year earlier, 2002 to January 2009. Data are monthly. There are three series, "FHFA price index", "LoanPerformance price index" and "20-city S&P/Case-Shiller price index". FHFA price index begins at about 7 and generally increases to about 10 by 2005. It then generally decreases to about 09.5 by late 2008, and generally increases to end at about -6. LoanPerformance price index begins at about 8.5 and generally increases to about 15 by 2005. It then generally decreases to end at about -12. 20-city S&P/Case-Shiller price index begins at about 7.5 and generally increases to about 17 by 2004. It then generally decreases to end at about -19.

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

### *Figure: Delinquencies on Mortgages*

Line chart, by percent of loans, 2001 to February 2009. Data are monthly. There are three series, "Subprime", "Alt-A", and "Prime". Subprime and Alt-A are among securitized loans only. Subprime begins at about 8 and generally increases to about 9 by early 2003. It then generally decreases to about 5.5 by 2005, and generally increases to end at about 28. Alt-A begins at about 1.5 and generally increases to about 2 by early 2003. It then generally decreases to about 0.5 by 2005, and generally increases to end at about 16. Prime begins at about 1.5 and remains about constant until about early 2007. It then generally increases to end at about 4.

Note: Percent of loans 90 or more days past due or in foreclosure. Prime includes near-prime mortgages. Subprime and Alt-A February 2009 values are preliminary.

Source: For subprime and alt-A, LoanPerformance, a division of First American CoreLogic; for prime, McDash.

## Consumer Credit and Household Wealth

### *Figure: Consumer Loan Rates*

Line chart, by percent, 2007 to April 15, 2009. Data are weekly. The March 2009 FOMC meeting is marked in the time series. There are three series, "Variable-rate credit cards", "New auto loans at banks", and "New auto loans at captive finance companies". Variable-rate credit cards begins at about 15 and remains about constant until about late 2007. It then generally decreases to end at about 11. It is at about 11 at the time of the March 2009 FOMC meeting. New auto loans at banks begins at about 8 and remains about constant until early 2008. It then generally decreases to end at about 7. It is at about 7 at the time of the March 2009 FOMC meeting. New auto loans at captive finance companies begins at about 6 and generally decreases to about 4.2 by 2007. It then generally increases to about 5.8 by 2008, and generally decreases to about 3.5 by 2008. It then generally increases to about 8.2 by early 2009, and generally decreases to end at about 3 by

February.

Source: For credit cards and auto at banks, Bankrate, Inc.; for auto at captive finance companies, Federal Reserve.

### Figure: AAA ABS Spreads over Swaps

Line chart, May 2007 to April 17, 2009. Unit is basis points. Data are weekly. The March 2009 FOMC meeting is marked in the time series. There are two series, "2-year credit card" and "2-year auto". 2-year credit card begins at about 0 and generally increases to about 100 by April 2008. It then generally decreases to about 50 by June 2008, and generally increases to about 550 by December 2008. It then generally decreases to end at about 290. 2-year auto begins at about 0 and generally increases to about 150 by April 2008. It then generally decreases to about 80 by June 2008, and generally increases to about 450 by November 2008. It then generally decreases to end at about 190.

Source: For credit cards and auto, Citigroup Global Markets.

### Figure: Consumer Credit

Line chart, by percent change, annual rate, 2004 to February 2009. Data are 3-month changes. There are two series, "Revolving" and "Nonrevolving". Revolving begins at about 3.5 and generally decreases to about 0 by 2004. It then generally increases to about 6.5 by 2004, and generally decreases to about 1 by 2005. It then generally increases to about 9 by 2005, and generally decreases to end at about -5. Nonrevolving begins at about 6 and generally decreases to about 4 by 2004. It then generally increases to about 8.5 by 2005, and generally decreases to about 2.5 by late 2005. It then generally increases to about 6.5 by 2007, and generally decreases to about -1 by late 2008. It then generally increases to end at about 2.

Source: Federal Reserve.

### Figure: Delinquencies on Consumer Loans

Line chart, by percent, 1997 to February 2009. There are three series, "Credit card loans in securitized pools", "Nonrevolving consumer loans at commercial banks", and "Auto loans at captive finance companies". Credit card loans in securitized pools begins at about 5.3 and generally decreases to about 4.6 by 2000. It then generally increases to about 5.5 by 2003, and generally decreases to about 3.3 by late 2005. It then generally increases to end at about 6. Nonrevolving consumer loans at commercial banks begins at about 3.1 and generally increases to about 3.2 by early 1999. It then generally decreases to about 2.1 by late 2005, and generally increases to end at about 3.3 by 2008:Q4. Auto loans at captive finance companies begins at about 3.3 and generally increases to about 3.7 by 1997. It then generally decreases to about 2.2 by 1999, and generally increases to about 2.9 by 2001. It then generally decreases to about 2 by 2004, and generally increases to end at about 3.

Source: For auto loans, Federal Reserve; for credit cards, Moody's Investors Service; for nonrevolving consumer loans, Call Report.

### Net Flows into Mutual Funds

(Billions of dollars, monthly rate)

Fund type	2007	2008		2009			Assets
		H1	H2	Jan.	Feb.	Mar. <sup>e</sup>	Feb.
<b>Total long-term funds</b>	<b>18.6</b>	<b>11.9</b>	<b>-49.9</b>	<b>25.0</b>	<b>-12.1</b>	<b>-12.2</b>	<b>5,146</b>
<b>Equity funds</b>	<b>7.7</b>	<b>-3.4</b>	<b>-36.0</b>	<b>8.9</b>	<b>-25.0</b>	<b>-28.1</b>	<b>3,104</b>
Domestic	-3.9	-4.8	-20.8	6.7	-14.3	-16.3	2,385
International	11.6	1.4	-15.3	2.2	-10.8	-11.8	719
<b>Hybrid funds</b>	<b>1.8</b>	<b>1.4</b>	<b>-4.9</b>	<b>-0.4</b>	<b>-4.3</b>	<b>-3.9</b>	<b>441</b>
<b>Bond funds</b>	<b>9.0</b>	<b>14.0</b>	<b>-8.9</b>	<b>16.5</b>	<b>17.2</b>	<b>19.8</b>	<b>1,601</b>
High-yield	-0.2	-0.2	0.1	3.1	1.2	4.1	118
Other taxable	8.4	11.2	-7.4	9.5	11.7	12.2	1,123
Municipals	0.9	2.9	-1.6	3.9	4.3	3.6	361
<b>Money market funds</b>	<b>62.5</b>	<b>56.1</b>	<b>59.6</b>	<b>63.7</b>	<b>-10.1</b>	<b>-53.5</b>	<b>3,892</b>

Note: Excludes reinvested dividends.

<sup>e</sup> Staff estimate. [Return to table](#)

Source: Investment Company Institute.

## Treasury Finance

### Figure: Treasury Auction Amounts

Line chart, by billions of dollars, 2005:Q2 to March 2009. Data are quarterly. There are four series, "2-year", "3-year", "5-year", and "10-year". 2-year begins at about 73 and generally decreases to about 60 by 2005:Q4. It then generally increases to about 69 by late 2006:Q1, and generally decreases to about 52 by early

2007:Q4. It then generally increases to end at about 122. 3-year begins at about 24 and generally decreases to about 0 by early 2007:Q4. It then generally increases to end at about 98. 5-year begins at about 48 and generally decreases to about 37 by 2005:Q4. It then remains about constant until about early 2008:Q1, and generally increases to about 98. 10-year begins at about 24 and remains about constant until about early 2008:Q1. It then generally increases to end at about 54.

Source: U.S. Treasury Dept.

### Figure: Foreign Participation in Treasury Auctions

Line chart, by percent of total issue, 2000 to April 15, 2009. Data are 6-month moving averages. The March 2009 FOMC meeting is marked in the time series. There are two series, "Actual foreign allotment" and "Indirect bids". Actual foreign allotment begins at about 10 and generally increases to about 26 by 2004. It then generally decreases to about 14 by 2006, and generally increases to end at about 20. It is at about 20 at the time of the March 2009 FOMC meeting. Indirect bids begins at about 27 by late 2003 and generally increases to about 43 by 2004. It then generally decreases to about 27 by 2006, and generally increases to about 33 by early 2007. It then generally decreases to about 24 by 2008, and generally increases to end at about 32. It is at about 31 at the time of the March 2009 FOMC meeting.

Note: Indirect bids and actual allotment are a percentage of the total amount accepted, including the amount tendered to the Federal Reserve. Moving average include 2-, 5-, and 10-year original auctions and reopenings.

Source: Federal Reserve Board.

### Figure: Treasury On-the-Run Premium

Line chart showing 10-year note, 2001 to April 2009. Unit is basis points. Data are monthly averages. The March 2009 FOMC meeting is marked in the time series. The series begins at about 14 and generally increases to about 28 by 2002. It then generally decreases to about 16 by 2005, and generally increases to about 60 by early 2009. It then generally decreases to end at about 40. It is at about 53 at the time of the March 2009 FOMC meeting.

Note: Computed as the spread of the yield read from an estimated off-the-run yield curve over the on-the-run Treasury yield. March observation is the month-to-date average.

Source: Federal Reserve Bank of New York.

### Figure: Treasury Bid-Asked Spread

Line chart showing 2-year on-the-run Treasury notes, by cents per \$100 face value, January 2007 to April 21, 2009. Data are 5-day moving averages. The series begins at about 0.87 and generally increases to about 1.09 by January 2008. It then generally decreases to about 0.88 by September 2008, and generally increases to about 1.65 by January 2009. It then generally decreases to end at about 0.88.

Source: BrokerTec Interdealer Market Data.

### Figure: Average Absolute Nominal Yield Curve Fitting Error

Line chart, 2001 to April 21, 2009. Unit is basis points. Data are daily. The March 2009 FOMC meeting is marked in the time series. The series begins at about 3.5 and generally increases to about 14 by 2001. It then generally decreases to about 1 by early 2005, and generally increases to about 23 by late 2008. It then generally decreases to end at about 8. It is at about 14 at the time of the March 2009 FOMC meeting.

Note: Calculated from securities with 2 to 10 years until maturity, excluding on-the-run and first off-the-run securities.

Source: Federal Reserve Board.

### Figure: Daily Treasury Market Volume and Turnover

Line chart, 2002 to 2009. Data are monthly averages. There are two series, "Daily trading volume", which is by billions of dollars, and "Daily turnover", which is a ratio. Daily trading volume begins at about 90 and generally increases to about 100 by late 2002. It then generally decreases to about 50 by 2003, and generally increases to about 245 by early 2007. It then generally decreases to about 120 by 2007, and generally increases to about 295 by early 2008. It then generally decreases to end at about 80 by April. Daily turnover begins at about 1 and generally increases to about 4.5 by early 2007. It then generally decreases to about 2.4 by 2007 and generally increases to about 5.3 by late 2007. It then generally decreases to end at about 1 by March.

Note: April observation is the month-to-date average.

Source: BrokerTec Interdealer Market Data.

## State and Local Government Finance

### Gross Offerings of Municipal Securities

(Billions of dollars; monthly rate, not seasonally adjusted)

Type of security	2005	2006	2007	2008		2009	
				H1	H2	Q1	Apr. P
Total	38.4	36.1	40.4	41.6	33.1	30.6	30.0

Long-term <sup>1</sup>	34.2	32.5	35.5	38.0	26.6	28.8	29.0
Refundings <sup>2</sup>	15.6	10.6	12.6	18.0	11.0	10.7	10.0
New capital	18.6	21.9	22.9	20.1	15.6	18.1	19.0
Short-term	4.2	3.7	4.9	3.6	6.5	1.8	1.0
Memo: Long-term taxable	2.1	2.5	2.4	2.7	1.8	1.1	1.0

1. Includes issues for public and private purposes. [Return to table](#)

2. All issues that include any refunding bonds. [Return to table](#)

p Forecast based on preliminary data through April 16, 2009. [Return to table](#)

Source: Thomson Financial.

### Figure: Ratings Changes

Bar chart, by number of ratings changes, 1991 to 2008:H2. Data are annual rate. There are two series, "Upgrades" and "Downgrades". Upgrades begins at about 100 and generally increases 500 by early 1992. It then generally decreases to about 150 by 1993, and generally increases to about 1050 by 2000. It then generally decreases to about 500 by 2002, and generally increases to about 2200 by 2006. It then generally decreases to about 1700 by 2008:H1, and generally increases to end at about 2450 by 2008:H2. Downgrades begins at about 650 and generally increases to about 100 by 1999. It then generally decreases to about 1400 by 2007, and generally increases to end at about 100.

Note: Recent upgrades reflect S&P's change of rating standard.

Source: S&P's Credit Week Municipal; S&P's Ratings Direct.

### Figure: Municipal Bond Yields

Line chart, by percent, 2005 to 2009. Data are weekly. There are two series, "20-year general obligation" and "7-day SIFMA swap index". SIFMA is the Securities Industry and Financial Markets Association. 20-year general obligation begins at about 4.5 and remains about constant until about early 2008. It then generally increases to about 6 by 2008, and generally decreases to about 4.8 by April 16. 7-day SIFMA swap index begins at about 1.5 and generally increases to about 4 by 2006. It then generally decreases to about 1.1 by early 2008, and generally increases to about 8 by 2008. It then generally decreases to end at about 0.5 by April 15.

Source: Municipal Market Advisors; Bond Buyer.

### Figure: Municipal Bond Yield Ratio

Line chart showing "20-year", by ratio (General Obligation over Treasury), 1994 to April 16, 2009. Data are weekly. The series begins at about 0.81 and generally increases to about 0.98 by 2005. It then generally decreases to about 0.85 by early 2007, and generally increases to about 1.88 by early 2009. It then generally decreases to end at about 1.22.

Source: Bond Buyer.

## M2 Monetary Aggregate

(Based on seasonally adjusted data)

Aggregate and components	Percent change (annual rate) <sup>1</sup>						Level (billions of dollars), Mar.
	2007	2008	2008		2009		
			Q4	Q1	Feb.	Mar.	
M2	5.8	8.3	14.3	13.1	4.5	10.9	8,313
Components <sup>2</sup>							
Currency	2.0	5.8	13.7	14.4	15.3	10.5	842
Liquid deposits <sup>3</sup>	4.1	7.0	10.0	20.6	12.0	19.1	5,088
Small time deposits	4.3	11.3	34.4	1.8	-8.6	-6.7	1,347
Retail money market funds	20.6	12.3	10.0	-7.4	-21.9	-5.4	1,032
Memo:							
Institutional money market funds	40.2	24.6	8.8	29.9	8.5	1.5	2,492
Monetary base	2.0	70.4	252.0	64.5	-103.5	66.1	1,640

1. For years, Q4 to Q4; for quarters and months, calculated from corresponding average levels. [Return to table](#)

2. Nonbank traveler's checks are not listed. [Return to table](#)

3. Sum of demand deposits, other checkable deposits, and savings deposits. [Return to table](#)

Source: Federal Reserve.

## Commercial Bank Credit

(Percent change, annual rate, except as noted; seasonally adjusted)

Type of credit	2007	2008	H2 2008	Q4 2008	Q1 2009	Feb. 2009	Mar. 2009	Level <sup>1</sup> Mar. 2009
Total	10.9	4.5	4.7	6.4	-6.8	-3.2	-3.7	9,443
<b>Loans<sup>2</sup></b>								
Total	11.3	4.4	2.6	3.1	-6.3	.7	-7.1	7,094
<b>To businesses</b>								
Commercial and industrial	19.0	14.2	13.0	18.3	-9.7	-7.8	-12.8	1,544
Commercial real estate	10.7	6.4	2.9	2.0	-1.0	-.6	-1.7	1,727
<b>To households</b>								
Residential real estate	6.8	-2.3	-3.8	-.7	-.5	11.2	2.5	2,104
Revolving home equity	6.4	12.9	12.9	13.1	8.3	5.0	8.6	601
Closed-end mortgages	6.9	-7.1	-9.5	-5.8	-4.0	13.6	.0	1,503
Consumer	6.6	7.9	7.4	6.0	7.4	11.6	-10.0	893
Originated <sup>3</sup>	6.0	6.4	4.7	3.3	1.9	3.8	-7.3	1,301
Other	17.1	-1.6	-4.5	-13.7	-36.6	-18.0	-28.5	827
<b>Securities</b>								
Total	9.5	4.7	11.6	16.7	-8.1	-15.1	6.7	2,349
Treasury and agency	-5.6	19.4	37.7	51.6	3.1	-22.0	7.4	1,395
Other <sup>4</sup>	31.1	-10.3	-16.1	-23.3	-23.5	-4.8	5.8	954

Note: Yearly annual rates are Q4 to Q4; quarterly and monthly annual rates use corresponding average levels. Data have been adjusted to remove the effects of mark-to-market accounting rules (FIN 39 and FAS 115), the initial consolidation of certain variable interest entities (FIN 46), and the initial adoption of fair value accounting. Data also account for the effects of nonbank structure activity of \$5 billion or more.

1. Billions of dollars. Pro rata averages of weekly (Wednesday) levels. [Return to table](#)

2. Excludes interbank loans. [Return to table](#)

3. Includes an estimate of outstanding loans securitized by commercial banks. [Return to table](#)

4. Includes private mortgage-backed securities; securities of corporations, state and local governments, and foreign governments; and any trading account assets that are not Treasury or agency securities. [Return to table](#)

Source: Federal Reserve.

## Appendix: Senior Loan Officer Opinion Survey on Bank Lending Practices

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

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

Line chart, by percent, 1990 to 2009. The January 2009 survey is marked in the time series. There are two series, "Loans to large and medium-sized firms" and "Loans to small firms". Loans to large and medium-sized firms begins at about 58 and generally decreases to about -20 by 1993. It then generally increases to about 38 by late 1998, and generally decreases to about 5 by 1999. It then generally increases to about 60 by early 2001, and generally decreases to about -25 by 2005. It then generally increases to about 82 by late 2008, and then generally decreases to end at about 40. It is at about 65 at the time of the January 2009 survey. Loans to small firms begins at about -10 by early 1994, and generally increases to about 45 by 2001. It then generally decreases to about -22 by 2005, and generally increases to about 72 by late 2008. It then generally decreases to end at about 45.

#### **Figure: Net Percentage of Domestic Respondents Increasing Spreads of Loan Rates over Banks' Costs of Funds**

Line chart, by percent, 1990 to 2009. The January 2009 survey is marked in the time series. There are two series, "Loans to large and medium-sized firms" and "Loans to small firms". Loans to large and medium-sized firms begins at about 12 and generally increases to about 60 by 1991. It then generally decreases to about -60 by 1994, and generally increases to about 60 by late 2001. It then generally decreases to about -70 by 2005, and generally increases to about 100 by late 2008. It then generally decreases to end at about 80. It is at about 92 at the time of the January 2009 survey. Loans to small firms begins at about 9 and generally increases to about 38 by early 1991. It then generally decreases to about -39 by 1997, and generally increases to about 40 by 2001. It then generally decreases to about -55 by 2005, and generally increases to about 92 by late 2008. It then generally decreases to end at about 78. It is at about 88 at the time of the January 2009 survey.

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

Line chart, by percent, late 1991 to 2009. The January 2009 survey is marked in the time series. There are two series, "Loans to large and medium-sized firms" and "Loans to small firms". Loans to large and medium-sized firms begins at about -30 and generally increases to about 39 by 1994. It then generally decreases to about -70 by late 2001, and generally increases to about 45 by early 2005. It then generally decreases to end at about 60. It is at about 60 at the time of the January 2009 survey. Loans to small firms begins at about -24 and generally increases to about 39 by 1994. It then generally decreases to about -48 by late 2001, and generally increases to about 40 by 2004. It then generally decreases to end at about 60. It is at about 60 at the time of the January 2009 survey.

#### *Measures of Supply and Demand for Commercial Real Estate Loans*

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

Line chart, by percent, 1990 to 2009. The January 2009 survey is marked in the time series. The series begins at about 70 and generally decreases to about -10 by 1997. It then generally increases to about 45 by late 1998, and generally decreases to about 8 by 1999. It then generally increases to about 46 by early 2002, and generally decreases to about -23 early 2005. It then generally increases to about 87 by late 2008, and generally decreases to end at about 65. It is at about 80 at the time of the January 2009 survey.

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

Line chart, by percent, 1995 to 2009. The January 2009 survey is marked in the time series. The series begins at about 13 and generally increases to about 25 by late 1995. It then generally decreases to about 2 by 1996, and generally increases to about 48 by 1998. It then generally decreases to about -50 by late 2001, and generally increases to about 25 by 2004. It then generally decreases to end at about -67. It is at about -55 at the time of the January 2009 survey.

#### *Measures of Supply and Demand for Residential Mortgage Loans*

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

Line chart showing All residential, by percent, 1990 to early 2007. The series begins at about 8 and generally increases to about 32 by early 1991. It then generally decreases to about -15 by late 1993, and generally increases to about 10 by early 2003. It then generally decreases to about -9 by 2006, and generally increases to end at about 18.

There is a second line chart, by percent, 2007:Q2 to 2009:Q2. There are three series, "Prime", "Nontraditional" and "Subprime". Prime begins at about 14 and generally increases to about 72 by 2008:Q3. It then generally decreases to end at about 49. Nontraditional begins at about 44 and generally decreases to about 40 by 2007:Q3. It then generally increases to about 90 by 2008:Q4, and generally decreases to about 50 by 2009:Q1. It then generally increases to end at about 62. Subprime begins at about 56 and generally increases to about 98 by 2008:Q4. It then generally decreases to about 50 by 2009:Q1, and generally increases to end at about 99.

Note: For data starting in 2007:Q2, changes in standards for prime, nontraditional, and subprime mortgage loans are reported separately.

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

Line chart showing All residential, by percent, 1990 to early 2007. The series begins at about -48 and generally decreases to about -58 by early 1991. It then generally increases to about 60 by 1991, and generally decreases to about -75 by early 1995. It then generally increases to about 62 by 1998, and generally decreases to about -62 by early 2000. It then generally increases to about 45 by 2003, and generally decreases to about 60 by late 2006. It then generally increases to end at about -38.

There is a second line chart, by percent, 2007:Q2 to 2009:Q2. There are three series, "Prime", "Nontraditional" and "Subprime". Prime begins at about -20 and generally increases to about -10 and generally decreases to about -60 by 2008:Q1. It then generally increases to about -25 by 2008:Q2, and generally decreases to about -52 by 2008:Q4. It then generally increases to end at about 38.



Note: For data starting in 2007:Q2 changes in demand for prime, nontraditional, and subprime mortgage loans are reported separately.

## *Measures of Supply and Demand for Consumer Loans*

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

Line chart, by percent, 1996 to 2009. The January 2009 survey is marked in the time series. There are two series, "Credit cards loans" and "Other consumer loans". Credit card loans begins at about 24 and generally increases to about 49 by 1996. It then generally decreases to about -2 by 2000, and generally increases to about 20 by late 2001. It then generally decreases to about -10 by 2007, and generally increases to about 68 by 2008. It then generally decreases to end at about 59. It is at about 59.5 at the time of the January 2009 survey. Other consumer loans begins at about 18 and generally decreases to about 12 by 1996. It then generally increases to about 22 by 1996, and generally decreases to about 1 by 1999. It then generally increases to about 20 by 2002 and generally decreases to about -10 by 2005. It then generally increases to about 68 by 2008, and generally decreases to end at about 50.

### **Figure: Net Percentage of Domestic Respondents Reporting Increases Willingness to Make Consumer Installment Loans**

Line chart, by percent, 1990 to 2009. The January 2009 survey is marked in the time series. There are two series, "Credit cards loans" and "Other consumer loans". Credit cards loans begins at about 8 and generally decreases to about -15 by early 1991. It then generally increases to about 30 by early 1994, and generally decreases to about -8 by 1996. It then generally increases to about 15 by 1999, and generally decreases to about 8 by late 2001. It then generally increases to about 20 by 2005, and generally decreases to about -45 by late 2008. It then generally increases to end at about -5.

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

Line chart, by percent, late 1991 to 2009. The series begins at about -30 and generally increases to about 38 by 1994. It then generally decreases to about -36 by early 2001, and generally increases to about 30 by 2003. It then generally decreases to about -42 by late 2006, and generally increases to about -21 by 2008. It then generally decreases to about -48 by late 2008, and generally increases to end at about -19.

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

**Last update: April 1, 2015**

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### International Developments

#### Trade in Goods and Services

	Annual rate			Monthly rate			
	2008	2008	2009	2008	2009		
	Q3	Q4	Q1 <sup>e</sup>	Dec.	Jan.	Feb.	
	Percent change						
<i>Nominal BOP</i>							
Exports	-2.9	9.2	-42.6	-36.7	-5.8	-5.9	1.6
Imports	-7.5	6.2	-49.0	-51.4	-5.8	-6.7	-5.1
<i>Real NIPA</i>							
Exports	-1.8	3.0	-23.6	n.a.	...	...	...
Imports	-7.5	-3.5	-17.5	n.a.	...	...	...
	Billions of dollars						
<i>Nominal BOP</i>							
Net exports	-681.1	-723.5	-561.5	-373.1	-39.9	-36.2	-26.0
Goods, net	-820.8	-865.0	-696.5	-502.8	-51.3	-46.9	-36.9
Services, net	139.7	141.5	134.9	129.7	11.4	10.7	10.9

e. BOP data are two months at an annual rate. [Return to table](#)

n.a. Not available. [Return to table](#)

... Not applicable. [Return to table](#)

BOP Balance of payments. [Return to table](#)

NIPA National income and product accounts. [Return to table](#)

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

### U.S. International Trade In Goods and Services

(Quarterly)

#### Figure: Trade Balance

Line chart, by billions of dollars, annual rate, 2000 to February 2009. The series begins at about -210 and generally decreases to about -795 by 2006. It then generally decreases to end at about -380. February 2009 is marked at about -295.

#### Figure: Contribution of Net Exports to Growth of Real Gross Domestic Product

Bar chart, by percentage points, annual rate, 1999 to 2008. The series begins at about -1.6 and generally increases to about 0.05 by 1999. It then generally decreases to about -1.5 by early 2000, and generally increases to about 0.5 by 2001. It then generally decreases to about -1.5 by late 2002, and generally increases to about 0.5 by 2003. It then generally decreases to about -1.5 by 2004, and generally increases to about 0.8 by 2005. It then generally decreases to about -1.3 by early 2007, and generally increases to about 3.0 by 2008. It then generally decreases to end at about -0.1.

#### Figure: Selected Exports

Line chart, by billions of dollars, annual rate, 1999 to early 2009. There are four series, "Capital goods ex. aircraft", "Industrial supplies", "Consumer goods", and "Aircraft". Capital goods ex. aircraft begins at about 249 and generally increases to about 325 by 2000. It then generally decreases to about 235 by early 2002, and

generally increases to about 405 by 2008. It then generally decreases to end at about 315. Industrial supplies begins at about 130 and generally increases to about 160 by 2000. It then generally decreases to about 140 by late 2001, and generally increases to about 405 by 2008. It then generally decreases to end at about 240. Consumer goods begins at about 78 and generally increases to about 162 by 2008. It then generally decreases to end at about 148. Aircraft begins at about 52 and generally decreases to about 48 by 2003. It then generally increases to about 99 by late 2007, and generally decreases to end at about 80.

### Figure: Selected Imports

Line chart, by billions of dollars, annual rate, 1999 to early 2009. There are four series, "Capital goods", "Consumer goods", "Industrial supplies", and "Oil". Capital goods begins at about 275 and generally increases to about 360 by 2000. It then generally decreases to about 270 by late 2001, and generally increases to about 470 by 2008. It then generally decreases to end at about 365. Consumer goods begins at about 235 and generally increases to about 295 by late 2000. It then generally decreases to about 275 by late 2001, and generally increases to about 500 by 2008. It then generally decreases to end at about 422. Industrial supplies begins at about 145 and generally increases to about 190 by early 2001. It then generally decreases to about 150 by early 2002, and generally increases to about 348 by 2008. It then generally decreases to end at about 225. Oil begins at about 45 and generally increases to about 125 by 2000. It then generally decreases to about 80 by early 2002, and generally increases to about 340 by 2006. It then generally decreases to about 270 by late 2006, and generally increases to about 538 by 2008. It then generally decreases to end at about 210.

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

## U.S. Exports and Imports of Goods and Services

(Billions of dollars; annual rate, balance of payments basis)

	Levels				Change <sup>1</sup>			
	2008	2009	2009		2008	2009	2009	
	Q4	Q1 <sup>e</sup>	Jan.	Feb.	Q4	Q1 <sup>e</sup>	Jan.	Feb.
<b>Exports of goods and services</b>	<b>1692.0</b>	<b>1508.9</b>	<b>1496.7</b>	<b>1521.1</b>	<b>-251.7</b>	<b>-183.1</b>	<b>-93.5</b>	<b>24.3</b>
Goods exports	1162.0	1001.6	986.9	1016.3	-223.1	-160.4	-78.1	29.4
Gold	13.4	13.8	15.5	12.0	-4.3	.4	3.0	-3.6
Other goods	1148.6	987.8	971.3	1004.3	-218.7	-160.8	-81.1	33.0
Capital goods	442.4	398.7	397.6	399.7	-45.7	-43.7	-34.7	2.0
Aircraft & parts	71.3	83.5	87.6	79.5	-20.2	12.3	-2.2	-8.1
Computers & accessories	38.9	35.8	35.4	36.1	-7.4	-3.1	-1.6	.7
Semiconductors	44.4	33.0	31.3	34.7	-9.2	-11.4	-5.7	3.4
Other capital goods	287.9	246.3	243.4	249.3	-8.9	-41.5	-25.1	6.0
Automotive	106.9	69.1	66.3	71.9	-24.4	-37.8	-26.2	5.7
Ind. supplies (ex. ag., gold)	296.9	238.4	235.8	241.0	-102.5	-58.5	-11.7	5.2
Consumer goods	154.7	144.6	136.7	152.5	-14.6	-10.1	-10.8	15.8
Agricultural	100.1	93.2	90.8	95.7	-28.0	-6.9	1.7	4.9
All other goods	47.6	43.9	44.2	43.6	-3.3	-3.7	-10.7	-6
Services exports	530.0	507.3	509.8	504.8	-28.6	-22.6	-15.3	-5.1
<b>Imports of goods and services</b>	<b>2253.5</b>	<b>1882.0</b>	<b>1931.3</b>	<b>1832.7</b>	<b>-413.6</b>	<b>-371.5</b>	<b>-137.7</b>	<b>-98.7</b>
Goods imports	1858.5	1504.4	1550.2	1458.6	-391.6	-354.1	-130.0	-91.6
Oil	334.9	210.2	219.1	201.2	-194.1	-124.7	-48.5	-17.9
Gold	6.6	6.4	5.6	7.2	-6.1	-.2	.9	1.6
Other goods	1517.0	1287.8	1325.5	1250.2	-191.4	-229.2	-82.5	-75.3
Capital goods	425.2	368.7	380.2	357.3	-39.7	-56.4	-24.9	-23.0
Aircraft & parts	32.3	29.8	28.5	31.0	-1.9	-2.5	-6.0	2.5
Computers & accessories	86.6	78.4	78.1	78.6	-16.7	-8.2	-.0	.5
Semiconductors	23.1	18.5	18.6	18.4	-3.1	-4.6	-2.1	-.2
Other capital goods	283.2	242.1	255.0	229.2	-18.0	-41.1	-16.8	-25.8

Automotive	195.2	132.7	138.4	127.1	-37.3	-62.5	-39.3	-11.3
Ind. supplies (ex. oil, gold)	285.9	221.0	234.3	207.7	-57.8	-64.9	-7.5	-26.6
Consumer goods	454.1	421.5	429.9	413.2	-46.5	-32.5	-3.8	-16.7
Foods, feeds, beverages	88.3	81.3	82.1	80.5	-3.6	-7.1	-3.2	-1.6
All other goods	68.3	62.5	60.6	64.5	-6.6	-5.8	-3.7	3.9
Services imports	395.0	377.6	381.1	374.1	-22.0	-17.4	-7.7	-7.1
Memo:								
Oil quantity (mb/d)	13.36	14.05	14.66	13.45	1.15	.71	-1.2	-1.21
Oil import price (\$/bbl)	69.35	40.94	40.92	40.96	-48.98	-28.38	-8.65	.04

1. Change from previous quarter or month. [Return to table](#)

e Estimate based on average of two months. [Return to table](#)

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

## Prices of U.S. Imports and Exports

### *Figure: Merchandise Imports*

Line chart, by 12-month percent change, 1999 to early 2009. There are two series, "Core goods" and "Non-oil goods". Core goods begins at about -1.6 and generally increases to about 1.8 by 2000. It then generally decreases to about -3.6 by early 2002, and generally increases to about 8.8 by 2008. It then generally decreases to end at about -3. Non-oil goods begins at about -2.5 and generally increases to about 2.4 by early 2001. It then generally decreases to about -5.2 by early 2002, and generally increases to about 4 by 2005. It then generally decreases to about 0.2 by late 2006, and generally increases to about 7.9 by 2008. It then generally decreases to end at about -3.8.

### *Figure: Categories of Core Imports*

Line chart, by 12-month percent change, 1999 to early 2009. There are two series, "Material-intensive goods" and "Finished goods". Material-intensive goods begins at about -4.5 and generally increases to about 7 by early 2000. It then generally decreases to about -10 by early 2002, and generally increases to about 14 by 2004. It then generally decreases to about 5 by 2005, and generally increases to about 19 by 2008. It then generally decreases to end at about -10.5. Finished goods begins at about -0.5 and remains about constant until about early 2002. It then generally increases to about 2 by 2005 and generally decreases to about 0 by 2006. It then generally increases to about 4 by 2008, and generally decreases to end at about 1.

### *Figure: Oil*

Line chart, by dollars per barrel, 1999 to early 2009. There are two series, "Spot West Texas Intermediate" and "Import unit value". The two series track closely together throughout the chart. They begin at about 14 and generally increase to about 35 by late 2000. They then generally decrease to about 20 by late 2001, and generally increase to about 135 by 2008. They then generally decrease to end at about 50.

### *Figure: Natural Gas*

Line chart, 1999 to early 2009. There are two series, "Import price index" (2000 = 100), and "Spot Henry Hub", which is by dollars per million Btu. These two series use two different scales. Import price index begins at about 52 and generally increases to about 215 by early 2001. It then generally decreases to about 55 by early 2002, and generally increases to about 198 by early 2003. It then generally decreases to about 10 by late 2003, and generally increases to about 275 by late 2005. It then generally decreases to about 120 by late 2006, and generally increases to about 290 by 2008. It then generally decreases to end at about 115. Sport Henry Hub begins at about 2 and generally increases to about 10 by late 1999. It then generally decreases to about 2 by late 2001, and generally increases to about 9 by early 2003. It then generally decreases to about 4 by late 2003, and generally increases to about 15 by 2005. It then generally decreases to about 4.5 by 2006, and generally increases to about 14 by 2008. It then generally decreases to end at about 4.

### *Figure: Merchandise Exports*

Line chart, by 12-month percent change, 1999 to early 2009. There are two series, "Core goods" and "Total goods". Core goods begins at about -2 and Total goods begins at about -2.5. These two series track closely together throughout the chart. They generally increase to about 3 by 2000, and generally decrease to about -2.5 by early 2002. They then generally increase to about 14 by 2008, and generally decrease to end at about -8.

### *Figure: Categories of Core Exports*

Line chart, by 12-month percent change, 1999 to early 2009. There are two series, "Material-intensive goods" and "Finished goods". Material-intensive goods

begins at about -5.5 and generally increases to about 7 by 2000. It then generally decreases to about -6 by late 2001, and generally increases to about 24.5 by 2008. It then generally decreases to end at about -19. Finished goods begins at about 0 and generally increases to about -.5 by 2000. It then generally decreases to about 0 by 2002, and generally increases to end at about 2.5.

Source: Bureau of Labor Statistics; Wall Street Journal; Commodity Research Bureau.

## Prices of U.S. Imports and Exports

(Percentage change from previous period)

	Annual rate			Monthly rate		
	2008		2009	2009		
	Q3	Q4	Q1	Jan.	Feb.	Mar.
	BLS prices					
<b>Merchandise imports</b>	4.1	-47.8	-24.2	-1.2	-.1	.5
Oil	5.8	-93.2	-73.3	-4.9	5.2	10.5
Non-oil	3.3	-11.9	-10.5	-.7	-.7	-.7
Core goods <sup>1</sup>	6.1	-11.6	-11.0	-.8	-.5	-.5
Finished goods	2.3	-1.0	-.7	.2	-.0	-.4
Cap. goods ex. comp. & semi.	4.4	-.2	-.4	.5	-.4	-.4
Automotive products	1.2	-.6	.2	.2	.2	-.2
Consumer goods	1.4	-1.6	-1.5	.0	.1	-.5
Material-intensive goods	13.8	-29.4	-29.8	-3.1	-1.5	-.9
Foods, feeds, beverages	11.1	-16.9	-10.1	.1	-3.2	-1.0
Industrial supplies ex. fuels	14.5	-32.6	-35.0	-4.1	-.9	-.9
Computers	-8.2	-7.2	-8.3	-.7	-.9	-.2
Semiconductors	-6.5	-2.4	-11.0	-2.7	-.8	.1
Natural gas	-25.1	-69.2	-57.6	-5.7	-13.0	-15.8
<b>Merchandise exports</b>	3.8	-21.5	-9.0	.6	-.3	-.6
Core goods <sup>2</sup>	5.2	-24.8	-10.7	.8	-.4	-.7
Finished goods	2.8	1.6	2.2	.6	.1	-.0
Cap. goods ex. comp. & semi.	3.3	1.7	4.3	.9	.3	.1
Automotive products	1.2	1.1	.6	.4	-.3	.2
Consumer goods	3.0	1.5	-1.6	.2	-.2	-.5
Material-intensive goods	7.7	-46.1	-24.5	1.0	-.9	-1.5
Agricultural products	5.8	-53.1	-11.5	6.1	-1.6	-3.5
Industrial supplies ex. ag.	8.5	-44.5	-28.8	-.7	-.6	-.9
Computers	-8.8	-8.6	-9.9	-1.1	-.5	-1.0
Semiconductors	-6.5	-13.8	-3.5	-1.6	1.9	-.6
	NIPA prices					
<b>Chain price index</b>						
Imports of goods & services	9.2	-37.3	n.a.	...	...	...
Non-oil merchandise	2.9	-9.9	n.a.	...	...	...
Core goods <sup>1</sup>	4.6	-8.5	n.a.	...	...	...
Exports of goods & services	6.7	-23.0	n.a.	...	...	...
Total merchandise	5.6	-26.0	n.a.	...	...	...

Core goods <sup>2</sup>	6.6	-27.4	n.a.	...	...	...
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1. Excludes computers, semiconductors, and natural gas. [Return to table](#)

2. Excludes computers and semiconductors. [Return to table](#)

n.a. Not available.

... Not applicable.

BLS Bureau of Labor Statistics. [Return to table](#)

NIPA National income and product accounts.

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

## U.S. Current Account

(Billions of dollars, seasonally adjusted annual rate)

Period	Goods and services, net	Investment income, net	Other income and transfers, net	Current account balance
<i>Annual</i>				
2007	-700.3	88.8	-119.7	-731.2
2008	-681.1	134.8	-127.0	-673.3
<i>Quarterly</i>				
2008: Q1	-713.8	140.3	-134.1	-707.6
Q2	-725.7	120.0	-123.3	-728.9
Q3	-723.5	125.5	-127.2	-725.2
Q4	-561.5	153.5	-123.2	-531.3
<i>Change</i>				
Q1-Q4	-18.6	-12.4	-7.7	-38.7
Q2-Q1	-11.9	-20.3	10.9	-21.3
Q3-Q2	2.1	5.5	-3.9	3.8
Q4-Q3	162.0	28.0	3.9	193.9

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

## Summary of U.S. International Transactions

(Billions of dollars; not seasonally adjusted except as noted)

	2007	2008	2008				2009	
			Q1	Q2	Q3	Q4	Jan.	Feb.
<b>Official financial flows</b>	<b>381.8</b>	<b>-138.3</b>	<b>174.2</b>	<b>96.2</b>	<b>-117.4</b>	<b>-291.3</b>	<b>186.5</b>	<b>100.6</b>
1. Change in foreign official assets in the U.S. (increase, +)	406.0	396.3	169.4	140.5	108.9	-22.6	20.6	34.4
a. <u>G-10</u> countries + <u>ECB</u>	36.8	-8.4	-1.6	0.3	8.9	-16.0	-10.9	-2.7
b. <u>OPEC</u>	33.0	45.5	16.5	16.3	16.1	-3.4	-2.2	-8.1
c. All other countries	336.2	346.3	154.5	124.0	83.9	-16.1	33.8	45.2
2. Change in U.S. official assets (decrease, +) <sup>1</sup>	-24.1	-534.6	4.7	-44.3	-226.4	-268.7	165.9	66.1
<b>Private financial flows</b>	<b>392.5</b>	<b>684.9</b>	<b>13.1</b>	<b>24.4</b>	<b>264.8</b>	<b>368.1</b>	...	...
<b>Banks</b>								
3. Change in net foreign positions of banking offices in the U.S. <sup>2</sup>	-81.7	-14.5	-174.9	-89.0	-53.6	303.0	-68.0	-154.7
<b>Securities<sup>3</sup></b>								
4. Foreign net purchases (+) of U.S. securities	746.4	187.2	45.3	81.0	1.0	60.0	-76.1	19.8
a. Treasury securities	152.5	305.9	62.9	65.1	87.8	90.0	-43.3	38.1

b. Agency bonds	18.5	-137.3	-19.8	-35.6	-56.8	-25.1	-18.0	-12.2
c. Corporate and municipal bonds	384.3	7.6	-10.6	52.1	-32.6	-1.3	-14.7	-0.3
d. Corporate stocks <sup>4</sup>	191.1	11.0	12.8	-0.7	2.6	-3.6	-0.1	-5.8
5. U.S. net acquisitions (-) of foreign securities	-292.1	90.1	-35.9	-34.0	84.1	76.0	-29.1	-0.9
a. Bonds	-172.9	86.4	-8.5	-12.1	70.0	37.0	-28.8	-1.4
b. Stock purchases	-107.9	7.3	-26.6	-19.9	14.1	39.7	1.6	0.6
c. Stock swaps <sup>4</sup>	-11.3	-3.6	-0.8	-2.0	0.0	-0.8	-1.9	0.0
Other flows <sup>5</sup>								
6. U.S. direct investment (-) abroad	-333.3	-317.8	-93.3	-86.8	-52.4	-85.3	...	...
7. Foreign direct investment in the U.S.	237.5	325.3	81.5	105.8	57.3	80.6	...	...
8. Net derivatives (inflow, +)	6.5	-28.9	-8.0	-2.4	-4.1	-14.5	...	...
9. Foreign acquisitions of U.S. currency	-10.7	35.0	-0.9	0.2	5.8	29.9	...	...
10. Other (inflow, +) <sup>6</sup>	119.9	408.6	199.2	49.6	226.6	-81.5	...	...
<b>U.S. current account balance<sup>5</sup></b>	<b>-731.2</b>	<b>-673.3</b>	<b>-176.9</b>	<b>-182.2</b>	<b>-181.3</b>	<b>-132.8</b>	...	...
<b>Capital account balance<sup>7</sup></b>	<b>-1.8</b>	<b>-2.6</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.7</b>	<b>-0.6</b>	...	...
<b>Statistical discrepancy<sup>5</sup></b>	<b>-41.3</b>	<b>129.3</b>	<b>-9.7</b>	<b>62.3</b>	<b>34.7</b>	<b>56.6</b>	...	...

Note: Data in lines 1 through 5 differ in timing and coverage from the balance of payments data published by the Department of Commerce. Details may not sum to totals because of rounding.

1. Includes changes in U.S. official reserve assets and in outstanding reciprocal currency swaps with certain foreign central banks. [Return to table](#)

2. Changes in dollar-denominated positions of all depository institutions and bank holding companies plus certain transactions between broker-dealers and unaffiliated foreigners (particularly borrowing and lending under repurchase agreements). Includes changes in custody liabilities other than U.S. Treasury bills. [Return to table](#)

3. Includes commissions on securities transactions and therefore does not match exactly the data on U.S. international transactions published by the Department of Commerce. [Return to table](#)

4. Includes (4d) or represents (5c) stocks acquired through nonmarket means such as mergers and reincorporations. [Return to table](#)

5. Quarterly data; seasonally adjusted. [Return to table](#)

6. Transactions by nonbanking concerns and other banking and official transactions not shown elsewhere plus amounts resulting from adjustments made by the Department of Commerce and revisions (in lines 1 through 5 and 8) since publication of the quarterly data in the Survey of Current Business. [Return to table](#)

7. Seasonally adjusted; consists of transactions in nonproduced nonfinancial assets and capital transfers. [Return to table](#)

G-10 Group of Ten (Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, United Kingdom, United States). [Return to table](#)

ECB European Central Bank. [Return to table](#)

OPEC Organization of the Petroleum Exporting Countries. [Return to table](#)

... Not applicable.

Source: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Treasury International Capital reports with staff adjustments.

## Foreign Official Financial Inflows (+) through February 2009

(Billions of dollars; monthly rate, not seasonally adjusted)

### Figure: Total

Line chart, 2004 to 2009. There are two series, "Monthly" and "6-month moving average". Monthly begins at about 58 and generally decreases to about 4 by early 2005. It then generally increases to about 62 by 2006, and generally decreases to about -30 by 2007. It then generally increases to about 100 by early 2008, and generally decreases to about -10 by late 2008. It then generally increases to end at about 32. 6-month moving average begins at about 35 and generally increases to about 40 by 2004. It then generally decreases to about 17 by 2005, and generally increases to about 49 by 2007. It then generally decreases to about 18 by 2007, and generally increases to about 55 by 2008. It then generally decreases to end at about 15.

### Figure: Treasury Securities

Line chart, 2004 to 2009. There are two series, "Monthly" and "6-month moving average". Monthly begins at about 35 and generally increases to about 42 by 2004. It then generally decreases to about -10 by 2005, and generally increases to about 33 by early 2006. It then fluctuates but generally decreases to about -35 by 2007, and generally increases to about 80 by late 2008. It then generally decreases to about 22 by early 2009, and generally increases to end at about 52. 6-month moving average begins at about 22 and generally increases to about 32 by 2004. It then generally decreases to about 6 by 2005, and generally increases to about 20 by 2006. It then generally decreases to about 3 by 2007, and generally increases to end at about 52.

### *Figure: Agency Securities*

Line chart, 2004 to 2009. There are two series, "Monthly" and "6-month moving average". Monthly begins at about 5 and fluctuates but generally increases to about 35 by early 2007. It then generally decreases to about -2 by late 2007, and generally increases to about 38 by 2008. It then generally decreases to about -41 by late 2008, and generally increases to end at about -4. 6-month moving average begins at about 5 and generally decreases to about 1 by 2004. It then generally increases to about 28 by 2007, and generally decreases to about 6 by early 2008. It then generally increases to about 30 by 2008, and generally decreases to end at about -17.

### *Figure: Foreign Official Balances Held at the Federal Reserve Bank of New York, Daily through April 3, 2009*

Line chart, 2007 to 2009. There are two series, "Treasury securities" and "Agency securities". Treasury securities begins at about 1150 and generally increases to about 1210 by mid-2007. It then generally decreases to about 1190 by mid-2007, and generally increases to end at about 1740. Agency securities begins at about 600 and generally increases to about 990 by 2008. It then generally decreases to end at about 800.

Source: U.S. Treasury International Capital reports with staff adjustments and the Federal Reserve Bank of New York.

## Private Securities Flows through February 2009

(Billions of dollars; monthly rate, not seasonally adjusted)

### *Foreign Net Purchases (+) of U.S. Securities*

#### **Figure: Total**

Line chart, 2003 to early 2009. There are two series, "Monthly" and "6-month moving average". Monthly begins at about 15 and generally decreases to about -10 by 2003. It then generally increases to about 64 by 2003, and generally decreases to about -15 by late 2003. It then fluctuates but generally increases to about 150 by 2007, and then fluctuates but generally decreases to about -75 by early 2009. It then generally increases to end at about 20. 6-month moving average begins at about 25 and generally increases to about 48 by 2003. It then generally decreases to about 20 by early 2004, and generally increases to about 95 by 2007. It then generally decreases to end at about 5.

#### **Figure: Treasury Securities**

Line chart, 2003 to early 2009. There are two series, "Monthly" and "6-month moving average". Monthly begins at about -8 and generally increases to about 35 by 2003. It then generally decreases to about -20 by late 2003, and generally increases to about 42 by 2005. It then fluctuates but generally decreases to about -40 by 2006, and fluctuates but generally increases to about 95 by late 2008. It then generally decreases to about -41 by early 2009, and generally increases to end at about 39. 6-month moving average begins at about 8 and generally increases to about 25 by 2003. It then fluctuates but generally decreases to about -12 by 2006, and generally increases to about 35 by 2008. It then generally decreases to end at about 20.

#### **Figure: Agency Bonds**

Line chart, 2003 to early 2009. There are two series, "Monthly" and "6-month moving average". Monthly begins at about 8 and generally decreases to about -18 by late 2003. It then fluctuates but generally increases to about 15 by late 2004, and fluctuates but generally decreases to about -20 by early 2007. It then generally increases to about 18 by late 2007, and generally decreases to about -39 by 2008. It then fluctuates but generally increases to end at about -10. 6-month moving average begins at about 9 and generally decreases to about -8 by late 2003. It then generally increases to about 10 by late 2005, and generally decreases to about -8 by early 2007. It then generally increases to about 8 by late 2007, and generally decreases to about -22 by 2008. It then generally increases to end at about -5.

#### **Figure: Corporate and Municipal Bonds**

Line chart, 2003 to early 2009. There are two series, "Monthly" and "6-month moving average". Monthly begins at about 20 and fluctuates but generally decreases to about 8 by early 2004. It then generally increases to about 44 by 2005, and generally decreases to about 23 by early 2006. It then generally increases to about 88 by 2007, and generally decreases to about -8 by 2007. It then generally increases to about 41 by 2008, and generally decreases to about -20 by late 2008. It then generally increases to about 34 by early 2009, and generally decreases to end at about 0. 6-month moving average begins at about 10 and generally increases to about 59 by early 2007. It then generally decreases to about -17 by late 2008, and generally increases to end at about -5.

#### **Figure: Corporate Stocks**

Line chart, 2003 to early 2009. There are two series, "Monthly" and "6-month moving average". Monthly begins at about -4 and generally increases to about 12 by late 2003. It then generally decreases to about -10 by early 2004, and generally increases to about 32 by late 2004. It then generally decreases to about -10 by late 2006, and generally increases to about 44 by 2007. It then generally decreases to about -39 by 2007, and generally increases to about 30 by late 2007. It then fluctuates but generally decreases to end at about -6.

### U.S. Net Acquisitions (-) of Foreign Securities

#### Figure: Total

Line chart, 2003 to early 2009. There are two series, "Monthly" and "6-month moving average". Monthly begins at about -8 and fluctuates but generally increases to about 10 by late 2004. It then fluctuates but generally decreases to about -60 by early 2007, and generally increases to about 15 by late 2007. It then generally decreases to about -30 by 2008, and generally increases to about 34 by late 2008. It then generally decreases to about -30 by early 2009, and generally increases to end at about 1. 6-month moving average begins at about -8 and generally decreases to about -40 by 2007. It then generally increases to about 30 by late 2008, and generally decreases to end at about 12.

#### Figure: Bonds

Line chart, 2003 to early 2009. There are two series, "Monthly" and "6-month moving average". Monthly begins at about 0 and fluctuates but generally decreases to about -24 by 2004. It then generally increases to about 12 by 2005, and fluctuates but generally decreases to about -38 by early 2007. It then generally fluctuates but generally increases to about 37 by 2008, and generally decreases to about -30 by early 2009. It then generally increases to end at about 2. 6-month moving average begins at about 2 and generally decreases to about -10 by early 2005. It then generally increases to about 5 by late 2005, and generally decreases to about -25 by early 2007. It then generally increases to about 20 by late 2008, and generally decreases to end at about 7.

#### Figure: Stock Purchases & Swaps

Line chart, 2003 to early 2009. There are two series, "Monthly" and "6-month moving average". Monthly begins at about -8 and generally decreases to about -23 by 2004. It then generally increases to about 16 by late 2004, and fluctuates but generally decreases to about -35 by late 2006. It then fluctuates but generally increases to about 20 by 2008, and generally decreases to end at about 0.5. 6-month moving average begins at about 2 and generally decreases to about -12 by late 2003. It then generally increases to about 2 by late 2004, and generally decreases to about -20 by early 2006. It then generally increases to about 5 by late 2006, and generally decreases to about -18 by 2007. It then generally increases to about 8 by late 2008, and generally decreases to end at about 5.

Source: For all figures, U.S. Treasury International Capital reports with staff adjustments.

## Exchange Value of the Dollar and Stock Market Indexes

	Latest	Percent change since March Greenbook
<i>Exchange rates*</i>		
Euro (\$/euro)	1.2936	-1.3
Yen (¥/\$)	97.8	0.0
Sterling (\$/£)	1.4421	-4.4
Canadian dollar (C\$/)\$)	1.2468	-2.7
<i>Nominal dollar indexes*</i>		
Broad index	110.5	-2.9
Major currencies index	83.5	-1.9
OITP index	138.9	-4.0
<i>Stock market indexes</i>		
DJ Euro Stoxx	207.6	15.5
TOPIX	830.0	14.9
FTSE 100	3971.2	7.5
S&P 500	847.3	17.7

\* Positive percent change denotes appreciation of U.S. dollar. [Return to table](#)



### Figure: Exchange Value of the Dollar

Line chart, 2004 to 2009. January 2, 2004 = 100. Data are weekly. There are three series, "Major currencies index", "Euro", and "Yen". Major currencies index begins at about 100 and generally increases to about 108 by 2004. It then generally decreases to about 94 by late 2004, and generally increases to about 100 by 2006. It then generally decreases to about 82 by 2008, and generally increases to end at about 98. Euro begins at about 100 and generally increases to about 107 by 2004. It then generally decreases to about 94 by late 2004, and generally increases to about 107 by 2005. It then generally decreases to about 79 by 2008, and generally increases to end at about 96. Yen begins at about 100 and generally increases to about 107 by 2004. It then generally decreases to about 97 by late 2004, and generally increases to about 115 by 2007. It then generally decreases to about 83 by early 2009, and generally increases to end at about 92.

There is a second line chart, December 2008 to April 2009. March 11, 2009 = 100. Data are daily. The March 2009 Greenbook is marked in the time series. There are three series, "Major currencies index", "Euro", and "Yen". Major currencies index begins at about 98 and generally increases to about 101 by December. It then generally decreases to about 90 by mid-December, and generally increases to about 101 by early March 2009. It then generally decreases to about 95 by March, and generally increases to end at about 98. It is at about 100 at the time of the March 2009 Greenbook. Euro begins at about 101 and generally decreases to about 90 by late December. It then generally increases to about 102 by February, and generally decreases to about 93 by March 2009. It then generally increases to end at about 99. It is at about 100 at the time of the March 2009 Greenbook. Yen begins at about 96 and generally decreases to about 91 by mid-December. It then generally increases to about 96 by early January, and generally decreases to about 90 by January. It then generally increases to about 101.5 by early March, and generally decreases to about 97 by March. It then generally increase to about 103 by early April, and generally decreases to end at about 100. It is at about 100 at the time of the March 2009 Greenbook.

### Figure: Stock Market Indexes

Line chart, 2003 to 2009. January 2, 2004 = 100. Data are weekly. There are three series, "Major currencies index", "Euro", and "Yen". Major currencies index begins at about 100 and generally increases to about 175 by 2007. It then generally decreases to about 70 by 2009, and generally increases to end at about 85. TOPIX begins at about 100 and generally increases to about 165 by 2006. It then generally decreases to end at about 80. S&P 500 begins at about 100 and generally increases to about 135 by 2007. It then generally decreases to end at about 72.

There is a second line chart, December 2008 to April 2009. March 11, 2009 = 100. Data are daily. The March 2009 Greenbook is marked in the time series. There are three series, "Major currencies index", "Euro", and "Yen". Major currencies index begins at about 118 and generally increases to about 131 by early January. It then generally decreases to about 93 by March, and generally increases to end at about 116. Euro begins at about 110 and generally increases to about 122 by January. It then generally decreases to about 98 by March, and generally increases to end at about 115. Yen begins at about 118 and generally increases to about 131 by early January. It then generally decreases to about 100 by March, and generally increases to about end at about 119. They are at about 99 at the time of the March 2009 Greenbook.

## Industrial Countries: Nominal and Real Interest Rates

Percent

	3-month Libor		10-year nominal		10-year indexed	
	Latest	Change since Mar. Greenbook	Latest	Change since Mar. Greenbook	Latest	Change since Mar. Greenbook
Germany	1.40	-0.26	3.13	0.06	1.30	-0.26
Japan	0.56	-0.07	1.42	0.11	3.14	-0.69
United Kingdom	1.50	-0.39	3.41	0.32	0.90	-0.47
Canada	0.90	-0.17	2.94	-0.05	...	...
United States	1.10	-0.23	2.94	-0.05	1.94	-0.56

... Not applicable.

Libor London interbank offered rate. [Return to table](#)

### Figure: Nominal 10-Year Government Bond Yields

Line chart, by percent, 2004 to 2009. Data are weekly. There are three series, "Germany", "Japan", and "United States". Germany begins at about 4.2 and generally decreases to about 3.1 by 2005. It then generally increases to about 4.8 by 2008, and generally decreases to end at about 3.1. Japan begins at about 1.4 and generally increases to about 1.9 by 2004. It then generally decreases to about 1.2 by mid-2005, and generally increases to about 2 by 2006. It then generally decreases to about 1.2 by early 2008, and generally increases to about 1.9 by 2008. It then generally decreases to end at about 1.4. United States begins at about 4.1 and generally increases to about 4.9 by 2004. It then generally decreases to about 4 by 2005, and generally increases to about 5.2 by 2006. It then generally decreases to about 2.2 by late 2008, and generally increases to end at about 2.9.

There is a second line chart, December 2008 to April 2009. Data are daily. The March 2009 Greenbook is marked in the time series. There are three series, "Germany", "Japan", and "United States". Germany begins at about 3.05 and generally increases to about 3.35 by December. It then generally decreases to about 2.9 by January, and generally increases to about 3.4 by February. It then generally decreases to end at about 3.1. It is at about 3.0 at the time of the March 2009 Greenbook. Japan begins at about 1.4 and generally decreases to about 1.1 by early January. It then generally increases to end at about 1.45. It is at about 1.3 at

the time of the March 2009 Greenbook. United States begins at about 2.6 and generally decreases to about 2.1 by December. It then generally increases to about 3.0 by February, and generally decreases to about 2.5 by March. It then generally increases to end at about 2.95. It is at about 3.0 at the time of the March 2009 Greenbook.

### *Figure: Inflation-Indexed 10-Year Government Bond Yields*

Line chart, by percent, 2004 to 2009. Data are weekly. There are three series, "France", "Japan", and "United States". Japan first issued inflation-indexed debt in March 2004. France begins at about 2 and generally decreases to about 1 by 2005. It then generally increases to about 2.4 by 2007, and generally decreases to end at about 1.2. Japan begins at about 1 and generally decreases to about 0.2 by 2005. It then generally increases to about 5 by late 2008, and generally decreases to end at about 3. United States begins at about 2 and generally decreases to about 1.5 by 2004. It then generally increases to about 2.7 by 2007, and generally decreases to about 1.2 by 2008. It then generally increases to about 3.6 by late 2008, and generally decreases to end at about 2.

There is a second line chart, December 2008 to April 2009. Data are daily. The March 2009 Greenbook is marked in the time series. There are three series, "France", "Japan", and "United States". France begins at about 2.3 and generally decreases to about 1.3 by January. It then generally increases to about 2 by early March, and generally decreases to end at about 1.3. It is at about 1.7 at the time of the March 2009 Greenbook. Japan begins at about 4 and generally increases to about 5.2 by December. It then generally decreases to about 2.8 by late January, and generally increases to about 4 by late February. It then generally decreases to end at about 3.1. It is at about 3.9 at the time of the March 2009 Greenbook. United States begins at about 3 and generally decreases to about 1.9 by February. It then generally increases to about 2.4 by March, and generally decreases to end at about 2. It is at about 2.4 at the time of the March 2009 Greenbook.

## Measures of Market Volatility

### *Figure: Dollar-Euro Options-Implied Volatility*

Line chart, by percent, 2004 to 2009. Data are weekly. There are two series, "1-month" and "3-month". These two series track closely together throughout the chart. They begin at about 11 and generally decrease to about 5 by 2007. They then generally increase to about 27 by late 2008, and generally decrease to end at about 14.

There is a second line chart, December 2008 to April 2009. Data are daily. The March 2009 Greenbook is marked in the time series. There are two series, "1-month" and "3-month". These two series track closely together throughout the chart. They begin at about 23 and generally decrease to about 17.5 by December. They then generally increase to about 28 by January, and generally decrease to end at about 13.9. They are at about 16 at the time of the March 2009 Greenbook.

Note: Derived from at-the-money options.

### *Figure: Yen-Dollar Options-Implied Volatility*

Line chart, by percent, 2004 to 2009. Data are weekly. There are two series, "1-month", and "3-month". These two series track closely together throughout the chart. They begin at about 9 and remain about constant until about mid-2007. They then generally increase to about 34 by late 2008, and generally decrease to end at about 15.

There is a second line chart, December 2008 to April 2009. Data are daily. The March 2009 Greenbook is marked in the time series. There are two series, "1-month", and "3-month". 1-month begins at about 22.5 and generally decreases to about 19 by December. It then generally increases to about 23.8 by mid-December, and generally decreases to about 17.5 by late December. It then generally increases to about 25 by January, and generally decreases to about 16.5 by February. It then generally increases to about 21 by March, and generally decreases to end at about 16.7. It is at about 18 at the time of the March 2009 Greenbook. 3-month begins at about 20.2 and generally decreases to about 18.2 by December. It then generally increases to about 21.2 by mid-December, and generally decreases to about 17.1 by early January. It then generally increases to about 21 by mid-January, and generally decreases to about 16 by February. It then generally increases to about 19 by March, and generally decreases to end at about 14.6. It is at about 17.1 at the time of the March 2009 Greenbook.

Note: Derived from at-the-money options.

### *Figure: Realized Stock Market Volatility*

Line chart, by percent, 2004 to 2009. Data are weekly. There are three series, "DJ Euro Stoxx", "TOPIX", and "S&P 500". DJ Euro Stoxx begins at about 10 and remains about constant until about mid-2007. It then generally increases to about 60 by late 2008, and generally decreases to end at about 35. TOPIX begins at about 25 and generally decreases to about 12 by 2004. It then generally increases to about 25 by 2004, and generally decreases to about 10 by early 2005. It then generally increases to about 65 by late 2008, and generally decreases to end at about 30. S&P 500 begins at about 10 and remains about constant until about mid-2007. It then generally increases to about 71 by late 2008, and generally decreases to end at about 40.

There is a second line chart, December 2008 to April 2009. Data are daily. The March 2009 Greenbook is marked in the time series. There are three series, "DJ Euro Stoxx", "TOPIX", and "S&P 500". DJ Euro Stoxx begins at about 60 and generally decreases to about 29 by early March. It then generally increases to end at about 35. It is at about 31 at the time of the March 2009 Greenbook. TOPIX begins at about 63 and generally decreases to about 29 by March. It then generally increases to end at about 30. It is at about 29 at the time of the March 2009 Greenbook. S&P 500 begins at about 72 and generally decreases to about 34 by late February. It then generally increases to end at about 40. It is at about 37 at the time of the March 2009 Greenbook.

Note: Annualized standard deviation of 60-day window of daily returns.

### Figure: Realized 10-Year Bond Volatility

Line chart, by percent, 2004 to 2009. Data are weekly. There are three series, "Germany", "Japan", and "United States". Germany begins at about 5 and remains about constant until about mid-2006. It then generally decreases to about 3 by early 2007, and generally increases to end at about 9. Japan begins at about 5 and generally decreases to about 3.5 by early 2004. It then generally increases to about 6 by 2004, and generally decreases to about 3 by early 2005. It then generally increases to about 6 by 2006, and generally decreases to about 3 by early 2007. It then generally increases to about 7 by 2008, and generally decreases to end at about 3. United States begins at about 8 and generally decreases to about 4 by 2006. It then generally increases to about 16 by late 2008, and generally decreases to about 12 by 2009. It then generally increases to end at about 15.

There is a second line chart, December 2008 to April 2009. Data are daily. The March 2009 Greenbook is marked in the time series. There are three series, "Germany", "Japan", and "United States". Germany begins at about 9 and generally decreases to about 8 by early January. It then generally increases to end at about 9. It is at about 9 at the time of the March 2009 Greenbook. Japan begins at about 4.5 and generally decreases to end at about 3. It is at about 3.9 at the time of the March 2009 Greenbook. United States begins at about 16.2 and generally decreases to about 11.9 by March. It then generally increases to end at about 15. It is at about 12 at the time of the March 2009 Greenbook.

Note: Annualized standard deviation of 60-day window of daily returns.

## Emerging Markets: Exchange Rates and Stock Market Indexes

	Exchange value of the dollar		Stock market index	
	Latest	Percent change since	Latest	Percent change since
		Mar. Greenbook*		Mar. Greenbook
Mexico	13.2200	-12.8	21217	20.9
Brazil	2.2343	-4.3	44760	15.4
Venezuela	2.14	0.0	44364	18.3
China	6.8301	-0.1	2461	15.1
Hong Kong	7.7485	-0.1	14878	24.7
Korea	1355.5	-7.5	1356	20.3
Taiwan	33.85	-1.8	5886	23.7
Thailand	35.55	-1.0	461	11.2

\* Positive percent change denotes appreciation of U.S. dollar. [Return to table](#)

### Figure: Exchange Value of the Dollar

Line chart, 2004 to 2009. January 2, 2004 = 100. Data are weekly. There are four series, "Mexico", "Brazil", "Korea", and "China". Mexico begins at about 98 and remains about constant until about early 2008. It then generally decreases to about 89 by 2008, generally increases to about 140 by 2009, and generally decreases to end at about 113. Brazil begins at about 100 and generally increases to about 109 by 2004. It then generally decreases to about 52 by 2008, and generally increases to end at about 75. Korea begins at about 100 and generally decreases to about 78 by late 2006. It then generally increases to about 135 by 2009, and generally decreases to end at about 112.

There is a second line chart, December 2008 to April 2009. March 11, 2009 = 100. Data are daily. The March 2009 Greenbook is marked in the time series. There are four series, "Mexico", "Brazil", "Korea", and "China". Mexico begins at about 89 and generally increases to about 101 by March. It then generally decreases to end at about 87. It is at about 100 at the time of the March 2009 Greenbook. Brazil begins at about 101 and generally increases to about 111 by December. It then generally decreases to about 93 by early January, and generally increases to about 105 by early March. It then generally decreases to end at about 97. It is at about 100 at the time of the March 2009 Greenbook. Korea begins at about 98 and generally increases to about 100.5 by December. It then generally decreases to about 86 by early January, and generally increases to about 108 by early March. It then generally decreases to end at about 92. It is at about 102 at the time of the March 2009 Greenbook. China begins at about 100.5 and remains about constant throughout the chart ending at about 100. It is at about 100 at the time of the March 2009 Greenbook.

### Figure: Stock Market Indexes

Line chart, 2004 to 2009. January 2, 2004 = 100. Data are weekly. There are four series, "Mexico", "Brazil", "Korea", and "Hong Kong". Mexico begins at about 100 and generally increases to about 380 by 2007. It then generally decreases to about 181 by 2009, and generally increases to end at about 280. Brazil begins at about 100 and generally increases to about 330 by 2008. It then generally decreases to about 160 by late 2008, and generally increases to end at about 200. Korea begins at about 100 and generally increases to about 255 by late 2007. It then generally decreases to about 120 by late 2008, and generally increases to end at about 170. Hong Kong begins at about 100 and generally increases to about 250 by late 2007. It then generally decreases to about 100 by 2009, and generally increases to end at about 120.

There is a second line chart, December 2008 to April 2009. March 11, 2009 = 100. Data are daily. The March 2009 Greenbook is marked in the time series. There are four series, "Mexico", "Brazil", "Korea", and "Hong Kong". Mexico begins at about 112 and generally increases to about 133 by early January. It then generally decreases to about 94 by early March, generally increases to about 137 by April, and generally decreases to end at about 120.5. It is at about 105 at the time of the March 2009 Greenbook. Brazil begins at about 90 and generally increases to about 103 by December. It then generally decreases to about 94 by late December, and generally increases to about 110.5 by early January. It then generally decreases to about 93 by January, and generally increases to about 111 by early February. It then generally decreases to about 94 by March, and generally increases to end at about 115. It is at about 100.5 at the time of the March 2009 Greenbook. Korea begins at about 94 and generally decreases to about 90 by December. It then generally increases to about 110.5 by early January, and generally decreases to about 98 by January. It then generally increases to about 108 by February, and generally decreases to about 90 by early March. It then generally increases to end at about 120. It is at about 100 at the time of the March 2009 Greenbook. Hong Kong begins at about 118 and generally increases to about 130.5 by December. It then generally decreases to about 106 by January, and generally increases to about 113 by February. It then generally decreases to about 97 by March, generally increases to about 132 by April, and generally decreases to end at about 125. It is at about 100 at the time of the March 2009 Greenbook.

## Emerging Markets: Short-Term Interest Rates and Dollar-Denominated Bond Spreads

Percent

	Short-term interest rates*		Dollar-denominated bond spreads**	
	Latest	Change since Mar. Greenbook	Latest	Change since Mar. Greenbook
Mexico	5.89	-1.33	3.39	-0.58
Brazil	11.08	-0.32	3.94	-0.43
Argentina	13.13	0.19	17.67	0.10
China	...	...	1.79	0.17
Korea	2.10	-1.15	...	...
Taiwan	1.08	-0.06	...	...
Singapore	0.31	0.00	...	...
Hong Kong	0.27	-0.08	...	...

\* One-month interest rate except 1-week rate for Korea. (No reliable short-term interest rate exists for China.) [Return to table](#)

\*\* EMBI+ Spreads or EMBI Global Spreads over similar-maturity U.S. Treasury securities. [Return to table](#)

... Not applicable. Korea, Taiwan, and Hong Kong have no outstanding dollar-denominated sovereign bonds. [Return to table](#)

### Figure: EMBI+ Spreads

Line chart, by percent, 2004 to 2009. Data are weekly. There are three series, "Overall", "Mexico", and "Brazil". Overall begins at about 4 and generally increases to about 5.5 by 2004. It then generally decreases to about 1.2 by 2007, and generally increases to about 8 by late 2008. It then generally decreases to end at about 5.5. Mexico begins at about 1.9 and generally decreases to about 0.8 by 2007. It then generally increases to about 6 by late 2008, and generally decreases to end at about 3.2. Brazil begins at about 4.4 and generally increases to about 7.5 by 2004. It then generally decreases to about 1.5 by 2007, and generally increases to about 6 by late 2008. It then generally decreases to end at about 4.

There is a second line chart, December 2008 to April 2009. Data are daily. The March 2009 Greenbook is marked in the time series. There are three series, "Overall", "Mexico", and "Brazil". Overall begins at about 7.5 and generally decreases to end at about 5.6. It is at about 6.6 at the time of the March 2009 Greenbook. Mexico begins at about 4.5 and generally decreases to about 3.2 by early January. It then generally increases to about 4.1 by early March, and generally decreases to end at about 3.5. It is at about 4 at the time of the March 2009 Greenbook. Brazil begins at about 5 and generally decreases to end at about 4. It is at about 4.3 at the time of the March 2009 Greenbook.

### Figure: EMBI Global Spreads

Line chart, by percent, 2004 to 2009. Data are weekly. There are three series, "China", "Malaysia", and "Indonesia". China begins at about 0.5 and remains about constant until about mid-2007. It then generally increases to end at about 2. Malaysia begins at about 1 and generally decreases to about 0.5 by 2007. It then generally increases to about 4.5 by late 2008, and generally decreases to end at about 3.5. Indonesia begins in May 2004 at about 4 and generally decreases to about 1.8 by 2007. It then generally increases to about 10.5 by late 2008, and generally decreases to end at about 6.

There is a second line chart, December 2008 to April 2009. Data are daily. The March 2009 Greenbook is marked in the time series. There are three series, "China", "Malaysia", and "Indonesia". China begins at about 2.5 and generally decreases to about 1.5 by February. It then generally increases to end at about 1.9. It is at about 1.8 at the time of the March 2009 Greenbook. Malaysia begins at about 4 and generally decreases to end at about 3. It is at about 3.2 at the time of the March 2009 Greenbook. Indonesia begins at about 9 and generally decreases to about 7 by early January. It then generally increases to about 8.8 by early March, and generally decreases to end at about 6.5. It is at about 8 at the time of the March 2009 Greenbook.

## Advanced Foreign Economies

### *Figure: Average Real Gross Domestic Product*

Line chart, by annualized percent change, s.a., 1999 to 2008. Data are quarterly. The series begins at about 3.6 and generally increases to about 5.4 by early 2000. It then generally decreases to about -0.5 by 2001, and generally increases to about 3.7 by 2003. It then fluctuates but generally decreases to end at about -5.5.

Note: Chain weighted by moving bilateral shares in U.S. merchandise exports.

Source: FRB staff calculations.

### *Figure: Consumer Prices*

Line chart, by 12-month percent change, s.a., 1999 to 2009. Data are monthly. The series begins at about four, "Japan", "Euro area", "Canada", and "United Kingdom". Japan begins at about 0.3 and generally decreases to about -1.6 by early 2002. It then generally increases to about 0.9 by late 2004, and generally decreases to about -1.4 by late 2005. It then generally increases to about 2.3 by 2008, and generally decreases to end at about 0. Euro area begins at about 0.8 and generally increases to about 3 by 2001. It then generally decreases to about 1.5 by 2006, and generally increases to about 4 by 2008. It then generally decreases to end at about 0.5. Canada begins at about 0.9 and generally increases to about 3.9 by 2001. It then generally decreases to about 0.6 by late 2001, and generally increases to about 4.5 by early 2003. It then generally decreases to about 0.7 by 2004, and generally increases to about 3.2 by 2005. It then generally decreases to about 0.7 by 2006, and generally increases to about 3.4 by 2008. It then generally decreases to end at about 1. United Kingdom begins at about 1, and generally decreases to about 0.5 by 2000. It then generally increases to about 3 by early 2007, and generally decreases to about 1.8 by 2007. It then generally increases to about 5.2 by 2008, and generally decreases to end at about 2.9.

Source: Haver Analytics.

### *Figure: Official or Targeted Interest Rates*

Line chart, by percent, 1999 to 2009. There are four series, "Japan", "Euro area", "Canada", and "United Kingdom". Japan begins at about 0.2 and generally decreases to about 0 by late 1999. It then generally increases to about 0.3 by 2000, and generally decreases to about 0 by 2001. It then remains about constant until mid-2006, and generally increases to about 0.5 by early 2007. It then generally decreases to end at about 0.1. Euro area begins at about 3 and generally decreases to about 2.5 by 1999. It then generally increases to about 4.7 by late 2000, and generally decreases to about 2 by 2003. It then remains about constant until late 2005, and generally increases to about 4.2 by 2008. It then generally decreases to end at about 1.2. Canada begins at about 5 and generally decreases to about 4.5 by 1999. It then generally increases to about 5.7 by 2000, and generally decreases to about 2 by early 2002. It then generally increases to about 3.2 by 2003, and generally decreases to about 2 by 2004. It then generally increases to about 4.5 by 2007, and generally decreases to end at about 0.2. United Kingdom begins at about 6 and generally decreases to about 5 by 1999. It then generally increases to about 6 by early 2000, and generally decreases to about 3.5 by 2003. It then generally increases to about 5.8 by 2007, and generally decreases to end at about 1.

Source: Bloomberg.

## Japan

### *Figure: Economic Activity*

Line chart, late 1999 to 2009. 2005 = 100. There are two series, "Industrial production" and "Tertiary services". Industrial production begins at about 94 and generally increases to about 102 by late 2000. It then generally decreases to about 87 by late 2001, and then generally increases to about 110 by early 2008. It then generally decreases to end at about 70. Tertiary services begins at about 92 and generally decreases to about 91 by early 2000. It then generally increases to about 104 by 2008, and generally decreases to end at about 99.

Source: Haver Analytics.

### *Figure: Real Trade*

Line chart, late 1999 to 2009. 2005 = 100. There are two series, "Real exports" and "Real imports". Real exports begins at about 70 and generally increases to about 81 by 2000. It then generally decreases to about 66 by early 2002, and generally increases to about 134 by early 2008. It then generally decreases to end at about 78. Real imports begins at about 78 and generally increases to about 90 by late 2000. It then generally decreases to about 80 by early 2002, and generally increases to about 110 by early 2007. It then generally decreases to end at about 81.

Source: Haver Analytics.

### *Figure: Labor Market*

Line chart, late 1999 to 2009. There are two series, "Unemployment rate", which is by percent, and "Job openings to applications", which is a ratio. Unemployment rate begins at about 4.8 and generally decreases to about 4.6 by 1999. It then generally increases to about 5.55 by 2003, and generally decreases to about 3.55 by 2007. It then generally increases to end at about 4.4. Job openings to applications begins at about 0.48 and generally increases to about 0.65 by late 2000. It then generally decreases to about 0.5 by early 2002, and generally increases to about 1.09 by 2006. It then generally decreases to end at about 0.6.

Source: Haver Analytics.

### Figure: Consumer Price Inflation

Line chart, by percent, 12-month basis, n.s.a., late 1999 to 2009. There are two series, "Consumer price inflation" and "Core". Consumer price inflation begins at about -0.1 and generally increases to about 0.5 by 1999. It then generally decreases to about -1.8 by early 2002, and generally increases to about 1 by late 2004. It then generally decreases to about -1.1 by late 2005, and generally increases to about 2.3 by 2008. It then generally decreases to end at about -0.1. Core begins at about 0 and generally decreases to about -1 by 2001. It then generally increases to about 0.1 by early 2005, and generally decreases to about -0.2 by 2007. It then generally increases to about 2.4 by 2008, and generally decreases to end at about -0.1.

Note: Core excludes fresh food.

Source: Haver Analytics.

### Economic Indicators

(Percent change from previous period except as noted; seasonally adjusted)

Indicator	2008		2009		2008		2009	
	Q3	Q4	Q1	Dec.	Jan.	Feb.	Mar.	
Housing starts	-1.6	-8.3	n.a.	1.5	-4.4	-9.5	n.a.	
Machinery orders <sup>1</sup>	-10.4	-16.7	n.a.	-1.7	-3.2	1.4	n.a.	
Household expenditures	-0.5	0.4	n.a.	-0.9	-0.8	0.3	n.a.	
New car registrations	-3.6	-15.1	-13.5	-2.5	-2.0	-7.3	-2.4	
Business sentiment <sup>2</sup>	-14.0	-24.0	-46.0	...	...	...	...	
Wholesale prices <sup>3</sup>	7.3	2.6	-1.5	0.9	-0.7	-1.6	-2.2	

1. Private sector, excluding ships and electric power. [Return to table](#)

2. Tankan survey, diffusion index. Level. [Return to table](#)

3. Percent change from year earlier; not seasonally adjusted. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: Haver Analytics.

## Euro Area

### Figure: Nominal Exports and Imports

Line chart, by billions of U.S. dollars, late 1999 to 2009. There are two series, "Exports" and "Imports". These two series track closely together throughout the chart. They begin at about 70 and generally increase to about 220 by 2008. They then generally decrease to end at about 135.

Source: Haver Analytics.

### Figure: Economic Sentiment

Line chart, by percent balance, late 1999 to 2009. There are two series, "Consumer confidence" and "Industrial confidence". Consumer confidence begins at about -4 and generally increases to about 2 by 2000. It then generally decreases to about -22 by 2003, and generally increases to about -1 by 2007. It then generally decreases to about -34. Industrial confidence begins at about -8 and generally increases to about 6 by 2000. It then generally decreases to about -18 by late 2001, and generally increases to about -2 by 2004. It then generally decreases to about -10 by 2005, and generally increases to about 6 by 2007. It then generally decreases to end at about -38.

Source: Haver Analytics.

### Figure: Unemployment Rate

Line chart, by percent, late 1999 to 2009. The series begins at about 9.1 and generally decreases to about 7.8 by early 2001. It then generally increases to about 9.0 by 2005, and generally decreases to about 7.2 by early 2008. It then generally increases to end at about 8.5.

Source: Haver Analytics.

### Figure: Consumer Price Inflation

Line chart, by percent, 12-month basis, n.s.a., late 1999 to 2009. There are two series, "Consumer price inflation" and "Core". Consumer price inflation begins at



about 1.1 and generally increases to about 3.3 by 2001. It then generally decreases to about 1.55 by early 2004, and generally increases to about 2.6 by 2005. It then generally decreases to about 1.45 by late 2006, and generally increases to about 4.05 by 2008. It then generally decreases to end at about 0.55. Core begins at about 1.1 and generally decreases to about 0.9 by 2000. It then generally increases to about 2.6 by early 2002, and generally decreases to about 1.3 by early 2006. It then generally increases to about 2.6 by early 2008, and generally decreases to end at about 1.5.

Note: Core excludes energy and unprocessed food.

Source: Haver Analytics.

### Economic Indicators

(Percent change from previous period except as noted; seasonally adjusted)

Indicator	2008			2008		2009	
	Q2	Q3	Q4	Nov.	Dec.	Jan.	Feb.
Industrial production <sup>1</sup>	-2.0	-2.7	-6.2	-2.8	-2.9	-2.4	-2.3
Retail sales volume <sup>2</sup>	-0.4	-0.5	-1.0	-0.2	-0.3	-0.2	-0.4
New car registrations	-1.9	-6.2	-8.2	-1.4	-2.6	n.a.	n.a.
Employment	0.1	-0.1	-0.3	...	...	...	...
Producer prices <sup>3</sup>	7.1	8.6	3.7	3.3	1.6	n.a.	n.a.
M3 <sup>3</sup>	10.8	9.9	9.1	8.9	8.6	6.9	6.8

1. Excludes construction. [Return to table](#)

2. Excludes motor vehicles. [Return to table](#)

3. Eurostat harmonized definition. Percent change from year earlier. [Return to table](#)

n.a. Not available.

... Not applicable.

M3 Manufacturers' shipments, inventories, and orders. [Return to table](#)

Source: Haver Analytics.

## United Kingdom

### Figure: Consumer Price Inflation

Line chart, by percent, 12-month basis, n.s.a., late 1999 to 2009. There are two series, "Consumer price inflation" and "Core". Consumer price inflation begins at about 1.2 and generally decreases to about 0.5 by 2000. It then generally increases to about 3.2 by early 2007, and generally decreases to about 1.8 by 2007. It then generally increases to about 5.5 by 2008, and generally decreases to end at about 2.9. Core begins at about 1.1 and generally decreases to about 0.01 by 2000. It then generally increases to about 1.6 by early 2002, and generally decreases to about 0.9 by late 2004. It then generally increases to about 2.8 by 2008, generally decreases to about 1.8 by late 2008, and generally increases to end at about 2.2.

Note: Core excludes energy and unprocessed food.

Source: Haver Analytics.

### Figure: Unemployment Rates

Line chart, by percent, late 1999 to 2009. There are two series, "Labor force survey" and "Claimant count". Labor force survey begins at about 5.9 and generally decreases to about 4.8 by 2004. It then generally increases to end at about 6.5. Claimant count begins at about 4.1 and generally decreases to about 2.5 by early 2005. It then generally increases to about 3 by 2006, and generally decreases to about 2.5 by early 2008. It then generally increases to end at about 4.3.

Source: Haver Analytics.

### Figure: Purchasing Managers Survey

Line chart, late 1999 to 2009. 50+ = expansion. There are two series, "Services" and "Manufacturing". Services begins at about 57.5 and generally decreases to about 46 by 2001. It then generally increases to about 57.5 by 2002, and generally decreases to about 49 by early 2003. It then generally increases to about 61 by late 2006, and generally decreases to about 40 by late 2008. It then generally increases to end at about 45. Manufacturing begins at about 52.5 and generally increases to about 56 by 2000. It then generally decreases to about 45 by late 2001, and generally increases to about 56 by 2004. It then generally decreases to about 46 by 2005, and generally increases to about 56 by early 2007. It then generally decreases to about 35 by 2008, and generally increases to end at about 39.

Source: Reuters.

### Figure: Labor Costs

Line chart, by percent, 12-month basis, late 1999 to 2009. There are two series, "Unit wage costs" and "Average earnings". Unit wage costs begins at about -0.1 and generally decreases to about -4 by early 2001. It then generally increases to about 5 by 2002, and generally decreases to about -5.5 by 2003. It then generally increases to about 3 by 2005, and generally decreases to about -4.5 by 2005. It then generally increases to end at about 10. Average earnings begins at about 4.5 and generally increases to about 6 by 2000. It then generally decreases to about 3 by early 2002, and generally increases to about 5 by early 2007. It then generally decreases to end at about 0.

Note: Unit wage costs are for manufacturing industries. Average earnings is for whole economy, including bonuses.

Source: Haver Analytics.

### Economic Indicators

(Percent change from previous period except as noted; seasonally adjusted)

Indicator	2008		2009		2008		2009	
	Q3	Q4	Q1	Dec.	Jan.	Feb.	Mar.	
Real GDP	-2.8	-6.1	n.a.	...	...	...	...	
Producer input prices <sup>1</sup>	28.1	9.0	0.8	3.3	1.7	1.0	-0.4	
Industrial production	-1.7	-4.5	n.a.	-1.5	-2.7	-1.0	n.a.	
Business confidence <sup>2</sup>	-12.0	-38.3	-45.0	-42.0	-43.0	-44.0	-48.0	
Consumer confidence <sup>2</sup>	-24.2	-27.4	-31.5	-28.7	-35.1	-31.5	-28.0	
Trade balance <sup>3</sup>	-24.5	-12.5	n.a.	-3.7	-4.5	-4.7	n.a.	

1. Percent change from year earlier. [Return to table](#)

2. Percent balance. [Return to table](#)

3. Level in billions of U.S. dollars. [Return to table](#)

n.a. Not available.

... Not applicable.

GDP Gross Domestic Product. [Return to table](#)

Source: Haver Analytics; Reuters.

## Canada

### Figure: Real Gross Domestic Product by Industry

Line chart, by percent change from year earlier, late 1999 to 2009. The series begins at about 6.5 and generally decreases to about 0.1 by 2001. It then generally increases to about 4.4 by 2004, and generally decreases to end at about -2.8.

Note: Constructed from various Statistics Canada surveys and supplements to the quarterly income and expenditure-based estimates.

Source: Haver Analytics.

### Figure: Real Trade

Line chart, late 1999 to 2009. 2002=100. There are two series, "Real exports" and "Real imports". They begin at about 95 and generally increase to about 105 by 2000. They then generally decrease together to about 97 by 2001. Real exports generally increases to about 114 by late 2006, and generally decreases to about 79 by late 2008. It then generally increases to end at about 87. Real imports generally increases to about 145 by 2008, and generally decreases to end at about 112.

Source: Haver Analytics.

### Figure: Unemployment Rate

Line chart, by percent, late 1999 to 2009. The series begins at about 7.6 and generally decreases to about 6.7 by 2000. It then generally increases to about 8.0 by early 2002, and generally decreases to about 5.5 by early 2008. It then generally increases to end at about 8.0.

Source: Haver Analytics.

### Figure: Consumer Price Inflation

Line chart, by percent, 12-month basis, n.s.a., late 1999 to 2009. There are two series, "Consumer price inflation", and "Core". Consumer price inflation begins at about 1.9 and generally increases to about 4.1 by 2001. It then generally decreases to about 0.5 by late 2001, and generally increases to about 4.8 by early 2003. It then generally decreases to about 0.6 by early 2004, and generally increases to about 3.2 by 2005. It then generally decreases to about 0.5 by 2006, and generally increases to about 3.5 by 2008. It then generally decreases to end at about 1.2.



Note: Core excludes 8 most volatile components and the effects of changes in indirect taxes.

Source: Haver Analytics.

## Economic Indicators

(Percent change from previous period and seasonally adjusted, except as noted)

Indicator	2008		2009	2008		2009	
	Q3	Q4	Q1	Dec.	Jan.	Feb.	Mar.
Industrial production	0.1	-2.9	n.a.	-2.1	-1.8	n.a.	n.a.
New manufacturing orders	-1.1	-8.9	n.a.	-7.0	-8.4	6.5	n.a.
Retail sales	-0.0	-2.2	n.a.	-4.0	1.8	n.a.	n.a.
Employment	-0.0	0.1	-1.4	-0.1	-0.8	-0.5	-0.4
Wholesale sales	-0.7	-7.5	n.a.	-2.4	-4.0	-0.0	n.a.
Ivey PMI <sup>1</sup>	59.3	43.8	41.5	39.1	36.1	45.2	43.2

1. PMI Purchasing Managers' Index. Not seasonally adjusted. 50+ indicates expansion. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: Haver Analytics; Bank for International Settlements.

## Chinese Economic Indicators

(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008		2009		
			Q4	Q1	Jan.	Feb.	Mar.
Real GDP <sup>1</sup>	12.3	6.9	1.6	6.5	...	...	...
Industrial production	19.5	1.8	-5.3	7.8	11.5	-6.5	5.8
Consumer prices <sup>2</sup>	6.5	1.2	2.5	-6	1.0	-1.6	-1.2
Merch. trade balance <sup>3</sup>	262.7	295.5	421.7	325.4	510.3	171.6	294.4

1. Gross domestic product. Annual rate. Quarterly data estimated by staff from reported 4-quarter growth rates. Annual data are Q4/Q4. [Return to table](#)

2. Non-seasonally adjusted percent change from year-earlier period, except annual data, which are Dec./Dec. [Return to table](#)

3. Billions of U.S. dollars, annual rate. Imports are valued at cost, insurance, and freight. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: CEIC.

## Indian Economic Indicators

(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008		2009		
			Q4	Q1	Jan.	Feb.	Mar.
Real GDP <sup>1</sup>	8.9	5.3	-1.9	n.a.	...	...	...
Industrial production	9.9	4.4	-1.7	n.a.	.4	.8	n.a.
Consumer prices <sup>2</sup>	5.5	9.7	10.2	n.a.	9.5	8.7	n.a.
Wholesale prices <sup>2</sup>	3.8	6.2	8.6	3.0	4.9	3.5	.7
Merch. trade balance <sup>3</sup>	-69.7	-113.6	-103.8	n.a.	-73.9	-82.8	n.a.
Current account <sup>4</sup>	-11.3	-38.0	-58.6	n.a.	...	...	...

1. Gross domestic product. Annual rate. Annual data are Q4/Q4. [Return to table](#)

2. Non-seasonally adjusted percent change from year-earlier period, except annual data, which are Dec./Dec. [Return to table](#)

3. Billions of U.S. dollars, annual rate. [Return to table](#)

4. Billions of U.S. dollars, not seasonally adjusted, annual rate. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: CEIC.

## China and India

### *Figure: Industrial Production*

Line chart, 2003 to 2009. January 2000 = 100. There are two series, "China" and "India". China begins at about 145 and generally increases to about 327 by 2008. It then generally decreases to about 300 by late 2008, and generally increases to about 349 by early 2009. It then generally decreases to about 335. India begins at about 120 and generally increases to end at about 175.

Source: CEIC.

### *Figure: Consumer Prices*

Line chart, by percent change from year earlier, 2003 to 2009. There are two series, "China" and "India". China begins at about 0.2 and generally increases to about 5.2 by 2004. It then generally decreases to about 1 by 2006, and generally increases to about 9 by early 2008. It then generally decreases to end at about -1. India begins at about 3.5 and generally increases to about 5 by 2003. It then generally decreases to about 2.2 by 2004, and generally increases to about 7.5 by early 2007. It then generally decreases to about 5.5 by late 2007, and generally increases to about 10.5 by 2008. It then generally decreases to end at about 8.6.

Source: China Statistic and Consultancy Service Center; CEIC.

### *Figure: Merchandise Trade Balances*

Line chart, by billions of dollars, 2003 to 2009. Data are 3-month moving averages (n.s.a.). There are two series, "China" and "India". China begins at about 1 and generally increases to about 3 by early 2004. It then generally decreases to about -0.5 by 2004, and generally increases to about 44 by early 2009. It then generally decreases to end at about 28. India begins at about -0.5 and generally decreases to about -12 by 2008. It then generally increases to end at about -8.

Source: China Statistic and Consultancy Service Center; CEIC.

### *Figure: Benchmark Interest Rates*

Line chart, by percent, 2003 to 2009. There are two series, "China" and "India". China begins at about 5.2 and remains about constant until late 2004. It then generally increases to about 7.5 by early 2008, and generally decreases to end at about 5.3. India begins at about 5.5 and generally increases to about 7.5 by 2003. It then generally decreases to about 4.5 by 2003, and generally increases to about 9 by 2008. It then generally decreases to end at about 4.7.

Source: Bloomberg; CEIC.

### *Figure: Gross External Debt*

Line chart, by percent of Gross Domestic Product, 2003 to 2008. The "India" series begins at about 21 and generally decreases to about 17 by 2006. It then generally increases to end at about 22.

Source: Bank for International Settlements; Haver Analytics.

### *Figure: Short-Term External Debt*

Line chart, by percent of reserves, 2003 to 2008. The "India" series begins at about 6 and generally increases to about 7.5 by 2003. It then generally decreases to about 4 by early 2004, and generally increases to end at about 18.

Source: Bank for International Settlements; CEIC.

## Economic Indicators for Newly Industrialized Economies: Growth

(Percent change from previous period, seasonally adjusted, except as noted)

	2007		2008			2009	
	Q3	Q4	Q3	Q4	Dec.	Jan.	Feb.
Real GDP <sup>1</sup>							

Hong Kong	7.1	-2.5	-2.8	-7.8	...	...	...
Korea	5.7	-3.4	1.0	-18.8	...	...	...
Singapore	5.8	-4.0	-2.1	-16.4	...	...	...
Taiwan	6.4	-8.4	-10.4	-25.8	...	...	...
<i>Industrial production</i>							
Hong Kong	-1.6	-6.4	-3.8	-2.3	...	...	...
Korea	7.0	3.0	-2.0	-11.9	-9.6	1.6	6.8
Singapore	5.9	-4.2	2.9	-8.3	-10.7	-11.2	13.9
Taiwan	7.8	-1.8	-4.1	-20.4	-7.9	-3.1	3.3

1. Gross domestic product. Annual rate. Annual data are Q4/Q4. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: CEIC; Reuters.

## Economic Indicators for Newly Industrialized Economies: Merchandise Trade Balance

(Billions of U.S. dollars; seasonally adjusted annual rate)

	2007		2008		2009		
	2007	2008	Q4	Q1	Jan.	Feb.	Mar.
Hong Kong	-23.5	-25.9	-21.7	n.a.	-2.6	-42.3	n.a.
Korea	28.2	6.0	11.2	n.a.	-11.1	48.7	n.a.
Singapore	36.2	18.4	12.6	11.7	2.5	5.9	26.7
Taiwan	16.8	4.4	9.4	28.6	35.8	14.8	35.2

n.a. Not available.

... Not applicable.

Source: CEIC.

## Economic Indicators for Newly Industrialized Economies: Consumer Price Inflation

(Non-seasonally adjusted percent change from year earlier except as noted)

	2007 <sup>1</sup>		2008		2009		
	2007 <sup>1</sup>	2008 <sup>1</sup>	Q4	Q1	Jan.	Feb.	Mar.
Hong Kong	3.8	2.1	2.3	n.a.	3.1	.8	n.a.
Korea	3.6	4.1	4.5	3.9	3.7	4.1	3.9
Singapore	4.4	4.3	5.4	n.a.	2.9	1.9	n.a.
Taiwan	3.3	1.3	1.9	.0	1.5	-1.3	-1.1

1. Dec./Dec. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: CEIC.

## Newly Industrialized Economies

### *Figure: Industrial Production*

Line chart, 2003 to 2009. January 2000 = 100. There are four series, "Korea", "Singapore", "Hong Kong", and "Taiwan". Korea begins at about 115 and generally increases to about 173 by late 2007. It then generally decreases to about 133 by late 2008, and generally increases to end at about 145. Singapore begins at about 100 and fluctuates but generally increases to about 133 by late 2004. It then generally decreases to about 100 by early 2005, and fluctuates but generally increases to about 183 by 2007. It then generally decreases to about 108 by early 2009, and generally increases to end at about 125. Hong Kong begins at about

80 and generally increases to about 85 by 2005. It then generally decreases to end at about 75 by late 2008. Taiwan begins at about 105 and generally increases to about 149 by early 2008. It then generally decreases to end at about 100.

Source: CEIC.

### Figure: Consumer Prices

Line chart, by percent change from year earlier, 2003 to 2009. There are four series, "Korea", "Singapore", "Hong Kong", and "Taiwan". Korea begins at about 3.8 and generally increases to about 4.5 by 2003. It then generally decreases to about 2 by 2005, and generally increases to about 6 by 2008. It then generally decreases to end at about 4. Singapore begins at about 1 and generally decreases to about -0.1 by 2003. It then generally increases to about 2.2 by 2004, and generally decreases to about 0 by 2005. It then generally increases to about 7.5 by 2008, and generally decreases to end at about 2. Hong Kong begins at about -1.5 and generally decreases to about -4 by 2003. It then generally decreases to about 2.5 by 2006, and generally decreases to about 1.2 by 2007. It then generally increases to about 6.2 by 2008, and generally decreases to end at about 1. Taiwan begins at about 1 and generally decreases to about -2.1 by 2003. It then generally increases to about 3.9 by 2005, and generally decreases to about -1.2 by 2006. It then generally increases to about 6.3 by 2008, and generally decreases to end at about 0.

Source: CEIC; Bank of Korea; Reuters.

### Figure: Merchandise Trade Balances

Line chart, by billions of dollars, 2003 to 2009. Data are 3-month moving averages (n.s.a.). There are four series, "Korea", "Singapore", "Hong Kong", and "Taiwan". Korea begins at about 1.0 and generally increases to about 3.6 by early 2005. It then generally decreases to about 1.7 by 2006, and generally increases to about 3.1 by 2007. It then generally decreases to about -1.2 by 2008, and generally increases to end at about 1.5. Singapore begins at about 1.7, generally increases to about 3.5 by 2006, and generally decreases to end at about 1.0. Hong Kong begins at about -0.5 and generally decreases to about -1.7 by 2004. It then generally increases to about 2.0 by early 2006, and generally decreases to about 0.4 by 2006. It then generally increases to about 2.1 by late 2007, and generally decreases to about -0.6 by 2008. It then generally increases to end at about 2.4. Taiwan begins at about 1.5 and generally decreases to about -3.0 by 2008. It then generally increases to about -0.6 by early 2009, and generally decreases to end at about -1.5.

Source: CEIC.

### Figure: Benchmark Interest Rates

Line chart, by percent, 2003 to 2009. There are three series, "Korea", "Hong Kong" and "Taiwan". Korea begins at about 4.2 and generally decreases to about 3.2 by late 2004. It then generally increases to about 5.2 by 2008, and generally decreases to end at about 2. Hong Kong begins at about 2.7 and generally decreases to about 2.5 by 2003. It then generally increases to about 6.8 by 2006, and generally decreases to end at about 1. Taiwan begins at about 1.5 and generally decreases to about 1.2 by 2003. It then generally increases to about 3.7 by 2008, and generally decreases to end at about 0.5.

Source: Bloomberg.

### Figure: Gross External Debt

Line chart, by percent of Gross Domestic Product, 2003 to 2008. There are three series, "Korea", "Hong Kong", and "Taiwan". Korea begins at about 25 and generally decreases to about 20 by early 2005. It then generally increases to end at about 48. Hong Kong begins at about 210, generally increases to about 325 by late 2007, and generally decreases to end at about 305. Taiwan begins at about 15, generally increases to about 25 by 2004, and remains about constant until the end.

Source: Bank for International Settlements.

### Figure: Short-Term External Debt

Line chart, by percent of reserves, 2003 to 2008. There are three series, "Korea", "Hong Kong", and "Taiwan". Korea begins at about 48 and generally decreases to about 25 by 2004. It then generally increases to end at about 75. Hong Kong begins at about 198 and generally increases to about 355 by late 2007. It then generally decreases to end at about 365. Taiwan begins at about 20 and remains about constant until about 2007. It then generally increases to end at about 30.

Source: Bank for International Settlements.

## ASEAN-4 <sup>1</sup> Economic Indicators: Growth

(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008			2009	
			Q3	Q4	Dec.	Jan.	Feb.
<i>Real GDP<sup>2</sup></i>							
Indonesia	5.7	4.9	6.9	-3.3	...	...	...
Malaysia	7.4	.1	1.0	-10.7	...	...	...

Philippines	6.5	4.5	4.8	4.1	...	...	...
Thailand	5.9	-4.3	1.7	-22.2	...	...	...
<i>Industrial production</i> <sup>3</sup>							
Indonesia <sup>4</sup>	5.6	2.9	-.1	-1.1	-3.6	-3.1	6.3
Malaysia	2.3	.5	-1.3	-7.3	-6.1	-2.8	2.8
Philippines	-2.7	.6	.4	-7.2	.4	-14.1	n.a.
Thailand	8.2	5.3	.9	-10.3	-11.3	-6	1.5

1. Association of Southeast Asian Nations. [Return to text](#)

2. Gross domestic product. Annual rate. Annual data are Q4/Q4. [Return to table](#)

3. Annual data are annual averages. [Return to table](#)

4. Staff estimate. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: CEIC.

## ASEAN-4 <sup>1</sup> Economic Indicators: Merchandise Trade Balance

(Billions of U.S. dollars; seasonally adjusted annualized rate)

Indicator	2007	2008	2008			2009	
			Q3	Q4	Dec.	Jan.	Feb.
Indonesia	39.6	32.4	31.6	25.9	22.2	21.2	30.9
Malaysia	29.2	42.7	49.7	34.4	36.3	28.8	46.4
Philippines	-5.0	-7.7	-8.8	-4.8	-8.9	-10.5	n.a.
Thailand	11.6	.2	-4.7	-10.4	2.3	27.3	51.5

1. Association of Southeast Asian Nations. [Return to text](#)

n.a. Not available.

... Not applicable.

Source: CEIC; Bank of Thailand; Philippines Economic Indicators Telegram (PEIT); Monetary Authority of Singapore.

## ASEAN-4 <sup>1</sup> Economic Indicators: Consumer Price Inflation

(Non-seasonally adjusted percent change from year earlier except as noted)

Indicator	2007 <sup>2</sup>	2008 <sup>2</sup>	2008		2009		
			Q4	Q1	Jan.	Feb.	Mar.
Indonesia	5.8	11.1	11.4	8.6	9.2	8.6	7.9
Malaysia	2.4	4.4	5.9	n.a.	3.9	3.7	n.a.
Philippines	3.9	8.0	9.7	6.9	7.1	7.3	6.4
Thailand	3.2	.4	2.2	-.2	-.3	.0	-.1

1. Association of Southeast Asian Nations. [Return to text](#)

2. Dec./Dec. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: CEIC; IMF International Financial Statistics database.

## ASEAN-4

*Figure: Industrial Production*

Line chart, 2003 to 2009. January 2000 = 100. There are four series, "Indonesia", "Malaysia", "Philippines", and "Thailand". Indonesia begins at about 137 and fluctuates but generally increases to about 170 by late 2004. It then generally decreases to about 137 by late 2005, and generally increases to end at about 162. Malaysia begins at about 50 and generally increases to end at about 55. Philippines begins at about 100 and remains about constant late 2005. It then generally decreases to end at about 73. Thailand begins at about 128 and generally increases to about 212.5 by 2008. It then generally decreases to end at about 169.

Source: CEIC; Bank of Philippines.

### *Figure: Consumer Prices*

Line chart, by percent change from year earlier, 2003 to 2009. There are four series, "Indonesia", "Malaysia", "Philippines", and "Thailand". Indonesia begins at about 8.5 and generally decreases to about 4.5 by early 2004. It then generally increases to about 18 by late 2005, and generally decreases to about 5.2 by late 2006. It then generally increases to about 11.5 by 2008, and generally decreases to end at about 7.5. Malaysia begins at about 1.5 and generally decreases to about 0.5 by 2003. It then generally increases to about 5 by early 2006, and generally decreases to about 1 by 2007. It then generally increases to about 8.8 by 2008, and generally decreases to end at about 4. Philippines begins at about 3 and generally increases to about 8 by late 2004. It then generally decreases to about 2 by 2007, and generally increases to about 12.5 by 2008. It then generally decreases to end at about 6.5. Thailand begins at about 2 and generally decreases to about 1 by early 2004. It then generally increases to about 6 by 2005, and generally decreases to about 0.5 by 2007. It then generally increases to about 9.5 by 2008, and generally decreases to end at about 0.

Source: IMF International Financial Statistics; CEIC.

### *Figure: Merchandise Trade Balances*

Line chart, by billions of dollars, 2003 to 2009. Data are 3-month moving averages (n.s.a.). There are four series, "Indonesia", "Malaysia", "Philippines", and "Thailand". Indonesia begins at about 2 and generally increases to about 2.4 by 2003. It then generally decreases to about 1.7 by early 2004, and generally increases to about 3.8 by early 2007. It then generally decreases to end at about 2.2. Malaysia begins at about 1.5 and generally increases to about 2.4 by 2005. It then generally decreases to about 2 by 2007, and generally increases to about 4.5 by 2008. It then generally decreases to end at about 3. Philippines begins at about -0.4 and remains about constant until about 2007. It then generally decreases to about -1 by early 2008, and generally increases to end at about -0.5. Thailand begins at about 0.2 and generally increases to about 0.6 by 2003. It then generally decreases to about -1.2 by 2005, and generally increases to about 1.2 by 2008. It then generally decreases to about -1.4 by late 2008, and generally increases to end at about 2.2.

Source: CEIC; Philippines Economic Indicators Telegram (PEIT); Bank of Thailand Monthly Statistical Release.

### *Figure: Benchmark Interest Rates*

Line chart, by percent, 2003 to 2009. There are four series, "Indonesia", "Malaysia", "Philippines", and "Thailand". Indonesia begins at about 12.5 and generally decreases to about 7.5 by 2004. It then generally increases to about 12.5 by early 2006, and generally decreases to end at about 7.5. Malaysia begins at about 2.5 and remains about constant until about 2005. It then generally increases to about 3 by 2006, and generally decreases to end at about 2. Philippines begins at about 7 and remains about constant until 2005. It then generally increases to about 7.5 by 2005, and generally decreases to end at about 4.9.

Source: Bloomberg; Haver Analytics.

### *Figure: Gross External Debt*

Line chart, by percent of Gross Domestic Product, 2003 to 2008. There are four series, "Indonesia", "Malaysia", "Philippines", and "Thailand". Indonesia begins at about 58 and generally decreases to about 25 by 2008. It then generally increases to end at about 34. Malaysia begins at about 44 and generally increases to about 50 by 2003. It then generally decreases to about 30 by late 2007, and generally increases to end at about 42. Philippines begins at about 76 and generally decreases to end at about 30. Thailand begins at about 40 and generally decreases to about 20 by late 2007. It then generally increases to end at about 22.5.

Note: ASEAN is the Association of Southeast Asian Nations.

Source: CEIC; Bank for International Settlements.

### *Figure: Short-Term External Debt*

Line chart, by percent of reserves, 2003 to 2008. There are four series, "Indonesia", "Malaysia", "Philippines", and "Thailand". Indonesia begins at about 48 and generally decreases to about 39 by early 2004. It then generally increases to about 32 by 2005, and generally decreases to about 15 by 2006. It then generally increases to end at about 37. Malaysia begins at about 30 and generally increases to about 32 by 2003. It then generally decreases to about 20 by late 2006, and generally increases to end at about 35. Philippines begins at about 49 and generally increases to about 57 by early 2004. It then generally decreases to end at about 20.5. Thailand begins at about 28 and generally decreases to about 20 by late 2004. It then generally increases to about 30 by 2006, and generally decreases to end at about 20.

Source: Bank for International Settlements.

## Mexican Economic Indicators

(Percent change from previous period, seasonally adjusted, except as noted)



Indicator	2007	2008		2009			
		2008	Q4	Q1	Jan.	Feb.	Mar.
Real GDP <sup>1</sup>	3.7	-1.7	-10.3	n.a.	...	...	...
Overall economic activity	3.1	1.0	-2.4	n.a.	-4.0	n.a.	n.a.
Industrial production	2.4	-9	-3.0	n.a.	-2.8	.4	n.a.
Unemployment rate <sup>2</sup>	3.7	4.0	4.5	n.a.	4.6	4.9	n.a.
Consumer prices <sup>3</sup>	3.8	6.5	6.2	6.2	6.3	6.2	6.0
Merch. trade balance <sup>4</sup>	-10.1	-17.3	-23.4	n.a.	-12.9	-12.5	n.a.
Merchandise imports <sup>4</sup>	281.9	308.6	272.7	n.a.	230.6	229.8	n.a.
Merchandise exports <sup>4</sup>	271.9	291.3	249.3	n.a.	217.7	217.3	n.a.
Current account <sup>5</sup>	-8.1	-15.8	-25.1	n.a.	...	...	...

1. Gross domestic product. Annual rate. Annual data are Q4/Q4. [Return to table](#)

2. Percent; counts as unemployed those working 1 hour a week or less. [Return to table](#)

3. Non-seasonally adjusted percent change from year-earlier period, except annual data, which are Dec./Dec. [Return to table](#)

4. Billions of U.S. dollars, annual rate. [Return to table](#)

5. Billions of U.S. dollars, not seasonally adjusted, annual rate. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: Haver Analytics; Bank of Mexico.

## Brazilian Economic Indicators

(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008		2009			
		2008	Q4	Q1	Jan.	Feb.	Mar.
Real GDP <sup>1</sup>	6.1	1.2	-13.6	n.a.	...	...	...
Industrial production	6.0	3.1	-9.5	n.a.	2.2	1.8	n.a.
Unemployment rate <sup>2</sup>	9.3	7.9	7.8	n.a.	8.6	8.3	n.a.
Consumer prices <sup>3</sup>	4.5	5.9	6.2	5.8	5.8	5.9	5.6
Merch. trade balance <sup>4</sup>	40.0	24.7	20.0	21.1	7.6	29.3	26.4
Current account <sup>5</sup>	1.6	-28.3	-21.4	n.a.	-33.0	-7.1	n.a.

1. Gross domestic product. Annual rate. Annual data are Q4/Q4. [Return to table](#)

2. Percent. [Return to table](#)

3. Non-seasonally adjusted percent change from year-earlier period, except annual data, which are Dec./Dec. Price index is IPCA. [Return to table](#)

4. Billions of U.S. dollars, annual rate. [Return to table](#)

5. Billions of U.S. dollars, not seasonally adjusted, annual rate. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: Haver Analytics; IMF International Financial Statistics database; Instituto Brasileiro de Geografia e Estatística.

## Argentine Economic Indicators

(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008		2009			
		2008	Q4	Q1	Jan.	Feb.	Mar.
Real GDP <sup>1</sup>	9.2	4.4	-1.2	n.a.	...	...	...
Industrial production	7.5	4.9	-.4	n.a.	-5.9	2.1	n.a.
Unemployment rate <sup>2</sup>	8.5	7.9	7.3	n.a.	...	...	...

Consumer prices <sup>3</sup>	8.5	7.2	7.8	6.6	6.8	6.8	6.3
Merch. trade balance <sup>4</sup>	11.1	13.2	11.8	n.a.	14.6	17.9	n.a.
Current account <sup>5</sup>	7.1	7.6	7.2	n.a.	...	...	...

1. Gross domestic product. Annual rate. Annual data are Q4/Q4. [Return to table](#)

2. Percent; not seasonally adjusted. [Return to table](#)

3. Non-seasonally adjusted percent change from year-earlier period, except annual data, which are Dec./Dec. [Return to table](#)

4. Billions of U.S. dollars, annual rate. [Return to table](#)

5. Billions of U.S. dollars, not seasonally adjusted, annual rate. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: Haver Analytics, IMF International Financial Statistics database; Ministerio de economia; U.S. State Department.

## Venezuelan Economic Indicators

(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008		2009		
			Q4	Q1	Jan.	Feb.	Mar.
Real GDP <sup>1</sup>	8.5	3.2	6.4	n.a.	...	...	...
Consumer prices <sup>2</sup>	22.5	30.9	32.3	28.9	29.9	28.8	28.1
Non-oil trade balance <sup>3</sup>	-34.6	-37.5	-45.6	n.a.	...	...	...
Merch. trade balance <sup>3</sup>	23.7	45.4	-9.8	n.a.	...	...	...
Current account <sup>4</sup>	20.0	39.2	-18.0	n.a.	...	...	...

1. Gross domestic product. Annual rate. Annual data are Q4/Q4. [Return to table](#)

2. Non-seasonally adjusted percent change from year-earlier period, except annual data, which are Dec./Dec. [Return to table](#)

3. Billions of U.S. dollars, annual rate. [Return to table](#)

4. Billions of U.S. dollars, not seasonally adjusted, annual rate. [Return to table](#)

n.a. Not available.

... Not applicable.

Source: IMF International Financial Statistics database; Bank of Venezuela; Reuters; and embassy cables.

## Latin America

### Figure: Industrial Production

Line chart, 2003 to 2009. January 2000 = 100. There are three series, "Argentina", "Brazil", and "Mexico". Argentina begins at about 90.5 and generally increases to about 140 by 2008. It then generally decreases to end at about 134. Brazil begins at about 108 and generally decreases to about 105 by 2003. It then generally increases to about 142 by 2008, and generally decreases to about 114 by late 2008. It then generally increases to end at about 119. Mexico begins at about 98 and generally increases to about 115 by early 2008. It then generally decreases to end at about 103.

Source: Fundacion de Investigaciones Economicas Latinoamericanas; Haver Analytics.

### Figure: Consumer Prices

Line chart, by percent change from year earlier, 2003 to 2009. There are three series, "Argentina", "Brazil", and "Mexico". Argentina begins at about 39 and generally decreases to about 2 by 2004. It then generally increases to about 13 by late 2005, and generally decreases to end at about 7. Brazil begins at about 15 and generally increases to about 17 by 2003. It then generally decreases to about 5 by 2004, and generally increases to about 8 by 2005. It then generally decreases to about 3 by late 2006, and generally increases to end at about 6. Mexico begins at about 5 and generally decreases to about 3 by late 2005. It then generally increases to end at about 6.

Source: IMF International Financial Statistics; Getulio Vargas Foundation; Haver Analytics; Bank of Mexico.

### Figure: Merchandise Trade Balances

Line chart, by billions of dollars, 2003 to 2009. Data are 3-month moving averages (n.s.a.). There are three series, "Argentina", "Brazil", and "Mexico". Argentina



begins at about 1.5 and generally decreases to about 1.8 by 2005. It then generally increases to about 1.4 by early 2008, and generally decreases to about 0.5 by 2008. It then generally increases to about 1.8 by late 2008, and generally decreases to end at about 1. Brazil begins at about 1.7 and generally increases to about 4.2 by early 2006. It then generally decreases to about 1.2 by 2008, and generally increases to end at about 2. Mexico begins at about -0.2 and generally decreases to about -0.9 by 2003. It then generally increases to about -0.1 by early 2004, and generally decreases to about -1.4 by early 2005. It then generally increases to about 0.2 by early 2006, and generally decreases to about -1.4 by 2007. It then generally increases to about -0.1 by late 2007, and generally decreases to about -2 by late 2008. It then generally increases to end at about -1.2.

Source: IMF International Financial Statistics, Bank of Mexico.

### *Figure: Benchmark Interest Rates*

Line chart, by percent, 2003 to 2009. There are two series, "Brazil" and "Mexico". Brazil begins at about 25.5 and generally increases to about 26 by 2003. It then generally decreases to about 16 by 2004, and generally increases to about 20 by 2005. It then generally decreases to about 11 by 2007, and generally increases to about 14 by 2008. It then generally decreases to end at about 11. Mexico begins at about 9 and generally decreases to about 4 by 2003. It then generally increases to about 10 by 2005, and generally decreases to about 7.5 by 2006. It then generally increases to about 8.5 by 2008, and generally decreases to end at about 6.

Source: Bloomberg.

### *Figure: Gross External Debt*

Line chart, by percent of Gross Domestic Product, 2003 to 2008. There are three series, "Argentina", "Brazil", and "Mexico". Argentina begins at about 140 and generally decreases to about 98 by 2003. It then generally increases to about 118 by late 2003, and generally decreases to end at about 37. Brazil begins at about 187.5 and generally decreases to about 49 by 2008. It then generally increases to end at about 63. Mexico begins at about 25 and generally decreases to end at about 20.

Source: Haver Analytics; Bank for International Settlements.

### *Figure: Short-Term External Debt*

Line chart, by percent of reserves, 2003 to 2008. There are three series, "Argentina", "Brazil", and "Mexico". Argentina uses a different scale. Argentina begins at about 165 and generally increases to about 425 by 2004. It then generally decreases to end at about 60. Brazil begins at about 85 and generally decreases to about 29 by 2005. It then generally increases to about 31 by 2007, and generally decreases to end at about 26. Mexico begins at about 47 and generally decreases to end at about 30.

Source: Bank for International Settlements.

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

**Last update: April 1, 2015**

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### Supplemental Notes

#### The Domestic Nonfinancial Economy

##### *Private Housing Activity*

(Millions of units, seasonally adjusted; annual rate except as noted)

Sector	2008			2009			
	2008	Q3	Q4	Q1	Jan.	Feb.	Mar.
<i>All units</i>							
Starts	.91	.88	.66	.52	.49	.57	.51
Permits	.89	.87	.63	.54	.53	.56	.52
<i>Single-family units</i>							
Starts	.62	.60	.46	.36	.36	.36	.36
Permits	.57	.56	.42	.36	.34	.39	.36
Adjusted permits <sup>1</sup>	.58	.57	.43	.38	.35	.40	.38
Permit backlog <sup>2</sup>	.068	.082	.068	.060	.064	.062	.060
<i>New homes</i>							
Sales	.49	.46	.39	.35	.33	.36	.36
Months' supply <sup>3</sup>	10.65	10.64	11.33	11.26	12.29	10.99	10.48
<i>Existing homes</i>							
Sales	4.35	4.43	4.23	4.12	4.05	4.22	4.10
Months' supply <sup>3</sup>	9.98	9.56	9.79	9.81	9.98	9.64	9.79
<i>Multifamily units</i>							
Starts	.284	.273	.198	.166	.132	.214	.152
Permits	.323	.308	.215	.174	.195	.174	.152
Permit backlog <sup>2</sup>	.053	.062	.053	.050	.055	.052	.050
<i>Mobile homes</i>							
Shipments	.082	.080	.066	n.a.	.054	.051	n.a.
<i>Condos and co-ops</i>							
Existing home sales	.563	.573	.506	.467	.440	.490	.470

1. Adjusted permits equal permit issuance plus total starts outside of permit-issuing areas. [Return to table](#)

2. Number outstanding at end of period. Excludes permits that have expired or have been canceled, abandoned, or revoked. Not at an annual rate. [Return to table](#)

3. At current sales rate; expressed as the ratio of seasonally adjusted inventories to seasonally adjusted sales. Quarterly and annual figures are averages of monthly figures. [Return to table](#)

n.a. Not available. [Return to table](#)

Source: Census Bureau.

#### Figure: Private Housing Starts and Permits

Line chart, by millions of units (seasonally adjusted annual rate), 1999 to March 2009. There are three series, "Single-family starts", "Single-family adjusted permits", and "Multifamily starts". Single-family starts and Single-family adjusted permits track closely together throughout the chart. They begin at about 1.32 and generally decrease to about 1.1 by 2000. They then generally increase to about 1.82 by 2005, and generally decrease to end at about .39. Multifamily starts begins at about .4 and generally increases to about .5 by early 2000. It then fluctuates but generally decreases to end at about .15

Note: Adjusted permits equal permit issuance plus total starts outside of permit-issuing areas,

## *Indicators of Single-Family Housing*

### **Figure: New Single-Family Home Sales**

Line chart, by millions of units (annual rate), 2001 to March 2009. There are two series, "Total" and "Large homebuilders". These two series use two different scales. Total begins at about 0.95 and generally decreases to about 0.84 by 2001. It then generally increases to about 1.4 by 2005, and generally decreases to end at about 0.36. Large homebuilders begins at about 0.23 and generally increases to about 0.42 by 2005. It then generally decreases to end at about 0.11.

Source: For total, Census Bureau; for large homebuilders, National Association of Home Builders.

### **Figure: Inventories of New Homes and Months' Supply**

Line chart, 2001 to March 2009. There are two series, "Inventories of new homes", which is by thousands of units, and "Months' supply", which is by months. These two series use two different scales. Inventories of new homes begins at about 300 and generally increases to about 570 by 2006. It then generally decreases to end at about 310. Months' supply begins at about 3.8 and generally increases to about 4.2 by late 2001. It then generally decreases to about 3.5 by 2003, and generally increases to end at about 10.9.

Note: Months' supply is calculated using the 3-month moving average of sales.

Source: Census Bureau.

### **Figure: Existing Single-Family Home Sales**

Line chart, 2001 to 2009. There are two series, "Pending home sales", which is an index (2001=100), and "Existing home sales", which is by millions of units (annual rate). These two series use two different scales. Pending home sales begins at about 101 and generally decreases to about 88 by late 2001. It then generally increases to about 128 by 2005, and generally decreases to end at about 81 by February. Existing home sales begins at about 4.5 and generally increases to about 6.4 by 2005. It then generally decreases to end at about 4.1 by March.

Source: National Association of Realtors.

### **Figure: Mortgage Rates**

Line chart showing 30-year conforming FRM, by percent, 2001 to April 2009. It begins at about 7.1 and generally decreases to about 5.2 by 2003. It then fluctuates but generally increases to about 6.7 by 2006, and generally decreases to about 5.6 by early 2008. It then generally increases to about 6.55 by 2008, and generally decreases to end at about 4.8.

Note: The April reading is a 2-week moving average of data available through April 22, 2009. FRM is a fixed-rate mortgage.

Source: Federal Home Loan Mortgage Corporation.

### **Figure: Prices of Existing Homes**

Line chart, by percent change from year earlier, 2001 to 2009. There are three series, "Monthly FHFA purchase-only index", "LP price index", and "20-city S&P/Case-Shiller monthly price index". Monthly FHFA purchase-only index begins at about 7 and generally increases to about 10 by 2005. It then generally decreases to about -9 by late 2008, and generally increases to end at about -6 by February. LP price index begins at about 8 and generally increases to about 15.5 by 2005. It then generally decreases to end at about -12 by February. 20-city S&P/Case-Shiller monthly price index begins at about 12.5 and generally decreases to about 7.5 by early 2002. It then generally increases to about 17 by 2004, and generally decreases to end at about -19 by January.

Source: For FHFA, Federal Housing Finance Agency; for S&P/Case-Shiller, Standard & Poor's; for LP, LoanPerformance, a division of First American CoreLogic.

### **Figure: House Price Expectations**

Line chart, a diffusion index, 2007 to April 2009. There are two series, "5 years ahead" and "1 year ahead". 5 years ahead begins at about 62 and fluctuates but generally decreases to end at about 48. 1 year ahead begins at about 30 and generally decreases to about -8 by 2008. It then generally increases to about 1 by 2008, and generally decreases to about -20 by early 2009. It then generally increases to end at about -12.

Note: Diffusion index is constructed by subtracting expectations of decrease from expectations of increase. April 2009 values are preliminary.

Note: Reuters/University of Michigan Surveys of Consumers.

## Orders and Shipments of Nondefense Capital Goods

(Percent change; seasonally adjusted current dollars)

Category	2008		2009		
	Q4	Q1	Jan.	Feb.	Mar.
	Annual rate		Monthly rate		
Shipments	-19.8	-27.5	-6.6	-3.0	-0.9
Excluding aircraft	-15.5	-34.9	-9.4	.1	-1.7
Computers and peripherals	-25.3	1.6	-2.0	1.7	-1.4
Communications equipment	-16.6	-50.2	-10.4	-3.2	-2.3
All other categories <sup>1</sup>	-14.4	-36.0	-9.9	.2	-1.7
Orders	-49.9	-46.9	-9.9	4.9	1.9
Excluding aircraft	-36.5	-41.7	-12.3	4.3	1.5
Computers and peripherals	-20.8	-15.0	-9.9	11.9	-2.0
Communications equipment	-28.7	-63.0	-20.3	5.6	2.3
All other categories <sup>1</sup>	-38.4	-41.4	-11.7	3.4	1.9
Memo:					
Shipments of complete aircraft <sup>2</sup>	26.0	n.a.	50.5	30.3	n.a.

1. Excludes most terrestrial transportation equipment. [Return to table](#)

2. From Census Bureau, Current Industrial Reports; billions of dollars, annual rate. [Return to table](#)

n.a. Not available.

Source: Census Bureau.

### Figure: Communications Equipment

Line chart, by billions of chained (2000) dollars, ratio scale, 2000 to March 2009. There are two series, "Shipments" and "Orders". Shipments begins at about 9 and generally increases to about 10.5 by late 2000. It then generally decreases to about 4.8 by 2003, and generally increases to about 7 by 2006. It then generally decreases to end at about 5. Orders begins at about 10 and generally increases to about 14 by 2000. It then generally decreases to about 2.3 by 2002, and generally increases to about 8 by early 2006. It then generally decreases to end at about 4.9.

Note: Shipments and orders are deflated by a price index that is derived from the quality-adjusted price indexes of the Bureau of Economic Analysis and uses the producer price index for communications equipment for monthly interpolation.

Source: Census Bureau.

### Figure: Non-High-Tech, Nontransportation Equipment

Line chart, by billions of chained (2000) dollars, ratio scale, 2000 to March 2009. There are two series, "Orders" and "Shipments". Orders begins at about 46.5 and generally decreases to about 36 by early 2002. It then generally increases to about 49 by 2006, and generally decreases to end at about 35. Shipments begins at about 44 and generally decreases to about 37.5 by late 2001. It then generally increases to about 46 by late 2006, and generally decreases to end at about 37.

Note: Shipments and orders are deflated by the staff price indexes for the individual equipment types included in this category. Indexes are derived from the quality-adjusted price indexes of the Bureau of Economic Analysis.

Source: Census Bureau.

### Figure: Computers and Peripherals

Line chart, 2000 to March 2009. There are two series, "Industrial production", which is an index (2000=100), and "Real M3 shipments", which is by billions of chained (2000) dollars. These two series use two different scales. Industrial production begins at about 96 and generally increases to about 107 by 2001. It then generally decreases to about 96 by late 2002, and generally increases to about 238 by 2008. It then generally decreases to end at about 162. Real M3 shipments begins at about 8.4 and generally increases to about 15.1 by 2006. It then generally decreases to about 12 by late 2006, and generally increases to end at about 18.

Note: Ratio scales. Shipments are deflated by the staff price index for computers and peripheral equipment, which is derived from the quality-adjusted price indexes of the Bureau of Economic Analysis.

Source: Census Bureau; FRB Industrial Production.

### Figure: Medium and Heavy Trucks

Line chart, by thousands of units, ratio scale, 2000 to March 2009. There are two series, "Net new orders of class 5-8 trucks" and "Sales of class 4-8 trucks". Net new orders of class 5-8 trucks begins at about 400 and generally decreases to about 270 by late 2001. It then generally increases to about 970 by early 2006, and generally decreases to about 140 by early 2009. It then generally increases to end at about 190. Sales of class 4-8 trucks begins at about 538 and generally decreases 270 by early 2003. It then generally increases to about 560 by late 2006, and generally decreases to end at about 200.

Note: Annual rate, FRB seasonals.

Source: For sales, Ward's Communications; for orders, ACT Research.

## The Domestic Financial Economy

### Commercial Bank Credit

(Percent change, annual rate, except as noted; seasonally adjusted)

Type of credit	2007	2008	H2 2008	Q4 2008	Q1 2009	Mar. 2009	Apr. 2009 <sup>e</sup>	Level <sup>1</sup> Apr. 2009 <sup>e</sup>
<b>Total</b>	10.9	4.4	4.7	6.2	-6.7	-3.8	-14.8	9,325
<b>Loans<sup>2</sup></b>								
<b>Total</b>	11.3	4.4	2.6	3.1	-6.4	-7.2	-11.9	7,023
<b>To businesses</b>								
Commercial and industrial	19.0	14.2	13.0	18.3	-9.7	-13.0	-18.3	1,520
Commercial real estate	10.7	6.4	2.9	2.0	-1.0	-1.7	-2.4	1,723
<b>To households</b>								
Residential real estate	6.8	-2.3	-3.8	-.7	-.5	2.5	-7.5	2,091
Revolving home equity	6.4	12.9	12.9	13.1	8.3	8.6	1.8	602
Closed-end mortgages	6.9	-7.1	-9.5	-5.8	-4.0	.0	-11.3	1,489
Consumer	6.6	7.9	7.4	6.0	7.3	-10.0	-15.5	881
Originated <sup>3</sup>	6.0	6.4	4.7	3.3	1.9	-7.3	-5.1	1,296
Other	17.1	-1.6	-4.5	-13.7	-36.7	-29.1	-27.2	808
<b>Securities</b>								
<b>Total</b>	9.5	4.6	11.2	16.0	-7.8	6.7	-23.5	2,303
Treasury and agency	-5.6	19.4	37.7	51.6	3.1	7.4	-35.2	1,354
Other <sup>4</sup>	31.1	-10.7	-16.8	-24.7	-22.8	5.7	-6.3	949

Note: Yearly annual rates are Q4 to Q4; quarterly and monthly annual rates use corresponding average levels. Data have been adjusted to remove the effects of mark-to-market accounting rules (FIN 39 and FAS 115), the initial consolidation of certain variable interest entities (FIN 46), and the initial adoption of fair value accounting. Data also account for the effects of nonbank structure activity of \$5 billion or more.

1. Billions of dollars. Pro rata averages of weekly (Wednesday) levels. [Return to table](#)

2. Excludes interbank loans. [Return to table](#)

3. Includes an estimate of outstanding loans securitized by commercial banks. [Return to table](#)

4. Includes private mortgage-backed securities; securities of corporations, state and local governments, and foreign governments; and any trading account assets that are not Treasury or agency securities. [Return to table](#)

e Estimated. [Return to table](#)

Source: Federal Reserve.

### Selected Financial Market Quotations

(One-day quotes in percent except as noted)

Instrument	2007		2009		Change to Apr. 23 from selected dates (percentage points)		
	Aug. 6	Jan. 27	Mar. 17	Apr. 23	2007 Aug. 6	2009 Jan. 27	2009 Mar. 17
<b>Short-term</b>							
FOMC intended federal funds rate	5.25	.13	.13	.13	-5.12	.00	.00
<b>Treasury bills<sup>1</sup></b>							

3-month	4.74	.13	.24	.10	-4.64	-.03	-.14
6-month	4.72	.32	.44	.30	-4.42	-.02	-.14
Commercial paper (A1/P1 rates) <sup>2</sup>							
1-month	5.26	.29	.44	.30	-4.96	.01	-.14
3-month	5.29	2.04	.66	.40	-4.89	-1.64	-.26
Large negotiable CDs <sup>1</sup>							
3-month	5.34	1.08	1.08	.87	-4.47	-.21	-.21
6-month	5.27	1.57	1.83	1.48	-3.79	-.09	-.35
Eurodollar deposits <sup>3</sup>							
1-month	5.33	.75	1.00	.90	-4.43	.15	-.10
3-month	5.35	1.75	1.65	1.50	-3.85	-.25	-.15
Bank prime rate							
	8.25	3.25	3.25	3.25	-5.00	.00	.00
<i>Intermediate- and long-term</i>							
U.S. Treasury <sup>4</sup>							
2-year	4.49	.68	1.04	.90	-3.59	.22	-.14
5-year	4.52	1.74	2.14	1.98	-2.54	.24	-.16
10-year	4.82	3.17	3.47	3.30	-1.52	.13	-.17
U.S. Treasury indexed notes <sup>5</sup>							
5-year	2.43	1.84	2.04	1.55	-.88	-.29	-.49
10-year	2.48	1.97	2.26	1.92	-.56	-.05	-.34
Municipal general obligations (Bond Buyer) <sup>6</sup>							
	4.51	5.13	5.03	4.57	.06	-.56	-.46
Private instruments							
10-year swap	5.44	2.84	3.14	3.11	-2.33	.27	-.03
10-year FNMA <sup>7</sup>	5.34	3.65	4.04	3.82	-1.52	.17	-.22
10-year AA <sup>8</sup>	6.12	6.03	6.99	6.31	.19	.28	-.68
10-year BBB <sup>8</sup>	6.57	8.94	9.25	8.57	2.00	-.37	-.68
10-year high yield <sup>8</sup>	9.21	14.68	16.41	14.01	4.80	-.67	-2.40
Home mortgages (FHLMC survey rate)							
30-year fixed	6.59	5.10	4.98	4.80	-1.79	-.30	-.18
1-year adjustable	5.65	4.90	4.91	4.82	-.83	-.08	-.09

Stock exchange index	Record high		2009			Change to Apr. 23 from selected dates (percent)		
	Level	Date	Jan. 27	Mar. 17	Apr. 23	Record high	2009 Jan. 27	2009 Mar. 17
Dow Jones Industrial	14,165	10-9-07	8,175	7,396	7,957	-43.82	-2.66	7.59
S&P 500 Composite	1,565	10-9-07	846	778	852	-45.57	.73	9.48
Nasdaq	5,049	3-10-00	1,505	1,462	1,652	-67.27	9.79	13.00
Russell 2000	856	7-13-07	456	404	467	-45.47	2.42	15.62
D.J. Total Stock Index	15,807	10-9-07	8,524	7,878	8,701	-44.95	2.07	10.45

1. Secondary market. [Return to table](#)

2. Financial commercial paper. [Return to table](#)

3. Bid rates for Eurodollar deposits collected around 9:30 a.m. eastern time. [Return to table](#)

4. Derived from a smoothed Treasury yield curve estimated using off-the-run securities. [Return to table](#)

5. Derived from a smoothed Treasury yield curve estimated using all outstanding securities and adjusted for the carry effect. [Return to table](#)

6. Most recent Thursday quote. [Return to table](#)

7. Constant-maturity yields estimated from Fannie Mae domestic noncallable coupon securities. [Return to table](#)

8. Derived from smoothed corporate yield curves estimated using Merrill Lynch bond data. [Return to table](#)

NOTES:

August 6, 2007, is the day before the August 2007 FOMC meeting.

January 27, 2009, is the day before the January 2009 FOMC monetary policy announcement.

March 17, 2009, is the day before the most recent FOMC monetary policy announcement.

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

**Last update: April 1, 2015**

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