# January 2009 Bluebook and Greenbook Tables and Charts

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## January 2009 Bluebook Tables and Charts †

### **Recent Developments**

Chart 1

**Financial Institutions** 

Figure: Senior CDS spreads for bank holding companies

A line chart shows senior CDS spreads for bank holding companies from January 2007 through January 21, 2009. Data are daily; unit is basis points. A vertical line marks the FOMC meeting on December 15-16, 2008. The curve is relatively stable from January 2007 through June 2007 at about 10 basis points. In July 2007, the curve begins a general upward trend which accelerates in February 2008. The curve reaches about 210 by mid-March, and then decreases to about 70 by the beginning of May. The curve then resumes its upward trend, reaching about 150 by early September 2008. The curve is more volatile for the remainder of the period, fluctuating between about 125 and 290 basis points, with peaks in mid-September, early October, and late November. Around the time of the December 2008 FOMC meeting, the curve is around 200 and is decreasing. The curve ends on January 21, 2009 at about 250 basis points.

Note. Median spreads for 6 bank holding companies.

Source. Markit.

Figure: CDS spreads for insurance companies\*

A line chart shows CDS spreads for insurance companies from January 2007 through January 21, 2009. Data are daily; unit is basis points. A vertical line marks the FOMC meeting on December 15-16, 2008. The curve begins at about 20 basis points in January 2007, generally increases to about 30 by early July, continues increasing to a little more than 50 by mid-August, and decreases to about 33 by mid-October. The curve increases to about 125 by late February 2008, dips to about 95 before the end of that month, increases to about 120 by mid-March, and then decreases to about 75 by early May. The curve gradually increases to about 100 by early August, remains at that level through mid-September, then increases rapidly to about 200 by the end of October. The curve fluctuates between about 150 and 200 for the remainder of the period, reaching about 190 around the time of the December FOMC meeting, and ending at about 167 on January 21, 2009.

\* Median spreads for 61 insurance companies. Return to text

Source. Markit.

Figure: Bank and insurance ETFs

A line chart shows two curves, "Banks" and "Insurance companies", from January 2007 through January 22, 2009. Data are daily; unit is an index (January 3, 2007 = 100). A vertical line marks the FOMC meeting on December 15-16, 2008. Both curves begin at 100. The banks curve remains near that level through mid-July 2007, when it begins a general decline to nearly 40 by mid-July 2008. It then increases to about 66 by late September, and decreases to end at about 23 on January 22, 2009. The insurance companies curve generally increases to about 107 by mid-May 2007, then begins a general downward trend. It reaches about 70 by late September 2008, decreases further to nearly 40 by early October, then fluctuates around that level for the remainder of the period. The curve ends at about 37 on January 22, 2009. Between early October and late November 2008, the two curves track one another closely. Around the time of the December FOMC meeting, the banks curve is a little less than 40 and the insurance companies curve is a little more than 40.

Note. There are 24 banks and 24 insurance companies included.

Source, Bloomberg,

Figure: CDS spread for GMAC

A line chart shows the CDS spread for GMAC from January 2007 through January 21, 2009. Data are daily; unit is basis points. A vertical line marks the FOMC meeting on December 15-16, 2008. The curve begins near zero in January 2007, increases gradually to around 20 basis points by July 2008, and fluctuates around that level through September. The curve then increases rapidly to about 70 by early October, decreases to nearly 20 by the end of that month, increases again to about 63 by late November, and generally decreases to end at about 10 basis points on January 21, 2009. Around the time of the December FOMC meeting, the curve is about 30 basis points.

Source. Markit.

Figure: Global Hedge Fund Index values

A line chart shows Global Hedge Fund Index values (March 31, 2003 = 1000) from early 2003 through January 20, 2009. Data are daily. A vertical line marks the FOMC meeting on December 15-16, 2008. The curve begins at 1000 in 2003, generally increases to about 1300 by early 2007, fluctuates between about 1270 and 1380 until 2008:Q3, and then decreases rapidly to about 1030 by the time of the December FOMC meeting. The curve ends at about the same level on January 20, 2009.

Note. The Global Hedge Fund Index tracks net asset values for hedge funds across the industry.

Source. HFR, Inc.

Figure: Net flows into taxable money market mutual funds

A stacked bar chart shows net flows into taxable money market mutual funds with two series, government funds and prime funds, from September 2008 through January 2009. A curve showing the total of the two series is superimposed on the bars. Data are daily; unit is billions of dollars. In September 2008, the government funds series is strictly positive. It rises and peaks at about 60 billion dollars in mid-September, then decreases to about 20 before the end of the month. Within the same timeframe, the prime funds series is strictly negative. It bottoms out around -130 billion dollars the day before government funds reach their peak, then increases to about -25 before the end of the month. Both series fluctuate around 0 for the remainder of the period, though most values are positive. The resulting total curve hits two low points in September (approximately -60 and -80 billion dollars), but then begins to fluctuate between about 25 and -20 billion dollars. The total is positive most days through January 2009.

Source. iMoneyNet.

# Chart 2 Market Functioning

Figure: Spreads of Libor over OIS

A line chart shows spreads of Libor over OIS with three series, 1-month, 3-month, and 6-month, from January 2007 through January 22, 2009. Data are daily; unit is basis points. A vertical line marks the FOMC meeting on December 15-16, 2008. The 1-month curve begins in January 2007 at around 10 basis points, and remains at that level through late July. The curve then fluctuates between about 10 and 110 through September 2008, peaks at about 330 in mid-October, decreases to about 70 around the time of the December FOMC meeting, and ends at about 20 basis points on January 22, 2009. The 3-month curve begins in January 2007 at around 10 basis points, and remains at that level through late July. The curve then fluctuates between about 10 and 110 through September 2008, remaining mostly higher than the 1-month curve. It peaks at about 360 in mid-October, decreases to about 160 around the time of the December FOMC meeting, and decreases to just less than 100 basis points by January 22, 2009. The 6-month curve begins in January 2007 at around 10 basis points, and remains at that level through late July. The curve then fluctuates between about 10 and 110 through September 2008, remaining mostly higher than the 3-month curve beginning in January 2008. The curve peaks at about 320 in mid-October, decreases to about 180 around the time of the December FOMC meeting, and decreases to about 140 basis points by January 22, 2009.

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: Spreads on 30-day commercial paper

A line chart shows spreads on 30-day commercial paper with two series, ABCP and A2/P2, from July 2007 through January 21, 2009. Data are daily; unit is basis points. A vertical line marks the FOMC meeting on December 15-16, 2008. The ABCP curve begins near zero basis points in July 2007. It increases and peaks around 130 in September, decreases to about 10 by late October, and peaks again at nearly 200 in December. The curve decreases by January 2008, and fluctuates between about 20 and 100 basis points through September 2008. It increases rapidly to around 400 in late September and early October, then generally decreases to about 60 around the time of the December FOMC meeting and to about 20 basis points by January 21, 2009. The A2/P2 curve follows a similar pattern at first. It begins at about 10 basis points in July 2007, increases to nearly 100 by mid-September, decreases to about 20 by November, and increases again to about 150 by late December 2007. The curve then decreases by January 2008, and fluctuates between about 30 and 110 basis points through September 2008. It increases rapidly to around 400 in late September, and then generally continues to increase with marked volatility through the end of the year. It reaches about 500 around the time of the December FOMC meeting, and about 610 by the end of 2008, before dropping rapidly to about 120 basis points by January 21, 2009.

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

A line chart shows monthly averages of the 10-year Treasury note on-the-run premium from 2001 through January 2009. Unit is basis points. A vertical line marks the FOMC meeting on December 15-16, 2008. The curve begins at about 14 basis points in 2001, generally increases to about 27.5 by early 2002, generally decreases to about 5 by early 2007, generally increases to about 60 by December 2008, and then decreases slightly to end at about 58 in January 2009.

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

Source. Board staff estimates.

Figure: Daily on-the-run Treasury market volume

A line chart shows monthly averages of daily on-the-run Treasury market volume from 2003 through January 2009. Unit is billions of dollars. The curve begins at about 85 billion dollars in 2003, and fluctuates but generally increases to about 175 by early 2007. The curve then fluctuates more widely and spikes several times between approximately 230 and 280 during 2007 and early 2008, before generally decreasing to end at about 85 billion dollars in January 2009.

Note. January observation is average for month to date.

Source BrokerTec Interdealer Market Data

### Figure: AAA CMBX Index

A line chart shows the AAA CMBX Index from April 2007 through January 22, 2009. Data are daily; unit is basis points. A vertical line marks the FOMC meeting on December 15-16, 2008. The curve begins at about 0 in late April 2007, generally increases to about 270 by March 2008, and generally decreases to about 100 by May 2008. It increases back to about 270 by mid-November, then increases quickly to about 840 by late November, and fluctuates more widely between approximately 480 and 750. The curve reaches a little more than 500 around the time of the December FOMC meeting, and ends at about 630 basis points on January 22, 2009.

Note. Origination date is April 2007.

Source. JPMorgan.

Figure: Pricing in the secondary market for leveraged loans

A line chart shows two curves, bid-asked spread (in basis points) and bid price (percent of par value), from January 2007 through January 21, 2009. Data are daily. A vertical line marks the FOMC meeting on December 15-16, 2008. The bid-asked spread curve begins at just more than 50 basis points in January 2007, and remains at about that level through late June. The curve increases quickly to about 150 in late July, decreases to about 115 by early October 2007, increases to about 230 by mid-February 2008, decreases to about 160 by June, and increases to about 170 by early September 2008. The curve then increases rapidly to about 380 by late October 2008, dips to about 330 in November, increases to about 400 around the time of the December FOMC meeting, and ends at about 380 on January 21, 2009. The bid price follows a similar pattern but in the opposite direction. It begins at about 98 percent of par value in January 2007, and remains around that level through mid-July. It dips to nearly 94 by August, increases to about 96 by mid-October 2007, then decreases, gradually at first, to about 86 by mid-February 2008. The curve increases to about 89 by June, decreases back to 86 by mid-September, and then decreases more rapidly to about 60 around the time of the December 2008 FOMC meeting. It ends at a little less than 62 percent of par value on January 21, 2009.

Source, LSTA/LPC Mark-to-Market Pricing

# Chart 3 Interest Rate Developments

Figure: Expected federal funds rates\*

A line chart shows expected federal funds rate curves for 2009 through 2010 as of December 15, 2008 and January 22, 2009. Unit is percent. The December 15 curve begins at about 0.3 percent and gradually increases to about 1.5 percent over the period. The January 22 curve begins at about 0.15 percent and gradually increases to about 1.3 percent over the period.

\* Estimates from federal funds and Eurodollar futures, with an allowance for term premiums and other adjustments. Return to text Source. Chicago Mercantile Exchange and CBOT.

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

A bar chart shows the distribution of the expected quarter of the first rate increase, over 2010:Q1 through 2011:Q2. Unit is percent. Values are approximately as follows: 2010:Q1 and Q2: 26.7 percent. 2010:Q3: 13.3 percent. 2010:Q4: 6.7 percent. 2011:Q1 and Q2: 13.3 percent.

Source. Federal Reserve Bank of New York.

Note. There were 15 respondents.

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

A bar chart shows two series, "Recent: 1/22/2009", and "Last FOMC: 12/15/2008", over federal funds rate values of 0.00 through 3.50 percent. Unit is percent. The estimated values for "Recent: 1/22/2009" are as follows: 0.00: 16 percent. 0.25: 59 percent. 0.50: 17 percent. 0.75: 3 percent. 1.00: 1.5 percent. 1.50: 1 percent. 2.25: 1.5 percent. The estimated values for "Last FOMC: 12/15/2008" are as follows: 0.00: 5 percent. 0.25: 22.5 percent. 0.50: 37.5 percent. 0.75: 26 percent. 1.00: 7.5 percent. 1.25: 1.5 percent. 1.25: 1.25 percent. 1.25 percent. 1.25: 1.25 percent. 1.25 percent.

\* Derived from options on Eurodollar futures contracts, with term premium and other adjustments to estimate expectations for the federal funds rate. Return to text Source. CBOT.

Figure: Nominal Treasury yields\*

A line chart shows two curves, 10-year and 2-year, from 2006 through January 22, 2009. Data are daily; unit is percent. A vertical line marks the FOMC meeting on December 15-16, 2008. The 10-year curve begins in 2006 at about 4.5 percent. It fluctuates between that level and about 5.3 percent until 2007:Q4, and then fluctuates between about 3.6 and 4.6 until 2008:Q4. The curve reaches about 3 percent by the December 2008 FOMC meeting, and ends at about 3.25 percent on January 22, 2009. The 2-year curve begins in 2006 at about 4.4 percent, and follows the 10-year curve fairly closely through 2007:Q2. The 2-year curve then decreases over the next three quarters to about 1.4 percent by the end of 2008:Q1. It increases to about 3 percent by the end of 2008:Q2, but then resumes its downward trend. It reaches about 0.5 percent by the December 2008 FOMC meeting, and ends at about 0.7 percent on January 22, 2009.

\* Par yields from a smoothed nominal off-the-run Treasury yield curve. Return to text

Source. Board staff estimates.

Figure: Inflation compensation\*

A line chart shows two curves, "Next 5 years" and "5-to-10 year forward", from 2006 through January 22, 2009. Data are daily; unit is percent. A vertical line marks the FOMC meeting on December 15-16, 2008. The "Next 5 years" curve begins in 2006 at about 2.5 percent, and fluctuates near that level until 2006:Q3. It then decreases to about 2.25 by the end of that quarter, and remains near that level through 2007:Q2. The curve then fluctuates within a range of about 1.75 to 2.6 through mid-2008:Q3, decreases rapidly to about -1.6 by mid-2008:Q4, reaches about -1.4 by the December 2008 FOMC meeting, and ends at about -0.25 on January 22, 2009. The "5-to-10 year forward" curve begins in 2006 just less than 2.5 percent, and fluctuates within a narrow range but increases on net to about 3.25 percent by late 2008:Q1. The curve decreases to about 2.5 by 2008:Q4, jumps to nearly 3.7 by mid-quarter, then decreases and fluctuates between about 2.0 and 2.75 for the remainder of the period. It reaches about 2.5 by the December 2008 FOMC meeting, and ends at about 2.6 on January 22, 2009.

\* Estimates based on smoothed nominal and inflation-indexed Treasury yield curves and adjusted for the indexation-lag (carry) effect. Return to text

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

Figure: Survey measures of inflation expectations

A line chart shows two curves, "Michigan Survey 1-year" and "Michigan Survey 10-year", from 2002 through January 2009. Unit is percent. The "Michigan Survey 1-year" curve begins just less than 2 percent in 2002, and fluctuates widely but shows a general upward trend to about 3.4 by early 2008. The curve then peaks at about 5.25 in mid-2008, and drops to about 1.7 by the end of the year. The curve ends at about 2 percent in January 2009. The "Michigan Survey 10-year" begins at about 2.75 percent in 2002, and generally increases to about 3.4 percent by mid-2008. It then decreases to about 2.7 by the end of the year, and rebounds to about 3 percent by January 2009.

Source. Reuters / University of Michigan.

### [Box:] Gauging Investor Expectations for Future Interest Rate Policy with Uncertain Term Premiums

Figure: Expected Federal Funds Path on January 22 Based on Alternative Term Premium Assumptions

A line chart shows three curves, "1 b.p./mo.", "OIS ATSM", and "Slope", from January 2009 through early November 2010. Unit is percent. The "1 b.p./mo." curve begins at about 0.18 percent in January 2009, and rises to about 1.28 percent by the end of the period. The "OIS ATSM" curve begins just less than 0.18 percent in January 2009, decreases to almost 1 percent by May 2009, and then begins to increase after July to about 0.97 by the end of the period. The "Slope" curve begins at about 0.17 percent in January 2009, and gradually increases to about 1.13 percent by the end of the period.

# Chart 4 Asset Market Developments

Figure: Equity prices

A line chart shows two curves, "Wilshire 5000" and "Dow Jones Financial", from 2002 through January 22, 2009. Data are daily; unit is an index, 12/31/2000 = 100. A vertical line marks the FOMC meeting on December 15-16, 2008. The "Wilshire 5000" curve begins at about 90 in 2002, decreases to about 60 by 2002:Q4, generally increases to about 130 by 2007:Q4, and then decreases on net for the remainder of the period. It reaches about 72 by the December 2008 FOMC meeting, and ends at about 68 on January 22, 2009. The "Dow Jones Financial" curve begins at about 92 in 2002, decreases to about 66 by 2002:Q4, generally increases to about 139 by 2007:Q1, and then decreases on net for the remainder of the period. It reaches about 50 by the December 2008 FOMC meeting, and ends at about 37 on January 22, 2009.

Source. Bloomberg.

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

A line chart shows the VIX from 2002 through January 22, 2009. The data are weekly (Fridays, although the latest observation is for most recent business day); unit is percent. A vertical line marks the FOMC meeting on December 15-16, 2008. The curve begins at a little more than 20 percent in 2002, increases to about 45 mid-year, then decreases on net back to 20 by early 2003. The curve follows a general downward trend to about 5 by mid-2005, and fluctuates near that level until mid-2006, when it spikes briefly to about 25. It returns to about 5 by the end of 2006, but then begins to increase and to fluctuate more widely. It reaches about 30 by early 2008, rises quickly in late 2008 to about 80, reaches about 50 by the December 2008 FOMC meeting, and ends near 45 percent on January 22, 2009.

Source. Chicago Board of Exchange.

Figure: Corporate bond spreads\*

A line chart shows two curves, "10-year BBB" and "10-year High-Yield", from 2002 through January 22, 2009. The data are daily; unit is basis points. The curves are plotted relative to two different scales, and as a result they follow similar paths. A vertical line marks the FOMC meeting on December 15-16, 2008. The "10-year BBB" curve begins at about 200 basis points in 2002, increases above 300 before the end of the year, and decreases to about 100 by early 2005. It then begins to increase, slowly at first, then more quickly beginning in late 2007 through 2008. It peaks at about 660 around the time of the December FOMC meeting, then decreases to end at about 590 basis points on January 22, 2009. The "10-year High-Yield" curve begins at about 550 basis points in 2002, increases above 800 before the end of the year, and decreases to nearly 250 by early 2005. It fluctuates between that level and about 450 through late 2007, and then begins to rise on net. It peaks at about 1650 around the time of the December FOMC meeting, then decreases to end at about 1150 basis points on January 22, 2009.

\* Measured relative to an estimated off-the-run Treasury yield curve. Return to text

Source. Merrill Lynch and Board staff estimates.

Figure: Fannie Mae 10-year debt and MBS spreads

A line chart shows two curves, "10-year agency debt" and "MBS spread", from January 2008 through January 21, 2009. Data are daily; unit is basis points. A vertical line marks the FOMC meeting on December 15-16, 2008. The "10-year agency debt" curve begins around -10 basis points in January 2008, and fluctuates mostly within the range of about 0 to 25 basis points through late September. It then begins to rise rapidly, peaking at about 200 in late November, before falling to a little less than 80 before the December 2008 FOMC meeting. The curve ends at about 105 basis points on January 21, 2009. The "MBS spread" begins around 45 basis points in January 2008, fluctuates between about 0 and 85 through March, and fluctuates between about 40 and 80 through early June. It generally increases to about 100 by mid-August, and decreases to nearly 50 in early September. The curve then fluctuates widely and generally increases to peak just more than 210 in late November, reaches about 140 by the December 2008 FOMC meeting, and ends at about 120 basis points on January 21, 2009.

Note. Spreads over swaps of comparable maturity.

Source. Bloomberg.

Figure: Residential mortgage rates and spreads

A line chart shows two curves, "FRM rate" (percent) and "FRM spread" (basis points), from January 2007 through January 21, 2009. Data are weekly. A vertical line marks the FOMC meeting on December 15-16, 2008. The "FRM rate" curve begins at about 6.2 percent in January 2007, generally increases to about 6.75 by June 2007, and generally decreases to about 5.5 by January 2008. It generally increases to about 6.6 by July 2008, fluctuates between about 5.75 and 6.5 through November, decreases to about 5.3 by the December 2008 FOMC meeting, and ends at about 5.1 percent on January 21, 2009. The "FRM spread" curve begins at about 150 basis points in January 2007, and fluctuates widely but generally increases to about 275 by the December 2008 FOMC meeting. The curve ends at about the same level on January 21, 2009.

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

Source. Freddie Mac.

Figure: 2-year credit card ABS spreads over swaps

A line chart shows three curves, AAA, A, and BBB, from January 2007 through January 16, 2009. Data are weekly; unit is basis points. A vertical line marks the FOMC meeting on December 15-16, 2008. The AAA curve begins at about 0 basis points in January 2007, stays at about that level through July 2007, increases to about 100 by April 2008, and decreases to about 50 by August 2008. The curve increases to about 550 by the December 2008 FOMC meeting, and decreases to end at about 300 basis points on January 16, 2009. The A curve begins just above 0 basis points in January 2007, stays at about that level through July 2007, increases to about 300 by March 2008, and decreases to about 200 by June 2008. The curve increases to about 1500 basis points by the December 2008 FOMC meeting, and remains at that level through January 16, 2009. The BBB curve begins just above 0 basis points in January 2007, stays at about that level through July 2007, increases to about 500 by March 2008, and decreases to about 300 by June 2008. The curve increases to about 2000 basis points by the December 2008 FOMC meeting, and remains at that level through January 16, 2009.

Source. Citigroup.

### Chart 5

### International Financial Indicators

Figure: Ten-year government bond yields (nominal)

A line chart shows three curves, "UK (left scale)", "Germany (left scale)", and "Japan (right scale)", from 2005 through January 22, 2009. The left scale ranges from about 2.0 to 6.0 and the right scale ranges from 0.0 to 3.0. Data are daily; unit is percent. A vertical line marks the FOMC meeting on December 15-16, 2008. The UK curve begins at about 4.55 percent in 2005, fluctuates but generally increases to about 4.8 in early 2005, and decreases to about 4.0 by 2006. The curve increases to about 5.5 by mid-2007, decreases to about 4.3 by early 2008, and increases to about 5.25 by mid-2008. It decreases to about 3.3 by the December 2008 FOMC meeting, and ends at about 3.5 percent on January 22, 2009. The Germany curve begins at about 3.7 percent in 2005, fluctuates but generally decreases to about 3.0 by late 2005, and then increases to about 4.65 by mid-2007. It decreases to about 3.75 by early 2008, and increases back to about 4.65 by mid-2008. The curve then decreases to about 3.2 percent by the December 2008 FOMC meeting, and ends at about that level on January 22, 2009. The Japan curve begins at about 1.4 percent in 2005, fluctuates but generally decreases to about 1.2 by mid-2005, increases to about 2.0 by mid-2006, and decreases to about 1.25 by early 2008. The curve then increases to about 1.8 in 2008:Q2, decreases to about 1.3 by the December 2008 FOMC meeting, and ends at about 1.25 percent on January 22, 2009.

Source. Bloomberg.

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

A line chart shows three curves, "UK (FTSE-350)", "Euro Area (DJ Euro)", and "Japan (Topix)", from 2005 through January 22, 2009. Data are daily; unit is an index (12/30/04=100). A vertical line marks the FOMC meeting on December 15-16, 2008. The UK curve begins at about 100 in 2005, fluctuates but generally increases to about 145 by mid-2007, decreases to about 90 by the December 2008 FOMC meeting, and ends at about 85 on January 22, 2009. The Euro Area curve begins at about 100 in 2005, fluctuates but generally increases to about 165 by mid-2007, decreases to about 84 by the December 2008 FOMC meeting, and ends at about 75 on January 22, 2009. The Japan curve begins at about 100 in 2005, fluctuates but generally increases to about 158 by early 2007, decreases to about 73 by the December 2008 FOMC meeting, and ends just less than 70 on January 22, 2009.

Source. Bloomberg.

Figure: Stock price indexes: Emerging market economies

A line chart shows three curves, "Brazil (Bovespa)", "Korea (KOSPI)", and "Mexico (Bolsa)", from 2005 through January 22, 2009. Data are daily; unit is an index (12/30/04=100). A vertical line marks the FOMC meeting on December 15-16, 2008. The Brazil curve begins at about 100 in 2005, fluctuates but generally increases to about 280 by early 2008, decreases to about 145 by the December 2008 FOMC meeting, and ends at about 140 on January 22, 2009. The Korea curve begins at about 100 in 2005, fluctuates but generally increases to about 230 by late 2007, decreases to about 130 by the December 2008 FOMC meeting, and ends just less than 125 on January 22, 2009. The Mexico curve begins at about 100 in 2005, fluctuates but generally increases to just more than 250 by late 2007, decreases to about 165 by the December 2008 FOMC meeting, and ends just less than 150 on January 22, 2009.

Source. Bloomberg.

Figure: Nominal trade-weighted dollar indexes

A line chart shows three curves, "Broad", "Major Currencies", and "Other Important Trading Partners", from 2005 through January 22, 2009. Data are daily; unit is an index (12/31/04=100). A vertical line marks the FOMC meeting on December 15-16, 2008. The Broad curve begins at about 100 in 2005, fluctuates but generally increases to just more than 104 later that same year, and decreases to about 88 by mid-2008. The curve increases to about 100 by the December 2008 FOMC meeting, and ends just more than 102 on January 22, 2009. The "Major Currencies" curve begins at about 100 in 2005, fluctuates but generally increases to about 110 by late 2005, and decreases to about 87 by early 2008. The curve increases to about 98 by the December 2008 FOMC meeting, and ends at about 105 on January 22, 2009. The "Other Important Trading Partners" curve begins at about 100 in 2005, fluctuates but generally decreases to nearly 86 by mid-2008, increases to about 98 by the December 2008 FOMC meeting, and ends just more than 100 on January 22, 2009.

Source, FRBNY and Bloomberg,

# 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	6.8	6.1
Q2	8.1	12.9	7.2	3.1
Q3	9.1	14.3	6.1	7.8
Q4	8.0	12.2	5.9	6.0
2008				
Q1	5.3	7.1	3.2	6.7
Q2	3.1	5.5	0.6	4.4
Q3	7.7	4.1	-0.7	28.5
Q4p	6.4	2.8	-2.7	27.0

p Projected. Return to table
Source. Flow of Funds.

Figure: Changes in selected components of debt of nonfinancial business sector\*

A stacked bar chart shows 3 series, C&I loans, commercial paper, and bonds, over 2006 through 2008. The sum of the three series is plotted as a curve superimposed on the bars. Data are monthly rates; unit is billions of dollars. Estimated values are as follows. For C&I loans in 2006: 12 billion. 2007: 21 billion. 2008:Q1: 15 billion. 2008:Q2: 13 billion. 2008:Q3: 21 billion. 2008:Q4: 7 billion. For commercial paper in 2006: 2.5 billion. 2007: -0.5 billion. 2008:Q1: 4.5 billion. 2008:Q2: -5.5 billion. 2008:Q3: 6.5 billion. 2008:Q4: 1 billion. 2008:Q3: 6 billion. 2008:Q3: 33 billion. 2008:Q3: 33 billion. 2008:Q4: 23 billion.

<sup>\*</sup> Commercial paper and C&I loans are seasonally adjusted, bonds are not. Return to text

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

#### Figure: Growth of debt of household sector

A line chart shows two curves, "Home mortgage" and "Consumer credit", from 1991 through 2008:Q4 (projected). Data are quarterly, s.a.a.r.; unit is percent. The home mortgage curve begins at about 8 percent in 1991, fluctuates around approximately 6 percent through 1997, increases to just more than 15 by mid-2003, fluctuates around approximately 13.5 through 2005, and then decreases rapidly to end at about -3 percent in 2008:Q4. The consumer credit curve begins at about 0 percent in 1991, dips to about -2 later that same year, increases to about 13.5 by the end of 1994, decreases and fluctuates between about 3 and 13 through 2001, fluctuates between about 3 and 7 through mid-2008, and then decreases to end at about -4 percent in 2008:Q4.

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

Figure: Growth of house prices

A line chart shows two curves, "FHFA purchase-only index" and "S&P Case-Shiller national index", from 1996:Q1 through 2008:Q3. Data are annual rates, s.a.; unit is percent. The "FHFA purchase-only index" curve begins at about 5 percent in 1996:Q1, and dips at first but gradually climbs to about 10 by 2005:Q3. The curve then decreases on net to about -7 percent by 2008:Q3. The "S&P Case-Shiller national index" curve begins at about 2 percent in 1996:Q1, generally increases to about 18 by 2005:Q1, drops to about -23 by 2008:Q1, and ends at about -14 percent in 2008:Q3.

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

Figure: Changes in Standards and Spreads on C&I Loans to large and medium-sized firms

A line chart shows two curves, Standards and Spreads, from 1991:Q1 to 2009:Q1. Data are quarterly, s.a.a.r.; unit is percent. The Standards curve begins a little under 40 percent in 1991:Q1, fluctuates but generally decreases to about -20 by mid-1993, increases to about 0 by mid-1998, and spikes briefly to nearly 40 that same year. After dipping to about 5 by mid-1999, the curve increases to about 60 by 2001, decreases to about -25 by mid-2005, increases again to just more than 80 by the end of 2008, and ends at about 65 percent in 2009:Q1. The Spreads curve begins at about 60 percent in 1991:Q1, decreases to nearly -60 by 1994, generally increases to about -30 by early 1998, and increases rapidly to nearly 50 by the end of that year. After dipping to about 5 by mid-1999, the curve increases to about 60 by 2001, decreases to about -70 by mid-2005, then fluctuates and increases again to about 100 by the end of 2008. The curve ends at about 95 percent in 2009:Q1.

Source. Senior Loan Officer Opinion Survey.

Figure: Growth of M2

A bar chart shows growth of M2 from 2006 through 2008:Q4. Data are s.a.a.r.; unit is percent. Approximate values are as follows. 2006: 5. 2007:H1: 6. 2007:H2: 5.5. 2008:Q1: 8. 2008:Q2: 5.5. 2008:Q3: 5. 2008:Q4: 15.

Source, Federal Reserve.

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

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### January 2009 Bluebook Tables and Charts †

### Monetary Policy Strategies

### Chart 7

### Equilibrium Real Federal Funds Rate

Figure: Short-Run Estimates with Confidence Intervals

A line chart shows two curves, the "actual real funds rate based on lagged core inflation" from 1990:Q1 to 2009:Q1, and the "Greenbook-consistent measure" from 1997:Q3 to 2009:Q1, plus three pairs of curves (lower and upper bounds of ranges) over 1990:Q1 to 2009:Q1. The "range of model-based estimates" is properly contained within the "70 percent confidence interval", which in turn is properly contained within the "90 percent confidence interval". Unit is percent. The range of model-based estimates begins at about 1.7 to 4.2 percent in 1990:Q1, decreases to about 0 to 2.2 by 1991:Q2, and fluctuates but increases to about 2.3 to 5 by 1999:Q1. The range narrows and decreases to about 0.8 to 1.2 by 2002:Q3, widens over the following year, then narrows again and increases to about 2 to 3.2 by 2007:Q4. The range then decreases rapidly and widens to about -6.7 to 0 percent by 2009:Q1. The 70 percent confidence interval begins at about 0.6 to 4.5 percent in 1990:Q1. Its lower and upper bounds generally remain within about 0.5 to 1.5 percent of the respective bounds of the range of model-based estimates, and end at about -7.5 to 0.2 percent in 2009:Q1. The 90 percent confidence interval begins at about -0.3 to 5.5 percent in 1990:Q1. Its lower and upper bounds generally remain within about 1 percent of the respective bounds of the 70 percent confidence interval, and end at about -8.5 to 1.5 percent in 2009:Q1. The actual real funds rate curve begins at about 4.5 percent in 1990:Q1, within the upper bound of the 90 percent confidence interval. It fluctuates throughout the entire period, but never leaves the range of the 90 percent confidence interval. The actual real funds rate curve reaches about -0.2 in 1992:Q3, 5 in 2000:Q4, -0.3 in 2002:Q1, -0.8 in 2004:Q2, 3.2 in 2007:Q3, and ends at about -1.7 percent in 2009:Q1, within the range of model-based estimates. The Greenbook-consistent measure curve ends at about -3 percent in 2009:Q1, also within the range of model-based estimates.

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

	Current Estimate	Previous Bluebook
Short-Run Measures		
Single-equation model	-0.1	0.0
Small structural model	-6.2	-6.7
Large model (FRB/US)	-6.8	-6.3
Confidence intervals for three mo	del-based estimates	:
70 percent confidence interval	-7.5 - 0.1	
90 percent confidence interval	-8.4 - 1.5	
Greenbook-consistent measure	-3.0	-3.4
Medium-Run Measures		
Single-equation model	1.7	1.7
Small structural model	0.7	1.2
Confidence intervals for two mode	el-based estimates	
70 percent confidence interval	0.2 - 2.4	
90 percent confidence interval	-0.3 - 3.2	
TIPS-based factor model	2.0	2.0
Memo		
Actual real federal funds rate	-1.7	-1.0

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 Optimal Policy Under Alternative Inflation Goals

11/2 Percent Inflation Goal

#### Figure: Federal funds rate

A line chart shows two curves, Current Bluebook and Previous Bluebook, from 2009:Q1 through 2013:Q4. Unit is percent. The Current Bluebook curve begins at about 0.4 percent, decreases to about 0.3 by 2009:Q2, and remains at about that level until 2013:Q3. It then rises back to about 0.4 percent to end in 2013:Q4. The Previous Bluebook curve begins at about 0.5 percent, decreases to about 0.4 by 2009:Q2, and gradually increases to end at about 0.45 in 2013:Q4.

### Figure: Civilian unemployment rate

A line chart shows two curves, Current Bluebook and Previous Bluebook, from 2009:Q1 through 2013:Q4. Unit is percent. The Current Bluebook curve begins at about 7.75 percent in 2009:Q1, increases to nearly 8.5 by 2010:Q1, and then decreases to end at about 4.1 percent in 2013:Q4. The Previous Bluebook curve begins at about 7.5 percent in 2009:Q1, increases to about 8.3 by 2010:Q2, and then decreases to end at about 4.1 percent in 2013:Q4.

#### Figure: Core PCE inflation

A line chart shows two curves, Current Bluebook and Previous Bluebook, from 2009:Q1 through 2013:Q4. Unit is percent. The Current Bluebook curve begins at about 1.5 percent in 2009:Q1, decreases to just less than 1 by 2009:Q3, increases to about 1.1 for the next two quarters, dips to about 0.7 by 2012:Q2, and then increases again to end at about 0.85 percent in 2013:Q4. The Previous Bluebook curve begins at about 1.85 percent in 2009:Q1, decreases to about 0.6 by 2012:Q3, and then increases to end at about 0.75 in 2013:Q4.

### 2 Percent Inflation Goal

#### Figure: Federal funds rate

A line chart shows two curves, Current Bluebook and Previous Bluebook, from 2009:Q1 through 2013:Q4. Unit is percent. The Current Bluebook curve begins at about 0.35 percent, decreases to about 0.25 by 2009:Q2, remains at about that level until mid-2011, and gradually increases to end at about 0.3 percent in 2013:Q4. The Previous Bluebook curve begins at about 0.45 percent, decreases to about 0.4 percent by 2009:Q2, and stays at about that level through 2013:Q4.

### Figure: Civilian unemployment rate

A line chart shows two curves, Current Bluebook and Previous Bluebook, from 2009:Q1 through 2013:Q4. Unit is percent. The Current Bluebook curve begins at about 7.7 percent in 2009:Q1, increases to nearly 8.5 by 2010:Q1, and then decreases to end at about 3.9 percent in 2013:Q4. The Previous Bluebook curve begins at about 7.5 percent in 2009:Q1, increases to about 8.25 by 2010:Q2, and then decreases to end at about 3.9 percent in 2013:Q4.

#### Figure: Core PCE inflation

A line chart shows two curves, Current Bluebook and Previous Bluebook, from 2009:Q1 through 2013:Q4. Unit is percent. The Current Bluebook curve begins at about 1.5 percent in 2009:Q1, decreases to about 1 by 2009:Q3, increases to about 1.1 for the next two quarters, dips to about 0.75 by 2012:Q1, and then increases again to end at just more than 1.0 in 2013:Q4. The Previous Bluebook curve begins at about 1.8 percent in 2009:Q1, decreases to about 0.7 by 2012:Q2, and then increases to end at about 0.85 in 2013:Q4.

### Chart 9

The Policy Outlook in an Uncertain Environment

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

A line chart shows three curves, Current Bluebook, Previous Bluebook, and Greenbook assumption, plus two pairs of curves (lower and upper bounds of confidence intervals) over 2009:Q1 through 2013:Q4. The 70 percent confidence interval is contained within the 90 percent confidence interval. Unit is percent. The Current Bluebook curve begins near zero percent in 2009:Q1, stays at that level through 2011:Q2, and then increases to end at about 3.1 percent in 2013:Q4. The Previous Bluebook curve begins at about 0.2 percent in 2009:Q1, stays at that level through 2011:Q3, and then increases to end at about 3.4 percent in 2013:Q4. The Greenbook assumption curve begins near zero percent in 2009:Q1, stays at that level through 2012:Q4, and then increases to end at about 2.3 percent in 2013:Q4. The dark shading (70 percent confidence interval) begins at about 0.1 to 0.3 percent in 2009:Q1, widens to about 0.1 to 1.6 by 2011:Q4, and widens further to about 1.3 to 4.5 percent by 2013:Q4. The light shading (90 percent confidence interval) begins at about 0.1 to 0.4 percent in 2009:Q1, widens to about 0.1 to 2.3 by 2011:Q4, and widens further to about 0.4 to 5.3 percent by 2013:Q4.

### **Figure: Information from Financial Markets**

A line chart shows two curves, Current Bluebook and Previous Bluebook, plus four pairs of curves (lower and upper bounds of confidence intervals for current and previous Bluebooks) over 2009:Q1 through 2013:Q4. Each 70 percent confidence interval is contained within its respective 90 percent confidence interval. Unit is percent. Each curve begins near 0.25 percent in 2009:Q1. The Current Bluebook curve increases to nearly 2 percent by 2011:Q2, and ends at about 2.35 percent in 2013:Q4. The Previous Bluebook curve increases to just more than 2 percent by 2011:Q1, and ends at about 2.25 percent in 2013:Q4. Both curves lie within the current 70 percent confidence interval. The confidence intervals have similar shapes to their respective Bluebook curves. All increase more rapidly over 2009:Q1 through 2011:Q1 than they do for the remainder of the period. The dark shading (current 70 percent confidence interval) ends at about 0.9 to 3.75 percent in 2013:Q4. The light shading (current 90 percent confidence interval) ends at about 0.6 to 4.9 percent in 2013:Q4. The previous 70 percent confidence interval ends at about 0.75 to 3.7 percent in 2013:Q4. The previous 90 percent confidence interval ends at about 0.4 to 4.9 percent in 2013:Q4.

Note: The thin dotted lines represent the confidence intervals shown in the previous Bluebook.

### Near-Term Prescriptions of Simple Policy Rules

	1½ Percent Infl	ation Objective	2 Percent Inflation Objective			
	2009Q1	2009Q1 2009Q2		2009Q2		
Taylor (1993) rule	0.95	0.30	0.70	0.13		
Previous Bluebook	1.65	0.90	1.40	0.65		
Taylor (1999) rule	0.13	0.13	0.13	0.13		
Previous Bluebook	0.25	0.25	0.25	0.25		
First-difference rule	0.13	0.13	0.13	0.13		
Previous Bluebook	0.25	0.25	0.25	0.25		

#### Memo

	2009Q1	2009Q2
Estimated outcome-based rule	0.13	0.13
Estimated forecast-based rule	0.13	0.13
Greenbook assumption	0.13	0.13
Fed funds futures	0.19	0.23
Median expectation of primary dealers	0.13	0.13

Note: Appendix B provides background information regarding the specification of each rule and the methodology used in constructing confidence intervals and near-term prescriptions.

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

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# January 2009 Bluebook Tables and Charts

# Money and Debt Forecasts

Table 1: Growth Rates for M2

(percent, annual rate)

(percent, annual rate)					
		Greenbook Forecast*			
Monthly Growt	h Rates				
Jul-08		7.9			
	Aug-08	-1.8			
	Sep-08	17.0			
	Oct-08	18.5			
	Nov-08	8.6			
	Dec-08	27.3			
	Jan-09	11.1			
	Feb-09	4.9			
	Mar-09	1.0			
	Apr-09	0.9			
	May-09	0.0			
	Jun-09	0.0			
	Jul-09	-2.0			
	Aug-09	-3.0			
	Sep-09	0.0			
	Oct-09	1.0			
	Nov-09	2.0			
	Dec-09	3.2			
Quarterly Grov	vth Rates				
	2008 Q3	4.8			
	2008 Q4	14.9			
	2009 Q1	12.0			
	2009 Q2	1.1			
	2009 Q3	-1.3			
	2009 Q4	0.8			
Annual Growth	Rates				
	2008	8.5			
2009		3.4			
2010		3.7			
Growth From	То				
Dec-08	Mar-09	5.7			
Dec-08	Jun-09	3.0			
2008 Q4	Mar-09	9.6			
2008 Q4	Jun-09	5.6			

<sup>\*</sup> This forecast is consistent with nominal GDP and interest rates in the Greenbook forecast. Return to table

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# January 2009 Bluebook Tables and Charts

# Appendix A: Measures of the Equilibrium Real Rate

Measure	Description
Single- equation Model	The measure of the equilibrium real rate in the single-equation model is based on an estimated aggregate-demand relationship between the current value of the output gap and its lagged values as well as the lagged values of the real federal funds rate.
Small Structural Model	The small-scale model of the economy consists of equations for six variables: the output gap, the equity premium, the federal budget surplus, the trend growth rate of output, the real bond yield, and the real federal funds rate.
Large Model (FRB/US)	Estimates of the equilibrium real rate using FRB/USthe staff's large-scale econometric model of the U.S. economydepend on a very broad array of economic factors, some of which take the form of projected values of the model's exogenous variables.
Greenbook- consistent	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.
TIPS-based Factor Model	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 indexation is based on the total CPI, this measure is also adjusted for the medium-term differenceprojected at 40 basis pointsbetween 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	-3.0	-0.9	
Lagged headline inflation	-1.6	-2.7	-0.6	
Projected headline inflation	-1.3	-2.9	-0.8	

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# January 2009 Greenbook Part 1 Tables and Charts †

### **Domestic Developments**

### Key Background Factors Underlying the Baseline Staff Projection

Note: In each panel, shading represents the projection period, which begins in 2009:Q1 except as noted.

Figure: Federal Funds Rate

A line chart shows three curves, "Current Greenbook", "December Greenbook", and "Market forecast", from 2005:Q1 through 2010:Q4. The projection period begins in 2009:Q1. Data are quarterly averages; unit is percent. The current Greenbook curve begins at about 2.5 percent in 2005:Q1, increases to about 5.25 by 2006:Q3, and remains at about that level through 2007:Q3. It then declines to nearly 2 by 2008:Q2, declines further to about 0.1 percent by 2009:Q1, and remains at that level through 2010:Q4. The December Greenbook curve is similar to the Current Greenbook curve, but declines to about 0.25 percent by 2009:Q1, and remains at that level through 2010:Q4. The market forecast curve follows the Current Greenbook curve through 2009:Q1, and then increases steadily to about 1.3 percent by 2010:Q4.

#### Figure: Long-Term Interest Rates

A line chart shows six curves, "Baa corporate rate", "Conforming mortgage rate", and "10-year Treasury rate" for the current and December Greenbooks, from 2005 through 2010. The projection period begins in 2009:Q1. Data are quarterly averages; unit is percent. The current Greenbook Baa corporate rate curve begins in 2005:Q1 at about 6 percent, fluctuates but generally increases to about 7.2 by 2008:Q3, increases quickly to about 8.8 by 2008:Q4, and then decreases to about 6.25 percent by 2010:Q4. The December Greenbook Baa corporate rate curve is similar, but increases slightly further to nearly 9 percent in 2008:Q4, and ends at about 6.5 percent in 2010:Q4. The current Greenbook conforming mortgage rate curve begins in 2005:Q1 at about 5.8 percent, fluctuates within a range of about 5.75 to 6.75 through 2008:Q4, and then decreases to about 5.1 by 2009:Q1, and gradually decreases to slightly less than 5 percent by 2010:Q4. The December Greenbook conforming mortgage rate curve is similar, but lies slightly above the current curve after 2008:Q3, and ends at slightly more than 5 percent. The 10-year Treasury rate curve begins in 2005:Q1 at about 4.25 percent, peaks at just more than 5 in 2006:Q2, fluctuates but decreases to about 3.9 by 2008:Q3, decreases to about 2.5 by 2009:Q1, and then increases to end at about 2.9 percent in 2010:Q4. The December 10-year Treasury rate curve is similar, but lies slightly above the current curve after 2008:Q3, and ends at about 3 percent.

### Figure: Equity Prices

A line chart shows two curves, Wilshire 5000 for the current and December Greenbooks, from 2005:Q1 through 2010:Q4. The projection period begins in 2009:Q1. Quarter-end data; unit is an index, 2005:Q1 = 100, ratio scale. The current Greenbook curve begins at 100 in 2005:Q1, generally increases to about 132 by 2007:Q3, decreases to about 74 by 2009:Q1, and then increases to end at about 92 in 2010:Q4. The December Greenbook curve is similar, but decreases to about 76 by 2008:Q4, and then increases to end at about 96 in 2010:Q4.

#### Figure: House Prices

A line chart shows two curves, the LoanPerformance index for the current and December Greenbooks, from 2005:Q1 through 2010:Q4. The projection period begins in 2008:Q4. Data are quarterly; unit is an index, 2005:Q1 = 100, ratio scale. The current Greenbook curve begins at 100 in 2005:Q1, increases to nearly 110 by 2006:Q1, stays at about that level through 2006:Q4, and then decreases to level off at about 74 by 2010:Q4. The December Greenbook curve is similar, but lies just under the current curve throughout the projection period.

#### Figure: Crude Oil Prices

A line chart shows two curves, "West Texas intermediate" for the current and December Greenbooks, from 2005:Q1 through 2010:Q4. The projection period begins in 2009:Q1. Data are quarterly averages; unit is dollars per barrel. The current Greenbook curve begins at about 50 dollars per barrel in 2005:Q1, generally increases to about 70 by 2006:Q2, decreases to about 58 by 2007:Q1, increases sharply to about 125 by 2008:Q2, drops to about 40 by 2009:Q1, and then increases to end at about 60 dollars per barrel in 2010:Q4. The December Greenbook curve is similar, but lies above the current curve throughout the projection period. It reaches about 45 dollars per barrel by 2009:Q1, and ends at about 65 dollars per barrel in 2010:Q4.

### Figure: Broad Real Dollar

A line chart shows two curves, broad real dollar for the current and December Greenbooks, from 2005:Q1 through 2010:Q4. The projection period begins in 2009:Q1. Data are quarterly averages; unit is an index, 2005:Q1 = 100. The current Greenbook curve begins at 100 in 2005:Q1, increases to about 103.5 by 2005:Q1, decreases to about 88 by 2008:Q2, increases to about nearly 100 by 2009:Q2, and ends at about 96.5 in 2010:Q4. The December Greenbook curve is similar, but reaches slightly higher to about 99 in 2008:Q4, and ends slightly lower at about 96 in 2010:Q4.

# Summary of the Near-Term Outlook

(Percent change at annual rate except as noted)

	2008	3:Q4	2009:Q1		
Measure	December Greenbook	January Greenbook	December Greenbook	January Greenbook	
Real GDP	-4.7	-4.9	-5.0	-5.6	
Private domestic final purchases	-6.6	-6.1	-5.2	-5.9	
Personal consumption expenditures	-4.3	-3.9	-1.3	-1.7	
Residential investment	-27.0	-28.1	-32.5	-40.7	
Business fixed investment	-14.0	-12.9	-19.8	-19.8	
Government outlays for consumption and investment	1.2	3.4	4	.4	
	Contribution to growth (percentage points)				
Inventory investment	.3	4	-1.6	-2.0	
Net exports	.4	1	.9	1.2	

# Projections of Real GDP

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

Measure	2008:H2	2009:H1	2009	2010	
Real GDP	-2.7	-3.5	8	2.6	
Previous Greenbook	-2.6	-3.1	9	2.4	
Final sales	-2.9	-2.7	-1.3	2.6	
Previous Greenbook	-3.1	-2.4	-1.4	2.4	
Personal consumption expenditures	-3.9	6	.6	2.9	
Previous Greenbook	-4.0	2	.7	2.7	
Residential investment	-22.3	-31.6	-12.8	10.0	
Previous Greenbook	-21.6	-22.2	-10.4	8.9	
Business fixed investment	-7.4	-19.5	-16.7	3.0	
Previous Greenbook	-7.5	-19.7	-16.9	4.8	
Government purchases	4.6	1.6	2.4	2.5	
Previous Greenbook	3.4	.8	1.2	1.2	
Exports	-9.2	-3.9	-2.1	2.4	
Previous Greenbook	4	-2.7	-1.3	2.6	
Imports	-9.6	-6.9	8	5.4	
Previous Greenbook	-4.2	-5.6	-1.0	4.9	
	Contribution to growth (percentage point				
Inventory change	.2	7	.6	.0	
Previous Greenbook	.5	7	.4	.0	
Net exports	.5	.6	1	5	
Previous Greenbook	.7	.5	0	4	

# 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

Structural labor productivity	1.5	2.5	2.6	2.1	1.9	1.7	1.7		
Previous Greenbook	1.5	2.5	2.6	2.1	1.9	1.7	1.7		
Contributions <sup>1</sup>	Contributions <sup>1</sup>								
Capital deepening	.7	1.4	.7	.6	.4	0	.1		
Previous Greenbook	.7	1.4	.7	.6	.4	0	.1		
Multifactor productivity	.5	.7	1.6	1.2	1.3	1.6	1.5		
Previous Greenbook	.5	.7	1.6	1.2	1.3	1.6	1.5		
Labor composition	.3	.3	.3	.2	.2	.2	.1		
Мемо									
Potential GDP	3.0	3.4	2.6	2.5	2.5	2.2	2.2		
Previous Greenbook	3.0	3.4	2.6	2.5	2.5	2.2	2.2		

Note: Components may not sum to totals because of rounding. For multiyear periods, the percent change is the annual average from Q4 of the year preceding the first year shown to Q4 of the last year shown.

1. Percentage points. Return to table

### The Outlook for the Labor Market

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

Measure	2007	2008	2009	2010
Output per hour, nonfarm business	2.7	2.4	1.1	2.0
Previous Greenbook	2.7	2.0	.8	2.4
Nonfarm private payroll employment	.9	-1.9	-2.2	1.0
Previous Greenbook	.9	-1.8	-1.9	.4
Household survey employment	.4	-1.5	-1.1	1.1
Previous Greenbook	.4	-1.3	9	.6
Labor force participation rate_	66.0	65.9	65.5	65.3
Previous Greenbook	66.0	65.9	65.5	65.3
Civilian unemployment rate <sup>1</sup>	4.8	6.9	8.4	8.1
Previous Greenbook	4.8	6.7	8.1	8.2
Мемо				
GDP gap_	3	-3.2	-6.0	-5.5
Previous Greenbook	3	-3.1	-6.0	-5.8

<sup>1.</sup> Percent, average for the fourth quarter. 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	1.7	.6	1.1
Previous Greenbook	3.5	1.9	.7	1.0
Food and beverages	4.5	6.2	2.0	1.2
Previous Greenbook	4.5	6.3	2.0	1.0
Energy	19.1	-9.8	-8.8	5.2
Previous Greenbook	19.1	-9.8	-8.1	4.8
Excluding food and energy	2.2	1.9	1.0	.8
Previous Greenbook	2.2	2.0	1.1	.8

<sup>2.</sup> 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

Consumer price index	4.0	1.5	.4	1.3
Previous Greenbook	4.0	1.7	.7	1.3
Excluding food and energy	2.3	2.0	1.3	1.0
Previous Greenbook	2.3	2.1	1.3	1.0
GDP chain-weighted price index	2.6	2.3	1.5	.9
Previous Greenbook	2.6	2.6	1.5	.8
ECI for compensation of private industry workers_1	3.0	2.5	1.9	1.5
Previous Greenbook	3.0	2.5	2.0	1.6
Compensation per hour, nonfarm business sector	3.6	3.4	2.1	1.5
Previous Greenbook	3.6	3.2	2.4	1.6
Prices of core goods imports <sup>2</sup>	3.4	3.4	-3.2	1.3
Previous Greenbook	3.4	3.9	-2.7	1.3

<sup>1.</sup> December to December. Return to table

# The Long-Term Outlook

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

Measure	2008	2009	2010	2011	2012	2013
Real GDP	-0.5	-0.8	2.6	4.9	5.3	5.0
Civilian unemployment rate_	6.9	8.4	8.1	6.7	5.5	4.4
PCE prices, total	1.7	0.6	1.1	0.8	0.7	0.8
Core PCE prices	1.9	1.0	0.8	0.6	0.6	0.7
Federal funds rate <sup>1</sup>	1.1	0.1	0.1	0.1	0.1	2.3

<sup>1.</sup> Percent, average for the final quarter of the period.  $\underline{\text{Return to table}}$ 

### Alternative Scenarios

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

Measure and scenario	2008	20	09	2010	2011	2012-13
Measure and Scenario	H2	H1	H2	2010	2011	2012-13
Real GDP						
Greenbook extension	-2.7	-3.5	2.0	2.6	4.9	5.1
More financial stress	-2.7	-4.5	-0.3	0.6	4.2	5.2
More cautious spending	-2.7	-6.1	0.2	1.7	4.4	4.7
Faster recovery	-2.7	-3.4	5.6	6.1	5.5	2.5
Large-scale asset purchases	-2.7	-3.3	2.6	3.3	5.8	5.3
Deflation	-2.7	-3.5	2.0	2.5	4.6	4.6
Anchored inflation expectations	-2.7	-3.5	2.0	2.7	5.1	5.2
Unemployment rate <sup>1</sup>						
Greenbook extension	6.9	8.2	8.4	8.1	6.7	4.4
More financial stress	6.9	8.3	8.9	9.3	8.2	5.6
More cautious spending	6.9	8.5	9.1	9.2	7.9	5.7
Faster recovery	6.9	8.2	8.0	6.4	4.5	4.0
Large-scale asset purchases	6.9	8.2	8.3	7.7	6.0	3.6
Deflation	6.9	8.2	8.4	8.1	6.8	4.8
Anchored inflation expectations	6.9	8.2	8.4	8.1	6.6	4.3

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

Core PCE inflation						
Greenbook extension	1.5	1.2	0.9	0.8	0.6	0.7
More financial stress	1.5	1.2	0.7	0.3	-0.2	-0.2
More cautious spending	1.5	1.2	0.8	0.5	0.0	-0.3
Faster recovery	1.5	1.2	0.9	1.2	1.4	1.7
Large-scale asset purchases	1.5	1.3	1.0	1.0	0.9	1.0
Deflation	1.5	0.8	0.4	0.1	-0.3	-0.6
Anchored inflation expectations	1.5	1.2	1.0	1.2	1.2	1.5
Federal funds rate <sup>1</sup>						
Greenbook extension	1.1	0.1	0.1	0.1	0.1	2.3
More financial stress	1.1	0.1	0.1	0.1	0.1	0.1
More cautious spending	1.1	0.1	0.1	0.1	0.1	0.1
Faster recovery	1.1	0.1	0.1	1.4	4.3	5.0
Large-scale asset purchases	1.1	0.1	0.1	0.1	0.1	4.9
Deflation	1.1	0.1	0.1	0.1	0.1	0.1
Anchored inflation expectations	1.1	0.1	0.1	0.1	0.1	3.8

<sup>1.</sup> 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	2008	2009	2010	2011	2012	2013
Real GDP (percent change, Q4 to	Q4)					
Projection	-0.5	-0.8	2.6	4.9	5.3	5.0
Confidence interval						
Greenbook forecast errors	63	-2.27	1.2-4.0			
FRB/US stochastic simulations	63	-1.92	1.3-3.8	3.4-6.1	3.7-6.6	3.5-6.4
Civilian unemployment rate (perce	nt, Q4)					
Projection	6.9	8.4	8.1	6.7	5.5	4.4
Confidence interval						
Greenbook forecast errors	6.8-6.9	8.0-8.9	7.2-8.9			
FRB/US stochastic simulations	6.8-6.9	8.1-8.8	7.6-8.7	6.2-7.5	5.0-6.3	3.9-5.3
PCE prices, total (percent change,	Q4 to Q	4)				
Projection	1.7	0.6	1.1	0.8	0.7	0.8
Confidence interval						
Greenbook forecast errors	1.6-1.9	2-1.4	.1-2.0			
FRB/US stochastic simulations	1.7-1.8	.0-1.2	.3-1.7	1-1.6	3-1.5	3-1.6
PCE prices excluding food and en	ergy (per	cent chai	nge, Q4 i	to Q4)		
Projection	1.9	1.0	0.8	0.6	0.6	0.7
Confidence interval						
Greenbook forecast errors	1.7-2.0	.5-1.5	1-1.6			
FRB/US stochastic simulations	1.8-1.9	.6-1.4	.2-1.3	1-1.2	3-1.2	2-1.4
Federal funds rate (percent, Q4)						
Projection	1.1	0.1	0.1	0.1	0.1	2.3
Confidence interval						
FRB/US stochastic simulations	1.1-1.1	.1-1.1	.1-1.5	.1-1.5	.1-1.5	.5-3.7

Notes: Intervals derived from Greenbook forecast errors are based on projections made from 1987-2007. Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1987-

2007 set of model equation residuals.

... 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

A line chart shows the Greenbook extension curve over 2007:Q1 through 2013:Q4, plus a projection period beginning in 2009:Q1 that includes six alternative scenario curves, and 70- and 90-percent confidence intervals. Unit is 4-quarter percent change. The six alternative scenarios are "Faster recovery", "Deflation", "More financial stress", "Large-scale asset purchases", "Anchored inflation expectations", and "More cautious spending". The Greenbook extension curve begins at about 1.2 percent in 2007:Q1, increases to about 2.8 by mid-year, remains near that level through early 2008, decreases to about -3 by 2009:Q2, and generally increases to end at about 5 percent in 2013:Q4. The boundaries of the 70- and 90-percent confidence intervals follow a similar pattern above and below the Greenbook extension curve. The 70-percent confidence interval ends with a range of about 3.7 to 6.3, and the 90-percent confidence interval ends with a range of about 2.8 to 7.3. The "faster recovery" curve extends above the 90-percent confidence interval to about 6 by 2010:Q4, but then ends below the 90-percent confidence interval at about 1.5. The "more cautious spending" and "more financial stress" curves dip below the 90-percent confidence interval in 2010 and 2011 respectively, but then end near the Greenbook extension curve, clustering around approximately 4.75.

### Figure: Unemployment Rate

A line chart shows the Greenbook extension curve over 2007:Q1 through 2013:Q4, plus a projection period beginning in 2009:Q1 that includes six alternative scenario curves, and 70- and 90-percent confidence intervals. Unit is percent. The six alternative scenarios are "Faster recovery", "Deflation", "More financial stress", "Large-scale asset purchases", "Anchored inflation expectations", and "More cautious spending". The Greenbook extension curve begins at about 4.5 percent, increases to about 8.5 percent by 2010:Q1, and decreases to end at just less then 4.5 percent in 2013:Q4. The boundaries of the 70- and 90-percent confidence intervals follow a similar pattern above and below the Greenbook extension curve. The 70-percent confidence interval ends with a range of about 3.9 to 5.4, and the 90-percent confidence interval ends with a range of about 3.5 to 5.8. The "faster recovery" curve dips below the 90-percent confidence interval to about 3.75 by 2013:Q1, but then ends within the 70-percent confidence interval at about 4.0. The "more cautious spending" and "more financial stress" curves extend above the 90-percent confidence interval for most of the projection period, but then end within the 90-percent confidence interval at around 5.75 and 5.7 respectively. The other alternative scenario curves follow a similar curvature to the Greenbook extension curve. The "Deflation" curve ends at about 4.9 percent; the "anchored inflation expectations" curve ends at about 4.3 percent; and the "large-scale asset purchases" curve ends at about 3.6 percent, within the 90-percent confidence interval.

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

A line chart shows the Greenbook extension curve over 2007:Q1 through 2013:Q4, plus a projection period beginning in 2009:Q1 that includes six alternative scenario curves, and 70- and 90-percent confidence intervals. Unit is 4-quarter percent change. The six alternative scenarios are "Faster recovery", "Deflation", "More financial stress", "Large-scale asset purchases", "Anchored inflation expectations", and "More cautious spending". The Greenbook extension curve begins at about 2.3 percent in 2007:Q1, dips to nearly 2.0 by 2007:Q3, increases back to about 2.3 by 2008:Q3, drops to about 1.0 by 2009:Q3, and then declines further on net to end at about 0.7 percent in 2013:Q4. The boundaries of the 70- and 90-percent confidence intervals follow a similar pattern above and below the Greenbook extension curve. The 70-percent confidence interval ends with a range of about -0.2 to 1.3, and the 90-percent confidence interval ends with a range of about -0.7 to 1.75. The six alternative scenario curves remain within the 90-percent confidence interval throughout the forecast period. The "large-scale asset purchases" curve remains within the 70-percent confidence interval, and ends at about 1.0 percent. The "faster recovery" and "anchored inflation expectations" curve end near the upper range of the 90-percent confidence interval at about -0.3, -0.4, and -0.7 percent, respectively.

### Figure: Federal Funds rate

A line chart shows the Greenbook extension curve over 2007:Q1 through 2013:Q4, plus a projection period beginning in 2009:Q1 that includes six alternative scenario curves, and 70- and 90-percent confidence intervals. Unit is percent. The six alternative scenarios are "Faster recovery", "Deflation", "More financial stress", "Large-scale asset purchases", "Anchored inflation expectations", and "More cautious spending". The Greenbook extension curve begins at about 5.25 percent, drops to about 0.1 by 2009:Q1, remains at that level until 2012:Q4, and increases to end at about 2.25 in 2013:Q4. The lower bounds of the 70- and 90-percent confidence intervals are near zero throughout the projection period, except that the 70-percent confidence interval increases over 2013 to end at about 0.4 percent. The upper bounds of the 70- and 90-percent confidence intervals increase over 2009 and 2010 to level-off at about 1.5 and 2.25 percent, respectively, then increase for the remainder of the projection period to about 3.75 and 4.5 percent, respectively. The "more financial stress", "more cautious spending", and "deflation", curves all remain at about 0.1 percent throughout the projection period. The "anchored inflation expectations" curve remains at about 0.1 percent until 2012:Q2, and then increases to end at about 3.75 percent. The "large-scale asset purchases" curve remains at about 0.1 percent until 2011:Q4, and then increases to end at about 4.9 percent, above the 90-percent confidence interval. The "faster recovery" curve remains at about 0.1 percent until 2010:Q2, increases to about 5.75 by 2012:Q4, and then decreases to end at about 5.1 percent, above the 90-percent confidence interval.

### Evolution of the Staff Forecast

#### Figure: Change in Real GDP

A line chart shows the evolution of the staff forecast of the change in real GDP (percent, Q4/Q4) for years 2008 through 2010. As of Greenbook publication dates from January 24, 2007 through the present, the staff forecast for 2008 began around 2.5 percent, declined to near zero as of March 13, 2008, increased to about 1.5 as of September 10, 2008, and declined to about -0.5 percent for the current Greenbook. As of Greenbook publication dates from September 12, 2007 through the present, the staff forecast for 2009 began around 2.1 percent, stayed around that level until January 23, 2008, increased to about 3.0 on March 13, 2008, steadily decreased back to about 2.0 by September 10, 2008, and decreased further on net to about -0.8 for the current Greenbook. As of Greenbook publication dates from September 10, 2008 through the present, the staff forecast for 2010 began around 2.7 percent, declined to about 2.25 by October 22, 2008, and increased to about 2.6 percent for the current Greenbook.

#### Figure: Unemployment Rate

A line chart shows the evolution of the staff forecast of the unemployment rate (percent, fourth quarter) for years 2008 through 2010. As of Greenbook publication dates from January 24, 2007 through the present, the staff forecast for 2008 began around 4.9 percent, remained at about that level through October 24, 2007, and then gradually increased on net to about 6.9 percent for the current Greenbook. As of Greenbook publication dates from September 12, 2007 through the present, the staff forecast for 2009 began around 4.9 percent, gradually increased to about 6.2 percent by September 10, 2008, and increased more steeply to about 8.4 percent for the current Greenbook. As of Greenbook publication dates from September 10, 2008 through the present, the staff forecast for 2010 began around 5.8 percent, increased to about 8.2 percent by December 10, 2008, and then declined to about 8.1 percent for the current Greenbook.

#### Figure: Change in PCE Prices excluding Food and Energy

A line chart shows the evolution of the staff forecast of the change in PCE prices excluding food and energy (percent, Q4/Q4) for years 2008 through 2010. As of Greenbook publication dates from January 24, 2007 through the present, the staff forecast for 2008 began around 2.0 percent, remained at about that level through 2007, increased to about 2.4 by October 22, 2008, and then declined to about 1.9 percent for the current Greenbook. As of Greenbook publication dates from September 12, 2007 through the present, the staff forecast for 2009 began around 1.9 percent, remained at about that level through March 13, 2008, increased to about 2.2 percent by July 30, 2008, and then decreased to about 1.0 percent for the current Greenbook. As of Greenbook publication dates from September 10, 2008 through the present, the staff forecast for 2010 began around 1.9 percent, decreased to about 0.8 by December 10, 2008, and remained at that level for the current Greenbook.

### Changes in GDP, Prices, and Unemployment

(Percent, annual rate except as noted)

Inter	امر	Nomina	I GDP	Real	GDP	PCE pric	e index	Core PCE p	rice index	Unemployment rate 1		
inter	vai	12/10/08	1/22/09	12/10/08	1/22/09	12/10/08	1/22/09	12/10/08	1/22/09	12/10/08	1/22/09	
Quarte	erly											
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	5.3	5.4	
	Q3	3.6	3.4	4	5	5.2	5.0	2.6	2.4	6.0	6.0	
	Q4	-2.4	-3.3	-4.7	-4.9	-5.1	-5.6	1.2	.6	6.7	6.9	
2009:	Q1	-3.0	-4.3	-5.0	-5.6	-1.8	-2.3	1.5	.8	7.5	7.7	
	Q2	.4	1.0	-1.2	-1.3	2.2	1.9	1.3	1.6	7.8	8.2	
	Q3	2.4	3.2	1.0	1.8	1.5	1.5	1.0	1.0	8.0	8.3	
	Q4	2.5	3.2	1.6	2.1	1.2	1.2	.8	.8	8.1	8.4	
2010:	Q1	2.7	3.2	1.9	2.2	1.1	1.2	.8	.8	8.3	8.5	
	Q2	3.1	3.4	2.2	2.4	1.1	1.1	.8	.8	8.3	8.4	
	Q3	3.4	3.6	2.6	2.7	1.0	1.0	.8	.8	8.2	8.2	
	Q4	3.7	4.0	3.0	3.1	.9	1.0	.7	.7	8.2	8.1	
Two-q	uarte	r_2			'		'					
2008:	Q2	3.8	3.8	1.8	1.8	3.9	3.9	2.2	2.2	.5	.6	
	Q4	.6	.0	-2.6	-2.7	1	4	1.9	1.5	1.4	1.5	
2009:	Q2	-1.3	-1.7	-3.1	-3.5	.2	2	1.4	1.2	1.1	1.3	
	Q4	2.5	3.2	1.3	2.0	1.3	1.4	.9	.9	.3	.2	
2010:	Q2	2.9	3.3	2.1	2.3	1.1	1.1	.8	.8	.2	.0	
	Q4	3.6	3.8	2.8	2.9	1.0	1.0	.8	.8	1	3	

Four-quarter	3_									
2007:Q4	4.9	4.9	2.3	2.3	3.5	3.5	2.2	2.2	.4	.4
2008:Q4	2.2	1.9	4	5	1.9	1.7	2.0	1.9	1.9	2.1
2009:Q4	.6	.7	9	8	.7	.6	1.1	1.0	1.4	1.5
2010:Q4	3.2	3.6	2.4	2.6	1.0	1.1	.8	.8	.1	3
Annual										
2007	4.8	4.8	2.0	2.0	2.6	2.6	2.2	2.2	4.6	4.6
2008	3.6	3.5	1.2	1.2	3.3	3.3	2.2	2.2	5.7	5.8
2009	.0	3	-2.0	-2.1	.1	2	1.5	1.2	7.9	8.2
2010	2.7	3.2	1.8	2.1	1.2	1.2	.8	.9	8.2	8.3

- 1. Level, except for two-quarter and four-quarter intervals. Return to table
- 2. Percent change from two quarters earlier; for unemployment rate, change is in percentage points. Return to table
- 3. Percent change from four quarters earlier; for unemployment rate, change is in percentage points. Return to table

# Changes in Real Gross Domestic Product and Related Items

(Percent, annual rate except as noted)

16		20	08			20	09			20	10		2022 1	2000 1	2040 1
Item	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2008 <u>'</u>	2009 <sup>1</sup>	2010
Real GDP	.9	2.8	5	-4.9	-5.6	-1.3	1.8	2.1	2.2	2.4	2.7	3.1	5	8	2.6
Previous Greenbook	.9	2.8	4	-4.7	-5.0	-1.2	1.0	1.6	1.9	2.2	2.6	3.0	4	9	2.4
Final sales	.9	4.4	-1.3	-4.5	-3.6	-1.8	1	.2	1.3	3.0	3.3	2.9	2	-1.3	2.6
Previous Greenbook	.9	4.4	-1.1	-4.9	-3.5	-1.2	8	.1	1.2	2.9	2.9	2.6	3	-1.4	2.4
Priv. dom. final purch.	3	.7	-4.1	-6.1	-5.9	-2.8	3	.7	2.1	2.9	3.8	3.9	-2.5	-2.1	3.2
Previous Greenbook	3	.7	-3.9	-6.6	-5.2	-2.2	9	.5	2.2	3.1	3.6	3.7	-2.5	-2.0	3.2
Personal cons. expend.	.9	1.2	-3.8	-3.9	-1.7	.6	1.7	2.0	2.6	2.8	3.1	3.2	-1.4	.6	2.9
Previous Greenbook	.9	1.2	-3.7	-4.3	-1.3	.9	1.4	2.0	2.3	2.8	2.9	3.0	-1.5	.7	2.7
Durables	-4.3	-2.8	-14.8	-23.6	-4.9	9.2	7.2	4.9	5.6	6.3	6.6	4.1	-11.8	4.0	5.6
Nondurables	4	3.9	-7.1	-7.8	-4.3	8	1.1	1.3	1.7	2.7	3.1	3.1	-3.0	7	2.6
Services	2.4	.7	1	1.7	.0	1	1.2	1.9	2.5	2.3	2.7	3.2	1.2	.8	2.7
Residential investment	-25.1	-13.3	-16.0	-28.1	-40.7	-21.0	8.6	13.8	10.5	7.3	11.3	11.0	-20.9	-12.8	10.0
Previous Greenbook	-25.1	-13.3	-15.7	-27.0	-32.5	-10.4	-3.0	9.9	8.6	7.0	11.1	9.1	-20.5	-10.4	8.9
Business fixed invest.	2.4	2.5	-1.7	-12.9	-19.8	-19.3	-15.9	-11.6	-4.1	2.7	6.4	7.5	-2.6	-16.7	3.0
Previous Greenbook	2.4	2.5	6	-14.0	-19.8	-19.6	-15.7	-12.3	9	4.6	7.3	8.4	-2.7	-16.9	4.8
Equipment & software	6	-5.0	-7.5	-20.3	-19.0	-13.2	-9.8	-5.3	.0	9.6	13.4	13.7	-8.7	-12.0	9.0
Previous Greenbook	6	-5.0	-5.7	-18.2	-18.1	-14.1	-10.1	-7.0	5.3	12.4	14.7	15.1	-7.6	-12.4	11.8
Nonres. structures	8.6	18.5	9.7	1.5	-21.0	-28.7	-25.6	-22.0	-11.5	-9.5	-6.6	-4.9	9.4	-24.4	-8.2
Previous Greenbook	8.6	18.5	9.5	-6.1	-22.7	-28.4	-25.0	-21.4	-12.0	-10.0	-7.0	-5.3	7.2	-24.4	-8.6
Net exports <sup>2</sup>	-462	-381	-353	-359	-322	-324	-342	-375	-406	-406	-414	-438	-389	-341	-416
Previous Greenbook <sup>2</sup>	-462	-381	-352	-343	-316	-311	-324	-344	-372	-372	-380	-397	-385	-324	-380
Exports	5.1	12.3	3.0	-19.9	-5.1	-2.7	-1.0	.7	1.4	2.1	2.8	3.4	7	-2.1	2.4
Imports	8	-7.3	-3.5	-15.4	-11.7	-1.9	3.3	8.2	8.3	1.5	4.0	7.9	-6.9	8	5.4
Govt. cons. & invest.	1.9	3.9	5.8	3.4	.4	2.8	3.4	3.1	3.1	2.7	2.2	2.1	3.8	2.4	2.5
Previous Greenbook	1.9	3.9	5.8	1.2	4	2.1	1.4	1.8	1.9	1.6	.6	.6	3.2	1.2	1.2
Federal	5.8	6.6	13.8	8.8	1.1	2.9	2.1	3.3	3.5	2.8	.7	.7	8.7	2.3	1.9
Defense	7.3	7.3	18.0	13.2	.9	3.3	2.1	2.4	1.2	1.2	1.9	1.9	11.4	2.2	1.6
Nondefense	2.9	5.0	5.1	7	1.7	1.8	2.0	5.2	8.7	6.3	-1.9	-1.9	3.0	2.7	2.7

State & local	3	2.5	1.3	.4	.0	2.7	4.2	3.1	2.9	2.6	3.2	3.0	1.0	2.5	2.9
Change in bus. inventories <sup>2</sup>	-10	-51	-30	-43	-101	-86	-33	21	47	31	15	22	-33	-50	29
Previous Greenbook <sup>2</sup>	-10	-51	-33	-29	-73	-73	-19	22	42	23	16	28	-31	-36	27
Nonfarm <sup>2</sup>	-18	-55	-33	-44	-100	-85	-34	20	46	30	14	21	-38	-50	28
Farm <sup>2</sup>	6	2	2	1	1	1	1	1	1	1	1	1	3	1	1

<sup>1.</sup> Change from fourth quarter of previous year to fourth quarter of year indicated. Return to table

# Changes in Real Gross Domestic Product and Related Items

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

Item	2002	2003	2004	2005	2006	2007	2008	2009	2010
Real GDP	1.9	3.7	3.1	2.7	2.4	2.3	5	8	2.0
Previous Greenbook	1.9	3.7	3.1	2.7	2.4	2.3	4	9	2.
Final sales	.8	3.7	2.8	2.7	2.8	2.5	2	-1.3	2.
Previous Greenbook	.8	3.7	2.8	2.7	2.8	2.5	3	-1.4	2
Priv. dom. final purch.	1.1	4.1	4.3	3.1	2.3	1.4	-2.5	-2.1	3
Previous Greenbook	1.1	4.1	4.3	3.1	2.3	1.4	-2.5	-2.0	3
Personal cons. expend.	1.9	3.4	3.7	2.6	3.2	2.2	-1.4	.6	2
Previous Greenbook	1.9	3.4	3.7	2.6	3.2	2.2	-1.5	.7	2
Durables	1.2	8.3	5.6	1.2	6.9	4.2	-11.8	4.0	5
Nondurables	2.1	3.9	3.5	3.6	3.2	1.7	-3.0	7	2
Services	1.9	2.2	3.3	2.4	2.6	2.1	1.2	.8	2
Residential investment	7.0	11.7	6.7	5.4	-15.5	-19.0	-20.9	-12.8	10
Previous Greenbook	7.0	11.7	6.7	5.4	-15.5	-19.0	-20.5	-10.4	8
Business fixed invest.	-6.5	4.9	7.5	4.9	6.5	6.4	-2.6	-16.7	3
Previous Greenbook	-6.5	4.9	7.5	4.9	6.5	6.4	-2.7	-16.9	4
Equipment & software	-3.4	6.6	9.4	7.0	4.2	2.8	-8.7	-12.0	Ş
Previous Greenbook	-3.4	6.6	9.4	7.0	4.2	2.8	-7.6	-12.4	11
Nonres. structures	-14.9	.2	2.3	5	12.8	14.5	9.4	-24.4	-8
Previous Greenbook	-14.9	.2	2.3	5	12.8	14.5	7.2	-24.4	-8
Net exports <sup>1</sup>	-471	-519	-594	-617	-616	-547	-389	-341	-4
Previous Greenbook <sup>1</sup>	-471	-519	-594	-617	-616	-547	-385	-324	-3
Exports	3.8	5.8	7.4	7.0	10.1	8.9	7	-2.1	2
Imports	9.7	4.8	11.5	4.8	3.8	1.1	-6.9	8	5
Govt. cons. & invest.	4.0	1.7	.7	.6	2.1	2.4	3.8	2.4	2
Previous Greenbook	4.0	1.7	.7	.6	2.1	2.4	3.2	1.2	1
Federal	7.8	5.5	2.4	1.0	2.9	2.3	8.7	2.3	1
Defense	8.4	7.5	2.5	.8	4.1	2.7	11.4	2.2	1
Nondefense	6.8	1.9	2.3	1.4	.5	1.5	3.0	2.7	2
State & local	2.1	4	4	.3	1.6	2.4	1.0	2.5	2
Change in bus. inventories 1	12	14	54	39	42	-2	-33	-50	:
Previous Greenbook <sup>1</sup>	12	14	54	39	42	-2	-31	-36	:
Nonfarm <sup>1</sup>	15	14	48	39	46	-4	-38	-50	:
Farm <sup>1</sup>	-2	0	6	0	-3	1	3	1	

<sup>1.</sup> Billions of chained (2000) dollars. Return to table

<sup>2.</sup> Billions of chained (2000) dollars. Return to table

# Contributions to Changes in Real Gross Domestic Product

(Percentage points, annual rate except as noted)

14		200	08			20	09			20	10		2000 1	2000 1	2040 1
Item	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2008 <u>'</u>	2009 <sup>1</sup>	2010 <sup>1</sup>
Real GDP	.9	2.8	5	-4.9	-5.6	-1.3	1.8	2.1	2.2	2.4	2.7	3.1	5	8	2.6
Previous Greenbook	.9	2.8	4	-4.7	-5.0	-1.2	1.0	1.6	1.9	2.2	2.6	3.0	4	9	2.4
Final sales	.9	4.3	-1.4	-4.5	-3.5	-1.8	1	.2	1.3	3.0	3.3	2.9	2	-1.3	2.6
Previous Greenbook	.9	4.3	-1.1	-5.0	-3.4	-1.2	8	.1	1.2	2.9	2.9	2.6	3	-1.4	2.4
Priv. dom. final purch.	3	.6	-3.5	-5.2	-4.9	-2.4	2	.6	1.7	2.4	3.0	3.2	-2.1	-1.7	2.6
Previous Greenbook	3	.6	-3.3	-5.6	-4.3	-1.8	7	.4	1.8	2.5	3.0	3.0	-2.2	-1.6	2.6
Personal cons. expend.	.6	.9	-2.8	-2.7	-1.1	.4	1.2	1.4	1.8	1.9	2.2	2.3	-1.0	.4	2.0
Previous Greenbook	.6	.9	-2.7	-3.0	9	.6	1.0	1.4	1.6	1.9	2.0	2.1	-1.1	.5	1.9
Durables	3	2	-1.2	-1.8	3	.6	.5	.3	.4	.4	.4	.3	9	.3	.4
Nondurables	1	.8	-1.6	-1.7	8	1	.2	.2	.3	.5	.6	.6	6	1	.5
Services	1.0	.3	.0	.8	.0	.0	.5	.8	1.1	1.0	1.2	1.4	.5	.3	1.2
Residential investment	-1.1	5	6	-1.1	-1.5	6	.2	.3	.3	.2	.3	.3	8	4	.3
Previous Greenbook	-1.1	5	6	-1.0	-1.1	3	1	.3	.2	.2	.3	.2	8	3	.2
Business fixed invest.	.3	.3	2	-1.5	-2.3	-2.1	-1.6	-1.1	4	.2	.6	.6	3	-1.8	.3
Previous Greenbook	.3	.3	1	-1.6	-2.3	-2.2	-1.6	-1.2	1	.4	.6	.7	3	-1.8	.4
Equipment & software	.0	4	6	-1.5	-1.4	9	6	3	.0	.5	.7	.8	6	8	.5
Previous Greenbook	.0	4	4	-1.4	-1.3	-1.0	7	4	.3	.7	.8	.9	6	8	.7
Nonres. structures	.3	.6	.4	.1	9	-1.3	-1.0	8	4	3	2	1	.3	-1.0	3
Previous Greenbook	.3	.6	.4	2	-1.0	-1.2	-1.0	8	4	3	2	1	.3	-1.0	3
Net exports	.8	2.9	1.1	1	1.2	1	6	-1.1	-1.0	.0	3	8	1.1	1	5
Previous Greenbook	.8	2.9	1.1	.4	.9	.1	4	7	9	.0	2	6	1.2	.0	4
Exports	.6	1.5	.4	-2.9	6	3	1	.1	.2	.2	.3	.4	1	3	.3
Imports	.1	1.4	.7	2.8	1.9	.3	5	-1.2	-1.2	2	6	-1.2	1.2	.1	8
Govt. cons. & invest.	.4	.8	1.1	.7	.1	.6	.7	.7	.7	.6	.5	.5	.7	.5	.5
Previous Greenbook	.4	.8	1.1	.3	1	.4	.3	.4	.4	.3	.1	.1	.6	.3	.2
Federal	.4	.5	1.0	.7	.1	.2	.2	.3	.3	.2	.1	.1	.6	.2	.2
Defense	.3	.4	.9	.7	.1	.2	.1	.1	.1	.1	.1	.1	.6	.1	.1
Nondefense	.1	.1	.1	.0	.0	.0	.0	.1	.2	.2	.0	.0	.1	.1	.1
State & local	.0	.3	.2	.1	.0	.3	.5	.4	.4	.3	.4	.4	.1	.3	.4
Change in bus. inventories	.0	-1.5	.8	4	-2.0	.6	1.9	1.9	.9	6	6	.2	3	.6	.0
Previous Greenbook	.0	-1.5	.7	.3	-1.6	.0	1.9	1.4	.7	6	2	.4	1	.4	.0
Nonfarm	.2	-1.4	.8	4	-2.0	.5	1.9	1.9	.9	6	6	.2	2	.6	.0
Farm	2	1	.0	.0	1	.0	.0	.0	.0	.0	.0	.0	1	.0	.0

<sup>1.</sup> 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		20	08			20	09			20	10		200e 1	2000 1	2010 <sup>1</sup>
item	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2000 _	2009	2010

GDP chain-wt. price index	2.6	1.1	3.9	1.7	1.3	2.3	1.4	1.1	1.0	1.0	.9	.8	2.3	1.5	.9
Previous Greenbook	2.6	1.1	4.1	2.4	2.1	1.6	1.4	.9	.8	.9	.8	.7	2.6	1.5	.8
PCE chain-wt. price index	3.6	4.3	5.0	-5.6	-2.3	1.9	1.5	1.2	1.2	1.1	1.0	1.0	1.7	.6	1.1
Previous Greenbook	3.6	4.3	5.2	-5.1	-1.8	2.2	1.5	1.2	1.1	1.1	1.0	.9	1.9	.7	1.0
Energy	19.0	27.4	31.7	-66.8	-45.4	8.8	9.5	6.4	6.9	5.7	4.5	3.8	-9.8	-8.8	5.2
Previous Greenbook	19.0	27.4	31.6	-66.8	-48.3	19.2	8.7	6.2	6.3	5.2	4.2	3.6	-9.8	-8.1	4.8
Food	4.9	6.4	8.5	5.0	2.4	1.8	2.0	1.7	1.3	1.2	1.2	1.1	6.2	2.0	1.2
Previous Greenbook	4.9	6.4	8.5	5.3	2.4	1.8	2.0	1.7	1.0	.9	.9	.9	6.3	2.0	1.0
Ex. food & energy	2.3	2.2	2.4	.6	.8	1.6	1.0	.8	.8	.8	.8	.7	1.9	1.0	.8
Previous Greenbook	2.3	2.2	2.6	1.2	1.5	1.3	1.0	.8	.8	.8	.8	.7	2.0	1.1	.8
СРІ	4.3	5.0	6.7	-9.2	-3.7	2.1	1.9	1.6	1.5	1.4	1.3	1.2	1.5	.4	1.3
Previous Greenbook	4.3	5.0	6.7	-8.5	-3.2	2.6	1.9	1.4	1.4	1.3	1.2	1.1	1.7	.7	1.3
Ex. food & energy	2.5	1.9	3.2	.4	.9	1.7	1.3	1.1	1.0	1.0	1.0	.9	2.0	1.3	1.0
Previous Greenbook	2.5	1.9	3.2	.8	1.6	1.5	1.3	1.0	1.0	1.0	1.0	.9	2.1	1.3	1.0
ECI, hourly compensation <sup>2</sup>	3.0	2.3	2.6	2.2	2.0	1.9	1.8	1.8	1.6	1.6	1.5	1.5	2.5	1.9	1.5
Previous Greenbook <sup>2</sup>	3.0	2.3	2.6	2.2	2.0	2.0	1.9	1.9	1.8	1.7	1.6	1.5	2.5	2.0	1.6
Nonfarm business sector															
Output per hour	2.6	3.6	1.5	1.7	-3.2	.6	3.4	3.7	2.6	1.8	1.7	2.0	2.4	1.1	2.0
Previous Greenbook	2.6	3.6	1.4	.4	-2.5	.2	2.6	2.8	2.7	2.5	2.1	2.2	2.0	.8	2.4
Compensation per hour	3.8	.9	4.1	4.7	2.0	2.4	2.1	1.8	1.6	1.5	1.5	1.4	3.4	2.1	1.5
Previous Greenbook	3.8	.9	4.1	4.2	2.2	2.7	2.4	2.1	1.8	1.6	1.5	1.4	3.2	2.4	1.6
Unit labor costs	1.2	-2.6	2.6	3.0	5.4	1.8	-1.3	-1.8	9	3	2	6	1.0	1.0	5
Previous Greenbook	1.2	-2.6	2.6	3.8	4.8	2.5	2	7	9	8	6	8	1.2	1.6	8
Core goods imports chain-wt price index_	8.5	10.6	4.6	-9.0	-9.4	-3.0	-1.0	.8	1.3	1.3	1.3	1.3	3.4	-3.2	1.3
Previous Greenbook <sup>3</sup>	8.5	10.6	4.6	-7.0	-8.5	-2.4	7	1.0	1.4	1.4	1.3	1.3	3.9	-2.7	1.3

<sup>1.</sup> Change from fourth quarter of previous year to fourth quarter of year indicated. 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	2.3	1.5	.9
Previous Greenbook	1.7	2.2	3.2	3.5	2.8	2.6	2.6	1.5	.8
PCE chain-wt. price index	1.8	1.9	3.1	3.3	1.9	3.5	1.7	.6	1.1
Previous Greenbook	1.8	1.9	3.1	3.3	1.9	3.5	1.9	.7	1.0
Energy	7.7	7.6	18.3	23.1	-4.0	19.1	-9.8	-8.8	5.2
Previous Greenbook	7.7	7.6	18.3	23.1	-4.0	19.1	-9.8	-8.1	4.8
Food	1.3	2.6	2.9	2.1	2.3	4.5	6.2	2.0	1.2
Previous Greenbook	1.3	2.6	2.9	2.1	2.3	4.5	6.3	2.0	1.0
Ex. food & energy	1.6	1.4	2.2	2.2	2.3	2.2	1.9	1.0	.8
Previous Greenbook	1.6	1.4	2.2	2.2	2.3	2.2	2.0	1.1	.8
CPI	2.3	2.0	3.4	3.8	1.9	4.0	1.5	.4	1.3
Previous Greenbook	2.3	2.0	3.4	3.8	1.9	4.0	1.7	.7	1.3
Ex. food & energy	2.1	1.2	2.1	2.1	2.7	2.3	2.0	1.3	1.0
Previous Greenbook	2.1	1.2	2.1	2.1	2.7	2.3	2.1	1.3	1.0
ECI, hourly compensation 1	3.1	4.0	3.8	2.9	3.2	3.0	2.5	1.9	1.5
Previous Greenbook <sup>1</sup>	3.1	4.0	3.8	2.9	3.2	3.0	2.5	2.0	1.6

<sup>2.</sup> Private-industry workers. Return to table

<sup>3.</sup> Core goods imports exclude computers, semiconductors, oil, and natural gas.  $\,\underline{\text{Return to table}}$ 

Nonfarm business sector									
Output per hour	2.9	4.7	1.8	1.5	.6	2.7	2.4	1.1	2.0
Previous Greenbook	2.9	4.7	1.8	1.5	.6	2.7	2.0	.8	2.4
Compensation per hour	3.2	5.3	3.9	3.6	4.3	3.6	3.4	2.1	1.5
Previous Greenbook	3.2	5.3	3.9	3.6	4.3	3.6	3.2	2.4	1.6
Unit labor costs	.2	.5	2.1	2.1	3.6	.9	1.0	1.0	5
Previous Greenbook	.2	.5	2.1	2.1	3.6	.9	1.2	1.6	8
Core goods imports chain-wt. price index <sup>2</sup>	.1	1.6	3.6	2.2	2.4	3.4	3.4	-3.2	1.3
Previous Greenbook <sup>2</sup>	.1	1.6	3.6	2.2	2.4	3.4	3.9	-2.7	1.3

<sup>1.</sup> Private-industry workers. Return to table

### Other Macroeconomic Indicators

		20	08			20	09			20	10		1	1	1
Item	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2008 1	2009 '	2010 <sup>1</sup>
Employment and production															
Nonfarm payroll employment <sup>2</sup>	1	2	4	-1.3	-1.4	7	1	1	.1	.6	.3	.4	-2.0	-2.3	1.4
Unemployment rate <sup>3</sup>	4.9	5.4	6.0	6.9	7.7	8.2	8.3	8.4	8.5	8.4	8.2	8.1	6.9	8.4	8.1
Previous Greenbook <sup>3</sup>	4.9	5.3	6.0	6.7	7.5	7.8	8.0	8.1	8.3	8.3	8.2	8.2	6.7	8.1	8.2
GDP gap <sup>4</sup>	7	6	-1.3	-3.2	-5.1	-5.9	-6.0	-6.0	-5.9	-5.9	-5.8	-5.5	-3.2	-6.0	-5.5
Previous Greenbook <sup>4</sup>	7	6	-1.3	-3.1	-4.8	-5.6	-5.9	-6.0	-6.1	-6.1	-6.0	-5.8	-3.1	-6.0	-5.8
Industrial production <sup>5</sup>	.4	-3.4	-8.9	-11.5	-13.8	-2.3	1.4	2.6	3.5	2.9	4.2	4.3	-6.0	-3.2	3.7
Previous Greenbook <sup>5</sup>	.4	-3.4	-7.6	-9.1	-6.5	-1.0	.2	1.4	1.6	2.1	3.3	3.3	-5.0	-1.5	2.6
Manufacturing industr. prod. <sup>5</sup>	-1.0	-4.1	-8.8	-16.2	-17.3	-2.0	3.2	3.7	3.5	3.0	4.5	4.1	-7.7	-3.5	3.8
Previous Greenbook <sup>5</sup>	-1.0	-4.0	-7.8	-13.2	-8.5	.0	1.0	1.2	1.1	2.0	3.4	3.5	-6.6	-1.7	2.5
Capacity utilization rate - mfg. <sup>3</sup>	78.7	77.5	75.5	71.9	68.6	68.3	68.8	69.4	70.1	70.7	71.6	72.4	71.9	69.4	72.4
Previous Greenbook <sup>3</sup>	78.7	77.5	75.7	72.8	71.2	71.2	71.3	71.6	71.8	72.3	73.0	73.7	72.8	71.6	73.7
Housing starts <sup>6</sup>	1.1	1.0	.9	.7	.5	.6	.7	.8	.8	.8	.9	.9	.9	.6	.9
Light motor vehicle sales <sup>6</sup>	15.2	14.1	12.9	10.3	10.3	11.0	11.4	11.8	12.2	12.6	13.1	13.4	13.1	11.1	12.8
Income and saving															
Nominal GDP <sup>5</sup>	3.5	4.1	3.4	-3.3	-4.3	1.0	3.2	3.2	3.2	3.4	3.6	4.0	1.9	.7	3.6
Real disposable pers. income <sup>5</sup>	7	10.7	-8.8	4.6	7.4	1.9	1	1.0	2.4	1.9	2.5	2.3	1.2	2.5	2.3
Previous Greenbook <sup>5</sup>	7	10.7	-9.2	5.7	8.1	.9	5	1.1	1.9	1.5	2.0	2.3	1.3	2.4	1.9
Personal saving rate <sup>3</sup>	.2	2.5	1.2	3.3	5.4	5.8	5.4	5.2	5.2	5.0	4.9	4.7	3.3	5.2	4.7
Previous Greenbook <sup>3</sup>	.2	2.5	1.1	3.4	5.7	5.8	5.4	5.3	5.2	5.0	4.9	4.8	3.4	5.3	4.8
Corporate profits <sup>7</sup>	-4.3	-14.3	-4.7	-26.0	-30.5	-18.7	14.3	11.5	13.0	11.2	7.9	7.3	-12.8	-7.9	9.8
Profit share of GNP <sup>3</sup>	11.2	10.6	10.4	9.8	9.1	8.6	8.8	8.9	9.1	9.3	9.4	9.5	9.8	8.9	9.5
Net federal saving <sup>8</sup>	-331	-650	-548	-571	-904	-1,022	-1,042	-1,060	-987	-973	-994	-996	-525	-1,007	-988
Net state & local saving <sup>8</sup>	-52	-67	-104	-102	-15	-43	-50	-55	-50	-55	-52	-52	-81	-41	-52
Gross national saving rate <sup>3</sup>	12.4	11.3	11.4	12.3	12.2	11.1	10.9	10.7	10.6	10.7	10.6	10.5	12.3	10.7	10.5
Net national saving rate <sup>3</sup>	.0	-1.3	-1.9	8	-1.3	-2.7	-3.0	-3.1	-3.3	-3.2	-3.2	-3.3	8	-3.1	-3.3

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

<sup>2.</sup> Core goods imports exclude computers, semiconductors, oil and natural gas. 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
Employment and production									
Nonfarm payroll employment <sup>1</sup>	7	1	2.1	2.4	2.1	1.2	-2.0	-2.3	1.4
Unemployment rate <sup>2</sup>	5.8	5.8	5.4	4.9	4.4	4.8	6.9	8.4	8.1
Previous Greenbook <sup>2</sup>	5.8	5.8	5.4	4.9	4.4	4.8	6.7	8.1	8.2
GDP gap <sup>3</sup>	-2.5	-1.7	7	2	1	3	-3.2	-6.0	-5.5
Previous Greenbook <sup>3</sup>	-2.5	-1.7	7	2	1	3	-3.1	-6.0	-5.8
Industrial production <sup>4</sup>	2.6	1.5	3.1	2.6	1.7	2.1	-6.0	-3.2	3.7
Previous Greenbook <sup>4</sup>	2.6	1.5	3.1	2.6	1.7	2.1	-5.0	-1.5	2.6
Manufacturing industr. prod.4	2.6	1.7	3.7	3.7	1.1	2.3	-7.7	-3.5	3.8
Previous Greenbook <sup>4</sup>	2.6	1.7	3.7	3.7	1.1	2.3	-6.6	-1.7	2.5
Capacity utilization rate - mfg. <sup>2</sup>	73.2	74.8	77.5	79.2	79.0	79.3	71.9	69.4	72.4
Previous Greenbook <sup>2</sup>	73.2	74.8	77.5	79.2	79.0	79.3	72.8	71.6	73.7
Housing starts <sup>5</sup> _	1.7	1.8	2.0	2.1	1.8	1.4	.9	.6	.9
Light motor vehicle sales <sup>5</sup>	16.7	16.6	16.8	16.9	16.5	16.1	13.1	11.1	12.8
Income and saving									
Nominal GDP <sup>4</sup>	3.6	5.9	6.5	6.3	5.3	4.9	1.9	.7	3.6
Real disposable pers. income <sup>4</sup>	2.9	3.7	4.1	.9	3.6	1.8	1.2	2.5	2.3
Previous Greenbook <sup>4</sup>	2.9	3.7	4.1	.9	3.6	1.8	1.3	2.4	1.9
Personal saving rate <sup>2</sup>	1.8	2.2	2.5	.8	.9	.4	3.3	5.2	4.7
Previous Greenbook <sup>2</sup>	1.8	2.2	2.5	.8	.9	.4	3.4	5.3	4.8
Corporate profits <sup>6</sup>	20.6	12.6	20.3	18.8	6.9	-2.0	-12.8	-7.9	9.8
Profit share of GNP <sup>2</sup>	9.0	9.5	10.8	12.0	12.2	11.3	9.8	8.9	9.5
Net federal saving <sup>7</sup>	-248	-372	-371	-292	-201	-229	-525	-1007	-988
Net state & local saving <sup>7</sup>	-34	-20	2	29	46	10	-81	-41	-52
Gross national saving rate <sup>2</sup>	13.6	13.7	13.8	15.0	15.5	13.4	12.3	10.7	10.5
Net national saving rate <sup>2</sup>	1.5	1.9	2.1	2.8	3.4	1.2	8	-3.1	-3.3

- 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

### Staff Projections of Federal Sector Accounts and Related Items

(Billions of dollars except as noted)

la		Fiscal	year			20	08			20	09			20	10	
Item	2007 <u>a</u>	2008 <sup>a</sup>	2009	2010	Q1 <sup>a</sup>	Q2 <sup>a</sup>	Q3 <sup>a</sup>	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget									No	t seasoi	nally ad	justed				
Receipts_1	2568	2524	2263	2405	540	788	590	547	488	683	545	524	545	742	594	586
Outlays <sup>1</sup>	2729	2978	4054	3438	746	761	759	1033	1041	1070	910	903	859	848	828	894
Surplus/deficit <sup>1</sup>	-162	-455	-1791	-1033	-206	27	-169	-485	-553	-387	-365	-378	-314	-106	-234	-309
Previous	-162	-455	-1675	-842	-206	27	-169	-503	-567	-315	-291	-260	-312	-76	-195	-278
On-budget	-343	-638	-1937	-1179	-237	-64	-171	-538	-564	-472	-363	-437	-322	-191	-229	-366
Off-budget	181	183	146	146	31	91	2	53	11	85	-3	58	8	85	-5	58
Means of financing																
Borrowing	206	768	1608	1051	200	-48	526	561	487	353	207	368	303	131	249	298
Cash decrease	-23	-296	322	0	11	-7	-318	5	116	30	170	15	15	-20	-10	15
Other <sup>2</sup>	-22	-17	-138	-18	-5	29	-39	-81	-50	4	-12	-5	-5	-5	-5	-5
Cash operating balance, end of period	75	372	50	50	46	53	372	367	250	220	50	35	20	40	50	35
NIPA federal sector								5	Season	ally adjı	usted ar	nnual ra	tes			
Receipts	2624	2606	2433	2549	2673	2479	2592	2563	2402	2358	2409	2428	2563	2588	2616	2642
Expenditures	2832	3047	3318	3552	3003	3128	3140	3134	3307	3381	3451	3488	3550	3562	3610	3638
Consumption expenditures	842	910	987	1036	898	918	954	970	982	993	1003	1016	1032	1045	1050	1056
Defense	569	624	684	710	614	629	660	675	680	688	694	701	708	713	719	725
Nondefense	273	286	303	325	284	289	295	295	302	306	309	315	325	332	331	331
Other spending	1990	2136	2331	2517	2105	2210	2186	2164	2324	2388	2448	2473	2518	2517	2560	2583
Current account surplus	-209	-441	-885	-1004	-331	-650	-548	-571	-904	-1022	-1042	-1060	-987	-973	-994	-996
Gross investment	123	134	148	152	129	138	144	148	146	148	149	151	151	152	154	155
Gross saving less gross investment 3	-221	-459	-910	-1026	-344	-671	-572	-598	-928	-1046	-1066	-1084	-1010	-995	-1015	-1017
Fiscal indicators <sup>4</sup>																
High-employment (HEB) surplus/deficit	-225	-429	-694	-713	-325	-643	-507	-465	-734	-798	-779	-778	-694	-679	-702	-712
Change in HEB, percent of potential GDP	-0.3	1.3	1.6	-0.0	0.6	2.2	-1.0	-0.3	1.8	0.4	-0.2	-0.0	-0.6	-0.1	0.1	0.0
Fiscal impetus (FI), percent of GDP	0.2	0.8	1.0	1.0	0.1	0.5	0.7	-0.2	0.2	0.4	0.2	0.3	0.3	0.2	0.1	0.1
Previous	0.2	0.8	0.6	0.7	0.1	0.5	0.7	-0.3	0.0	0.4	0.1	0.1	0.3	0.1	0.1	0.1

<sup>1.</sup> 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

### Change in Debt of the Domestic Nonfinancial Sectors

(Percent)

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

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

<sup>4.</sup> 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

		Total	Home mortgages	Consumer credit				
Year								
2003	8.1	11.6	14.2	5.2	2.5	8.3	10.9	5.9
2004	8.9	11.1	13.6	5.5	6.2	7.4	9.0	6.5
2005	9.5	11.0	13.2	4.3	8.7	10.2	7.0	6.3
2006	9.0	10.2	11.2	4.5	10.5	8.1	3.9	5.3
			I					
2007	8.6	6.8	6.8	5.5	13.1	9.3	4.9	4.9
2008	5.7	.1	7	1.6	5.0	2.1	24.2	1.9
2009	5.0	-1.1	-1.4	-1.3	2.7	5.2	22.2	.7
2010	4.7	1.4	.6	3.5	3.2	4.6	12.6	3.6
Quarter								
2008: 1	5.3	3.2	2.6	4.7	7.1	3.4	8.1	3.5
2	3.1	.6	1	3.9	5.5	.9	5.9	4.1
3	7.7	7	-2.5	1.2	4.1	3.0	39.2	3.4
4	6.4	-2.7	-2.9	-3.4	2.8	1.0	37.0	-3.3
2009: 1	4.6	-2.7	-2.8	-4.0	2.2	4.9	24.5	-4.3
2	6.4	-1.3	-1.5	-1.8	2.7	5.3	28.4	1.0
3	3.4	5	8	2	2.9	5.0	11.1	3.2
4	5.3	.1	3	.9	2.9	5.0	18.6	3.2
2010: 1	3.9	.6	1	2.0	3.2	4.7	10.6	3.2
2	4.6	1.0	.2	3.2	3.2	4.7	12.9	3.4
3	4.6	1.6	.7	4.1	3.0	4.4	11.7	3.6
4	5.2	2.4	1.6	4.6	3.1	4.4	13.0	4.0

Note. Quarterly data are at seasonally adjusted annual rates.

1. Data after 2008:Q3 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)

Catamani	2007	2008	2009	2010	20	08		20	09			20	10	
Category	2007	2006	2009	2010	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Domestic nonfinancial sectors														
Net funds raised														
Total	1692.4	1405.8	1495.5	1500.1	2052.4	1667.6	1323.2	1956.2	1022.7	1679.9	1236.3	1507.9	1499.2	1757.
Net equity issuance	-831.2	-417.3	-185.0	-140.0	-447.7	-450.0	-220.0	-200.0	-160.0	-160.0	-140.0	-140.0	-140.0	-140.0
Net debt issuance	2523.6	1823.2	1680.5	1640.1	2500.1	2117.6	1543.2	2156.2	1182.7	1839.9	1376.3	1647.9	1639.2	1897.2
Borrowing indicators														
Debt (percent of GDP)_	220.6	228.4	241.4	245.1	226.9	232.8	238.7	241.3	242.4	243.1	243.9	244.5	245.1	245.7
Borrowing (percent of GDP)	18.3	12.8	11.8	11.2	17.3	14.8	10.9	15.2	8.3	12.8	9.5	11.3	11.1	12.7
Households														
Net borrowing <sup>2</sup>	876.4	12.6	-150.2	187.6	-92.1	-370.1	-372.3	-181.1	-64.1	16.6	76.2	136.4	213.3	324.5
Net borrowing <sup>2</sup> Home mortgages	876.4 674.6	-75.9	-150.2 -142.9	187.6 61.4	-92.1 -260.3	-370.1 -307.1	-372.3 -292.9	-181.1 -160.6	-64.1 -85.0	16.6 -33.1	76.2 -9.4	136.4 18.9	213.3 70.9	324.5 165.4
											-			-

Financing gap <sup>4</sup>	185.6	180.4	6.4	68.4	129.2	105.2	-2.5	12.6	1.6	14.1	107.1	70.1	42.3	54.3
Net equity issuance	-831.2	-417.3	-185.0	-140.0	-447.7	-450.0	-220.0	-200.0	-160.0	-160.0	-140.0	-140.0	-140.0	-140.0
Credit market borrowing	1224.2	525.2	300.8	362.3	446.9	309.9	245.5	301.6	331.6	324.5	363.5	372.0	351.5	362.3
State and local governments														
Net borrowing	185.9	46.1	115.4	109.1	66.8	22.6	110.6	119.6	115.6	115.6	111.6	111.6	106.6	106.6
Current surplus <sup>5</sup>	246.6	157.9	173.7	167.2	153.1	108.3	197.1	171.0	165.0	161.7	167.3	163.9	168.1	169.5
Federal government														
Net borrowing	237.1	1239.2	1414.5	981.1	2078.5	2155.2	1559.4	1916.1	799.6	1383.1	825.0	1027.8	967.8	1103.8
Net borrowing (n.s.a.)	237.1	1239.2	1414.5	981.1	526.5	560.9	486.9	353.0	206.8	367.9	303.3	130.9	248.8	298.0
Unified deficit (n.s.a.)	187.9	833.2	1684.2	963.1	168.9	485.2	553.4	387.3	365.2	378.4	313.8	106.4	234.3	308.5
Depository institutions														
Funds supplied	851.7	220.9	238.3	427.7	537.3	-621.9	-78.3	133.8	461.4	436.3	382.5	560.8	457.6	309.8

Note. Data after 2008:Q3 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

# January 2009 Greenbook Part 1 Tables and Charts \_

## **International Developments**

### **Summary of Staff Projections**

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

	20	08		Р	rojectio	n			
Indicator	H1	Q3	2008:		2009		2010		
		Q.J	Q4	Q1	Q2	H2	2010		
Foreign output	1.8	.7	-3.7	-2.7	7	1.5	2.8		
Previous Greenbook	1.8	.7	-1.6	-1.2	.1	1.5	2.8		
Foreign consumer prices	5.1	4.5	-1.1	8	1.3	1.7	2.0		
Previous Greenbook	5.1	4.4	1	.4	1.4	1.8	2.0		
	Contribution to growth (percentage points)								
U.S. net exports	1.8	1.1	1	1.2	1	8	5		
Previous Greenbook	1.8	1.1	.4	.9	.1	5	4		

Note: Change for year 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)

	20	08		Р	rojectio	n	
Trade category	H1	Q3	2008:		2009		2010
		ųз	Q4	Q1	Q2	H2	2010
Imports							
Core goods	9.5	4.6	-9.0	-9.4	-3.0	1	1.3
Previous Greenbook	9.5	4.6	-7.0	-8.5	-2.4	.1	1.3
Oil (dollars per barrel)	108.65	117.49	68.52	45.55	44.56	48.60	54.82
Previous Greenbook	108.65	117.53	68.09	43.81	47.92	52.64	61.12
Exports							
Core goods	13.0	6.6	-19.0	-12.9	-2.9	.5	1.1
Previous Greenbook	13.0	6.7	-13.5	-8.6	-2.1	.6	.9

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)

	20	08		Р			
Measure	H1	03	2008:	2009			2010
	n i	Q3	Q4	Q1	Q2	H2	2010
Real imports	-4.1	-3.5	-15.4	-11.7	-1.9	5.8	5.4

Previous Greenbook	-4.1	-3.2	-5.2	-7.4	-3.7	3.7	4.9
Real exports	8.6	3.0	-19.9	-5.1	-2.7	1	2.4
Previous Greenbook	8.6	3.4	-4.1	-2.2	-3.2	.1	2.6

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

### Alternative Scenarios:

### More Expansionary Fiscal and Monetary Policies Abroad

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

Indicator and simulation	20	09	20	10	2011	2012-13
indicator and simulation	H1	H2	H1	H2	2011	2012-13
U.S. real GDP						
Baseline	-3.5	2.0	2.3	2.9	4.9	5.1
Larger Fiscal Stimulus Abroad	-3.4	2.2	2.7	3.5	5.7	5.3
Larger Monetary Stimulus Abroad	-3.5	2.0	2.3	2.9	4.9	5.0
U.S. PCE prices excluding food and end	ergy					
Baseline	1.2	0.9	0.8	0.8	0.7	0.7
Larger Fiscal Stimulus Abroad	1.2	1.1	1.1	1.1	1.0	1.1
Larger Monetary Stimulus Abroad	1.2	0.9	0.9	0.9	0.6	0.7
U.S. federal funds rate (percent)						
Baseline	0.1	0.1	0.1	0.1	0.1	1.2
Larger Fiscal Stimulus Abroad	0.1	0.1	0.1	0.1	0.5	3.1
Larger Monetary Stimulus Abroad	0.1	0.1	0.1	0.1	0.1	1.1
U.S. trade balance (percent share of GL	DP)					
Baseline	-2.5	-2.7	-3.2	-3.4	-3.7	-4.2
Larger Fiscal Stimulus Abroad	-2.6	-3.0	-3.4	-3.5	-3.4	-3.4
Larger Monetary Stimulus Abroad	-2.5	-2.7	-3.3	-3.4	-3.6	-4.5

Note: H1 is Q2/Q4; H2 is Q4/Q2. U.S. real Gross Domestic Product and U.S. Personal Consumption Expenditures (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.

### **Evolution of the Staff Forecast**

Figure: Current Account Balance

A line chart shows the evolution of the staff forecast of the current account balance (percent of GDP) for years 2008 through 2010. As of Greenbook publication dates from January 24, 2007 through the present, the staff forecast for 2008 began around -6.7 percent, and gradually increased to about -4.7 percent for the current Greenbook. As of Greenbook publication dates from September 12, 2007 through the present, the staff forecast for 2009 began around -5.3 percent, increased to about -4.1 by April 23, 2008, decreased to about -4.5 by June 18, 2008, and increased on net to about -3.1 percent for the current Greenbook. As of Greenbook publication dates from September 10, 2008 through the present, the staff forecast for 2010 began around -3.4 percent, increased to about -3.2 by October 22, 2008, and decreased back to about -3.4 percent for the current Greenbook.

Figure: Foreign Real GDP

A line chart shows the evolution of the staff forecast of foreign real GDP (percent change, Q4/Q4) for years 2008 through 2010. As of Greenbook publication dates from January 24, 2007 through the present, the staff forecast for 2008 began around 3.4 percent, and decreased on net to about 0.2 for the current Greenbook. As of Greenbook publication dates from September 12, 2007 through the present, the staff forecast for 2009 began around 3.2 percent, remained near that level through September 10, 2008, and decreased rapidly to about -0.1 for the current Greenbook. As of Greenbook publication dates from September 10, 2008 through the present, the staff forecast for 2010 began around 3.5 percent, decreased to about 2.9 percent by October 22, and remained at that level for the current Greenbook.

Figure: Core Import Prices

A line chart shows the evolution of the staff forecast of core import prices (percent change, Q4/Q4) for years 2008 through 2010. (Core import prices are prices for

merchandise imports excluding computers, semiconductors, oil, and natural gas.) As of Greenbook publication dates from January 24, 2007 through the present, the staff forecast for 2008 began around 1 percent, remained near that level through January 23, 2008, increased to about 7.1 percent by September 10, 2008, and decreased to about 3.5 percent for the current Greenbook. As of Greenbook publication dates from September 12, 2007 through the present, the staff forecast for 2009 began around 1 percent, remained near that level through September 10, 2008, and decreased to about -3.3 for the current Greenbook. As of Greenbook publication dates from September 10, 2008 through the present, the staff forecast for 2010 began around 1.2 percent, and remained near that level through the current Greenbook.

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

							Pro	ojecte	d			
Measure and country		20	08			20	09			20	10	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
REAL GDP <sup>1</sup>			C	Quarterl	ly cha	nges	at an	annua	al rate			
Total Foreign	2.3	1.3	0.7	-3.7	-2.7	-0.7	1.2	1.8	2.3	2.7	3.1	3.3
Advanced Foreign Economies	1.0	-0.3	-0.1	-2.6	-3.3	-1.9	0.3	1.0	1.4	1.8	2.1	2.2
of which:												
Canada	-0.6	0.6	1.3	-2.4	-4.4	-2.8	0.3	1.1	1.6	2.0	2.2	2.4
Japan	2.4	-3.7	-1.8	-5.2	-3.7	-1.5	-0.3	0.4	0.9	1.1	1.2	1.3
United Kingdom	1.5	0.0	-2.6	-2.9	-2.7	-1.7	-0.3	1.7	0.7	1.4	2.3	2.
Euro Area <sup>2</sup>	2.7	-0.7	-0.7	-2.0	-2.0	-1.0	0.5	0.9	1.4	1.8	2.1	2.
Germany	5.7	-1.7	-2.1	-2.1	-2.1	-1.0	0.4	0.9	1.4	1.8	2.0	2.
Emerging Market Economies	4.0	3.4	1.7	-5.0	-1.9	0.8	2.4	2.9	3.4	4.0	4.4	4.
Asia	7.8	3.9	0.3	-6.5	-0.8	1.8	4.0	4.6	5.3	5.7	5.9	6.0
Korea	3.3	3.4	2.1	-20.8	-6.0	-4.0	2.5	3.3	3.8	4.1	4.2	4.3
China	11.3	10.8	5.4	0.3	4.0	6.5	7.3	7.8	8.5	8.9	9.0	9.0
Latin America	-0.1	2.6	3.1	-4.1	-3.5	-0.4	0.7	1.1	1.5	2.3	2.9	3.3
Mexico	-0.8	0.8	2.6	-5.0	-4.0	-1.0	0.2	0.6	1.0	2.0	2.7	3.2
Brazil	6.9	6.4	7.4	-4.5	-3.0	2.0	2.5	2.7	3.0	3.2	3.5	3.
CONSUMER PRICES <sup>3</sup>				F	our-q	uarte	r char	nges				
Total Foreign	4.1	4.7	4.8	3.4	2.0	0.9	0.2	1.0	1.7	1.9	1.9	2.0
Advanced Foreign Economies	2.2	2.7	3.4	2.2	1.0	0.2	-0.5	0.2	1.1	1.3	1.3	1.3
of which:												
Canada	1.8	2.3	3.4	2.2	1.3	-0.1	-1.1	-0.1	0.8	1.3	1.5	1.5
Japan	1.0	1.4	2.2	1.2	-0.1	-0.9	-1.9	-1.5	-0.6	-0.3	-0.3	-0.3
United Kingdom <sup>4</sup>	2.4	3.4	4.8	3.9	2.6	1.4	0.1	0.6	2.4	2.4	2.5	2.4
Euro Area <sup>2</sup>	3.4	3.6	3.8	2.3	1.1	1.0	0.7	1.5	2.2	2.0	1.9	1.9
Germany	3.1	3.0	3.3	1.7	0.9	0.8	0.4	0.9	1.3	1.2	1.2	1.4
Emerging Market Economies	5.9	6.7	6.2	4.6	2.9	1.7	1.0	1.7	2.3	2.4	2.6	2.
Asia	6.5	7.1	6.1	3.6	1.2	-0.1	-0.6	0.8	1.7	2.0	2.2	2.
Korea	3.8	4.8	5.5	4.5	4.0	2.4	1.6	1.7	1.7	1.7	1.7	1.7
China	8.0	7.8	5.2	2.5	-0.5	-1.3	-1.1	0.4	1.5	1.9	2.2	2.4
Latin America	4.5	5.5	6.1	6.6	6.4	5.4	4.5	3.7	3.4	3.3	3.3	3.3
Mexico	3.9	4.9	5.5	6.2	6.2	5.2	4.3	3.3	2.9	2.9	2.8	2.
Brazil	4.6	5.5	6.3	6.2	5.6	4.9	4.2	4.2	4.2	4.2	4.2	4.:

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

<sup>2.</sup> Harmonized data for euro area from Eurostat. Return to table

<sup>3.</sup> Foreign CPI aggregates calculated using shares of U.S. non-oil imports. Return to table

<sup>4.</sup> 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)

Massure and country	2002	2002	2004	2005	2006	2007	P	rojecte	d
Measure and country	2002	2003	2004	2005	2006	2007	2008	2009	2010
REAL GDP <sup>1</sup>									
Total Foreign	3.0	2.9	3.8	4.0	4.0	4.2	0.1	-0.1	2.8
Advanced Foreign Economies	2.5	1.8	2.6	2.7	2.7	2.6	-0.5	-1.0	1.9
of which:									
Canada	3.5	1.5	3.7	3.0	2.2	2.8	-0.3	-1.5	2.
Japan	2.1	2.4	1.1	2.9	2.1	2.0	-2.1	-1.3	1.
United Kingdom	2.4	3.2	2.3	2.0	3.2	3.0	-1.0	-0.8	1.
Euro Area <sup>2</sup>	1.1	1.2	1.8	2.1	3.3	2.1	-0.2	-0.4	1.
Germany	0.0	0.2	0.2	1.6	4.1	1.7	-0.1	-0.5	1.
Emerging Market Economies	3.9	4.5	5.5	5.8	5.7	6.4	0.9	1.0	4.
Asia	6.4	6.9	6.0	7.6	7.0	7.8	1.3	2.4	5.
Korea	7.7	4.1	2.9	5.6	4.2	5.9	-3.6	-1.1	4.
China	8.6	10.3	9.8	10.2	10.6	11.4	6.8	6.4	8.
Latin America	1.6	1.8	5.0	4.0	4.4	4.8	0.3	-0.6	2.
Mexico	2.0	1.3	4.4	3.4	3.7	4.2	-0.6	-1.1	2.
Brazil	4.9	1.0	4.7	3.6	4.6	6.1	3.9	1.0	3.
CONSUMER PRICES <sup>3</sup>									
Total Foreign	2.5	2.1	2.8	2.3	2.1	3.6	3.4	1.0	2.
Advanced Foreign Economies	2.1	1.3	1.8	1.6	1.4	2.2	2.2	0.2	1.
of which:									
Canada	3.8	1.7	2.3	2.3	1.3	2.4	2.2	-0.1	1.
Japan	-0.5	-0.3	0.5	-1.0	0.3	0.5	1.2	-1.5	-0.
United Kingdom_	1.5	1.3	1.4	2.1	2.7	2.1	3.9	0.6	2.
Euro Area <sup>2</sup>	2.3	2.0	2.3	2.3	1.8	2.9	2.3	1.5	1.
Germany	1.2	1.1	2.1	2.2	1.3	3.1	1.7	0.9	1.
Emerging Market Economies	2.9	3.1	3.9	3.0	2.9	5.1	4.6	1.7	2.
Asia	0.8	2.3	3.1	2.6	2.3	5.4	3.6	0.8	2.
Korea	3.4	3.5	3.4	2.5	2.1	3.4	4.5	1.7	1.
China	-0.6	2.7	3.2	1.4	2.1	6.6	2.5	0.4	2.
Latin America	6.4	4.9	5.6	3.8	4.1	4.3	6.6	3.7	3.
Mexico	5.2	3.9	5.3	3.1	4.1	3.8	6.2	3.3	2.
Brazil	10.7	11.5	7.2	6.1	3.2	4.3	6.2	4.2	4.

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

### Outlook for U.S. International Transactions

<sup>2.</sup> Harmonized data for euro area from Eurostat. Return to table

<sup>3.</sup> Foreign CPI aggregates calculated using shares of U.S. non-oil imports. Return to table

<sup>4.</sup> CPI excluding mortgage interest payments, which is the targeted inflation rate. Return to table

NIPA REAL EXPORTS and IMPORTS									
Percent	age poin	t contrib	ution to (	GDP grov	wth, Q4/0	<b>Q</b> 4			
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	-0.1	-0.3	0.3
Imports of G&S	-1.3	-0.7	-1.7	-0.8	-0.6	-0.2	1.2	0.1	-0.8
	Per	centage	change,	Q4/Q4					
Exports of G&S	3.8	5.8	7.4	7.0	10.1	8.9	-0.7	-2.1	2.4
Services	10.2	3.0	8.3	4.0	11.5	9.3	1.7	-4.4	2.6
Computers	-1.1	11.3	5.8	14.2	8.1	0.9	-2.5	-2.4	9.5
Semiconductors	10.1	38.3	-6.0	17.6	2.9	29.3	-6.1	-1.7	11.0
Core Goods <sup>1</sup>	0.6	4.9	8.0	7.4	10.0	8.2	-1.6	-0.8	1.8
Imports of G&S	9.7	4.8	11.5	4.8	3.8	1.1	-6.9	-0.8	5.4
Services	8.8	2.2	9.3	-0.1	8.0	1.8	0.6	1.7	3.3
Oil	3.8	1.2	10.8	1.0	-9.2	0.6	-4.0	-6.7	1.8
Natural Gas	19.5	1.3	4.9	13.7	-12.6	12.1	-26.3	11.1	5.2
Computers	13.2	17.0	23.2	12.5	13.8	8.4	-8.1	-1.7	15.5
Semiconductors	11.0	-0.1	9.8	7.5	-0.3	3.8	-6.7	-2.4	5.0
Core Goods <sup>2</sup>	10.0	5.2	11.4	5.9	5.7	0.1	-8.9	-0.7	6.1
	Billion	s of Cha	ined 200	0 Dollars	5				
Net Goods & Services	-471.3	-518.9	-593.8	-616.6	-615.7	-546.5	-388.8	-340.5	-415.9
Exports of G&S	1013.3	1026.1	1126.1	1205.3	1314.8	1425.9	1518.4	1444.2	1460.7
Imports of G&S	1484.6	1545.0	1719.9	1821.9	1930.5	1972.4	1907.2	1784.8	1876.6
		Billions	of dollar	rs					
US CURRENT ACCOUNT BALANCE	-461.3	-523.4	-625.0	-729.0	-788.1	-731.2	-673.3	-439.1	-498.7
Current Acct as Percent of GDP	-4.4	-4.8	-5.3	-5.9	-6.0	-5.3	-4.7	-3.1	-3.4
Net Goods & Services (BOP)	-423.7	-496.9	-607.7	-711.6	-753.3	-700.3	-658.9	-372.6	-482.8
Investment Income, Net	33.0	51.0	73.4	78.8	63.8	88.8	113.4	59.0	107.7
Direct, Net	102.4	112.7	150.9	173.2	184.1	233.9	251.9	173.6	190.8
Portfolio, Net	-69.4	-61.7	-77.5	-94.4	-120.3	-145.1	-138.5	-114.6	-83.0
Other Income & Transfers,Net	-70.5	-77.5	-90.6	-96.2	-98.6	-119.7	-127.7	-125.5	-123.6

<sup>1.</sup> Merchandise exports excluding computers and semiconductors. Return to table

### Outlook for U.S. International Transactions

		20	05			20	06		2007			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NIPA REAL EXPORTS and IMPORTS	;											
		Percenta	age point	t contribu	ition to G	DP grow	vth					
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

<sup>2.</sup> Merchandise imports excluding oil, natural gas, computers, and semiconductors. Return to table

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_1	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
		Billion	s of Cha	ained 200	00 Dollars	s, 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 dolla	rs, s.a.a.	r.						
US CURRENT ACCOUNT BALANCE	-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

<sup>1.</sup> Merchandise exports excluding computers and semiconductors. Return to table

## Outlook for U.S. International Transactions

							Р	rojected	1			
		200	08		2009				2010			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NIPA REAL EXPORTS and IMPOR	тѕ											
		Percenta	age point	contribu	ıtion to G	DP grov	vth					
Net Goods & Services	0.8	2.9	1.1	-0.1	1.2	-0.1	-0.6	-1.1	-1.0	0.0	-0.3	-0.8
Exports of G&S	0.6	1.5	0.4	-2.9	-0.6	-0.3	-0.1	0.1	0.2	0.2	0.3	0.4
Imports of G&S	0.1	1.4	0.7	2.8	1.9	0.3	-0.5	-1.2	-1.2	-0.2	-0.6	-1.2
	P	ercentag	e change	e from pr	evious p	eriod, s.a	ı.a.r.					
Exports of G&S	5.1	12.3	3.0	-19.9	-5.1	-2.7	-1.0	0.7	1.4	2.1	2.8	3.4
Services	6.4	3.8	1.4	-4.3	-8.0	-5.7	-2.9	-1.0	0.3	2.0	3.6	4.7
Computers	0.4	57.4	5.4	-45.7	-9.6	-3.9	0.0	4.7	9.5	9.5	9.5	9.5
Semiconductors	4.6	-6.8	21.3	-34.4	-7.8	-3.9	0.0	5.4	11.0	11.0	11.0	11.0
Core Goods_	4.7	16.1	2.9	-25.0	-3.3	-1.1	-0.0	1.3	1.4	1.5	1.9	2.3
Imports of G&S	-0.8	-7.3	-3.5	-15.4	-11.7	-1.9	3.3	8.2	8.3	1.5	4.0	7.9

<sup>2.</sup> Merchandise imports excluding oil, natural gas, computers, and semiconductors. Return to table

Services	5.5	-8.0	3.3	2.3	-3.7	2.6	4.9	3.4	6.7	-1.0	3.6	3.9
Oil	17.6	-38.1	-6.6	24.8	-11.0	-27.0	-11.7	32.2	17.1	-24.5	-11.6	37.2
Natural Gas	-40.5	3.7	-38.0	-22.9	9.6	34.9	54.2	-33.1	29.1	20.2	24.8	-36.7
Computers	6.3	26.0	-13.1	-38.7	-9.6	-3.9	0.0	7.5	15.5	15.5	15.5	15.5
Semiconductors	-3.3	14.4	-4.5	-28.4	-7.8	-3.9	0.0	2.5	5.0	5.0	5.0	5.0
Core Goods <sup>2</sup>	-6.4	2.4	-2.5	-26.3	-14.5	0.9	4.9	7.4	6.8	6.1	5.8	5.6
Billions of Chained 2000 Dollars, s.a.a.r.												
Net Goods & Services	-462.0	-381.3	-353.0	-358.9	-322.0	-323.6	-341.7	-374.8	-406.3	-405.7	-413.9	-437.7
Exports of G&S	1500.6	1544.7	1556.1	1472.0	1452.9	1442.8	1439.3	1441.8	1447.0	1454.4	1464.6	1476.9
Imports of G&S	1962.6	1926.0	1909.1	1830.9	1774.9	1766.5	1781.0	1816.7	1853.3	1860.1	1878.5	1914.6
			Billions	of dolla	rs, s.a.a.	r.						
US CURRENT ACCOUNT BALANCE	-702.6	-723.8	-696.4	-570.5	-456.0	-422.3	-425.9	-452.3	-492.8	-485.3	-492.3	-524.5
Current Account as % of GDP	-5.0	-5.1	-4.8	-4.0	-3.2	-3.0	-3.0	-3.1	-3.4	-3.3	-3.3	-3.5
		ı		ı	I				ı	ı	ı	
Net Goods & Services (BOP)	-708.4	-720.3	-706.1	-500.8	-356.2	-346.6	-371.3	-416.3	-463.4	-467.8	-483.0	-517.2
Investment Income, Net	140.0	119.8	130.5	63.2	33.8	47.2	68.2	86.9	93.5	105.4	113.6	118.5
Direct, Net	281.0	259.5	261.2	205.7	175.5	170.7	172.0	176.4	181.7	188.3	194.0	199.1
Portfolio, Net	-141.0	-139.7	-130.7	-142.5	-141.6	-123.5	-103.9	-89.6	-88.2	-82.9	-80.4	-80.6
Other Inc. & Transfers, Net	-134.2	-123.2	-120.8	-132.8	-133.6	-122.8	-122.8	-122.8	-122.8	-122.8	-122.8	-125.8

<sup>1.</sup> Merchandise exports excluding computers and semiconductors.  $\underline{\text{Return to table}}$ 

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

Last update: April 1, 2015

<sup>2.</sup> Merchandise imports excluding oil, natural gas, computers, and semiconductors. Return to table

# January 2009 Greenbook Part 2 Tables and Charts †

# Domestic Nonfinancial Developments

## Changes in Employment

(Thousands of employees; seasonally adjusted)

	2008			20	08		
Measure and sector	2000	Q2	Q3	Q4	Oct.	Nov.	Dec.
	Ave	rage mor	thly char	nge	Mor	nthly char	nge
Nonfarm payroll employment (establishment survey)	-216	-71	-199	-510	-423	-584	-524
Private	-231	-100	-210	-517	-438	-581	-531
Natural resources and mining	5	6	9	2	1	7	-1
Manufacturing	-66	-39	-57	-125	-123	-104	-149
Ex. motor vehicles	-52	-31	-39	-109	-111	-88	-128
Construction	-53	-49	-33	-88	-79	-85	-101
Residential	-31	-30	-17	-44	-40	-40	-54
Nonresidential	-22	-19	-15	-44	-39	-46	-47
Wholesale trade	-14	-7	-12	-30	-27	-33	-30
Retail trade	-44	-26	-42	-78	-67	-100	-67
Financial activities	-12	-6	-13	-23	-27	-28	-14
Temporary help services	-41	-30	-36	-73	-54	-86	-81
Nonbusiness services 1	27	63	5	-24	-16	-43	-12
Total government	15	29	11	6	15	-3	7
Total employment (household survey)	-246	-95	-236	-564	-372	-513	-806
Memo:			,				
Aggregate hours of private production workers (percent change) <sup>2</sup> _	-3.0	9	-2.2	-7.7	8	6	-1.1
Average workweek (hours) <sup>3</sup>	33.6	33.7	33.7	33.4	33.5	33.5	33.3
Manufacturing (hours)	40.8	41.0	40.8	40.2	40.4	40.3	39.9

<sup>1.</sup> Nonbusiness services comprises education and health, leisure and hospitality, and "other." Return to table

## Figure: Changes in Private Payroll Employment

A line chart shows one series curve from 1999 through December 2008. Data are 3-month moving averages; units are thousands. The curve begins at about 225, generally decreases to about -320 by late 2001, increases and fluctuates between about 75 and 275 from 2004 through 2007, and decreases to end at about -510.

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

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

A line chart shows two curves, aggregate hours (index, 2002 = 100) and workweek (hours), from 1999 through December 2008. The aggregate hours curve begins at about 100.5, increases to about 103.5 by late 2000, decreases to about 98 by mid-2003, increases to about 108 by early 2008, and decreases to end at about 103.5. The workweek curve begins at about 34.4, decreases to about 33.8 by mid-2001, and fluctuates around that level until mid-2008. It decreases to end at about 33.3.

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

<sup>2.</sup> 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

<sup>3.</sup> Establishment survey. Return to table

## Selected Unemployment and Labor Force Participation Rates

(Percent; seasonally adjusted)

Data and avairs	2008			20	08		
Rate and group	2006	Q2	Q3	Q4	Oct.	Nov.	Dec.
Civilian unemployment rate							
Total	5.8	5.4	6.0	6.9	6.6	6.8	7.2
Teenagers	18.7	17.7	19.7	20.7	20.7	20.4	20.8
20-24 years old	10.2	9.8	10.6	11.3	10.6	11.1	12.1
Men, 25 years and older	4.8	4.2	5.1	6.0	5.6	5.9	6.4
Women, 25 years and older	4.4	4.1	4.5	5.2	5.1	5.2	5.4
Labor force participation rate							
Total	66.0	66.1	66.1	65.9	66.0	65.8	65.7
Teenagers	40.2	41.3	40.3	38.7	39.7	38.2	38.3
20-24 years old	74.4	74.6	74.8	74.1	74.0	73.9	74.3
Men, 25 years and older	75.4	75.3	75.6	75.2	75.4	75.2	74.9
Women, 25 years and older	60.0	60.0	60.0	60.1	60.1	60.1	60.1

Figure: Labor Force Participation Rate and Unemployment Rate

A line chart shows two curves, participation rate and unemployment rate, from 1972 to December 2008, and shaded bars that indicate periods of business recession as defined by the National Bureau of Economic Research (NBER). Unit is percent. The participation rate curve begins at about 60.4, generally increases to about 67.3 by early 2000, and then decreases to end at about 65.7. The unemployment rate curve begins at about 5.9. It peaks several times over the period, including about 9.1 in 1975, about 10.8 in 1982, about 7.9 in 1992, and about 6.3 in 2003. It ends on an upward trend at about 7.2.

Note. Shaded bars indicate periods of business recession as defined by the 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: U.S. Department of Labor, Bureau of Labor Statistics.

#### Figure: Persons Working Part Time for Economic Reasons

A line chart shows one curve from 2000 to December 2008. Unit is percent of household employment. The curve begins at just less than 2.4, fluctuates but increases to about 3.5 by late 2003, decreases to about 2.7 by mid-2006, and increases quickly to end at about 5.6.

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

#### Figure: Job Losers Unemployed Less Than 5 Weeks

A line chart shows two curves, job losers unemployed less than 5 weeks, and its 3-month moving average, for 2000 through December 2008. Unit is percent of household employment. The curves track one another closely, beginning at about 0.85, increasing to about 1.2 by late 2001, decreasing to about 0.85 by mid-2007, and increasing quickly to end at about 1.4.

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

## **Labor Market Indicators**

## Figure: Unemployment Insurance

A line chart shows two curves, initial claims (thousands) and insured unemployment (millions), from 1999 through January 2009. Initial claims begins at about 340, decreases to about 270 by mid-2000, increases to about 490 by late 2001, decreases to about 290 by early 2006, and increases to end at about 520 on January 17. The insured unemployment curve begins at about 2.3, decreases to about 2.0 by mid-2000, increases to about 3.6 by late 2001, stays at about that level until late 2003, dips to about 2.5 by mid-2006, and increases to end at about 4.6 on January 10.

Note: 4-week moving averages

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

#### Figure: Layoffs and Job Cuts

A line chart shows two curves, layoffs and discharges (percent of private employment) from December 2000 through November 2008, and announced job cuts (thousands) from January 1999 through December 2008. Both curves fluctuate widely throughout the period. The layoffs and discharges curve begins at about 1.23, increases to about 1.7 by late 2001, decreases to about 1.17 by early 2006, and increases to end at about 1.7. The announced job cuts curve begins at about 60, drops to near zero by late 1999, increases to about 250 by late 2001, decreases to about 40 by late 2007, and increases to end at about 160.

Note: Both series are 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: Hiring

A line chart shows two curves, JOLTS hiring rate (percent of employment) from 2001 through November 2008, and NFIB net hiring plans (percent, 3-month moving average) from 1999 through December 2008. The JOLTS curve begins at about 4.1, decreases to about 3.3 by late 2002, increases to about 4.3 by late 2004, and decreases to end at about 2.8. The NFIB curve begins at about 16, decreases to about 6 by early 2003, increases to about 15 by late 2004, remains near that level through mid-2007, and decreases to end at about -3.

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

Source: National Federation of Independent Business (NFIB); Job Openings and Labor Turnover Survey (JOLTS).

#### Figure: Job Openings

A line chart shows two curves, job openings (percent of private employment) for 2001 through November 2008, and Composite Help Wanted Index (2006 = 100) from 1999 through December 2008. The Composite Help Wanted Index is an index of staff composite help wanted advertising as a percent of private payroll employment. The job openings curve begins at about 3.5, decreases to about 2.1 by 2003, increases to about 3.2 by mid-2006, and decreases to end at about 2.1 The Composite Help Wanted Index curve begins at about 140, decreases to about 74 by mid-2003, increases to about 108 by late 2006, and decreases to end at about 70.

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

A line chart shows two curves, job availability\* (index) and hard-to-fill\*\* (percent,3-month moving average), from 1999 through December 2008. The job availability curve begins at about 135, increases to about 145 by 2000 and remains near that level until 2001, decreases to about 75 by mid-2003, increases to 110 by early 2007, and decreases to end at about 65. The hard-to-fill curve begins at about 30, increases to about 34 by mid-2000, decreases to about 16 by mid-2003, increases to about 27 by mid-2006, and decreases to end at about 15.

- \* Proportion of households believing jobs are plentiful, minus the proportion believing jobs are hard to get, plus 100. Return to text
- \*\* Percent of small businesses surveyed with at least one "hard-to-fill" job opening. Seasonally adjusted by FRB staff. Return to text

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

#### Figure: Expected Labor Market Conditions

A line chart shows two curves, Conference Board (1999 through December 2008) and Reuters/Michigan (1999 through January 2009 (preliminary)). Unit is an index. The Conference Board curve begins at about 100, fluctuates around that level through mid-2007, and decreases to end at about 70. The Reuters/Michigan curve fluctuates more widely. It begins at about 80, decreases to about 50 by late 2001, increases to about 106 by mid-2004, and decreases to end at about 45.

Note: The proportion of households expecting labor market conditions to improve, minus the proportion expecting conditions to worsen, plus 100.

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

#### Output per Hour

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

Sector	2006:Q3	2007:Q3	2007		2008	
Sector	to 2007:Q3	to 2008:Q3	Q4	Q1	Q2	Q3
Nonfarm business						
All persons	2.5	2.1 1	.8	2.6	3.6	1.5 <sup>1</sup>
All employees <sup>2</sup>	2.2	1.7 <sup>1</sup>	7	2.5	4.1	1.0 <sup>1</sup>
Nonfinancial corporations <sup>3</sup>	.7	3.5	1.9	2	7.7	4.9

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

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)

	Proportion		20	08	2008			
Component	2008	2008 1	Q3	Q4	Oct.	Nov.	Dec.	
	(percent)		Annua	al rate	N	onthly rate		
Total	100.0	-6.0	-8.9	-11.5	1.8	-1.3	-2.0	
Previous	100.0		-8.9		1.5	6		
Manufacturing	78.7	-7.7	-8.7	-16.2	.9	-2.2	-2.3	
Ex. motor veh. and parts	73.6	-6.7	-8.8	-15.0	1.2	-2.2	-2.	
Ex. high-tech industries	69.3	-7.2	-9.2	-14.1	1.4	-2.0	-1.9	
Mining	11.6	.5	-7.6	4.5	7.4	2.2	-1.6	
Utilities	9.7	1	-11.6	9.0	2.1	1.0	1	
Selected industries								
Energy	24.7	.6	-11.4	9.8	7.2	.9	6	
High technology	4.3	5	-2.1	-29.3	-2.3	-5.8	-4.	
Computers	1.0	-6.2	-20.7	-29.4	-2.6	-2.9	-3.	
Communications equipment	1.3	3.4	-9.2	-6.5	.9	-3.0	(	
Semiconductors <sup>2</sup>	2.0	6	13.4	-41.9	-4.2	-9.1	-6.9	
Motor vehicles and parts	5.1	-22.2	-7.4	-35.3	-3.6	-2.5	-7.:	
Aircraft and parts	2.3	-12.2	-27.3	-20.4	-5.8	21.4	15.9	
Total ex. selected industries	63.6	-7.6	-7.6	-16.2	.5	-2.5	-2.8	
Consumer goods	19.9	-3.3	-4.2	-5.6	.1	7	-1.	
Durables	3.6	-15.3	-13.6	-28.2	-1.5	-4.2	-2.	
Nondurables	16.3	7	-2.1	5	.4	.0	-1.	
Business equipment	6.4	-5.6	-1.0	-16.2	-1.7	-1.6	-2.	
Defense and space equipment	1.2	-2.9	-7.1	-2.3	2.0	.0	-1.	
Construction supplies	4.2	-11.2	-3.6	-26.2	-1.4	-4.6	-3.	
Business supplies	7.4	-8.0	-8.3	-14.4	.4	-2.2	-2.	
Materials	24.5	-11.0	-12.3	-23.7	1.7	-4.3	-4.0	
Durables	12.8	-10.5	-6.7	-28.4	-2.2	-4.2	-4.0	
Nondurables	11.7	-11.5	-17.9	-18.3	6.3	-4.3	-3.4	

<sup>1.</sup> From fourth quarter of preceding year to fourth quarter of year shown. Return to table

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

<sup>2.</sup> Includes related electronic components. Return to table

<sup>...</sup> Not applicable. Return to table

## Capacity Utilization

(Percent of capacity)

Contain	1972-	1994-	2001-		2008			
Sector	2007 average	95 high	02 low	Q2	Q3	Q4	Nov.	Dec.
Total industry	81.0	85.1	73.6	79.7	77.6	75.0	75.2	73.6
Manufacturing	79.7	84.6	71.5	77.5	75.5	71.9	71.9	70.2
Mining	87.5	88.7	84.8	90.8	88.9	89.7	90.8	89.3
Utilities	86.8	93.9	84.6	85.6	82.6	84.0	84.3	84.0
Stage-of-process groups								
Crude	86.6	89.5	81.9	89.2	86.2	85.1	85.7	83.9
Primary and semifinished	82.2	88.2	74.6	79.8	77.4	74.2	74.1	72.1
Finished	77.7	80.4	69.9	76.0	74.5	72.0	72.4	71.4

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

# Indicators of Industrial Activity

Figure: Weekly Production Index

A bar and line chart shows the weekly index (curve) superimposed on the monthly aggregate of the weekly index (bars), from January 2007 through January 2009. The weekly index curve begins at about 21.5, fluctuates between 21 and 23 through July 2008, then fluctuates more widely to about 18 in September 2008, about 21 in October 2008, about 17.5 in December 2008, and about 19 by January 2009. The monthly aggregate bars follow a similar pattern, remaining around 22 from January 2007 to July 2008, decreasing to about 19 by September, increasing to about 20.5 in October, and ending at about 19 in January 2009.

Note: One index point equals 1 percent of 2002 total industrial output.

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

Figure: Manufacturing IP Diffusion Index

A line chart shows one curve from 2002 to December 2008. Unit is an index. The curve begins at about 50, and fluctuates widely around that level, between about 35 and 65, through mid-2008. The curve then decreases to end at about 22.

Note: The diffusion index equals the percentage of series that increased over 3 months plus one-half the percentage that were unchanged.

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

Figure: Manufacturing Capacity Utilization

A line chart shows one curve from 1972 through December 2008, and shaded bars that indicate periods of business recession as defined by the National Bureau of Economic Research (NBER). Unit is percent. The curve fluctuates widely over the period, reaching a high point of about 88 near the beginning of 1974, and a low point of about 67.5 near the beginning of 1983. The curve reaches about 80 in December 2007, and ends in a downward trend at about 70.

Note: Horizontal line is 1972-2007 average (approximately 79.5). Shaded bars indicate periods of business recession as defined by the 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, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Figure: Boeing Commercial Aircraft Completions: Actual [redacted]

A line chart shows one curve over 2002 through 2008. Unit is an index, 2002 = 100. The curve begins at about 135, generally decreases to about 65 by early 2005, increases to about 85 by mid-year, drops to near zero in late 2005 (Boeing strike), increases to about 100 before year-end, generally increases to about 130 by mid-2008, drops to about 10 in late 2008 (Boeing strike), and recovers to end at about 90.

Note: 1998 price-weighted index. Actual completions equal deliveries plus the change in the stock of finished aircraft. [redacted]

Source: Boeing.

Figure: ISM New Orders Diffusion Index

A line chart shows one curve over 2002 through December 2008. Unit is a diffusion index. The curve begins at about 55, fluctuates but generally decreases to about 48 by early 2003, increases to about 72 by the end of that year, decreases to about 50 by mid-2008, and then decreases quickly to end at about 23.

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).

Figure: New Orders: FRB New York Survey and FRB Philadelphia Survey

A line chart shows two curves over 2002 through January 2009. Unit is a diffusion index. Both curves fluctuate near one another throughout the period. The New York curve begins at about 57, generally decreases to about 45 by early 2003, increases to about 70 by mid-2004, and then decreases on net to end at about 39. The Philadelphia curve begins at about 54, generally decreases to about 45 by early 2003, increases to about 68 by mid-2004, and then decreases on net to end at about 39.

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: Federal Reserve.

## Production of Domestic Light Vehicles

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

lt a via		2008		2009		20	08	
Item	Q2	Q3	Q4	Q1	Sept.	Oct.	Nov.	Dec.
U.S. production_	8.5	8.5	7.2	5.9	8.2	7.9	7.4	6.4
Autos	3.7	4.2	3.4	2.5	4.0	3.8	3.4	2.9
Light trucks	4.9	4.3	3.9	3.4	4.2	4.0	4.0	3.6
Days' supply <sup>2</sup>	72	76	98	n.a.	77	96	100	98
Autos	48	67	98	n.a.	68	87	103	96
Light trucks	94	84	99	n.a.	85	105	98	99
Inventories <sup>3</sup>	2.41	2.40	2.47	n.a.	2.40	2.45	2.46	2.47
Autos	0.78	0.96	1.14	n.a.	0.96	1.06	1.11	1.14
Light trucks	1.63	1.44	1.33	n.a.	1.44	1.39	1.36	1.33
Memo: U.S. production, total motor vehicles <sup>4</sup>	8.8	8.8	7.4	6.1	8.4	8.1	7.6	6.7

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

- 1. Production rates for the first 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. Return to table Source: Ward's Communications.

Figure: Inventories of Light Vehicles

A line chart shows one curve over 1998 through December 2008. Data are in millions of units. The curve begins at about 2.85, drops to less than 2.5 by mid-1998, increases to about 3.3 by mid-2000, decreases to about 2.4 by late 2001, increases to about 3.4 by mid-2004, and decreases on net to end at about 2.5.

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

Figure: Days' Supply of Light Vehicles

A line chart shows two curves, "Using sales in current month" and "Using 3-month moving average of sales", over 1998 through December 2008. Unit is days. The "Using sales in current month" curve begins at about 68, and fluctuates between about 40 and 90 but generally increases until late 2008. It then increases to end at about 98. The other curve follows the first curve closely, beginning and ending at about the same values, although it fluctuates within a narrower range.

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

## Indicators of High-Tech Manufacturing Activity

#### Figure: IP: Computers and Semiconductors

A line chart shows two curves over 2002 through December 2008. Unit is an index, 2002=100, ratio scale. The Computers curve begins at about 100, generally increases to about 210 by mid-2008, and decreases to end at about 175. The Semiconductors curve begins at about 85, increases to about 350 by mid-2008, and decreases to end at about 275.

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

#### Figure: IP: Communications Equipment

A line chart shows one curve over 2002 through December 2008. Unit is an index, 2002=100, ratio scale. The curve begins at about 102, dips to about 95 by early 2003, increases to about 122 by early 2004, decreases to about 110 by early 2005, and then increases on net to end at about 190.

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

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

A line chart shows two curves, PCs and Servers, over 2002 through 2008:Q4. Data are in millions of units; ratio scale. The PCs curve begins at about 11.3, generally increases to about 16.9 by 2008:Q3, and ends in 2008:Q4 with an IDC forecast of about 16.0. The Servers curve begins at about 0.44, increases to about 0.70 by 2005:Q1, generally increases further to about 0.75 by 2008:Q3, and ends in 2008:Q4 with an IDC forecast of about 0.70.

Note: FRB seasonals. Q4 PC and server units are an IDC forecast.

Source: International Data Corporation (IDC).

#### Figure: MPU Shipments and Intel Revenue

A line chart shows two curves, "Worldwide MPU shipments" and "Intel revenue", over 2002 through 2008:Q4 (and 2009:Q1 Intel revenue that is the company's internal forecast as of January 15, 2009). Unit is billions of dollars, ratio scale. The MPU shipments curve begins at about 6.3, dips to about 5.7 by 2002:Q3, generally increases to about 9.0 by 2005:Q2, decreases to about 7.2 by 2006:Q2, increases to about 9.4 by 2007:Q3, and ends at just less than 7.0. The Intel revenue curve begins at about 6.9, dips to about 6.5 by 2002:Q3, generally increases to about 9.9 by 2005:Q2, decreases to about 8.5 by 2006:Q3, increases to about 10.2 by 2008:Q2, and ends at about 7.7 in 2008:Q4. The 2009:Q1 forecast is about 7.5

Note: FRB seasonals. MPU is a microprocessor unit. MPU shipments include Semiconductor Industry Association (SIA) data through November and a staff estimate for December.

Source: Intel; SIA.

#### Figure: Circuit Board Orders and Shipments

A line chart shows two curves, Orders and Shipments, over 2002 through November 2008. Unit is billions of dollars. The Orders curve begins at about 126, fluctuates but generally decreases to about 88 by early 2003, increases back to about 126 by 2004, and then fluctuates widely between about 95 and 175 through the end of 2005. At the beginning of 2006, the curve is at about 161, and then generally decreases to end at about 113. The Shipments curve begins at about 120, generally decreases to about 92 by early 2003, increases to about 135 by mid-2004, and then fluctuates between about 120 and 150 for the remainder of the period, ending at about 121.

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

Source: Institute for Printed Circuits.

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

A line chart shows two curves, Bookings and Billings, over 2002 through December 2008. Unit is billions of dollars. The Bookings curve begins at about 0.66, increases to about 1.15 by mid-2002, decreases to about 0.67 by mid-2003, increases to about 1.53 by mid-2004, decreases to about 0.95 by early 2005, increases to about 1.75 by late 2006, and generally decreases to end at about 0.70. The Billings curve begins at about 0.85, increases to about 1.03 by late 2002, decreases to about 0.75 by mid-2003, increases to about 1.48 by mid-2004, decreases to nearly 1.0 by mid-2005, generally increases to about 1.72 by mid-2007, and decreases to end at about 0.75.

Note: FRB seasonals.

Source: Semiconductor Equipment and Materials International.

## Sales of Light Vehicles

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

2008 Category 2008

		Q2	Q3	Q4	Oct.	Nov.	Dec.
Total	13.1	14.1	12.9	10.3	10.5	10.1	10.3
Autos	6.7	7.6	6.6	5.2	5.6	5.0	5.2
Light trucks	6.4	6.5	6.3	5.1	4.9	5.2	5.1
North American <sup>1</sup>	9.8	10.3	9.7	7.7	7.8	7.6	7.8
Autos	4.5	5.0	4.4	3.6	3.8	3.3	3.6
Light trucks	5.3	5.3	5.3	4.1	4.0	4.3	4.1
Foreign-produced	3.3	3.8	3.2	2.6	2.7	2.6	2.5
Autos	2.2	2.7	2.2	1.7	1.8	1.7	1.6
Light trucks	1.1	1.1	1.0	.9	.9	.9	.9
Memo:							
Detroit Three domestic market share (percent) <sup>2</sup> _	47.6	45.9	46.7	47.5	46.0	47.8	48.9

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

A line chart shows two curves, "Appraisal of car-buying conditions" (index) and "Rates are high/credit is tight" (percent), over 2002 through January 2009. The "Appraisal of car-buying conditions" curve begins at about 157, and fluctuates widely but generally decreases to about 90 by mid-2008, and then increases to end at about 133. The "Rates are high/credit is tight" curve begins at about 5, fluctuates around that level until mid-2006, fluctuates between about 5 and 8 through mid-2008, increases to about 17 by late 2008, and decreases to end at about 10.

Source: Reuters/University of Michigan Surveys of Consumers.

Figure: Average Value of Incentives on Light Vehicles

A line chart shows one curve over 2002 through January 2009. Unit is current dollars per vehicle, ratio scale. The curve begins at about 1100, generally increases to about 2700 by late 2004, generally decreases back to 1100 by mid-2007, and then increases to end at nearly 2200.

Note: Seasonally adjusted weighted average of customer cash rebate and the present value of interest rate reduction. January figure is based on data through January 18. Source: J.D. Power and Associates.

## **Real Personal Consumption Expenditures**

(Percent change from preceding comparable period)

(1 ercent change from preceding con		,	00		2000	
		20	2008	2008		
Category	2007	Q3	Q4	Oct.	Nov.	Dec.
		Annua	al rate	ı	Monthly rate	
Total real PCE <sup>1</sup>	2.8	-3.8	-3.9	6	.3	6
Motor vehicles	2.0	-26.6	-39.7	-9.5	9	2
Goods ex. motor vehicles	3.2	-7.4	-9.1	-1.4	.6	-1.5
Ex. energy	3.5	-6.5	-12.7	-1.6	5	-1.4
Services	2.6	1	n.a.	.3	.1	n.a.
Ex. energy	2.6	.9	n.a.	.2	.0	n.a.

Memo:						
Nominal retail control <sup>2</sup>	5.3	.4	-22.3	-2.9	-2.4	-3.0

- 1. The values for Q4 and October, November, and December 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

Two line charts show two curves, "Monthly" over 2006 through December 2008, and "6-month moving average" over 1990 through December 2008. Unit is percent. The monthly curve begins at about 1.6, and fluctuates widely but generally decreases to end at about -1.4. The 6-month moving average curve begins at just less than -0.2, increases into positive territory in 1991, and fluctuates between about -0.2 and 0.95 until late 2008, when it decreases to end at about -1.0.

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

Two line charts show two curves, "Monthly" over 2006 through November 2008, and "6-month moving average" over 1990 through November 2008. Unit is percent. The monthly curve begins at about -0.65, fluctuates between about -0.6 and 1.0 throughout the period, and ends at about 0.13. The 6-month moving average curve begins at about 0.375, decreases to about -0.05 by early 1991, then increases and fluctuates between about 0.07 and 0.47 until mid-2008. It dips briefly to near zero, and then ends at about 0.8.

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: Change in Real Disposable Personal Income

A line chart shows one curve over 1998 through November 2008. Unit is 12-month percent change. The curve begins at about 5.3, fluctuates widely but decreases on net to about -1.3 by mid-2005, increases to a little less than 6 by mid-2006, decreases to about 0.4 by early 2008, spikes to about 6 by mid-year, drops to about -0.3, and increases to end at about 1.5.

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

A line chart shows one curve over 1998 through November 2008. Unit is percent. The curve begins at about 4.6, decreases to about 2 by mid-1999, and fluctuates around that value through late 2004. The curve drops to about -2.8 by mid-2005, increases and fluctuates between about 0 and 1.5 through mid-2008, and then spikes to about 4.8 and ends at about 2.75.

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: Household Net Worth and Wilshire 5000

A line chart shows two curves, "Ratio of household net worth to DPI"\* and "Wilshire 5000" (index), over 1998 through January 2009. The ratio of household net worth to DPI curve begins at about 5.6, generally increases to about 6.2 by late 1999, decreases to about 5.0 by mid-2002, increases to about 6.4 by mid-2007, and decreases to end at about 5.3 in 2008:Q3. The Wilshire 5000 curve begins at about 9400, fluctuates but generally increases to about 14400 by early 2000, decreases to about 7700 by late 2002, increases to about 15700 by late 2007, and then decreases to end at about 8500 on January 21, 2009.

The value for 2004:Q4 excludes the effect on income of the one-time Microsoft dividend in December 2004. Return to text

Source: Federal Reserve Board; U.S. Department of Commerce, Bureau of Economic Analysis; Wall Street Journal.

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

A line chart shows two curves, federal funds rate and Treasury yield, over 1998 through January 16, 2009. Unit is percent. The federal funds rate curve begins at 5.5, dips to 4.75 by late 1998, increases to 6.5 by mid-2000, decreases to 1.0 by mid-2003, increases to 5.25 by mid-2006, and decreases to end at about 0.125.

The Treasury yield curve begins at about 5.5, dips to about 4.3 by mid-1998, increases to about 6.75 by early 2000, fluctuates but generally decreases to about 3.4 by mid-2003, generally increases to about 4.8 by mid-2007, and then decreases on net to end at about 2.5.

Source: Federal Reserve Board.

#### Figure: Consumer Confidence

A line chart shows two curves, Reuters/Michigan (index, 1966=100) and Conference Board (index, 1985=100), over 1990 through January 2009 (preliminary). The Reuters/Michigan curve begins at about 92, drops to about 65 by late 1990, fluctuates but generally increases to about 112 by 2000, decreases and fluctuates around approximately 88 until mid-2007, and then generally decreases to end at about 62. The Conference Board curve follows a similar pattern. It begins around 107, decreases to about 47 by early 1992, generally increases to about 145 by mid-2000, decreases to about 60 by early 2003, increases to about 112 by mid-2007, and decreases to end at about 40 in December 2008.

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

# **Private Housing Activity**

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

Sector	2008			20	2008 4 Oct Nov De				
Sector	2008	Q2	Q3	Q4	Oct.	Nov.	Dec.		
All units									
Starts	.90	1.03	.88	.66	.77	.65	.55		
Permits	.89	1.03	.87	.63	.73	.62	.55		
Single-family units									
Starts	.62	.68	.60	.47	.54	.46	.40		
Permits	.57	.63	.56	.42	.47	.41	.36		
Adjusted permits 1	.58	.65	.57	.43	.49	.42	.37		
Permit backlog <sup>2</sup>	.070	.089	.081	.070	.077	.071	.070		
New homes									
Sales	n.a.	.52	.47	n.a.	.42	.41	n.a.		
Months' supply <sup>3</sup>	n.a.	10.55	11.01	n.a.	11.51	11.03	n.a.		
Existing homes									
Sales	n.a.	4.34	4.45	n.a.	4.37	4.02	n.a.		
Months' supply <sup>3</sup>	n.a.	10.27	9.53	n.a.	9.43	10.54	n.a.		
Multifamily units									
Starts	.282	.350	.273	.191	.231	.191	.152		
Permits	.323	.400	.308	.215	.260	.201	.186		
Permit backlog <sup>2</sup>	.053	.068	.062	.053	.059	.056	.053		
Mobile homes									
Shipments	n.a.	.088	.080	n.a.	.070	.068	n.a.		
Condos and co-ops									
Existing home sales	n.a.	.573	.577	n.a.	.540	.470	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

A line chart shows three curves over 1999 through December 2008. Data are seasonally adjusted annual rates, in millions of units. The single-family starts curve begins at about 1.33, fluctuates around approximately 1.25 through 2001, generally increases to about 1.82 by 2006, and then decreases to end at about 0.4. The single-family adjusted permits curve fluctuates less widely than the first curve but follows the same general pattern, and ends at about 0.38. The multifamily starts curve fluctuates around approximately 0.35 until 2007. It then begins to trend downward, and ends at about 0.15.

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

A line chart shows one curve, Total (left scale), over 2001 through November 2008. Data are in millions of units (annual rate). The curve begins at about 0.95, generally increases to about 1.40 by mid-2005, and then decreases to end at about 0.40.

Source: For total, Census Bureau; [redacted].

Figure: Existing Single-Family Home Sales

A line chart shows two curves over 2001 through November 2008. The pending home sales curve (index, 2001=100) begins at about 102, fluctuates but generally increases to about 128 by mid-2005, decreases to about 86 by late 2007, and remains near that level, ending at about 82.5. The existing home sales curve (millions of units, annual rate) begins at about 4.55, fluctuates but generally increases to about 6.3 by mid-2005, decreases to about 4.49 by late 2007, remains near that level through late 2008, and then decreases to end at about 4.0.

Source: National Association of Realtors.

[Content redacted.]

Figure: Inventories of New Homes and Months' Supply

A line chart shows two curves over 2001 through November 2008. The months' supply curve (in months) begins at about 3.8, remains near that level through mid-2004, and then increases on net to end at about 10.75. The inventories of new homes curve (thousands of units) begins at about 300, gradually increases to about 570 by mid-2006, and then decreases on net to end at about 375.

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

Source: Census Bureau.

Figure: Mortgage Rates

A line chart shows one curve, 30-year conforming FRM, over 2001 through January 2009. Unit is percent. The curve begins at about 7.0, fluctuates between about 6.5 and 7.2 through mid-2002, decreases and fluctuates between about 5.2 and 6.5 through early 2006, and then increases and fluctuates between about 5.8 and 6.8 for most of the remainder of the period. It then decreases and ends at about 5.0.

Note: The January reading is a 2-week moving average of data available through Jan. 21, 2009.

Source: Federal Home Loan Mortgage Corporation.

Figure: Prices of Existing Homes

A line chart shows three curves over 2001 through 2008. Unit is percent change from year earlier. The monthly FHFA purchase-only index curve begins at about 7, gradually increases to about 10 by late 2005, and then decreases to end at about -8 in November 2008. The 20-city S&P/Case-Shiller price index curve begins at about 12.5, dips to about 7.5 by early 2002, increases to about 17 by mid-2004, remains near that level through 2005, and then decreases to end at about -18 in October 2008. The LoanPerformance price index curve begins at about 8, increases to about 15 by mid-2005, and decreases on net to end at about -10 in November 2008.

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

# Orders and Shipments of Nondefense Capital Goods

(Percent change; seasonally adjusted current dollars)

			2008		
Category	Q2	Q3	Sept.	Oct.	Nov.

	Annua	al rate	М	onthly rat	e
Shipments	3.4	8	1.1	-4.5	-1.0
Excluding aircraft	5.9	3	1.7	-3.7	2
Computers and peripherals	-19.0	-28.7	-1.3	-1.6	-7.5
Communications equipment	5.8	-10.7	.7	-4.5	6.5
All other categories	8.8	4.0	2.1	-3.8	2
Orders	-6.8	-14.0	-1.1	-6.5	-1.5
Excluding aircraft	10.2	-5.2	-3.4	-6.7	3.9
Computers and peripherals	-5.3	-36.6	-2.5	-9.1	12.5
Communications equipment	.2	16.7	-19.4	10.4	2.6
All other categories	12.9	-3.5	-1.9	-7.9	3.3
Memo:					
Shipments of complete aircraft_	43.1	38.1	24.6	17.5	14.2

<sup>1.</sup> From Census Bureau, Current Industrial Reports; billions of dollars, annual rate. Return to table

Source: Census Bureau.

#### Figure: Communications Equipment

A line chart shows two curves over 2000 through November 2008. Unit is billions of chained (2000) dollars, ratio scale. The Shipments curve begins at about 8.5, increases to about 10.5 by late 2000, decreases to about 4.5 by late 2002, and then gradually increases on net to end at about 6. The Orders curve fluctuates more widely but follows the first curve fairly closely, except in mid-2000 when it spikes to about 14, and throughout 2002 when it trends lower, bottoming out near 2 late in that year.

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

A line chart shows two curves over 2000 through November 2008. Unit is billions of chained (2000) dollars, ratio scale. The Shipments curve begins at about 44, generally decreases to nearly 37 by 2002, generally increases to about 46 by mid-2006, and generally decreases to end at about 42.5. The Orders curve fluctuates more widely but follows a similar pattern. It begins at about 46.5, generally decreases to about 35.5 by 2002, generally increases to about 49 by late 2006, and generally decreases to end at about 41.5.

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

A line chart shows two curves over 2000 through 2008. The industrial production curve (index, 2000=100) begins at about 93, increases to about 109 by mid-2001, decreases to about 93 by late 2001, generally increases to about 210 by mid-2008, and decreases to end at about 175 in December 2008. The real M3 shipments curve (billions of chained (2000) dollars) begins at about 8, generally increases to about 19 by early 2008, and decreases to end at about 16 in November 2008.

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

A line chart shows two curves over 2000 through December 2008. Data are in thousands of units; ratio scale. The "Sales of class 4-8 trucks" curve begins at about 520, decreases to about 280 by early 2003, increases to about 580 by late 2006, and decreases to end at about 270. The "Net new orders of class 5-8 trucks" curve begins at about 400, fluctuates but generally decreases to about 280 by late 2001, increases to about 520 by early 2002, decreases to about 260 later that year, increases to about 1000 by early 2006, decreases to about 290 by early 2007, increases to about 500 by late 2007, and decreases to end at about 180.

Note: Annual rate, FRB seasonals.

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

## Fundamentals of Equipment and Software Investment

#### Figure: Real Business Output

A line chart shows one curve over 1990 through 2008:Q3. Unit is 4-quarter percent change. The curve begins at about 2.7, drops to about -2 by 1991:Q1, increases and fluctuates between about 2 and 6 from 1992 through 2000, dips to about -0.5 by 2001:Q4, increases to about 5 by 2004:Q2, and decreases on net to end just above zero.

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. Dept. of Commerce, Bureau of Economic Analysis.

#### Figure: User Cost of Capital

A line chart shows two curves over 1990 through 2008:Q3. Unit is 4-quarter percent change. As in the preceding figure, shaded bars indicate periods of business recession. The "high-tech" curve begins at about -8, fluctuates between about -13 and -2.5 throughout the period, and ends at about -4. The "non-high-tech" curve begins at about -3, fluctuates and peaks at about 11 at the end of 1994, 3 in late 1996, and 5 in late 1999, then decreases to about -9 in mid-2003, and increases on net to end at about 2.

Source: Staff calculation.

### Figure: Corporate Bond Yields

A line chart shows two curves over 1990 through January 2009. Unit is percent. As in the preceding figure, shaded bars indicate periods of business recession. The "10-year high-yield" curve begins at about 14.5, generally decreases to about 8.7 by the end of 1997, increases to nearly 14 by the end of 1999, decreases to about 7.3 by 2005, increases to nearly 18 by the end of 2008, and ends at about 16. The 10-year BBB curve begins at about 10.3, decreases and fluctuates between about 6.2 and 9 from1992 through 2002, decreases and fluctuates between about 5 and 7 until mid-2008, then increases to about 10 by late 2008, and ends at about 9.

Note: End of month. January value as of Jan. 21.

Source: Merrill Lynch.

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

A line chart shows two curves over 1990 through December 2008. Unit is percent. As in the preceding figure, shaded bars indicate periods of business recession. The "Credit expected to be tighter" curve begins at about 7, increases to about 13 by 1991, fluctuates but generally decreases to about zero by 1998, and then increases on net to end at about 14.5. The "Credit more difficult to obtain" curve begins at about 7, increases to about 13 by early 1991, fluctuates but generally decreases to about zero by 1999, and then increases on net to end at about 11.

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

Source: National Federation of Independent Business.

#### Figure: Surveys of Business Conditions

A line chart shows two curves over 1990 through January 2009. Unit is a diffusion index. As in the preceding figure, shaded bars indicate periods of business recession. The ISM curve begins at about 47.5, and fluctuates between about 39 and 61 for most of the period. It then decreases to end at about 33. The Philadelphia Fed curve begins at about 40, and drops to about 25 late in 1990. It then follows a similar pattern to the first curve, except that it fluctuates more widely to about 70 by 1994, 40 by 1995, 32 by 2001, 68 by 2004, and 40 by early 2008. The curve ends at about 37.5 in January 2009.

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 Q3 and by staff projection thereafter)

### Figure: Total Structures

A line chart shows one curve over 1999 through November 2008. Unit is billions of chained (2000) dollars. The curve begins at about 255, fluctuates around that level through 1999, increases to about 287 by late 2000, decreases to about 206 by late 2002, fluctuates around that level through 2005, and increases to end at about 285.

Source: Census Bureau.

Figure: Office, Commercial, Communication, and Other

A line chart shows four curves over 1999 through November 2008. Unit is billions of chained (2000) dollars. The Office curve begins at about 47.5, generally increases to about 57 by 2001, decreases to about 27 by early 2003, and increases to end at about 40. The Commercial curve begins at about 58, increases and fluctuates between about 60 and 65 from 2000 to 2001, then decreases and fluctuates between about 50 and 60 for the remainder of the period, ending at about 51. The Communication curve begins at about 15, and fluctuates between about 14 and 23 for the entire period, ending at about 13. The Other curve begins at about 70, generally decreases to about 60 by mid-2005, and then increases to end at about 87.

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

Source: Census Bureau.

#### Figure: Manufacturing and Power

A line chart shows two curves over 1999 through November 2008. Unit is billions of chained (2000) dollars. The Power curve begins at about 25, fluctuates widely and increases to about 42 by the end of 2001, decreases to about 18 by mid-2004, and increases to end at about 42. The Manufacturing curve begins at about 41, fluctuates and decreases to about 33 by 2000, increases to about 42.5 by 2001, decreases to about 18 by 2003, and increases on net to end at about 52.

Source: Census Bureau.

#### Figure: Architectural Billings and Nonresidential Construction Employment

A line chart shows two curves over 1999 through December 2008. The Billings curve (diffusion index) begins at about 55, fluctuates and decreases to about 43 by late 2001, increases to about 59 by late 2005, and decreases on net to end at about 36. The "Change in employment" curve (percent) begins at about zero in early 2001, fluctuates but generally increases to about 0.75 by early 2006, and decreases to end at about -1.0.

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.

#### Figure: Vacancy Rates

A line chart shows three curves over 1999 through 2008:Q4 (preliminary). Unit is percent. The Industrial curve begins at about 7.5, decreases to about 6.5 by late 2000, increases to about 12 by 2004, decreases to a little more than 9 by mid-2007, and increases to end at about 11. The Office curve begins at about 9.5, dips to about 8 by mid-2000, increases to about 17 by mid-2003, decreases to about 12.5 by mid-2007, and increases to end at about 14. The Retail curve begins at about 9, dips slightly but then increases to about 10 by late 2002, decreases to about 7.5 by 2006, and increases to end at about 10.5.

Note: Industrial space includes both manufacturing structures and warehouses.

Source: Torto Wheaton Research.

#### Figure: Drilling and Mining Indicators

A line chart shows two curves over 1999 through January 2009. The "Footage drilled" curve (millions of feet) begins at about 8, increases to about 16 by mid-2001, decreases to about 12 by mid-2002, and then increases fairly steadily to end at about 31 in November 2008. The "Drilling rigs" curve (number) begins at about 600, increases to about 1250 by mid-2001, decreases to about 800 by mid-2002, increases to about 2000 by late 2008, and decreases to end at about 1700.

Note: The January readings for drilling rigs are based on data through January 16, 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.

## Nonfarm Inventory Investment

(Billions of dollars; seasonally adjusted annual rate)

Measure and sector	2008							
measure and sector	Q1	Q2	Q3	Sept.	Oct.	Nov		
Real inventory investment (chained 2000 dollars)								
Total nonfarm business	-17.9	-55.1	-33.3	n.a.	n.a.	n.		
Motor vehicles	-15.3	-10.9	8.1	n.a.	n.a.	n.		
Nonfarm ex. motor vehicles	-2.6	-44.2	-41.3	n.a.	n.a.	n.		
Manufacturing and trade ex. wholesale and retail motor vehicles and parts	5.6	-24.1	-16.8	-40.4	-5.8 <sup>e</sup>	n.		
Manufacturing	13.7	-26.0	-25.6	-45.7	1.0 <sup>e</sup>	n.		
Wholesale trade ex. motor vehicles & parts	.0	4.9	10.4	4	-9.1 <sup>e</sup>	n.		
Retail trade ex. motor vehicles & parts	-8.2	-3.1	-1.6	5.8	2.3 <sup>e</sup>	n.		

Book-value inventory investment (current dollars)						
Manufacturing and trade ex. wholesale and retail motor vehicles and parts	95.8	97.5	46.3	-58.6	-106.4	-101.1
Manufacturing	60.5	39.3	10.7	-53.8	-39.7	-18.8
Wholesale trade ex. motor vehicles & parts	39.0	48.5	24.8	-21.0	-60.9	-38.9
Retail trade ex. motor vehicles & parts	-3.7	9.6	10.9	16.2	-5.9	-43.4

n.a. Not available.

e 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

A line chart shows two curves over 2000 through December 2008. Unit is months. The "Staff flow-of-goods system" curve begins at about 1.77, fluctuates around 1.75 through 2001, decreases to about 1.56 by late 2007, and increases to end at about 1.67. The "Census book-value data" curve begins at about 1.35, increases to about 1.41 by early 2001, generally decreases to about 1.15 by mid-2008, and increases to end at about 1.32 in November 2008.

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

A line chart shows one curve over 2000 through December 2008. Unit is an index. The curve begins at about 47, fluctuates but generally increases to about 56 by 2001, decreases to about 37 by mid-2004, and increases to end at about 57.

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 (-)

A line chart shows two curves over 1995 through December 2008. Data are 12-month moving sums; unit is billions of dollars. The primary curve begins at about -200, increases to about 280 by early 2001, decreases to about -450 by mid-2004, increases to about -150 by early 2007, and decreases to end at about -550. A thin curve begins and coincides with the primary curve at about -450 in 2008;Q3, but then decreases to about -800 by the end of the period.

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

A line chart shows two curves over 1995 through December 2008. Data are 12-month moving sums; unit is percent change from year earlier. The Outlays curve begins at about 2.5, and fluctuates between about 2 and 8 over the entire period, ending at about 8. The Receipts curve begins at about 8, fluctuates around that level through mid-2001, decreases to about -13 by mid-2002, increases to about 15 by late 2005, and decreases to end at about -5.

#### Recent Federal Outlays and Receipts

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

	Oct	ober-Decem	ber	12 months ending in December			
Function or source	2007	2008	Percent change	2007	2008	Percent change	
Outlays	703.8	763.8	8.5	2,793.5	3,021.6	8.2	
Net interest	62.1	54.7	-11.8	247.9	241.5	-2.6	
National defense	161.0	177.0	10.0	573.9	640.5	11.6	
Major transfers <sup>1</sup>	373.6	402.4	7.7	1,540.3	1,670.8	8.5	
Other	107.1	129.7	21.1	431.4	468.7	8.7	
Receipts	606.2	547.4	-9.7	2,600.4	2,464.9	-5.2	

Individual income and payroll taxes	463.9	447.8	-3.5	2,018.1	1,980.4	-1.9
Corporate income taxes	92.5	50.4	-45.6	364.0	262.2	-28.0
Other	49.7	49.2	-1.0	218.2	222.3	1.8
Surplus or deficit (-)	-97.6	-216.4		-193.1	-556.7	
Memo:						
Unadjusted surplus or deficit (-)	-106.8	-485.2		-187.9	-833.2	

<sup>1.</sup> Includes Social Security, Medicare, Medicaid, and income security programs. Return to table

#### State and Local Indicators

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

A line chart shows two curves from 1997:Q4 through 2008:Q3. Unit is percent change, annual rate. The Spending curve begins at about 1.5, and fluctuates widely at first between about -2 and 8. The curve reaches about -2.5 by 2003, and then increases on net to end at about 1.5. The 4-quarter moving average curve begins at about 2, and fluctuates less widely to about 6 by early 1999, decreases to about -0.5 by mid-2004, and increases on net to end at about 1.5.

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

#### Figure: Net Change in Employment

A bar chart. Unit is thousands of jobs, monthly average. Approximate values are as follows: 1998: 26. 1999: 40. 2000: 24. 2001: 45. 2002: 17. 2003: -1. 2004: 15. 2005: 14. 2006: 18. 2007: 20. 2008:H1: 20. 2008:Q3: 9. 2008:Q4: 4.

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

#### Figure: Real Construction

A line chart shows one curve from 1997:Q4 through 2008:Q4. Data are at an annual rate; unit is billions of chained (2000) dollars. The curve begins at about 154, decreases to about 147 by 1998:Q1, generally increases to about 188 by 2002:Q1, decreases to about 170 by 2004:Q4, and increases to end at about 186.

Note: Nominal CPIP deflated by BEA prices through Q3 and by a staff projection thereafter. Observation for Q4 is the average for October and November.

Source: Census Bureau, Construction Spending.

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

A line chart shows state fiscal reserve balances as of June 2008 and December 2008, over 1988 through 2009. Unit is percent of expenditures. Both curves begin at about 4.2 increase to about 4.9 by 1989, decrease to about 1.1 by 1991, increase on net to about 10.5 by 2000, decreases to about 3,2 by 2003, and increases to about 11.6 by 2006. The June curve then decreases to end at about 7.5, while the December curve decreases further to end in a dot 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: July 1990-March 1991 and March 2001-November 2001.

Source: Natl. Governors Assn. and Natl. Assn. of State Budget Officers, The Fiscal Survey of States.

#### Figure: State Revenues

A line chart shows two curves from 1997:Q4 through 2008:Q3. Data are 4-quarter moving averages; unit is percent change from year earlier. The "Total revenues" curve begins at about 5, fluctuates between about that level and 10 through early 2001, decreases to about -4.5 by mid-2002, increases to about 12 by late 2005, and decreases to end at about 2.5. The "Individual and corporate income taxes" curve follows a similar pattern but fluctuates more widely. It begins at about 7.5, increases to about 10 by late 1998, decreases to about 5.5 by late 1999, increases to about 13 by mid-2000, decreases to about -12.5 by mid-2002, increases to about 17 by mid-2005, and decreases to end at about 2.

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

## Figure: Local Revenues

A line chart shows two curves from 1997:Q4 through 2008:Q3. Data are 4-quarter moving averages; unit is percent change from year earlier. The "Total revenues" curve begins at about 5.5, decreases to about 1.5 by mid-1999, fluctuates but increases to about 8 by late 2002, drops to about 2.5 by mid-2003, increases on net to about 9 by mid-2005, and then decreases to end at about 4.3. The "Property taxes" curve begins at about 4, decreases to about 2.5 by mid-1998, generally increases to about 10.5 by mid-2002, drops to about 2.5 by mid-2003, increases to about 8.5 by mid-2005, and decreases to end at about 5.

<sup>...</sup> Not applicable.

## Price Measures

(Percent change)

	12-month	n change	3-month	change	1-month change		
Measures	Dog 2007	Dec. 2008	Annua	l rate	Month	ly rate	
	Dec. 2007	Dec. 2006	Sept. 2008	Dec. 2008	Nov. 2008	Dec. 2008	
CPI							
Total	4.1	.1	2.6	-12.7	-1.7	:	
Food	4.9	5.9	8.7	1.4	.2		
Energy	17.4	-21.3	-4.9	-76.6	-17.0	-8.	
Ex. food and energy	2.4	1.8	2.7	3	.0		
Core goods	.1	6	1.4	-3.4	2		
Core services	3.3	2.7	3.2	1.0	.1		
Shelter	3.1	1.9	2.3	1.1	.2		
Other services	3.6	3.7	4.5	.9	.0		
Chained CPI (n.s.a.) 1/2	3.7	5					
Ex. food and energy <sup>1</sup>	2.1	1.3					
PCE prices <sup>2</sup> _	ı						
Total	3.5	.7	2.5	-8.2	-1.1		
Food and beverages	4.6	6.1	9.1	3.0	.3		
Energy	18.7	-23.4	-4.6	-78.2	-17.7	-9.	
Ex. food and energy	2.3	1.7	2.0	1	.0		
Core goods	3	3	1.2	-2.7	2		
Core services	3.3	2.4	2.3	.9	.1		
Housing services	3.1	2.2	2.3	1.6	.2		
Other services	3.4	2.5	2.3	.6	.0		
Core market-based	1.9	1.6	2.3	.0	.0		
Core non-market-based	4.0	2.0	.9	3	1		
PPI							
Total finished goods	6.2	9	4	-24.3	-2.2	-1,	
Food	7.6	3.7	3.4	-6.4	.0	-1	
Energy	17.8	-20.3	-17.2	-75.7	-11.2	-9.	
Ex. food and energy	2.0	4.3	5.9	2.9	.1		
Core consumer goods	2.4	4.5	6.1	2.9	.1		
Capital equipment	1.4	4.0	5.6	2.9	.1	-	
Intermediate materials	7.1	-1.7	1.2	-39.7	-4.3	-4	
Ex. food and energy	3.3	3.2	12.8	-24.6	-2.3	-3.	
Crude materials	19.8	-25.0	-46.2	-79.4	-12.5	-5.	
Ex. food and energy	15.6	-24.3	-27.8	-82.5	-20.4	-2.	

<sup>1.</sup> Higher-frequency figures are not applicable for data that are not seasonally adjusted (n.s.a.). Return to table

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,

<sup>2.</sup> PCE prices in December 2008 are staff estimates. Return to table

<sup>...</sup> Not applicable.

#### **Consumer Prices**

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

Figure: PCE Prices

A line chart shows two curves over 2000 through December 2008. Unit is percent. The Total PCE curve begins at about 2.5, fluctuates down to about 1 by mid-2002, increases to about 4 by late 2005, decreases to about 1.5 by late 2006, increases to about 4.5 by mid-2008, and decreases rapidly to end at about 0.7. The Core PCE curve begins at about 1.75, and fluctuates but gradually trends upward to about 2.4 by mid-2008, and then decreases to end at about 1.75.

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

Figure: CPI and PCE ex. Food and Energy

A line chart shows three curves over 2000 through December 2008. Unit is percent. The PCE curve begins at about 1.75, and fluctuates but gradually trends upward to about 2.4 by mid-2008, and then decreases to end at about 1.75. The CPI curve begins at about 2, generally increases to about 2.8 by late 2001, decreases to about 1.1 by late 2003, increases to about 3 by late 2006, and decreases on net to end at about 1.8. The CPI chained curve begins in 2001 at about 1.9, fluctuates around 2 until mid-2002, decreases to about 0.7 by late 2003, increases to about 2.6 by mid-2006, and decreases on net to end at about 1.4.

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

A line chart shows two curves over 2000 through December 2008. Unit is percent. The primary curve begins at about 1.75, and fluctuates but gradually trends upward to about 2.4 by mid-2008, and then decreases to end at about 1.75. The "Market-based components" curve begins at about 1.25, increases to about 1.8 by mid-2001, decreases to about 1.0 by late 2003, increases to about 1.6 by early 2006, and then fluctuates between about 1.5 and 2.2 for the remainder of the period, ending at about 1.6.

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

Figure: PCE Goods and Services

A line chart shows two curves over 2000 through December 2008. Unit is percent. The "Services ex. energy" curve begins at about 2.8, decreases to about 2.25 by 2001, fluctuates between that level and about 3.9 through 2002, reaches about 2.8 by 2003, gradually increases to about 3.3 by mid-2008, and then decreases to end at about 2.4. The "Goods ex. food and energy" curve begins at about -0.75, generally decreases to about -2.75 by late 2003, increases to zero by late 2004, and fluctuates around that level for the remainder of the period, ending at about -0.3.

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

Figure: PCE excluding Food and Energy

A line chart shows two curves over 2000 through December 2008. Unit is percent. The primary curve begins at about 1.75, and fluctuates but gradually trends upward to about 2.4 by mid-2008, and then decreases to end at about 1.75. The "3-month change, annual rate" curve fluctuates widely throughout the period. It begins at about 2.25, ranges between about 0.5 and 3.0 through mid-2001, between about -0.6 and 4.1 until 2002, and between about 0.8 and 3.1 through late 2008. It then decreases and ends at about -0.1.

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

Figure: CPI excluding Food and Energy

A line chart shows two curves over 2000 through December 2008. Unit is percent. The primary curve begins at about 2, generally increases to about 2.8 by late 2001, decreases to about 1.1 by late 2003, increases to about 3 by late 2006, and decreases on net to end at about 1.8. The "3-month change, annual rate" curve fluctuates more widely throughout the period. It begins at about 2.75, ranges between about 1.9 and 3.1 through 2001, decreases to about 0.2 by early 2003, increases in net to about 2.5 through late 2005, fluctuates around that level until late 2008, and then decreases to end at about -0.25.

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

A line chart shows one curve over 2005 through January 12, 2009. Data are the retail price less average spot crude price, i.e. regular grade seasonally adjusted by FRB staff, less average spot crude price: 60% West Texas intermediate, 40% Maya heavy crude; includes gasoline taxes. Unit is cents per gallon. The curve begins at about 100, and fluctuates between about 75 and 160 throughout the period. It peaks near 155 in late 2005 and near 160 in mid-2007, drops to about 75 in mid-2008, peaks again near 155 in late 2008, and decreases on net to end at about 108.

#### Figure: Gasoline Price Decomposition

A line chart shows three curves over 2005 through January 12, 2009. Unit is cents per gallon. The retail price curve (regular grade seasonally adjusted by FRB staff) begins at about 200, fluctuates but generally increases to about 400 by mid-2008, and then decreases on net to end at about 190. The rack price curve begins at about 140, fluctuates but generally increases to about 350 by mid-2008, and then decreases on net to end at about 140. The "average spot crude price" curve (60% West Texas intermediate, 40% Maya heavy crude) begins at about 95, fluctuates but generally increases to about 330 by mid-2008, and then decreases on net to end at about 85.

## Figure: Gasoline Inventories

A line chart shows four curves over 2005 through January 2009. Unit is millions of barrels. Two of the curves mark the upper and lower bounds of a shaded region that shows the average historical range of inventories as calculated by U.S. Dept. of Energy. As shown in the figure, the historical range is cyclical, following the same pattern each year: ranging about 210 to 220 in Q1, 200 to 211 around Q2, 206 to 218 by mid-year, and dipping to about 192 to 207 by Q3 and Q4. The "excluding ethanol" curve fluctuates more widely, beginning at about 222 in 2005, dropping to about 191 by 2005:Q3, increasing on net to about 234 by 2008:Q1, decreasing to about 190 by late 2008, and increasing to end at about 220 on January 16, 2009. The "adjusted for ethanol use" curve (adjustment for approximate amount of fuel ethanol to be added to the gasoline blendstock (RBOB) component of inventories; estimated by FRB staff) lies above the "excluding ethanol" curve by about 1-6 million barrels and follows the first curve's contour closely. It ends at about 225 on January 16, 2009.

Note: Monthly data through October 2008, weekly data thereafter.

#### Figure: Natural Gas Prices

A line chart shows one curve over 2004:Q4 through January 21, 2009. Unit is dollars per million BTU. The curve begins at about 5.5, fluctuates but generally increases to about 14.5 by late 2005, decreases to nearly 4.0 by late 2006, increases to about 13.0 by mid-2008, decreases to about 6.0 by 2009, and then spikes to about 12 before ending at about 6.5.

Note: National average spot price.

Source: Bloomberg.

### Figure: PCE: Food and Core Prices

A line chart shows two curves over 2005 through December 2008 (staff estimate). Unit is 12-month percent change. The "Core (excluding food and energy)" curve begins at about 2.25, and fluctuates within about 0.25 of that level through late 2008, when it decreases to end at about 1.7. The "food and beverages" curve begins at about 2.7, fluctuates between about 1.75 and 2.75 through early 2007, and then increases on net to end at about 6.1.

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

### Figure: Spot Agricultural Commodity Prices

A line chart shows three curves over 2005 through January 20, 2009. Unit is dollars per bushel. The corn curve begins at about 1.95, generally increases to about 7.0 by mid-2008, and then decreases on net to end at about 3.5. The soybeans curve begins at about 5.3, generally increases to about 16.0 by mid-2008, and then decreases on net to end at about 9.5. The wheat curve begins at about 4.05, generally increases to about 13.25 by early 2008, and then decreases on net to end at about 6.05.

Source: Commodity Research Bureau.

## **Commodity Price Indexes**

#### Figure: Journal of Commerce

A line chart shows two curves over 1991 through January 20, 2009. Data are indexes, 2006 = 100, and are plotted on a ratio scale. The Industrials curve begins at about 57, fluctuates within a range of about 45 to 70 through late 2003, generally increases to about 135 by mid-2008, and decreases to end at about 70. The Metals curve begins at about 45, fluctuates within a range of about 32 to 55 through 2003, generally increases to about 160 by mid-2008, and decreases to end at about 70.

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

A line chart shows two curves over 1991 through January 20, 2009. Data are indexes, 1967 = 100, and are plotted on a ratio scale. The spot industrials curve begins at about 300, generally decreases to about 250 by mid-1993, increases to about 350 by 1995, remains near that level until late 1997, decreases to about 210 by late 2001, increases to about 560 by early 2008, and decreases to end at about 340. The futures curve begins at about 220, generally decreases to about 200 by early 1993, increases to about 260 by early 1996, decreases to about 180 by 1999, increases to about 230 by late 2000, decreases again to about 180 by late 2001, increases to about 600 by mid-2008, and decreases to end at about 350.

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	2007 <u>1</u>	12/18/07 to 12/9/08 <sup>2</sup>	12/9/08 <sup>2</sup> to 1/20/09	52-week change to
JOC industrials	7.6	-42.1	4.8	-41.8
JOC metals	2.1	-45.3	5.0	-46.8
CRB spot industrials	11.1	-36.0	6.3	-32.4
CRB spot foodstuffs	25.5	-18.9	8.6	-14.0
CRB futures	18.2	-28.6	6.0	-27.0

- 1. From the last week of the preceding year to the last week of the year indicated. Return to table
- 2. December 9, 2008, is the Tuesday preceding publication of the December Greenbook. Return to table

#### **Broad Measures of Inflation**

(Percent change, Q3 to Q3)

Measure	2005	2006	2007	2008
Product prices				
GDP price index	3.4	3.2	2.5	2.6
Less food and energy	3.2	3.2	2.3	2.2
Nonfarm business chain price index	3.5	3.1	1.8	2.4
Expenditure prices				
Gross domestic purchases price index	3.9	3.3	2.4	4.1
Less food and energy	3.1	3.1	2.3	2.4
PCE price index	3.2	2.9	2.2	4.3
Less food and energy	2.1	2.5	2.0	2.3
PCE price index, market-based components	3.1	2.7	2.0	4.5
Less food and energy	1.7	2.1	1.6	2.1
СРІ	3.8	3.3	2.4	5.3
Less food and energy	2.1	2.8	2.1	2.5
Chained CPI	3.4	3.1	2.0	4.6
Less food and energy	1.8	2.6	1.7	2.2
Median CPI	2.4	3.1	3.0	3.3
Trimmed mean CPI	2.5	2.8	2.5	3.5
Trimmed mean PCE	2.4	2.9	2.4	2.7

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

		Actual		Reuters/Mich	igan Survey		Profes	
Per	iod	CPI inflation 1	1 yea	ar <mark>2</mark>	5 to 10	years <u>3</u>	foreca (10 ye	
		milation_	Mean	Median	Mean	Median	СРІ	PCE
2007:	Q1	2.4	3.6	3.0	3.4	2.9	2.4	2.0
	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
2008:	Sept.	4.9	4.6	4.3	3.3	3.0		
	Oct.	3.7	4.3	3.9	3.1	2.9		
	Nov.	1.1	2.9	2.9	3.1	2.9	2.5	2.2
	Dec.	.1	1.7	1.7	2.6	2.6		
2009:	Jan.	n.a.	2.5	2.0	3.7	3.0		

- 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)

A line chart plots two curves over 1978 through 2008:Q4. Data are quarterly; unit is percent. The "Median, next 5 to 10 years" curve begins at about 6.7 in 1981, and decreases to about 4.6 by 1985. There is a statistical break until 1990, when the curve resumes at about 4.3. It then generally decreases to about 2.8 by 1998, and remains near that level through the end of the period. The "Median, next 12 months" curve begins at about 6.0 in 1978, increases to about 10.3 by 1980, decreases to about 2.6 by 1983, and increases to about 4.7 by 1991. It then fluctuates near 3.0 for the remainder of the period, except for a brief drop to about 1.0 in late 2001 and a brief increase to about 5.0 in 2008. The curve ends at about 2.8.

Source: Reuters/University of Michigan Surveys of Consumers.

Figure: Survey Measures (Reuters/University of Michigan)

A line chart plots two curves over 2005 through January 2009. Data are monthly; unit is percent. The "Median, next 5 to 10 years" curve begins at about 2.75 and fluctuates around 3.0 for the entire period, ending at about 3.0. The "Median, next 12 months" curve begins at about 2.9, increases to about 4.6 by late 2005, fluctuates but generally decreases to about 3.4 by late 2007, increases to about 5.25 by mid-2008, and decreases to end at about 2.0.

Source: Reuters/University of Michigan Surveys of Consumers.

Figure: Inputs to Models of Inflation

Two line charts show two curves over different horizons, 1971 through 2008:Q4, and 2005 through 2008:Q4 (detail). Data are quarterly; unit is percent. The "FRB/US long-run expectations measure for PCE inflation" curve begins at about 3.1, generally increases to about 7.8 by 1981, decreases to about 2.0 by 1999, and remains near that level for the remainder of the period. It ends at about 2.25. The "Distributed lag of core PCE inflation" curve begins at about 5.0, increases on net to about 8.6 by 1981, decreases to about 1.3 by 1999, and increases to end at about 2.25.

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 from TIPS

A line chart shows two curves over 2001:Q1 through 2008:Q4. Data are quarterly; unit is percent. The "Next 5 years" curve begins at about 1.6, fluctuates around approximately 1.5 through mid-2003, increases to about 2.75 by 2005:Q1, decreases gradually to about 2 by 2008:Q3, and decreases quickly to end at about -0.7. The "5 to 10 years ahead" curve begins at about 2.1, generally increases to about 3.1 by 2003:Q4, dips to about 2.4 by 2005:Q3, and ends at about 2.75.

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.

#### Figure: Inflation Compensation from TIPS

A line chart shows two curves over 2005 through January 20, 2009. Data are weekly; unit is percent. The "Next 5 years" curve begins at about 2.5, generally decreases to about 2.0 by 2008:Q3, drops to about -1.8 in 2008:Q4, and increases to end at about -0.4. The "5 to 10 years ahead" curve begins at about 2.6, remains near that level through 2008:Q3, increases to about 3.5 in 2008:Q4, and decreases on net to end at about 2.4.

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.

## Hourly Compensation and Unit Labor Costs

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

2	2006:Q3	2007:Q3	2007		2008	
Category	to 2007:Q3	to 2008:Q3 <u>e</u>	Q4	Q1	Q2	Q3 <sup>e</sup>
Compensation per hour						
Nonfarm business	4.5	3.5	5.3	3.8	.9	4.1
Output per hour						
Nonfarm business	2.5	2.1	.8	2.6	3.6	1.5
Unit labor costs						
Nonfarm business	2.0	1.4	4.5	1.2	-2.6	2.6

e Staff estimate. Return to table

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

#### Figure: Compensation per Hour

A line chart shows two curves over 1996 through 2008:Q3. Data are percent change from year-earlier period; unit is percent. The ECI curve begins at about 2.8, generally increases to about 4.7 by mid-2000, and generally decreases to end at about 2.8. The "Productivity and costs" curve begins at about 3.1, fluctuates widely but generally increases to about 8.0 by mid-2000, and then decreases and fluctuates between about 3 and 5.3 for the remainder of the period, ending in a staff estimate of about 3.5.

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

## Figure: Unit Labor Costs

A line chart shows one curve over 1996 through 2008:Q3 (staff estimate). Data are percent change from year-earlier period; unit is percent. The curve begins at about 1.0, fluctuates widely but generally increases to about 5 by mid-2000, decreases to about -1.5 by early 2002, increases to about 4.25 by early 2007, and decreases on net to end at about 1.3.

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

#### Figure: Average Hourly Earnings

A line chart shows one curve over 1996 through December 2008. Data are percent change from year-earlier period; unit is percent. The curve begins at about 3.2, generally increases to about 4.4 by early 1998, dips to about 3.5 by mid-1999, increases to about 4.25 by 2001, generally decreases to about 1.6 by early 2004, increases to about 4.3 by late 2006, and decreases on net to end at about 3.75.

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

## Figure: Markup, Nonfarm Business

A line chart shows one curve over 1996 through 2008:Q3. Unit is a ratio. The curve begins at about 1.62, increases to about 1.64 by mid-1997, generally decreases to about 1.53 by early 2001, increases to about 1.655 by mid-2006, decreases to about 1.61 by early 2007, and increases on net to end at about 1.66. The average from 1968 to the present is also shown as a horizontal line at about 1.572.

Note: The markup is the ratio of output price to unit labor costs. Value for 2008:Q3 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

# January 2009 Greenbook Part 2 Tables and Charts \_

# **Domestic Financial Developments**

# Selected Financial Market Quotations

(One-day quotes in percent except as noted)

	2007 2008			2009	Change to Jan. 21 fr	om selected dates (p	ercentage points)
Instrument	Aug. 6	Oct. 28	Dec. 15	Jan. 21	2007 Aug. 6	2008 Oct. 28	2008 Dec. 15
Short-term							
FOMC intended federal funds rate	5.25	1.50	1.00	.13	-5.12	-1.37	8
Treasury bills <sup>1</sup>							
3-month	4.74	.76	.04	.11	-4.63	65	
6-month	4.72	1.23	.28	.30	-4.42	93	
Commercial paper (A1/P1 rates) <sup>2</sup>							
1-month	5.26	2.71	.53	.40	-4.86	-2.31	
3-month	5.29	2.89	1.35	.62	-4.67	-2.27	
Large negotiable CDs <sup>1</sup>							
3-month	5.34	3.63	1.85	1.05	-4.29	-2.58	
6-month	5.27	3.73	2.24	1.58	-3.69	-2.15	
Eurodollar deposits <sup>3</sup>							
1-month	5.33	3.75	1.50	1.00	-4.33	-2.75	-
3-month	5.35	4.50	2.55	1.75	-3.60	-2.75	-
Bank prime rate	8.25	4.50	4.00	3.25	-5.00	-1.25	-
Intermediate- and long-term  U.S. Treasury <sup>4</sup> _							
0				1			
2-year	4.49	1.49	.48	.65	-3.84	84	
5-year	4.52	2.81	1.57	1.71	-2.81	-1.10	
5-year	4.52	2.81	1.57	1.71	-2.81	-1.10	
5-year 10-year	4.52	2.81	1.57	1.71	-2.81	-1.10	
5-year  10-year  U.S. Treasury indexed notes 5	4.52 4.82	2.81 4.43	1.57 3.08	1.71 3.14	-2.81 -1.68	-1.10 -1.29	- - - -
5-year  10-year  U.S. Treasury indexed notes 5  5-year	4.52 4.82 2.43	2.81 4.43 3.64	1.57 3.08 2.99	1.71 3.14 2.01	-2.81 -1.68	-1.10 -1.29	 
5-year  10-year  U.S. Treasury indexed notes 5  5-year  10-year  Municipal general obligations (Bond Buyer) 6	4.52 4.82 2.43 2.48	2.81 4.43 3.64 3.29	1.57 3.08 2.99 2.66	1.71 3.14 2.01 2.15	-2.81 -1.68 42 33	-1.10 -1.29 -1.63 -1.14	 
5-year  10-year  U.S. Treasury indexed notes 5  5-year  10-year	4.52 4.82 2.43 2.48	2.81 4.43 3.64 3.29	1.57 3.08 2.99 2.66	1.71 3.14 2.01 2.15	-2.81 -1.68 42 33	-1.10 -1.29 -1.63 -1.14	-1.
5-year  10-year  U.S. Treasury indexed notes 5  5-year  10-year  Municipal general obligations (Bond Buyer) 6  Private instruments	4.52 4.82 2.43 2.48 4.51	2.81 4.43 3.64 3.29 5.32	1.57 3.08 2.99 2.66 5.85	1.71 3.14 2.01 2.15 4.80	-2.81 -1.68 42 33	-1.10 -1.29 -1.63 -1.14	-1.
5-year  10-year  U.S. Treasury indexed notes 5 5-year  10-year  Municipal general obligations (Bond Buyer) 6 Private instruments  10-year swap	4.52 4.82 2.43 2.48 4.51	2.81 4.43 3.64 3.29 5.32	1.57 3.08 2.99 2.66 5.85	1.71 3.14 2.01 2.15 4.80	-2.81 -1.68 42 33 .29	-1.10 -1.29 -1.63 -1.14 52	-1.
5-year  10-year  U.S. Treasury indexed notes 5  5-year  10-year  Municipal general obligations (Bond Buyer) 6  Private instruments  10-year swap  10-year FNMA 7	4.52 4.82 2.43 2.48 4.51 5.44 5.34	2.81 4.43 3.64 3.29 5.32 4.26 5.36	1.57 3.08 2.99 2.66 5.85 2.76 3.50	1.71 3.14 2.01 2.15 4.80 2.52 3.71	-2.81 -1.68 42 33 .29 -2.92 -1.63	-1.10 -1.29 -1.63 -1.14 52 -1.74 -1.65	-1 -1
5-year  10-year  U.S. Treasury indexed notes 5 5-year  10-year  Municipal general obligations (Bond Buyer) 6 Private instruments  10-year swap  10-year FNMA 7  10-year AA 8	4.52 4.82 2.43 2.48 4.51 5.44 5.34 6.12	2.81 4.43 3.64 3.29 5.32 4.26 5.36 8.26	1.57 3.08 2.99 2.66 5.85 2.76 3.50 6.86	1.71 3.14 2.01 2.15 4.80 2.52 3.71 6.17	-2.81 -1.68 42 33 .29 -2.92 -1.63 .05	-1.10 -1.29 -1.63 -1.14 52 -1.74 -1.65 -2.09	-1. -1.
5-year  10-year  U.S. Treasury indexed notes 5  5-year  10-year  Municipal general obligations (Bond Buyer) 6  Private instruments  10-year swap  10-year FNMA 7  10-year AA 8  10-year BBB 8	4.52 4.82 2.43 2.48 4.51 5.44 5.34 6.12 6.57	2.81 4.43 3.64 3.29 5.32 4.26 5.36 8.26 9.77	1.57 3.08 2.99 2.66 5.85 2.76 3.50 6.86 9.59	1.71 3.14 2.01 2.15 4.80 2.52 3.71 6.17 9.02	-2.81 -1.68 42 33 .29 -2.92 -1.63 .05 2.45	-1.10 -1.29 -1.63 -1.14 52 -1.74 -1.65 -2.09 75	-

1-year aujustable   3.03   3.30   4.34   4.32  13  13  40	1-year adjustable	02		· adjustable		5.65	5.38	4.94	4.92	73	46	·  0:
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Stock exchange index	Record high		2008		2009	Change to Jan	. 21 from selected dates (percent)		
	Level	Date	Oct. 28	Dec. 15	Jan. 21	Record high	2008 Oct. 28	2008 Dec. 15	
Dow Jones Industrial	14,165	10-9-07	9,065	8,565	8,228	-41.91	-9.23	-3.93	
S&P 500 Composite	1,565	10-9-07	941	869	840	-46.32	-10.66	-3.26	
Nasdaq	5,049	3-10-00	1,649	1,508	1,507	-70.15	-8.63	08	
Russell 2000	856	7-13-07	483	453	457	-46.63	-5.34	.93	
Wilshire 5000	15,807	10-9-07	9,341	8,664	8,484	-46.32	-9.17	-2.08	

- 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.

October 28, 2008, is the day before the October 2008 FOMC monetary policy announcement.

December 15, 2008, is the day before the most recent FOMC monetary policy announcement.

Data for the 3-month commercial paper rate on December 15, 2008, are from December 4, 2008, the most recent date for which a sufficient volume of new issues was available to calculate this rate.

## Financial Institutions and Short-Term Funding Markets

Figure: CDS Spreads for Bank Holding Companies

A line chart shows one curve over July 2007 through January 21, 2009. Data are daily; unit is basis points. The curve begins at about 10 and generally increases to about 150 by September 2008, with a spike to around 210 in March 2008. The curve then fluctuates widely between about 125 and 200, reaches about 210 around the time of the December FOMC meeting, and ends at about 250.

Note: Median credit default swap (CDS) spreads for 6 bank holding companies.

Source: Markit.

Figure: Spread between Libor and OIS Rates

A line chart shows three curves over July 2007 through January 22, 2009. Data are daily; unit is basis points. All three curves (1-week, 1-month, and 3-month) begin near zero, and then fluctuate within a range of about 0 to 115 over August 2007 through September 2008. The curves then increase quickly, peaking in October 2008 at about 330 for the 1-week and 1-month curves, and about 360 for the 3-month curve. The curves then decrease on net but at different rates. The 1-week curve ends near zero, the 1-month curve ends at about 20, and the 3-month curve ends at about 95.

Note: Libor quotes are taken at 6:00 a.m., and the overnight index swap (OIS) rate quotes are observed at the close of business of the previous trading day.

Source: British Banker's Association.

Figure: Spreads on 30-day Commercial Paper

A line chart shows two curves over July 2007 through January 21, 2009. Data are daily; unit is basis points. The A2/P2 curve begins near zero, fluctuates within a range of about 0 to 150 over August 2007 through mid-September 2008, and then increases sharply and reaches about 610 by 2009, before decreasing sharply to end at about 130. The ABCP curve tracks fairly closely with the A2/P2 curve until September 2008, then increases to about 340 by late September into October, and then decreases on net to end at about 10.

Note: The asset-backed commercial paper (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: Commercial Paper Outstandings

A line chart shows three curves over July 2007 through January 21, 2009. Data are weekly, seasonally adjusted; unit is billions of dollars. The Nonfinancial curve begins at about 195, generally decreases to about 155 by November 2007, generally increases to about 220 by September 2008, and fluctuates within a range of

about 190 to 230 for the remainder of the period, ending at about 205. The Financial curve begins at about 800, dips to about 720 by September 2007, then increases and fluctuates near 850 until September 2008. It then decreases to about 550 by October 2008, and increases on net to end at about 720. The ABCP curve begins at about 1200, decreases to about 760 by the end of 2007, then continues to decrease gradually on net to end at about 740.

Source: Depository Trust & Clearing Corporation.

Figure: Fails to Deliver

A line chart shows three curves over July 2007 through January 7, 2009. Data are weekly (Wednesday); unit is billions of dollars. The Agency curve remains near zero throughout the period. The MBS curve fluctuates within a relatively narrow range between about 0 and 250 throughout the period, and ends at about zero. The Treasury curve begins near zero, then begins to spike on almost a monthly basis, beginning at around 250 in November 2007, increasing to about 1200 by April 2008, and decreasing to near zero by July 2008. The curve then increases rapidly in September 2008, reaching about 2700 in October, and then decreasing to end at about 150.

Source: FR2004 Primary Government Securities Dealers Reports.

Figure: Spreads on MBS and Agency Repos

A line chart shows two curves over July 2007 through January 21, 2009. Data are daily; unit is percent. The MBS repo curve begins around 0.2, spikes to about 1.75 in August 2007, fluctuates between about 0.1 and 1.25 through April 2008, and fluctuates around 0.25 through mid-September 2008. It then jumps to about 1.9, and fluctuates widely as it decreases on net to end at about 0.1. The Agency repo curve follows a similar pattern, but is often lower than the MBS curve by about 0.1. It reaches about 0.75 in October 2008 and decreases to end at about zero.

Note: Spreads on 1-month repurchase agreements (repos) over 1-month Treasury general collateral repos. MBS are mortgage-backed securities.

Source: Bloomberg.

## Federal Reserve Liquidity Provision

Figure: Total Federal Reserve Assets

A line chart shows one curve over January 2007 through January 21, 2009. Data are weekly; unit is billions of dollars. The curve begins at about 850, gradually increases to about 900 by mid-September 2008, and then increases quickly to about 2200 by mid-November, dips to about 2100 by late November, peaks at about 2300 around the time of the December FOMC meeting, and then decreases to end at about 2050.

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

Figure: Primary Credit

A line chart shows two curves over March 2008 through January 21, 2009. Data are daily; unit is billions of dollars. Both curves begin near zero. The Total curve begins to increase in late March, reaches about 20 in mid-September, increases quickly to about 112 by late October, and then decreases on net to end at about 60. The Foreign curve begins to increase in late March, reaches about 10 in mid-September, increases quickly to about 85 by November, and then decreases on net to end at about 55.

Source: Federal Reserve Board.

Figure: Term Auction Facility

A line chart shows two curves over December 2007 through January 21, 2009. Data are daily; unit is billions of dollars. The Total curve begins at about 25, gradually increases to about 150 by May 2008, remains at that level until October, and then increases quickly to about 260. It increases again to about 420 by November, and fluctuates around that level for the remainder of the period, ending at about 420. The Foreign curve begins at about 25, gradually increases to about 100 by June 2008, decreases to about 80 by late September, and then increases on net to end at about 180.

Source: Federal Reserve Board.

Figure: Primary Dealer Credit Facility

A line chart shows one curve over March 2008 through January 21, 2009. Data are daily; unit is billions of dollars. The curve begins at about zero, increases to about 40 by late March 2008, decreases back to zero by July, stays at that level through mid-September, increases rapidly to about 155 by late September, and then decreases on net to end at about 33.

Source: Federal Reserve Board.

Figure: Other Credit Extensions

A line chart shows three curves over September 2008 through January 21, 2009. Data are daily; unit is billions of dollars. The AIG curve begins at about 10, increases to about 70 by early October, remains at that level through late November, drops to about 40, and then remains near that level for the remainder of the

period. The AMLF curve begins at zero, increases to about 150 by October, and then gradually decreases to end at about 10. The CPFF curve begins in late October at zero, increases rapidly to about 225 by November, and then increases more gradually to end at about 350.

Note: AMLF is Asset-Backed Commercial Paper Money Market Mutual Fund Lending Facility; AIG is American International Group, Inc.; CPFF is Commercial Paper Funding Facility.

Source: Federal Reserve Board.

## Policy Expectations and Treasury Yields

Figure: Interest Rates

A line chart shows two curves over December 15, 2008 through January 21, 2009. Data are at 5-minute intervals between 8:00 a.m. to 4:00 p.m., with no adjustments for term premiums; unit is percent. The 10-year Treasury yield curve begins at about 2.6, gradually decreases to about 2.5 over the next two days, decreases to about 2.3 around the time of the December FOMC statement, and then fluctuates between about 2.05 and 2.2 until December 30. The curve then generally increases to about 2.6 by January 6, decreases to about 2.2 by January 14, remains near that level for two days, and increases to end at about 2.5. The June 2009 Eurodollar curve begins at about 1.6, decreases to about 1.2 around the time of the December FOMC statement, fluctuates near that level until January 5, decreases to about 0.8 by January 13, and increases on net to end at about 1.1. Vertical tripwires mark other events throughout the period: Michigan consumer sentiment December 23, pending home sales and the FOMC minutes on January 6, initial claims January 8, nonfarm payrolls January 9, and retail sales January 14

Source: Bloomberg.

Figure: Implied Federal Funds Rate

A line chart shows two curves over January 2009 through April 2011. Unit is percent. The December 15, 2008 curve begins at about 0.3 and increases to end at about 1.7. The January 21, 2009 curve begins at about 0.15 and increases to end at about 1.7.

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: Treasury Yield Curve

A line chart shows two curves over about 6 months to 20 years ahead. Unit is percent. The December 15, 2008 curve begins at about 0.6, dips to about 0.4 around 1 year ahead, increases to about 3.5 around 15 years ahead, and then dips to end at about 3.3. The January 21, 2009 curve begins at about 0.5, increases to about 3.7 around 17 years ahead, and dips to end at about 3.6.

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: Inflation Compensation

A line chart shows two curves over January 2007 through January 2009. Data are daily; unit is percent. The "Next 5 years" curve (adjusted for lagged indexation of Treasury inflation-protected securities) begins at about 2.25, fluctuates around that level through June 2008, generally decreases to about -1.7 by late November, and then increases on net to end at about -0.25. The "5 to 10 years ahead" curve begins at about 2.5, increases to about 3.1 by March 2008, decreases to about 2.6 by October, increases to about 3.5 November, and then decreases on net to end at about 2.5.

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

Source: Federal Reserve Bank of New York.

Figure: Inflation Expectations from the Michigan Survey

A line chart shows two curves over 2002 through January 2009. Data are monthly; unit is percent. The long term curve begins at about 2.75, fluctuates within a narrow range up to about 3.4 by mid-2008, and then decreases on net to end at about 3.0. The short term curve fluctuates more widely around approximately 3 percent. It begins at about 1.9, reaches about 3.1 in early 2003, drops to about 1.8 mid-year, returns to about 3.0 in 2004, spikes to about 4.6 in 2005, and returns to about 3.0 by 2007. The curve then increases on net to about 5.25 by mid-2008, and decreases rapidly to end at about 2.

Source: Reuters/University of Michigan Surveys of Consumers.

## Corporate Yields, Risk Spreads, and Stock Prices

Figure: Selected Stock Price Indexes

A line chart shows two curves over January 2008 through January 21, 2009. Data are daily; unit is an index, December 15, 2008 = 100. The S&P 500 curve begins at about 165, remains near that level through May 2008, and then decreases on net to end at about 95. The S&P banks curve begins at about 210,

fluctuates around that level through February 2008, generally decreases to about 100 by mid-July, increases to about 180 by late September, and decreases to end at about 65.

Source: Standard & Poor's.

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

A line chart shows two curves over 1985 through January 21, 2009. Data are monthly; unit is percent. The "(Trend earnings) / P" curve begins at about 11.5, generally decreases to about 4 by 2000, and generally increases to end at about 11.5. (Trend earnings are estimated using analysts' forecasts of year-ahead earnings from I/B/E/S.) The "long-run real Treasury yield" curve begins at about 8, decreases quickly to about 4 by 1986, and then decreases more gradually to end at about 1.2. For each series, + denotes the latest observation using daily interest rates and stock prices and latest earnings data from I/B/E/S: for "(Trend earnings) / P", approximately 12.1, and for "long-run real Treasury yield", approximately 1.5.

Source: Thomson Financial.

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

A line chart shows one curve over 2002 through January 21, 2009. Data are weekly (Friday, except that the latest observation is for the most recent business day); unit is percent. The curve begins at about 22, increases to about 40 by mid-2002, decreases to about 20 by early 2003, and continues to decrease gradually to about 10 by 2006. It remains near that level through 2007, then increases and fluctuates more widely, and spikes to about 80 in late 2008. The curve reaches about 55 around the time of the December 2008 FOMC meeting, and ends at about 45.

Source: Chicago Board of Exchange.

Figure: Corporate Bond Yields

A line chart shows two curves over 2002 through January 21, 2009. Data are daily; unit is percent. The 10-year high-yield curve begins at about 11, generally increases to about 12.3 by late 2002, decreases to about 7 by early 2005, increases to about 11 by late 2008, increases rapidly to about 18 before the December FOMC meeting, and decreases to end at about 16. The 10-year BBB curve begins at about 7.5, decreases to about 5 by mid-2003, generally increases to about 7 by late 2008, increases to about 10 before the December FOMC meeting, and decreases to end at about 9.

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

Figure: Corporate Bond Spreads

A line chart shows two curves over 2002 through January 21, 2009. Data are daily; unit is basis points. The 10-year high-yield curve begins at about 550, generally increases to about 900 by late 2002, decreases to about 250 by early 2005, increases to about 750 by late 2008, increases rapidly to about 1500 around the time of the December FOMC meeting, and decreases to end at about 1300. The 10-year BBB curve begins at about 200, increases to about 300 by late 2002, decreases to about 100 by early 2005, generally increases to about 650 around the time of the December FOMC meeting, and decreases to end at about 600.

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-Ask Spread for Corporate Bonds

A line chart shows two curves over 2005 through January 21, 2009. Data are daily; unit is basis points. The High-yield curve begins at about 140, and fluctuates near that level until mid-2008, except for a brief period of fluctuation up to about 250 in late 2005. The curve then increases to about 410 by late 2008, fluctuates widely, and decreases to end at about 150. The Investment-grade curve begins at about 90, generally decreases to about 55 by late 2005, remains near that level through mid-2007, and then fluctuates but generally increases to end at about 120.

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

A line chart shows two curves over 1998 2008:Q3. Data are change from 4 quarters earlier; unit is percent. The "All firms" curve begins at about 1, dips briefly to about -7 in mid-1998, increases to about 22 by late 1999, decreases to about -23 by late 2001, fluctuates but generally increases to about 27 by early 2004, and decreases to end at about -18. The Nonfinancials curve begins at about -1, increases to about 23 by early 2000, decreases to about -24 by late 2001, fluctuates but generally increases to about 34 by mid-2004, and generally decreases to end at about 11.

Source: Thomson Financial.

Figure: Revisions to Expected S&P 500 Earnings

A line chart shows two curves over 2002 through mid-January 2009 (staff estimate). Data are monthly; unit is percent. The "All firms" curve begins at about -0.8, increases to about 0.5 in early 2002, generally decreases to about -3 by late 2002, increases to about 2 by mid-2004, decreases to about -2 by mid-2008,

decreases rapidly to about -12.5 by late 2008, and increases to end at about -10. The Nonfinancials curve begins at about -1, and tracks the all firms curve closely until late 2007. It then fluctuates within a range of about -1.2 to 1, decreases rapidly to about -11 by late 2008, and increases rapidly 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

A line chart shows two curves over 1989 through 2008:Q3. Units are ratios. The "Debt over total assets" curve begins at about 0.325, decreases to about 0.275 by 1996, fluctuates between about 0.28 and 0.305 through 2003, decreases to about 0.245 by 2005, and increases to end at about 0.275. The "Liquid assets over total assets" curve begins at about 0.052, generally increases to about 0.103, and generally decreases to end at about 0.088.

Note: Data are annual through 1999 and quarterly starting in 2000:Q1.

Source: Calculated using Compustat data.

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

A bar chart shows upgrades and downgrades at an annual rate from 1991 to 2008. Unit is percent of outstandings. Approximate upgrade/downgrade values are as follows: 1991: 12/27. 1992: 7/36. 1993: 9/15. 1994: 7/10. 1995: 19/8. 1996: 10/11. 1997: 8/10. 1998: 15/10. 1999: 13/17. 2000: 9/22. 2001: 6/31. 2002: 2.5/37.5. 2003: 4/18. 2004: 8/9. 2005: 9/12. 2006: 7.5/13. 2007: 10/10. 2008:H1: 4/8. 2008:Q3: 2.5/15. October 2008: 5/12.5. November 2008: 1/42.5.

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

#### Figure: Deep Junk Share of Bonds Outstanding

A line chart shows one curve over 1990 through 2008:Q4. Data are quarterly; unit is percent. The curve begins at about 8.8, decreases to about 4 by early 1993, and fluctuates widely but generally increases to end at about 7.

Note: Nonfinancial bonds outstanding rated B3 or below over total bonds outstanding

Source: Moody's Investors Service.

## Figure: Selected Default and Delinquency Rates

A line chart shows two curves over 1990 through 2008. Unit is percent of outstandings. The "C&I loan delinquency rate" curve begins at about 5, increases to about 6.1 by 1991, decreases to about 1.5 by 1997, increases to about 4 by 2002, decreases to about 1.1 by 2007, and increases to end at about 1.5 in 2008:Q3. The "Bond default rate" curve (6-month moving average) begins at about 1.5, increases rapidly to about 3.2 by 1991, decreases to about 0.3 by 1993, remains near that level through 1998, then generally increases to about 3.75 by 2003, generally decreases to near zero by 2006, and increases rapidly to end at about 6.9 in December 2008.

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)

Town of accounts.	2004	2005	2006	2007			2009	
Type of security	2004	2005	2006	2007	H1	Q3	Q4	Jan. <u>p</u>
Nonfinancial corporations								
Stocks <sup>1</sup> _	5.4	4.6	4.7	5.5	3.5	3.0	5.0	2.0
Initial public offerings	1.6	1.7	1.8	1.6	.6	.1	.0	.0
Seasoned offerings	3.8	2.8	2.9	3.8	2.9	2.9	4.9	2.0
Bonds <sup>2</sup>	22.4	18.7	29.3	35.1	34.7	14.5	22.2	26.0
Investment grade	8.3	8.7	13.1	17.5	24.9	10.5	17.9	24.0
Speculative grade	8.2	5.2	6.2	7.5	3.1	.7	.2	2.0
Other (sold abroad/unrated)	5.9	4.8	10.1	10.0	6.7	3.3	4.1	.0
Memo								
Net issuance of commercial paper <sup>3</sup> _	1.7	2	2.4	4	5	6.2	1.2	13.0
Change in C&I loans at commercial banks <sup>3</sup>	2.4	9.6	11.4	20.9	13.9	20.6	-3.3	n.a.

Financial corporations								
Stocks <sup>1</sup>	6.9	5.0	5.3	8.6	17.2	10.5	9.2	.5
Bonds <sup>2</sup>	134.1	170.4	180.6	151.7	66.0	20.0	28.2	40.0

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
- n.a. Not available. Return to table
- p 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

A line and stacked bar chart plots commercial paper, C&I loans, bonds, and the total for 2004 through 2008. Data are at a monthly rate, seasonally adjusted, period-end basis, for nonfinancial firms; unit is billions of dollars. Approximate values are as follows: For 2004, commercial paper: 1.5, C&I loans: 2.5, bonds: 6.5, total: 10.5. For 2005, commercial paper: 0, C&I loans: 8.5, bonds: 5, total: 13.5. For 2006, commercial paper: 2, C&I loans: 12, bonds: 18, total: 32. For 2007, commercial paper: -0.5, C&I loans: 20.5, bonds: 27, total: 47. For 2008:H1, commercial paper: -0.5, C&I loans: 15, bonds: 21, total: 35.5. For 2008:Q3, commercial paper: 5, C&I loans: 22, bonds: 5.5, total: 32.5. For 2008:Q4, commercial paper: 1, C&I loans: -3, bonds: 15, total: 13.

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

#### Figure: Components of Net Equity Issuance

A line and stacked bar chart plots public issuance, private issuance, repurchases, cash mergers, and the total for 2004 through 2008. Data are at a monthly rate, for nonfinancial firms; unit is billions of dollars. Approximate values are as follows: For 2004, public issuance 5, private issuance 5, repurchases -17, cash mergers -7, total -14. For 2005, public issuance 4, private issuance 6, repurchases -26, cash mergers -16, total -32. For 2006, public issuance 4, private issuance 10, repurchases -35, cash mergers -25, total -46. For 2007, public issuance 6, private issuance 15, repurchases -43, cash mergers -42, total -64. For 2008:Q1, public issuance 2, private issuance 18, repurchases -39, cash mergers -15, total -34. For 2008:Q2, public issuance 3, private issuance 19, repurchases -32, cash mergers -10, total -20. For 2008:Q3, public issuance 2, private issuance 19, repurchases -33, cash mergers -17, total -29.

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

A line chart shows one curve over 2000 through 2008:Q3. Data are quarterly; unit is percent change, annual rate. The curve begins at about 12, fluctuates between about 7 and 12 through mid-2005, increases to about 16 by 2006, decreases to about 9.5 by early 2007, increases to about 15.5 by late 2007, and decreases to end at about 2.5.

Source: Federal Reserve.

#### Figure: Prices

A line chart shows two curves over 1994 through 2008. For the NCREIF TPI curve, data are quarterly, and the unit is an index, 2001:Q1=100. The curve begins at about 75, generally increases to about 200 by 2007, and decreases to end at about 177. For the Moody's index curve, data are monthly, and the unit is an index, January 2001=100. The curve begins at 100 in 2001, generally increases to about 190 by late 2008, and decreases to end at about 163 in November 2008.

Note: TPI is Transacted Properties Index.

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

#### Figure: Sales of Commercial Real Estate

A line chart shows two curves over 2001 through December 2008 (preliminary). Units are billions of dollars. The 3-month moving average curve begins at about 5, generally increases to about 40 by 2007, increases rapidly to about 73 by mid-year, decreases to about 50 by 2008, and decreases to end at about 10. The monthly curve fluctuates more but follows the same general pattern, except in early 2007 when it spikes to 120, and fluctuates between about 30 and 80 for the remainder of that year. The monthly curve ends at about 7.

Source: Real Capital Analytics.

Figure: Delinquency Rates on Commercial Mortgages

A line chart shows three curves over 1996 through 2008. Unit is percent. The "at commercial banks" curve begins at about 3.3, decreases to about 1.5 by mid-2000, increases to about 2 by late 2001, decreases to about 1 by mid-2006, and increases rapidly to end at about 4.75 in 2008:Q3. The "at life insurance companies" curve begins at about 2.3, increases to about 2.5 by mid-1996, and then decreases, more rapidly at first, to end near zero in 2008:Q3. The CMBS curve begins at about 0.5 in 1999, generally increases to nearly 2 by late 2003, decreases to about 0.3 by mid-2007, and increases rapidly to end at about 1.1 in December 2008.

Note: CMBS are commercial mortgage-backed securities.

Source: Citigroup; Call Report; ACLI.

Figure: Delinquency Rates on Commercial Mortgages at Banks

A line chart shows three curves over 2007:Q1 through 2008:Q3. Data are quarterly; unit is percent. The existing Properties curve begins at about 1 and generally increases to end at about 2. The commercial construction curve begins at about 1.5 and generally increases to end at about 7.3. The residential construction curve begins at about 2.5 and generally increases to end at about 15.

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

A line chart shows three curves over April 2007 through January 21, 2009. CMBX.NA. Data are daily, by rating; unit is percent. The AAA curve begins at about 100 and generally increases to end at about 23. The BBB- curve begins at about 101 and generally increases to end at about 19.

Note: Each index corresponds to pools of mortgages securitized in 2006:H1. CDS are credit default swaps.

Source: J.P. Morgan.

## Residential Mortgages

Figure: 30-Year Fixed Mortgage Rates

A line chart shows two curves over October 2006 through January 21, 2009. Data are weekly; unit is percent. The Conforming curve begins at about 6.3, remains near that level through May 2007, increases to about 6.75 by June, generally decreases to about 5.5 by January 2008, increases to about 6.6 by July, and generally decreases to end at about 5.1. The "Nonconforming jumbo" curve begins at about 6.5, generally increases to about 9.0 by October 2008, and then generally decreases to end at about 7.9.

Source: Freddie Mac; Inside Mortgage Finance.

Figure: 30-Year Conforming Fixed-Rate Mortgage Spread

A line chart shows one curve over October 2006 through January 21, 2009. Data are weekly; unit is basis points. The curve begins at about 170, generally decreases to about 145, and then fluctuates but generally increases to end at about 275.

Note: Spread is guoted relative to the on-the-run 10-year Treasury yield.

Source: Bloomberg; Freddie Mac.

Figure: Agency and Non-Agency MBS Issuance

A stacked bar chart shows MBS issuance for GSEs, Ginnie Mae, and non-agency over 2002 through 2008. Data are at a monthly rate; unit is billions of dollars. GSEs issuance begins at about 100 in 2002, increases to about 160 in 2003, averages about 75 over 2004 through 2007:Q1 and about 100 over 2007:H2 through 2008:Q2, and then decreases to about 50 by 2008:Q3 and 35 by November 2008. Ginnie Mae issuance begins at about 15 in 2002, increases to about 25 in 2003, decreases to about 10 by 2007:H1, increases to about 30 by October 2008, and decreases to about 25 by November 2008. Non-agency issuance begins at about 30 in 2002, increases to about 90 by 2005, tapers in 2006 and 2007:H1, decreases to about 25 by 2007:H2, and decreases to about zero for the remainder of the period. Total issuance begins at about 150 in 2002, increases to about 225 in 2003, varies within a range of about 125 to 175 through 2007:H2, and then decreases on net to about 65 by November 2008.

Note: MBS are mortgage-backed securities; GSEs are government-sponsored enterprises.

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

Figure: Mortgage Debt

A line chart shows one curve over 2001 through 2008:Q3. Data are quarterly; unit is percent change, annual rate. The curve begins at about 9, fluctuates but generally increases to about 15.5 by mid-2003, generally decreases to about 12 by mid-2006, and then decreases rapidly to end at about -3.

Source: Federal Reserve.

#### Figure: Prices of Existing Homes

A line chart shows three curves over 2002 through 2008. Unit is percent change from a year earlier. The "Monthly FHFA purchase-only index" curve begins at about 7, increases gradually to about 10 by late 2005, and then decreases to end at about -9 by November 2008. The "LoanPerformance price index" curve begins at about 8, generally increases to about 15 by md-2005, and then generally decreases to end at about -10 in December 2008. The "20-city S&P/Case-Shiller price index" curve begins at about 7.5, generally increases to about 17 by mid-2004, decreases to about 16 by late 2005, and decreases rapidly to end at about -18 by October 2008.

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

#### Figure: Delinquencies on Mortgages

A line chart shows three curves over 2001 through November 2008. Data are monthly; unit is percent of loans. The Subprime curve (among securitized loans only) begins at about 8, generally increases to about 9 by 2003, decreases to about 6 by mid-2005, and then increases rapidly to end at about 25.5. The Alt-A curve (among securitized loans only) begins at about 1, remains near that level through 2006, and then increases rapidly to end at about 13. The Prime curve begins at about 1, remains near that level through 2006, and then increases to end at about 3.5.

Note: Percent of loans 90 or more days past due or in foreclosure. Prime includes near-prime mortgages.

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

## Consumer Credit and Household Wealth

#### Figure: Delinquencies on Consumer Loans

A line chart shows three curves over 1997 through 2008. Unit is percent. The "Auto loans at captive finance companies" curve begins at about 3.3., generally decreases to about 1.8 by mid-2004, and generally increases to end at about 2.75 in November 2008. The "Credit card loans in securitized pools" curve begins at about 5.4, generally decreases to about 4.5 by 2000, increases to about 5.5 by 2003, decreases to about 3.25 by 2006, and generally increases to end at about 5.2 by November 2008. The "Nonrevolving consumer loans at commercial banks" curve begins at about 3.2, remains near that level through 2001, generally decreases to about 2.1 by 2006, and increases to end at about 3.0 in 2008:Q3.

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

## Figure: Consumer Loan Rates

A line chart shows two curves over 2001 through January 11, 2009. Data are weekly; unit is percent. The "Variable-rate credit cards" curve begins at about 17, generally decreases to about 13.5 by 2002, remains near that level through early 2006, increases to about 15 by late 2006, and decreases to end at about 11. The new auto loans curve begins at about 8, fluctuates between about 4 and 8 throughout the period, and ends at about 6.75.

Source: For credit cards, Bankrate, Inc.; for auto, PIN.

#### Figure: Revolving Consumer Credit

A line chart shows two curves over 2004 through November 2008. Unit is percent change, annual rate. The 3-month change curve begins at about 3.5, fluctuates but generally increases to about 9 by mid-2006, dips to about 6 by early 2007, increases to about 9 again later that year, and then generally decreases to end at about zero. The 1-month change curve follows the general pattern of the first curve, but fluctuates more widely. It begins at about 6, fluctuates between about -6 and 12, and ends at about -3.

Source: Federal Reserve.

#### Figure: Nonrevolving Consumer Credit

A line chart shows two curves over 2004 through November 2008. Unit is percent change, annual rate. The 3-month change curve begins at about 6, and fluctuates but generally decreases to end at about -1. The 1-month change curve follows the general pattern of the first curve, but fluctuates more widely. It begins at about 8.5, fluctuates between about 0 and 12 in early 2005, and then generally decreases to end at about -4.

Source: Federal Reserve.

#### **Net Flows into Mutual Funds**

(Billions of dollars, monthly rate)

Fund type	20	2007				Nov.	Dec.e	Assets
runa type	H1	H2	Q1	Q2	Q3	NOV.	Dec	Nov.
Total long-term funds	31.5	5.9	1.7	22.6	-34.3	-41.3	-27.1	5,619

Equity funds	14.3	1.2	-14.9	7.8	-34.5	-21.7	-21.1	3,601
Domestic	0.8	-8.4	-13.4	3.3	-18.5	-13.0	-10.2	2,776
International	13.5	9.6	-1.5	4.4	-16.0	-8.7	-10.9	825
Hybrid funds	2.6	1.1	0.7	2.0	-2.7	-5.1	-1.8	482
Bond funds	14.6	3.5	16.0	12.9	2.9	-14.5	-4.2	1,535
High-yield	0.2	-0.7	-1.3	0.9	-0.3	-0.2	2.9	103
Other taxable	12.0	4.8	15.2	8.2	1.8	-13.2	-2.9	1,087
Municipals	2.4	-0.6	2.1	3.7	1.4	-1.1	-4.3	345
Money market funds	26.3	98.8	126.9	-14.8	-7.2	122.6	107.0	3,733

Note: Excludes reinvested dividends.
e Staff estimate. Return to table
Source: Investment Company Institute.

## Treasury Finance

#### Figure: Foreign Participation in Treasury Auctions

A line chart shows two curves over 2000 through December 23, 2008. Data are 6-month moving averages; unit is percent of total issue. The "Actual foreign allotment" curve begins at about 10, generally increases to about 27 by late 2004, decreases to about 18 by 2006, and remains near that level for the remainder of the period, ending at about 19. The "Indirect bids" curve begins at about 22, then increases and fluctuates between about 26 and 24 for the remainder of the period, ending at about 27.

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

Source: Federal Reserve Board.

#### Figure: Foreign Custody Holdings

A line chart shows two curves over 2003 through January 14, 2009. Data are weekly averages; unit is billions of dollars. The Treasury curve begins at about 700, and generally increases to end at about 1750. The Agency curve begins at about 150, generally increases to about 1000 by late 2008, and decreases to end at about 800.

Note: Securities held in custody at the Federal Reserve Bank of New York on behalf of foreign official institutions.

Source: Federal Reserve Bank of New York.

## Figure: Treasury Bid-Asked Spread

A line chart shows one curve over January 2007 through January 21, 2009. Data are 5-day moving averages; unit is cents per \$100 face value. The "2-year on-the-run Treasury notes" curve begins at about 0.85, generally increases to about 1.075 by January 2008, fluctuates but generally decreases to about 0.85 by September 2008, then fluctuates more widely and increases to about 1.4 in October and 1.65 by the beginning of January 2009. It then decreases rapidly to end at about 0.95.

Source: BrokerTec Interdealer Market Data.

#### Figure: Daily Treasury Market Volume

A line chart shows one curve over 2001 through January 2009. Data are monthly averages; unit is billions of dollars. The curve begins at about 70, fluctuates but generally increases to about 290 by 2008, and then decreases rapidly to end at about 90.

Note: January observation is average for month to date.

Source: BrokerTec Interdealer Market Data.

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

A line chart shows one curve over 2001 through January 2009. Data are monthly averages; unit is basis points. The "10-year note" curve begins at about 15, generally increases to about 28 by early 2002, generally decreases to about 7.5 by mid-2005, remains near that level through mid-2007, and then increases rapidly to end at about 58.

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

Source: Federal Reserve Bank of New York

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

A line chart shows one curve over 2001 through January 21, 2009. Data are daily; unit is basis points. The curve begins at about 3, and spikes to about 13 in late 2001, but generally decreases to about 1.5 by 2005, and remains near that level through mid-2007. The curve then generally increases to a peak of about 22 around the time of the December 2008 FOMC meeting, and then decreases to end at about 16.

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.

#### State and Local Government Finance

#### **Gross Offerings of Municipal Securities**

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

Type of security	2004	2005	2006	2007			2009	
Type of Security	2004	2003			H1	Q3	Q4	Jan. <u>p</u>
Total	34.7	38.4	36.1	40.4	41.5	36.5	28.9	20.0
Long-term <sup>1</sup>	29.8	34.2	32.5	35.5	38.0	30.0	22.5	17.0
Refundings <sup>2</sup>	10.8	15.6	10.6	12.6	17.9	13.0	8.7	5.0
New capital	19.0	18.6	21.9	22.9	20.1	17.0	13.8	12.0
Short-term	4.9	4.2	3.7	4.9	3.6	6.6	6.3	3.0
Memo: Long-term taxable	2.0	2.1	2.5	2.4	2.7	2.4	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 January 15, 2009. Return to table

Source: Thomson Financial.

Figure: Ratings Changes

A bar chart shows upgrades and downgrades from 1989 to 2007, 2008:H1 and 2008:Q3. Data are at an annual rate; unit is number of ratings changes. Upgrades begin at about 100, trend up to about 1200 by 2000, drop to about 600 by 2002, trend up again to about 1800 by 2007, and then decrease to about 400 by 2008:Q3. Downgrades begin at about 100, increase to about 600 by 1991, gradually decrease to about 100 by 1997-1998, increase rapidly to about 1600 by 2002, fluctuate between about 200 and 1100 through 2008:H1, and end at about 1400 in 2008:Q3.

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

#### Figure: Municipal Bond Yields

A line chart shows two curves over 2005 through January 2009. Data are weekly; unit is percent. The "7-day SIFMA swap index" curve begins at about 1.5, generally increases to about 4 by mid-2007, and then generally decreases and fluctuates more widely for the remainder of the period, spiking to about 8 in late 2008, and ending at about 0.5 on January 7, 2009. The "20-year general obligation" curve begins at about 4.5, remains near that level through early 2000, and then fluctuates and generally increases to end at about 4.9 on January 15, 2009.

Source: Municipal Market Advisors: Bond Buver.

## Figure: Municipal Bond Yield Ratio

A line chart shows one curve over 1994, through January 15, 2009. Data are General Obligation over Treasury, weekly; unit is a ratio. The "20-year" curve begins at about 0.82, generally increases to about 1.0 by 2001, decreases to about 0.85 by mid-2007, increases rapidly to about 1.87 by the end of 1008, and decreases to end at about 1.47.

Source: Bond Buver.

## M2 Monetary Aggregate

(Based on seasonally adjusted data)

Aggregate and components	2007	2008 ( <u>p</u> )		of dollars),								
	2007	2006 ( <u>μ</u> )	Q3	Q4 (p)	Nov.	Dec. (p)	Dec. (p)					
M2	5.8	8.5	4.8	14.9	8.6	27.3	8,154					
Components <sup>2</sup>												
Currency	2.0	5.8	7.1	13.8	12.1	11.5	812					
Liquid deposits <sup>3</sup>	4.1	7.0	3.9	9.8	5.0	37.8	4,875					
Small time deposits	4.3	10.6	10.4	33.4	31.6	19.9	1,370					
Retail money market funds	20.6	15.5	1.0	16.4	-6.3	3.2	1,091					
Memo:	Memo:											
Institutional money market funds	40.2	24.5	9.5	8.4	50.9	32.7	2,389					
Monetary base	2.0	70.4	16.4	252.0	321.9	182.3	1,651					

- 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
- p Preliminary. Return to table

Source: Federal Reserve.

## Commercial Bank Credit

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

Type of credit	2007	2008	H1 2008	Q3 2008	Oct. 2008	Nov. 2008	Dec. 2008	Level <sup>1</sup> Dec. 2008			
Total	11.0	5.2	5.4	4.4	20.0	-14.7	-12.7	9,532			
Loans <sup>2</sup>											
Total	12.1	5.0	7.0	3.0	9.6	-12.5	-5.7	7,163			
To businesses											
Commercial and industrial	19.1	14.2	14.3	7.5	48.4	-4.2	-16.9	1,584			
Commercial real estate	10.4	6.5	11.0	1.9	2.3	3.4	3.1	1,731			
To households											
Residential real estate	8.4	-1.0	2.6	-4.7	-4.8	-8.2	-4.4	2,056			
Revolving home equity	7.1	14.1	13.8	12.2	22.2	5.4	13.0	587			
Other	8.9	-5.9	-1.1	-10.6	-15.0	-13.4	-11.2	1,469			
Consumer	7.9	8.2	7.4	8.7	10.8	7.2	7.4	882			
Originated <sup>3</sup>	7.1	6.8	7.6	5.9	12.5	-2.7	1.7	1,298			
Other <sup>4</sup>	17.4	6	-1.4	10.0	-9.0	-80.5	-17.8	910			
Securities	Securities										
Total	8.1	5.7	.5	8.8	51.8	-21.1	-33.3	2,370			
Treasury and agency	-5.5	20.0	1.1	23.3	79.8	61.5	1.3	1,407			
Other <sup>5</sup>	26.3	-8.6	1	-5.9	20.6	-117.5	-80.5	963			

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), the initial adoption of fair value accounting (FAS 159), and the effects of sizable nonbank structure activity in October 2006, March 2007, October 2007, September 2008, and November 2008. Data also account for breaks caused by reclassifications.

- 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 security loans and loans to farmers, state and local governments, and all others not elsewhere classified. Also includes lease financing receivables. Return to table
- 5. 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

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

Measures of Supply and Demand for C&I Loans, by Size of Firm Seeking Loan

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

A line chart shows two curves over 1990:Q2 through 2009:Q1. Unit is percent. The "Loans to large and medium-sized firms" curve begins at about 57, generally decreases to about -20 by 1993:Q3, generally increases to about 60 by 2001:Q1, decreases to about -23 by 2004:Q2, increases to about 83 by the October survey, and decreases to end at about 65. The "Loans to small firms" curve follows a similar pattern, beginning at about 52, peaking at about 43 in 2001:Q1, and ending at about 70.

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

A line chart shows two curves over 1990:Q2 through 2009:Q1. Unit is percent. The "Loans to large and medium-sized firms" curve begins at about 12, increases to about 60 by 1991:Q1, decreases to about -60 by 1994:Q2, fluctuates but generally increases to about 60 again by 2001:Q4, decreases to about -70 by 2005:Q2, and generally increases to end at about 93. The "Loans to small firms" curve begins at about 5 and follows a similar pattern, although its highs and lows are generally muted in comparison to the first curve. It ends at about 90.

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

A line chart shows two curves over 1991:Q4 through 2009:Q1. Unit is percent. The "Loans to large and medium-sized firms" curve begins at about -30, fluctuates between about -10 and 40 through late 2000, decreases to about -70 by 2001:Q4, increases to about 45 by 2005:Q1, and decreases on net to end at about -60. The "Loans to small firms" curve begins at about -26, and follows the same general pattern at the first curve. It drops only to about -50 in 2001:Q4, but ends with the first curve at about -60.

Measures of Supply and Demand for Commercial Real Estate Loans

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

A line chart shows one curve over 1990:Q3 to 2009:Q1. Unit is percent. The curve begins at about 68, generally decreases to about -6 by 1994:Q2, increases to about 13 by 1996:Q1, decreases to about -12 by 1997:Q3, increases to about 45 by 1998:Q4, decreases to about 5 by 1999:Q2, increases to about 46 by 2002:Q1, decreases to about -25 by 2005:Q1, and generally increases to end at about 80.

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

A line chart shows one curve over 1995:Q2 to 2009:Q1. Unit is percent. The curve begins at about 14, fluctuates but generally increases to about 46 by 1998:Q2, decreases to about -53 by 2001:Q4, increases to about 25 by 2004:Q3, and generally decreases to end at about -55.

Measures of Supply and Demand for Residential Mortgage Loans

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

Two line charts. Unit is percent. The first chart shows one curve, "All residential", over 1990:Q3 through 2007:Q1. The curve begins at about 8, increases to about 33 by 1991:Q1, then decreases and fluctuates between about -15 and 12 through 2006. The curve ends on an upward trend at about 17. For data starting in 2007:Q2 (the second chart), changes in standards for prime, nontraditional, and subprime mortgage loans are reported separately. The Prime curve begins at about 15, remains near that level until 2007:Q3, then increases to about 73 by 2008:Q3, and decreases to end at about 47 in 2009:Q1. The Nontraditional curve begins at about 45, decreases to about 40 by 2007:Q3, increases to about 85 by 2008:Q1, decreases to about 76 by 2008:Q2, increases to about 90 by 2008:Q4, and decreases to end at about 47 in 2009:Q1. The Subprime curve begins at about 57, remains near that level through 2007:Q4, increases to about 100 by 2008:Q4, and decreases to end at about 50 in 2009:Q1.

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

Two line charts. Unit is percent. The first chart shows one curve, "All residential", over 1990:Q4 through 2007:Q1. The curve begins at about -50, and fluctuates widely throughout the period, between about -80 and 65. In the early 90's and 2000's, the curve fluctuates mostly about zero. From 2005:Q3 through 2007:Q1 the curve shows a general downward trend, from about 20 to -35. For data starting in 2007:Q2 (the second chart), changes in demand for prime, nontraditional, and subprime mortgage loans are reported separately. The Prime curve begins at about -20, increases to about 10 by 2007:Q3, decreases to about -60 by 2008:Q1, increases to about -50 by 2008:Q4, and increases to end at about -8 in 2009:Q1. The Nontraditional curve begins at about -17, decreases to about -70 by 2008:Q1, increases to about -30 by 2008:Q2, and generally decreases to end at about -65 in 2009:Q1. The Subprime curve begins at about -20, decreases to about -70 by 2008:Q1, increases to about -30 by 2008:Q3, decreases to about -100 by 2008:Q4, and increases to end at about -50 in 2009:Q1.

Measures of Supply and Demand for Consumer Loans

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

A line chart shows two curves over 1996:Q1 through 2009:Q1. Unit is percent. A vertical line marks the October 2008 survey. The "Credit card loans" curve begins at about 25, generally increases to about 48 by 1996:Q3, generally decreases to about -10 by 2007:Q2, increases to about 67 by 2008:Q3, and then decreases to end at about 60. The "Other consumer loans" curve begins at about 15, fluctuates around that level through mid-2003, generally decreases to about -10 by 2005:Q2, generally increases to about 67 by 2008:Q3, and then decreases to end at about 60.

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

A line chart shows one curve over 1990:Q2 through 2009:Q1. Unit is percent. The curve begins at about 6, generally decreases to about -5 by 1991:Q1, generally increases to about 30 by 1994:Q1, decreases and fluctuates between about -6 and 22 through 2007, decreases to about -46 by 2008:Q4, and increases to end at about -15.

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

A line chart shows one curve over 1991:Q4 through 2009:Q1. Unit is percent. The curve begins at about -28, generally increases to about 38 by 1994:Q2, and then fluctuates between that level and about -50 with a general downward trend throughout the period. It ends at about -48.

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

Last update: April 1, 2015

## January 2009 Greenbook Part 2 Tables and Charts †

## **International Developments**

## Trade in Goods and Services

		Annual rate			Monthly rate			
	2007		2008			2008		
		Q2	Q3	Q4 <u>e</u>	Sept.	Oct.	Nov.	
			Per	cent cha	nge			
Nominal BOP								
Exports	14.5	22.9	11.9	-33.6	-6.4	-2.3	-5.8	
Imports	9.7	18.2	6.2	-39.4	-5.7	-1.6	-12.0	
Real <u>NIPA</u>								
Exports	8.9	12.3	3.0	n.a.				
Imports	1.1	-7.3	-3.5	n.a.				
			Billio	ns of do	llars			
Nominal BOP								
Net exports	-700.3	-720.3	-706.1	-582.8	-56.6	-56.7	-40.4	
Goods, net	-819.4	-865.3	-858.8	-728.9	-69.5	-69.0	-52.4	
Services, net	119.1	145.0	152.7	146.1	13.0	12.4	12.0	

e Estimate as 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

A line chart shows one curve over 1999 through 2008. Data are quarterly; unit is billions of dollars at an annual rate. The curve begins at about -220, generally decreases to about -790 by 2006:Q3, and generally decreases to end at about -580 in 2008:Q4. A dot plots the November 2008 value at about -480.

Figure: Contribution of Net Exports to Growth of Real Gross Domestic Product

A bar chart plots data from 1999 through 2008:Q3. Data are quarterly; unit is percentage points, annual rate. The bars begin at about -1.7, then remain mostly negative and fluctuate between about -1.5 and 0.5 through 2004. The bars fluctuate between positive 0.8 and negative 1.25 in 2005, and then are mostly positive beginning in 2006, reaching a high point of nearly 3.0 by 2008:Q2, and ending at about 1.0.

Figure: Selected Exports

A line chart shows four curves over 1999 through 2008:Q4. Data are quarterly; unit is billions of dollars at an annual rate. The aircraft curve begins at about 55, remains near that level through 2004, generally increases to about 100 by 2007:Q4, remains near that level through 2008:Q3, and decreases to end at about 63. The consumer goods curve begins at about 80, generally increases to about 170 by 2008:Q3, and then decreases to end at about 160. The industrial supplies

curve begins at about 125, increases to about 160 by 2000:Q3, decreases to about 135 by 2001:Q4, generally increases to about 405 by 2008:Q3, and decreases to end at about 320. The "capital goods excluding aircraft" curve begins at about 245, increases to about 325 by 2000:Q3, decreases to about 235 by 2002:Q1, generally increases to about 395 by 2008:Q3, and decreases to end at about 380.

### Figure: Selected Imports

A line chart shows four curves over 1999 through 2008:Q4. Data are quarterly; unit is billions of dollars at an annual rate. The oil curve begins at about 40, generally increases to about 525 by 2008:Q3, and decreases to end at about 370. The industrial supplies curve begins at about 140, generally increases to about 340 by 2008:Q3, and decreases to end at about 310. The consumer goods curve begins at about 230, generally increases to about 500 by 2008:Q3, and decreases to end at about 470. The capital goods curve begins at about 280, increases to about 360 by 2000:Q3, decreases to about 270 by 2001:Q4, generally increases to about 470 by 2008:Q2, and then decreases to end at about 435.

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)

		Lev	rels			Char	ige <sup>1</sup>	
	20	08	20	08	20	08	20	08
	Q3	Q4 <u>e</u>	Oct.	Nov.	Q3	Q4 <sup>e</sup>	Oct.	Nov.
exports of goods and services	1956.2	1766.0	1818.5	1713.6	54.2	-190.2	-42.6	-104.8
Goods exports	1386.1	1212.1	1257.6	1166.6	36.9	-174.0	-36.2	-90.9
Gold	17.7	13.8	14.3	13.3	-1.3	-3.9	-5.4	-1.0
Other goods	1368.4	1198.3	1243.3	1153.3	38.2	-170.1	-30.8	-89.
Capital goods	487.8	447.1	455.8	438.4	7.2	-40.7	-1.7	-17.
Aircraft & parts	91.7	62.2	61.4	63.1	.4	-29.5	-8.7	1.
Computers & accessories	46.5	40.0	41.6	38.4	7	-6.5	6	-3.
Semiconductors	53.4	47.8	49.6	46.0	2.1	-5.6	-3.8	-3.
Other capital goods	296.2	297.0	303.3	290.8	5.4	.8	11.4	-12.
Automotive	131.9	114.6	121.2	108.1	7.7	-17.2	-2.8	-13.
Ind. supplies (ex. ag., gold)	398.4	320.9	343.2	298.5	19.4	-77.5	-11.1	-44.
Consumer goods	169.5	158.5	159.8	157.1	5.5	-11.0	-1.9	-2
Agricultural	129.9	107.2	112.7	101.8	.0	-22.6	-10.6	-10.
All other goods	51.0	50.0	50.5	49.4	-1.7	-1.0	-14.6	-1.
Services exports	570.1	553.9	560.9	547.0	17.3	-16.1	-6.4	-13
mports of goods and services	2662.4	2348.8	2498.7	2198.9	40.0	-313.5	-41.1	-299.
Goods imports	2245.0	1941.0	2086.1	1795.9	30.4	-303.9	-42.1	-290.
Oil	525.7	365.3	446.8	283.7	31.3	-160.5	8.0	-163.
Gold	12.7	7.5	8.4	6.7	.1	-5.2	-9.2	-1
Other goods	1706.5	1568.2	1630.9	1505.5	-1.0	-138.3	-40.9	-125.
Capital goods	464.0	434.6	447.9	421.3	-5.3	-29.4	-17.0	-26
Aircraft & parts	34.2	31.2	31.5	30.9	-3.9	-3.0	-3.2	
Computers & accessories	103.3	90.7	95.6	85.9	-6.1	-12.5	-3.4	-9
Semiconductors	26.1	24.2	25.7	22.8	8	-1.8	4	-3.
Other capital goods	300.5	288.4	295.0	281.7	5.4	-12.1	-10.0	-13.
Automotive	232.8	204.1	211.2	197.0	-17.1	-28.7	-10.4	-14
Ind. supplies (ex. oil, gold)	343.7	308.1	324.7	291.6	12.7	-35.6	-13.0	-33.

Consumer goods	499.4	461.5	484.2	438.7	6.0	-38.0	1.7	-45.4
Foods, feeds, beverages	91.7	89.7	92.2	87.1	1.7	-2.1	1.1	-5.2
All other goods	74.8	70.3	70.8	69.8	1.1	-4.6	-3.3	9
Services imports	417.4	407.8	412.6	403.0	9.6	-9.6	1.0	-9.6
Memo:								
Oil quantity (mb/d)	12.28	12.66	13.36	11.95	19	.39	2.15	-1.41
Oil import price (\$/bbl)	116.91	78.27	91.54	65.00	8.26	-38.54	-15.58	-26.54

<sup>1.</sup> Change from previous quarter or month. 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

A line chart shows two curves over 1999 through 2008. Unit is 12-month percent change. The core goods curve begins at about -1.8, generally increases to about 1.8 by mid-2000, generally decreases to about -3.7 by early 2002, generally increases to about 8.5 by mid-2008, and decreases to end at about 1.9. The non-oil goods curve begins at about -2.7, generally increases to about 2.1 by early 2001, decreases to about -5.5 by early 2002, increases to about 2.0 by early 2003 and fluctuates between about 0.5 and 4.0 through 2007. It then increases to about 7.9 by mid-2008, and decreases to end at about 0.8.

Figure: Categories of Core Imports

A line chart shows two curves over 1999 through 2008. Unit is 12-month percent change. The finished goods curve begins at about -0.5, generally increases to about 2.5 by mid-2005, decreases to about zero by early 2006, increases to about 4 by early 2008, and decreases to end at about 2.5. The material-intensive goods curve begins at about -4.5, increases to about 7 by early 2000, generally decreases to about -10 by early 2002, generally increases to about 18 by mid-2008, and decreases to end at about 1.

Figure: Oil

A line chart shows two curves over 1999 through January 2009. Unit is dollars per barrel. The "Spot West Texas intermediate" curve begins at about 12, generally increases to about 135 by mid-2008, and decreases to end at about 43. The "Import unit value" curve tracks the other curve closely. It begins at about 10, generally increases to about 125 by mid-2008, and decreases to end at about 43.

Figure: Natural Gas

A line chart shows two curves over 1999 through January 2009. The "Spot Henry Hub" curve (in dollars per million Btu) begins at about 2, spikes to about 9 in late 2000 and to about 8 in early 2003, but generally increases to about 7 by mid-2005. It then spikes again to about 14 in late 2005, generally decreases to about 4 by late 2006, spikes to about 13 in mid-2008, and decreases to end at about 6. The "import price index" curve (index, 2000 = 100) is plotted above the first curve (based on the choice of y-axis ranges), but follows its contours fairly closely. The second curve begins at about 60, and spikes to about 220 in late 2000, about 275 in late 2005, and about 285 in mid-2008, but generally increases over the period to end at about 175 in late 2008.

Figure: Merchandise Exports

A line chart shows two curves over 1999 through 2008. Unit is 12-month percent change. The core goods curve begins at about -2.0, increases to about 3.0 by early 2000, decreases to about -2.5 by early 2002, generally increases to about 12.5 by mid-2008, and decreases to end at about -3.5. The total goods curve tracks the first curve closely, although generally below it. The second curve begins at about -2.8, increases to about 2.1 by early 2000, decreases to about -3.0 by early 2002, generally increases to about 10.0 by mid-2008, and decreases to end at about -3.5.

Figure: Categories of Core Exports

A line chart shows two curves over 1999 through 2008. Unit is 12-month percent change. The finished goods curve begins just above zero, generally increases to about 3.5 by late 2008, and decreases to end at about 2.5. The material-intensive goods curve begins at about -6, fluctuates widely but generally increases to about 24.5 by mid-2008, and decreases to end at about -10.

Source: Bureau of Labor Statistics; Wall Street Journal; Commodity Research Bureau.

e Estimate based on average of two months. Return to table

# Prices of U.S. Imports and Exports

(Percentage change from previous period)

	An	nual ra	te	Мо	onthly ra	ite
		2008			2008	
	Q2	Q3	Q4	Oct.	Nov.	Dec.
			BLS p	orices		
Merchandise imports	36.6	4.1	-46.8	-5.9	-7.0	-4.2
Oil	152.1	5.8	-92.4	-22.0	-28.5	-21.4
Non-oil	12.9	3.3	-11.7	8	-1.8	-1.1
Core goods_1	13.3	6.1	-11.6	-1.0	-2.0	-1.3
Finished goods	5.3	2.3	8	.1	4	*
Cap. goods ex. comp. & semi.	8.7	4.4	4	.1	4	2
Automotive products	2.3	1.2	-1.3	.1	5	:
Consumer goods	4.9	1.4	6	.1	4	
Material-intensive goods	31.4	13.8	-29.6	-3.0	-5.3	-4.
Foods, feeds, beverages	19.1	11.1	-17.6	-1.4	-4.7	2.3
Industrial supplies ex. fuels	35.0	14.5	-32.7	-3.3	-5.4	-5.
_						
Computers	-3.9	-8.2	-8.8	4	-1.3	!
Semiconductors	-4.9	-6.5	-2.2	6	3	
Natural gas	149.9	-25.1	-68.0	-3.8	-2.4	'
Merchandise exports	10.2	3.8	-22.0	-2.1	-3.4	-2.3
Core goods <sup>2</sup>	12.5	5.2	-25.3	-2.4	-4.0	-2.
Finished goods	3.2	2.8	1.1	.4	4	
Cap. goods ex. comp. & semi.	4.0	3.3	1.4	.4	3	.0
Automotive products	1.8	1.2	1.4	.4	1	:
Consumer goods	2.1	3.0	.4	.5	9	:
Material-intensive goods	23.2	7.7	-46.6	-5.3	-8.1	-6.
Agricultural products	14.4	5.8	-53.7	-8.3	-7.3	-6.
Industrial supples ex. ag.	26.8	8.5	-45.0	-4.5	-8.4	-6.
Computers	-9.1	-8.8	-9.1	-1.1	3	-1.
Semiconductors	8	-6.5	-14.5	-3.0	2	0
			NIPA	prices		
Chain price index						
Imports of goods & services	28.8	9.2	n.a.			
Non-oil merchandise	11.2	2.9	n.a.			
Core goods <sup>1</sup>	10.6	4.6	n.a.			
Exports of goods & services	10.8	6.7	n.a.			
Total merchandise	12.3	5.6	n.a.			
Core goods <sup>2</sup>	13.9	6.6	n.a.			

- 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

## Summary of U.S. International Transactions

(Billions of dollars; not seasonally adjusted except as noted)

	2222	2227	2007			2008		
	2006	2007	Q4	Q1	Q2	Q3	Oct.	Nov.
Official financial flows	490.3	387.0	121.5	178.3	101.2	-113.2	-262.5	12.5
1. Change in foreign official assets in the U.S. (increase, +)	487.9	411.1	145.5	173.6	145.5	113.2	-17.1	-11.3
a. G-10 countries + ECB	26.1	36.8	11.8	-1.6	0.3	8.9	-0.4	-14.4
b. OPEC	45.2	33.0	16.1	16.7	16.0	16.6	1.6	-1.2
c. All other countries	416.6	341.4	117.6	158.5	129.2	87.6	-18.4	4.3
2. Change in U.S. official assets (decrease, +) <sup>1</sup> _	2.4	-24.1	-24.0	4.7	-44.3	-226.4	-245.4	23.8
Private financial flows	348.8	387.4	91.9	12.1	21.7	248.4		
Banks			•	-				
3. Change in net foreign positions of banking offices in the U.S. <sup>2</sup>	111.5	-81.7	-48.6	-168.5	-92.1	-53.9	180.6	43.1
Securities <sup>3</sup>								
4. Foreign net purchases (+) of U.S. securities	634.2	746.4	188.3	41.8	76.7	2.5	35.0	-26.5
a. Treasury securities	-58.2	152.5	64.1	58.9	60.0	88.9	102.0	9.9
b. Agency bonds	25.8	19.4	16.4	-18.0	-32.8	-54.6	-41.7	-20.7
c. Corporate and municipal bonds	517.8	383.5	49.4	-11.9	50.2	-34.4	-18.4	-17.3
d. Corporate stocks <sup>4</sup> _	148.9	191.1	58.4	12.8	-0.7	2.6	-7.0	1.6
5. U.S. net acquisitions (-) of foreign securities	-362.4	-292.1	-9.6	-44.4	-38.6	84.3	34.2	33.1
a. Bonds	-224.5	-172.9	-18.5	-16.9	-16.7	70.1	14.4	12.8
b. Stock purchases	-119.1	-107.9	11.5	-26.6	-19.9	14.2	20.6	20.3
c. Stock swaps <sup>4</sup>	-18.8	-11.3	-2.6	-0.8	-2.0	0.0	-0.8	0.0
Other flows <sup>5</sup>								
6. U.S. direct investment (-) abroad	-241.2	-333.3	-110.9	-89.1	-84.0	-56.9		
7. Foreign direct investment in the U.S.	242.0	237.5	55.7	80.4	105.3	66.1		
8. Net derivatives (inflow, +)	29.7	6.5	-13.5	-8.0	-2.4	-4.1		
9. Foreign acquisitions of U.S. currency	2.2	-10.7	-3.5	-0.9	0.2	5.8		
10. Other (inflow, +) <sup>6</sup> _	-67.3	114.7	34.0	200.7	56.5	204.5		
U.S. current account balance <sup>7</sup>	-788.1	-731.2	-167.2	-175.6	-180.9	-174.1		
Capital account balance <sup>8</sup>	-3.9	-1.8	-0.6	-0.6	-0.6	-0.6		
Statistical discrepancy <sup>7</sup>	-47.1	-41.3	-45.6	-14.1	58.7	39.5		

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. Return to table
- 8. 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 Kindom, 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 November 2008

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

Figure: Total

A line chart shows two curves over 2004 through 2008. The 6-month moving average curve begins at about 35, generally decreases to about 20 by mid-2005, generally increases to about 46 by early 2007, decreases to about 18 by late 2007, increases to about 55 by early 2008, and decreases to end at about 22 in late 2008. The monthly curve fluctuates widely around the 6-month moving average curve, beginning at about 57, reaching a low point of about -30 in 2007:Q3 and a high point of about 100 in early 2008, and ending at about -12.

Figure: Treasury Securities

A line chart shows two curves over 2004 through 2008. The 6-month moving average curve begins at about 22, increases to about 32 in early 2004, generally decreases to about -4 in late 2007, and generally increases to end at about 43. The monthly curve fluctuates widely around the 6-month moving average curve, beginning at about 35, reaching a low point of about -35 in late 2007 and a high point of about 74 in late 2008, and ending at about 41.

Figure: Agency Securities

A line chart shows two curves over 2004 through 2008. The 6-month moving average curve begins at about 5, decreases to about 2 by late 2004, increases to about 27 by early 2007, decreases to about 5 by late 2007, increases to about 30 by early 2008, and decreases to end at about -7. The monthly curve fluctuates around the 6-month moving average curve, modestly at first. It begins at about 5, generally increases to about 35 by early 2007, generally decreases to about -2 by late 2007, increases to about 37 by early 2008, decreases to about -40 by late 2008, and increases to end at about -18.

Figure: Foreign Official Balances Held at the Federal Reserve Bank of New York, Daily through January 20, 2009

A line chart shows two curves over 2007 through January 20, 2009. The Treasury securities curve begins at about 1140, generally increases to about 1200 in early 2007, remains near that level through year-end, and then generally increases to end at about 1670. The Agency securities curve begins at about 600, generally increases to about 1100 by mid-2008, and then generally decreases to end at about 800.

Source: U.S. Treasury International Capital reports with staff adjustments and FRBNY

#### Private Securities Flows through November 2008

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

Foreign Net Purchases (+) of U.S. Securities

Figure: Total

A line chart shows two curves over 2003 through November 2008. The 6-month moving average curve begins at about 24, generally increases to about 86 in mid-2007, and generally decreases to end at about 0. The monthly curve fluctuates widely around the 6-month moving average curve, beginning at about 18, peaking at about 150 in mid-2007, and ending at about -25.

#### Figure: Treasury Securities

A line chart shows two curves over 2003 through November 2008. The 6-month moving average curve begins at about 5, fluctuates between about -2 and 22 through early 2006, decreases to about -13 by mid-2006, and then generally increases to end at about 35. The monthly curve fluctuates widely around the 6-month moving average curve, beginning at about -7, reaching a low point of about -40 in mid-2006 and a high point of about 100 in late 2008, and ending at about

#### Figure: Agency Bonds

A line chart shows two curves over 2003 through November 2008. The 6-month moving average curve begins at about 7, fluctuates between about -7 and 7 through early 2008, and generally decreases to end at about -19. The monthly curve fluctuates around the 6-month moving average curve, beginning at about 7 and ending at about -21.

#### Figure: Corporate and Municipal Bonds

A line chart shows two curves over 2003 through November 2008. The 6-month moving average curve begins at about 10, generally increases to about 60 by early 2007, remains near that level until mid-year, and then generally decreases to end at about -10. The monthly curve fluctuates around the 6-month moving average curve, modestly at first. It begins at about 20, reaches a high point of about 87 in mid-2007, then fluctuates more widely and generally decreases to end at about -18.

#### Figure: Corporate Stocks

A line chart shows two curves over 2003 through November 2008. The 6-month moving average curve begins at about zero, generally increases to about 25 by mid-2007, and then generally decreases to end at about zero. The monthly curve fluctuates around the 6-month moving average curve, more widely around late 2006 through 2007. It begins at about -3, reaches a high point of about 42 and a low point of about -38 both in mid-2007, and ends at about zero.

#### U.S. Net Acquisitions (-) of Foreign Securities

#### Figure: Total

A line chart shows two curves over 2003 through November 2008. The 6-month moving average curve begins at about -7, generally decreases to about -40 by early 2007, and generally increases to end at about 22. The monthly curve fluctuates around the 6-month moving average curve, less widely at first. It begins at about -8, reaches a low point of about -60 at the end of 2006, and ends near its high point at about 32.

#### Figure: Bonds

A line chart shows two curves over 2003 through November 2008. The 6-month moving average curve begins at about -4, fluctuates between about 0 and -10 through mid-2006, generally decreases to about -24 by mid-2007, and generally increases to end at about 12. The monthly curve fluctuates around the 6-month moving average curve, less widely at first. It begins at about zero, reaches a low point of about -38 in early 2007 and a high point of about 36 in late 2008, and ends at about 12.

#### Figure: Stock Purchases & Swaps

A line chart shows two curves over 2003 through November 2008. The 6-month moving average curve begins at about -1, fluctuates but generally decreases to about -19 by 2006, increases to about -5 by late 2006, decreases to about -19 again by early 2007, and generally increases to end at about 8. The monthly curve fluctuates around the 6-month moving average curve, less widely at first. It begins at about -8, reaches a relative high point of about 15 in late 2004, reaches a low point of about -35 in late 2006, and ends at about 20.

Source: For eight preceding figures, U.S. Treasury International Capital reports with staff adjustments.

#### Exchange Value of the Dollar and Stock Market Indexes

	Latest	Percent change since December Greenbook
Exchange rates*		
Euro (\$/euro)	1.2923	0.8
Yen (¥/\$)	88.4	-4.9

Sterling (\$/£)	1.3778	7.6
Canadian dollar (C\$/\$)	1.2728	1.4
Nominal dollar indexes*		
Broad index	110.6	0.5
Major currencies index	82.9	0.4
OITP index	140.2	0.6
Stock market indexes		
DJ Euro Stoxx	200.6	-11.4
TOPIX	795.9	-4.6
FTSE 100	4066.5	-6.9
S&P 500	831.4	-6.4

<sup>\*</sup> Positive percent change denotes appreciation of U.S. dollar. Return to table

#### Figure: Exchange Value of the Dollar

Two line charts show three curves, "Major currencies index", "Euro", and "Yen". The first chart plots weekly data over 2004 through January 2009; unit is an index, January 5, 2004 = 100. All three curves begin at 100. The major currencies index curve generally increases to about 107 by mid-2004, generally decreases to about 83 by early 2008, increases back to 100 by late 2008, and decreases to end at about 96. The Euro curve tracks the first curve fairly closely until early 2005, generally increases to about 108 by late 2005, generally decreases to about 80 by mid-2008, increases back to 100 by late 2008, and decreases to end at about 96. The Yen curve also tracks the first curve fairly closely until early 2005, then generally increases to about 110 by late 2005, fluctuates around that level through late 2007, and generally decreases to end at about 85. The second chart plots daily data over October 2008 through January 2009; unit is an index, December 10, 2008 (Greenbook date) = 100. The major currencies index curve begins at about 92, generally increases to about 100 by late October, fluctuates around that level through the December Greenbook, decreases to about 93 by mid-December, and generally increases to about 100. The Euro curve begins at about 93, generally increases to about 101. The Yen curve begins at about 114, and fluctuates but generally decreases to end at about 95.

#### Figure: Stock Market Indexes

Two line charts show three curves, "DJ Euro Stoxx", "TOPIX", and "S&P 500". The first chart plots weekly data over 2004 through January 2009; unit is an index, January 5, 2004 = 100. All three curves begin at 100. The DJ Euro Stoxx curve generally increases to about 175 by mid-2007, and then generally decreases to end at about 87. The TOPIX curve generally increases to about 160 by early 2006, fluctuates around that level through late 2007, and then generally decreases to end at about 82. The S&P 500 curve generally increases to about 140 by late 2007, and then generally decreases to end at about 77. The second chart plots daily data over October 2008 through January 2009; unit is an index, December 10, 2008 (Greenbook date) = 100. The DJ Euro Stoxx curve begins at about 125, and fluctuates but generally decreases to end at about 93. The S&P 500 curve begins at about 132, and fluctuates but generally decreases to end at about 93. The S&P 500 curve begins at about 132, and fluctuates but generally decreases to end at about 95.

#### Industrial Countries: Nominal and Real Interest Rates

#### Percent

	3-month <u>Libor</u>		10-year	nominal	10-year indexed		
	Latest	Latest Change since Dec. Greenbook		Latest Change since Dec. Greenbook		Change since Dec. Greenbook	
Germany	2.25	-1.12	3.01	-0.20	1.35	-0.51	
Japan	0.70	-0.25	1.23	-0.18	3.01	-2.22	
United Kingdom	2.20	-1.05	3.46	-0.11	1.42	-1.08	
Canada	1.52	-0.98	2.68	-0.40			
United States	1.16	-1.00	2.56	-0.11	2.32	-0.53	

<sup>...</sup> Not applicable.

Libor London interbank offered rate. Return to table

## Figure: Nominal 10-Year Government Bond Yields

Two line charts show three curves, "Germany", "Japan", and "United States". Unit is percent. The first chart plots weekly data over 2004 through January 2009. The Germany curve begins at about 4.2, dips to about 3.8 in early 2004, increases to about 4.4 by mid-year, generally decreases to about 3.0 by late 2005, increases to about 4.65 by mid-2007, decreases to about 3.75 by early 2008, reaches about 4.65 by mid-year, and decreases to end at about 2.9. The Japan curve begins at about 1.35, generally increases to about 1.8 by mid-2004, decreases to about 1.2 by mid-2005, increases to nearly 2.0 by early 2006, and then fluctuates but generally decreases to end at about 1.3. The United States curve begins at about 4.25, fluctuates but generally increases to about 5.25 by mid-2006, dips to

about 4.5 by year-end, returns to 5.25 by mid-2007, and then generally decreases to end at about 2.3. The second chart plots daily data for Germany and the United States over October 2008 through January 2009. The Germany curve begins at about 4.0, reaches about 3.25 around the time of the December Greenbook, and ends at about 3.0. The United States curve begins at about 3.75, reaches about 2.6 around the time of the December Greenbook, decreases to about 2.1 later in December, and increases to end at about 2.5.

## Figure: Inflation-Indexed 10-Year Government Bond Yields

Two line charts show three curves, "France", "Japan", and "United States". Unit is percent. The first chart plots weekly data over 2004 through January 2009. The France curve begins at about 2, generally decreases to about 1 by late 2005, generally increases to about 2.5 by mid-2007, decreases to about 1.3 by early 2008, increases to about 2.75 by late 2008, and decreases to end at about 1.5. Japan first issued inflation-indexed debt in March 2004. The Japan curve begins in March 2004 at about 1.1, generally decreases to about 0.3 by mid-2005, increases to nearly 1.0 by late 2005, and generally increases to about 1.3 by mid-2008. It then increases rapidly to about 4.9 in late 2008, and decreases to end at about 3.0. The United States curve begins at about 2, fluctuates between about 1.5 and 2.2.5 through early 2006, fluctuates between about 2.25 and 2.75 through late 2007, decreases to about 1.1 by early 2008, increases to about 3.5 by late 2008, and decreases to end at about 2.1. The second chart plots daily data over October 2008 through January 2009. The France curve begins at about 2.2, generally increases to about 2.9 by the end of October, decreases to about 2.2 around the time of the December Greenbook, and generally decreases to end at about 1.5. The Japan curve begins at about 1.8, generally increases to about 3.5 by mid-October, and increases further to about 5.25 around the time of the December Greenbook, and generally increases to about 2.9 around the time of the December Greenbook, and generally increases to about 2.9 around the time of the December Greenbook, and generally decreases to about 2.9 around the time of the December Greenbook, and generally decreases to end at about 2.9 around the time of the December Greenbook, and generally decreases to end at about 2.9 around the time of the December Greenbook, and generally decreases to end at about 2.3.

## Measures of Market Volatility

Figure: Dollar-Euro Options-Implied Volatility\*

Two line charts show two curves, "1-month" and "3-month". Unit is percent. The first chart plots weekly data over 2004 through January 2009. The 1-month curve begins at about 11, generally decreases to about 5 by mid-2007, generally increases to about 12 by early 2008, decreases to about 8 by mid-year, increases rapidly to about 27 by late 2008, and fluctuates but generally decreases to end at about 21.5. The 3-month curve tracks the first curve closely over most of the period. It increases to about 22.5 in late 2008, and fluctuates but generally decreases to end at about 20. The second chart plots daily data over October 2008 through January 2009. The 1-month curve begins at about 17, generally increases to about 29 by late October, decreases to about 18 around the time of the December Greenbook, and then fluctuates and ends at about 21. The 3-month curve follows a similar contour. It begins at about 14.5, generally increases to about 24 by late October, decreases to about 20.

\* Derived from at-the-money options. Return to text

Figure: Yen-Dollar Options-Implied Volatility\*

Two line charts show two curves, "1-month" and "3-month". Unit is percent. The first chart plots weekly data over 2004 through January 2009. The 1-month curve begins at about 9, generally increases to about 12 by mid-2004, and generally decreases to about 6 by mid-2007. It then begins to fluctuate more widely and increase, reaching a peak of about 34 in late 2008, and decreasing to end at about 19. The 3-month curve tracks the first curve fairly closely through mid-2007, and then follows a similar contour but at a lower level. It fluctuates and increases to a peak of about 24 by late 2008, and decreases to end at about 18. The second chart plots daily data over October 2008 through January 2009. The 1-month curve begins at about 17, fluctuates but generally increases to about 19 by the December Greenbook, and ends at about 24. Similarly, the 3-month curve begins at about 14, fluctuates but generally increases to about 27.5 by late October, generally decreases to about 18 by the December Greenbook, and ends at about 21.

\* Derived from at-the-money options. Return to text

Figure: Realized Stock Market Volatility\*

Two line charts show three curves, "DJ Euro Stoxx", "TOPIX", and "S&P 500". Unit is percent. The first chart plots weekly data over 2004 through January 2009. The DJ Euro Stoxx curve begins at about 12, remains near that level through mid-2006, then begins to fluctuate more widely and generally increases to about 62 by late 2008, and decreases to end at about 47. The TOPIX curve begins at about 24, fluctuates between about 8 and 24 through late 2007, peaks at about 37.5 in early 2008 and again at about 65 in late 2008, and decreases to end at about 55. The S&P 500 curve begins at about 10, remains near that level through mid-2007, generally increases to about 73 by late 2008, and decreases to end at about 58. The second chart plots daily data over October 2008 through January 2009. The DJ Euro Stoxx curve begins at about 32, increases to about 63 by the December Greenbook, and decreases to end at about 43. The TOPIX curve begins at about 27, increases to about 65 by the December Greenbook, and decreases to end at about 37, increases to about 74 just prior to the December Greenbook, and decreases to end at about 55.

\* Annualized standard deviation of 60-day window of daily returns. Return to text

Figure: Realized 10-Year Bond Volatility\*

Two line charts show three curves, "Germany", "Japan", and "United States". Unit is percent. The first chart plots weekly data over 2004 through January 2009. The Germany curve begins at about 5, generally decreases to about 2.5 by early 2007, increases to about 9 by late 2008, and decreases to end at about 8. The Japan curve begins at about 5, and fluctuates within a range of about 3 to 6 for most of the period. It peaks at about 7 in mid-2008, and ends at about 4. The United States curve begins at about 8, generally decreases to about 3 by mid-2007, increases to about 12 by early 2008, decreases to about 7.5 by late 2008:Q3, increases to about 16 by late 2008:Q4, and ends at about 13.5. The second chart plots daily data over October 2008 through January 2009. The Germany curve begins at about 7.5, increases to about 9 by the December Greenbook, and decreases to end at about 8. The Japan curve begins at about 4, is about 4.5 by the December Greenbook, and ends at about 4. The United States curve begins at about 12, increases to about 16.5 just prior to the December Greenbook, and decreases to end at about 14.

## Emerging Markets: Exchange Rates and Stock Market Indexes

	Exchange valu	e of the dollar	Stock market index			
		Percent change since	1-11	Percent change since		
	Latest	Dec. Greenbook <u>*</u>	Latest	Dec. Greenbook		
Mexico	13.9091	3.3	19497	-9.1		
Brazil	2.3419	-3.7	37940	-0.1		
Venezuela	2.14	0.0	35306	1.7		
China	6.8370	-0.4	2005	-3.6		
Hong Kong	7.7590	0.1	12658	-18.7		
Korea	1380.0	-0.9	1116	-2.6		
Taiwan	33.59	0.4	4591	-1.5		
Thailand	34.82	-1.6	438	3.4		

<sup>\*</sup> Positive percent change denotes appreciation of U.S. dollar. Return to table

#### Figure: Exchange Value of the Dollar

Two line charts show four curves, "Mexico", "Brazil", "Korea", and "China". The first chart plots weekly data over 2004 through January 2009; unit is an index, January 5, 2004 = 100. All four curves begin at about 100. The Mexico curve increases to about 105 by mid-2004, decreases to about 95 by early 2006, increases to about 104 by mid-year, generally decreases to about 90 by mid-2008, and increases rapidly to end at about 126. The Brazil curve increases to about 110 by mid-2004, generally decreases to about 55 by mid-2008, increases rapidly to about 85 by late 2008, and ends at about 81. The Korea curve decreases to about 76 by late 2007, increases to about 123 by late 2008, and ends at about 113. The China curve remains level through mid-2005, and then decreases to end at about 82.5. The second chart plots daily data over October 2008 through January 2009; unit is an index, December 10, 2008 (Greenbook date) = 100. The Mexico curve begins at about 82 and generally increases to end at about 103. The Brazil curve begins at about 80 and generally increases to end at about 96. The Korea curve begins at about 86, generally increases to about 108 by late November, and generally decreases to end at about 99. The China curve begins at about 100 and remains nearly constant throughout the period.

#### Figure: Stock Market Indexes

Two line charts show four curves, "Mexico", "Brazil", "Korea", and "Hong Kong". The first chart plots weekly data over 2004 through January 2009; unit is an index, January 5, 2004 = 100. All four curves begin at about 100. The Mexico curve generally increases to about 340 by mid-2007, fluctuates widely around that level through mid-2008, and then generally decreases to end at about 175. The Korea curve generally increases to about 250 by late 2007, and then generally decreases to end at about 140. The Hong Kong curve generally increases to about 240 by late 2007, and then generally decreases to end at about 105. The second chart plots daily data over October 2008 through January 2009; unit is an index, December 10, 2008 (Greenbook date) = 100. The Mexico curve begins at about 117, generally decreases to about 79 by late October, generally increases to about 108 by early January, and then decreases to end at about 90. The Brazil curve begins at about 131, generally decreases to about 76 by late October, generally increases to about 111 by early January, and decreases to end at about 100. The Korea curve begins at about 126, generally decreases to about 80 by late October, generally increases to about 107 by early January, and decreases to end at about 97.5. The Hong Kong curve begins at about 116, generally decreases to about 70 by late October, and then fluctuates between about 80 and 100 for the remainder of the period, ending at about 81.

## Emerging Markets: Short-Term Interest Rates and Dollar-Denominated Bond Spreads

#### Percent

Short-term into	erest rates <u>*</u>	Dollar-denominated bond spreads**			
Latest	Change since Dec. Greenbook	Latest	Change since Dec. Greenbook		
7.43	-0.64	3.84	-0.33		
12.55	-1.46	4.42	-0.55		
15.19	-0.94	15.37	-2.85		
		2.37	-0.02		
3.25	-2.10	<u></u>			
	7.43 12.55 15.19	Dec. Greenbook           7.43         -0.64           12.55         -1.46           15.19         -0.94	Latest         Change since Dec. Greenbook         Latest           7.43         -0.64         3.84           12.55         -1.46         4.42           15.19         -0.94         15.37             2.37		

Taiwan	1.29	-0.91	 
Singapore	0.31	-0.38	 
Hong Kong	0.34	-0.80	 

- \* 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

Two line charts show three curves, "Overall", "Mexico", and "Brazil". Unit is percent. The first chart plots weekly data over 2004 through January 2009. The Overall curve begins at just less than 4, generally increases to about 5.4 by mid-2004, decreases to about 1.5 by mid-2007, increases to about 3.3 by mid-2008, increases rapidly to about 7.5 by late 2008, and ends at about 6.8. The Mexico curve begins at about 1.8, decreases to about 0.7 by mid-2007, increases to about 5.3 by late 2008, and decreases to end at about 3.7. The Brazil curve begins at about 4.25, increases rapidly to about 7.5 by mid-2004, generally decreases to about 1.3 by mid-2007, generally increases to about 5.8 by late 2008, and decreases to end at about 4.5. The second chart plots daily data over October 2008 through January 2009. The Overall curve begins at about 4, generally increases to about 7.3 by the December Greenbook, and decreases to end at about 6.7. The Mexico curve begins at about 2.5, generally increases to about 6.25 by late October, decreases about 4.0 by the December Greenbook, and ends at about 3.8. The Brazil curve begins at about 3.25, generally increases to about 6.5 by late October, decreases and reaches about 4.9 by the December Greenbook, and ends at about 4.4.

#### Figure: EMBI Global Spreads

Two line charts show three curves, "China", "Malaysia", and "Indonesia". Unit is percent. The first chart plots weekly data over 2004 through January 2009. The China curve begins at about 0.5, remains near this level through mid-2007, generally increases to about 2.9 by late 2008, and decreases to end at about 2.0. The Malaysia curve begins at about 1, remains near this level through late 2007, generally increases to about 2 by late 2008, increases rapidly to about 4.7 before year-end, and decreases to end at about 3.5. The Indonesia curve begins in May 2004 at about 4.2, generally decreases to about 1.3 by mid-2007, increases to about 3.7 by late 2008, increases rapidly to about 10.5 before year-end, and decreases to end at about 8.25. The second chart plots daily data over October 2008 through January 2009. The China curve begins at about 2.0, peaks at about 3.3 at the beginning of November, drops to about 1.5 by late November, reaches about 2.25 by the December Greenbook., and remains near this level for the remainder of the period. The Malaysia curve begins at about 2.0, increases to about 4.8 by late October, reaches about 4.0 by the December Greenbook, and decreases to end at about 3.5. The Indonesia curve begins at about 4.9, generally increases to about 11.6 by late October, decreases to about 6.7 by early November, increases to about 11.3 by late November, reaches about 8.5 by the December Greenbook, decreases to about 6.9 by early January, and increases to end at about 8.5.

## **Advanced Foreign Economies**

#### Figure: Average Real Gross Domestic Product

A line chart shows one curve over 1999 through 2008:Q3. Data are quarterly; unit is annualized percent change, s.a. The curve begins at about 3.7, increases to about 5.4 by 2000:Q1, decreases to about -0.5 by 2001:Q3, fluctuates cyclically but generally increases to about 3.75 by 2007:Q1, decreases to about -0.3 by 2008:Q2, and ends are just less than zero.

Note: Chain weighted by moving bilateral shares in U.S. merchandise exports.

Source: FRB staff calculations.

#### Figure: Consumer Prices

A line chart shows four curves over 1999 through late 2008. Data are monthly; unit is 12-month percent change, s.a. The Japan curve begins at about 0.25, fluctuates but generally decreases to about -1.5 by early 2002, and fluctuates but generally increases to end at about 1.0. The Euro area curve begins at about 0.75, generally increases to about 2.5 by late 2000, fluctuates around that level through mid-2006, decreases to about 1.6 by late 2006, generally increases to about 4.0 by mid-2008, and decreases to end at about 1.6. The Canada curve begins at about 0.75, generally increases to about 3.9 by early 2001, decreases to about 0.6 by late 2001, increases to about 4.5 by early 2003, then fluctuates between about 0.75 and 3.5 for the remainder of the period, ending at about 1.6. The United Kingdom curve begins at about 1.6, fluctuates between about 0.5 and 1.8 through early 2005, generally increases to about 5.2 by late 2008, and decreases to end at about 3.0.

Source: via Haver Analytics.

#### Figure: Official or Targeted Interest Rates

A line chart shows four curves over 1999 through January 2009. All four curves are not smooth, but rather increase or decrease in steps. Unit is percent. The Japan curve begins at about 0.2, remains near this level through early 2001, then remains at zero until mid-2006, increases to about 0.5 by early 2007, remains at this level through late 2008, and decreases to end at about 0.1. The Euro area curve begins at about 3.0, decreases to about 2.5 in early 1999, increases to about 4.75 by late 2000, decreases to about 2.0 by mid-2003, increases to about 4.25 by late 2008, and decreases to end at about 2.0. The Canada curve begins at about 5.0, decreases to about 4.5 by early 1999, increases to about 5.75 by mid-2000, decreases to about 2.0 by early 2002, increases to about 3.25 by mid-2003, decreases to about 2.0 by mid-2004, increases to about 4.5 by mid-2007, and decreases to end at about 1.0. The United Kingdom curve begins at about 6.25, decreases to about 5.0 by mid-1999, increases to about 6.0 by early 2000, decreases to about 3.5 by mid-2003, increases to about 4.75 by mid-2004, decreases

to about 4.5 by mid-2005, increases to about 5.75 by mid-2007, and decreases to end at about 1.5.

Source: Bloomberg.

## Japan

Figure: Economic Activity

A line chart shows two curves over mid-1999 through 2008. Unit is an index, 2005 = 100. The industrial production curve begins at about 92.5, generally increases to about 102.5 by 2001, decreases to about 87 by late 2001, increases to about 110 by early 2008, and decreases rapidly to end at about 93.5. The tertiary services curve begins at about 92.5, generally increases to about 103.5 by mid-2008, and decreases to end at about 101.5.

Source: via Haver Analytics.

Figure: Real Trade

A line chart shows two curves over mid-1999 through 2008. Unit is an index, 2005 = 100. The real exports curve begins at about 69, generally increases to about 80 by mid-2000, decreases to about 68 by 2002, increases to about 134 by early 2008, then fluctuates and decreases rapidly to end at about 107. The real imports curve begins at about 77.5, and generally increases to end at about 107.

Source: via Haver Analytics.

Figure: Labor Market

A line chart shows two curves over mid-1999 through 2008. The unemployment rate curve (percent) begins at about 4.7, fluctuates around that level until early 2001, increases to about 5.4 by late 2001, fluctuates around that level until mid-2003, generally decreases to about 3.7 by mid-2007, generally increases to about 4.2 by late 2008, and decreases to end at about 3.9. The job openings to applications curve (ratio) begins at about 0.46, generally increases to about 0.65 by late 2000, decreases to about 0.50 by 2002, increases to about 1.08 by mid-2006, remains near that level through mid-2007, and decreases to end at about 0.76.

Source: via Haver Analytics.

Figure: Consumer Price Inflation

A line chart shows two curves over mid-1999 through 2008. Unit is percent, 12-month basis, n.s.a. The consumer price inflation curve begins at about -0.1, fluctuates but generally decreases to about 2.3 by mid-2008, and decreases to end at about 1.0. The core curve (excludes fresh food) begins at about -0.1, fluctuates but generally decreases to about -1.1 by mid-2001, fluctuates but generally increases to about 2.3 by mid-2008, and decreases to end at about 1.0.

Source: via Haver Analytics.

#### **Economic Indicators**

(Percent change from previous period except as noted; seasonally adjusted)

Indicator		2008			2008			
illuicator	Q2	Q3	Q4	Sept.	Oct.	Nov.	Dec.	
Housing starts	-2.1	1.4	n.a.	-0.4	-8.9	-7.0	n.a.	
Machinery orders 1	0.6	-10.4	n.a.	5.5	-4.4	-16.2	n.a.	
Household expenditures	-3.3	-0.1	n.a.	1.7	-1.4	3.1	n.a.	
New car registrations	-1.8	-3.9	-14.5	1.6	-2.8	-14.3	0.0	
Business sentiment <sup>2</sup>	-7.0	-14.0	-24.0					
Wholesale prices <sup>3</sup>	4.9	7.1	3.0	6.8	5.0	2.8	1.1	

- 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: via Haver Analytics.

Euro Area

#### Figure: Nominal Exports and Imports

A line chart shows two curves over mid-1999 through 2008. Unit is billions of U.S. dollars. The exports curve begins at about 70, generally increases to about 220 by early 2008, and then decreases rapidly to end at about 160. The imports curve tracks the first curve fairly closely throughout the period, though somewhat below it from mid-2001 through early 2005, and peaking at about 225 in mid-2008.

Source: via Haver Analytics.

#### Figure: Economic Sentiment

A line chart shows two curves over mid-1999 through 2008. Unit is percent balance. The consumer confidence curve begins at about -5, generally increases to about 1 by early 2000, generally decreases to about -21 by early 2003, generally increases to about -2 by mid-2007, and then decreases rapidly to end at about -30. The industrial confidence curve begins at about -10, increases to about 5 by mid-2000, decreases to about -18 by late 2001, generally increases to about 6 by early 2007, and decreases rapidly to end at about -33.

Source: via Haver Analytics.

#### Figure: Unemployment Rate

A line chart shows one curve over mid-1999 through 2008. Unit is percent. The curve begins at about 9.3, decreases to about 7.8 by early 2001, increases to about 9.0 by late 2004, decreases to about 7.2 by late 2007, and increases to end at about 7.8.

Source: via Haver Analytics.

#### Figure: Consumer Price Inflation

A line chart shows two curves over mid-1999 through 2008. Unit is percent, 12-month basis, n.s.a. The consumer price inflation curve begins at about 1.0, generally increases to about 3.2 by mid-2001, fluctuates widely but generally decreases to about 1.6 by late 2006, generally increases to about 4.0 by mid-2008, and decreases rapidly to end at about 1.6. The core curve (excludes energy and unprocessed food) begins at about 1.1, generally increases to about 2.65 by early 2002, generally decreases to about 1.3 by early 2006, generally increases to about 2.65 by early 2008, and decreases to end at about 2.1.

Source: via Haver Analytics.

#### **Economic Indicators**

(Percent change from previous period except as noted; seasonally adjusted)

Indicator		2008		2008				
illuicator	Q1	Q2	Q3	Aug.	Sept.	Oct.	Nov.	
Industrial production 1	-0.2	-1.1	-1.5	0.7	-1.8	-1.6	-1.6	
Retail sales volume <sup>2</sup>	-0.2	-0.8	0.1	0.1	0.2	-0.9	0.4	
New car registrations	-4.4	-1.7	-5.9	-0.9	-0.2	-5.8	-1.2	
Employment	0.3	0.2	n.a.					
Producer prices <sup>3</sup>	5.4	7.1	8.6	8.6	7.9	6.3	3.3	
<u>M3</u> <sup>3</sup>	9.9	9.5	n.a.	n.a.	n.a.	n.a.	n.a.	

- 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: via Haver Analytics.

## United Kingdom

#### Figure: Consumer Price Inflation

A line chart shows two curves over mid-1999 through 2008. Unit is percent, 12-month basis, n.s.a. The consumer price inflation curve begins at about 1.5, fluctuates between about 0.5 and 2.0 through mid-2005, generally increases to about 3.0 by early 2007, decreases to about 1.75 by late 2007, increases rapidly to about 5.1 by late 2008, and decreases to end at about 3.0. The core curve (excludes energy and unprocessed food) begins at about 1.3, decreases to about 0.1 by mid-2000, increases to about 1.5 by mid-2001, fluctuates around that level through late 2006, generally increases to about 2.8 by late 2008, and decreases to end at about 1.7.

Source: via Haver Analytics.

#### Figure: Unemployment Rates

A line chart shows two curves over mid-1999 through 2008. Unit is percent. The labor force survey curve begins at about 6.1, generally decreases to about 4.7 by mid-2004, and generally increases to end at about 6.1. The claimant count curve begins at about 4.2, decreases to about 2.6 by mid-2004, generally increases to about 3.0 by mid-2006, decreases to about 2.5 by late 2007, and increases rapidly to end at about 3.6.

Source: via Haver Analytics.

Figure: Purchasing Managers Survey

A line chart shows two curves over mid-1999 through 2008. The y-axis ranges from 30 to 65; 50+ = expansion. The services curve begins at about 57, fluctuates near that level through late 2000, generally decreases to about 47 by late 2001, increases to about 57 by mid-2002, decreases to about 49 by early 2003, increases to about 57 later that year, fluctuates near that level through late 2007, and then decreases rapidly to end at about 40. The manufacturing curve begins at about 49, fluctuates between about 46 and 57 through mid-2008, and decreases rapidly to end at about 35.

Source: Reuters.

#### Figure: Labor Costs

A line chart shows two curves over mid-1999 through 2008. Unit is percent, 12-month basis. The unit wage costs curve (manufacturing industries) fluctuates widely throughout the period. It begins at about 1.5, decreases to about -3.0 by late 1999, increases to about 5.0 by mid-2002, decreases to about -5.5 by mid-2003, increases to about 3.0 by mid-2006, decreases to about -2.0 by late 2007, and increases rapidly to end at about 6.0. The average earning curve (whole economy, including bonuses) begins at about 4.1, increases to about 6.2 by late 1999, and decreases by mid-2001 into the range of about 2.5 to 5, in which it fluctuates for the remainder of the period. It ends at about 2.7.

Source: via Haver Analytics.

#### **Economic Indicators**

(Percent change from previous period except as noted; seasonally adjusted)

Indicator		2008		2008				
illulcator	Q2	Q3	Q4	Sept.	Oct.	Nov.	Dec.	
Real GDP	0.0	-2.6	n.a.					
PMI services <sup>1</sup>	49.1	47.5	40.9	46.0	42.4	40.1	40.2	
Industrial production	-0.9	-1.4	n.a.	-0.3	-1.6	-2.3	n.a.	
Business confidence <sup>2</sup>	0.7	-12.0	-38.3	-16.0	-31.0	-42.0	-42.0	
Consumer confidence <sup>2</sup>	-16.0	-24.2	-27.4	-22.6	-26.6	-26.8	-28.7	
Trade balance <sup>3</sup>	-22.3	-22.9	n.a.	-6.4	-6.5	-6.9	n.a.	

- 1. 50+ indicates expansion. 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.

PMI Purchasing Managers' Index.

Source: via Haver Analytics; Reuters.

#### Canada

#### Figure: Real Gross Domestic Product by Industry

A line chart shows one curve over mid-1999 through 2008. Unit is percent change from year earlier. The curve begins at about 4.75, increases to about 6.5 in 1999, fluctuates near that level until mid-2000, decreases rapidly to about 0.2 by late 2001, and begins to fluctuate almost cyclically with peaks and valleys about every two years. It reaches a high point of about 4.3 in mid-2004, and ends at about 0.2.

NOTE: Constructed from various Statistics Canada surveys and supplements to the quarterly income and expenditure-based estimates.

Source: via Haver Analytics.

## Figure: Real Trade

A line chart shows two curves over mid-1999 through 2008. Unit is an index, 2002 = 100. The real exports curve begins at about 91, fluctuates between that level and about 106 through mid-2004, generally increases to about 112.5 by 2007, and generally decreases to end at about 95. The real imports curve begins at about 92.5, increases to about 106 by mid-2000, decreases to about 93 by late 2001, generally increases to about 144 by mid-2008, and decreases to end at about 130.

Source: via Haver Analytics.

#### Figure: Unemployment Rate

A line chart shows one curve over mid-1999 through 2008. Unit is percent. The curve begins at about 8.2, decreases to about 6.7 by early 2000, generally increases to about 8.0 by 2002, fluctuates but generally decreases to about 5.8 by late 2007, and increases to end at about 6.6.

Source: via Haver Analytics.

## Figure: Consumer Price Inflation

A line chart shows two curves over mid-1999 through 2008. Unit is percent, 12-month basis, n.s.a. The consumer price inflation curve begins at about 1.6., fluctuates but generally increases to about 3.8 by mid-2001, fluctuates widely between about 0.6 and 4.6 through early 2004, and then between about 0.8 and 3.5 for the remainder of the period. It ends at about 2.0. The core curve (excludes eight most volatile components and the effects of changes in indirect taxes) begins at about 1.3, generally increases to about 3.25 by 2003, and then decreases and fluctuates within a range of about 1.2 to 2.5 for the remainder of the period. It ends at about 2.5.

Source: via Haver Analytics.

#### **Economic Indicators**

(Percent change from previous period and seasonally adjusted, except as noted)

Indicator	2008			2008				
illuicator	Q2	Q3	Q4	Sept.	Oct.	Nov.	Dec.	
Industrial production	-0.8	0.5	n.a.	-0.1	n.a.	n.a.	n.a.	
New manufacturing orders	-1.7	-0.5	n.a.	-1.6	0.6	-5.7	n.a.	
Retail sales	0.4	-0.1	n.a.	0.7	0.1	n.a.	n.a.	
Employment	0.3	-0.1	0.2	0.6	0.1	-0.4	-0.2	
Wholesale sales	1.1	0.4	n.a.	0.4	-3.8	-3.0	n.a.	
Ivey PMI <sup>1</sup>	63.2	59.3	43.8	61.0	52.2	40.2	39.1	

- 1. Not seasonally adjusted. 50+ indicates expansion. Return to table
- n.a. Not available.
- ... Not applicable.

Source: via Haver Analytics; Bank for International Settlements.

#### Chinese Economic Indicators

(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008			2008		
illuicator	2001	2000	Q3	Q4	Oct.	Nov.	Dec.
Real GDP <sup>1</sup>	11.4	6.8	5.4	.3			
Industrial production	19.5	1.8	1.9	-5.3	-7.1	.8	-1.5
Consumer prices <sup>2</sup>	6.5	1.2	5.3	2.5	4.0	2.4	1.2
Merch. trade balance <sup>3</sup>	262.7	295.5	298.5	416.1	345.4	453.0	449.8

- 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. 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					
indicator	2007	2006	Q3	Q4	Oct.	Nov.	Dec.	
Real GDP <sup>1</sup>	8.8	n.a.	8.3	n.a.				
Industrial production	9.9	n.a.	.1	n.a.	-4.2	3.4	n.a.	
Consumer prices <sup>2</sup>	5.5	n.a.	9.0	n.a.	9.5	9.5	n.a.	
Wholesale prices <sup>2</sup>	3.8	6.5	12.5	8.7	11.1	8.5	6.5	
Merch. trade balance <sup>3</sup>	-69.7	n.a.	-138.4	n.a.	-119.7	-118.5	n.a.	
Current account <sup>4</sup>	-11.3	n.a.	-50.2	n.a.				

- 1. Gross domestic product. Annual rate. Annual data are Q4/Q4. Return to table
- 2. 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

A line chart shows two curves over 2003 through 2008. Unit is an index, January 2000 = 100. The China curve begins at about 140, generally increases to about 325 by late 2008, and then decreases to end at about 300. The India curve begins at about 115, and generally increases to end at about 175.

Source: CEIC.

## Figure: Consumer Prices

A line chart shows two curves over 2003 through 2008. Unit is percent change from a year earlier. The China curve begins at about 0.3, generally increases to about 5.3 by mid-2004, generally decreases to about 0.7 by early 2006, increases to about 8.6 by early 2008, and decreases rapidly to end at about 1.2. The India curve begins at about 3.5, fluctuates but generally decreases to about 2.25 by early 2004, and then fluctuates but generally increases to end at about 9.5.

Source: China Statistic and Consultancy Service Center; CEIC.

#### Figure: Merchandise Trade Balances

A line chart shows two curves over 2003 through 2008. Data are 3-month moving averages (n.s.a.); unit is billions of dollars. The China curve begins at about 2, fluctuates near that level until mid-2004, and then generally increases to end at about 35. The India curve begins at about -1, and generally decreases to end at about -10.

Source: China Statistic and Consultancy Service Center; CEIC.

#### Figure: Benchmark Interest Rates

A line chart shows two curves over 2003 through January 2009. Unit is percent. The China curve begins at about 5.3, remains at that level through late 2004, increases to about 7.5 by early 2008, remains at that level through late 2008, and then decreases rapidly to end at about 5.3 by year-end 2008. The India curve begins at about 5.5, spikes to about 7.5 in early 2003, decreases to about 5.0 before mid-year, fluctuates between about 4.5 and 6.0 through late 2004, increases to about 7.75 by early 2008, increases rapidly to about 9.0 mid-year, and decreases rapidly to end at about 5.5.

Source: Bloomberg; CEIC.

### Figure: Gross External Debt

A line chart shows one curve over 2003 through mid-2008. Unit is percent of Gross Domestic Product. The India curve begins at about 21, decreases to about 17 by mid-2006, and increases to end at just less than 20.

Source: Bank for International Settlements; Haver Analytics.

#### Figure: Short-Term External Debt

A line chart shows one curve over 2003 through mid-2008. Unit is percent of reserves. The India curve begins at about 7, generally decreases to about 4 by early 2004, increases to about 6 by mid-2007, and increases rapidly to end at about 15.

Source: Bank for International Settlements; CEIC.

## Economic Indicators for Newly Industrialized Economies: Growth

(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008			2008		
indicator	2007	2006	Q3	Q4	Oct.	Nov.	Dec.
Real GDP_1							
Hong Kong	7.0	n.a.	-2.0	n.a.			
Korea	5.9	-3.6	2.1	-20.8			
Singapore	5.5	n.a.	-6.8	n.a.			
Taiwan	6.4	n.a.	-10.3	n.a.			
Industrial pro	duction						
Hong Kong	-1.6	n.a.	-3.8	n.a.			
Korea	6.9	n.a.	-2.1	n.a.	-2.3	-10.7	n.a.
Singapore	5.9	-4.1	2.8	-8.3	-11.5	7.5	-10.9
Taiwan	7.8	n.a.	-2.6	n.a.	-8.3	-13.9	n.a.

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)

Indicator	2007	2008			2008		
muicator	2007	2000	Q3	Q4	Oct.	Nov.	Dec.
Hong Kong	-23.5	n.a.	-27.6	n.a.	-38.4	3.1	n.a.
Korea	28.2	n.a.	-13.9	n.a.	15.9	-5.6	n.a.
Singapore	36.2	18.4	16.7	12.6	16.7	9.0	12.0
Taiwan	16.8	4.0	-6.5	8.9	16.1	.2	10.4

n.a. Not available.

... Not applicable.

Source: CEIC.

## Economic Indicators for Newly Industrialized Economies: Consumer Price Inflation

(Percent change from year earlier except as noted)

Indicator	2007 1	2000 1	2008					
indicator	2007_	2006	Q3	Q4	Oct.	Nov.	Dec.	
Hong Kong	3.8	2.1	4.6	2.3	1.8	3.1	2.0	

Korea	3.6	4.1	5.5	4.5	4.8	4.5	4.1
Singapore	4.4	4.3	6.6	5.4	6.4	5.5	4.3
Taiwan	3.3	1.2	4.5	1.8	2.4	1.9	1.2

1. Percent change from year-earlier period, except annual data, which are Dec./Dec. Return to table

n.a. Not available.

... Not applicable.

Source: CEIC.

## **Newly Industrialized Economies**

Figure: Industrial Production

A line chart shows four curves over 2003 through 2008. Unit is an index, January 2000 = 100. The Korea curve begins at about 115, generally increases to about 173 by early 2008, and decreases rapidly to end at about 145. The Singapore curve begins at about 100, fluctuates but generally increases to about 180 by mid-2007, and decreases rapidly to end at about 123. The Hong Kong curve begins at about 78, generally increases to about 85 by 2006, and decreases to end at about 75. The Taiwan curve begins at about 103, generally increases to about 145 by early 2008, and decreases rapidly to end at about 108.

Source: CEIC.

Figure: Consumer Prices

A line chart shows four curves over 2003 through 2008. Unit is percent change from a year earlier. The Korea curve begins at about 3.75, generally decreases to about 2.0 by mid-2005, remains near that level through mid-2007, increases to about 5.75 by mid-2008, and ends at about 4.0. The Singapore curve begins at about 0.75, fluctuates between about -0.1 and 3.0 through mid-2007, increases to about 7.5 by early 2008, and decreases to end at about 4.5. The Hong Kong curve begins at about -1.5, decreases to about -4.0 by mid-2003, generally increases to about 6.25 by mid-2008, and decreases to end at about 2.0. The Taiwan curve begins at about 1.0, and fluctuates widely but generally increases to about 5.75 by mid-2008, and then decreases to end at about 1.0.

Source: CEIC; Bank of Korea; Reuters.

Figure: Merchandise Trade Balances

A line chart shows four curves over 2003 through 2008. Data are 3-month moving averages (n.s.a.); unit is billions of dollars. The Korea curve begins at about 1.0, generally increases to about 3.5 by 2005, and then generally decreases to end at about 0.25. The Singapore curve begins at about 1.7, generally increases to about 3.4 by late 2006, and then generally decreases to end at about 1.0. The Hong Kong curve begins at about -0.75, and generally decreases to end at about -2.0. The Taiwan curve begins at about 1.5, fluctuates between about -0.5 and 2.0 throughout the period, and ends at about 0.75.

Source: CEIC.

Figure: Benchmark Interest Rates

A line chart shows three curves over 2003 through January 2009. Unit is percent. The Korea curve begins at about 4.25, decreases to about 3.25 by late 2004, remains at that level through late 2005, increases to about 5.25 by mid-2008, and decreases to end at about 2.5. The Hong Kong curve begins at about 2.75, decreases to about 2.5 by mid-2003, remains at that level through mid-2004, increases to about 6.75 by mid-2006, remains at that level through mid-2007, and decreases to end at about 0.5 in late 2008. The Taiwan curve begins at about 1.5, decreases to about 1.25 by mid-2003, increases to about 3.6 by mid-2008, and decreases to end at about 1.4.

Source: Bloomberg.

Figure: Gross External Debt

A line chart shows three curves over 2003 through 2008. Unit is percent of Gross Domestic Product. The Korea curve begins at about 25, and increases to end at about 40. The Hong Kong curve begins at about 210, and generally increases to end at about 310. The Taiwan curve begins at about 15, and increases to end at about 25.

Source: Bank for International Settlements.

Figure: Short-Term External Debt

A line chart shows three curves over 2003 through 2008. Unit is percent of reserves. The Korea curve begins at about 45, decreases to about 25 by late 2004, remains near that level until late 2005, and increases to end at about 70. The Hong Kong curve begins at about 190, and generally increases to end at about 320. The Taiwan curve begins at about 20, and 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	2006	2007			2008		
indicator	2006	2007	Q2	Q3	Sept.	Oct.	Nov.
Real GDP <sup>2</sup>							
Indonesia	5.8	6.1	11.4	6.3			
Malaysia	5.4	7.4	3.7	1.1			
Philippines	5.6	6.5	7.9	3.4			
Thailand	4.5	5.8	3.1	2.3			
Industrial produ	ction <sup>3</sup>						
Indonesia <sup>4</sup>	-1.6	5.6	7	7	-4.3	3.4	n.a.
Malaysia	4.5	2.0	9	-1.8	-1.4	-3.4	8
Philippines	-8.5	-2.7	1.0	.4	4.7	-1.7	n.a.
Thailand	7.3	8.2	.0	1.5	-2.8	.5	-7.7

- 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	2006	2007			2008		
mulcator	2000	2001	Q2	Q3	Sept.	Oct.	Nov.
Indonesia	39.7	39.6	31.9	31.3	37.1	10.3	37.2
Malaysia	29.5	29.2	56.0	50.5	51.8	28.5	30.0
Philippines	-4.4	-5.0	-5.0	-9.6	-6.4	-6.7	n.a.
Thailand	1.0	11.6	17.2	-6.6	-11.3	-17.5	-15.5

- 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

(Percent change from year earlier except as noted)

Indicator	2007 2	2000 2			2008		
mulcator	2007_	2000	Q3	Q4	Oct.	Nov.	Dec.
Indonesia	5.8	11.1	12.0	11.4	11.8	11.5	11.1
Malaysia	2.4	4.4	8.4	5.9	7.6	5.7	4.4
Philippines	3.9	8.0	12.2	9.7	11.2	9.9	8.0
Thailand	3.2	.4	7.2	2.2	3.9	2.2	.4

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

Note. ASEAN is the Association of Southeast Asian Nations.

Figure: Industrial Production

A line chart shows four curves over 2003 through 2008. Unit is an index, January 2000 = 100. The Indonesia curve begins at about 150, and generally increases to end at about 170. The Malaysia curve begins at about 110, generally increases to about 155 by 2008, and decreases to end at about 140. The Philippines curve begins at about 95 and generally decreases to end at about 85. The Thailand curve begins at about 130, generally increases to about 210 by mid-2008, and decreases to end at about 190.

Source: CEIC; Bank of Philippines.

Figure: Consumer Prices

A line chart shows four curves over 2003 through 2008. Unit is percent change from a year earlier. The Indonesia curve begins at about 8, decreases to about 5 by early 2004, increases to about 18 by late 2005, decreases to about 5 by late 2006, and generally increases to end at about 11. The Malaysia curve begins at about 2, increases to about 5 by early 2006, decreases to about 1 by early 2007, increases to about 8 by mid-2008, and decreases to end at about 4.5. The Philippines curve begins at about 2.5, increases to about 8 by 2005, decreases to about 2.5 by early 2007, increases to about 12.5 by mid-2008, and decreases to end at about 7.5. The Thailand curve begins at about 2, generally increases to about 6 by late 2005, decreases to about 1 by mid-2007, increases to about 9 by mid-2008, and decreases rapidly to end at about 0.5.

Source: IMF International Financial Statistics; CEIC.

Figure: Merchandise Trade Balances

A line chart shows four curves over 2003 through 2008. Data are 3-month moving averages (n.s.a.); unit is billions of dollars. The Indonesia curve begins at about 2.0, generally increases to about 3.75 by 2007, and decreases to end at about 2.5. The Malaysia curve begins at about 1.5, generally increases to about 4.75 by mid-2008, and decreases rapidly to end at about 3.0. The Philippines curve begins at about -0.4, and fluctuates near that level throughout the period, ending at about -0.5. The Thailand curve begins at about 0.25., generally decreases to about -1.25 by mid-2005, generally increases to about 1.4 by mid-2008, and decreases rapidly to end at about -1.3.

Source: CEIC; Philippines Economic Indicators Telegram (PEIT); Bank of Thailand Monthly Statistical Release.

Figure: Benchmark Interest Rates

A line chart shows four curves over 2003 through 2008. Unit is percent. The Indonesia curve begins at about 12.5., decreases to about 7.5 by early 2004, remains at that level through late 2004, increases to about 12.5 by late 2005, decreases to about 8 by mid-2008, and generally increases to end at about 9. The Malaysia curve begins at about 0.25, increases to about 0.35 by early 2006, remains at that level through late 2008, and ends at about 0.3. The Philippines curve begins at about 7.0, remains near that level through mid-2007, decreases to about 5.0 by early 2008, increases to about 6.0 later in the year, and ends at about 5.5. The Thailand curve begins at about 2.0, decreases to about 1.5 in mid-2003, remains at that level through mid-2004, increases to about 5.0 by mid-2006, decreases to about 3.0 by mid-2007, remains at that level through mid-2008, and generally decreases to end at about 2.0.

Source: Bloomberg; Haver Analytics.

Figure: Gross External Debt

A line chart shows four curves over 2003 through 2008. Unit is percent of Gross Domestic Product. The Indonesia curve begins at about 57 and decreases to end at about 24. The Malaysia curve begins at about 43 and generally decreases to end at about 35. The Philippines curve begins at about 75 and generally decreases to end at about 33. The Thailand curve begins at about 40 and generally decreases to end at about 23.

Source: CEIC; Bank for International Settlements.

Figure: Short-Term External Debt

A line chart shows four curves over 2003 through 2008. Unit is percent of reserves. The Indonesia curve begins at about 47.5, decreases to about 37.5 by early 2004, increases to about 62 by mid-2005, decreases to about 16 by mid-2006, and increases to end at about 30. The Malaysia curve begins at about 30, generally decreases to about 20 by early 2007, and increases to end at about 31. The Philippines curve begins at about 47.5, generally increases to about 57 by early 2004,

and generally decreases to end at about 25. The Thailand curve begins at about 27, decreases to about 20 by mid-2004, increases to about 30 by early 2006, and decreases to end at about 21.

Source: Bank for International Settlements.

## Mexican Economic Indicators

(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2000	2008						
indicator	2007	2008	Q3	Q4	Oct.	Nov.	Dec.		
Real GDP <sup>1</sup>	4.2	n.a.	2.6	n.a.					
Overall economic activity	3.1	n.a.	.6	n.a.	.6	n.a.	n.a.		
Industrial production	1.8	n.a.	8	n.a.	1.5	-1.0	n.a.		
Unemployment rate <sup>2</sup>	3.7	4.0	3.9	4.5	3.9	4.7	4.7		
Consumer prices <sup>3</sup>	3.8	6.5	5.5	6.2	5.8	6.2	6.5		
Merch. trade balance <sup>4</sup>	-10.1	n.a.	-20.0	n.a.	-21.8	-31.7	n.a.		
Merchandise imports <sup>4</sup>	281.9	n.a.	328.0	n.a.	304.2	287.1	n.a.		
Merchandise exports <sup>4</sup>	271.9	n.a.	308.0	n.a.	282.4	255.4	n.a.		
Current account <sup>5</sup>	-10.1	n.a.	-20.0	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. 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
- 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			2008			
Indicator	2007	2006	Q3	Q4	Oct.	Nov.	Dec.	
Real GDP <sup>1</sup>	6.1	n.a.	7.4	n.a.				
Industrial production	6.0	n.a.	2.2	n.a.	-2.8	-5.2	n.a.	
Unemployment rate <sup>2</sup>	9.3	7.9	7.7	7.8	7.6	7.8	7.8	
Consumer prices <sup>3</sup>	4.5	5.9	6.3	6.2	6.4	6.4	5.9	
Merch. trade balance 4	40.0	24.2	23.0	18.5	10.3	29.1	16.0	
Current account <sup>5</sup>	1.7	n.a.	-24.5	n.a.	-18.1	-12.4	n.a.	

- 1. Gross domestic product. Annual rate. Annual data are Q4/Q4. Return to table
- 2. Percent. Return to table
- 3. 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; Intituto Brasileiro de Geografia e Estatistica.

## **Argentine Economic Indicators**

(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008						
mulcator	2007	2006	Q3	Q4	Oct.	Nov.	Dec.		
Real GDP_	9.2	n.a.	5.4	n.a.					
Industrial production	7.5	n.a.	1.7	n.a.	-2.3	9	n.a.		
Unemployment rate <sup>2</sup>	8.5	n.a.	7.8	n.a.					
Consumer prices <sup>3</sup>	8.5	7.2	8.9	7.8	8.4	7.9	7.2		
Merch. trade balance <sup>4</sup>	11.1	n.a.	19.7	n.a.	14.9	15.0	n.a.		
Current account <sup>5</sup>	7.1	n.a.	14.2	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. 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		
mulcator	2007	2000	Q3	Q4	Oct.	Nov.	Dec.
Real GDP <sup>1</sup>	8.5	n.a.	2.8	n.a.			
Consumer prices <sup>2</sup>	22.5	30.9	33.6	32.3	34.4	31.8	30.9
Non-oil trade balance <sup>3</sup>	-34.6	n.a.	-35.6	n.a.			
Merch. trade balance <sup>3</sup>	23.7	n.a.	70.2	n.a.			
Current account <sup>4</sup>	20.0	n.a.	72.1	n.a.			

- 1. Gross domestic product. Annual rate. Annual data are Q4/Q4. Return to table
- 2. 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

A line chart shows three curves over 2003 through 2008. Unit is an index, January 2000 = 100. The Argentina curve begins at about 90, and generally increases to end at about 136. The Brazil curve begins at about 107.5, generally increases to about 142.5 by late 2008, and decreases rapidly to end at about 132. The Mexico curve begins at about 97, generally increases to about 113 by late 2007, and generally decreases to end at about 109.

Source: Fundacion de Investigaciones Economicas Latinoamericanas; Haver Analytics.

Figure: Consumer Prices

A line chart shows three curves over 2003 through 2008. Unit is percent change from a year earlier. The Argentina curve begins at about 37, decreases rapidly to about 2 by early 2004, increases to about 11 by 2006, and decreases to end at about 7. The Brazil curve begins at about 15, increases to about 17.5 by mid-2003, decreases to about 5 by mid-2004, and fluctuates around that level for the remainder of the period, ending at about 6.5. The Mexico curve begins at about 5,

generally decreases to about 3 by late 2005, and generally increases to end at about 6.5.

Source: IMF International Financial Statistics; Getulio Vargas Foundation; Haver Analytics; Bank of Mexico.

#### Figure: Merchandise Trade Balances

A line chart shows three curves over 2003 through 2008. Data are 3-month moving averages (n.s.a.); unit is billions of dollars. The Argentina curve begins at about 1.5, generally decreases to about 0.6 by late 2007, and then fluctuates more widely but generally increases to end at about 1.5. The Brazil curve begins at about 1.7, generally increases to about 4.0 by 2006, fluctuates near that level through mid-2007, and generally decreases to end at about 1.6. The Mexico curve begins at about -0.3, generally decreases to about -1.4 by early 2005, generally increases to about 0.2 by early 2006, and generally decreases to end at about -2.1.

Source: IMF International Financial Statistics, Bank of Mexico.

#### Figure: Benchmark Interest Rates

A line chart shows two curves over 2003 through January 2009. Unit is percent. The Brazil curve begins at about 26, increases to about 27 in early 2003, decreases to about 16 by early 2004, increases to about 20 by mid-2005, decreases to about 11 by late 2007, and increases to end at about 13.5. The Mexico curve begins at about 9, generally decreases to about 4 by mid-2003, generally increases to about 9.5 by mid-2005, decreases to about 6.5 by early 2006, and generally increases to end at about 7.5.

Source: Bloomberg.

### Figure: Gross External Debt

A line chart shows three curves over 2003 through 2008. Unit is percent of Gross Domestic Product. The Argentina curve begins at about 140, and generally decreases to end at about 37. The Brazil curve begins at about 187, and decreases to end at about 47. The Mexico curve begins at about 23 and decreases to end at about 15.

Source: Haver Analytics; Bank for International Settlements.

#### Figure: Short-Term External Debt

A line chart shows three curves over 2003 through 2008. Unit is percent of reserves. The Argentina curve begins at about 170, decreases at first but then increases rapidly to about 420 by early 2004, generally decreases to about 65 by late 2006, and stays near that level for the remainder of the period. The Brazil curve begins at about 80, decreases to about 35 by mid-2003, and generally decreases to end at about 20. The Mexico curve begins at about 47, and generally decreases to end at about 27.

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

# January 2009 Greenbook Supplement Tables and Charts

# Supplemental Notes

## The Domestic Financial Economy

## Selected Financial Market Quotations

(One-day quotes in percent except as noted)

Instrument	2007 2008			2009	Change to Jan. 22 from selected dates (percentage points)			
Instrument	Aug. 6	Oct. 28	Dec. 15	Jan. 22	2007 Aug. 6	2008 Oct. 28	2008 Dec. 15	
Short-term								
FOMC intended federal funds rate	5.25	1.50	1.00	.13	-5.12	-1.37	8	
Treasury bills <sup>1</sup>								
3-month	4.74	.76	.04	.10	-4.64	66	.0	
6-month	4.72	1.23	.28	.29	-4.43	94	.0	
Commercial paper (A1/P1 rates) <sup>2</sup>					'			
1-month	5.26	2.71	.53	.43	-4.83	-2.28	1	
3-month	5.29	2.89	1.35	.62	-4.67	-2.27	7	
Large negotiable CDs <sup>1</sup>								
3-month	5.34	3.63	1.85	1.07	-4.27	-2.56	7	
6-month	5.27	3.73	2.24	1.57	-3.70	-2.16	6	
Eurodollar deposits <sup>3</sup>				-				
	F 22	2.75	1.50	1.00	4.22	2.75		
1-month	5.33	3.75	1.50	1.00	-4.33	-2.75	5	
3-month	5.35	4.50	2.55	1.80	-3.55	-2.70	7	
Bank prime rate	8.25	4.50	4.00	3.25	-5.00	-1.25	7	
Intermediate- and long-term								
U.S. Treasury <sup>4</sup>								
2-year	4.49	1.49	.48	.63	-3.86	86	.1	
5-year	4.52	2.81	1.57	1.73	-2.79	-1.08	.1	
10-year	4.82	4.43	3.08	3.21	-1.61	-1.22	.1	
U.S. Treasury indexed notes <sup>5</sup>								
5-year	2.43	3.64	2.99	1.97	46	-1.67	-1.0	
10-year	2.48	3.29	2.66	2.13	35	-1.16	5	
		I						
Municipal general obligations (Bond Buyer) <sup>6</sup> _	4.51	5.32	5.85	5.13	.62	19	7	
Private instruments								
10-year swap	5.44	4.26	2.76	2.69	-2.75	-1.57	0	
10-year FNMA <sup>7</sup>	5.34	5.36	3.50	3.76	-1.58	-1.60	.2	
10-year AA <sup>8</sup>	6.12	8.26	6.86	6.23	.11	-2.03	6	
10-year BBB <sup>8</sup>	6.57	9.77	9.59	9.07	2.50	70	5	
10-year high yield <sup>8</sup>	9.21	16.27	18.30	15.82	6.61	45	-2.4	
Home mortgages (FHLMC survey rate)								
30-year fixed	6.59	6.46	5.19	5.12	-1.47	-1.34	0	

1-year adjustable	5.65	5.38	4.94	4.92	73	46	02

Stock evolvence index	Record	Record high		2008 2009		Change to Jan. 22 from selected dates (percent)			
Stock exchange index	Level	Date	Oct. 28	Dec. 15	Jan. 22	Record high	2008 Oct. 28	2008 Dec. 15	
Dow Jones Industrial	14,165	10-9-07	9,065	8,565	8,123	-42.65	-10.40	-5.16	
S&P 500 Composite	1,565	10-9-07	941	869	828	-47.13	-12.02	-4.73	
Nasdaq	5,049	3-10-00	1,649	1,508	1,465	-70.97	-11.15	-2.84	
Russell 2000	856	7-13-07	483	453	443	-48.25	-8.23	-2.15	
Wilshire 5000	15,807	10-9-07	9,341	8,664	8,338	-47.25	-10.74	-3.77	

- 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.

October 28, 2008, is the day before the October 2008 FOMC monetary policy announcement.

December 15, 2008, is the day before the most recent FOMC monetary policy announcement.

Data for the 3-month commercial paper rate on December 15, 2008, are from December 4, 2008, the most recent date for which a sufficient volume of new issues was available to calculate this rate.

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