

Meeting of the Federal Open Market Committee December 15-16, 2008 Presentation Materials -- Text Version

[Presentation Materials \(PDF\)](#)

Pages 238 to 284 of the Transcript

Appendix 1: Materials used by Mr. Dudley

Class II FOMC - Restricted FR

Page 1

Top panel

(1)

Title: Global Equity Indices Decline After Lehman Brothers Bankruptcy

Series: S&P 500 Index, DJ Euro Stoxx Index, Japan Topix Index, MSCI Emerging Markets Index

Horizon: August 1, 2007 - December 12, 2008

Description: Global equity indices decline after Lehman Brothers Holding files for bankruptcy on September 14, 2008.

Source: Bloomberg

Middle panel

(2)

Title: High Yield Corporate Bond Yield Increases

Series: Corporate Bond Index Yield to Worst

Horizon: January 1, 2008 - December 11, 2008

Description: The high yield corporate bond index yield to worst increased sharply after Lehman Brothers Holding filed for bankruptcy on September 14, 2008.

Source: JPMorgan Chase

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(3)

Title: Asset-Backed Security Spreads Widen

Series: AAA-Rated Spreads to 1-Month Libor for 3-Year Auto ABS, 5-Year Credit Card ABS, and 3-Year FFELP Student Loan ABS

Horizon: August 1, 2007 - December 12, 2008

Description: Asset-backed security spreads widen.

Source: JPMorgan Chase

Middle panels

(4)

Title: Commercial Mortgage-Backed Security Market Deteriorates

Series: Two panels: AAA-Rated 10-Year Fixed Rate CMBS Spread to Swaps*; Implied Prices of Series 1-5 CMBX

Horizon: August 1, 2007 - December 11, 2008

Description: The commercial mortgage-backed security market deteriorates.

* Index composed of post-2003 vintage CMBS with credit support of 25 percent or more [Return to text](#)

Source: Lehman Brothers/Barclays

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(5)

Title: Commodity Prices Decline

Series: GSCI Spot Index, GSCI Energy Index, GSCI Agriculture Index, GSCI Industrial Metals Index

Horizon: January 1, 2008 - December 12, 2008

Description: Commodity prices decline.

Source: Bloomberg

Middle panel

(6)

Title: Gold Prices Stabilize

Series: GSCI Spot Index, Gold Prices

Horizon: January 1, 2008 - December 12, 2008

Description: Commodity prices decline, while gold prices stabilize.

Source: Bloomberg

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(7)

Title: Hedge Fund Performance Worsens

Series: Monthly Rate of Return and Net Asset Value of the Credit Suisse/Tremont Hedge Fund Index

Horizon: December 31, 2007 - November 30, 2008*

Description: Net asset values of hedge funds decline sharply.

* Rate of return for November 2008 is an estimate based upon 69 percent of the index data. [Return to text](#)

Source: Credit Suisse/Tremont

Middle panel

(8)

Title: Recent TAF Auctions Stop-Out at Minimum Bid Rate

Series: Bid-to-Cover Ratio and Stop-Out Spread to Minimum Bid Rate for the Federal Reserve Term Auction Facility

Horizon: December 2007 - December 2008

Description: Recent TAF auctions stop-out at the minimum bid rate.

Source: Federal Reserve Board

Bottom panel

(9)

Title: Total Outstanding FX Swap Draw-Downs Stabilize

Series: Total Outstanding FX Swap Draw-Downs for the Bank of Korea, Swiss National Bank, Riksbank, Reserve Bank of Australia, European Central Bank, Norges Bank, Danmark National Banken, Bank of Japan, and Bank of England

Horizon: December 1, 2007 - December 12, 2008

Description: Total outstanding FX swap draw-downs stabilize.

Source: Federal Reserve Bank of New York

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(10)

Title: One-Month Libor-OIS Spreads Decline from Widest Levels

Series: Spreads between One-Month Libor Rates and One-Month Overnight Index Swap Rates for U.S., U.K., and Euro Area

Horizon: July 1, 2007 - December 12, 2008

Description: Although the spread between the one-month Libor rate and the one-month overnight index swap rate in the U.S., U.K., and Euro area declined from the recent peak, it remains at wide levels.

Source: Bloomberg

Middle panel

(11)

Title: Three-Month Libor-OIS Spreads Decline from Widest Levels

Series: Spreads between Three-Month Libor Rate and Three-Month Overnight Index Swap Rates for U.S., U.K., and Euro Area

Horizon: July 1, 2007 - December 12, 2008

Description: Although the spread between the three-month Libor rate and the three-month overnight index swap rate in the U.S., U.K., and Euro area declined from the recent peak, it remains at wide levels.

Source: Bloomberg

Bottom panel

(12)

Title: Spread between Jumbo and Conforming Mortgage Rates Remains Wide

Series: Spread between Jumbo and Conforming Mortgage Rates

Horizon: January 1, 2007 - December 11, 2008

Description: The spread between jumbo and conforming mortgage rates remains wide.

Source: Bloomberg

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(13)

Title: High Yield Corporate Cash and Derivative Bond Yields Diverge

Series: High Yield Corporate Bond Index Yield to Worst, High Yield 5-Year CDX Yield

Horizon: January 1, 2008 - December 11, 2008

Description: High yield corporate cash and derivative bond yields diverge.

Source: JPMorgan Chase

Middle panel

(14)

Title: Amount of Maturing Investment Grade Corporate Debt

Series: Amount of Fixed and Floating Rate Investment Grade Corporate Debt Maturing

Horizon: 2000 - 2009

Description: The amount of floating rate investment grade corporate debt projected to mature in 2009 is larger than the amount that will mature in 2008.

Source: JPMorgan Chase

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(15)

Title: CDS Spreads Among Former Investment Banks Stable Recently

Series: Credit Default Swap Spreads for Morgan Stanley and Goldman Sachs

Horizon: August 1, 2008 - December 11, 2008

Description: Credit default swap spreads for Morgan Stanley and Goldman Sachs stabilize below recent wide levels.

Source: Markit

Middle panel

(16)

Title: Commercial Bank CDS Spreads Stable

Series: Credit Default Swap Spreads for Bank of America, Citigroup, JPMorgan Chase, and Wells Fargo

Horizon: August 1, 2008 - December 11, 2008

Description: Credit default swap spreads for Bank of America, Citigroup, JPMorgan Chase, and Wells Fargo stabilize below recent wide levels.

Source: Markit

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(17)

Title: Three-Month AA-Rated Commercial Paper Rates Decline from Elevated Levels

Series: Three-Month AA-Rated Financial, Non-Financial, and Asset-Backed Commercial Paper Rates

Horizon: August 1, 2008 - December 11, 2008

Description: Three-month AA-rated financial, non-financial and asset-backed commercial paper rates decline from elevated levels.

Source: Federal Reserve Board

Middle panel

(18)

Title: Number of Companies Issuing Commercial Paper Through CPFF Declines

Series: Number of Issuers and Average Issuance per Issuer of Commercial Paper through CPFF

Horizon: October 27, 2008 - December 8, 2008

Description: The number of issuers and the average issuance per issuer of commercial paper through CPFF are below the levels observed during the first week the CPFF was operational.

Source: Federal Reserve Board

Bottom panel

(19)

Title: CPFF Market Share of 81+ Days Commercial Paper Issuance Declines

Series: Amount of 81+ Days CPFF and Non-CPFF Commercial Paper Issuance, CPFF Issuance as a Percent of Total Commercial Paper Issuance

Horizon: October 27, 2008 - December 11, 2008

Description: The proportion of commercial paper issued through the CPFF compared with total issuance has declined.

Source: Federal Reserve Board

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(20)

Title: Mortgage Option Adjusted Spreads Narrow

Series: Mortgage Option Adjusted Spreads to Treasury, Agency Debt, and Interest Rate Swaps

Horizon: January 1, 2008 - December 11, 2008

Description: Mortgage option adjusted spreads narrow.

Source: Lehman Brothers/Barclays

Middle panel

(21)

Title: Treasury Yields Decline

Series: 2-Year, 10-Year, and 30-Year Treasury Yields

Horizon: January 1, 2008 - December 12, 2008

Description: Treasury yields decline.

Source: Bloomberg

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(22)

Title: Conforming Mortgage Rates Decline

Series: Conforming Mortgage Rates

Horizon: January 1, 2008 - December 12, 2008

Description: Conforming mortgage rates decline.

Source: Bloomberg

Middle panel

(23)

Title: Mortgage Refinance Applications Increase

Series: Mortgage Application Index, Mortgage Refinance Application Index

Horizon: January 1, 2008 - December 5, 2008

Description: Mortgage refinance applications increase.

Source: Bloomberg

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(24)

Title: Spreads Narrow with Intervention

Series: Index of Spreads and Yields for A1/P1 Non-Financial CP, A1/P1 Financial CP, ABCP, Mortgage Option-Adjusted Spread to Swaps, and 10-Year Fannie Mae Debt

Horizon: July 1, 2008 - December 11, 2008

Description: Spreads narrow with intervention.

Source: Federal Reserve Board, Lehman Brothers/Barclays, Bloomberg

Middle panel

(25)

Title: Spreads Tend to Widen Elsewhere

Series: Index of Spreads and Yields for A2/P2 Non-Financial CP, 10-Year AAA-Rated CMBS, Auto ABS, Credit Card ABS, Student Loan ABS, and 10-Year Muni Debt Yield/10-Year Treasury Yield

Horizon: July 1, 2008 - December 11, 2008

Description: Spreads tend to widen elsewhere.

Source: Federal Reserve Board, Bloomberg, JPMorgan Chase, Lehman Brothers/Barclays

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(26)

Title: Federal Reserve Balance Sheet Expands Greatly

Series: The Composition of the Federal Reserve Balance Sheet

Horizon: August 2007 - December 2008

Description: The Federal Reserve balance sheet expands.

Stacked bar chart shows Other Credit Ext.; MMIFF; AMLF/CPFF; Maiden Lane III LLC; Maiden Lane LLC; FX Swaps; PCF Borrowing; Term Auction Facility; PDCF Borrowing; Single Tranche Repo; Short-Term Repo; Long-Term Repo; and Permanent Holdings.

Source: Federal Reserve Bank of New York

Bottom panel

(27) Federal Reserve Balance Sheet

As of December 11, 2008

Assets	(\$ billions)	Liabilities	(\$ billions)
Securities	492	Reserve Balances of Banks	825
Treasuries	476	Excess Balances	806
notes and bonds	451	Required Op Balances	19
bills	18	Reverse RPs	25
Inflation Compensation	6		
Federal Agency	16	Federal Reserve Banknotes	837
memo item:			
securities earmarked for TSLF & TOP	200	Treasury Balances at FRB	49
Repos	80	Treasury SFP	364
Conventional	0		
Single-tranche 28-day	80	Foreign RP Pool	72
Swap Agreements	569		
Loans	685	Other Deposits	17
TAF	448		
Other Credit (AIG)	61	Other Liabilities	22
PDCF	52		
PCF/SCF	92	Capital	43
AMLF (Boston/ABCP)	33		
Maiden Lane LLC	27		
Maiden Lane LLC III	20		
CPFF	313		
MMIFF	0		
Other Assets	68		
Total Assets	2254	Total Liabilities and Capital	2254

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

Source: Federal Reserve Bank of New York

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(28)

Title: Fed Funds Rate Trades Below the Target

Series: Fed Funds Target Rate, Fed Funds Effective Rate, Interest Rate Paid on Excess Reserve Balances, Fed Funds Low Rate

Horizon: August 1, 2008 - December 11, 2008

Description: Fed funds trade below the target rate.

Source: Federal Reserve Bank of New York

Middle panel

(29)

Title: Fails in the Treasury Market Begin to Increase Again as Treasury GC Repo Rates Decline

Series: Fails Volume in the Treasury Market, Overnight GC Repo Rates

Horizon: January 1, 2008 - December 11, 2008

Description: Fails in the Treasury market increase as the Treasury GC repo rate declines.

Source: Fixed Income Clearing Corporation, Federal Reserve Bank of New York

Bottom panel

(30)

Title: Average Absolute Price Error between the FRB Treasury Spline and Nominal Yields Increase

Series: Average Absolute Price Error between the FRB Treasury Spline and Nominal Yields

Horizon: January 1, 2007 - December 11, 2008

Description: The average absolute price error between the FRB Treasury spline and nominal Treasury yields increases.

* Calculated from securities with two to ten years until maturity, excluding on-the-run and first off-the-run securities.

Source: Federal Reserve Board

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Top panel

(31)

Title: Fed Funds Futures Curve Shifts Lower

Series: Fed funds futures curves as of 9/15/2008, 10/28/2008, and 12/9/2008

Horizon: September 15, 2008 - December 9, 2008

Description: The fed funds futures curve has shifted lower since the October FOMC meeting.

Source: Bloomberg

Middle panel

(32)

Title: Eurodollar Futures Curve Shifts Lower

Series: Eurodollar futures curve as of 9/15/2008, 10/28/2008, and 12/9/2008

Horizon: September 15, 2008 - December 9, 2008

Description: The Eurodollar futures curve has shifted lower since the October FOMC meeting.

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(33)

Title: Distribution of Expected Policy Target Rate Among Primary Dealers Prior to December 16 FOMC Meeting

Series: Dealer expectations for policy target rate by quarter, average forecast for policy target by quarter, and market rate for policy expectation by quarter as of 12/8/2008

Horizon: 2008:Q4 - 2009:Q4

Description: Both the average primary dealer economist forecast and what is currently priced into Eurodollar futures indicate a slower rate of increase in the policy target rate over the next five quarters than was expected prior to the October FOMC meeting.

Source: Dealer Policy Survey

Middle panel

(34)

Title: Distribution of Expected Policy Target Rate Among Primary Dealers Prior to October 29 FOMC Meeting

Series: Dealer expectations for policy target rate by quarter, average forecast for policy target by quarter, and market rate for policy expectation by quarter as of 10/20/2008

Horizon: 2008:Q4 - 2009:Q4

Description: On average, primary dealer economists are forecasting a slower rate of increase in the policy target rate over the next five quarters than what is currently priced into Eurodollar futures.

Source: Dealer Policy Survey

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(35)

Title: TIPS Implied Average Rate of Inflation: 5-10 Year Horizon

Series: Federal Reserve Board's 5-10 Year Horizon TIPS Inflation Compensation and Barclays' 5-10 Year Horizon TIPS Inflation Compensation

Horizon: January 1, 2008 - December 11, 2008

Description: TIPS implied average rate of inflation over a 5-10 year horizon as measured by the Federal Reserve Board has diverged from the implied average rate of inflation measured by Barclays.

Source: Federal Reserve Board, Barclays Capital

Middle panel

(36)

Title: Expectations for Average Annual CPI Inflation Rate from 2013-2018

Series: Primary Dealer Expectations for Average Annual CPI Inflation Rate from 2013-2018

Horizon: 2013-2018

Description: The Federal Reserve Bank of New York's December 2008 survey of primary dealers

shows that, on average, expectations for the average annual CPI inflation rate between 2013 and 2018 have shifted lower since the October survey.

Source: Federal Reserve Bank of New York

APPENDIX: Reference Exhibits

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Top panel (37)

Title: GC Repo Rates Decline Sharply to Trade at or Near Zero Percent in All Tranches

Series: GC Treasury, Agency, and Agency-MBS Repo Rates

Horizon: September 1, 2008 - December 12, 2008

Description: General collateral Treasury, agency, and agency-MBS repo rates have been trading at or near zero percent recently.

Source: Federal Reserve Bank of New York

Middle panel (38)

Title: Treasury Bill Auction Stop-Out Rates At or Near Zero

Series: 4-Week, 3-Month, and 6-Month Treasury Bill Auction Bid-to-Cover and Stop-Out Rates

Horizon: August 4, 2008 - December 8, 2008

Description: Recent Treasury bill auctions stop-out at or near zero percent.

Source: Federal Reserve Bank of New York

Appendix 2: Materials used by Mr. Madigan

Class I FOMC - Restricted Controlled (FR)
December 9, 2008

Suggested questions for Committee discussion of zero-lower-bound issues

Federal funds target rate

1. As a general matter, when it appears likely that the federal funds rate will be constrained by the zero lower bound on nominal interest rates, should the Committee quickly move the target federal funds rate toward the zero bound, or should it "keep its powder dry" by reducing the target federal funds rate toward zero only gradually?
2. Do you think that reducing the target federal funds rate to zero would impose significant costs on financial markets or institutions? If so, what costs concern you most? In view of the potential costs and benefits of a zero or near-zero federal funds rate, what do you see as an appropriate minimum for the target federal funds rate?
3. Do you see significant benefits from communications strategies designed to indicate:
 - a) that the Federal Reserve intends to hold the target federal funds rate at a very low level until specified conditions are judged to obtain?
 - b) that the Committee sees a sizable risk that inflation in coming quarters could be

appreciably lower than is consistent with the Federal Reserve's dual mandate, and that the Committee will act to mitigate that risk?

c) that in order to foster low short-term real interest rates and thus promote a resumption of economic expansion, the Federal Reserve will be willing to accept higher rates of inflation in the next few years than it normally would find desirable?

Are there other approaches to providing information to the public about the future course of monetary policy that you see as promising?

Nonstandard policy tools

4. Do you see advantages to increasing the Committee's purchases of federal agency debt and mortgage-backed securities beyond the levels already announced? Do you see advantages to initiating large-scale purchases of longer-term Treasury securities? Should purchases of agencies or Treasuries be explicitly conditional in some way on market or economic conditions? If so, should the relevant conditions be announced in advance?

5. Do you see substantial further expansion of credit backstop facilities under the authority of Section 13(3) of the Federal Reserve Act (e.g., the CPFF or the TALF) as likely to be beneficial in current circumstances?

6. Do you see other nonstandard policy tools as likely to be particularly effective in current circumstances? What tools do you see as potentially most useful?

7. When employing nonstandard policy tools, how would the Committee most appropriately formulate its directive to the Desk? Would you favor specifying objectives for quantities of assets to be purchased, for levels of interest rates other than the federal funds rate, or for interest rate spreads?

8. When employing nonstandard policy tools, what communications approaches would be most effective in explaining the Committee's use of such tools to markets and the public?

Appendix 3: Materials used by Mr. Covitz, Ms. Aaronson, and Mr. Ahmed

Material for **Staff Presentation on Financial Developments**

December 15, 2008

Class II FOMC - Restricted (FR)

Exhibit 1

Financial Markets

Top-left panel

10-year Treasury Yield

Series: 10-year Treasury Yield

Horizon: 2002 to December 12, 2008

Description: Treasury yields experienced a sharp decline after the October 2008 FOMC meeting and were at a minimum for the horizon on December 12, 2008.

Note. Securities are on the run.

Top-right panel

Interpretation of Falling Treasury Yields

- Investors revised down their economic outlook
 - Lower expected path of policy
 - Continued flight to quality
- Communications regarding alternative monetary policy tools

Middle-left panel

Covariance of Changes in Stock Prices and Treasury Yield

Series: Covariance of Changes in Stock Prices and Treasury Yield

Horizon: 2002 to December 12, 2008

Description: The covariance experienced a small peak in 2002, and then in mid-2008 the covariance rapidly increased well beyond the 2002 peak. The covariance decreased slightly after the October FOMC meeting but remained elevated.

Note. Data are percent changes in off the run nominal 10-year Treasury yield and S&P 500 stock prices.

Middle-right panel

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

Series: (Trend earnings) / P_t^{*}, and Long-run real Treasury yield

Horizon: 1984 to December 12, 2008

Description: In mid-November 2008, ratio of trend earnings to price for S&P 500 increased dramatically while long-run Treasury yields fell dramatically, thus producing a large difference in the rates.

* Trend earnings are estimated using analysts' forecasts of year-ahead earnings from I/B/E/S. [Return to text](#)

+ Denotes the latest observation using daily interest rates and stock prices and latest monthly earnings data from I/B/E/S: for ratio of trend earnings to price for S&P 500, slightly less than 12 percent; for long-run Treasury yield, slightly more than one percent.

Bottom-left panel

Corporate Bond Spreads

Series: 10-year high-yield, 10-year BBB

Horizon: 2002 to December 12, 2008

Description: The yield spreads on 10-year high-yield bonds and 10-year BBB bonds increased sharply starting in mid-2008 and continued to increase after the October FOMC meeting.

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

Bottom-right panel

Forward Rate Spread Changes since October 28, 2008

Basis points

10-yr BBB	117
1-year BBB forward ending...	
2 years	128
5 years	165
10 years	68

Exhibit 2

Commercial Paper Market

Top-left panel

Commercial Paper Outstanding in the U.S. Market

Series: Financial, Asset-backed, and Nonfinancial

Horizon: January 2008 to December 12, 2008

Description: Outstanding financial commercial paper and asset-backed commercial paper dropped in September and October. However around the October FOMC meeting there was a noticeable increase in both. In addition, outstanding nonfinancial commercial-paper was relatively flat over the horizon.

Source. Federal Reserve Board.

Top-right panel

Net Flows of Taxable Money Market Funds

Series: Government funds, Prime funds

Horizon: September 11, 2008 to December 12, 2008

Description: In September there were large net flows out of prime money market funds. However these negative net flows tapered and became mostly positive by early November. Net flows of government money market funds decreased over the horizon but remained for the most part positive.

Source. iMoneyNet.

Middle-left panel

Spreads on Overnight Commercial Paper

Series: ABCP, Nonfinancial A2/P2

Horizon: January 2008 to December 12, 2008

Description: The spreads on A2/P2-rated nonfinancial commercial paper and overnight asset-backed commercial paper both experienced a sharp spike in September. However, they have declined, on net, since the October FOMC meeting.

Note. All spreads relative to AA nonfinancial rate.

Middle-right panel

Gap Between 30-day and Overnight Rates on Nonfinancial A2/P2 Paper

Series: Gap Between 30-day and Overnight Rates on Nonfinancial A2/P2 Paper

Horizon: November 2008 to December 12, 2008

Description: Over the horizon the gap was volatile and it trended upwards.

Bottom-left panel

Commercial Paper Maturing after Year End

Series: Rated higher than A2/P2, Rated A2/P2 or lower

Horizon: Mid-December 2003 to mid-December 2008

Description: The percent of commercial paper rated higher than A2/P2 places over year-end was greater for 2008 than the average pace over the previous 5 years*. The percent of commercial paper rated A2/P2 or lower places over year-end was lower for 2008 than the average pace over the previous 5 years*.

Note. Measured as of the second Wednesday in December of each year.

* Average of annual percentages. [Return to text](#)

Bottom-right panel

Summary of Conditions

- Market appears to have been stabilized by interventions.
- A2/P2 sector improved but strained.
- Year-end pressures substantial for lower-rated programs.

Exhibit 3

Business Borrowing

Top-left panel

Gross Nonfinancial Bond Issuance

Series: Speculative Grade, Investment Grade

Horizon: 2007 to November 2008

Description: Investment grade bonds issuance was down for 2008:Q3, but rebounded in October and November 2008. Speculative grade bond issuance was very low for 2008:Q3, and in October and November 2008 was virtually nonexistent.

Source. Securities Data Company.

Top-right panel

Nonfinancial Bonds Maturing

Series: Speculative Grade, Investment Grade

Horizon: 2009 to 2011

Description: The volume of speculative bonds due to mature in 2009 and 2010 was low, and the volume somewhat increased for 2011. The volume of investment grade bonds maturing in 2009 and 2010 were comparable; the volume increased slightly in 2011.

Note. Excludes MTNs and other bonds with unknown maturities.

Middle-left panel

Liquid Asset Ratio for Nonfinancial Corporations*

Series: Speculative Grade, Investment Grade

Horizon: 1990 to 2008:Q3

Description: Liquid asset ratios for firms rated speculative and investment grade trended upwards over the horizon and were relatively high in 2008:Q3.

* Current assets over total assets. [Return to text](#)

Note. Annual through 1999 and quarterly thereafter.

Source. Compustat.

Middle-right panel

Change in C&I Loans

Series: Change in C&I Loans

Horizon: February 2007 to November 2008

Description: Loans increased rapidly in September and October 2008 and then plummeted in

November 2008.

Bottom-left panel
Change in Commercial Mortgage Debt

Series: Change in Commercial Mortgage Debt

Horizon: 2000 to 2008:Q3

Description: Change in commercial mortgage debt decreased sharply in 2008 and turned substantially negative in 2008:Q3.

Source. Flow of Funds.

Bottom-right panel
Change in Nonfinancial Business Debt

Series: Change in Nonfinancial Business Debt

Horizon: 2000 to 2008:Q3, and projected through 2010

Description: Nonfinancial business debt decreased sharply in 2008, and was projected to remain very low through 2010.

Exhibit 4 (Final Exhibit)
Household Credit

Top-left panel
Changes in Mortgage Debt and House Prices

Series: Mortgage Debt, LP Price Index

Horizon: 1992 to 2008:Q3

Description: After trending upwards from 1992 to about 2006, mortgage debt and house prices (LP Price Index) began declining in early to mid-2006 and continued to decline in Q2 and Q3 of 2008.

Source. Flow of Funds and Loan Performance.

Top-right panel
Agency and Non-Agency MBS Issuance

Series: GSEs, Ginnie Mae, Non-agency

Horizon: 2002 to October 2008

Description: October's MBS issuance was slightly below the already low levels of issuance in 2008:Q3.

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

Middle-left panel
Change in Revolving and Nonrevolving Credit*

Series: Change in Revolving and Nonrevolving Credit

Horizon: 2007 to October 2008

Description: Revolving and nonrevolving credit rose in 2007 and the first half of 2008. It then rose slightly in 2008:Q3 before falling in October 2008.

* Data are seasonally adjusted. [Return to text](#)

Middle-right panel

Credit Card and Auto Loan ABS Issuance

Series: Credit Card and Auto Loan ABS Issuance

Horizon: 2007 to November 2008

Description: Issuance per month of ABS backed by auto and credit card loans was comparable for 2007 and the first half of 2008. Issuance per month dramatically slowed in 2008:Q3, and was approaching zero in October and November 2008.

Source: Citigroup Global Markets.

Bottom-left panel

Reasons Why It is Not a Good Time to Purchase an Automobile

Series: Tight credit conditions; Weak and uncertain economy

Horizon: 1978 to November 2008

Description: The percentage of people citing concerns about the economy in why it is not a good time to buy an automobile increased significantly in 2008 to about 65 percent. (The historical average is about 24 percent.) The percentage of people sighting tight credit conditions soared to unprecedented levels (about 14-18 percent) in 2008.

* Percent of respondents that report the next twelve months will not be a good time to purchase an automobile.

Source. University of Michigan Survey of Consumers.

Bottom-right panel

Unused Bank Loan Commitments to Businesses and Households

Series: Unused Bank Loan Commitments to Businesses and Households

Horizon: 1990 to 2008:Q3

Description: Banks' unused loan commitments decreased sharply in 2008 and reached a low for the horizon in 2008:Q3.

Note. Adjusted for recent acquisition of a large thrift.

Material for **Staff Presentation on Nonfinancial Developments**

December 15, 2008

Class II FOMC - Restricted (FR)

Exhibit 1

Recent Indicators

Top panel

Private Payroll Employment

A line chart shows change in private payroll employment from 1974 through November 2008. Data are three-month percent changes at an annual rate. Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER). Another shaded bar indicates the NBER Peak in December 2007.

As shown in the figure, instances of negative growth in private payroll employment generally coincide with periods of business recession. During the November 1973-March 1975 recession, the

curve dips to about -10 percent. Over the next four years or so, the curve fluctuates between about 0 and 8 percent, before declining to about -5.5 percent during the January 1980-July 1980 recession. In late 1980, the curve peaks near 4 percent before declining again to about -4 percent during the July 1981-November 1982 recession. The curve climbs to nearly 10 percent by late 1983, and then fluctuates between about 0.5 and 6.0 until shortly before the next recession July 1990-March 1991, during which it declines to about -3 percent. The curve becomes strictly positive for several years beginning in mid-1992, and fluctuates between about 1 and 5 through late 2000. During the March 2001-November 2001 recession, the curve drops again to about -3 percent, recovers gradually to about 3 percent by mid-2004, and then fluctuates between about 1 and 3 percent until the NBER peak in December 2007. The curve then declines to end at about -5 percent in November 2008.

The chart also contains an inset table, as follows:

Monthly Changes

(Thousands of employees)

	Sept.	Oct.	Nov.
Private	-384	-362	-540
<i>(Prev)</i>	<i>(-243)</i>	<i>(-263)</i>	

Middle-left panel

Initial Claims for Unemployment Insurance

Period	Thousands
9 January 1999	327.0
16 January 1999	337.4
23 January 1999	331.4
30 January 1999	324.9
6 February 1999	311.3
13 February 1999	304.6
20 February 1999	302.2
27 February 1999	301.2
6 March 1999	303.5
13 March 1999	302.7
20 March 1999	303.4
27 March 1999	302.7
3 April 1999	305.1
10 April 1999	307.7
17 April 1999	310.0
24 April 1999	308.2
1 May 1999	304.7
8 May 1999	302.4
15 May 1999	299.1
22 May 1999	301.1

Period	Thousands
29 May 1999	303.0
5 June 1999	301.4
12 June 1999	298.8
19 June 1999	297.2
26 June 1999	294.2
3 July 1999	290.0
10 July 1999	289.5
17 July 1999	293.8
24 July 1999	297.5
31 July 1999	300.9
7 August 1999	302.5
14 August 1999	298.3
21 August 1999	293.2
28 August 1999	290.5
4 September 1999	289.3
11 September 1999	286.7
18 September 1999	285.5
25 September 1999	289.6
2 October 1999	294.3
9 October 1999	296.7
16 October 1999	298.1
23 October 1999	291.7
30 October 1999	285.8
6 November 1999	283.7
13 November 1999	282.2
20 November 1999	281.2
27 November 1999	281.8
4 December 1999	283.0
11 December 1999	280.9
18 December 1999	283.5
25 December 1999	278.6
1 January 2000	278.3
8 January 2000	284.8
15 January 2000	285.4
22 January 2000	289.5
29 January 2000	289.3
5 February 2000	292.8

Period	Thousands
12 February 2000	295.5
19 February 2000	295.2
26 February 2000	293.9
4 March 2000	287.3
11 March 2000	279.8
18 March 2000	276.6
25 March 2000	274.6
1 April 2000	269.7
8 April 2000	269.2
15 April 2000	266.3
22 April 2000	266.6
29 April 2000	272.9
6 May 2000	279.1
13 May 2000	283.3
20 May 2000	284.8
27 May 2000	282.1
3 June 2000	281.3
10 June 2000	283.4
17 June 2000	287.0
24 June 2000	291.0
1 July 2000	288.9
8 July 2000	291.1
15 July 2000	293.5
22 July 2000	294.5
29 July 2000	298.7
5 August 2000	301.9
12 August 2000	304.9
19 August 2000	309.2
26 August 2000	312.6
2 September 2000	311.5
9 September 2000	309.9
16 September 2000	308.3
23 September 2000	302.4
30 September 2000	300.2
7 October 2000	300.0
14 October 2000	297.2
21 October 2000	298.9

Period	Thousands
28 October 2000	301.1
4 November 2000	306.7
11 November 2000	311.4
18 November 2000	320.5
25 November 2000	334.4
2 December 2000	336.0
9 December 2000	336.8
16 December 2000	342.3
23 December 2000	344.1
30 December 2000	348.0
6 January 2001	352.0
13 January 2001	343.1
20 January 2001	337.9
27 January 2001	340.2
3 February 2001	349.8
10 February 2001	361.5
17 February 2001	365.3
24 February 2001	371.2
3 March 2001	373.3
10 March 2001	380.0
17 March 2001	388.7
24 March 2001	386.7
31 March 2001	387.9
7 April 2001	389.3
14 April 2001	386.9
21 April 2001	392.5
28 April 2001	396.9
5 May 2001	392.7
12 May 2001	394.3
19 May 2001	394.8
26 May 2001	394.7
2 June 2001	401.0
9 June 2001	406.2
16 June 2001	404.2
23 June 2001	398.0
30 June 2001	395.0
7 July 2001	392.7

Period	Thousands
14 July 2001	395.4
21 July 2001	399.8
28 July 2001	398.1
4 August 2001	397.9
11 August 2001	395.1
18 August 2001	396.0
25 August 2001	397.8
1 September 2001	398.2
8 September 2001	401.7
15 September 2001	399.9
22 September 2001	414.4
29 September 2001	443.0
6 October 2001	460.0
13 October 2001	481.9
20 October 2001	489.1
27 October 2001	480.8
3 November 2001	471.7
10 November 2001	458.1
17 November 2001	445.6
24 November 2001	447.7
1 December 2001	453.9
8 December 2001	445.3
15 December 2001	434.7
22 December 2001	415.8
29 December 2001	404.9
5 January 2002	405.9
12 January 2002	413.0
19 January 2002	410.2
26 January 2002	408.6
2 February 2002	410.3
9 February 2002	405.2
16 February 2002	403.3
23 February 2002	399.2
2 March 2002	396.1
9 March 2002	396.5
16 March 2002	395.1
23 March 2002	399.3

Period	Thousands
30 March 2002	421.0
6 April 2002	432.5
13 April 2002	445.0
20 April 2002	445.3
27 April 2002	429.0
4 May 2002	420.2
11 May 2002	413.1
18 May 2002	411.9
25 May 2002	409.3
1 June 2002	401.4
8 June 2002	394.9
15 June 2002	391.0
22 June 2002	387.2
29 June 2002	389.2
6 July 2002	390.2
13 July 2002	387.3
20 July 2002	385.1
27 July 2002	386.2
3 August 2002	385.3
10 August 2002	386.5
17 August 2002	391.6
24 August 2002	393.5
31 August 2002	395.2
7 September 2002	401.9
14 September 2002	405.1
21 September 2002	405.7
28 September 2002	409.4
5 October 2002	406.5
12 October 2002	404.6
19 October 2002	407.4
26 October 2002	407.4
2 November 2002	407.5
9 November 2002	406.3
16 November 2002	400.7
23 November 2002	395.9
30 November 2002	389.1
7 December 2002	395.4

Period	Thousands
14 December 2002	405.4
21 December 2002	406.4
28 December 2002	414.4
4 January 2003	406.4
11 January 2003	393.6
18 January 2003	395.6
25 January 2003	394.9
1 February 2003	400.0
8 February 2003	403.0
15 February 2003	407.5
22 February 2003	411.1
1 March 2003	416.7
8 March 2003	425.2
15 March 2003	427.7
22 March 2003	425.1
29 March 2003	425.1
5 April 2003	423.4
12 April 2003	424.3
19 April 2003	434.0
26 April 2003	436.1
3 May 2003	438.7
10 May 2003	434.5
17 May 2003	428.5
24 May 2003	422.1
31 May 2003	422.9
7 June 2003	426.0
14 June 2003	425.0
21 June 2003	422.4
28 June 2003	421.8
5 July 2003	422.7
12 July 2003	420.5
19 July 2003	419.2
26 July 2003	411.4
2 August 2003	403.5
9 August 2003	401.4
16 August 2003	400.1
23 August 2003	398.4

Period	Thousands
30 August 2003	399.8
6 September 2003	404.2
13 September 2003	403.4
20 September 2003	400.4
27 September 2003	395.4
4 October 2003	386.6
11 October 2003	382.0
18 October 2003	384.0
25 October 2003	382.0
1 November 2003	376.1
8 November 2003	374.9
15 November 2003	370.5
22 November 2003	364.3
29 November 2003	363.0
6 December 2003	362.1
13 December 2003	360.4
20 December 2003	360.5
27 December 2003	358.5
3 January 2004	355.0
10 January 2004	352.4
17 January 2004	354.8
24 January 2004	355.8
31 January 2004	361.6
7 February 2004	368.9
14 February 2004	367.0
21 February 2004	369.0
28 February 2004	361.9
6 March 2004	352.6
13 March 2004	348.7
20 March 2004	345.3
27 March 2004	344.1
3 April 2004	342.0
10 April 2004	345.7
17 April 2004	349.6
24 April 2004	348.7
1 May 2004	345.8
8 May 2004	339.4

Period	Thousands
15 May 2004	335.7
22 May 2004	336.3
29 May 2004	338.9
5 June 2004	345.1
12 June 2004	342.6
19 June 2004	345.4
26 June 2004	348.8
3 July 2004	341.2
10 July 2004	341.9
17 July 2004	341.7
24 July 2004	341.6
31 July 2004	346.3
7 August 2004	345.2
14 August 2004	340.0
21 August 2004	338.3
28 August 2004	340.5
4 September 2004	337.8
11 September 2004	337.5
18 September 2004	337.8
25 September 2004	338.2
2 October 2004	340.8
9 October 2004	342.5
16 October 2004	338.5
23 October 2004	334.6
30 October 2004	333.5
6 November 2004	331.6
13 November 2004	334.4
20 November 2004	328.5
27 November 2004	329.4
4 December 2004	333.1
11 December 2004	327.8
18 December 2004	330.3
25 December 2004	326.2
1 January 2005	327.4
8 January 2005	337.9
15 January 2005	340.4
22 January 2005	343.3

Period	Thousands
29 January 2005	338.7
5 February 2005	326.4
12 February 2005	319.9
19 February 2005	317.8
26 February 2005	314.1
5 March 2005	320.5
12 March 2005	325.2
19 March 2005	328.2
26 March 2005	335.5
2 April 2005	337.2
9 April 2005	336.2
16 April 2005	330.4
23 April 2005	323.4
30 April 2005	322.0
7 May 2005	323.1
14 May 2005	326.3
21 May 2005	327.1
28 May 2005	327.9
4 June 2005	330.5
11 June 2005	332.9
18 June 2005	333.2
25 June 2005	326.2
2 July 2005	323.1
9 July 2005	322.5
16 July 2005	321.9
23 July 2005	323.8
30 July 2005	322.1
6 August 2005	317.8
13 August 2005	317.8
20 August 2005	316.9
27 August 2005	316.7
3 September 2005	320.4
10 September 2005	345.9
17 September 2005	373.3
24 September 2005	384.3
1 October 2005	399.0
8 October 2005	388.9

Period	Thousands
15 October 2005	369.3
22 October 2005	359.7
29 October 2005	343.5
5 November 2005	329.3
12 November 2005	320.1
19 November 2005	320.2
26 November 2005	316.7
3 December 2005	315.9
10 December 2005	320.1
17 December 2005	317.4
24 December 2005	319.8
31 December 2005	314.3
7 January 2006	311.0
14 January 2006	303.9
21 January 2006	297.0
28 January 2006	292.7
4 February 2006	286.8
11 February 2006	289.7
18 February 2006	289.0
25 February 2006	292.2
4 March 2006	295.4
11 March 2006	298.3
18 March 2006	303.4
25 March 2006	304.3
1 April 2006	303.4
8 April 2006	300.8
15 April 2006	299.2
22 April 2006	300.8
29 April 2006	307.0
6 May 2006	318.5
13 May 2006	327.8
20 May 2006	331.5
27 May 2006	332.6
3 June 2006	323.0
10 June 2006	313.0
17 June 2006	310.6
24 June 2006	306.1

Period	Thousands
1 July 2006	308.6
8 July 2006	316.3
15 July 2006	317.1
22 July 2006	316.0
29 July 2006	316.2
5 August 2006	314.4
12 August 2006	314.8
19 August 2006	317.8
26 August 2006	317.4
2 September 2006	316.6
9 September 2006	316.4
16 September 2006	318.6
23 September 2006	320.7
30 September 2006	319.4
7 October 2006	319.9
14 October 2006	314.8
21 October 2006	311.9
28 October 2006	316.1
4 November 2006	316.5
11 November 2006	318.9
18 November 2006	322.1
25 November 2006	326.0
2 December 2006	328.1
9 December 2006	327.6
16 December 2006	326.0
23 December 2006	319.8
30 December 2006	320.7
6 January 2007	321.1
13 January 2007	315.7
20 January 2007	320.2
27 January 2007	314.9
3 February 2007	313.5
10 February 2007	322.4
17 February 2007	318.9
24 February 2007	322.4
3 March 2007	324.8
10 March 2007	318.4

Period	Thousands
17 March 2007	315.8
24 March 2007	311.5
31 March 2007	311.3
7 April 2007	316.3
14 April 2007	321.1
21 April 2007	323.7
28 April 2007	321.3
5 May 2007	313.7
12 May 2007	306.0
19 May 2007	304.6
26 May 2007	304.9
2 June 2007	308.5
9 June 2007	311.5
16 June 2007	314.9
23 June 2007	316.0
30 June 2007	318.5
7 July 2007	316.2
14 July 2007	312.4
21 July 2007	310.7
28 July 2007	308.6
4 August 2007	312.1
11 August 2007	315.6
18 August 2007	320.1
25 August 2007	324.9
1 September 2007	325.3
8 September 2007	325.0
15 September 2007	323.2
22 September 2007	317.3
29 September 2007	318.4
6 October 2007	317.0
13 October 2007	321.8
20 October 2007	327.9
27 October 2007	330.0
3 November 2007	331.9
10 November 2007	332.0
17 November 2007	331.9
24 November 2007	336.1

Period	Thousands
1 December 2007	340.1
8 December 2007	339.8
15 December 2007	343.8
22 December 2007	344.9
29 December 2007	344.6
5 January 2008	342.8
12 January 2008	334.5
19 January 2008	327.1
26 January 2008	333.9
2 February 2008	339.2
9 February 2008	345.0
16 February 2008	349.6
23 February 2008	347.8
1 March 2008	346.0
8 March 2008	348.2
15 March 2008	356.4
22 March 2008	359.3
29 March 2008	374.7
5 April 2008	376.6
12 April 2008	376.6
19 April 2008	370.1
26 April 2008	364.3
3 May 2008	367.3
10 May 2008	367.2
17 May 2008	372.9
24 May 2008	371.2
31 May 2008	369.0
7 June 2008	372.0
14 June 2008	376.1
21 June 2008	379.3
28 June 2008	390.5
5 July 2008	381.1
12 July 2008	377.9
19 July 2008	381.7
26 July 2008	393.0
2 August 2008	420.1
9 August 2008	438.1

Period	Thousands
16 August 2008	446.3
23 August 2008	441.4
30 August 2008	439.9
6 September 2008	440.1
13 September 2008	445.6
20 September 2008	462.3
27 September 2008	474.3
4 October 2008	483.2
11 October 2008	484.6
18 October 2008	480.4
25 October 2008	477.0
1 November 2008	477.8
8 November 2008	491.0
15 November 2008	507.0
22 November 2008	518.3
29 November 2008	526.0
6 December 2008	540.4

A shaded bar indicates a period of business recession as defined by the National Bureau of Economic Research (NBER), March 2001-November 2001. Another shaded bar indicates the NBER Peak in December 2007.

Note. Four-week moving average.

Middle-right panel Real PCE Goods Ex. Motor Vehicles

Period	Percent change, annual rate
2006	4.04
2007	2.57
2008:H1	2.25
2008:Q3	-7.40
2008:Q4 ^p	-5.39

p. Staff forecast. [Return to table](#)

Note. Annual figures are Q4/Q4 percent changes, and semiannual figure is Q4/Q2 percent change.

Nominal Retail Control (Percent change)

Sept.	Oct.	Nov.
-6	-2.5	-1.5

Bottom-left panel

Consumer Sentiment Index

Reuters/Michigan
Index, 1966 = 100

Period	Index
January 1979	72.1
February 1979	73.9
March 1979	68.4
April 1979	66.0
May 1979	68.1
June 1979	65.8
July 1979	60.4
August 1979	64.5
September 1979	66.7
October 1979	62.1
November 1979	63.3
December 1979	61.0
January 1980	67.0
February 1980	66.9
March 1980	56.5
April 1980	52.7
May 1980	51.7
June 1980	58.7
July 1980	62.3
August 1980	67.3
September 1980	73.7
October 1980	75.0
November 1980	76.7
December 1980	64.5
January 1981	71.4
February 1981	66.9
March 1981	66.5
April 1981	72.4
May 1981	76.3
June 1981	73.1
July 1981	74.1
August 1981	77.2
September 1981	73.1
October 1981	70.3

Period	Index
November 1981	62.5
December 1981	64.3
January 1982	71.0
February 1982	66.5
March 1982	62.0
April 1982	65.5
May 1982	67.5
June 1982	65.7
July 1982	65.4
August 1982	65.4
September 1982	69.3
October 1982	73.4
November 1982	72.1
December 1982	71.9
January 1983	70.4
February 1983	74.6
March 1983	80.8
April 1983	89.1
May 1983	93.3
June 1983	92.2
July 1983	92.8
August 1983	90.9
September 1983	89.9
October 1983	89.3
November 1983	91.1
December 1983	94.2
January 1984	100.1
February 1984	97.4
March 1984	101.0
April 1984	96.1
May 1984	98.1
June 1984	95.5
July 1984	96.6
August 1984	99.1
September 1984	100.9
October 1984	96.3
November 1984	95.7

Period	Index
December 1984	92.9
January 1985	96.0
February 1985	93.7
March 1985	93.7
April 1985	94.6
May 1985	91.8
June 1985	96.5
July 1985	94.0
August 1985	92.4
September 1985	92.1
October 1985	88.4
November 1985	90.9
December 1985	93.9
January 1986	95.6
February 1986	95.9
March 1986	95.1
April 1986	96.2
May 1986	94.8
June 1986	99.3
July 1986	97.7
August 1986	94.9
September 1986	91.9
October 1986	95.6
November 1986	91.4
December 1986	89.1
January 1987	90.4
February 1987	90.2
March 1987	90.8
April 1987	92.8
May 1987	91.1
June 1987	91.5
July 1987	93.7
August 1987	94.4
September 1987	93.6
October 1987	89.3
November 1987	83.1
December 1987	86.8

Period	Index
January 1988	90.8
February 1988	91.6
March 1988	94.6
April 1988	91.2
May 1988	94.8
June 1988	94.7
July 1988	93.4
August 1988	97.4
September 1988	97.3
October 1988	94.1
November 1988	93.0
December 1988	91.9
January 1989	97.9
February 1989	95.4
March 1989	94.3
April 1989	91.5
May 1989	90.7
June 1989	90.6
July 1989	92.0
August 1989	89.6
September 1989	95.8
October 1989	93.9
November 1989	90.9
December 1989	90.5
January 1990	93.0
February 1990	89.5
March 1990	91.3
April 1990	93.9
May 1990	90.6
June 1990	88.3
July 1990	88.2
August 1990	76.4
September 1990	72.8
October 1990	63.9
November 1990	66.0
December 1990	65.5
January 1991	66.8

Period	Index
February 1991	70.4
March 1991	87.7
April 1991	81.8
May 1991	78.3
June 1991	82.1
July 1991	82.9
August 1991	82.0
September 1991	83.0
October 1991	78.3
November 1991	69.1
December 1991	68.2
January 1992	67.5
February 1992	68.8
March 1992	76.0
April 1992	77.2
May 1992	79.2
June 1992	80.4
July 1992	76.6
August 1992	76.1
September 1992	75.6
October 1992	73.3
November 1992	85.3
December 1992	91.0
January 1993	89.3
February 1993	86.6
March 1993	85.9
April 1993	85.6
May 1993	80.3
June 1993	81.5
July 1993	77.0
August 1993	77.3
September 1993	77.9
October 1993	82.7
November 1993	81.2
December 1993	88.2
January 1994	94.3
February 1994	93.2

Period	Index
March 1994	91.5
April 1994	92.6
May 1994	92.8
June 1994	91.2
July 1994	89.0
August 1994	91.7
September 1994	91.5
October 1994	92.7
November 1994	91.6
December 1994	95.1
January 1995	97.6
February 1995	95.1
March 1995	90.3
April 1995	92.5
May 1995	89.8
June 1995	92.7
July 1995	94.4
August 1995	96.2
September 1995	88.9
October 1995	90.2
November 1995	88.2
December 1995	91.0
January 1996	89.3
February 1996	88.5
March 1996	93.7
April 1996	92.7
May 1996	89.4
June 1996	92.4
July 1996	94.7
August 1996	95.3
September 1996	94.7
October 1996	96.5
November 1996	99.2
December 1996	96.9
January 1997	97.4
February 1997	99.7
March 1997	100.0

Period	Index
April 1997	101.4
May 1997	103.2
June 1997	104.5
July 1997	107.1
August 1997	104.4
September 1997	106.0
October 1997	105.6
November 1997	107.2
December 1997	102.1
January 1998	106.6
February 1998	110.4
March 1998	106.5
April 1998	108.7
May 1998	106.5
June 1998	105.6
July 1998	105.2
August 1998	104.4
September 1998	100.9
October 1998	97.4
November 1998	102.7
December 1998	100.5
January 1999	103.9
February 1999	108.1
March 1999	105.7
April 1999	104.6
May 1999	106.8
June 1999	107.3
July 1999	106.0
August 1999	104.5
September 1999	107.2
October 1999	103.2
November 1999	107.2
December 1999	105.4
January 2000	112.0
February 2000	111.3
March 2000	107.1
April 2000	109.2

Period	Index
May 2000	110.7
June 2000	106.4
July 2000	108.3
August 2000	107.3
September 2000	106.8
October 2000	105.8
November 2000	107.6
December 2000	98.4
January 2001	94.7
February 2001	90.6
March 2001	91.5
April 2001	88.4
May 2001	92.0
June 2001	92.6
July 2001	92.4
August 2001	91.5
September 2001	81.8
October 2001	82.7
November 2001	83.9
December 2001	88.8
January 2002	93.0
February 2002	90.7
March 2002	95.7
April 2002	93.0
May 2002	96.9
June 2002	92.4
July 2002	88.1
August 2002	87.6
September 2002	86.1
October 2002	80.6
November 2002	84.2
December 2002	86.7
January 2003	82.4
February 2003	79.9
March 2003	77.6
April 2003	86.0
May 2003	92.1

Period	Index
June 2003	89.7
July 2003	90.9
August 2003	89.3
September 2003	87.7
October 2003	89.6
November 2003	93.7
December 2003	92.6
January 2004	103.8
February 2004	94.4
March 2004	95.8
April 2004	94.2
May 2004	90.2
June 2004	95.6
July 2004	96.7
August 2004	95.9
September 2004	94.2
October 2004	91.7
November 2004	92.8
December 2004	97.1
January 2005	95.5
February 2005	94.1
March 2005	92.6
April 2005	87.7
May 2005	86.9
June 2005	96.0
July 2005	96.5
August 2005	89.1
September 2005	76.9
October 2005	74.2
November 2005	81.6
December 2005	91.5
January 2006	91.2
February 2006	86.7
March 2006	88.9
April 2006	87.4
May 2006	79.1
June 2006	84.9

Period	Index
July 2006	84.7
August 2006	82.0
September 2006	85.4
October 2006	93.6
November 2006	92.1
December 2006	91.7
January 2007	96.9
February 2007	91.3
March 2007	88.4
April 2007	87.1
May 2007	88.3
June 2007	85.3
July 2007	90.4
August 2007	83.4
September 2007	83.4
October 2007	80.9
November 2007	76.1
December 2007	75.5
January 2008	78.4
February 2008	70.8
March 2008	69.5
April 2008	62.6
May 2008	59.8
June 2008	56.4
July 2008	61.2
August 2008	63.0
September 2008	70.3
October 2008	57.6
November 2008	55.3
December 2008 (p)	59.1

Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): January 1980-July 1980, July 1981-November 1982, July 1990-March 1991, and March 2001-November 2001. Another shaded bar indicates the NBER Peak in December 2007.

Bottom-right panel **Sales of Light Vehicles**

Millions of units, annual rate

Period **Sales**

Period	Sales
1979:Q1	14.76
1979:Q2	13.73
1979:Q3	13.96
1979:Q4	13.07
1980:Q1	12.80
1980:Q2	9.83
1980:Q3	11.03
1980:Q4	11.15
1981:Q1	11.77
1981:Q2	10.12
1981:Q3	11.20
1981:Q4	9.26
1982:Q1	10.37
1982:Q2	9.86
1982:Q3	10.10
1982:Q4	11.27
1983:Q1	10.59
1983:Q2	11.93
1983:Q3	12.42
1983:Q4	13.51
1984:Q1	14.27
1984:Q2	14.30
1984:Q3	13.78
1984:Q4	14.48
1985:Q1	15.35
1985:Q2	15.04
1985:Q3	16.64
1985:Q4	14.82
1986:Q1	15.15
1986:Q2	15.59
1986:Q3	17.84
1986:Q4	15.81
1987:Q1	14.10
1987:Q2	14.78
1987:Q3	15.91
1987:Q4	14.86
1988:Q1	15.72

Period	Sales
1988:Q2	15.24
1988:Q3	15.24
1988:Q4	15.52
1989:Q1	14.64
1989:Q2	14.59
1989:Q3	15.66
1989:Q4	13.31
1990:Q1	14.61
1990:Q2	13.78
1990:Q3	14.05
1990:Q4	13.17
1991:Q1	11.86
1991:Q2	12.29
1991:Q3	12.83
1991:Q4	12.27
1992:Q1	12.44
1992:Q2	12.86
1992:Q3	12.80
1992:Q4	13.34
1993:Q1	12.99
1993:Q2	14.23
1993:Q3	13.71
1993:Q4	14.62
1994:Q1	15.09
1994:Q2	14.92
1994:Q3	14.82
1994:Q4	15.42
1995:Q1	14.60
1995:Q2	14.51
1995:Q3	14.80
1995:Q4	15.15
1996:Q1	15.08
1996:Q2	15.16
1996:Q3	14.96
1996:Q4	15.03
1997:Q1	15.26
1997:Q2	14.56

Period	Sales
1997:Q3	15.25
1997:Q4	15.32
1998:Q1	14.93
1998:Q2	16.14
1998:Q3	14.79
1998:Q4	16.39
1999:Q1	16.35
1999:Q2	16.79
1999:Q3	17.15
1999:Q4	17.36
2000:Q1	18.27
2000:Q2	17.33
2000:Q3	17.39
2000:Q4	16.41
2001:Q1	17.19
2001:Q2	16.75
2001:Q3	16.05
2001:Q4	18.53
2002:Q1	16.60
2002:Q2	16.53
2002:Q3	17.35
2002:Q4	16.51
2003:Q1	16.13
2003:Q2	16.42
2003:Q3	17.21
2003:Q4	16.78
2004:Q1	16.57
2004:Q2	16.62
2004:Q3	16.95
2004:Q4	17.13
2005:Q1	16.49
2005:Q2	17.31
2005:Q3	17.90
2005:Q4	15.78
2006:Q1	16.85
2006:Q2	16.41
2006:Q3	16.55

Period	Sales
2006:Q4	16.30
2007:Q1	16.33
2007:Q2	16.08
2007:Q3	15.92
2007:Q4	15.97
2008:Q1	15.21
2008:Q2	14.10
2008:Q3	12.89
November 2008	10.14

Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER): January 1980-July 1980, July 1981-November 1982, July 1990-March 1991, and March 2001-November 2001. Another shaded bar indicates the NBER Peak in December 2007.

Exhibit 2

Recent Indicators and Near-Term Outlook

Top-left panel

Single-Family Housing Starts

Millions of units, annual rate (ratio scale)

Period	Starts	Adjusted permits
January 1999	1.349	1.299
February 1999	1.317	1.343
March 1999	1.345	1.297
April 1999	1.220	1.263
May 1999	1.312	1.303
June 1999	1.266	1.329
July 1999	1.308	1.328
August 1999	1.265	1.273
September 1999	1.286	1.258
October 1999	1.310	1.247
November 1999	1.321	1.270
December 1999	1.375	1.334
January 2000	1.268	1.301
February 2000	1.255	1.272
March 2000	1.313	1.309
April 2000	1.275	1.274
May 2000	1.230	1.232

Period	Starts	Adjusted permits
June 2000	1.202	1.193
July 2000	1.142	1.196
August 2000	1.231	1.212
September 2000	1.195	1.238
October 2000	1.235	1.254
November 2000	1.212	1.237
December 2000	1.226	1.221
January 2001	1.275	1.276
February 2001	1.280	1.302
March 2001	1.218	1.268
April 2001	1.311	1.299
May 2001	1.285	1.293
June 2001	1.295	1.312
July 2001	1.298	1.278
August 2001	1.286	1.287
September 2001	1.243	1.228
October 2001	1.240	1.220
November 2001	1.244	1.277
December 2001	1.285	1.272
January 2002	1.307	1.308
February 2002	1.491	1.413
March 2002	1.284	1.334
April 2002	1.275	1.321
May 2002	1.389	1.306
June 2002	1.359	1.352
July 2002	1.329	1.353
August 2002	1.249	1.344
September 2002	1.449	1.441
October 2002	1.366	1.420
November 2002	1.403	1.433
December 2002	1.462	1.482
January 2003	1.537	1.454
February 2003	1.301	1.403
March 2003	1.399	1.423
April 2003	1.374	1.418

Period	Starts	Adjusted permits
May 2003	1.391	1.423
June 2003	1.513	1.506
July 2003	1.535	1.525
August 2003	1.484	1.558
September 2003	1.555	1.584
October 2003	1.631	1.608
November 2003	1.694	1.570
December 2003	1.647	1.628
January 2004	1.560	1.569
February 2004	1.481	1.595
March 2004	1.632	1.682
April 2004	1.646	1.638
May 2004	1.652	1.700
June 2004	1.526	1.658
July 2004	1.675	1.640
August 2004	1.691	1.639
September 2004	1.555	1.633
October 2004	1.660	1.627
November 2004	1.458	1.592
December 2004	1.714	1.653
January 2005	1.739	1.680
February 2005	1.792	1.656
March 2005	1.583	1.606
April 2005	1.658	1.687
May 2005	1.714	1.675
June 2005	1.719	1.713
July 2005	1.724	1.747
August 2005	1.728	1.744
September 2005	1.789	1.839
October 2005	1.740	1.773
November 2005	1.808	1.751
December 2005	1.628	1.688
January 2006	1.823	1.711
February 2006	1.804	1.653
March 2006	1.601	1.590

Period	Starts	Adjusted permits
April 2006	1.511	1.516
May 2006	1.570	1.468
June 2006	1.451	1.434
July 2006	1.424	1.340
August 2006	1.364	1.313
September 2006	1.384	1.250
October 2006	1.212	1.191
November 2006	1.290	1.187
December 2006	1.249	1.230
January 2007	1.106	1.149
February 2007	1.188	1.141
March 2007	1.196	1.169
April 2007	1.198	1.095
May 2007	1.146	1.076
June 2007	1.136	1.051
July 2007	1.055	1.017
August 2007	0.968	0.950
September 2007	0.936	0.911
October 2007	0.884	0.834
November 2007	0.816	0.780
December 2007	0.779	0.748
January 2008	0.750	0.693
February 2008	0.722	0.665
March 2008	0.711	0.647
April 2008	0.681	0.663
May 2008	0.682	0.648
June 2008	0.663	0.643
July 2008	0.644	0.598
August 2008	0.615	0.569
September 2008	0.551	0.549
October 2008	0.531	0.484

A shaded bar indicates a period of business recession as defined by the National Bureau of Economic Research (NBER), March 2001-November 2001. Another shaded bar indicates the NBER Peak in December 2007.

Top-right panel
Nondefense Capital Goods Excluding Aircraft

Billions of dollars, ratio scale

Period	Shipments	New orders
January 1999	58.16	58.49
February 1999	58.18	58.86
March 1999	58.07	58.63
April 1999	58.38	59.21
May 1999	58.70	59.64
June 1999	59.32	59.29
July 1999	60.11	60.32
August 1999	60.44	60.88
September 1999	60.52	62.37
October 1999	60.42	62.11
November 1999	60.20	62.12
December 1999	59.94	62.70
January 2000	60.49	63.80
February 2000	60.39	62.69
March 2000	61.22	62.09
April 2000	61.67	62.07
May 2000	62.91	63.89
June 2000	63.31	65.62
July 2000	63.26	65.54
August 2000	63.34	65.77
September 2000	63.74	64.90
October 2000	63.96	64.71
November 2000	63.90	64.14
December 2000	63.59	62.71
January 2001	63.20	62.35
February 2001	62.70	61.70
March 2001	61.80	60.68
April 2001	60.32	58.43
May 2001	59.08	57.46
June 2001	57.83	56.52
July 2001	56.95	56.03
August 2001	56.05	55.06
September 2001	54.69	53.35
October 2001	53.85	52.03
November 2001	52.57	51.11
December 2001	52.28	51.63

Period	Shipments	New orders
January 2002	51.43	50.41
February 2002	51.38	49.44
March 2002	51.02	47.66
April 2002	51.01	48.43
May 2002	51.25	48.96
June 2002	51.32	49.38
July 2002	51.44	49.47
August 2002	51.28	49.25
September 2002	51.24	49.05
October 2002	51.10	48.93
November 2002	50.79	48.46
December 2002	50.22	48.64
January 2003	49.89	48.73
February 2003	49.34	48.69
March 2003	49.36	49.98
April 2003	49.30	50.03
May 2003	49.51	50.72
June 2003	49.70	50.17
July 2003	50.07	50.33
August 2003	49.91	50.05
September 2003	50.18	50.53
October 2003	50.45	51.29
November 2003	51.06	52.02
December 2003	51.06	52.43
January 2004	50.69	51.32
February 2004	50.20	50.44
March 2004	50.42	50.93
April 2004	51.03	51.77
May 2004	51.51	52.35
June 2004	51.76	51.63
July 2004	52.04	52.09
August 2004	52.63	52.02
September 2004	52.95	53.04
October 2004	53.39	53.15
November 2004	53.61	54.11
December 2004	54.00	54.05
January 2005	54.71	55.62

Period	Shipments	New orders
February 2005	55.50	56.68
March 2005	55.84	57.12
April 2005	55.69	56.93
May 2005	56.06	56.85
June 2005	56.50	57.77
July 2005	56.78	57.90
August 2005	57.00	58.81
September 2005	57.38	58.82
October 2005	58.00	59.59
November 2005	58.58	59.79
December 2005	59.26	60.32
January 2006	59.97	61.34
February 2006	60.63	62.26
March 2006	61.30	63.75
April 2006	61.80	63.95
May 2006	62.32	64.45
June 2006	62.42	64.31
July 2006	62.57	64.80
August 2006	62.71	64.87
September 2006	62.70	65.80
October 2006	62.40	65.94
November 2006	62.24	66.17
December 2006	62.24	65.19
January 2007	61.45	63.89
February 2007	60.83	62.43
March 2007	60.36	61.87
April 2007	61.10	62.86
May 2007	61.53	63.64
June 2007	61.69	63.46
July 2007	61.62	63.20
August 2007	61.67	63.30
September 2007	62.17	63.63
October 2007	62.45	63.18
November 2007	62.50	62.66
December 2007	62.52	63.13
January 2008	62.78	63.88
February 2008	62.65	64.44

Period	Shipments	New orders
March 2008	62.45	63.85
April 2008	62.55	64.09
May 2008	62.96	64.47
June 2008	63.35	65.42
July 2008	63.59	65.79
August 2008	63.34	65.71
September 2008	63.31	64.54
October 2008	62.41	61.91

A shaded bar indicates a period of business recession as defined by the National Bureau of Economic Research (NBER), March 2001-November 2001. Another shaded bar indicates the NBER Peak in December 2007.

Note. Three-month moving averages.

Middle panel

Manufacturing Industrial Production

Period	Diffusion Index
January 1990	58.80
February 1990	64.42
March 1990	67.42
April 1990	54.31
May 1990	52.43
June 1990	54.68
July 1990	53.56
August 1990	50.94
September 1990	50.94
October 1990	43.07
November 1990	32.96
December 1990	31.46
January 1991	28.09
February 1991	29.59
March 1991	31.84
April 1991	38.20
May 1991	52.06
June 1991	68.54
July 1991	70.79
August 1991	73.03
September 1991	67.04
October 1991	65.54
November 1991	60.67

Period	Diffusion Index
December 1991	52.81
January 1992	53.56
February 1992	56.41
March 1992	62.39
April 1992	69.64
May 1992	71.07
June 1992	65.00
July 1992	65.36
August 1992	57.86
September 1992	59.64
October 1992	56.43
November 1992	63.57
December 1992	61.07
January 1993	63.57
February 1993	65.00
March 1993	63.93
April 1993	64.29
May 1993	56.79
June 1993	58.57
July 1993	53.21
August 1993	58.57
September 1993	63.21
October 1993	66.07
November 1993	64.64
December 1993	65.00
January 1994	61.07
February 1994	56.79
March 1994	66.07
April 1994	68.93
May 1994	73.57
June 1994	66.79
July 1994	63.93
August 1994	65.00
September 1994	65.36
October 1994	70.36
November 1994	67.14
December 1994	72.50

Period	Diffusion Index
January 1995	64.64
February 1995	57.86
March 1995	48.93
April 1995	42.86
May 1995	47.86
June 1995	49.29
July 1995	47.50
August 1995	57.14
September 1995	63.93
October 1995	65.71
November 1995	58.57
December 1995	49.64
January 1996	37.14
February 1996	54.29
March 1996	53.21
April 1996	68.21
May 1996	63.93
June 1996	71.07
July 1996	68.21
August 1996	68.93
September 1996	63.21
October 1996	64.29
November 1996	60.36
December 1996	58.93
January 1997	59.64
February 1997	63.92
March 1997	63.53
April 1997	67.38
May 1997	62.41
June 1997	60.28
July 1997	68.44
August 1997	71.28
September 1997	70.21
October 1997	67.02
November 1997	72.70
December 1997	73.76
January 1998	69.15

Period	Diffusion Index
February 1998	57.09
March 1998	53.90
April 1998	49.65
May 1998	54.61
June 1998	51.06
July 1998	51.42
August 1998	54.96
September 1998	53.19
October 1998	57.09
November 1998	52.48
December 1998	59.93
January 1999	51.42
February 1999	54.61
March 1999	45.04
April 1999	49.29
May 1999	51.77
June 1999	56.38
July 1999	52.48
August 1999	57.80
September 1999	51.06
October 1999	62.41
November 1999	63.48
December 1999	67.02
January 2000	60.64
February 2000	56.03
March 2000	56.38
April 2000	55.32
May 2000	49.65
June 2000	46.45
July 2000	44.68
August 2000	43.97
September 2000	40.78
October 2000	35.11
November 2000	38.30
December 2000	31.21
January 2001	31.21
February 2001	30.50

Period	Diffusion Index
March 2001	36.88
April 2001	40.07
May 2001	35.46
June 2001	36.88
July 2001	34.04
August 2001	34.75
September 2001	41.13
October 2001	37.94
November 2001	42.55
December 2001	43.26
January 2002	50.35
February 2002	58.65
March 2002	63.16
April 2002	62.41
May 2002	66.31
June 2002	64.89
July 2002	60.28
August 2002	55.32
September 2002	49.29
October 2002	50.00
November 2002	51.06
December 2002	46.81
January 2003	51.06
February 2003	45.39
March 2003	48.58
April 2003	42.55
May 2003	40.78
June 2003	44.68
July 2003	53.19
August 2003	51.06
September 2003	51.42
October 2003	58.51
November 2003	65.96
December 2003	59.57
January 2004	57.09
February 2004	55.32
March 2004	54.61

Period	Diffusion Index
April 2004	60.64
May 2004	59.57
June 2004	53.90
July 2004	53.90
August 2004	56.74
September 2004	62.06
October 2004	62.06
November 2004	53.55
December 2004	61.35
January 2005	61.70
February 2005	63.48
March 2005	59.93
April 2005	49.29
May 2005	51.77
June 2005	54.26
July 2005	59.57
August 2005	57.45
September 2005	54.61
October 2005	57.80
November 2005	59.22
December 2005	54.26
January 2006	58.87
February 2006	50.35
March 2006	56.03
April 2006	50.35
May 2006	53.55
June 2006	50.71
July 2006	49.65
August 2006	52.48
September 2006	49.65
October 2006	41.49
November 2006	36.88
December 2006	45.04
January 2007	48.23
February 2007	52.84
March 2007	50.71
April 2007	63.12

Period	Diffusion Index
May 2007	61.70
June 2007	62.41
July 2007	62.06
August 2007	55.32
September 2007	54.61
October 2007	42.20
November 2007	52.48
December 2007	51.42
January 2008	46.81
February 2008	40.78
March 2008	46.45
April 2008	43.62
May 2008	52.84
June 2008	44.68
July 2008	47.87
August 2008	43.26
September 2008	27.30
October 2008	21.99
November 2008	20.92

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. Another shaded bar indicates the NBER Peak in December 2007.

Note. The diffusion index is measured across the 282 industry categories included in manufacturing IP. It equals (percentage of industries increasing over 3 months - percentage decreasing over 3 months)/2 + 50.

Monthly Percent Changes

	Oct.	Nov.
Total IP	1.5	-0.6
Total IP ex. special factors*	-0.9	-1.6

* Special factors include machinists strike at Boeing and effects of September hurricanes. [Return to table](#)

Bottom panel Real GDP

(Percent change, annual rate)

		2008P		2009P
		Q3	Q4	Q1
1.	Gross domestic product	-4	-4.7	-5.0
2.	(October GB)	(-1.0)	(-1.3)	(-1.4)
3.	Private domestic final purchases	-3.9	-6.6	-5.2

		2008P		2009P
		Q3	Q4	Q1
4.	(October GB)	(-3.0)	(-3.8)	(-2.3)
Memo:				
5.	Nonfarm inventory investment (billions of 2000 dollars)	-33.2	-30.0	-73.1
6.	(October GB)	(-59.5)	(.3)	(.6)

p. Staff forecast. [Return to table](#)

Exhibit 3

Key Background Factors

Top-left panel

Financial Stress Index

1994 = 100

Period	Index
January 1990	104.60
February 1990	104.10
March 1990	103.23
April 1990	102.97
May 1990	102.24
June 1990	102.29
July 1990	103.46
August 1990	106.32
September 1990	106.29
October 1990	107.27
November 1990	106.27
December 1990	107.00
January 1991	108.11
February 1991	104.39
March 1991	102.37
April 1991	102.36
May 1991	103.16
June 1991	102.87
July 1991	101.18
August 1991	100.91
September 1991	101.19
October 1991	102.28
November 1991	102.98

Period	Index
December 1991	103.80
January 1992	103.43
February 1992	101.94
March 1992	100.43
April 1992	100.39
May 1992	100.12
June 1992	99.98
July 1992	100.98
August 1992	102.65
September 1992	103.64
October 1992	104.98
November 1992	102.26
December 1992	100.19
January 1993	101.18
February 1993	102.14
March 1993	102.66
April 1993	102.20
May 1993	100.80
June 1993	99.59
July 1993	99.30
August 1993	100.26
September 1993	101.34
October 1993	100.86
November 1993	100.48
December 1993	99.11
January 1994	99.66
February 1994	100.20
March 1994	101.56
April 1994	102.58
May 1994	101.88
June 1994	101.66
July 1994	101.50
August 1994	100.62
September 1994	100.53
October 1994	99.94
November 1994	100.24
December 1994	100.94

Period	Index
January 1995	100.49
February 1995	100.17
March 1995	100.80
April 1995	100.80
May 1995	101.98
June 1995	104.19
July 1995	103.92
August 1995	102.92
September 1995	102.95
October 1995	103.25
November 1995	103.51
December 1995	103.05
January 1996	103.45
February 1996	103.39
March 1996	103.64
April 1996	102.88
May 1996	101.39
June 1996	101.27
July 1996	101.47
August 1996	101.02
September 1996	101.21
October 1996	101.64
November 1996	101.26
December 1996	101.21
January 1997	101.34
February 1997	101.11
March 1997	100.79
April 1997	100.53
May 1997	99.63
June 1997	100.18
July 1997	100.62
August 1997	101.35
September 1997	101.03
October 1997	102.51
November 1997	103.51
December 1997	102.23
January 1998	103.40

Period	Index
February 1998	102.59
March 1998	101.86
April 1998	101.99
May 1998	101.74
June 1998	101.86
July 1998	101.79
August 1998	103.88
September 1998	109.63
October 1998	114.70
November 1998	109.69
December 1998	108.56
January 1999	108.68
February 1999	106.78
March 1999	105.75
April 1999	104.77
May 1999	104.21
June 1999	103.92
July 1999	104.28
August 1999	105.66
September 1999	106.08
October 1999	106.69
November 1999	104.97
December 1999	104.20
January 2000	103.53
February 2000	104.11
March 2000	104.71
April 2000	106.07
May 2000	105.74
June 2000	106.42
July 2000	106.43
August 2000	105.86
September 2000	106.02
October 2000	106.97
November 2000	106.30
December 2000	108.53
January 2001	108.95
February 2001	107.97

Period	Index
March 2001	109.02
April 2001	107.36
May 2001	106.38
June 2001	106.66
July 2001	106.26
August 2001	106.46
September 2001	109.25
October 2001	108.10
November 2001	107.20
December 2001	107.51
January 2002	106.45
February 2002	105.66
March 2002	104.57
April 2002	104.64
May 2002	104.53
June 2002	105.97
July 2002	108.91
August 2002	111.36
September 2002	112.52
October 2002	113.98
November 2002	111.18
December 2002	109.88
January 2003	109.06
February 2003	109.28
March 2003	109.15
April 2003	107.14
May 2003	105.49
June 2003	105.72
July 2003	106.03
August 2003	107.61
September 2003	106.58
October 2003	106.90
November 2003	105.66
December 2003	104.93
January 2004	104.68
February 2004	104.02
March 2004	103.98

Period	Index
April 2004	104.78
May 2004	104.71
June 2004	102.71
July 2004	102.84
August 2004	103.27
September 2004	102.08
October 2004	102.05
November 2004	101.44
December 2004	101.09
January 2005	100.86
February 2005	100.18
March 2005	100.35
April 2005	100.98
May 2005	101.06
June 2005	100.71
July 2005	101.15
August 2005	100.94
September 2005	101.34
October 2005	102.08
November 2005	101.89
December 2005	101.33
January 2006	101.13
February 2006	100.80
March 2006	101.12
April 2006	101.03
May 2006	101.48
June 2006	101.62
July 2006	101.69
August 2006	101.04
September 2006	100.96
October 2006	100.47
November 2006	100.23
December 2006	100.37
January 2007	100.18
February 2007	100.25
March 2007	102.39
April 2007	101.40

Period	Index
May 2007	100.49
June 2007	101.84
July 2007	103.23
August 2007	107.34
September 2007	106.91
October 2007	105.09
November 2007	109.12
December 2007	110.45
January 2008	112.07
February 2008	113.80
March 2008	116.16
April 2008	111.52
May 2008	110.11
June 2008	111.74
July 2008	112.73
August 2008	111.91
September 2008	116.89
October 2008	127.02
November 2008	131.36
December 2008	136.32

Note. Index constructed using risk spreads, volatility measures, and liquidity measures.

Index Value as of:

Dec. GB	136
Oct. GB	129

**Top-right panel
Baa Corporate Bond and 10-year Treasury Rates**

A line chart shows Baa corporate bond and 10-year Treasury rates from 2004:Q1 through 2008:Q4, plus forecasts from 2009:Q1 through 2010:Q4. Unit is percent. The curves move roughly in parallel until 2008:Q1, when they begin to diverge. The curves are forecast to be furthest apart in 2009:Q1 before gradually moving closer together again.

The Baa series curve begins in 2004:Q1 at about 6.3 percent, and fluctuates between about 5.9 and 6.8 through 2008:Q1. The curve then increases to about 7.2 by 2008:Q3, and to nearly 9.0 by 2008:Q4. The series is then forecast to decrease steadily to about 6.5 percent by the end of the period.

The 10-year Treasury series curve begins in 2004:Q1 at about 4.0 percent, fluctuates between about 4.2 and 4.6 through 2006:Q1, and fluctuates between about 4.6 and 5.1 through 2007:Q3. The curve

then decreases to nearly 3.6 by 2008:Q1, increases to nearly 3.9 through 2008:Q3, then decreases again to about 2.7 by the beginning of the forecast period. The curve then steadily increases to end at about 3.0 percent.

Middle-left panel Wilshire 5000

Index, ratio scale

Period	Wilshire 5000	October GB	Current Forecast
2004:Q1	11039	ND	ND
2004:Q2	11139	ND	ND
2004:Q3	10895	ND	ND
2004:Q4	11971	ND	ND
2005:Q1	11638	ND	ND
2005:Q2	11877	ND	ND
2005:Q3	12289	ND	ND
2005:Q4	12518	ND	ND
2006:Q1	13155	ND	ND
2006:Q2	12849	ND	ND
2006:Q3	13346	ND	ND
2006:Q4	14258	ND	ND
2007:Q1	14409	ND	ND
2007:Q2	15211	ND	ND
2007:Q3	15362	ND	ND
2007:Q4	14820	ND	ND
2008:Q1	13332	ND	ND
2008:Q2	13074	ND	ND
2008:Q3	11875	11875	ND
2008:Q4	8910	9790	ND
2009:Q1	ND	10025	9125
2009:Q2	ND	10265	9345
2009:Q3	ND	10605	9655
2009:Q4	ND	10960	9975
2010:Q1	ND	11325	10305
2010:Q2	ND	11700	10650
2010:Q3	ND	11980	10905
2010:Q4	ND	12270	11170

ND No data [Return to table](#)

Middle-right panel Real Broad Dollar Index

Period	Current	Forecast
2004:Q1	94.56	ND
2004:Q2	96.76	ND
2004:Q3	95.94	ND
2004:Q4	92.77	ND
2005:Q1	91.84	ND
2005:Q2	93.01	ND
2005:Q3	94.01	ND
2005:Q4	95.06	ND
2006:Q1	93.63	ND
2006:Q2	92.48	ND
2006:Q3	92.41	ND
2006:Q4	91.05	ND
2007:Q1	91.01	ND
2007:Q2	89.19	ND
2007:Q3	87.36	ND
2007:Q4	84.47	ND
2008:Q1	82.70	ND
2008:Q2	81.28	ND
2008:Q3	83.43	ND
2008:Q4	90.96	ND
2009:Q1	ND	91.21
2009:Q2	ND	91.29
2009:Q3	ND	91.11
2009:Q4	ND	90.73
2010:Q1	ND	90.14
2010:Q2	ND	89.50
2010:Q3	ND	88.81
2010:Q4	ND	88.08

As shown in the figure, the October Greenbook curve begins at about 83.4 in 2008:Q3, and increases to about 90 by 2008:Q4. Entering the current forecast period, the curve decreases steadily to end at about 84 in 2010:Q4.

Bottom-left panel

Contribution of Fiscal Impetus to Real GDP

Percent change, annual-average

Year	Current	October GB
2008	0.782	0.717
2009	0.633	-0.019

Year	Current	October GB
2010	0.708	0.126

Bottom-right panel Mortgage Rates

Percent

Period	Mortgage Rates	October GB	Current Forecast
2004:Q1	5.607	ND	ND
2004:Q2	6.129	ND	ND
2004:Q3	5.893	ND	ND
2004:Q4	5.735	ND	ND
2005:Q1	5.755	ND	ND
2005:Q2	5.719	ND	ND
2005:Q3	5.763	ND	ND
2005:Q4	6.222	ND	ND
2006:Q1	6.241	ND	ND
2006:Q2	6.596	ND	ND
2006:Q3	6.563	ND	ND
2006:Q4	6.244	ND	ND
2007:Q1	6.220	ND	ND
2007:Q2	6.367	ND	ND
2007:Q3	6.550	ND	ND
2007:Q4	6.226	ND	ND
2008:Q1	5.882	ND	ND
2008:Q2	6.091	ND	ND
2008:Q3	6.320	6.320	ND
2008:Q4	5.950	6.200	ND
2009:Q1	ND	6.150	5.250
2009:Q2	ND	6.100	5.200
2009:Q3	ND	6.050	5.200
2009:Q4	ND	6.000	5.200
2010:Q1	ND	5.950	5.150
2010:Q2	ND	5.900	5.150
2010:Q3	ND	5.850	5.100
2010:Q4	ND	5.800	5.100

Note. 30-year conforming fixed rate mortgages.

Medium-Term Outlook

Top panel

Summary of the Medium-term Projection

(Percent change)

		2008	2009		2010
		H2	H1	H2	
1.	Real GDP	-2.6	-3.1	1.3	2.4
2.	(October GB)	(-1.2)	(-.9)	(.7)	(2.3)
Selected contributions to real GDP growth (percentage points):					
3.	PCE	-2.8	-.1	1.2	1.9
4.	Residential investment	-.8	-.7	.1	.2
5.	Equipment and software	-.9	-1.1	-.5	.7
6.	Nonresidential investment	.1	-1.1	-.9	-.3

Note. Annual data are Q4/Q4 percent changes; semiannual data are Q2/Q4 or Q4/Q2 percent changes at an annual rate.

Middle-left panel

Cyclical Comparison on GDP

A line chart shows three curves, "1973:Q4", "1981:Q3", and "2008:Q2". The x-axis begins with a "Peak" and extends forward 11 quarters from the peak. The unit is an index, Peak = 100; therefore, all three curves begin at 100.

The 1973:Q4 curve decreases to a little more than 99 in the first quarter, increases to about 99.5 by the second quarter, then steadily decreases to about 97 by the fifth quarter. It then increases to about 104 by the eleventh quarter.

The 1981:Q3 curve decreases to slightly more than 97 by the second quarter, remains around that level through the fifth quarter, then increases steadily to nearly 109 by the eleventh quarter.

The 2008:Q2 curve decreases very slightly by the first quarter, decreases to a little more than 97 by the fourth quarter, then gradually increases to about 101.5 by the eleventh quarter.

Middle-right panel

Reasons for Sluggish Recovery

- Continued financial headwinds
- Not a policy-generated recession
- Policy constrained by zero lower bound

Optimal Control:

Bottom-left panel

Federal Funds Rate

Percent

Period	Baseline	Optimal control	Baseline Forecast
--------	----------	-----------------	-------------------

Period	Baseline	Optimal control	Baseline Forecast
2008:Q1	3.18	ND	ND
2008:Q2	2.09	ND	ND
2008:Q3	1.94	1.94	ND
2008:Q4	1.10	0.21	ND
2009:Q1	ND	-1.36	0.35
2009:Q2	ND	-2.71	0.25
2009:Q3	ND	-3.81	0.25
2009:Q4	ND	-4.64	0.25
2010:Q1	ND	-5.20	0.25
2010:Q2	ND	-5.48	0.25
2010:Q3	ND	-5.51	0.25
2010:Q4	ND	-5.30	0.25
2011:Q1	ND	-4.89	0.25
2011:Q2	ND	-4.29	0.25
2011:Q3	ND	-3.55	0.25
2011:Q4	ND	-2.69	0.25
2012:Q1	ND	-1.75	0.25
2012:Q2	ND	-0.76	0.25
2012:Q3	ND	0.24	0.25
2012:Q4	ND	1.23	0.25

**Bottom-center panel
Unemployment Rate**

A line chart shows two curves for unemployment rate, "Baseline" and "Optimal control", over 2008:Q1-Q4 and the forecast period of 2009:Q1 through 2012:Q4. Unit is percent.

The baseline curve begins at just under 5 percent in 2008:Q1, and increases to about 6.75 by 2008:Q4. It continues to increase into the forecast period, to about 8.2 by 2010:Q1, declines slightly to about 8.1 by 2010:Q4, and then decreases steadily to end at about 5.6 percent in 2012:Q4.

The optimal control curve begins at about 6 percent in 2008:Q3, and at first tracks closely with (though slightly above) the baseline curve. The optimal control curve increases to about 7.75 by 2009:Q2, and remains at about that level through 2010:Q1, crossing beneath the baseline curve around 2009:Q3. It then decreases to end at about 4.8 percent in 2012:Q4.

**Bottom-right panel
Core PCE Prices**

A line chart shows two curves for core PCE prices, "Baseline" and "Optimal control", over 2008:Q1-Q4 and the forecast period of 2009:Q1 through 2012:Q4. Unit is four-quarter percent change.

The baseline curve begins at about 2.2 percent change in 2008:Q1, increases to about 2.4 by 2008:Q3, and decreases to about 2.0 by 2008:Q4. The curve continues to decrease into the forecast

period, steeply at first and then nearly leveling-off. It ends at about 0.7 percent change in 2012:Q4.

The beginning of the optimal control curve coincides with the baseline curve at about 2.4 percent change in 2008:Q3, but then it remains strictly above the baseline curve. The optimal control curve declines to about 2.2 by 2008:Q4, and continues to decline into the forecast period, to about 1.3 by 2010:Q2. It then increases to end at about 1.9 percent change in 2012:Q4.

Exhibit 5 - Last Exhibit Inflation Outlook

Top-left panel Medium-Term Price Projection

(Percent change, Q4/Q4)

		2008P	2009P	2010P
1.	PCE price index	1.9	.7	1.0
2.	<i>(Oct. GB)</i>	<i>(2.8)</i>	<i>(1.4)</i>	<i>(1.4)</i>
3.	Energy	-9.8	-8.1	4.8
4.	<i>(Oct. GB)</i>	<i>(-1.0)</i>	<i>(-2.3)</i>	<i>(3.3)</i>
5.	Food	6.3	2.0	1.0
6.	<i>(Oct. GB)</i>	<i>(6.2)</i>	<i>(2.2)</i>	<i>(1.4)</i>
7.	Core PCE	2.0	1.1	.8
8.	<i>(Oct. GB)</i>	<i>(2.4)</i>	<i>(1.5)</i>	<i>(1.3)</i>

p. Staff forecast. [Return to table](#)

Top-right panel Unemployment Rate

Percent

Period	Current	Forecast	NAIRU*
2003:Q1	5.9	ND	4.92
2003:Q2	6.2	ND	4.90
2003:Q3	6.1	ND	4.88
2003:Q4	5.8	ND	4.87
2004:Q1	5.7	ND	4.88
2004:Q2	5.6	ND	4.89
2004:Q3	5.4	ND	4.86
2004:Q4	5.4	ND	4.87
2005:Q1	5.3	ND	4.85
2005:Q2	5.1	ND	4.84
2005:Q3	5.0	ND	4.85
2005:Q4	4.9	ND	4.83

Period	Current	Forecast	NAIRU*
2006:Q1	4.7	ND	4.82
2006:Q2	4.7	ND	4.83
2006:Q3	4.7	ND	4.81
2006:Q4	4.4	ND	4.82
2007:Q1	4.5	ND	4.83
2007:Q2	4.5	ND	4.80
2007:Q3	4.7	ND	4.78
2007:Q4	4.8	ND	4.78
2008:Q1	4.9	ND	4.77
2008:Q2	5.3	ND	4.76
2008:Q3	5.95	ND	4.75
2008:Q4	ND	6.74	4.76
2009:Q1	ND	7.52	4.76
2009:Q2	ND	7.83	4.76
2009:Q3	ND	7.98	4.76
2009:Q4	ND	8.08	4.76
2010:Q1	ND	8.28	4.76
2010:Q2	ND	8.29	4.76
2010:Q3	ND	8.20	4.76
2010:Q4	ND	8.17	4.76

As shown in the figure, the beginning of the October Greenbook curve coincides with the Current curve at just under 6 percent in 2008:Q3. It increases into the current forecast period, reaching about 7.3 by 2010:Q2, and then edges down to end at about 7.2 in 2010:Q4.

* Staff estimate [Return to table](#)

Middle-left panel Structural Unemployment

- Large changes in industry employment could raise structural unemployment and the NAIRU.
- To examine this look at:
 - Measure of Sectoral Reallocation
 - Beveridge Curve

Middle-right panel Sectoral Reallocation

A line chart shows sectoral reallocation from 1972 through 2008:Q4 (an average of October and November). The y-axis is labeled "Dispersion" and ranges from 0.0 to 2.5. Dispersion measures the deviation of industry employment growth from total employment growth with cyclical components removed. Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER). Another shaded bar indicates the NBER Peak in December 2007.

As shown in the figure, from 1972 through 1991, dispersion fluctuates but generally remains within a

range of about 0.3 to 0.8, with occasional spikes. The curve spikes to about 2.2 during the November 1973-March 1975 recession, to nearly 1.5 during the January 1980-July 1980 recession, and to about 1.7 during the July 1981-November 1982 recession. It also spikes occasionally between recessions, notably to about 2.3 in 1978, and to about 1.9 in 1983. Between 1992 and 2007, dispersion fluctuates within a narrower range of about 0.3 to 0.6, except that it increases to about 1.0 during the March 2001-November 2001 recession. The curve generally increases in 2008, and ends at about 0.65 in 2008:Q4.

Beveridge Curve (2001 to 2008)

Bottom-left panel

Using JOLTS

A scatterplot with a trend curve plots the unemployment rate¹ (x-axis) against the job openings rate (y-axis) from 2001 through 2008 using the Job Openings and Labor Turnover Survey. With negative slope and slightly positive curvature, the trend curve runs between about (4.6, 3.0) and (6.0, 2.07). Recent points for 2008:Q3 and October 2008 are plotted at about (5.75, 2.4) and (6.25, 2.2), respectively.

1. Staff estimation excluding EUC. [Return to text](#)

Bottom-right panel

Using Help Wanted Index

A scatterplot with a trend curve plots the unemployment rate¹ (x-axis) against a help wanted index² (y-axis) from 2001 through 2008. With negative slope and slightly positive curvature, the trend curve runs between about (4.66, 125) and (6.33, 87). Recent points for 2008:Q3 and the average of October and November 2008 are plotted at about (5.75, 100) and (6.33, 90), respectively.

1. Staff estimation excluding EUC. [Return to text](#)

2. Constructed by Board staff from the Conference Board's print and on-line help wanted indexes. [Return to text](#)

Material for **Staff Presentation on The International Outlook**
December 15, 2008

Class II FOMC - Restricted (FR)

Exhibit 1

Financial Market Stresses

Note: Shading indicates period since last FOMC meeting, October 28-29, 2008.

Top-left panel

2-Year Government Bond Yields

Weekly
Percent

Period	U.K.	Germany	Canada	U.S.
11 January 2008	4.26	3.73	3.25	2.59
18 January 2008	4.31	3.48	3.23	2.36
25 January 2008	4.41	3.46	3.24	2.23

Period	U.K.	Germany	Canada	U.S.
1 February 2008	4.26	3.38	3.15	2.09
8 February 2008	4.06	3.09	3.07	1.93
15 February 2008	4.19	3.12	2.99	1.91
22 February 2008	4.30	3.34	3.15	1.98
29 February 2008	4.07	3.16	2.78	1.65
7 March 2008	3.76	3.27	2.57	1.53
14 March 2008	3.83	3.25	2.44	1.47
21 March 2008	3.77	3.27	2.56	ND
28 March 2008	4.01	3.47	2.59	1.67
4 April 2008	3.95	3.49	2.78	1.83
11 April 2008	3.93	3.41	2.68	1.76
18 April 2008	4.36	3.83	2.86	2.19
25 April 2008	4.56	3.86	2.92	2.44
2 May 2008	4.49	3.83	2.78	2.47
9 May 2008	4.30	3.70	2.74	2.25
16 May 2008	4.75	3.97	2.81	2.47
23 May 2008	5.00	4.20	3.00	2.46
30 May 2008	5.07	4.32	3.02	2.66
6 June 2008	5.07	4.64	2.88	2.40
13 June 2008	5.54	4.62	3.39	3.05
20 June 2008	5.40	4.61	3.30	2.88
27 June 2008	5.14	4.44	3.17	2.65
4 July 2008	4.99	4.41	3.19	ND
11 July 2008	4.88	4.41	3.17	2.59
18 July 2008	5.11	4.54	3.18	2.66
25 July 2008	4.98	4.42	3.15	2.70
1 August 2008	4.84	4.26	2.89	2.51
8 August 2008	4.67	4.06	2.71	2.51
15 August 2008	4.53	4.00	2.76	2.40
22 August 2008	4.61	4.13	2.92	2.42
29 August 2008	4.51	4.11	2.71	2.36
5 September 2008	4.34	3.97	2.72	2.23
12 September 2008	4.54	3.96	2.78	2.23
19 September 2008	4.39	4.00	2.88	2.16
26 September 2008	4.25	3.66	2.83	2.11
3 October 2008	4.03	3.28	2.52	1.60
10 October 2008	3.53	3.04	2.21	1.62

Period	U.K.	Germany	Canada	U.S.
17 October 2008	3.63	2.95	2.27	1.64
24 October 2008	3.09	2.67	2.09	1.57
31 October 2008	2.93	2.54	2.02	1.56
7 November 2008	2.49	2.41	1.91	1.33
14 November 2008	2.18	2.22	1.90	1.22
21 November 2008	1.98	2.09	1.81	1.09
28 November 2008	2.21	2.19	1.70	1.00
5 December 2008	1.85	2.05	1.56	0.93
12 December 2008	1.64	2.15	1.47	0.78

Top-right panel 10-Year Government Bond Yields

Weekly
Percent

Period	U.K.	Germany	Canada	U.S.
11 January 2008	4.42	4.09	3.80	3.82
18 January 2008	4.44	3.97	3.80	3.66
25 January 2008	4.53	3.98	3.86	3.61
1 February 2008	4.47	3.92	3.83	3.62
8 February 2008	4.43	3.86	3.83	3.64
15 February 2008	4.60	3.96	3.82	3.76
22 February 2008	4.69	4.00	3.89	3.79
29 February 2008	4.47	3.89	3.64	3.53
7 March 2008	4.33	3.79	3.56	3.56
14 March 2008	4.33	3.73	3.48	3.44
21 March 2008	4.29	3.76	3.45	ND
28 March 2008	4.41	3.94	3.45	3.47
4 April 2008	4.45	3.95	3.53	3.50
11 April 2008	4.41	3.91	3.55	3.49
18 April 2008	4.73	4.13	3.69	3.77
25 April 2008	4.78	4.18	3.76	3.91
2 May 2008	4.74	4.20	3.61	3.89
9 May 2008	4.58	4.00	3.59	3.77
16 May 2008	4.77	4.17	3.58	3.85
23 May 2008	4.92	4.27	3.63	3.85
30 May 2008	4.99	4.41	3.71	4.06
6 June 2008	4.99	4.42	3.66	3.94

Period	U.K.	Germany	Canada	U.S.
13 June 2008	5.25	4.64	3.89	4.27
20 June 2008	5.15	4.63	3.83	4.16
27 June 2008	5.04	4.52	3.70	3.99
4 July 2008	4.96	4.50	3.71	ND
11 July 2008	4.89	4.43	3.78	3.96
18 July 2008	5.04	4.57	3.81	4.11
25 July 2008	4.99	4.60	3.84	4.13
1 August 2008	4.84	4.35	3.66	3.97
8 August 2008	4.68	4.26	3.61	3.94
15 August 2008	4.58	4.17	3.57	3.84
22 August 2008	4.60	4.22	3.62	3.87
29 August 2008	4.48	4.18	3.53	3.83
5 September 2008	4.38	4.00	3.47	3.66
12 September 2008	4.60	4.19	3.60	3.74
19 September 2008	4.61	4.21	3.69	3.78
26 September 2008	4.55	4.16	3.68	3.85
3 October 2008	4.41	3.92	3.59	3.63
10 October 2008	4.47	4.00	3.79	3.89
17 October 2008	4.67	4.01	3.73	3.98
24 October 2008	4.36	3.75	3.63	3.76
31 October 2008	4.52	3.90	3.76	4.01
7 November 2008	4.19	3.68	3.72	3.83
14 November 2008	4.07	3.67	3.63	3.72
21 November 2008	3.86	3.39	3.47	3.20
28 November 2008	3.77	3.26	3.32	2.93
5 December 2008	3.42	3.03	3.08	2.67
12 December 2008	3.53	3.18	3.03	2.60

Middle-left panel Equity Prices*

Weekly

Index, Jan. 2008 = 100

Period	Advanced Foreign Economies	Emerging Markets
11 January 2008	96.43	98.02
18 January 2008	90.90	91.20
25 January 2008	90.29	89.18
1 February 2008	91.89	89.89

Period	Advanced Foreign Economies	Emerging Markets
8 February 2008	87.60	87.91
15 February 2008	89.70	91.00
22 February 2008	90.70	92.32
29 February 2008	92.68	93.72
7 March 2008	89.47	89.69
14 March 2008	88.98	87.69
21 March 2008	86.36	84.43
28 March 2008	90.64	89.31
4 April 2008	93.86	91.91
11 April 2008	92.90	93.13
18 April 2008	94.49	94.37
25 April 2008	95.28	95.43
2 May 2008	96.34	96.91
9 May 2008	95.56	95.40
16 May 2008	98.52	99.55
23 May 2008	96.76	96.95
30 May 2008	96.35	97.12
6 June 2008	94.91	94.93
13 June 2008	90.34	90.14
20 June 2008	89.51	89.13
27 June 2008	87.90	87.07
4 July 2008	88.29	87.25
11 July 2008	84.25	83.71
18 July 2008	84.59	82.04
25 July 2008	84.63	82.23
1 August 2008	83.73	82.65
8 August 2008	82.03	79.46
15 August 2008	80.18	78.00
22 August 2008	79.69	76.75
29 August 2008	80.82	76.75
5 September 2008	74.37	70.12
12 September 2008	75.00	68.66
19 September 2008	74.91	67.86
26 September 2008	73.27	66.11
3 October 2008	67.00	59.53
10 October 2008	52.58	47.51
17 October 2008	54.05	45.58

Period	Advanced Foreign Economies	Emerging Markets
24 October 2008	48.16	38.04
31 October 2008	53.35	45.79
7 November 2008	53.40	45.33
14 November 2008	49.99	42.56
21 November 2008	44.56	37.53
28 November 2008	50.13	42.29
5 December 2008	46.45	39.93
12 December 2008	51.15	45.14

* MSCI indexes. [Return to text](#)

Middle-center panel EME Credit Spreads

Weekly
Basis Points

Period	CDS
11 January 2008	205
18 January 2008	228
25 January 2008	223
1 February 2008	214
8 February 2008	254
15 February 2008	250
22 February 2008	243
29 February 2008	251
7 March 2008	270
14 March 2008	274
21 March 2008	248
28 March 2008	272
4 April 2008	244
11 April 2008	249
18 April 2008	220
25 April 2008	222
2 May 2008	212
9 May 2008	226
16 May 2008	208
23 May 2008	216
30 May 2008	206
6 June 2008	226
13 June 2008	228

Period	CDS
20 June 2008	237
27 June 2008	254
4 July 2008	265
11 July 2008	263
18 July 2008	247
25 July 2008	242
1 August 2008	245
8 August 2008	264
15 August 2008	263
22 August 2008	263
29 August 2008	262
5 September 2008	281
12 September 2008	287
19 September 2008	313
26 September 2008	315
3 October 2008	398
10 October 2008	642
17 October 2008	667
24 October 2008	1048
31 October 2008	694
7 November 2008	665
14 November 2008	792
21 November 2008	907
28 November 2008	759
5 December 2008	852
12 December 2008	786

Middle-right panel EME Private Capital Inflows*

Monthly
Billions of USD

Period	Emerging Asia	Latin America	Emerging Europe
January 2008	12.15	3.78	1.74
February 2008	9.38	4.19	2.33
March 2008	11.67	3.94	1.62
April 2008	9.39	3.81	1.51
May 2008	9.61	3.98	1.23

Period	Emerging Asia	Latin America	Emerging Europe
June 2008	8.27	5.07	1.94
July 2008	8.12	4.29	2.20
August 2008	7.21	3.57	2.02
September 2008	7.12	2.03	1.48
October 2008	6.39	2.75	1.01
November 2008	6.42	2.31	1.20

* Gross debt issuance and syndicated loans. 3-month moving average. [Return to text](#)

Bottom-left panel

Exchange Value of the Dollar (FC/USD)

Weekly

Index, July 2007 = 100

Period	Major Currencies*	Euro	Yen	Pound
6 July 2007	100.09	100.09	100.31	100.10
13 July 2007	99.49	99.24	100.09	99.45
20 July 2007	98.88	98.72	99.62	98.43
27 July 2007	98.87	99.14	98.09	98.35
3 August 2007	99.27	99.39	97.13	99.14
10 August 2007	98.99	99.13	96.95	99.46
17 August 2007	99.92	100.83	95.11	101.11
24 August 2007	99.46	100.66	94.14	101.12
31 August 2007	99.09	99.85	94.49	100.10
7 September 2007	98.79	99.64	94.19	99.79
14 September 2007	97.70	98.37	93.58	99.55
21 September 2007	96.82	97.55	94.29	100.59
28 September 2007	95.79	96.38	94.14	99.64
5 October 2007	95.59	96.22	95.14	98.78
12 October 2007	95.27	96.24	95.85	98.94
19 October 2007	94.76	95.77	95.06	98.76
26 October 2007	94.23	95.55	93.32	98.58
2 November 2007	93.07	94.35	93.90	97.21
9 November 2007	91.68	93.28	92.53	96.27
16 November 2007	92.72	93.08	90.65	98.02
23 November 2007	92.66	92.17	89.17	98.00
30 November 2007	92.95	92.22	89.63	97.65
7 December 2007	93.92	92.85	90.54	98.74
14 December 2007	94.46	93.16	91.78	98.90
21 December 2007	95.21	94.87	92.66	100.92

Period	Major Currencies*	Euro	Yen	Pound
28 December 2007	94.19	93.62	93.09	101.51
4 January 2008	93.45	92.60	89.80	101.88
11 January 2008	93.89	92.59	89.32	102.70
18 January 2008	93.95	92.49	87.70	102.69
25 January 2008	93.82	93.03	87.10	102.57
1 February 2008	92.83	92.04	87.32	101.64
8 February 2008	93.49	93.19	87.41	102.97
15 February 2008	93.54	93.37	87.94	102.81
22 February 2008	93.57	92.32	87.89	103.13
29 February 2008	91.61	90.61	86.96	101.74
7 March 2008	90.68	89.21	84.37	100.97
14 March 2008	89.90	88.06	83.03	99.79
21 March 2008	89.75	87.30	80.55	101.08
28 March 2008	90.11	87.02	81.68	100.95
4 April 2008	90.38	86.86	83.12	101.45
11 April 2008	90.30	86.51	83.36	102.11
18 April 2008	89.93	85.95	83.45	101.75
25 April 2008	90.24	86.15	84.70	101.68
2 May 2008	91.10	87.68	85.28	101.82
9 May 2008	91.17	88.18	85.32	102.89
16 May 2008	90.84	87.81	85.34	103.28
23 May 2008	89.91	86.86	84.83	102.40
30 May 2008	90.31	87.29	85.77	101.94
6 June 2008	91.13	87.64	86.01	102.74
13 June 2008	91.91	87.88	87.62	102.96
20 June 2008	91.83	87.78	88.23	102.64
27 June 2008	91.33	87.20	87.89	102.03
4 July 2008	90.85	86.38	86.77	101.33
11 July 2008	91.00	86.57	87.51	101.96
18 July 2008	90.06	85.81	86.36	100.83
25 July 2008	90.87	86.53	87.81	101.16
1 August 2008	91.78	87.30	88.22	101.71
8 August 2008	93.44	88.69	89.17	103.66
15 August 2008	95.54	91.69	89.73	107.03
22 August 2008	95.58	92.26	89.59	108.12
29 August 2008	95.81	92.70	89.42	109.88
5 September 2008	97.04	94.56	88.24	113.55

Period	Major Currencies*	Euro	Yen	Pound
12 September 2008	98.10	96.75	87.81	114.36
19 September 2008	97.06	95.55	86.25	111.95
26 September 2008	94.92	92.92	86.78	109.16
3 October 2008	97.72	97.09	86.36	113.21
10 October 2008	100.57	100.27	82.31	116.49
17 October 2008	102.15	100.75	82.88	116.10
24 October 2008	105.48	105.23	80.29	123.13
31 October 2008	106.62	107.65	78.84	126.39
7 November 2008	104.26	105.96	80.86	126.48
14 November 2008	106.46	107.78	78.91	133.78
21 November 2008	107.56	108.04	78.74	134.83
28 November 2008	105.89	105.97	78.31	132.01
5 December 2008	106.95	107.27	76.12	136.29
12 December 2008	105.09	103.93	75.34	135.67

* Trade-weighted index. [Return to table](#)

Bottom-right panel Exchange Value of the Dollar (FC/USD)

Weekly
Index, July 2007 = 100

Period	OITP*	Mexico	China	Brazil
6 July 2007	99.97	100.07	99.93	98.66
13 July 2007	99.74	100.10	99.66	97.24
20 July 2007	99.43	99.91	99.47	96.02
27 July 2007	99.66	100.96	99.46	97.47
3 August 2007	100.06	101.70	99.53	97.23
10 August 2007	100.27	101.83	99.51	99.21
17 August 2007	101.28	103.16	99.82	104.99
24 August 2007	101.30	102.89	99.73	103.18
31 August 2007	101.00	102.76	99.27	102.07
7 September 2007	100.91	102.73	99.19	101.24
14 September 2007	100.59	103.06	98.86	98.78
21 September 2007	100.03	102.39	98.77	96.85
28 September 2007	99.44	101.50	98.73	95.31
5 October 2007	99.07	101.08	98.73	94.06
12 October 2007	98.77	100.55	98.73	93.13
19 October 2007	98.80	100.40	98.78	93.64
26 October 2007	98.71	100.47	98.56	92.38

Period	OITP*	Mexico	China	Brazil
2 November 2007	97.99	99.33	98.16	90.5
9 November 2007	97.95	100.02	97.79	89.85
16 November 2007	98.30	101.22	97.64	90.55
23 November 2007	98.62	101.99	97.54	92.74
30 November 2007	98.39	101.62	97.14	92.89
7 December 2007	98.06	100.86	97.34	92.36
14 December 2007	97.81	100.43	97.00	92.15
21 December 2007	98.22	100.68	96.93	93.1
28 December 2007	97.82	100.71	96.33	91.78
4 January 2008	97.54	101.26	95.77	91.15
11 January 2008	97.38	101.49	95.54	90.83
18 January 2008	97.22	101.47	95.18	91.67
25 January 2008	97.40	101.29	95.06	92.85
1 February 2008	96.78	100.60	94.53	91.05
8 February 2008	96.63	100.24	94.47	91.05
15 February 2008	96.58	99.87	94.50	90.4
22 February 2008	96.25	100.08	93.91	88.86
29 February 2008	95.69	99.64	93.81	86.88
7 March 2008	95.63	99.76	93.44	87.02
14 March 2008	95.77	100.21	93.32	88.03
21 March 2008	95.76	99.59	92.91	89.06
28 March 2008	95.44	99.21	92.43	89.93
4 April 2008	95.13	98.26	92.23	88.94
11 April 2008	94.85	97.92	92.04	87.22
18 April 2008	94.64	97.23	91.98	86.4
25 April 2008	94.68	97.40	91.99	86.18
2 May 2008	94.88	97.35	91.90	86.61
9 May 2008	95.26	97.68	91.88	86.61
16 May 2008	95.49	97.22	91.93	85.52
23 May 2008	95.04	96.40	91.47	85.57
30 May 2008	94.85	96.03	91.26	85.3
6 June 2008	94.72	95.87	91.25	84.19
13 June 2008	94.97	96.45	90.90	84.62
20 June 2008	94.56	95.70	90.53	83.21
27 June 2008	94.60	95.54	90.29	82.72
4 July 2008	94.74	96.16	90.16	82.99
11 July 2008	94.33	95.77	90.06	83.01

Period	OITP*	Mexico	China	Brazil
18 July 2008	93.92	95.26	89.70	82.28
25 July 2008	93.67	93.58	89.75	81.69
1 August 2008	93.72	93.17	89.85	80.97
8 August 2008	94.04	92.72	90.10	82.41
15 August 2008	94.99	94.48	90.22	84.19
22 August 2008	95.11	94.13	90.09	84.04
29 August 2008	95.44	94.59	89.67	84.37
5 September 2008	96.81	96.84	89.92	88.02
12 September 2008	97.22	98.16	89.79	92.53
19 September 2008	98.07	99.87	89.91	95.6
26 September 2008	97.70	99.66	89.73	95.81
3 October 2008	99.27	102.31	89.85	103.76
10 October 2008	103.70	115.71	89.76	118.16
17 October 2008	103.93	118.58	89.85	110.41
24 October 2008	106.13	123.96	89.87	119.1
31 October 2008	105.81	120.94	89.96	111.14
7 November 2008	104.48	118.31	89.81	111.03
14 November 2008	106.01	121.17	89.77	118.88
21 November 2008	107.68	124.17	89.79	122.74
28 November 2008	107.67	123.81	89.74	120.01
5 December 2008	108.65	126.07	90.46	127.64
12 December 2008	107.5e	124.5e	90.22	126.0e

* Other Important Trading Partners, trade-weighted index. [Return to table](#)

Exhibit 2

The Foreign Growth Outlook

Top panel

Real GDP*

Percent Change, a.r.**

		2007	2008		2009		2010p	
			H1	Q3e	Q4p	Q1p		Q2-Q4p
1.	Total	4.2	1.8	0.7	-1.6	-1.2	1.0	2.8
2.	<i>October Greenbook</i>	4.2	1.7	0.5	0.5	0.7	1.5	2.9
3.	Advanced Foreign Economies	2.6	0.4	-0.0	-2.2	-2.2	-0.1	1.9
4.	United Kingdom	2.9	0.6	-2.0	-2.6	-1.9	0.4	1.7

		2007	2008		2009		2010p	
			H1	Q3e	Q4p	Q1p		Q2-Q4p
5.	Euro Area	2.1	1.0	-0.8	-1.8	-1.5	0.1	1.9
6.	Japan	2.0	-0.7	-1.8	-4.1	-1.9	-0.2	1.2
7.	Canada	2.8	0.0	1.3	-2.0	-3.0	-0.4	2.0
8.	Emerging Market Economies	6.4	3.7	1.7	-0.8	0.2	2.5	4.1
9.	Emerging Asia	7.8	5.9	0.3	0.5	1.6	3.9	5.7
10.	China	11.4	11.0	5.4	4.7	6.0	7.5	8.9
11.	Latin America	4.9	1.2	3.0	-2.7	-1.8	0.7	2.4
12.	Mexico	4.2	0.0	2.6	-3.9	-2.6	0.2	2.1

* GDP aggregates weighted by shares of U.S. merchandise exports. [Return to text](#)

** Annualized percent change from final quarter of preceding period to final quarter of period indicated. [Return to table](#)

Real GDP in 2008:Q3

Middle-left panel

Growth Contributions in AFEs

Percentage Points, a.r.

	U.K.	Euro Area	Japan	Canada
Domestic Demand	-1.50	1.23	-1.19	1.03
Net Exports	-0.42	-2.24	-0.80	0.11

Middle-right panel

GDP Growth in NIEs*

Percent, a.r.

	Korea	Hong Kong	Singapore	Taiwan
GDP Growth	2.07	-1.99	-6.78	-10.28

* Newly Industrialized Economies. [Return to text](#)

The Trade Channel

Bottom panel

U.S. Growth and Real Exports in the Foreign Economies

4-quarter Percent Change

Period	U.S. Real GDP	Real Foreign Exports*	U.S. Real GDP Forecast
2000:Q1	4.08	6.94	ND
2000:Q2	4.85	8.25	ND
2000:Q3	3.52	6.62	ND
2000:Q4	2.24	2.87	ND
2001:Q1	1.86	3.34	ND

Period	U.S. Real GDP	Real Foreign Exports*	U.S. Real GDP Forecast
2001:Q2	0.59	-1.88	ND
2001:Q3	0.35	-3.71	ND
2001:Q4	0.23	0.10	ND
2002:Q1	1.03	1.36	ND
2002:Q2	1.27	8.28	ND
2002:Q3	2.22	13.44	ND
2002:Q4	1.87	11.46	ND
2003:Q1	1.49	11.40	ND
2003:Q2	1.81	12.20	ND
2003:Q3	3.05	9.93	ND
2003:Q4	3.68	18.54	ND
2004:Q1	4.12	18.16	ND
2004:Q2	4.13	16.12	ND
2004:Q3	3.17	15.49	ND
2004:Q4	3.15	10.67	ND
2005:Q1	3.15	9.16	ND
2005:Q2	2.93	7.85	ND
2005:Q3	2.99	6.07	ND
2005:Q4	2.68	4.41	ND
2006:Q1	3.14	8.15	ND
2006:Q2	3.16	9.14	ND
2006:Q3	2.39	11.26	ND
2006:Q4	2.44	14.22	ND
2007:Q1	1.25	11.75	ND
2007:Q2	1.77	10.81	ND
2007:Q3	2.75	9.81	ND
2007:Q4	2.33	5.41	ND
2008:Q1	2.54	4.41	ND
2008:Q2	2.05	1.04	ND
2008:Q3	0.74	-0.27	ND
2008:Q4	ND	ND	-0.39
2009:Q1	ND	ND	-1.87
2009:Q2	ND	ND	-2.84
2009:Q3	ND	ND	-2.49
2009:Q4	ND	ND	-0.92
2010:Q1	ND	ND	0.83
2010:Q2	ND	ND	1.68

Period	U.S. Real GDP	Real Foreign Exports*	U.S. Real GDP Forecast
2010:Q3	ND	ND	2.08
2010:Q4	ND	ND	2.43

* Foreign G-7 plus major emerging market economies. [Return to table](#)

Note: Shaded area shows staff forecast.

Exhibit 3

Advanced Foreign Economies

Top-left panel

Europe

Monthly

50+ = Expansion

Period	U.K. PMI	Euro Area PMI
January 2000	56.13	58.89
February 2000	55.48	59.25
March 2000	56.75	60.88
April 2000	56.76	62.55
May 2000	56.31	61.61
June 2000	55.30	61.15
July 2000	55.93	60.56
August 2000	56.32	60.05
September 2000	53.42	59.36
October 2000	54.84	57.38
November 2000	55.59	56.41
December 2000	55.68	56.03
January 2001	56.27	55.34
February 2001	55.16	54.28
March 2001	53.64	52.95
April 2001	50.05	52.04
May 2001	49.92	51.28
June 2001	50.88	51.53
July 2001	49.26	50.96
August 2001	49.39	50.32
September 2001	48.28	48.08
October 2001	46.64	45.20
November 2001	47.56	46.09
December 2001	47.91	47.99
January 2002	50.93	49.97

Period	U.K. PMI	Euro Area PMI
February 2002	52.24	51.55
March 2002	54.04	52.78
April 2002	55.27	53.32
May 2002	56.75	52.78
June 2002	54.50	53.21
July 2002	53.26	52.76
August 2002	54.87	51.60
September 2002	54.97	49.24
October 2002	54.41	50.75
November 2002	53.55	51.15
December 2002	52.17	50.34
January 2003	51.62	50.39
February 2003	50.36	49.99
March 2003	48.37	48.83
April 2003	50.31	48.36
May 2003	51.34	48.19
June 2003	53.75	48.16
July 2003	55.75	49.85
August 2003	56.97	51.20
September 2003	57.75	52.85
October 2003	59.02	54.88
November 2003	59.02	56.25
December 2003	58.23	55.79
January 2004	59.24	56.19
February 2004	58.43	55.43
March 2004	58.24	54.54
April 2004	58.31	54.93
May 2004	57.10	56.04
June 2004	56.99	55.57
July 2004	57.04	56.02
August 2004	55.95	54.96
September 2004	54.30	53.92
October 2004	55.42	53.74
November 2004	56.93	51.73
December 2004	54.81	52.53
January 2005	55.23	53.36
February 2005	54.34	53.15

Period	U.K. PMI	Euro Area PMI
March 2005	56.17	52.45
April 2005	54.85	51.76
May 2005	52.83	52.11
June 2005	54.33	52.28
July 2005	55.18	53.18
August 2005	54.31	52.76
September 2005	54.36	54.30
October 2005	55.30	54.66
November 2005	55.30	55.05
December 2005	56.95	56.38
January 2006	56.46	56.56
February 2006	57.61	57.73
March 2006	56.09	58.50
April 2006	58.71	58.73
May 2006	57.98	59.01
June 2006	58.92	60.42
July 2006	57.03	58.46
August 2006	55.61	57.81
September 2006	57.39	57.26
October 2006	58.03	57.35
November 2006	58.03	57.64
December 2006	58.36	57.50
January 2007	58.09	57.51
February 2007	57.36	57.71
March 2007	57.08	57.39
April 2007	57.19	56.94
May 2007	57.12	56.84
June 2007	57.77	57.77
July 2007	57.26	57.52
August 2007	57.93	57.36
September 2007	56.96	54.69
October 2007	53.16	54.65
November 2007	53.37	54.12
December 2007	53.09	53.28
January 2008	52.76	51.79
February 2008	53.86	52.78
March 2008	52.09	51.80

Period	U.K. PMI	Euro Area PMI
April 2008	50.33	51.94
May 2008	49.62	51.05
June 2008	46.27	49.30
July 2008	46.45	47.75
August 2008	48.86	48.17
September 2008	44.68	46.88
October 2008	42.01	43.61
November 2008	37.84	38.92

Top-right panel Japan

Monthly

Period	Job Openings/Applicants (Ratio)	Exports (Index, Jan. 2005 = 100)	IP (Index, Jan. 2005 = 100)
January 2000	0.51	79.76	96.39
February 2000	0.52	79.45	96.09
March 2000	0.54	80.23	97.70
April 2000	0.56	82.71	99.00
May 2000	0.56	81.01	98.60
June 2000	0.58	84.30	100.10
July 2000	0.60	83.39	99.60
August 2000	0.61	85.13	101.00
September 2000	0.62	85.11	98.90
October 2000	0.64	85.89	100.50
November 2000	0.65	85.37	100.90
December 2000	0.65	85.90	102.10
January 2001	0.65	81.22	97.80
February 2001	0.64	83.90	98.90
March 2001	0.63	83.43	97.19
April 2001	0.62	83.57	96.29
May 2001	0.61	79.17	94.29
June 2001	0.61	77.05	93.19
July 2001	0.60	78.79	91.68
August 2001	0.58	77.46	90.68
September 2001	0.57	77.58	88.78
October 2001	0.54	76.31	88.68
November 2001	0.52	76.84	87.17
December 2001	0.51	74.66	88.08

Period	Job Openings/Applicants (Ratio)	Exports (Index, Jan. 2005 = 100)	IP (Index, Jan. 2005 = 100)
January 2002	0.50	79.00	87.47
February 2002	0.51	80.48	88.88
March 2002	0.52	82.75	89.58
April 2002	0.52	83.29	89.08
May 2002	0.53	85.76	92.89
June 2002	0.53	84.70	91.88
July 2002	0.54	84.20	92.48
August 2002	0.55	81.68	92.79
September 2002	0.55	84.54	93.49
October 2002	0.56	85.83	93.59
November 2002	0.56	90.15	93.19
December 2002	0.57	86.57	93.09
January 2003	0.58	85.12	93.59
February 2003	0.59	86.78	93.19
March 2003	0.60	85.03	93.79
April 2003	0.61	86.58	92.48
May 2003	0.61	87.81	93.89
June 2003	0.62	86.62	93.09
July 2003	0.63	88.09	93.79
August 2003	0.65	88.56	92.48
September 2003	0.67	90.25	95.29
October 2003	0.70	89.89	96.89
November 2003	0.72	89.70	96.69
December 2003	0.75	91.99	96.59
January 2004	0.76	93.83	98.10
February 2004	0.76	94.36	97.90
March 2004	0.77	95.51	97.39
April 2004	0.78	96.60	99.10
May 2004	0.80	99.85	99.10
June 2004	0.82	100.14	99.40
July 2004	0.83	99.43	100.60
August 2004	0.84	99.82	99.50
September 2004	0.86	100.16	99.70
October 2004	0.89	101.19	98.20
November 2004	0.91	100.78	99.10
December 2004	0.91	98.76	97.80
January 2005	0.91	100.00	100.00

Period	Job Openings/Applicants (Ratio)	Exports (Index, Jan. 2005 = 100)	IP (Index, Jan. 2005 = 100)
February 2005	0.91	98.18	99.90
March 2005	0.93	100.88	100.20
April 2005	0.94	103.94	100.70
May 2005	0.94	101.82	100.00
June 2005	0.95	104.08	100.30
July 2005	0.96	105.31	99.50
August 2005	0.96	106.05	99.60
September 2005	0.97	108.50	100.50
October 2005	0.98	111.00	100.00
November 2005	0.99	113.64	101.60
December 2005	1.01	115.20	101.80
January 2006	1.03	113.78	102.20
February 2006	1.04	119.23	102.10
March 2006	1.04	119.27	102.71
April 2006	1.05	119.47	104.71
May 2006	1.06	118.79	103.21
June 2006	1.07	118.46	104.51
July 2006	1.08	121.51	104.91
August 2006	1.07	122.47	105.31
September 2006	1.07	123.61	105.31
October 2006	1.07	124.88	106.11
November 2006	1.07	127.88	106.51
December 2006	1.07	129.10	106.81
January 2007	1.07	132.35	105.61
February 2007	1.05	131.47	106.21
March 2007	1.05	130.66	106.21
April 2007	1.05	132.81	105.81
May 2007	1.06	135.32	107.01
June 2007	1.07	135.95	107.11
July 2007	1.06	135.81	107.21
August 2007	1.05	138.93	109.92
September 2007	1.04	134.48	108.12
October 2007	1.02	139.70	110.22
November 2007	1.00	139.96	108.62
December 2007	0.98	140.55	109.32
January 2008	0.98	140.82	108.72
February 2008	0.97	137.47	110.42

Period	Job Openings/Applicants (Ratio)	Exports (Index, Jan. 2005 = 100)	IP (Index, Jan. 2005 = 100)
March 2008	0.95	138.61	106.71
April 2008	0.93	133.73	106.51
May 2008	0.92	138.77	109.52
June 2008	0.91	139.26	107.11
July 2008	0.89	141.43	108.52
August 2008	0.86	139.83	104.71
September 2008	0.84	136.08	105.81
October 2008	0.80	127.81	102.51

Middle-left panel

Canada

Monthly

Period	Housing Starts* (Thousands, a.r.)	Real Exports (Index, Jan. 2005 = 100)
January 2000	78.20	95.67
February 2000	68.10	92.94
March 2000	87.00	96.32
April 2000	77.00	93.47
May 2000	73.20	97.54
June 2000	72.70	98.53
July 2000	75.30	96.10
August 2000	71.90	97.19
September 2000	72.90	97.65
October 2000	72.10	97.34
November 2000	76.50	97.63
December 2000	72.40	96.86
January 2001	76.60	97.65
February 2001	76.40	92.56
March 2001	75.10	94.88
April 2001	74.00	94.26
May 2001	70.30	93.91
June 2001	76.70	93.32
July 2001	74.70	92.72
August 2001	79.70	92.33
September 2001	80.20	90.42
October 2001	82.50	90.27
November 2001	86.80	93.81
December 2001	90.00	92.31

Period	Housing Starts* (Thousands, a.r.)	Real Exports (Index, Jan. 2005 = 100)
January 2002	91.90	96.21
February 2002	98.10	98.04
March 2002	107.40	92.70
April 2002	100.40	96.32
May 2002	109.90	96.29
June 2002	103.40	93.32
July 2002	98.40	98.87
August 2002	105.10	98.13
September 2002	105.10	96.47
October 2002	108.10	97.82
November 2002	101.30	95.60
December 2002	103.70	94.40
January 2003	97.90	95.51
February 2003	102.60	93.48
March 2003	92.40	94.00
April 2003	99.30	92.95
May 2003	95.60	93.48
June 2003	100.10	92.07
July 2003	101.00	93.93
August 2003	101.20	90.37
September 2003	100.20	96.50
October 2003	101.70	95.72
November 2003	105.90	96.58
December 2003	104.10	97.45
January 2004	95.60	92.89
February 2004	102.00	97.68
March 2004	107.00	97.83
April 2004	104.00	100.10
May 2004	106.30	99.53
June 2004	101.20	103.37
July 2004	108.80	102.11
August 2004	103.90	100.95
September 2004	104.70	98.45
October 2004	104.90	99.16
November 2004	101.20	99.11
December 2004	99.40	99.04
January 2005	89.20	100.00

Period	Housing Starts* (Thousands, a.r.)	Real Exports (Index, Jan. 2005 = 100)
February 2005	91.00	99.73
March 2005	93.00	99.70
April 2005	99.70	98.61
May 2005	97.20	100.30
June 2005	96.80	100.59
July 2005	91.40	100.66
August 2005	86.20	102.93
September 2005	95.60	102.97
October 2005	91.50	103.11
November 2005	94.90	103.80
December 2005	99.50	105.29
January 2006	108.50	103.84
February 2006	110.20	100.90
March 2006	97.90	101.81
April 2006	94.80	101.13
May 2006	91.30	100.26
June 2006	91.30	103.17
July 2006	91.30	102.62
August 2006	91.20	101.78
September 2006	94.60	102.67
October 2006	94.20	100.34
November 2006	88.20	102.82
December 2006	89.00	106.64
January 2007	93.30	105.35
February 2007	82.10	101.48
March 2007	87.10	104.33
April 2007	88.80	105.94
May 2007	90.50	104.92
June 2007	92.40	102.36
July 2007	92.60	104.64
August 2007	93.70	103.86
September 2007	89.60	103.49
October 2007	87.70	102.25
November 2007	97.90	104.66
December 2007	85.60	98.43
January 2008	82.20	99.02
February 2008	82.90	103.01

Period	Housing Starts* (Thousands, a.r.)	Real Exports (Index, Jan. 2005 = 100)
March 2008	80.60	99.58
April 2008	76.20	97.75
May 2008	81.00	100.19
June 2008	74.70	99.77
July 2008	74.70	98.81
August 2008	76.30	97.33
September 2008	70.10	97.48
October 2008	69.30	97.98
November 2008	63.10	ND

* Single unit dwellings. [Return to table](#)

Middle-right panel

Fiscal Stimulus

- Many countries have announced packages (e.g. Germany, France, U.K.).
- Stimulative content of these packages likely small.
- Assume additional fiscal stimulus will be introduced next year.
- Total stimulus should boost AFE growth $\frac{1}{4}$ to $\frac{1}{2}$ percentage point (a.r.) starting next year.

Bottom-left panel

Policy Rates

Percent

Period	U.K.	Euro Area	Canada	Japan
2 January 2007	5.00	3.50	4.25	0.25
11 January 2007	5.25	3.50	4.25	0.25
22 February 2007	5.25	3.50	4.25	0.50
8 March 2007	5.25	3.75	4.25	0.50
10 May 2007	5.50	3.75	4.25	0.50
6 June 2007	5.50	4.00	4.25	0.50
5 July 2007	5.75	4.00	4.25	0.50
10 July 2007	5.75	4.00	4.50	0.50
4 December 2007	5.75	4.00	4.25	0.50
6 December 2007	5.50	4.00	4.25	0.50
22 January 2008	5.50	4.00	4.00	0.50
7 February 2008	5.25	4.00	4.00	0.50
4 March 2008	5.25	4.00	3.50	0.50
10 April 2008	5.00	4.00	3.50	0.50
22 April 2008	5.00	4.00	3.00	0.50
3 July 2008	5.00	4.25	3.00	0.50

Period	U.K.	Euro Area	Canada	Japan
8 October 2008	4.50	3.75	2.50	0.50
21 October 2008	4.50	3.75	2.25	0.50
3 November 2008	4.50	3.75	2.25	0.30
6 November 2008	3.00	3.25	2.25	0.30
4 December 2008	2.00	2.50	2.25	0.30
9 December 2008	2.00	2.50	1.50	0.30
1 January 2009	1.00	2.00	0.75	0.30
1 April 2009	1.00	1.75	0.75	0.30
2 April 2009	1.00	1.75	0.75	0.00
1 July 2009	1.00	1.75	1.00	0.00
1 October 2009	1.25	1.75	1.00	0.00
1 January 2010	1.75	1.75	1.25	0.00
1 April 2010	2.00	2.00	1.50	0.00
1 July 2010	2.25	2.25	1.50	0.00
1 October 2010	2.50	2.25	1.50	0.00
31 December 2010	2.50	2.25	1.50	0.00

Note: Shaded area shows staff forecast [beginning around December 15, 2008].

Bottom-right panel

AFE Inflation

4-quarter Percent Change

Period	AFE Inflation	October Greenbook	Current Forecast
2007:Q1	1.52	1.52	ND
2007:Q2	1.58	1.58	ND
2007:Q3	1.51	1.52	ND
2007:Q4	2.17	2.17	ND
2008:Q1	2.23	2.23	ND
2008:Q2	2.65	2.65	ND
2008:Q3	3.39	3.36	ND
2008:Q4	2.28	2.68	ND
2009:Q1	ND	2.33	1.30
2009:Q2	ND	1.64	0.44
2009:Q3	ND	1.00	-0.29
2009:Q4	ND	1.25	0.36
2010:Q1	ND	1.30	1.09
2010:Q2	ND	1.32	1.27
2010:Q3	ND	1.31	1.31

Period	AFE Inflation	October Greenbook	Current Forecast
2010:Q4	ND	1.30	1.32

Note: Shaded area shows staff forecast.

Exhibit 4 Emerging Market Economies

Top-left panel China

4-quarter Percent Change

Period	Imports from Asia*	Exports	IP
2000:Q2	26.88	37.76	11.71
2000:Q3	36.45	25.05	12.51
2000:Q4	18.16	15.44	10.77
2001:Q1	12.55	13.76	10.49
2001:Q2	6.39	4.56	10.58
2001:Q3	-0.59	3.75	8.60
2001:Q4	-6.13	6.53	8.47
2002:Q1	1.74	9.95	11.09
2002:Q2	15.03	17.76	12.47
2002:Q3	34.11	28.74	13.13
2002:Q4	39.46	30.53	14.55
2003:Q1	55.93	33.44	16.93
2003:Q2	36.78	34.22	15.21
2003:Q3	33.17	29.68	16.62
2003:Q4	37.23	40.49	17.76
2004:Q1	39.35	33.97	16.30
2004:Q2	39.97	37.21	17.55
2004:Q3	28.08	34.62	15.85
2004:Q4	24.97	35.58	14.93
2005:Q1	11.87	34.81	14.80
2005:Q2	10.83	30.86	16.48
2005:Q3	13.83	29.10	16.21
2005:Q4	16.64	21.68	16.41
2006:Q1	12.85	26.57	15.79
2006:Q2	13.10	24.00	18.05
2006:Q3	16.58	28.69	16.16
2006:Q4	12.59	28.89	14.76

Period	Imports from Asia*	Exports	IP
2007:Q1	18.22	27.90	19.88
2007:Q2	14.00	27.56	18.34
2007:Q3	16.65	26.20	18.16
2007:Q4	19.02	22.18	17.52
2008:Q1	19.80	21.21	16.80
2008:Q2	27.05	22.21	15.91
2008:Q3	17.24	23.07	8.72
2008:Q4**	-8.59	7.97	6.77

As shown in the figure, the series begin in 2000:Q1. Imports from Asia begins at about 37, Exports begins at about 39, and IP begins at just under 11.

* ASEAN-4, Japan, Korea, Hong Kong, and India. [Return to table](#)

** Based on October and November data. [Return to table](#)

Top-right panel Other Emerging Asia

Monthly

Period	NIEs IP* (Index, Jan. 2005 = 100)	Korean Exports (Billions of USD, a.r.)
January 2000	79.49	163.69
February 2000	77.04	170.63
March 2000	78.04	165.46
April 2000	78.09	160.31
May 2000	80.99	172.38
June 2000	81.80	173.38
July 2000	82.59	179.53
August 2000	84.37	184.61
September 2000	84.20	183.29
October 2000	83.83	175.76
November 2000	82.69	170.05
December 2000	81.85	168.13
January 2001	76.84	165.24
February 2001	80.28	177.26
March 2001	79.34	161.50
April 2001	76.76	143.36
May 2001	76.51	156.77
June 2001	74.61	148.02
July 2001	74.39	141.20
August 2001	74.90	145.98
September 2001	74.53	150.59

Period	NIEs IP* (Index, Jan. 2005 = 100)	Korean Exports (Billions of USD, a.r.)
October 2001	75.58	138.96
November 2001	78.02	140.73
December 2001	74.11	135.64
January 2002	77.34	145.31
February 2002	79.01	145.64
March 2002	81.25	152.10
April 2002	83.08	156.61
May 2002	83.95	168.52
June 2002	82.97	149.76
July 2002	84.52	166.44
August 2002	83.47	174.10
September 2002	82.40	169.08
October 2002	82.78	173.59
November 2002	82.97	174.75
December 2002	84.93	173.73
January 2003	85.01	179.76
February 2003	82.90	175.50
March 2003	86.06	177.18
April 2003	83.72	187.24
May 2003	83.26	175.15
June 2003	84.88	183.46
July 2003	85.15	191.83
August 2003	89.26	192.19
September 2003	88.48	206.99
October 2003	92.67	217.52
November 2003	90.57	209.51
December 2003	91.79	229.48
January 2004	93.97	234.90
February 2004	95.84	251.34
March 2004	93.49	244.02
April 2004	96.32	256.27
May 2004	97.61	249.03
June 2004	96.08	254.27
July 2004	96.11	260.80
August 2004	95.75	247.88
September 2004	96.61	253.07
October 2004	96.70	259.79

Period	NIEs IP* (Index, Jan. 2005 = 100)	Korean Exports (Billions of USD, a.r.)
November 2004	97.01	263.65
December 2004	100.89	271.12
January 2005	100.00	276.02
February 2005	94.64	267.29
March 2005	98.78	276.98
April 2005	99.79	274.25
May 2005	99.60	276.18
June 2005	101.56	278.48
July 2005	101.12	288.71
August 2005	102.85	292.10
September 2005	105.93	297.90
October 2005	106.32	290.62
November 2005	107.78	293.39
December 2005	108.84	301.10
January 2006	107.25	285.20
February 2006	109.12	311.99
March 2006	111.72	310.99
April 2006	106.26	308.27
May 2006	108.85	332.78
June 2006	113.55	328.17
July 2006	110.15	320.90
August 2006	110.20	340.26
September 2006	114.14	359.61
October 2006	112.84	321.46
November 2006	115.92	345.89
December 2006	113.17	340.05
January 2007	112.65	344.78
February 2007	114.53	344.59
March 2007	113.79	352.46
April 2007	116.76	362.17
May 2007	119.71	368.73
June 2007	114.78	375.80
July 2007	128.67	377.10
August 2007	122.04	385.11
September 2007	118.07	355.66
October 2007	121.76	395.92
November 2007	122.53	403.82

Period	NIEs IP* (Index, Jan. 2005 = 100)	Korean Exports (Billions of USD, a.r.)
December 2007	120.98	391.73
January 2008	125.36	396.48
February 2008	127.18	409.52
March 2008	129.13	417.15
April 2008	123.03	457.99
May 2008	120.74	466.63
June 2008	121.47	436.97
July 2008	122.24	511.17
August 2008	119.99	453.55
September 2008	120.11	453.35
October 2008	111.56	429.49
November 2008	ND	329.14

* U.S. export-weighted aggregate of Korea, Singapore, and Taiwan. [Return to table](#)

Middle-left panel

Mexico

Monthly

Period	Consumer Confidence (Index, Jan. 2005 = 100)	Exports (Billions of USD, a.r.)
January 2000	ND	154.28
February 2000	ND	163.28
March 2000	ND	152.32
April 2000	ND	157.21
May 2000	ND	164.86
June 2000	ND	166.03
July 2000	ND	168.87
August 2000	ND	174.29
September 2000	ND	169.93
October 2000	ND	176.48
November 2000	ND	172.35
December 2000	ND	171.54
January 2001	ND	166.34
February 2001	ND	165.02
March 2001	ND	165.32
April 2001	111.24	164.42
May 2001	107.53	160.39
June 2001	105.87	160.07
July 2001	112.12	156.20

Period	Consumer Confidence (Index, Jan. 2005 = 100)	Exports (Billions of USD, a.r.)
August 2001	114.96	156.05
September 2001	106.65	156.16
October 2001	99.80	154.26
November 2001	99.51	150.50
December 2001	104.11	152.51
January 2002	87.78	153.24
February 2002	88.76	157.06
March 2002	94.82	160.68
April 2002	94.82	163.40
May 2002	99.80	161.55
June 2002	100.00	159.71
July 2002	102.05	164.96
August 2002	103.71	162.45
September 2002	101.17	163.28
October 2002	99.02	161.34
November 2002	103.23	160.65
December 2002	105.18	161.70
January 2003	97.75	170.70
February 2003	92.18	168.46
March 2003	89.35	157.63
April 2003	94.72	160.04
May 2003	96.77	156.27
June 2003	97.95	160.39
July 2003	98.14	164.32
August 2003	97.26	159.63
September 2003	94.72	166.60
October 2003	93.74	167.79
November 2003	92.08	170.72
December 2003	93.45	175.98
January 2004	93.26	177.08
February 2004	92.86	178.00
March 2004	93.74	181.61
April 2004	94.04	181.11
May 2004	97.85	191.46
June 2004	97.85	186.84
July 2004	94.13	188.57

Period	Consumer Confidence (Index, Jan. 2005 = 100)	Exports (Billions of USD, a.r.)
August 2004	92.96	192.33
September 2004	94.82	190.74
October 2004	92.28	194.76
November 2004	92.47	198.27
December 2004	99.41	188.70
January 2005	100.00	197.38
February 2005	103.32	201.12
March 2005	102.25	202.69
April 2005	97.85	204.91
May 2005	96.38	207.39
June 2005	97.75	213.74
July 2005	97.46	207.38
August 2005	96.09	214.79
September 2005	99.90	221.65
October 2005	100.10	224.84
November 2005	100.00	233.95
December 2005	105.77	242.28
January 2006	105.18	258.69
February 2006	105.57	244.40
March 2006	110.07	237.45
April 2006	107.04	250.20
May 2006	107.43	250.19
June 2006	105.38	249.55
July 2006	107.33	250.06
August 2006	108.21	255.13
September 2006	108.11	249.63
October 2006	106.16	257.31
November 2006	103.52	249.70
December 2006	107.23	253.51
January 2007	101.96	249.70
February 2007	101.27	256.26
March 2007	104.11	251.97
April 2007	103.91	259.99
May 2007	104.89	266.64
June 2007	102.83	267.75
July 2007	102.44	274.02

Period	Consumer Confidence (Index, Jan. 2005 = 100)	Exports (Billions of USD, a.r.)
August 2007	105.57	278.30
September 2007	102.93	288.10
October 2007	99.12	282.51
November 2007	97.75	294.24
December 2007	103.23	292.82
January 2008	101.17	297.71
February 2008	98.73	288.08
March 2008	100.39	307.33
April 2008	95.60	304.64
May 2008	92.08	305.10
June 2008	88.66	309.14
July 2008	86.41	329.78
August 2008	87.59	303.64
September 2008	86.61	295.27
October 2008	80.16	283.46
November 2008	82.01	ND

Middle-right panel Brazil

Monthly

Period	IP (Index, Jan. 2005 = 100)	Exports (Billions of USD, a.r.)
January 2000	83.06	47.36
February 2000	83.17	59.09
March 2000	84.53	54.91
April 2000	85.32	51.77
May 2000	85.08	56.99
June 2000	87.15	55.28
July 2000	87.77	56.41
August 2000	87.75	59.65
September 2000	86.70	53.83
October 2000	88.58	52.99
November 2000	87.84	56.57
December 2000	91.79	56.57
January 2001	89.57	62.26
February 2001	90.49	58.04
March 2001	89.21	62.75

Period	IP (Index, Jan. 2005 = 100)	Exports (Billions of USD, a.r.)
April 2001	88.91	58.98
May 2001	89.59	60.94
June 2001	88.48	58.15
July 2001	88.26	56.41
August 2001	88.28	61.92
September 2001	86.59	53.03
October 2001	84.61	55.93
November 2001	85.59	57.86
December 2001	85.84	53.18
January 2002	87.98	55.02
February 2002	89.56	52.57
March 2002	90.63	51.91
April 2002	89.56	58.55
May 2002	88.41	51.48
June 2002	89.43	48.24
July 2002	90.24	71.36
August 2002	89.79	62.87
September 2002	90.27	72.06
October 2002	94.36	71.41
November 2002	93.31	65.69
December 2002	90.57	64.12
January 2003	89.13	67.13
February 2003	88.77	72.30
March 2003	88.89	63.20
April 2003	89.20	71.94
May 2003	88.22	74.93
June 2003	87.03	69.49
July 2003	87.88	68.74
August 2003	88.81	69.77
September 2003	92.47	80.04
October 2003	94.44	82.87
November 2003	95.61	75.92
December 2003	93.66	82.09
January 2004	93.57	81.86
February 2004	93.40	83.57
March 2004	95.37	95.58
April 2004	95.46	83.83

Period	IP (Index, Jan. 2005 = 100)	Exports (Billions of USD, a.r.)
May 2004	97.23	94.62
June 2004	97.29	111.19
July 2004	98.76	100.52
August 2004	99.45	99.13
September 2004	100.11	99.04
October 2004	100.44	97.19
November 2004	100.23	102.67
December 2004	100.40	110.92
January 2005	100.00	105.11
February 2005	98.12	113.83
March 2005	100.09	110.17
April 2005	100.27	117.68
May 2005	101.06	117.18
June 2005	103.90	121.27
July 2005	101.06	121.13
August 2005	101.70	122.74
September 2005	100.43	119.17
October 2005	100.36	109.51
November 2005	101.05	134.11
December 2005	103.84	130.45
January 2006	102.06	130.14
February 2006	103.72	129.32
March 2006	102.84	134.94
April 2006	103.39	126.60
May 2006	104.38	123.16
June 2006	102.31	136.46
July 2006	104.16	148.63
August 2006	104.41	146.82
September 2006	103.79	143.60
October 2006	104.25	141.31
November 2006	105.22	146.17
December 2006	105.93	146.56
January 2007	105.66	152.56
February 2007	106.68	149.74
March 2007	108.05	152.15
April 2007	108.08	160.38
May 2007	109.50	163.74

Period	IP (Index, Jan. 2005 = 100)	Exports (Billions of USD, a.r.)
June 2007	109.87	155.74
July 2007	109.91	152.56
August 2007	111.65	160.88
September 2007	110.53	162.88
October 2007	115.28	175.99
November 2007	112.89	171.11
December 2007	112.15	170.06
January 2008	114.08	183.12
February 2008	113.60	189.12
March 2008	114.22	148.44
April 2008	114.42	181.06
May 2008	113.35	231.97
June 2008	116.75	220.37
July 2008	118.36	220.04
August 2008	116.62	209.56
September 2008	118.36	230.99
October 2008	116.35	206.90
November 2008	ND	178.90

Bottom-left panel

Monetary Policy

- Interest rate cuts: Many countries in emerging Asia, including China, Korea, Hong Kong, Taiwan, and India.
- Lower reserve requirements: China, Malaysia, and Brazil.

Bottom-right panel

Fiscal Policy

- China: Spending of 16% of GDP over next 2 years.
 - Includes some previous projects.
 - Implementation may take longer.
 - Federal govt to pay for only 30%.
- Chinese package could boost growth 1 to 1.5 percentage points per year.
- Korea and Mexico, among others, have announced smaller, but sizable, packages.

Exhibit 5 (Last)

U.S. Trade Outlook

Top-left panel

Commodity Prices

Monthly

Period	WTI Oil (\$/Barrel)	Non-Fuel Commodity Index* (Jan. 2008 = 100)	WTI Oil Forecast	Non-Fuel Commodity Index Forecast
January 2007	54.16	89.99	ND	ND
February 2007	59.26	91.99	ND	ND
March 2007	60.56	93.94	ND	ND
April 2007	63.96	98.64	ND	ND
May 2007	63.46	99.77	ND	ND
June 2007	67.48	98.39	ND	ND
July 2007	74.12	97.79	ND	ND
August 2007	72.39	93.14	ND	ND
September 2007	79.93	94.61	ND	ND
October 2007	85.93	95.79	ND	ND
November 2007	94.62	95.17	ND	ND
December 2007	91.70	94.13	ND	ND
January 2008	92.95	100.00	ND	ND
February 2008	95.35	106.48	ND	ND
March 2008	105.56	110.31	ND	ND
April 2008	112.57	109.67	ND	ND
May 2008	125.39	108.20	ND	ND
June 2008	133.93	109.08	ND	ND
July 2008	133.44	109.68	ND	ND
August 2008	116.70	103.15	ND	ND
September 2008	103.90	97.78	ND	ND
October 2008	76.66	81.67	ND	ND
November 2008	57.28	74.75	ND	ND
December 2008	ND	ND	44.98	70.95
January 2009	ND	ND	47.98	70.64
February 2009	ND	ND	50.84	70.80
March 2009	ND	ND	52.97	70.92
April 2009	ND	ND	54.46	71.20
May 2009	ND	ND	55.53	71.43
June 2009	ND	ND	56.34	72.61
July 2009	ND	ND	57.01	71.92
August 2009	ND	ND	57.65	72.95
September 2009	ND	ND	58.28	73.39
October 2009	ND	ND	58.88	73.62
November 2009	ND	ND	59.47	73.81

Period	WTI Oil (\$/Barrel)	Non-Fuel Commodity Index* (Jan. 2008 = 100)	WTI Oil Forecast	Non-Fuel Commodity Index Forecast
December 2009	ND	ND	60.06	74.02
January 2010	ND	ND	60.63	74.25
February 2010	ND	ND	61.20	74.46
March 2010	ND	ND	61.77	74.66
April 2010	ND	ND	62.31	74.76
May 2010	ND	ND	62.83	74.86
June 2010	ND	ND	63.31	74.96
July 2010	ND	ND	63.79	75.06
August 2010	ND	ND	64.27	75.16
September 2010	ND	ND	64.75	75.26
October 2010	ND	ND	65.23	75.35
November 2010	ND	ND	65.66	75.44
December 2010	ND	ND	66.09	75.53

Note: Shaded area shows staff forecast.

* IMF, U.S. import-weighted. [Return to table](#)

Top-center panel U.S. Trade Prices

Monthly
Percent Change

Period	Core Exports	Core Imports
January 2007	0.60	0.37
February 2007	1.00	-0.03
March 2007	0.93	0.27
April 2007	0.48	0.47
May 2007	0.35	0.53
June 2007	0.47	0.33
July 2007	0.07	0.29
August 2007	0.26	0.30
September 2007	0.42	0.01
October 2007	0.95	0.49
November 2007	1.05	0.45
December 2007	0.55	0.44
January 2008	1.52	0.98
February 2008	1.11	0.70
March 2008	2.12	1.23
April 2008	0.48	1.43

Period	Core Exports	Core Imports
May 2008	0.49	0.56
June 2008	1.13	0.87
July 2008	1.97	0.77
August 2008	-1.91	0.20
September 2008	-0.94	-0.50
October 2008	-2.35	-0.92
November 2008	-3.82	-2.12

Top-right panel Shipping Rates*

Daily

Index, Jan. 2007 = 100

Date	Shipping Rates
2 January 2007	100.00
3 January 2007	100.70
4 January 2007	101.65
5 January 2007	102.67
8 January 2007	103.57
9 January 2007	104.43
10 January 2007	104.95
11 January 2007	105.11
12 January 2007	105.00
15 January 2007	104.70
16 January 2007	103.03
17 January 2007	101.36
18 January 2007	99.77
19 January 2007	98.67
22 January 2007	98.17
23 January 2007	98.62
24 January 2007	99.10
25 January 2007	99.19
26 January 2007	98.78
29 January 2007	98.24
30 January 2007	96.97
31 January 2007	95.57
1 February 2007	95.43
2 February 2007	95.97

Date	Shipping Rates
5 February 2007	96.47
6 February 2007	97.06
7 February 2007	97.56
8 February 2007	97.78
9 February 2007	97.90
12 February 2007	98.35
13 February 2007	98.62
14 February 2007	98.76
15 February 2007	98.44
16 February 2007	98.51
19 February 2007	98.51
20 February 2007	98.60
21 February 2007	99.50
22 February 2007	100.79
23 February 2007	102.80
26 February 2007	104.25
27 February 2007	106.40
28 February 2007	107.78
1 March 2007	108.98
2 March 2007	110.20
5 March 2007	111.02
6 March 2007	111.31
7 March 2007	111.67
8 March 2007	112.26
9 March 2007	113.10
12 March 2007	114.02
13 March 2007	114.66
14 March 2007	114.84
15 March 2007	114.70
16 March 2007	115.04
19 March 2007	115.88
20 March 2007	116.99
21 March 2007	118.21
22 March 2007	119.32
23 March 2007	120.56
26 March 2007	121.17
27 March 2007	121.33

Date	Shipping Rates
28 March 2007	121.15
29 March 2007	121.13
30 March 2007	121.87
2 April 2007	122.53
3 April 2007	123.03
4 April 2007	124.11
5 April 2007	125.13
6 April 2007	ND
9 April 2007	ND
10 April 2007	125.58
11 April 2007	125.67
12 April 2007	125.45
13 April 2007	125.61
16 April 2007	125.81
17 April 2007	126.69
18 April 2007	128.93
19 April 2007	130.78
20 April 2007	132.32
23 April 2007	133.95
24 April 2007	136.37
25 April 2007	138.48
26 April 2007	140.06
27 April 2007	140.92
30 April 2007	141.33
1 May 2007	141.48
2 May 2007	141.64
3 May 2007	141.96
4 May 2007	142.98
7 May 2007	ND
8 May 2007	144.65
9 May 2007	146.53
10 May 2007	148.95
11 May 2007	150.37
14 May 2007	151.21
15 May 2007	151.28
16 May 2007	150.42
17 May 2007	149.36

Date	Shipping Rates
18 May 2007	148.25
21 May 2007	147.50
22 May 2007	146.37
23 May 2007	145.26
24 May 2007	142.59
25 May 2007	140.51
28 May 2007	ND
29 May 2007	138.50
30 May 2007	136.24
31 May 2007	135.06
1 June 2007	135.33
4 June 2007	135.96
5 June 2007	136.24
6 June 2007	135.44
7 June 2007	132.93
8 June 2007	129.74
11 June 2007	128.05
12 June 2007	125.27
13 June 2007	122.30
14 June 2007	119.93
15 June 2007	118.93
18 June 2007	118.84
19 June 2007	120.11
20 June 2007	123.00
21 June 2007	128.30
22 June 2007	133.95
25 June 2007	136.58
26 June 2007	138.09
27 June 2007	139.79
28 June 2007	141.01
29 June 2007	142.00
2 July 2007	142.59
3 July 2007	142.55
4 July 2007	142.34
5 July 2007	141.39
6 July 2007	140.26
9 July 2007	140.69

Date	Shipping Rates
10 July 2007	142.52
11 July 2007	146.66
12 July 2007	150.55
13 July 2007	151.69
16 July 2007	151.37
17 July 2007	150.12
18 July 2007	148.88
19 July 2007	148.54
20 July 2007	149.31
23 July 2007	150.62
24 July 2007	152.00
25 July 2007	153.36
26 July 2007	154.67
27 July 2007	155.85
30 July 2007	156.89
31 July 2007	157.59
1 August 2007	158.18
2 August 2007	158.34
3 August 2007	158.49
6 August 2007	158.11
7 August 2007	157.57
8 August 2007	156.46
9 August 2007	156.89
10 August 2007	158.58
13 August 2007	159.83
14 August 2007	161.57
15 August 2007	163.56
16 August 2007	165.55
17 August 2007	165.42
20 August 2007	164.87
21 August 2007	163.83
22 August 2007	163.11
23 August 2007	163.70
24 August 2007	164.60
27 August 2007	ND
28 August 2007	166.95
29 August 2007	169.06

Date	Shipping Rates
30 August 2007	171.59
31 August 2007	174.21
3 September 2007	176.05
4 September 2007	178.85
5 September 2007	182.99
6 September 2007	187.06
7 September 2007	190.23
10 September 2007	191.74
11 September 2007	191.54
12 September 2007	190.48
13 September 2007	188.65
14 September 2007	187.79
17 September 2007	187.65
18 September 2007	188.03
19 September 2007	190.66
20 September 2007	194.96
21 September 2007	202.58
24 September 2007	205.43
25 September 2007	208.44
26 September 2007	209.43
27 September 2007	211.94
28 September 2007	214.30
1 October 2007	215.72
2 October 2007	216.38
3 October 2007	216.26
4 October 2007	215.18
5 October 2007	215.68
8 October 2007	218.62
9 October 2007	223.03
10 October 2007	231.12
11 October 2007	237.80
12 October 2007	241.91
15 October 2007	243.29
16 October 2007	243.11
17 October 2007	242.57
18 October 2007	242.75
19 October 2007	244.24

Date	Shipping Rates
22 October 2007	245.49
23 October 2007	247.55
24 October 2007	248.45
25 October 2007	248.68
26 October 2007	249.38
29 October 2007	249.56
30 October 2007	246.23
31 October 2007	241.03
1 November 2007	239.33
2 November 2007	238.59
5 November 2007	238.38
6 November 2007	239.88
7 November 2007	241.44
8 November 2007	243.02
9 November 2007	245.80
12 November 2007	248.70
13 November 2007	249.69
14 November 2007	248.70
15 November 2007	247.41
16 November 2007	245.87
19 November 2007	243.84
20 November 2007	240.83
21 November 2007	237.89
22 November 2007	233.61
23 November 2007	229.54
26 November 2007	226.26
27 November 2007	223.86
28 November 2007	224.43
29 November 2007	228.27
30 November 2007	230.94
3 December 2007	232.30
4 December 2007	232.64
5 December 2007	231.08
6 December 2007	229.41
7 December 2007	227.73
10 December 2007	226.01
11 December 2007	224.59

Date	Shipping Rates
12 December 2007	224.75
13 December 2007	225.04
14 December 2007	224.34
17 December 2007	222.76
18 December 2007	220.56
19 December 2007	216.94
20 December 2007	212.44
21 December 2007	208.91
24 December 2007	206.81
25 December 2007	ND
26 December 2007	ND
27 December 2007	ND
28 December 2007	ND
31 December 2007	ND
1 January 2008	ND
2 January 2008	201.11
3 January 2008	198.05
4 January 2008	196.83
7 January 2008	197.51
8 January 2008	197.47
9 January 2008	195.00
10 January 2008	188.49
11 January 2008	179.80
14 January 2008	173.13
15 January 2008	165.94
16 January 2008	156.41
17 January 2008	146.39
18 January 2008	146.17
21 January 2008	147.32
22 January 2008	145.60
23 January 2008	141.28
24 January 2008	134.54
25 January 2008	130.74
28 January 2008	128.75
29 January 2008	127.01
30 January 2008	133.45
31 January 2008	136.89

Date	Shipping Rates
1 February 2008	138.75
4 February 2008	138.45
5 February 2008	136.44
6 February 2008	135.76
7 February 2008	138.77
8 February 2008	143.70
11 February 2008	147.48
12 February 2008	151.82
13 February 2008	157.54
14 February 2008	163.13
15 February 2008	166.37
18 February 2008	166.95
19 February 2008	165.55
20 February 2008	160.17
21 February 2008	158.29
22 February 2008	162.57
25 February 2008	165.03
26 February 2008	165.39
27 February 2008	165.10
28 February 2008	165.84
29 February 2008	172.20
3 March 2008	178.19
4 March 2008	180.80
5 March 2008	184.62
6 March 2008	190.07
7 March 2008	193.08
10 March 2008	195.07
11 March 2008	193.62
12 March 2008	188.78
13 March 2008	183.04
14 March 2008	180.32
17 March 2008	178.99
18 March 2008	178.53
19 March 2008	176.45
20 March 2008	173.81
21 March 2008	ND
24 March 2008	ND

Date	Shipping Rates
25 March 2008	172.34
26 March 2008	173.69
27 March 2008	178.33
28 March 2008	182.52
31 March 2008	182.79
1 April 2008	178.47
2 April 2008	173.15
3 April 2008	173.94
4 April 2008	175.01
7 April 2008	175.10
8 April 2008	175.39
9 April 2008	175.53
10 April 2008	176.95
11 April 2008	178.44
14 April 2008	180.07
15 April 2008	179.98
16 April 2008	180.21
17 April 2008	181.81
18 April 2008	185.55
21 April 2008	188.87
22 April 2008	193.40
23 April 2008	200.45
24 April 2008	207.69
25 April 2008	211.02
28 April 2008	211.35
29 April 2008	209.75
30 April 2008	211.63
1 May 2008	213.50
2 May 2008	216.72
5 May 2008	ND
6 May 2008	222.91
7 May 2008	228.55
8 May 2008	231.19
9 May 2008	231.55
12 May 2008	231.17
13 May 2008	234.20
14 May 2008	240.87

Date	Shipping Rates
15 May 2008	250.33
16 May 2008	259.19
19 May 2008	264.85
20 May 2008	266.75
21 May 2008	266.25
22 May 2008	263.47
23 May 2008	259.33
26 May 2008	ND
27 May 2008	254.90
28 May 2008	254.35
29 May 2008	256.66
30 May 2008	258.76
2 June 2008	259.17
3 June 2008	260.19
4 June 2008	262.90
5 June 2008	264.40
6 June 2008	262.66
9 June 2008	260.89
10 June 2008	258.06
11 June 2008	251.19
12 June 2008	229.41
13 June 2008	218.19
16 June 2008	213.05
17 June 2008	212.92
18 June 2008	213.46
19 June 2008	214.30
20 June 2008	213.25
23 June 2008	208.35
24 June 2008	206.72
25 June 2008	209.09
26 June 2008	214.27
27 June 2008	217.12
30 June 2008	216.90
1 July 2008	212.15
2 July 2008	206.72
3 July 2008	201.88
4 July 2008	200.27

Date	Shipping Rates
7 July 2008	202.76
8 July 2008	206.90
9 July 2008	209.73
10 July 2008	210.65
11 July 2008	208.78
14 July 2008	207.67
15 July 2008	206.97
16 July 2008	205.65
17 July 2008	204.91
18 July 2008	203.85
21 July 2008	202.69
22 July 2008	201.40
23 July 2008	200.32
24 July 2008	198.39
25 July 2008	195.36
28 July 2008	192.56
29 July 2008	190.77
30 July 2008	189.73
31 July 2008	188.67
1 August 2008	187.29
4 August 2008	185.68
5 August 2008	183.22
6 August 2008	177.99
7 August 2008	170.12
8 August 2008	162.88
11 August 2008	159.58
12 August 2008	158.15
13 August 2008	160.53
14 August 2008	167.84
15 August 2008	170.93
18 August 2008	172.40
19 August 2008	170.62
20 August 2008	166.12
21 August 2008	162.63
22 August 2008	161.66
25 August 2008	ND
26 August 2008	160.94

Date	Shipping Rates
27 August 2008	159.47
28 August 2008	156.73
29 August 2008	154.01
1 September 2008	151.35
2 September 2008	146.26
3 September 2008	139.02
4 September 2008	132.87
5 September 2008	128.09
8 September 2008	124.23
9 September 2008	118.86
10 September 2008	113.68
11 September 2008	110.68
12 September 2008	108.57
15 September 2008	107.37
16 September 2008	107.67
17 September 2008	109.84
18 September 2008	112.15
19 September 2008	112.53
22 September 2008	111.94
23 September 2008	108.17
24 September 2008	101.54
25 September 2008	94.16
26 September 2008	84.73
29 September 2008	79.26
30 September 2008	72.77
1 October 2008	68.42
2 October 2008	67.63
3 October 2008	67.90
6 October 2008	67.68
7 October 2008	66.09
8 October 2008	62.52
9 October 2008	56.62
10 October 2008	50.24
13 October 2008	44.70
14 October 2008	40.92
15 October 2008	36.53
16 October 2008	34.06

Date	Shipping Rates
17 October 2008	32.53
20 October 2008	30.65
21 October 2008	29.22
22 October 2008	27.62
23 October 2008	25.99
24 October 2008	24.93
27 October 2008	23.71
28 October 2008	22.21
29 October 2008	20.92
30 October 2008	20.02
31 October 2008	19.25
3 November 2008	18.71
4 November 2008	18.43
5 November 2008	18.68
6 November 2008	18.98
7 November 2008	18.75
10 November 2008	18.55
11 November 2008	18.50
12 November 2008	18.64
13 November 2008	18.95
14 November 2008	19.02
17 November 2008	19.36
18 November 2008	19.57
19 November 2008	19.43
20 November 2008	19.16
21 November 2008	18.91
24 November 2008	18.64
25 November 2008	18.19
26 November 2008	17.26
27 November 2008	16.58
28 November 2008	16.17
1 December 2008	15.83
2 December 2008	15.47
3 December 2008	15.20
4 December 2008	15.06
5 December 2008	15.00
8 December 2008	15.18

Date	Shipping Rates
9 December 2008	15.36
10 December 2008	15.63
11 December 2008	16.08

1990-2006 Average: 41.72

* Baltic dry bulk cargo index. [Return to text](#)

Middle-left panel Trade in Real Goods

Monthly

Billions of 2000 Dollars

Period	Exports	Imports
January 2000	62.91	95.50
February 2000	62.56	96.71
March 2000	63.15	99.39
April 2000	63.84	100.06
May 2000	63.50	100.64
June 2000	65.83	103.00
July 2000	65.61	102.88
August 2000	67.81	103.44
September 2000	67.37	105.51
October 2000	66.65	105.33
November 2000	66.56	103.29
December 2000	65.70	102.75
January 2001	65.72	104.94
February 2001	65.92	100.53
March 2001	64.24	103.06
April 2001	62.69	100.07
May 2001	63.81	96.66
June 2001	61.30	97.14
July 2001	59.61	96.99
August 2001	60.13	96.11
September 2001	56.78	94.17
October 2001	57.67	96.51
November 2001	57.59	96.52
December 2001	57.21	94.02
January 2002	56.91	96.87
February 2002	56.87	98.94
March 2002	56.82	97.43

Period	Exports	Imports
April 2002	58.66	100.65
May 2002	58.92	100.65
June 2002	59.37	102.34
July 2002	59.36	101.41
August 2002	59.40	103.69
September 2002	58.74	102.89
October 2002	58.08	99.94
November 2002	58.89	106.37
December 2002	57.04	107.59
January 2003	58.21	104.47
February 2003	58.55	102.43
March 2003	58.74	105.14
April 2003	58.29	105.57
May 2003	58.04	106.14
June 2003	60.14	106.02
July 2003	60.35	107.34
August 2003	59.09	104.15
September 2003	60.73	108.15
October 2003	61.69	109.76
November 2003	63.61	110.09
December 2003	62.58	112.85
January 2004	61.52	111.70
February 2004	64.42	114.17
March 2004	65.97	118.23
April 2004	64.95	117.54
May 2004	66.42	118.65
June 2004	64.49	121.50
July 2004	65.40	120.57
August 2004	65.93	120.34
September 2004	67.09	120.26
October 2004	67.31	122.83
November 2004	66.30	125.00
December 2004	68.27	124.70
January 2005	67.82	126.84
February 2005	68.12	128.56
March 2005	68.23	122.96
April 2005	70.61	127.25

Period	Exports	Imports
May 2005	70.16	127.41
June 2005	70.32	128.56
July 2005	70.28	127.65
August 2005	71.67	127.52
September 2005	69.65	129.20
October 2005	71.38	131.89
November 2005	73.25	132.01
December 2005	74.93	135.46
January 2006	75.27	137.02
February 2006	75.89	134.36
March 2006	76.63	137.06
April 2006	76.32	136.81
May 2006	76.98	137.10
June 2006	78.73	138.15
July 2006	77.12	138.41
August 2006	78.90	139.95
September 2006	78.75	139.98
October 2006	79.60	139.21
November 2006	80.66	139.49
December 2006	79.92	141.42
January 2007	80.88	141.25
February 2007	79.66	141.76
March 2007	81.13	143.85
April 2007	80.86	140.94
May 2007	82.53	141.31
June 2007	83.08	142.43
July 2007	85.70	142.42
August 2007	85.99	142.39
September 2007	86.64	143.29
October 2007	87.10	142.85
November 2007	87.19	143.33
December 2007	87.24	141.10
January 2008	88.70	140.58
February 2008	90.13	144.47
March 2008	85.69	138.21
April 2008	90.35	142.07
May 2008	90.09	142.90

Period	Exports	Imports
June 2008	93.15	140.03
July 2008	95.90	141.74
August 2008	94.29	141.54
September 2008	88.69	136.49
October 2008	87.63	136.25

Middle-right panel Broad Real Dollar

Index, 2002:Q1 = 100

Period	Broad Real Dollar	October Greenbook	Current Forecast
2007:Q1	84.40	84.40	ND
2007:Q2	82.71	82.72	ND
2007:Q3	81.02	81.02	ND
2007:Q4	78.33	78.33	ND
2008:Q1	76.70	76.70	ND
2008:Q2	75.38	75.38	ND
2008:Q3	77.37	77.38	ND
2008:Q4	84.33	83.41	ND
2009:Q1	ND	82.95	84.56
2009:Q2	ND	82.35	84.69
2009:Q3	ND	81.73	84.50
2009:Q4	ND	81.11	84.13
2010:Q1	ND	80.39	83.57
2010:Q2	ND	79.62	82.97
2010:Q3	ND	78.82	82.32
2010:Q4	ND	78.00	81.63

Note: Shaded area shows staff forecast.

Bottom panel Trade in Real Goods and Services*

		2007	2008		2009		2010p	
			H1	Q3e	Q4p	Q1p	Q2-Q4p	
Growth Rates (Percent, a.r.)								
1.	Exports	8.9	8.7	3.1	-7.0	-2.0	-0.7	3.0
2.	<i>October Greenbook</i>	8.9	8.7	8.0	2.6	4.5	2.3	3.9
3.	Imports	1.1	-4.1	-3.4	-4.3	-7.9	1.5	5.0
4.	<i>October Greenbook</i>	1.1	-4.1	-1.0	-0.3	-0.0	1.2	4.3

		2007	2008		2009		2010p	
			H1	Q3e	Q4p	Q1p	Q2-Q4p	
Contribution to Real GDP Growth (Percentage points, a.r.)								
5.	Net Exports	0.8	1.9	1.0	-0.2	1.0	-0.3	-0.4
6.	<i>October Greenbook</i>	<i>0.8</i>	<i>1.9</i>	<i>1.2</i>	<i>0.4</i>	<i>0.6</i>	<i>0.1</i>	<i>-0.2</i>

* Annualized percent change or percentage point contribution from final quarter of preceding period to final quarter of period indicated. [Return to text](#)

Note: December Greenbook projections updated for October trade and November trade price data.

Appendix 4: Materials used by Mr. Madigan

Material for FOMC Briefing on Monetary Policy Alternatives

Brian Madigan

December 16, 2008

Class I FOMC - Restricted Controlled (FR)

[Note: In Appendix 4, strong emphasis (bold) indicates bold text in the original document. Emphasis (strike-through) indicates strike-through text in the original document.]

October FOMC

1. The Federal Open Market Committee decided today to lower its target for the federal funds rate 50 basis points to 1 percent.
2. The pace of economic activity appears to have slowed markedly, owing importantly to a decline in consumer expenditures. Business equipment spending and industrial production have weakened in recent months, and slowing economic activity in many foreign economies is damping the prospects for U.S. exports. Moreover, the intensification of financial market turmoil is likely to exert additional restraint on spending, partly by further reducing the ability of households and businesses to obtain credit.
3. In light of the declines in the prices of energy and other commodities and the weaker prospects for economic activity, the Committee expects inflation to moderate in coming quarters to levels consistent with price stability.
4. Recent policy actions, including today's rate reduction, coordinated interest rate cuts by central banks, extraordinary liquidity measures, and official steps to strengthen financial systems, should help over time to improve credit conditions and promote a return to moderate economic growth. Nevertheless, downside risks to growth remain. The Committee will monitor economic and financial developments carefully and will act as needed to promote sustainable economic growth and price stability.

Draft Statement

Alternative A

1. Since the Committee's last meeting, labor market conditions have deteriorated, and the available data indicate that consumer spending, business investment, and industrial production have declined. **Financial markets remain quite strained and credit conditions tight.** Overall, the outlook for economic activity has weakened further.

2. Meanwhile, inflationary pressures have diminished quickly. In light of the declines in the prices of energy and other commodities and the weaker prospects for economic activity, the Committee expects inflation to moderate in coming quarters [and sees some risk that inflation could decline for a time below rates that best foster economic growth and price stability in the longer term.] [~~In support of its dual mandate, the Committee will seek to achieve a rate of inflation, as measured by the price index for personal consumption expenditures, of about 2 percent in the medium term.~~]
3. In current circumstances, the Committee judged that it was not useful to set a specific target for the federal funds rate. As a result of the large volume of reserves provided by the Federal Reserve's various liquidity facilities, the federal funds rate has declined to very low levels, and the Committee anticipates that weak economic conditions are likely to warrant **exceptionally low levels of the** federal funds rates ~~near zero~~ for some time.
4. The focus of policy going forward will be to continue to support the functioning of financial markets and stimulate the economy through open market operations and other measures that entail the use of the Federal Reserve's balance sheet. In particular, as previously announced, over the next few quarters the Federal Reserve will purchase large quantities of agency debt and mortgage-backed securities to provide support to the mortgage and housing markets, and it stands ready to expand its purchases of agency debt and mortgage-backed securities as conditions warrant. The Committee is also evaluating the potential benefits of purchasing longer-term Treasury securities. Early next year, the Federal Reserve will also implement the Term Asset-Backed Securities Loan Facility to facilitate the extension of credit to households and small businesses. The Federal Reserve will continue to actively consider ways of using its balance sheet to further support credit markets and economic activity.
5. In related actions, the Board of Governors today approved a 75 basis point decrease in the primary credit rate to ½ percent and established interest rates on required and excess reserve balances of ¼ percent. In approving the reduction in the discount rate, the Board acted on requests submitted by the Federal Reserve Banks of ...

Draft Statement Alternative B

1. The Federal Open Market Committee decided today to establish a target range for the federal funds rate of 0 to ¼ percent.
2. Since the Committee's last meeting, labor market conditions have deteriorated, and the available data indicate that consumer spending, business investment, and industrial production have declined. **Financial markets remain quite strained and credit conditions tight.** Overall, the outlook for economic activity has weakened further.
3. Meanwhile, inflationary pressures have diminished quickly. In light of the declines in the prices of energy and other commodities and the weaker prospects for economic activity, the Committee expects inflation to moderate in coming quarters [and sees some risk that inflation could decline for a time below rates that best foster economic growth and price stability in the longer term.]
4. The Federal Reserve will employ all available tools to promote the resumption of sustainable economic growth and to preserve price stability. In particular, **the Committee anticipates that weak economic conditions are likely to warrant near-zero exceptionally low levels of the federal funds rate for some time.**
5. **The focus of policy going forward will be to continue to support the functioning of financial markets and stimulate the economy through open market operations and other measures that entail the use of the Federal Reserve's balance sheet.** As previously announced, over the next few quarters the Federal Reserve will purchase large quantities of

agency debt and mortgage-backed securities to provide support to the mortgage and housing markets, and it stands ready to expand its purchases of agency debt and mortgage-backed securities and as conditions warrant. The Committee is also evaluating the potential benefits of purchasing longer-term Treasury securities. Early next year, the Federal Reserve will also implement the Term Asset-Backed Securities Loan Facility to facilitate the extension of credit to households and small businesses. ~~The Federal Reserve continues to consider possible additions to and expansions of its liquidity facilities, as well as other means of using its balance sheet to further support credit markets and economic activity.~~ **The Federal Reserve will continue to actively consider ways of using its balance sheet to further support credit markets and economic activity.**

6. In a related action, the Board of Governors unanimously approved a 75-basis-point decrease in the discount rate to $\frac{1}{2}$ percent. In taking this action, the Board approved the requests submitted by the Boards of Directors of the Federal Reserve Banks of... The Board also established interest rates on required and excess reserve balances of $\frac{1}{4}$ percent.

Draft Statement Alternative C

1. The Federal Open Market Committee decided today to lower its target for the federal funds rate 50 basis points to $\frac{1}{2}$ percent.
2. Reflecting in part the intensification of the financial strains earlier in the fall, the pace of economic activity has slowed further and the near-term outlook has worsened. Labor market conditions have continued to deteriorate, and consumer spending, business investment, and industrial production have declined.
3. In light of the declines in the prices of energy and other commodities and the weaker prospects for economic activity, the Committee expects inflation to moderate in coming quarters [and sees some risk that inflation could decline for a time below rates that best foster economic growth and price stability in the longer term].
4. In these circumstances, the Committee's primary concern is the downside risks to the economy. The Committee will monitor economic and financial developments carefully and will use all available tools to promote the resumption of sustainable economic growth and to preserve price stability.
5. In particular, as previously announced, over the next few quarters the Federal Reserve will purchase large quantities of agency debt and mortgage-backed securities to provide support to the mortgage and housing markets, and it stands ready to expand its purchases of agency debt and mortgage-backed securities as conditions warrant. The Committee is also evaluating the potential benefits of purchasing longer-term Treasury securities. Early next year, the Federal Reserve will implement the Term Asset-Backed Securities Loan Facility to facilitate the extension of credit to households and small businesses. The Federal Reserve continues to consider possible additions to and expansions of its liquidity facilities, as well as other means of using its balance sheet to further support credit markets and economic activity.
6. In a related action, the Board of Governors unanimously approved a 50-basis-point decrease in the discount rate to $\frac{3}{4}$ percent. In taking this action, the Board approved the requests submitted by the Boards of Directors of the Federal Reserve Banks of...
7. In view of the large volume of reserves provided by the Federal Reserve's various liquidity facilities, the Committee recognizes that the federal funds rate is likely to average somewhat below the $\frac{1}{2}$ percent target.

Draft Statement Alternative D

1. The Federal Open Market Committee decided today to keep its target for the federal funds rate at 1 percent.
2. Reflecting in part the intensification of the financial strains earlier in the fall, the pace of economic activity appears to have slowed further, and the near-term outlook for growth has deteriorated. Moreover, the downside risks are significant. However, policy actions taken in recent months, including reductions in short-term interest rates to very low levels, extraordinary liquidity measures, and official steps to strengthen the financial system, should help over time to improve credit conditions and promote a return to moderate economic growth. As announced previously, the Federal Reserve will purchase a large volume of agency debt and mortgage-backed securities to provide support to the mortgage and housing markets and thus to broader economic activity. Early next year, the Federal Reserve will also implement the Term Asset-Backed Securities Loan Facility to help facilitate the extension of credit to households and small businesses.
3. In light of the declines in the prices of energy and other commodities and the weaker prospects for economic activity, the Committee expects inflation to moderate in coming quarters to levels consistent with price stability.
4. In view of the large volume of reserves provided by the Federal Reserve's various liquidity facilities, the Committee recognizes that the federal funds rate is likely to average significantly below the target rate for some time. The Committee will monitor economic and financial developments carefully in light of recent policy actions and will act as needed to promote sustainable economic growth and price stability.

Draft Directive Alternative A

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. Over the intermeeting period, the Committee directs the Desk to purchase GSE debt and agency-guaranteed MBS, with the aim of providing support to the mortgage and housing markets. The timing and pace of these purchases should depend on conditions in the markets for such securities and on a broader assessment of conditions in primary mortgage markets and the housing sector. By the end of the second quarter of next year, the Desk is expected to purchase up to \$100 billion in housing-related GSE debt and up to \$500 billion in agency-guaranteed MBS. The Committee has suspended setting a target for the federal funds rate, and it anticipates that the reserve conditions associated with its open market operations and the liquidity programs put in place by the Federal Reserve will result in **exceptionally low levels of the federal funds rates near zero**. **The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.**

Draft Directive Alternative B

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range of 0 to ¼ percent. The Committee directs the Desk to purchase GSE debt and agency-guaranteed MBS during the intermeeting period with the aim of providing support to the mortgage and housing markets. The timing and pace of these purchases should depend on conditions in the markets for such securities and on a broader assessment of conditions in primary mortgage markets and the housing sector. By

the end of the second quarter of next year, the Desk is expected to purchase up to \$100 billion in housing-related GSE debt and up to \$500 billion in agency-guaranteed MBS. **The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.**

Draft Directive Alternative C

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee has established a target for the federal funds rate of ½ percent. In view of the large volume of reserves provided by the Federal Reserve's various liquidity programs, the Committee recognizes that the federal funds rate is likely to average somewhat below the ½ percent target rate. The Committee directs the Desk to purchase GSE debt and agency-guaranteed MBS during the intermeeting period with the aim of providing support to the mortgage and housing markets. The timing and pace of these purchases should depend on conditions in the markets for such securities and on a broader assessment of conditions in primary mortgage markets and the housing sector. By the end of the second quarter of next year, the Desk is expected to purchase up to \$100 billion in housing-related GSE debt and up to \$500 billion in agency-guaranteed MBS. **The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.**

Draft Directive Alternative D

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. The Committee has maintained its target for the federal funds rate at 1 percent, but in view of the large volume of reserves provided by the Federal Reserve's various liquidity programs, the Committee recognizes that the federal funds rate is likely to average somewhat below the ½ percent target rate.

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