Appendix 1: Materials used by Ms. Mosser

Class II FOMC - Restricted FR

Page 1

Top panel
(1)

Title: Global Equities
Series: Dow Jones Euro Stoxx, Topix (Japan), EM Index (Morgan Stanley), Standard and Poor's 500 Index
Horizon: August 1, 2008 - March 13, 2009
Description: Global equities decline in February and begin to increase in March.

Source: Bloomberg

Middle panel
(2)

Title: Financial Equity Indices
Series: Merrill Lynch preferred equity index, Standard and Poor's Financials Index, Standard and Poor's 500 Index
Horizon: August 1, 2008 - March 13, 2009
Description: Financial equity indices decline in February and begin to increase in March.

* Merrill Lynch preferred equity index heavily weighted towards financials; common equity index is S&P Financials Index. Return to text

Source: Bloomberg, Merrill Lynch

Page 2

Top panel
(3)

Title: Commercial Bank CDS Spreads
Series: Credit Default Swap Spreads for Bank of America, Citigroup, JPMorgan Chase, and Wells Fargo
Horizon: August 1, 2008 - March 13, 2009
Description: Credit default swap spreads for commercial banks increase dramatically in February and begin to decline in March.

Middle panel
(4)

Title: European Bank CDS Spreads
Series: Credit Default Swap Spreads for Barclays, RBS, HSBC, Deutsche, Societe Generale, UBS, CSFB
Horizon: August 1, 2008 - March 13, 2009
Description: Credit default swap spreads for European banks widen.

Source: Bloomberg

Bottom panel
(5)

Title: Other Financial CDS Spreads
Series: Credit Default Swap Spreads for Morgan Stanley, Goldman Sachs, GE, Prudential, and MetLife
Horizon: August 1, 2008 - March 13, 2009
Description: Credit default swap spreads for financials widen dramatically in February and begin to narrow in March.

Sept. 22: Goldman and Morgan Stanley become bank holding companies

Source: Markit

Page 3

Top panel
(6) Central Bank Policy Action

<table>
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<tr>
<td><strong>A Year Ago</strong></td>
<td>4.00%</td>
<td>5.75%</td>
<td>0.50%</td>
<td>2.25%-3.25%</td>
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<td><strong>Current</strong></td>
<td>1.50%</td>
<td>0.50%</td>
<td>0.10%</td>
<td><em>0.0-0.75%</em></td>
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Liquidity Programs
- Expansion of Counterparties
- Broadening of Eligible Collateral
- Providing Term Liquidity

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<thead>
<tr>
<th>Broader Intermediation (Credit Easing)</th>
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<td>Corp. Bond Purchases</td>
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<tr>
<td>Equity Purchases from Banks</td>
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<th>Monetary Base Expansion (Quantitative Easing)</th>
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<th>Monetary Base Expansion (Quantitative Easing)</th>
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</thead>
</table>

Potential in April
Middle panel
(7)

Title: Currency Depreciation vs US Dollar
Series: Currency depreciation of the Euro, Yen, Great British pound sterling, Canadian dollar, Australian dollar, Mexican peso, and the South Korean won against the United States dollar
Horizon: January 1, 2009 - March 13, 2009
Description: The euro, yen, pound, Canadian dollar, Australian dollar, peso and won depreciate against the dollar during the first quarter of 2009.

Source: Bloomberg

Bottom panel
(8)

Title: Swiss Franc FX Rates
Series: United States dollar to Swiss Franc and Euro to Swiss Franc foreign exchange rates
Horizon: January 1, 2009 - March 13, 2009
Description: Swiss franc depreciates against the euro and US dollar in March.

Source: Bloomberg

Page 4

Top panel
(9)

Title: UK Gilt Yields
Series: Two-Year, Five-Year, 10-Year, and 30-Year United Kingdom gilt yields
Horizon: January 1, 2008 - March 13, 2009
Description: United Kingdom gilt yields decline in March.

Source: Bloomberg

Middle panel
(10)

Title: US vs UK Term Spreads
Series: Ten-Year Treasury Note Yield Spread to Federal Funds Target Rate and the Ten-Year United Kingdom Gilt Yield Spread to Bank Rate
Horizon: January 1, 2008 - March 13, 2009
Description: Ten-year Treasury spread to fed funds and ten-year gilt spread to bank note align in March 2009.

Source: Bloomberg

Bottom panel
(11)
Title: US vs UK Swap Spreads
Series: United States Ten-Year Swap Spread and the United Kingdom Ten-Year Swap Spread
Horizon: January 1, 2008 - March 13, 2009
Description: United States ten-year swap spread decreases in March while United Kingdom ten-year swap spread increases.

Source: Bloomberg

Page 5

Top panel (12)

Title: Mortgage and Agency Yields and Spreads
Series: Mortgage-Backed Security Current Coupon Spread to Blended Five- and Ten-Year Treasury Note Yields, Fannie Mae Five-Year Debt Spread to Treasury Yield, Thirty-Year Fixed Conforming Mortgage Rate
Horizon: August 1, 2008 - March 13, 2009
Description: MBS CC blended spread and thirty-year fixed conforming rate decline while Fannie five-year debt spread holds constant in March.

Sept. 14: Lehman Brothers files for bankruptcy; Nov. 25: Agency Coupon and Agency-MBS Purchases Announced; Jan. 5: First Agency-MBS Purchase

Source: Bloomberg, Lehman Brothers/Barclays

Middle panel (13)

Title: 1-Month Dollar Roll Spread to Agency-MBS RP
Series: One-Month Dollar Roll Spread to Agency-Mortgage-Backed Security Repo
Horizon: August 1, 2008 - March 13, 2009
Description: One-month dollar roll spread to agency-MBS repo narrows in anticipation of Federal Reserve's first dollar roll purchase on March 2.

Source: Bloomberg

Bottom panel (14)

Title: 3-Month Trailing Standard Deviation of the MBS Current Coupon Yield
Series: Three-Month Trailing Standard Deviation of the MBS Current Coupon Yield
Horizon: January 5, 2009 - March 2, 2009
Description: Three-month standard deviation of the MBS CC decreases.

Source: Bloomberg

Page 6

Top panel (15)

Title: Spread between Fannie Current Coupon and Blended 10- and 5-Year Treasury Yields
Series: Spread between Fannie Current Coupon and Blended Ten- and Five-Year Treasury Note Yields, and the National Bureau of Economic Research Recession periods
Horizon: January 1988 - February 2009
Description: Spread between Fannie CC and blended Treasuries decreases in 2009.
Middle panel

(16)

Title: Spread between 2- and 10-Year Treasury Note Yields  
Series: Spread between Two- and Ten-Year Treasury Note Yields, and the National Bureau of Economic Research Recession periods  
Horizon: January 1988 - February 2009  
Description: Spread between two- and ten-year treasuries widens in February.


Source: Haver Analytics, Bloomberg

Bottom panel

(17)

Title: MBS Program and Issuance  
Series: Mortgage-Backed Security Purchases Year-to-Date, Mortgage-Backed Security New Issuance Year-to-Date, Remainder of 2009 Estimate for Mortgage-Backed Security Issuance, and Remainder of 2009 Estimate for Treasury Coupon Issuance  
Horizon: March and 2009 Forecast  
Description: MBS and Treasury coupon issuance expected to increase greatly by end-of-year.

Source: FRBNY, MBS Program Investment Managers

Page 7

Top panel

(18)

Title: Distribution of Expected Policy Target Rate Among Primary Dealers Prior to March 18 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 3/9/2009  
Horizon: Q1 2009 - Q4 2010  
Description: On average, primary dealer economists are forecasting a slower rate of increase in the policy target rate than what is currently priced into Eurodollar futures.

Source: Dealer Policy Survey

Middle panel

(19)

Title: Market Rates Corresponding to Liquidity Facilities  
Series: One-Month GC Treasury Repo, One-Month Agency-MBS Repo, One-Month USD Libor, Three-Month USD Libor, Three-Month Financial Commercial Paper  
Horizon: July 1, 2008 - March 9, 2009  
Description: Treasury GC repo, three-month Libor, one-month Libor increase slightly, Agency-MBS Repo increases slightly, and three-month financial CP at same level as January 28 FOMC meeting.

Source: Federal Reserve Bank of New York
Title: Federal Reserve Balance Sheet Assets  
Series: The composition of the Federal Reserve balance sheet assets.  
Horizon: August 2007 - March 2009  
Description: The Federal Reserve balance sheet contracts slightly.  

Stacked bar chart shows Other Lending; Other Assets; PDCF; PCF; AMLF; CPFF; FX Swaps; TAF; AGY-MBS Holdings; AGY Debt Holdings; All Repos; and Outright TSY Holdings.  
Source: Federal Reserve Bank of New York  

APPENDIX: Reference Exhibits  

Page 8  
Top panel  
(21)  
Title: U.S. Libor-OIS Spreads  
Series: One-Week, One-Month, Three-Month US Libor Spreads to Overnight Indexed Swaps  
Horizon: July 1, 2007 - March 13, 2009  
Description: US Libor spreads to OIS widen slightly in March.  

Source: Bloomberg  

Middle panel  
(22)  
Title: Three-Month Commercial Paper Rates  
Horizon: August 1, 2008 - March 13, 2009  
Description: A2/P2 Non-Financial commercial paper rate declines in March.  

Sept. 19: AMLF announced; Oct. 7: CPFF announced (effective Oct. 27); Oct. 21: MMIF announced  
Source: Federal Reserve Board  

Bottom panel  
(23)  
Title: Treasury Yield Curve Steepens Modestly  
Series: 2-Year, 5-Year, 10-Year, and 30-Year Treasury Yields  
Horizon: August 1, 2007 - March 13, 2009  
Description: Treasury yield curve steepens modestly.  
Source: Bloomberg  

Page 9  
Top panel  
(24)  
Title: Asset-Backed Security Spreads Narrow After Year End  
Series: AAA-Rated Three-Year Auto spread to Libor, AAA-Rated Five-Year Credit Card spread to Libor, AAA-Rated Three-Year FFELP Student Loan spread to Libor
Horizon: August 1, 2008 - March 10, 2009
Description: Asset-backed security spreads to Libor decline slightly since the January FOMC meeting.

Dec. 19: TALF announced
Source: JPMorgan Chase

Middle panel
(25)

Title: Commercial Mortgage-Backed and Leveraged Loan Prices Deteriorate
Horizon: August 1, 2008 - March 9, 2009
Description: Commercial mortgage-backed and leveraged loan prices decline.

Source: Lehman Brothers/Barclays, JPMorgan Chase

Page 10
Top panel
(26)

Title: Commercial Bank Equity Prices
Series: Equity prices for JP Morgan Chase, Citigroup, Bank of America, Wells Fargo, and the Standard & Poor's 500 Index
Horizon: August 1, 2008 - March 13, 2009
Description: Commercial bank equity prices begin to increase in March.

Source: Bloomberg

Middle panel
(27)

Title: European Bank Equity Prices
Series: Equity prices for Barclays, Royal Bank of Scotland, HSBC, Deutsche Bank, Societe Generale, UBS, and Credit Suisse
Horizon: August 1, 2008 - March 13, 2009
Description: European bank equity prices begin to increase in March.

Source: Bloomberg

Bottom panel
(28)

Title: Other Financial Equity Prices
Series: Equity prices for Morgan Stanley, Goldman Sachs, Prudential, MetLife, GE, and the Standard & Poor's 500 Index
Horizon: August 1, 2008 - March 13, 2009
Description: Financials equity prices begin to increase in March.

Sept. 22: Goldman and Morgan Stanley become bank holding companies
Source: Bloomberg

Page 11
Top panel
(29)

Title: Cumulative Purchases of Agency-MBS
Series: Federal Reserve purchases of Agency-Mortgage-Backed Securities excluding dollar rolls
Horizon: January 5, 2009 - March 12, 2009
Description: Cumulative purchases of Agency-MBS reach $215 billion.
Middle panel
(30)

**Title:** Dollar Roll Purchases and Sales  
**Series:** Federal Reserve purchases and sales of dollar rolls  
**Horizon:** March 2, 2009 - March 12, 2009  
**Description:** Federal Reserve Bank of New York begins purchases and sales of dollar rolls in March.

Source: Federal Reserve Bank of New York

Bottom panel
(31)

**Title:** Mortgage Refinance Applications  
**Series:** Mortgage Application Index and Mortgage Refinance Application Index  
**Horizon:** January 1, 1990 - March 6, 2009  
**Description:** Mortgage refinance applications increase in March.

Source: Bloomberg

Page 12

Top panel
(32)

**Title:** Total Outstanding FX Swap Draw-Downs Decline  
**Series:** Outstanding foreign exchange swap draw-downs for Norges Bank, Danmark National Bank, Bank of Korea, Riksbank, Reserve Bank of Australia, Bank of Japan, Bank of England, Swiss National Bank, and European Central Bank  
**Horizon:** December 1, 2007 - March 11, 2009  
**Description:** Total outstanding FX swap draw-downs decline.

Source: Federal Reserve Bank of New York

Middle panel
(33)

**Title:** Term Auction Facility Loans Outstanding  
**Series:** Term Auction Facility loans outstanding for Forward, 84-Day, and 28-Day operations  
**Horizon:** December 20, 2007 - March 12, 2009  
**Description:** TAF loans outstanding decrease.

Source: Federal Reserve Bank of New York

Bottom panel
(34)

**Title:** Demand at TAF Auctions  
**Series:** Term Auction Facility Auction Size, Amount Awarded, and Stop-Out Rate Spread to Minimum Bid Rate  
**Horizon:** December 20, 2007 - March 12, 2009  
**Description:** TAF auctions continue to be undersubscribed.

Source: Federal Reserve Board

Page 13

Top panel
(35)
Title: Amount of CPFF Loans Outstanding  
Series: Amount of Commercial Paper Funding Facility loans outstanding for commercial paper, FDIC guaranteed commercial paper, and asset-backed commercial paper  
Horizon: October 27, 2008 - March 12, 2009  
Description: CP and FDIC guaranteed CP outstanding decrease slightly recently.

Source: Federal Reserve Bank of New York

Middle panel

Title: Assets in Prime Money Market Funds  
Series: Assets in Prime, Treasury Only, Treasury and Repo, and Treasury and Agency Money Market Funds  
Horizon: August 1, 2008 - March 11, 2009  
Description: Assets in Prime and Treasury & Agency money market funds increase and assets in Treasury Only and Treasury & Repo decrease slightly recently.

Sept. 14: Lehman Brothers Holdings files for bankruptcy; Sept. 19: AMLF announced; Oct. 7: CPFF announced (effective Oct. 27); Oct. 21: MMIFF; Jan. 5: MMIFF eligibility expanded

Source: iMoneyNet

Bottom panel

Title: Spread between Jumbo and Conforming Mortgage Rates Remains Wide  
Series: Conforming Mortgage Rates, Jumbo Mortgage Rates and the spread between Conforming Mortgage Rates and Jumbo Mortgage Rates  
Horizon: January 1, 2008 - March 13, 2009  
Description: Conforming mortgage rate declines.

Sept. 7: Fannie Mae and Freddie Mac enter conservatorship; Nov. 25: Agency Coupon and Agency-MBS Purchases Announced; Dec. 30: Agency-MBS FAQ Released; Jan. 5: First Agency-MBS Purchase

Source: Bloomberg

Page 14

Top panel

Title: Bank Equity  
Series: Equity prices for Bank of America Common, Preferred, and Trust Preferred  
Horizon: August 15, 2008 - March 13, 2009  
Description: Bank of America equity prices increase.

Source: Bloomberg

Middle panel

Title: Bank Equity  
Series: Equity prices for Citigroup Common, Preferred, and Trust Preferred  
Horizon: August 15, 2008 - March 13, 2009  
Description: Citigroup preferred and trust preferred equity prices increase moderately while common equity price increases slightly.

Source: Bloomberg
Top panel

**Title:** ECB Rates v EONIA  
**Series:** European Central Bank Marginal Lending Rate, European Central Bank Main Refinancing Rate, European Central Bank Deposit Facility Rate, and Eurozone Effective Overnight Index Average  
**Horizon:** January 1, 2008 - March 10, 2009  
**Description:** EONIA declines with European Central Bank rates.  

Source: Bloomberg

Middle panel

**Title:** Distribution of Expected Policy Target Rate Among Primary Dealers Prior to January 28 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  
**Horizon:** Q1 2009 - Q4 2010  
**Description:** On average, primary dealer economists are forecasting a slower rate of increase in the policy target rate over the next two years than what is currently priced into Eurodollar futures.  

Source: Dealer Policy Survey

Bottom panel

**Title:** Guidelines for MBS Purchases  
**Series:** Guidelines for Mortgage Backed Security Purchases based upon Primary Mortgage Rate and the Nominal MBS/Treasury Spread  
**Description:** Guidelines for Mortgage Backed Security Purchases based upon Primary Mortgage Rate and the Nominal MBS/Treasury Spread.  

Notes: Primary Mortgage Rate - Bankrate 30-yr Mortgage rate (Natl Avg); Nominal MBS/Treas Spread - FN CC - Avg (10-yr UST, 5-yr UST). Chart shows Nominal MBS/Treasury Spread on horizontal axis, from 100 to 225, and Primary Mortgage Rate on the vertical axis, from 4.625 to 5.375. Guidelines are shown as diagonal bands, beginning with Stop in the lower left corner, then Less, Steady, More, and ending with Push in the upper-right corner.  

Source: Bloomberg, Bankrate

Appendix 2: Materials used by Messrs. Gagnon and Reifschneider

Material for Briefing on **Large-Scale Asset Purchases**  
Joseph Gagnon  
David Reifschneider  
March 17, 2009  

**CLASS II FOMC - Restricted (FR)**

**Exhibit 1**  
Effects of Large-Scale Asset Purchases (LSAPs)

*Top panel*  
Supplemental Effects on Bond Yields
• FOMC memo (Cabana, et al., December 5) reviewed economic literature.
  -- $500 billion purchase of long-term Treasuries could reduce 10-year Treasury yield 20 to 100 basis points.
  -- Also lower long-term private yields.
• Public and private long-term yields historically have been highly correlated.
  -- In recent months, these correlations have declined.

*Middle panel*

*Yield Effects of Central Bank Communications*[^1]

<table>
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<th>United States</th>
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<th>U.K.</th>
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<td></td>
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<td>Dec. 1-2</td>
<td>Dec. 16-17</td>
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<td>Treasury 10-Y</td>
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<td>-24</td>
<td>-35</td>
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<td>Swap 10-Y</td>
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<td>-54</td>
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<tr>
<td>FNMA 10-Y</td>
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<td>FNMA MBS 30-Y</td>
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<td>-23</td>
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<td>Corp. AA 10-Y</td>
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<td>Corp. BBB 10-Y</td>
<td>-16</td>
<td>-21</td>
<td>-29</td>
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</table>

* Changes in basis points from previous close. [Return to text](#)

*Bottom panel*

*Mortgage Market Rates*

A line chart displays the conforming 30-year fixed mortgage rate, the 30-year current coupon agency MBS yield, and the 7.5-year off-the-run Treasury yield from January 2007 through March 11, 2009, weekly. The mortgage rate fluctuates around and slightly above 6 percent until November 2008. It drops in late November and December and then stabilizes around or slightly above 5 percent. The MBS yield moves parallel to and about 0.5 percent below the mortgage rate until late November 2008. It drops below 4 percent in December and January and then returns to about 4.25 in February and March. The Treasury yield fluctuates just below 5 percent through July 2007, then declines in steps to about 3.5 percent in March 2008. It fluctuates between 3.5 and 4 percent until November 2008. It drops to slightly over 2 percent in late December and then rises to just under 3 percent by late February and early March.

*Exhibit 2*

*Macroeconomic Effects of Large-Scale Asset Purchases*

*Top panel*

*Basic Principles*

• Financial conditions broadly improve:
  -- Purchases of Treasury securities or agency MBS lower yield on targeted asset
  -- Own-yield declines spill over to other long-term interest rates
  -- General decline in interest rates sparks higher equity prices, lower real exchange rate

• Consumption, investment, and net exports strength in response to:
  -- Lower borrowing costs

[^1]: Changes in basis points from previous close.
-- Higher wealth
-- Improved international competitiveness of U.S. firms

Middle panel
FRB/US Estimates of the Output Effects of Purchasing a Further $500 Billion in Agency MBS

<table>
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<th>Financial spillovers limited to:</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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<tbody>
<tr>
<td>1. MBS yields and home mortgage rates</td>
<td>0.08</td>
<td>0.15</td>
<td>0.17</td>
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<td>2. Interest rates</td>
<td>0.12</td>
<td>0.30</td>
<td>0.48</td>
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<tr>
<td>3. Interest rates and corporate equity prices</td>
<td>0.16</td>
<td>0.46</td>
<td>0.74</td>
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<tr>
<td>4. Full spillovers, including the real exchange rate</td>
<td>0.22</td>
<td>0.65</td>
<td>1.06</td>
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<tr>
<td>Memo: effect of purchasing $500 billion in long-term</td>
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<td>Treasury securities assuming full financial spillovers</td>
<td>0.17</td>
<td>0.52</td>
<td>0.83</td>
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</table>

Bottom-left panel
Other Possible Channels

- Lower mortgage rates boost home prices
  -- In theory, 15 percent rise in prices for each percentage point decline
  -- Empirical evidence suggests smaller price increase of 2½ percent

- Mortgage refinancing transfers income
  -- Borrowers gain at lenders expense
  -- Calculations imply a modest boost to consumption

Bottom-right panel
Real GDP Effects of a $1 Trillion LSAP Program

A line chart shows three different FRB/US-based estimates of the effect on the level of real GDP of a $1 trillion LSAP program, with purchases evenly divided between long-term Treasury securities and agency MBS. Unit is percent change from baseline. The first line shows the estimated effect of the program on the level of real GDP using the standard version of the FRB/US model; in this case, the effect of the program starts out at zero in 2009:Q2 and then climbs steadily to 2 percent by the end of 2011. The second line shows output effects when the FRB/US simulation is adjusted to take account of mortgage refinancing effects and a 2½ percent increase in home prices; in this case, the real GDP effect starts out at zero in 2009:Q2 and climbs to 2½ percent by late 2011. The third line shows estimated effects when the FRB/US simulation is adjusted to take account of mortgage refinancing effects and a 15 percent increase in home prices; in this case, the level of GDP effect rises from zero in 2009:Q2 to 4 percent by late 2011.

Exhibit 3
Using Asset Purchases to Compensate for the Monetary Policy Shortfall

Top-left panel
Monetary Policy Shortfall

- Staff assumes that the funds rate will remain near zero for several years
• Unconstrained optimal monetary policy would ease even further
• Overcoming the monetary policy shortfall requires further fiscal or unconventional monetary action

Top-right panel
Federal Funds Rate
A line chart shows two different paths for the federal funds rate. The first path, which corresponds to the Greenbook baseline, starts out at 3¼ percent in early 2008, falls to just above zero in early 2009, and then remains at zero through 2013. The second path, which corresponds to unconstrained optimal monetary policy, starts at zero in 2009:Q1, falls to negative 6½ percent by late 2010, and then gradually rises to 2 percent by late 2013.

Implications for the Outlook of Further Large-Scale Asset Purchases
Middle-left panel
Unemployment Rate
A line chart shows four different paths for the unemployment rate. The first path, which corresponds to the baseline path under constrained optimal monetary policy, starts at 5 percent in early 2008, rises to 9½ percent by mid 2010, stays at that level through early 2011, and then falls gradually to 5¼ percent by late 2013. The second path, which shows how conditions would differ if the Federal Reserve were to buy $500 billion in MBS, follows the baseline path until mid-2009, then averages about 9½ percent in 2010, and afterwards slowly declines to 5 percent by late 2013. The third path, which shows how conditions would change if the Federal Reserve were to buy $500 billion in MBS and $500 billion long-term Treasury securities, follows the baseline path until mid-2009, then declines to 0.6 percent in 2011, and subsequently rises to 1.4 percent by late 2013. The fourth path, which shows how conditions would change if the federal funds rate could follow the unconstrained optimal path, follows the baseline path until mid-2009, then rises to 8¾ percent in early 2010, and afterwards declines more quickly than the other paths, reaching 4¾ percent by early 2013.

Middle-right panel
Core PCE Inflation
A line chart shows four different paths for core PCE inflation. The first path, which corresponds to the baseline path under constrained optimal monetary policy, starts at 2.2 percent in early 2008, rises to 2.4 percent by mid-year, falls steadily to 0.5 percent in 2011, and then rises slowly to 1.0 percent by late 2013. The second path, which shows how conditions would differ if the Federal Reserve were to buy $500 billion in MBS, follows the baseline path until mid-2009, then declines to 0.6 percent in 2011, and subsequently rises to 1.2 percent by late 2013. The third path, which shows how conditions would change if the Federal Reserve were to buy $500 billion in MBS and $500 billion long-term Treasury securities, follows the baseline path until mid-2009, then declines to 0.7 percent in 2011, and subsequently rises to 1.4 percent by late 2013. The fourth path, which shows how conditions would change if the federal funds rate could follow the unconstrained optimal path, follows the baseline path until early 2009, and then declines to only 1.2 percent in late 2010, and then rises steadily to 2.5 percent by late 2013.

Bottom panel
Caveats
• Results hinge on extensive financial spillover but evidence for stock market and exchange rate effects is slim
• Economic effects highly uncertain
  -- Households and firms may be reluctant to spend under current conditions
  -- Credit constraints may limit response of consumption and investment
  -- Cash-strapped households may be more responsive than normal
• Inflation effects may be more substantial if asset purchases directly bolster Fed credibility
Exhibit 4
LSAP Risks

Top panel
LSAPs and Monetary Policy Flexibility
- Marketable assets do not constrain policy stance.
  -- Asset purchases stimulate activity.
  -- Asset sales restrain activity.
- Outright sales could lead to a financial loss.
- Use as collateral to drain reserves still under development.

Bottom panel
LSAPs and Fiscal Revenue
- LSAPs significantly increase Federal Reserve net income.
  -- MBS yield 4-1/4%.
  -- Reserves pay 1/4%.
- LSAPs increase Federal Reserve leverage.
- LSAPs increase maturity mismatch.

Exhibit 5 (Last)
Strategies

Top panel
Assets under Consideration
- Treasuries, agency debt, and agency MBS.
- MBS may have greater macroeconomic effect.
- Including Treasuries and agency debt may be a prudent strategy.

Bottom-left panel
Mortgage Market
A line chart displays the primary-secondary mortgage spread (difference in percentage points between mortgage rate and MBS yield shown in Exhibit 1) and the Mortgage Bankers Association (MBA) refinancing index (March 16, 1990 = 100) from September 2008 through March 11, 2009. Data are weekly. The mortgage spread fluctuates around 0.55 until late November, then it rises to peak around 1.2 in late December and January before declining to about 0.75 by the end of February. The refinancing index fluctuates around 1800 until late November, then rises to around 5000 by the end of December, falling to around 2200 by late January and then ticking up to around 2800 in late February and early March.

Bottom-right panel
Holding Down Mortgage Spread
- Purchase new-production MBS.
• Sell put options on forward MBS.
• Communicate that mortgage rates are likely to remain low for several months.

Appendix 3: Materials used by Mr. Hilton

Class II FOMC - Restricted FR

Page 1

Top panel
(1)

Title: Federal Reserve Balance Sheet Assets  
Series: Federal Reserve Balance Sheet  
Horizon: August 2007 - March 2009  
Description: Balance sheet increases slightly.  

Stacked bar chart shows Other Lending; Other Assets; PCF+PDCF; AMLF; CPFF; FX Swaps; TAF; Outright Agency Holdings; All Repos; and Outright TSY Holdings.  

Source: Federal Reserve Bank of New York

Middle panel
(2)

Title: Balance Sheet Assets by Borrower Type  
Series: Federal Reserve balance sheet broken down by borrower type  
Horizon: January 1, 2008 - March 12, 2009  
Description: Balance sheet assets by borrower type.  

Stacked line chart shows Type 1: Treasury outright holdings and other assets; Type 2: Short-term lending through liquidity facilities (TAF, FX swaps, CPFF, single-tranche RPs, AMLF, MMIFF, PCF, PDCF); Type 3: Lending to systemically important institutions; and Type 4: Agency MBS, agency debt, agency discount notes.  

Source: Federal Reserve Bank of New York

Bottom panel
(3)

Title: Three-Month Funding Rates  
Series: Libor, OIS, AA-Rated Financial Commercial Paper, Agency-MBS Repo, and the Primary Credit Facility Rate  
Horizon: January 1, 2008 - March 12, 2009  
Description: Three-month funding rates increase slightly since the January FOMC meeting.  

Source: Bloomberg

Page 2

Top panel
(4)

Title: Total Outstanding FX Swap Draw-Downs Decline  
Series: Outstanding foreign exchange swap draw-downs for Norges Bank, Danmark National Bank, Bank of
Korea, Riksbank, Reserve Bank of Australia, Bank of Japan, Bank of England, Swiss National Bank, and European Central Bank

**Horizon**: December 1, 2007 - March 11, 2009

**Description**: Total outstanding FX swap draw-downs decline.

Source: Federal Reserve Bank of New York

### Middle panel

(5)

**Title**: Amount of CPFF Loans Outstanding

**Series**: Amount of Commercial Paper Funding Facility loans outstanding for commercial paper, FDIC guaranteed commercial paper, and asset-backed commercial paper

**Horizon**: October 27, 2008 - March 12, 2009

**Description**: CP and FDIC guaranteed CP outstanding decrease slightly recently.

Source: Federal Reserve Bank of New York

### Bottom panel

(6)

**Title**: TSLF Loans Outstanding

**Series**: Term Securities Lending Facility Schedule 1, Schedule 2, and TSLF Options Program loans outstanding

**Horizon**: March 28, 2008 - March 12, 2009

**Description**: TSLF loans outstanding decrease.

Source: Federal Reserve Bank of New York

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Page 3

### Top panel

(7)

**Title**: Term Auction Facility Loans Outstanding

**Series**: 84-Day, 28-Day, and Forward Term Auction Facility loans outstanding

**Horizon**: December 20, 2007 - March 13, 2009

**Description**: TAF loans decrease in late March.

Source: Federal Reserve Bank of New York

### Middle panel

(8)

**Title**: AMLF Loans Outstanding

**Series**: Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility

**Horizon**: September 22, 2008 - March 12, 2009

**Description**: AMLF loans outstanding decrease.

Source: Federal Reserve Bank of New York

### Bottom panel

(9)

**Title**: PCF and PDCF Borrowing

**Series**: Primary Credit Facility and Primary Dealer Credit Facility Borrowing

**Horizon**: January 1, 2008 - March 12, 2009

**Description**: PCF and PDCF borrowing decrease.
Page 4

*Top panel*

(10)

**Title:** Baseline Scenario  
**Series:** Baseline scenario for the Federal Reserve Balance Sheet  
**Horizon:** March 2009 - 2016  
**Description:** Balance sheet contracts in the baseline scenario.

Stacked line chart shows Liquidity Facilities (CPFF/AMLF/PDCF/TAF/Swaps/etc.); Additional Outright Purchase Programs (Agency, MBS, LT Tsys); TALF; Systemic Lending (AIG/Bear); and Other Assets.

Source: Federal Reserve Bank of New York

*Middle panel*

(11)

**Title:** Optimistic Scenario  
**Series:** Optimistic scenario for the Federal Reserve Balance Sheet  
**Horizon:** March 2009 - 2016  
**Description:** Balance sheet contracts in the optimistic scenario.

Stacked line chart shows same components as Baseline Scenario.

Source: Federal Reserve Bank of New York

*Bottom panel*

(12)

**Title:** Stress Scenario  
**Series:** Stress scenario for the Federal Reserve Balance Sheet  
**Horizon:** March 2009 - 2016  
**Description:** Balance sheet expands in the stress scenario.

Stacked line chart shows same components as Baseline Scenario.

Source: Federal Reserve Bank of New York

Page 5

*Top panel*

(13)

**Title:** Liabilities  
**Series:** Liabilities for the Federal Reserve Balance Sheet  
**Horizon:** March 2009 - 2016  
**Description:** Balance sheet reserves for all scenarios and liabilities.

Stacked line chart shows Stress Scenario Total Reserves; Baseline Scenario Total Reserves; Optimistic Scenario Total Reserves; All Other Liabilities; and Federal Reserve Notes.

Source: Federal Reserve Bank of New York
## Recent Changes in Consumer Price Indexes

(Percent change)

<table>
<thead>
<tr>
<th>Item</th>
<th>Weights (^1)</th>
<th>12-month change (^2)</th>
<th>3-month change</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual rate</td>
<td></td>
</tr>
<tr>
<td>Total CPI</td>
<td>100.0</td>
<td>4.0</td>
<td>.2</td>
<td>-9.4</td>
<td>-5.0</td>
</tr>
<tr>
<td>Food</td>
<td>14.6</td>
<td>4.6</td>
<td>4.8</td>
<td>4.5</td>
<td>.0</td>
</tr>
<tr>
<td>Meats, poultry, fish, and eggs</td>
<td>1.9</td>
<td>.8</td>
<td>4.1</td>
<td>3.9</td>
<td>-1.5</td>
</tr>
<tr>
<td>Fruits and vegetables</td>
<td>1.2</td>
<td>1.3</td>
<td>2.4</td>
<td>-10.1</td>
<td>-9.6</td>
</tr>
<tr>
<td>Other</td>
<td>11.5</td>
<td>4.9</td>
<td>5.2</td>
<td>6.3</td>
<td>1.3</td>
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<tr>
<td>Energy</td>
<td>7.6</td>
<td>18.9</td>
<td>-18.5</td>
<td>-67.0</td>
<td>-17.4</td>
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<tr>
<td>Motor Fuel</td>
<td>3.2</td>
<td>32.7</td>
<td>-35.4</td>
<td>-85.0</td>
<td>-28.4</td>
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<td>Heating oil</td>
<td>.3</td>
<td>33.0</td>
<td>-21.4</td>
<td>-58.3</td>
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<td>Natural gas</td>
<td>1.2</td>
<td>3.5</td>
<td>-3.3</td>
<td>-50.3</td>
<td>-23.3</td>
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<tr>
<td>Electricity</td>
<td>3.0</td>
<td>3.4</td>
<td>9.2</td>
<td>5.2</td>
<td>5.7</td>
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<tr>
<td>CPI excluding food and energy</td>
<td>77.7</td>
<td>2.3</td>
<td>1.8</td>
<td>.6</td>
<td>1.5</td>
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<td>Goods ex. food and energy</td>
<td>21.5</td>
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<td>.0</td>
<td>-2.2</td>
<td>1.2</td>
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<tr>
<td>Nondurables ex. food and energy</td>
<td>11.0</td>
<td>1.0</td>
<td>2.5</td>
<td>1.1</td>
<td>3.7</td>
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<tr>
<td>Apparel</td>
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<td>-1.0</td>
<td>.8</td>
<td>-3.5</td>
<td>3.9</td>
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<tr>
<td>Tobacco</td>
<td>.8</td>
<td>4.8</td>
<td>6.3</td>
<td>1.7</td>
<td>8.1</td>
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<tr>
<td>Other nondurables</td>
<td>6.5</td>
<td>1.8</td>
<td>3.0</td>
<td>3.9</td>
<td>3.1</td>
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<tr>
<td>Durables</td>
<td>10.5</td>
<td>-1.0</td>
<td>-2.6</td>
<td>-5.5</td>
<td>-1.3</td>
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<tr>
<td>New vehicles</td>
<td>4.5</td>
<td>-8.0</td>
<td>-1.5</td>
<td>-6.3</td>
<td>3.1</td>
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<tr>
<td>New cars</td>
<td>-.6</td>
<td>.0</td>
<td>-5.9</td>
<td>1.0</td>
<td>-.4</td>
</tr>
<tr>
<td>New trucks</td>
<td>-.7</td>
<td>-3.2</td>
<td>-7.6</td>
<td>4.8</td>
<td>-.6</td>
</tr>
<tr>
<td>Used cars and trucks</td>
<td>1.6</td>
<td>2.0</td>
<td>-10.5</td>
<td>-16.0</td>
<td>-11.9</td>
</tr>
<tr>
<td>Computers</td>
<td>.2</td>
<td>-11.7</td>
<td>-12.8</td>
<td>-15.9</td>
<td>-5.7</td>
</tr>
<tr>
<td>Audio/Video Equipment</td>
<td>.6</td>
<td>-5.3</td>
<td>-7.3</td>
<td>-5.0</td>
<td>-10.4</td>
</tr>
<tr>
<td>Other Durables</td>
<td>3.6</td>
<td>-1.4</td>
<td>1.6</td>
<td>1.7</td>
<td>.3</td>
</tr>
<tr>
<td>Services excluding energy</td>
<td>56.3</td>
<td>3.2</td>
<td>2.5</td>
<td>1.7</td>
<td>1.6</td>
</tr>
<tr>
<td>Rent of shelter</td>
<td>32.9</td>
<td>2.9</td>
<td>1.7</td>
<td>2.1</td>
<td>.6</td>
</tr>
<tr>
<td>Owners’ equivalent rent</td>
<td>24.4</td>
<td>2.6</td>
<td>2.1</td>
<td>2.3</td>
<td>1.8</td>
</tr>
<tr>
<td>Rent of primary residence</td>
<td>6.0</td>
<td>3.7</td>
<td>3.3</td>
<td>3.4</td>
<td>2.6</td>
</tr>
<tr>
<td>Lodging away from home</td>
<td>2.5</td>
<td>3.5</td>
<td>-5.7</td>
<td>-5.9</td>
<td>-13.2</td>
</tr>
<tr>
<td>Services ex. energy and shelter</td>
<td>23.4</td>
<td>3.5</td>
<td>3.7</td>
<td>1.5</td>
<td>2.7</td>
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</table>
### Item Weights

<table>
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<tr>
<th>Item</th>
<th>Weights&lt;sup&gt;1&lt;/sup&gt;</th>
<th>12-month change&lt;sup&gt;2&lt;/sup&gt;</th>
<th>3-month change</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical services</td>
<td></td>
<td>4.8</td>
<td>5.0</td>
<td>3.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Tuition and other school fees</td>
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<td>2.9</td>
<td>5.5</td>
<td>5.4</td>
<td>5.0</td>
</tr>
<tr>
<td>Air fares</td>
<td></td>
<td>.7</td>
<td>7.6</td>
<td>-3.5</td>
<td>-30.6</td>
</tr>
<tr>
<td>Other services</td>
<td></td>
<td>15.0</td>
<td>2.5</td>
<td>3.9</td>
<td>2.5</td>
</tr>
</tbody>
</table>

**Memo:**

| Chained CPI                       | 100.0                | 3.7      | -.3      | n.a.     | n.a.     | n.a  | n.a  | n.a  | n.a  |
| All items less food and energy    | 77.6                 | 1.9      | 1.3      | n.a.     | n.a.     | n.a  | n.a  | n.a  | n.a  |

1. Relative importance weights for December 2008, which are based on 2005-2006 expenditure weights. For the chained CPI, the 2005-2006 expenditure weights are shown. [Return to table](#).

2. Not seasonally adjusted. [Return to table](#).


### Appendix 5: Materials used by Mr. Madigan

**Material for FOMC Briefing on Monetary Policy Alternatives**

Brian Madigan
March 18, 2009

**Class I FOMC - Restricted Controlled (FR)**

**January FOMC Statement**

The Federal Open Market Committee decided today to keep its target range for the federal funds rate at 0 to ¼ percent. The Committee continues to anticipate that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time.

Information received since the Committee met in December suggests that the economy has weakened further. Industrial production, housing starts, and employment have continued to decline steeply, as consumers and businesses have cut back spending. Furthermore, global demand appears to be slowing significantly. Conditions in some financial markets have improved, in part reflecting government efforts to provide liquidity and strengthen financial institutions; nevertheless, credit conditions for households and firms remain extremely tight. The Committee anticipates that a gradual recovery in economic activity will begin later this year, but the downside risks to that outlook are significant.

In light of the declines in the prices of energy and other commodities in recent months and the prospects for considerable economic slack, the Committee expects that inflation pressures will remain subdued in coming quarters. Moreover, the Committee sees some risk that inflation could persist for a time below rates that best foster economic growth and price stability in the longer term.

The Federal Reserve will employ all available tools to promote the resumption of sustainable economic growth and to preserve price stability. The focus of the Committee's policy is to support the functioning of financial markets and stimulate the economy through open market operations and other measures that are likely to keep the size of the Federal Reserve's balance sheet at a high level. The Federal Reserve continues to 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 the quantity of such purchases and the duration of the purchase program as conditions warrant. The Committee also is prepared to purchase longer-term Treasury securities if evolving circumstances indicate that such transactions would be particularly effective in improving conditions in private credit markets. The
Federal Reserve will be implementing the Term Asset-Backed Securities Loan Facility to facilitate the extension of credit to households and small businesses.

The Committee will continue to monitor carefully the size and composition of the Federal Reserve’s balance sheet in light of evolving financial market developments and to assess whether expansions of or modifications to lending facilities would serve to further support credit markets and economic activity and help to preserve price stability.

[Note: In the March FOMC Statement Alternatives, emphasis (strike-through) indicates strike-through text in the original document, and strong emphasis (bold) indicates bold red underlined text in the original document.]

Alternative A

Information received since the Federal Open Market Committee met in January indicates that the economy is undergoing a severe contraction and that the outlook for the next several quarters has worsened. Job losses, declining equity and housing wealth, and tight credit conditions have weighed on consumer sentiment and spending. Weaker sales prospects and difficulties in obtaining credit have led businesses to cut back on inventories and fixed investment. U.S. exports have slumped as a number of major trading partners have also fallen into recession. Although the near-term economic outlook is weak, the Committee anticipates that policy actions to stabilize financial markets and institutions, together with fiscal and monetary stimulus, will contribute to a gradual resumption of sustainable economic growth.

In light of increasing economic slack here and abroad, the Committee expects that inflation will remain subdued. Moreover, the Committee sees some risk that inflation could persist for a time below rates that best foster economic growth and price stability in the longer term.

In these circumstances, the Federal Reserve will employ all available tools to promote economic recovery and to preserve price stability. The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and anticipates that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for an extended period. To provide greater support to mortgage lending and housing markets, the Committee decided today to increase the size of the Federal Reserve’s balance sheet further by purchasing an additional $500 billion of agency mortgage-backed securities, bringing its total purchases of these securities to $1 trillion this year; at least half of this total will be acquired by June. The Committee also decided to boost its purchases of agency debt securities; it now anticipates purchasing $200 billion of such issues this year. Moreover, to help improve conditions in private credit markets, the Committee decided to purchase $300 billion of longer-term Treasury securities over the next six months. The Federal Reserve has launched the Term Asset-Backed Securities Loan Facility to facilitate the extension of credit to households and small businesses and anticipates that the range of eligible collateral for this facility is likely to be expanded to include other financial assets. The Committee will continue to monitor carefully the size and composition of the Federal Reserve’s balance sheet in light of evolving financial market developments, and it will be assessing whether a faster pace of asset purchases would be helpful in improving credit market conditions and supporting economic activity.

Alternative B

Information received since the Federal Open Market Committee met in January indicates that the economy is undergoing a severe contraction and that the outlook for the next several quarters has worsened. Job losses, declining equity and housing wealth, and tight credit conditions have weighed on consumer sentiment and spending. Weaker sales prospects and difficulties in obtaining credit have led businesses to cut back on inventories and fixed investment. U.S. exports have slumped as a number of major trading partners have also fallen into recession. Although the near-term economic outlook is weak, the Committee anticipates that policy actions to stabilize financial markets and institutions, together with fiscal and monetary stimulus, will contribute to a gradual resumption of sustainable economic growth.

In light of increasing economic slack here and abroad, the Committee expects that inflation will remain subdued. Moreover, the Committee sees some risk that inflation could persist for a time below rates that best foster economic growth and price stability in the longer term.

In these circumstances, the Federal Reserve will employ all available tools to promote economic recovery and to preserve price stability. The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and anticipates that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time. To provide greater support to mortgage lending and housing markets, the Committee decided today to increase the size of the Federal Reserve’s balance sheet further by purchasing an additional $750 billion of agency mortgage-backed securities, bringing its total purchases of these securities to $1.25 trillion this year, and to increase its purchases of agency debt this year by $100 billion to a total of $200 billion. The Committee
Alternative C

The Federal Open Market Committee decided today to keep its target range for the federal funds rate at 0 to ¼ percent. The Committee continues to anticipate that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time.

Information received since the Committee met in January indicates that the economy has slowed further. Job losses, declining equity and housing wealth, and tight credit conditions have weighed on consumer sentiment and spending. Weaker sales prospects and difficulties in obtaining credit have led businesses to cut back on inventories and fixed investment. Furthermore, global demand appears to be slowing significantly. Conditions in some financial markets have improved, in part reflecting government efforts to provide liquidity and strengthen financial institutions. The Committee anticipates that a gradual recovery in economic activity will begin later this year, but the downside risks to that outlook are significant.

In light of the declines in the prices of energy and other commodities that occurred last fall and the prospects for considerable economic slack, the Committee expects that inflation will remain subdued in coming quarters before returning to rates that best foster economic growth and price stability in the longer term.

The Federal Reserve will employ all available tools to promote the resumption of sustainable economic growth and to preserve price stability. The Federal Reserve continues to 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 the quantity of such purchases and the duration of the purchase program as conditions warrant. The Committee also is prepared to purchase longer-term Treasury securities if evolving circumstances indicate that such transactions would be particularly effective in improving conditions in private credit markets. The Federal Reserve has launched the Term Asset-Backed Securities Loan Facility to facilitate the extension of credit to households and small businesses and anticipates that the range of eligible collateral for this facility is likely to be expanded to include other financial assets. The Committee will continue to monitor carefully the size and composition of the Federal Reserve's balance sheet in light of evolving financial market developments and to assess whether lending facilities should be expanded or modified to provide further support to credit markets and economic activity and to help preserve price stability.

Alternative A'

The Federal Open Market Committee decided today to increase the size of the Federal Reserve's balance sheet further by purchasing $300 billion of longer-term Treasury securities over the next six months and by acquiring an additional $500 billion of agency mortgage-backed securities (MBS) and $100 billion of agency debt securities this year. These steps will bring the Committee's total purchases of agency MBS this year to $1 trillion, at least half of which will be acquired by June, and its total purchases of agency debt to $200 billion. The Committee anticipates that these actions will help improve conditions in private credit markets and will provide greater support to mortgage lending and housing markets. The Federal Reserve has launched the Term Asset-Backed Securities Loan Facility to facilitate the extension of credit to households and small businesses and anticipates that the range of eligible collateral for this facility is likely to be expanded to include other financial assets. The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and anticipates that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time.

This decision reflects information received since the Committee met in January that indicates that the economy is undergoing a severe contraction and that the outlook for the next several quarters has worsened. Job losses, declining equity and housing wealth, and tight credit conditions have weighed on consumer sentiment and spending. Weaker sales prospects and difficulties in obtaining credit have led businesses to cut back on inventories and fixed investment. U.S. exports have slumped as a number of major trading partners have also fallen into recession. Although the near-term economic outlook is weak, the Committee anticipates that policy actions to stabilize financial markets and institutions, together with fiscal and monetary stimulus, will contribute to a gradual resumption of sustainable economic growth.
In light of increasing economic slack here and abroad, the Committee expects that inflation will remain subdued. Moreover, the Committee sees some risk that inflation could persist for a time below rates that best foster economic growth and price stability in the longer term.

The Federal Reserve will continue to employ all available tools to promote economic recovery and to preserve price stability. The Committee will monitor carefully the size and composition of the Federal Reserve's balance sheet in light of evolving financial market developments and, and it will be assessing whether a faster pace of asset purchases would be helpful in improving credit market conditions and supporting economic activity.

Alternative B'

The Federal Open Market Committee decided today to increase the size of the Federal Reserve's balance sheet further by purchasing an additional $750 billion of agency mortgage-backed securities and an additional $100 billion of agency debt. These actions will bring the Committee's total purchases of these securities over the course of this year to $1.25 trillion and $200 billion, respectively. The Committee anticipates that this action will provide greater support to mortgage lending and housing markets. The Committee also is prepared to purchase longer-term Treasury securities if evolving circumstances indicate that such transactions would be particularly effective in improving conditions in private credit markets. The Federal Reserve has launched the Term Asset-Backed Securities Loan Facility to facilitate the extension of credit to households and small businesses and anticipates that the range of eligible collateral for this facility is likely to be expanded to include other financial assets. The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and anticipates that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time.

This decision reflects information received since the Committee met in January that indicates that the economy is undergoing a severe contraction and that the outlook for the next several quarters has worsened. Job losses, declining equity and housing wealth, and tight credit conditions have weighed on consumer sentiment and spending. Weaker sales prospects and difficulties in obtaining credit have led businesses to cut back on inventories and fixed investment. U.S. exports have slumped as a number of major trading partners have also fallen into recession. Although the near-term economic outlook is weak, the Committee anticipates that policy actions to stabilize financial markets and institutions, together with fiscal and monetary stimulus, will contribute to a gradual resumption of sustainable economic growth.

In light of increasing economic slack here and abroad, the Committee expects that inflation will remain subdued. Moreover, the Committee sees some risk that inflation could persist for a time below rates that best foster economic growth and price stability in the longer term.

The Federal Reserve will continue to employ all available tools to promote economic recovery and to preserve price stability. The Committee will monitor carefully the size and composition of the Federal Reserve's balance sheet in light of evolving financial market developments and will assess whether lending facilities should be expanded or modified to provide further support to credit markets and economic activity and to help preserve price stability.

Alternative C'

The Federal Open Market Committee today reaffirmed that the focus of its policy is to support the functioning of financial markets and to stimulate the economy through measures that are likely to keep the size of the Federal Reserve's balance sheet at a high level. The Federal Reserve continues to 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 the quantity of such purchases and the duration of the purchase program as conditions warrant. The Committee also is prepared to purchase longer-term Treasury securities if evolving circumstances indicate that such transactions would be particularly effective in improving conditions in private credit markets. The Federal Reserve has launched the Term Asset-Backed Securities Loan Facility to facilitate the extension of credit to households and small businesses and anticipates that the range of eligible collateral for this facility is likely to be expanded to include other financial assets. The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and anticipates that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time.

Information received since the Committee met in January indicates that the economy has slowed further. Job losses, declining equity and housing wealth, and tight credit conditions have weighed on consumer sentiment and spending. Weaker sales prospects and difficulties in obtaining credit have led businesses to cut back on inventories and fixed investment. Furthermore, global demand appears to be slowing significantly. Conditions in some financial markets have improved, in part reflecting government efforts to provide liquidity and strengthen
financial institutions. The Committee anticipates that a gradual recovery in economic activity will begin later this year, but the downside risks to that outlook are significant.

In light of the declines in the prices of energy and other commodities that occurred last fall and the prospects for considerable economic slack, the Committee expects that inflation will remain subdued in coming quarters before returning to rates that best foster economic growth and price stability in the longer term.

The Federal Reserve will continue to employ all available tools to promote economic recovery and to preserve price stability. The Committee will monitor carefully the size and composition of the Federal Reserve's balance sheet in light of evolving financial market developments and will assess whether lending facilities should be expanded or modified to provide further support to credit markets and economic activity and to help preserve price stability.

Directive Wording - Alternative A/A'

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. The Committee directs the Desk to purchase GSE debt, agency-guaranteed MBS, and longer-term Treasury securities during the intermeeting period with the aim of providing support to the mortgage and housing markets private credit markets and economic activity. The timing and pace of these purchases should depend on conditions in the markets for such securities and on a broader assessment of private credit market conditions in primary mortgage markets and the housing sector. The Desk is expected to purchase up to $200 billion in housing-related GSE debt by the end of the second quarter of this year. The Desk is expected to purchase at least $500 billion in agency-guaranteed MBS by the end of the second quarter of this year and is expected to purchase up to $1 trillion of these securities by the end of this year. The Committee also directs the Desk to purchase long-term Treasury securities during the intermeeting period. By the end of this year, the Desk is expected to purchase up to $300 billion of long-term Treasury securities, with the aim of improving conditions in private credit markets. 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.

Directive Wording - Alternative B/B'

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. The Committee directs the Desk to 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. The Desk is expected to purchase up to $200 billion in housing-related GSE debt by the end of the second quarter of this year. The Desk is expected to purchase at least $500 billion in agency-guaranteed MBS by the end of the second quarter of this year and is expected to purchase up to $1.25 trillion of these securities by the end of this year. 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.

Directive Wording - Alternative C/C'

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. The Committee directs the Desk to 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 this 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.
Appendix 6: Materials used by Messrs. Plosser and Bullard

Bullard/Plosser Statement
Alternative B"

The Federal Open Market Committee decided today to continue to increase the Federal Reserve balance sheet through the purchase of agency MBS and Treasury securities. The Committee expects the growth rate of the MBS and Treasury components of the balance sheet combined to average about 10 percent per month. The Committee will carefully monitor macroeconomic and financial conditions and adjust this rate of expansion as warranted.

The Federal Reserve has launched the Term Asset-Backed Securities Loan Facility to facilitate the extension of credit to households and small businesses and anticipates that the range of eligible collateral for this facility is likely to be expanded to include other financial assets. The Committee will maintain the target range for the federal funds rate at 0 to 1/4 percent and anticipates that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time.

The decision reflects the Committee's view that the economy is undergoing a severe contraction. Although the near-term outlook is weak, the Committee anticipates that market forces and policy actions will contribute to a gradual resumption of sustainable economic growth.

In light of increasing economic slack here and abroad, the Committee expects that inflation will remain subdued. Moreover, the Committee sees some risk that inflation could persist for a time below rates that best foster economic growth and price stability in the longer term.

The Federal Reserve will continue to employ all available tools to promote economic recovery and to preserve price stability. The Committee will monitor carefully the size and composition of the Federal Reserve's balance sheet in light of evolving financial market developments and will assess whether lending facilities should be expanded or modified to provide further support to credit markets and economic activity and to help preserve price stability.