Appendix 1: Materials used by Mr. Dudley
(1) U.S. Equity Indices Decline Sharply

Source: Bloomberg

(2) Global Equities Weaken

Source: Bloomberg

(3) Corporate Credit Option-Adjusted Spreads and Yields

Source: Bloomberg
(4) Global Credit Default Swap Spreads

Source: Bloomberg

(5) Implied Volatility Increases in Recent Days

Source: Bloomberg

(6) Financial Guarantors Business Mix by Company
Third Quarter 2007

Source: Company Documents and UBS
(7) Financial Guarantors Claims Paying Resources
Third Quarter 2007

Source: Company Documents and UBS

(8) ABS CDO Net Par Exposure* as a Percent of Claims Paying Resources
Third Quarter 2007

Source: Company Documents and UBS
*Collateralized to some degree by subprime mtg. assets

(9) Large Commercial Banks** Equity Prices and CDS Spreads
Index to 100 on 1/1/07

Source: Markit and Bloomberg
*Includes Bank of America, Citigroup, JP Morgan, Wells Fargo, and Wachovia
### (10) Large Investment Banks** Equity Prices and CDS Spreads


![Graph showing CDS Spread and Equity Price](image)

*Includes Goldman Sachs, Lehman Brothers, Merrill Lynch, Morgan Stanley, and Bear Stearns

Source: Markit and Bloomberg

### (11) Reported Write-downs** for Selected Banks

Q3 2007 – Q4 2007

<table>
<thead>
<tr>
<th>Institution</th>
<th>3Q07</th>
<th>4Q07*</th>
<th>Total Reported/Estimated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of America</td>
<td>1.5</td>
<td>5.3</td>
<td>6.8</td>
</tr>
<tr>
<td>Barclays</td>
<td>1.0</td>
<td>1.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Bear Stearns</td>
<td>0.7</td>
<td>1.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Citigroup</td>
<td>3.8</td>
<td>18.0</td>
<td>21.8</td>
</tr>
<tr>
<td>Countrywide</td>
<td>1.0</td>
<td>N/A</td>
<td>1.0</td>
</tr>
<tr>
<td>Credit Suisse</td>
<td>1.9</td>
<td>N/A</td>
<td>1.9</td>
</tr>
<tr>
<td>Deutsche Bank</td>
<td>3.1</td>
<td>N/A</td>
<td>3.1</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>1.5</td>
<td>0.0</td>
<td>1.5</td>
</tr>
<tr>
<td>HSBC</td>
<td>0.9</td>
<td>N/A</td>
<td>0.9</td>
</tr>
<tr>
<td>JPMorgan Chase</td>
<td>1.6</td>
<td>1.3</td>
<td>2.9</td>
</tr>
<tr>
<td>Lehman Brothers</td>
<td>0.7</td>
<td>0.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Merrill Lynch</td>
<td>8.4</td>
<td>14.1</td>
<td>22.5</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>1.4</td>
<td>9.4</td>
<td>10.8</td>
</tr>
<tr>
<td>UBS</td>
<td>4.4</td>
<td>10.0</td>
<td>14.4</td>
</tr>
<tr>
<td>Wachovia</td>
<td>1.3</td>
<td>1.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Washington Mutual</td>
<td>0.3</td>
<td>1.6</td>
<td>1.9</td>
</tr>
<tr>
<td>Wells Fargo</td>
<td>0.5</td>
<td>0.3</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>34.0</strong></td>
<td><strong>66.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

* Values in *Italics* are estimates  
** In billions of dollars

Source: JP Morgan
(12) Capital Ratios Continue to Fall
Q2 2007 – Q4 2007

<table>
<thead>
<tr>
<th>Holding Co.</th>
<th>2Q07</th>
<th>3Q07</th>
<th>4Q07</th>
<th>Change 4Q07 - 2Q07*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of America</td>
<td>8.52</td>
<td>8.22</td>
<td>6.87</td>
<td>-165</td>
</tr>
<tr>
<td>Citigroup</td>
<td>7.91</td>
<td>7.32</td>
<td>7.10</td>
<td>-81</td>
</tr>
<tr>
<td>JPMorgan Chase</td>
<td>8.40</td>
<td>8.37</td>
<td>8.40</td>
<td>0</td>
</tr>
<tr>
<td>Wachovia</td>
<td>7.47</td>
<td>7.10</td>
<td>7.20</td>
<td>-27</td>
</tr>
<tr>
<td>Wells Fargo</td>
<td>8.57</td>
<td>8.21</td>
<td>7.59</td>
<td>-98</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>8.17</strong></td>
<td><strong>7.84</strong></td>
<td><strong>7.43</strong></td>
<td><strong>-74</strong></td>
</tr>
</tbody>
</table>

Source: JP Morgan

* In basis points

(13) Fed Funds Futures Rate Expectations Fall

Source: Bloomberg

(14) Eurodollar Futures Curve Shifts Lower

Source: Bloomberg
(15) Distribution of Expected Policy Target Among Primary Dealers Prior to January 29-30 FOMC Meeting

Source: Dealer Policy Survey

(16) Distribution of Expected Policy Target Among Primary Dealers Prior to December 11 FOMC Meeting

Source: Dealer Policy Survey

(17) Probabilities for Policy Rate Outcomes for January FOMC Meeting

Source: Cleveland Fed
(18) Probability Distribution on Eurodollar Futures Contract
300 Days Forward

Source: CME Options

(19) TIPS Implied Average Rate of Inflation: 5-10 Year Horizon
June 1, 2006 – January 25, 2008

Source: Federal Reserve Board and Barclays Capital
(20) Spreads between U.S. Term Funding Rates and OIS Rates Decline

Source: Bloomberg

(21) Central Bank Term Funding Facilities

Federal Reserve Term Auction Facility:

<table>
<thead>
<tr>
<th>Auction Settlement</th>
<th>Term</th>
<th>Amount</th>
<th>Minimum Bid Rate</th>
<th>Stop-out Rate</th>
<th>Propositions</th>
<th>Bid/Cover</th>
<th>Bidders</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/20/2007</td>
<td>28 Days</td>
<td>$20 b</td>
<td>4.17%</td>
<td>4.65%</td>
<td>$61.6 b</td>
<td>3.08</td>
<td>93</td>
</tr>
<tr>
<td>12/27/2007</td>
<td>35 Days</td>
<td>$20 b</td>
<td>4.15%</td>
<td>4.67%</td>
<td>$57.7 b</td>
<td>2.88</td>
<td>73</td>
</tr>
<tr>
<td>1/17/2008</td>
<td>28 Days</td>
<td>$30 b</td>
<td>3.88%</td>
<td>3.95%</td>
<td>$55.5 b</td>
<td>1.85</td>
<td>56</td>
</tr>
<tr>
<td>1/31/2008</td>
<td>28 Days</td>
<td>$30 b</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

European Central Bank:

<table>
<thead>
<tr>
<th>Auction Settlement</th>
<th>Term</th>
<th>Amount</th>
<th>Fixed Rate</th>
<th>% of All at Fixed Rate</th>
<th>Propositions</th>
<th>Bid/Cover</th>
<th>Bidders</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/20/2007</td>
<td>28 Days</td>
<td>$10 b</td>
<td>4.65%</td>
<td>45.29%</td>
<td>$22.08</td>
<td>2.21</td>
<td>39</td>
</tr>
<tr>
<td>12/27/2007</td>
<td>35 Days</td>
<td>$10 b</td>
<td>4.67%</td>
<td>70.85%</td>
<td>$14.12 b</td>
<td>1.41</td>
<td>27</td>
</tr>
<tr>
<td>1/17/2008</td>
<td>28 Days</td>
<td>$10 b</td>
<td>3.95%</td>
<td>67.61%</td>
<td>$14.79 b</td>
<td>1.48</td>
<td>22</td>
</tr>
</tbody>
</table>

Swiss National Bank:

<table>
<thead>
<tr>
<th>Auction Settlement</th>
<th>Term</th>
<th>Amount</th>
<th>Marginal Interest Rate</th>
<th>% of All at Fixed Rate</th>
<th>Weighted Avg. Interest Rate</th>
<th>Propositions</th>
<th>Bid/Cover</th>
<th>Bidders</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/20/2007</td>
<td>28 Days</td>
<td>$4 b</td>
<td>4.50%</td>
<td>30.28%</td>
<td>4.79%</td>
<td>$17.01 b</td>
<td>4.25</td>
<td>17</td>
</tr>
<tr>
<td>1/17/2008</td>
<td>28 Days</td>
<td>$4 b</td>
<td>3.88%</td>
<td>15.03%</td>
<td>3.91%</td>
<td>$10.87 b</td>
<td>2.72</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Board, European Central Bank, and Swiss National Bank
### (22) Euro Term Funding Pressures Decrease

**Source:** Bloomberg

### (23) Sterling Term Funding Pressures Decrease

**Source:** Bloomberg

### (24) One-Month LIBOR to OIS Spread
July 1, 2007 – March 11, 2008

**Source:** Bloomberg
(25) Secured CP Rate Spreads Narrow

Source: Federal Reserve Board

(26) Spread between Jumbo and Conforming Mortgage Rates Widen Once Again

Source: Bloomberg

(27) Dollar Sells Off After Year-End Rally

Source: Bloomberg
(28) Fed Funds Target Rate and Two-Year Treasury Yield

Source: Bloomberg

(29) Treasury Yield Curve Shifts Lower and Continues to Steepen

Source: Bloomberg

(30) Effective Fed Funds Rate Relative to Target Rate

Source: Federal Reserve Bank of New York
Appendix 2: Materials used by Mr. Reifschneider, Ms. Liang, and Mr. Sheets
Material for

Staff Presentation on the Economic Outlook

January 29, 2008
Gauging the Cyclical State of the Economy

Data Surprises Since the December Greenbook

Negative
Private payroll employment
Unemployment rate
Industrial production
Housing starts and permits
New home sales
Orders and shipments
Business sentiment
Financial market conditions

Positive
Construction put-in-place
Defense spending
Retail sales

Recession Probability Estimates

Reasons for Not Calling a Recession

- Estimated probabilities not uniformly high
- No apparent inventory overhang
- Weakness in labor market and spending indicators still limited
- Monetary and fiscal stimulus in process

... but it was a close call.

Greenbook-Consistent Short-Run R*

R* Revisions

- R* down 1¼ percentage point since December
- Jump in equity premium main culprit
Forecast Summary

Real GDP

Unemployment Rate

Core PCE Prices

Total PCE Prices
Key Conditioning Assumptions

**Target Federal Funds Rate**

- Daily
- Percent
- Dec. GB

**Wilshire 5000**

- Index
- Dec. GB

**Fiscal Stimulus Package**

- $125 billion placeholder package includes:
  - $75 billion in personal tax rebates
  - $50 billion bonus depreciation
- Economic effects:
  - Temporary boost to PCE
  - Small investment response
  - Inventory and import offset

**Effects of the Fiscal Stimulus Package**

- Percentage points, annual rate
- Total effect on real GDP growth
- Contribution of PCE and E&S

**Potential GDP Growth**

- Dec. GB
- Jan. GB

**Output Gap**

- Percent
- Dec. GB
Housing, Investment, and Consumption

New Home Sales
Millions of units, annual rate

Single-Family Housing Starts
Millions of units, annual rate

Inventory of Unsold New Homes*
Months' supply

Real Business Fixed Investment
Percent change, annual rate

Personal Consumption Expenditures
Percent change, annual rate

Contribution of Wealth to PCE Growth
Percentage points

* Relative to three-month moving average of sales.
**Exhibit 5**

**Inflation**

### Core PCE Prices

- 12-month moving average
- 3-month moving average

**PCE Energy Prices**

- Four-quarter percent change

**PCE Food Prices**

- Four-quarter percent change

**Core Nonfuel Import Prices**

- Four-quarter percent change

### Long-Run Inflation Expectations

- Michigan Survey
- Survey of Professional Forecasters
- TIPS inflation compensation*

### PCE Price Projection

(Percent change, Q4/Q4)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3.4</td>
<td>2.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Prev.</td>
<td>3.2</td>
<td>2.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Core</td>
<td>2.1</td>
<td>2.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Prev.</td>
<td>2.0</td>
<td>2.0</td>
<td>1.9</td>
</tr>
</tbody>
</table>

* Five-to-ten years ahead
Financial Market Developments

Equity Valuation for S&P 500

- Trend E/P *

Real Treasury perpetuity yield

Estimated Equity Premium*

+ Denotes latest observation using daily interest rates and stock prices and latest earnings data from I/B/E/S.

* Estimated using analyst year-ahead earnings from I/B/E/S.

Corporate Bond Spreads

10-year high-yield
10-year BBB
10-year A

Note: Measured relative to comparable-maturity Treasury.

House Price Appreciation

Quarterly percent change, annual rate

CA, AZ, NV, FL
National
Q4 *

- Staff estimate.

Source: OFHEO purchase-only indexes.

Financial Sector Results

- Writedowns more than $80 billion in Q4
  - Most from subprime mortgages and CDO exposures
  - Banks increased loan loss provisions
- Firms raised capital and cut dividends and share repurchases
- Risks: house prices, slow activity, financial guarantors, previous commitments
Business Financial Conditions

S&P 500 Earnings Per Share

Loss Rates on High-Yield Corporate Bonds

Charge-Off Rates on Commercial Real Estate Loans at Banks

Net Percentage of Banks Tightening Standards

Borrowing Rates

Net Changes in Selected Components of Nonfinancial Business Debt

* Preliminary.
Source: I/B/E/S.

* Preliminary.
Source: Senior Loan Officer Opinion Survey.

* Preliminary.
Household Financial Conditions

**Consumer Loan Delinquency Rates**

- Credit card loans at commercial banks
- Nonrevolving consumer loans at commercial banks
- Auto loans at domestic auto finance companies

**Mortgage Delinquency Rates**

- Adjustable-rate
- Fixed-rate

**Lending Conditions**

- January Senior Loan Officer Survey
  - Net tightening of standards on credit cards and other consumer loans
  - Substantial net tightening of standards for subprime and prime mortgages
- Risk spreads on consumer ABS jumped in January

**Gross Issuance of Consumer ABS**

- Auto
- Credit Card

**Gross Issuance of MBS by Type**

- Non-agency
- Agency

**Mortgage Rates**

- 30-year fixed-rate jumbo
- 30-year FRM
- 1-year ARM
- 6-month LIBOR

Source:
- First American LoanPerformance.
- Inside MBS & ABS and Merrill Lynch.
- Freddie Mac for conforming rates and Inside Mortgage Finance for offer rate on prime jumbo.
Mortgage Default Outlook

Cumulative Defaults on Subprime 2/28 Loans

Subprime First Mortgage Rate Resets

Model of Subprime ARM Defaults

- Loan-level model of prepayments and defaults
- Loan and borrower characteristics at origination
- Subsequent MSA or state house prices and employment, interest rates, and “vintage” effects

Subprime ARM Defaults

Estimated Loan-to-Value Ratios

(Percent of existing mortgages)

<table>
<thead>
<tr>
<th>LTV &gt; 100*</th>
<th>2007:Q3</th>
<th>2009:Q4**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subprime</td>
<td>20</td>
<td>44</td>
</tr>
<tr>
<td>Prime</td>
<td>5</td>
<td>15</td>
</tr>
</tbody>
</table>

Loan Modifications

- Loan workouts and modifications were modest in Q3, but likely accelerated in Q4.
- Servicers are strained with loans that are delinquent before the first reset.
- Servicers assisted about 15 percent of subprime borrowers with past-due accounts in Q3.

* Includes closed-end second liens.
** Assumes Greenbook house price path.
# Projected Credit Losses

## Method

- Projections of credit losses in the next two years for major categories of business and household debt.
- The paths for house prices, unemployment, interest rates, and other factors from the Greenbook baseline.
- Also from the alternative recession scenario with the assumption that national house prices fall 20 percent.
  - Real GDP growth turns negative in 2008 and the unemployment rate rise above 6 percent in 2009.

## Projected Credit Losses in 2008 and 2009 by Scenario

(Billions of dollars)

<table>
<thead>
<tr>
<th></th>
<th>Average based on long-run loss rates</th>
<th>Greenbook baseline</th>
<th>Recession alternative and 20 percent house price decline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All Mortgages</td>
<td>180</td>
<td>417</td>
<td>677</td>
</tr>
<tr>
<td>2. Nonprime - first liens</td>
<td>89</td>
<td>192</td>
<td>335</td>
</tr>
<tr>
<td>3. Consumer credit</td>
<td>129</td>
<td>154</td>
<td>184</td>
</tr>
<tr>
<td>4. Nonfinancial business</td>
<td>131</td>
<td>156</td>
<td>233</td>
</tr>
<tr>
<td>5. CRE at banks</td>
<td>13</td>
<td>28</td>
<td>35</td>
</tr>
<tr>
<td>6. Total</td>
<td>440</td>
<td>727</td>
<td>1094</td>
</tr>
</tbody>
</table>
### U.S. Trade Outlook

**Trade in Real Goods and Services**

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008p</th>
<th>2009p</th>
</tr>
</thead>
<tbody>
<tr>
<td><em><em>Growth rates (percent, annual rate</em>)</em>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Exports</td>
<td>9.3</td>
<td>4.3</td>
<td>19.1</td>
<td>4.6</td>
</tr>
<tr>
<td>2. Imports</td>
<td>3.7</td>
<td>0.5</td>
<td>4.4</td>
<td>2.1</td>
</tr>
<tr>
<td><em><em>Contribution to U.S. real GDP growth (percentage points, annual rate</em>)</em>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Net exports</td>
<td>0.4</td>
<td>0.4</td>
<td>1.4</td>
<td>0.2</td>
</tr>
</tbody>
</table>

**Memo:**

4. Current account balance (% of GDP)  
   -6.2 -5.7 -5.1 -5.5 -5.4 -4.7

5. Non-oil trade balance (% of GDP)  
   -3.5 -3.0 -2.6 -2.4 -2.0 -1.6

---

*Years are Q4/Q4; half year is Q2/Q4.*

### Core Import Prices

- **Percent change, annual rate**

### Oil Imports

- **Percent of GDP**
Long-Term Performance of U.S. Trade

Contribution of Real Net Exports to U.S. GDP Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Avg. Growth</th>
<th>Avg. Contribution*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997-2005</td>
<td>3.7</td>
<td>0.4</td>
</tr>
<tr>
<td>2006-2007</td>
<td>8.6</td>
<td>1.0</td>
</tr>
<tr>
<td>2008-2009p</td>
<td>7.3</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Exports

<table>
<thead>
<tr>
<th>Year</th>
<th>Avg. Growth</th>
<th>Avg. Contribution*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997-2005</td>
<td>8.0</td>
<td>-1.1</td>
</tr>
<tr>
<td>2006-2007</td>
<td>2.8</td>
<td>-0.5</td>
</tr>
<tr>
<td>2008-2009p</td>
<td>2.9</td>
<td>-0.5</td>
</tr>
</tbody>
</table>

Imports

* Contribution to U.S. GDP growth.

Differential Between U.S. and Foreign Real GDP Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage points, Q4/Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997-2005</td>
<td>-0.2</td>
</tr>
<tr>
<td>2006-2007</td>
<td>-1.5</td>
</tr>
<tr>
<td>2008-2009p</td>
<td>-1.3</td>
</tr>
</tbody>
</table>
Outlook for Foreign Growth

**Euro Area**
- Economic sentiment
- Change in credit standards to enterprises*
- Change in credit standards to households*

**United Kingdom**
- New mortgage lending
- Corporate credit availability

**Japan**
- Tankan survey
- Housing starts

**Sources of Near-Term Slowing**
- Headwinds from financial turmoil, including sharp recent declines in equity markets
- Softening of U.S. growth
- Expected cyclical moderation

**Real GDP Projections***

<table>
<thead>
<tr>
<th></th>
<th>2006 Q1-Q3</th>
<th>2007 Q4e</th>
<th>2008p H1</th>
<th>2008p H2</th>
<th>2009p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Total Foreign</strong></td>
<td>4.0</td>
<td>4.4</td>
<td>2.8</td>
<td>2.7</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>2. Advanced Foreign</strong></td>
<td>2.5</td>
<td>2.9</td>
<td>1.7</td>
<td>1.4</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>3. Euro Area</strong></td>
<td>3.2</td>
<td>2.5</td>
<td>1.5</td>
<td>1.2</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>4. United Kingdom</strong></td>
<td>3.3</td>
<td>3.1</td>
<td>2.5</td>
<td>1.6</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>5. Japan</strong></td>
<td>2.5</td>
<td>1.0</td>
<td>1.1</td>
<td>0.9</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>6. Canada</strong></td>
<td>1.9</td>
<td>3.4</td>
<td>1.7</td>
<td>1.3</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>7. Emerging Markets</strong></td>
<td><strong>5.9</strong></td>
<td><strong>6.4</strong></td>
<td><strong>4.3</strong></td>
<td><strong>4.5</strong></td>
<td><strong>4.8</strong></td>
</tr>
<tr>
<td><strong>8. Mexico</strong></td>
<td>4.3</td>
<td>4.3</td>
<td>1.5</td>
<td>2.3</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>9. China</strong></td>
<td>10.5</td>
<td>11.8</td>
<td>9.6</td>
<td>9.2</td>
<td>9.5</td>
</tr>
</tbody>
</table>

* Aggregates weighted by U.S. exports.
** Years are Q4/Q4; half years are Q2/Q4 or Q4/Q2; Q1-Q3 is Q3/Q4.
**Policy Interest Rates**

- United Kingdom
- Canada
- Euro area
- Japan

Year-end financial statements could bring bad news.

Overly optimistic expectations of decoupling might lead to policy mistakes.

Housing markets in some countries may be vulnerable.

**House Prices**

- U.K.
- France
- Spain
- U.S.*
- Canada

* OFHEO purchase-only index.

**Residential Investment: Contribution to GDP Growth**

- United States
- Canada
- United Kingdom
- Euro area

Risks to the Foreign Outlook

- Financial headwinds or U.S. slowing may exceed current projections.
- Year-end financial statements could bring bad news.
- Overly optimistic expectations of decoupling might lead to policy mistakes.
- Housing markets in some countries may be vulnerable.
Outlook for Foreign Inflation

Headline CPI Projections*

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008p</th>
<th>2009p</th>
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<tbody>
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<td></td>
<td>Q1-Q3</td>
<td>Q4e</td>
<td>H1</td>
<td>H2</td>
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<tr>
<td>1. Average Foreign</td>
<td>2.1</td>
<td>3.4</td>
<td>2.7</td>
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<tr>
<td>2. Advanced Foreign</td>
<td>1.3</td>
<td>1.9</td>
<td>3.1</td>
<td>1.7</td>
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<tr>
<td>3. Euro Area</td>
<td>1.8</td>
<td>2.2</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>4. United Kingdom</td>
<td>2.7</td>
<td>1.5</td>
<td>3.8</td>
<td>2.8</td>
</tr>
<tr>
<td>5. Japan</td>
<td>0.3</td>
<td>0.2</td>
<td>1.6</td>
<td>0.3</td>
</tr>
<tr>
<td>6. Canada</td>
<td>1.3</td>
<td>2.7</td>
<td>2.2</td>
<td>2.3</td>
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<tr>
<td>7. Emerging Markets</td>
<td>2.9</td>
<td>4.8</td>
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<td>3.3</td>
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<tr>
<td>8. Mexico</td>
<td>4.1</td>
<td>3.7</td>
<td>4.1</td>
<td>3.5</td>
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<tr>
<td>9. China</td>
<td>2.1</td>
<td>6.8</td>
<td>6.3</td>
<td>3.5</td>
</tr>
</tbody>
</table>

* Excludes Japan.
** Years are Q4/Q4; half years are Q2/Q4 or Q4/Q2; Q1-Q3 is Q3/Q4.

Ten-Year Inflation Expectations

Commodities Prices
Appendix 3: Materials used by Mr. Madigan
Class I FOMC – Restricted Controlled (FR)

Material for

FOMC Briefing on Economic Projections

Brian Madigan
January 29, 2008
Table 1: Economic Projections of Federal Reserve Governors and Reserve Bank Presidents

<table>
<thead>
<tr>
<th>Central Tendencies</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP Growth</td>
<td>1.3 to 2.0</td>
<td>2.1 to 2.7</td>
<td>2.5 to 3.0</td>
</tr>
<tr>
<td>October projections</td>
<td>1.8 to 2.5</td>
<td>2.3 to 2.7</td>
<td>2.5 to 2.6</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>5.2 to 5.3</td>
<td>5.0 to 5.3</td>
<td>4.9 to 5.1</td>
</tr>
<tr>
<td>October projections</td>
<td>4.8 to 4.9</td>
<td>4.8 to 4.9</td>
<td>4.7 to 4.9</td>
</tr>
<tr>
<td>PCE Inflation</td>
<td>2.1 to 2.4</td>
<td>1.7 to 2.0</td>
<td>1.7 to 2.0</td>
</tr>
<tr>
<td>October projections</td>
<td>1.8 to 2.1</td>
<td>1.7 to 2.0</td>
<td>1.6 to 1.9</td>
</tr>
<tr>
<td>Core PCE Inflation</td>
<td>2.0 to 2.2</td>
<td>1.7 to 2.0</td>
<td>1.7 to 1.9</td>
</tr>
<tr>
<td>October projections</td>
<td>1.7 to 1.9</td>
<td>1.7 to 1.9</td>
<td>1.6 to 1.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ranges</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP Growth</td>
<td>1.0 to 2.2</td>
<td>1.8 to 3.2</td>
<td>2.2 to 3.2</td>
</tr>
<tr>
<td>October projections</td>
<td>1.6 to 2.6</td>
<td>2.0 to 2.8</td>
<td>2.2 to 2.7</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>5.0 to 5.5</td>
<td>4.9 to 5.7</td>
<td>4.7 to 5.4</td>
</tr>
<tr>
<td>October projections</td>
<td>4.6 to 5.0</td>
<td>4.6 to 5.0</td>
<td>4.6 to 5.0</td>
</tr>
<tr>
<td>PCE Inflation</td>
<td>2.0 to 2.8</td>
<td>1.7 to 2.3</td>
<td>1.5 to 2.0</td>
</tr>
<tr>
<td>October projections</td>
<td>1.7 to 2.3</td>
<td>1.5 to 2.2</td>
<td>1.5 to 2.0</td>
</tr>
<tr>
<td>Core PCE Inflation</td>
<td>1.9 to 2.3</td>
<td>1.7 to 2.2</td>
<td>1.4 to 2.0</td>
</tr>
<tr>
<td>October projections</td>
<td>1.7 to 2.0</td>
<td>1.5 to 2.0</td>
<td>1.5 to 2.0</td>
</tr>
</tbody>
</table>

1. Projections of real GDP growth, PCE inflation and core PCE inflation are fourth-quarter-to-fourth-quarter growth rates, i.e. percentage changes from the fourth quarter of the prior year to the fourth quarter of the indicated year. PCE inflation and core PCE inflation are the percentage rates of change in the price index for personal consumption expenditures and the price index for personal consumption expenditures excluding food and energy, respectively. Each participant's projections are based on his or her assessment of appropriate monetary policy. The range for each variable in a given year includes all participants' projections, from lowest to highest, for that variable in the given year; the central tendencies exclude the three highest and three lowest projections for each variable in each year.
2(a): Please indicate your judgment of the uncertainty attached to your projections relative to levels of uncertainty over the past 20 years.

2(b): Please indicate your judgment of the risk weighting around your projections.
2(a): Please indicate your judgment of the uncertainty attached to your projections relative to levels of uncertainty over the past 20 years.

2(b): Please indicate your judgment of the risk weighting around your projections.
Appendix 4: Materials used by Mr. Stockton
## Gross Domestic Product

*(percent change at an annual rate)*

<table>
<thead>
<tr>
<th>Real GDP</th>
<th>2007-Q3</th>
<th>2007-Q4</th>
<th>2007-Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Final</td>
<td>Greenbook</td>
<td>Advance</td>
</tr>
<tr>
<td>Real GDP</td>
<td>4.9</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Final Sales</td>
<td>4.0</td>
<td>1.7</td>
<td>1.9</td>
</tr>
<tr>
<td>Personal Consumption</td>
<td>2.8</td>
<td>2.2</td>
<td>2.0</td>
</tr>
<tr>
<td>Durables</td>
<td>4.5</td>
<td>5.2</td>
<td>4.2</td>
</tr>
<tr>
<td>Nondurables</td>
<td>2.2</td>
<td>1.7</td>
<td>1.9</td>
</tr>
<tr>
<td>Services</td>
<td>2.8</td>
<td>1.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Business Fixed Investment</td>
<td>9.3</td>
<td>7.4</td>
<td>7.5</td>
</tr>
<tr>
<td>Nonresidential Structures</td>
<td>16.4</td>
<td>15.3</td>
<td>15.8</td>
</tr>
<tr>
<td>Equipment and Software</td>
<td>6.2</td>
<td>3.8</td>
<td>3.8</td>
</tr>
<tr>
<td>Residential Investment</td>
<td>-20.5</td>
<td>-30.6</td>
<td>-23.9</td>
</tr>
<tr>
<td>Government</td>
<td>3.8</td>
<td>4.0</td>
<td>2.6</td>
</tr>
<tr>
<td>Federal</td>
<td>7.1</td>
<td>4.8</td>
<td>0.3</td>
</tr>
<tr>
<td>State and Local</td>
<td>1.9</td>
<td>3.6</td>
<td>4.0</td>
</tr>
<tr>
<td>Exports</td>
<td>19.1</td>
<td>4.6</td>
<td>3.9</td>
</tr>
<tr>
<td>Imports</td>
<td>4.4</td>
<td>2.1</td>
<td>0.3</td>
</tr>
</tbody>
</table>

### Level in chained 2000 dollars:

- Change in nonfarm business inventories: 26.0, -8.1, -6.9
- Change in farm inventories: 4.1, 1.0, 2.5
- Net Exports: -533.1, -526.9, -521.0

### Price Indexes:

- Total PCE Chain Price Index: 1.8, 3.9, 3.9
- Core PCE Chain Price Index: 2.0, 2.7, 2.7
Appendix 5: Materials used by Mr. Madigan
Class I FOMC – Restricted Controlled (FR)

Material for
FOMC Briefing on Monetary Policy Alternatives

Brian Madigan
January 29-30, 2008
Exhibit 1
Risk Management Strategies

Benefits

Federal funds rate
- Outcome-Based Rule
- Risk Management

Costs

Civilian unemployment rate
- Prompt Reversal
- Gradual Reversal
- Greenbook Baseline

Core PCE inflation
Four-quarter moving average
<table>
<thead>
<tr>
<th>Policy Decision</th>
<th>Alternative A</th>
<th>Alternative B</th>
<th>Alternative C</th>
<th>Alternative D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  The Federal Open Market Committee decided today to lower its target for the federal funds rate 75 basis points to 2-3/4 percent.</td>
<td>The Federal Open Market Committee decided today to lower its target for the federal funds rate 50 basis points to 3 percent.</td>
<td>The Federal Open Market Committee decided today to lower its target for the federal funds rate 25 basis points to 3-1/4 percent.</td>
<td>The Federal Open Market Committee decided today to keep its target for the federal funds rate at 3-1/2 percent.</td>
<td></td>
</tr>
<tr>
<td>2.  Financial markets remain under considerable stress, and credit has tightened further for some businesses and households. Moreover, recent information indicates a deepening of the housing contraction as well as some softening in labor markets.</td>
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<td>Financial markets remain under considerable stress, and credit has tightened further for some businesses and households. Moreover, recent information indicates a deepening of the housing contraction as well as some softening in labor markets.</td>
<td>Financial markets remain under considerable stress, and the tightening of credit and the deepening of the housing contraction could weigh further on economic growth. However, recent policy actions should promote moderate growth over time.</td>
<td></td>
</tr>
<tr>
<td>3.  The Committee expects inflation to moderate in coming quarters, reflecting well-anchored inflation expectations, a projected leveling out of energy prices, and easing pressures on resource utilization. However, further increases in energy and commodity prices, as well as other factors, could put upward pressure on inflation. Therefore, it will be necessary to continue to monitor inflation developments carefully.</td>
<td>The Committee expects inflation to moderate in coming quarters, but it will be necessary to continue to monitor inflation developments carefully.</td>
<td>The Committee expects inflation to moderate in coming quarters. However, upward pressure on inflation could result from several factors, including further increases in energy, commodity, and other import prices. Therefore, it will be necessary to continue to monitor inflation developments carefully.</td>
<td>The Committee expects inflation to moderate in coming quarters. However, upward pressure on inflation could result from several factors, including further increases in energy, commodity, and other import prices. Therefore, it will be necessary to continue to monitor inflation developments carefully.</td>
<td></td>
</tr>
<tr>
<td>4.  Today’s policy action, combined with those taken earlier, should help to promote moderate growth over time and to mitigate the risks to economic activity. However, downside risks to growth may well remain. The Committee will continue to assess the effects of financial and other developments on economic prospects to determine whether further action is needed to address those risks.</td>
<td>Today’s policy action, combined with those taken earlier, should help to promote moderate growth over time and to mitigate the risks to economic activity. However, downside risks to growth remain. The Committee will continue to assess the effects of financial and other developments on economic prospects and will act in a timely manner as needed to address those risks.</td>
<td>Today’s policy action, combined with those taken earlier, should help to promote moderate growth over time. However, appreciable downside risks to growth remain. The Committee will continue to assess the effects of financial and other developments on economic prospects and will act in a timely manner as needed to address those risks.</td>
<td>Appreciable downside risks to growth remain. The Committee will continue to assess the effects of financial and other developments on economic prospects and will act in a timely manner as needed to address those risks.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 6: Materials used by Mr. Parkinson, Mr. Gibson, Ms. Hirtle, Mr. Greenlee, and Mr. Angulo
Class I FOMC – Restricted-Controlled FR

Material for
FOMC Briefing on Analysis of Policy Issues Raised by Financial Market Developments

January 30, 2008
In response to a request from the G-7, the Financial Stability Forum (FSF) created a Working Group on Market and Institutional Resilience.

The President’s Working Group on Financial Markets is conducting its own analysis and will ensure coordination among U.S. members of the FSF working group.

The Staff Umbrella Group is supporting Federal Reserve participation in the FSF working group and PWG’s effort.

Issues being analyzed by the staff

- Credit rating agencies
- Investor practices
- Bank risk management
- Bank regulatory policy
- Counterparty risk management and hedge funds
- OTC derivatives market infrastructure
- Fed’s liquidity tools
- Tri-party repos
- Supervisory and regulatory structure

Overview of today’s briefing

- Three presentations
  2. An analysis of issues relating to credit rating agencies and investor practices with respect to the use of credit ratings.
  3. An analysis of risk management weaknesses at large global financial services organizations and the extent to which bank regulatory policies contributed to, or failed to mitigate, those weaknesses.
Subprime mortgage delinquency rates

Note. Percent of loans 90 or more days past due or in foreclosure. Covers first liens only. Source: First American LoanPerformance.

ABX prices 2006:H2 vintage

Source: Markit.

ABS CDO issuance

There was no issuance through January 26th. Source: JPMorgan.

ABS CDOs downgraded or placed on watch*

*Percent of total issued in 2007, as of January 22, 2008. Source: JPMorgan.

Typical ABS CDO structure*

*At origination. Percent of par value at origination. Source: JPMorgan.

Gross issuance of non-agency RMBS

Exhibit 3: Diagnosis
Leveraged Loans and ABCP

**LCDS versus pipeline**

- **Leveraged pipeline** (left scale)
- **LCDS** (right scale)

* Amount of leveraged lending committed but unfunded.
** Average of spreads on liquid loan CDS.

**Funded CLO issuance**

Source: JPMorgan.

**Growth of U.S. ABCP outstanding by program type**

Note. Not seasonally adjusted.
Source. Federal Reserve Board based on data from DTC and Moody’s Investors Service.
Principal sources of exposure to financial stress

- Leveraged loan commitments
- Sponsorship of ABCP programs
- Retention of exposures from underwriting ABS CDOs

Leading arrangers of leveraged loans*

<table>
<thead>
<tr>
<th>Market share</th>
</tr>
</thead>
<tbody>
<tr>
<td>- percent -</td>
</tr>
<tr>
<td>1. JPMorgan 15.4</td>
</tr>
<tr>
<td>2. Bank of America 15.5</td>
</tr>
<tr>
<td>3. Citigroup 10.4</td>
</tr>
<tr>
<td>4. Credit Suisse 8.8</td>
</tr>
<tr>
<td>5. Deutsche Bank 7.1</td>
</tr>
<tr>
<td>6. Goldman Sachs 4.9</td>
</tr>
<tr>
<td>7. Wachovia 4.6</td>
</tr>
<tr>
<td>8. Lehman 3.8</td>
</tr>
<tr>
<td>9. Merrill Lynch 3.4</td>
</tr>
<tr>
<td>10. General Electric 2.8</td>
</tr>
</tbody>
</table>

Source. Reuters LPC.
*Market shares are an average over 2005, 2006 and 2007:H1

Leading bank sponsors of global securities-related ABCP

<table>
<thead>
<tr>
<th>Total ABCP* $ bil</th>
<th>Pct of Total Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HBOS 42</td>
<td>4.3</td>
</tr>
<tr>
<td>2. HSBC 33</td>
<td>2.1</td>
</tr>
<tr>
<td>3. Fortis 26</td>
<td>2.9</td>
</tr>
<tr>
<td>4. Citigroup 26</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Memo:
20. State Street 4 4.2
23. Zions 4 9.2

*As of June 30, 2007

Leading underwriters of U.S. ABS CDOs

<table>
<thead>
<tr>
<th>Billions of Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>1. Merrill Lynch 76</td>
</tr>
<tr>
<td>2. Citigroup 58</td>
</tr>
<tr>
<td>3. UBS 43</td>
</tr>
<tr>
<td>4. Barclays 29</td>
</tr>
</tbody>
</table>

Memo:
10. BoA 17 7 8
12. Wachovia 10 1 1
18. JPMorgan 3 1 0

*Source. JPMorgan
**Staff estimates.
## Exhibit 5
**Where did Credit Rating Agencies Play a Role in the Crisis?**

### Key points

1. Credit rating agencies are one of the weak links (though not the only one).
2. The way that some investors use credit ratings for their own risk management has not kept up with financial innovations.

### Road map

1. Role of rating agencies in the financial crisis.
2. Make recommendations on rating agency practices.
3. Link up with investor issues.

### Subprime RMBS

1. Rating agencies got it wrong.
2. Rating agencies relied too much on historical data to estimate:
   - how severe a housing downturn could become.
   - how poorly subprime loans would perform when house prices fell.
   - whether the originator mattered.
   - whether refinancing would dry up.
3. No evidence that conflicts of interest had an impact on ratings.

### ABS CDOs

1. Rating agencies got it wrong.
2. Rating models were crude, because rating agencies:
   - used corporate CDO models to rate ABS CDOs.
   - had no data on correlation of defaults across ABS.
   - used ratings as the main measure of quality of subprime RMBS.
   - only did limited, ad hoc analysis of the timing of cash flows.
3. Investors did not understand that structured finance securities have more systematic risk and less idiosyncratic risk than corporate securities.

### SIVs

1. Rating agencies got it wrong.
2. Rating model for SIVs relied on a rapid liquidation of assets.
3. Even SIVs with no subprime exposures cannot roll over CP.
Six recommendations aimed at structured finance ratings

1. Differentiate structured finance ratings from corporate ratings by providing additional measures of risk or leverage.

2. Convey a rating’s uncertainty in an understandable way.


4. Be conservative when rating new or evolving asset classes.

5. Enhance the rating frameworks for structured products.

6. Regulators should differentiate better between corporate and structured finance ratings.
Approach

- Public pension funds are an informative example of how investors use credit ratings.
  - Limited financial expertise in some cases.
  - High portion of funds use credit ratings in investment guidelines.
  - Significant public information on their activities.
- We gathered information on investment practices and fund governance for 11 funds, ranging from $250 billion in assets (CALPers) to 6 with $6 to $11 billion.

Key conclusions

- Funds have developed workable solutions to address inexperience or lack of financial sophistication, including hiring professional investment managers and investment consultants.
- The mandates guiding investment managers have not always kept pace with the growth of structured credit markets. These mandates:
  - Require managers to meet or exceed returns on a benchmark index or of a peer group of investment managers.
  - Constrain the risk the managers may assume.
- Credit ratings play an important role in these risk constraints.
  - However, few of the funds we profiled made significant distinctions between ratings on structured credit and on other securities.
- This provides scope for investment managers to move into structured credit to generate high returns, without raising warning signals about additional risk.
  - Not a "naive" use of credit ratings by the investment managers.
  - Instead, a previously effective mechanism used by fund boards falling out-of-date.

Recommendations

1. The pension fund industry and other investors should re-evaluate the use of credit ratings in investment mandates.
   - Investment mandates should acknowledge differences in risk, return and correlation across instruments, rather than rely on generic credit ratings.
2. Investors should ensure that investment consultants have independent views of the quality and adequacy of the ratings for the types of positions in the investors’ portfolios.
**Exhibit 8**  
Observations on Risk Management Practices  
During the Recent Market Turbulence

<table>
<thead>
<tr>
<th>Senior supervisors group</th>
<th>Firms interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Commission Bancaire (France)</td>
<td>• Bank of America</td>
</tr>
<tr>
<td>• Federal Financial Supervisory Authority (Germany)</td>
<td>• Citigroup</td>
</tr>
<tr>
<td>• Swiss Federal Banking Commission (Switzerland)</td>
<td>• JP Morgan Chase</td>
</tr>
<tr>
<td>• Financial Supervisory Authority (UK)</td>
<td>• Merrill Lynch</td>
</tr>
<tr>
<td>• Office of the Comptroller of the Currency</td>
<td>• Goldman Sachs</td>
</tr>
<tr>
<td>• Securities and Exchange Commission</td>
<td>• Barclays</td>
</tr>
<tr>
<td>• Federal Reserve System</td>
<td>• HSBC</td>
</tr>
<tr>
<td></td>
<td>• BNP Paribas</td>
</tr>
<tr>
<td></td>
<td>• Deutsche Bank</td>
</tr>
<tr>
<td></td>
<td>• Credit Suisse</td>
</tr>
<tr>
<td></td>
<td>• UBS</td>
</tr>
</tbody>
</table>

Firms’ overall performance

- Most firms, while affected by market developments, generally avoided significant losses.
- Most firms’ risk management processes worked as intended.
- Some firms recognized the emerging additional risks and took deliberate actions to limit or mitigate them.
- Other firms recognized the additional risks and accepted them.
- Still other firms did not fully recognize the risks in time to mitigate them.
- Risk management practices varied by firm and by strategy, as did the range of outcomes.
- Primary risk management weaknesses observed are not new.
Exhibit 9
Observations on Risk Management Practices During the Recent Market Turbulence

Four factors differentiated performance:

- The effectiveness of senior management oversight of balance sheet, liquidity, and capital positions;
- The effectiveness of communications among senior management, business lines, and risk management functions;
- The sophistication, diversity and adaptability of risk measures utilized;
- The attention devoted to valuation issues.

Effectiveness of senior management oversight of balance sheet, liquidity, and capital positions

- More Effective
  - More disciplined in measuring and limiting risks in advance of the crisis.
  - More agile in reducing exposures or hedging.
  - Focused on maintaining a strong balance sheet.
  - Established capital and liquidity buffers that included lack of access to the market for funding for a period of time.
  - Created and enforced internal pricing mechanisms, capital allocation methodologies, and limits.
- Less Effective
  - Not as focused on the overall strength of their balance sheet.
  - Operated with less of a liquidity and capital buffer.
  - More focused on earnings growth or defense of market leadership position.
  - Did not have limit structures that were consistently or effectively enforced.
  - Did not properly aggregate or monitor off balance sheet exposures.
Effectiveness of communications among senior management, business lines, and risk management functions

- More Effective
  - Emphasized a comprehensive, firm-wide consolidated assessment of risk.
  - Well established processes for routine discussion of current and emerging risks.
  - Collectively made decisions about the firm’s overall risk appetite, exposures, and risk mitigation strategies.
  - Effectively leveraged the assessments of risks from one business line to consider how exposures may affect other businesses.
  - More timely and well-informed perspective.
  - Implemented plans for reducing exposures while it was still practical and more cost effective.

- Less Effective
  - Did not effectively share information across business lines on emerging risks.
  - Comparatively slower in taking actions to mitigate exposures.
  - Each business line had to assess and consider emerging risks on their own.

The sophistication, diversity, and adaptability of risk measures utilized

- More Effective
  - Used a wide range of risk measures and analytical tools.
  - Used a combination of different risk measures and scenario analysis.
  - Committed more resources to risk management and management information systems.
  - More timely and scalable management information systems.

- Less Effective
  - Too dependent on a single quantitative measurement.
  - Did not utilize scenario analysis in their decision making.
  - Management information systems not as scalable.
  - Need to develop a number of ad hoc reports.
Attention devoted to valuation issues

- **More Effective**
  - More disciplined in how they valued the holdings of complex or potentially illiquid securities.
  - Invested in the development of pricing models and staff with specialized expertise.
  - Less reliant on external ratings.
  - Emphasized mark-to-market discipline.

- **Less Effective**
  - Did not have key valuation models in place prior to the market disruption.
  - Relied heavily on third-party views of risks.
  - More narrow view of the risks associated with their CDO business.
  - Did not actively seek market valuation information.

Supervisory response

- Address risk management deficiencies at each company through the supervisory process.

- Re-emphasize the importance of strong independent risk management.

- Complete the work already underway within the Basel Committee on Bank Supervision to update liquidity risk management guidance.

- Review existing guidance.

- Develop on an interagency basis guidance related to the effective management of the originate-to-distribute model.
The question

- To what extent did regulatory incentives contribute to or fail to mitigate weaknesses exposed by the recent turmoil?
  - Regulatory capital requirements.
  - Financial reporting requirements.

Conclusions

- For banks, regulatory capital incentives are much more important than financial reporting incentives.
- The current regulatory capital framework is not neutral to how banks structure risk positions.
- Although not a significant driver of bank behavior, financial reporting issues, particularly disclosure practices, have been a factor in how the turmoil is unfolding.

Basel 2 and related improvements

1. Capital charges for most unused short-term credit and liquidity facilities have been increased.
2. Standards for holding capital against the default risk of complex, less liquid products in the trading book are being finalized.
3. A more risk-sensitive capital treatment for securitization exposures has been established.
Recommendations - regulatory capital


2. Exercise supervisory oversight to ensure that banks sufficiently consider "reputational" risk and its implications for capital and liquidity buffers.

3. Rigorously assess banks’ implementation of the Advanced Internal Ratings Based approach to Basel 2, including the conservatism of estimates of losses from defaults during a downturn ("downturn LGDs") and stress tests.

4. Explore ways to encourage the inclusion in the regulatory capital base of debt instruments that mandatorily convert into equity when a banking organization is under stress.

Recommendations - disclosure practices

1. Continue to push market participants to make timely and detailed disclosures about the size and composition of subprime-related exposures.

2. Sponsors and/or liquidity/credit enhancement providers to ABCP programs should disclose the distribution of assets underlying the programs by type, industry, and credit rating.

3. Sponsors should improve disclosures to investors in ABCP programs.