Economic Outlook

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Figure 1
U.S. Regional Home Price Declines: S&P/Case-Shiller Metro Area Indexes

March 2006 - August 2011

Index Level March 2006 = 100

Source: S&P/Case-Shiller / Haver Analytics
Figure 2
30-Year Fixed-Rate Share of Mortgage Originations and Selected Interest Rates

January 1990 - September 2011

Source: FHLMC, FHFA, Federal Reserve Board / Haver Analytics
Figure 3
Growth in Real GDP Components:
Current and Three Previous Recoveries

Source: BEA, NBER / Haver Analytics
Figure 4
Residential Investment Share of GDP Growth: Current and Three Previous Recoveries

Source: BEA, NBER / Haver Analytics
Figure 5
Median Net Worth of Households by Race and Ethnicity
2005 - 2009

Source: Pew Research Center Tabulations of the Census Bureau's Survey of Income and Program Participation Data
Figure 6
Composition of Household Net Worth: Selected Components

Source: Pew Research Center Tabulations of the Census Bureau's Survey of Income and Program Participation Data
Figure 7
Erosion of Home Equity of Households by Race and Ethnicity

2005 - 2009

Source: Pew Research Center Tabulations of the Census Bureau's Survey of Income and Program Participation Data
Figure 8
Job Growth: Current and Three Previous Recoveries

Source: BLS, NBER / Haver Analytics
Figure 9
Employment Growth:
Current and Three Previous Recoveries

Source: BLS, NBER / Haver Analytics
Figure 10
Delinquency Rate: 1-4 Family Mortgage Loans 30 or More Days Past Due
1980:Q1 - 2011:Q2

Source: Mortgage Bankers Association, NBER / Haver Analytics
Figure 11
Homeowner and Rental Vacancy Rates

1980:Q1 - 2011:Q3

Source: Census Bureau, NBER / Haver Analytics
Housing has been a Major Impediment to Stronger Growth

- Problems in housing have greatly complicated the U.S. recovery
- Residential investment has been unusually weak relative to previous recoveries
- Consumption, business formation, and employment have also been affected by problems in the housing sector
Figure 12
30-Year Fixed-Rate Mortgage Rate and 10-Year Treasury Yield

January 1980 - October 2011

Source: FHLMC, Federal Reserve Board / Haver Analytics
Figure 13
Housing Affordability: Median Income Relative to Income Needed to Purchase Median Priced Home

1980:Q1 - 2011:Q3

Index Level

Index Level = 100 when Median Family Income Qualifies for 80% Mortgage on Median Priced Home

Source: National Association of Realtors / Haver Analytics
Figure 14
Population and Households
1980 - 2010

Source: Census Bureau / Haver Analytics
Housing Prices and Monetary Policy

- Falling prices discourage home purchases and many borrowers are unable to refinance
- This has impacted the ability of monetary policy to have its usual effect on an important interest-sensitive sector
- Monetary policy accommodation would have a greater impact if households were able to respond to the lower rates
Figure 15

U.S. Unemployment Rate for Population Age 25 and Older by Educational Attainment

January 1992 - October 2011

Source: BLS, Census Bureau, NBER / Haver Analytics
Figure 16  
Changes in Unemployment Rate by Educational Attainment

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Unemployment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>-----------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Less than High School Diploma</td>
<td>7.7%</td>
</tr>
<tr>
<td>High School Diploma, No College</td>
<td>4.7%</td>
</tr>
<tr>
<td>Some College or Associate’s Degree</td>
<td>3.8%</td>
</tr>
<tr>
<td>Bachelor’s Degree or Higher</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

Note: Figures are for population age 25 and older
Source: Census Bureau, BLS / Haver Analytics
Figure 17

Employment Cost Index for Civilian Workers

1983:Q1 - 2011:Q3

Source: BLS, NBER / Haver Analytics
Figure 18
Employment Cost Index for Civilian Workers by Occupational Group

2007:Q1 - 2011:Q3

Percent Change from Year Earlier

- Management and Professional
- Sales and Office
- Natural Resources, Construction and Maintenance
- Production, Transportation and Material Moving
- Service Occupations

Source: BLS / Haver Analytics
Figure 19
Employment Cost Index for Civilian Workers by Occupational Group

2009:Q2 - 2011:Q3

Percent Change

- Total
- Management and Professional
- Sales and Office
- Natural Resources, Construction and Maintenance
- Production, Transportation and Material Moving
- Service Occupations


Source: BLS / Haver Analytics
Figure 20
Bank Size Relative to Country Size: Assets of Largest Bank as a Share of GDP
as of Year End 2010

Note: Includes the U.S. and all European countries with a bank ranked in the top 50 worldwide as of year end 2010
Source: Global Finance, IMF
Figure 21
Sovereign Credit Default Swap Spreads
as of November 4, 2011

Note: Includes the U.S. and all European countries with a bank ranked in the top 50 worldwide as of year end 2010
Source: Bloomberg

Note: CDS spread is five-year mid-price spread
## Figure 22
Credit Default Swap Spreads of Largest Banks in Europe and the United States

<table>
<thead>
<tr>
<th>Largest Banks in Groups of Five</th>
<th>Average Bank Assets Billion Dollars</th>
<th>Average Five-Year Mid-Price CDS Spreads in Basis Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Largest Banks</td>
<td>2,456</td>
<td>6</td>
</tr>
<tr>
<td>Next Five Largest Banks</td>
<td>2,019</td>
<td>9</td>
</tr>
<tr>
<td>Next Five Largest Banks</td>
<td>1,470</td>
<td>6</td>
</tr>
<tr>
<td>Next Five Largest Banks</td>
<td>1,028</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: Global Finance, Bloomberg
Figure 23
Stock Price Declines at Largest Banks by Country
as of November 4, 2011

Note: Includes the U.S. and all European countries with a bank ranked in the top 50 worldwide as of year end 2010. For countries with more than 1 bank in the top 20 in assets, declines are averaged.
Source: Bloomberg
# Figure 24

**Stock Prices of Largest Banks in Europe and the United States**

<table>
<thead>
<tr>
<th>Largest Banks in Groups of Five</th>
<th>Average Bank Assets Billion Dollars</th>
<th>Average Stock Prices: Index Level Dec 29, 2006 = 100</th>
<th>Average Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Largest Banks</td>
<td>2,456</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Next Five Largest Banks</td>
<td>2,019</td>
<td>30</td>
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<tr>
<td>Next Five Largest Banks</td>
<td>1,028</td>
<td>34</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: Global Finance, Bloomberg
Figure 25
Dollar Funding Pressures

January 2, 2007 - November 4, 2011

Note: Basis Spread of Implied Dollar Cash Rate from 3-Month Euro-Dollar FX Swap over 3-Month Dollar LIBOR

Source: British Bankers’ Association, Deutsche Bundesbank, Financial Times / Haver Analytics
U.S. Monetary Policy Response to Weak Recovery

- Short-term interest rates at the zero bound
- Expanded Fed balance sheet, including mortgage securities
- Increased holdings of long-term securities
- Altered communications
Recent FOMC Actions

- Expect short-term rates low until mid-2013
- Downward pressure on longer-term interest rates
- Extending the average maturity of our holdings of securities
- To support conditions in mortgage markets, reinvest principal payments from holdings of agency debt and mortgage-backed securities in agency mortgage-backed securities
Monetary Policy Cannot Fully Offset Problems, but Can Mitigate Some Effects

- Reducing unemployment by half a percent means 750,000 jobs
- Unemployment at 9.0% and medium term inflation restrained
- Goal is to restore economy to full employment and 2% inflation
- The sooner the economy improves the more quickly we can normalize interest rates