Economic Advisory Panel Meeting
October 12, 2007

Agenda
Recent Developments with Focus on Housing
  (Dick Peach)
Recent Financial Market Developments
  (Bill Dudley)
Forecast and Risks
  (Simon Potter)
Go-round on current monetary policy
## Change in FRBNY Forecasts

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP</td>
<td>2.6</td>
<td>2.5</td>
</tr>
<tr>
<td>Total PCE Deflator</td>
<td>2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>Core PCE Deflator</td>
<td>2.0</td>
<td>1.8</td>
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</table>

### Growth Contributions

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
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<tbody>
<tr>
<td>Final Sales to Domestic Purchasers</td>
<td>2.7</td>
<td>2.2</td>
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<tr>
<td>Consumption</td>
<td>2.3</td>
<td>2.0</td>
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<tr>
<td>Residential Investment</td>
<td>-0.6</td>
<td>-0.9</td>
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<tr>
<td>Business Fixed Investment</td>
<td>0.6</td>
<td>0.6</td>
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<tr>
<td>Government</td>
<td>0.5</td>
<td>0.4</td>
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<tr>
<td>Inventory Investment</td>
<td>0.1</td>
<td>-0.1</td>
</tr>
<tr>
<td>Net Exports</td>
<td>-0.2</td>
<td>0.4</td>
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</table>
Real GDP

% Change – Year to Year

% Change – Year to Year

Source: Bureau of Economic Analysis

Note: Shading represents NBER recessions.

Compound Annual Growth Rate
2003Q4 – 2007Q1
Pre: 3.0%
Post: 2.7%
Core CPI, Core Goods and Core Services

% Change - Year to Year

Core Services CPI  
(Weight 71%)

Core CPI

Core Goods CPI  
(Weight 29%)

Source: Bureau of Labor Statistics  
Note: Shading represents NBER recessions.
Core CPI and Import Prices

% Change - Year to Year

Index, 2000=100

Source: Bureau of Labor Statistics

Note: Shading represents NBER recessions.
Core CPI and Energy Price Component of the CPI

% Change - Year to Year

Index, 1982-84=100

Source: Bureau of Labor Statistics

Note: Shading represents NBER recessions.
Core CPI and Prime Age Male Unemployment Rate

% Change - Year to Year

Source: Bureau of Labor Statistics

Prime Age Male Unemployment Rate (Right Axis)

Core CPI (Left Axis)

Note: Shading represents NBER recessions.
Housing Starts per Capita

Starts per 1,000 people

Source: Census Bureau and Economy.com
Note: Shading represents NBER recessions.
New Home Inventories and Real Price Change

% Change – Year to Year

Source: Census Bureau

Note: Shading represents NBER recessions.

Monthly Supply of Unsold New Homes
New Home Inventories and Real Price Change

% Change – Year to Year

Source: Census Bureau and Bureau of Economic Analysis

Note: Shading represents NBER recessions.
## First Mortgage Originations by Loan Type (percent of total)

<table>
<thead>
<tr>
<th>Loan Type</th>
<th>2001-2003 Average</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007Q2</th>
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<tbody>
<tr>
<td>Conventional Conforming</td>
<td>63.5</td>
<td>47.2</td>
<td>39.6</td>
<td>38.8</td>
<td>49.6</td>
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<tr>
<td>FHA/VA</td>
<td>6.9</td>
<td>5.1</td>
<td>3.3</td>
<td>3.1</td>
<td>3.8</td>
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<tr>
<td>Jumbo</td>
<td>20.1</td>
<td>19.9</td>
<td>20.7</td>
<td>18.8</td>
<td>21.6</td>
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<tr>
<td>Alt A</td>
<td>2.5</td>
<td>7.2</td>
<td>13.8</td>
<td>15.7</td>
<td>16.0</td>
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<tr>
<td>Subprime</td>
<td>7.0</td>
<td>20.7</td>
<td>22.7</td>
<td>23.5</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Source: Inside Mortgage Finance
Non-Prime v Prime: 60+ Day Delinquency Rate, SA Current (Q2:2007) and Housing Peak (Q3:2005)

Source: Mortgage Bankers Association and Economy.com
All Loans: Serious Delinquencies By State (SA)

Source: Mortgage Bankers Association

Note: Shading represents NBER recessions.
Recent Financial Market Developments

Bill Dudley
(3) ABX Prices for ABX 07-01 by Rating
January 1, 2007 – October 4, 2007

(4) Spread between Jumbo and Conforming Mortgage Rates Widens
January 1, 2007 – October 4, 2007

Source: JP Morgan

Source: Bloomberg
(5) ABCP Spreads Widen as Concerns Increase Regarding Underlying Collateral

January 1, 2007 – October 4, 2007

Source: Federal Reserve Board

(6) Outstanding ABCP Declines Sharply as Average Rate Increases Significantly


Source: Federal Reserve Board
(7) While Prime Funds Declined, Treasury Only Funds Increased Sharply

January 1, 2007 – October 2, 2007

Source: iMoneyNet

(8) Treasury Bill Yields Decline as Investor Demand for Safer Assets Increases

January 1, 2007 – October 4, 2007

Source: Bloomberg
(9) Asset-Backed Commercial Paper by Type
September 2007

- Single-Seller, 56, 6%
- Multi-Seller, 483, 52%
- SIV, 48, 5%
- Securities Arbitrage, 133, 15%
- CDO, 32, 3%
- Hybrid, 72, 8%
- Extendible, 13, 1%
- Other, 92, 10%

Source: Federal Reserve Board

(10) Asset-Backed Commercial Paper By Underlying Collateral
As of March 2007

- Mortgage
- Equipment
- ABS Other
- Credit Cards
- Trade Receivables
- Auto Loans
- Auto
- Financial
- Other
- Student Loans

Source: Moody’s
(11) CLO and CDO Issuance Declines
January 2006 – September 2007

Source: Merrill Lynch

(12) High Yield Issuance Declines
January 2006 – September 2007

Source: Bloomberg
(13) Banks’ Balance Sheet Pressures Raise U.S. Term Funding Rates
January 1, 2007 – October 4, 2007

Source: Bloomberg

(14) Euro Term Funding Pressures Also Evident
January 1, 2007 – October 4, 2007

Source: Bloomberg
Forecast and Risk Assessment

Simon Potter
## Main Risks to Central Scenario

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Effect on Forecast</th>
<th>Evidence in Favor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Productivity Slowdown</strong></td>
<td>Output: Down</td>
<td>Recent low productivity</td>
</tr>
<tr>
<td></td>
<td><strong>Inflation: Up</strong></td>
<td>Sluggish investment</td>
</tr>
<tr>
<td><strong>Economy Overheated in 2005/2006</strong></td>
<td><strong>Output: Down</strong></td>
<td>Housing correction</td>
</tr>
<tr>
<td></td>
<td><strong>Inflation: Up</strong></td>
<td>Low savings</td>
</tr>
<tr>
<td><strong>Monetary Policy Stance too Restrictive</strong></td>
<td><strong>Output: Down</strong></td>
<td>Yield curve inversion</td>
</tr>
<tr>
<td></td>
<td><strong>Inflation: Down</strong></td>
<td>Credit crunch</td>
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</table>
May ’07 Forecast Distributions

Core PCE Inflation
- % Change – Year to Year
- Released Data
- Central Forecast
- Mean

Real GDP Growth
- % Change – Year to Year
- Released Data
- Central Forecast
- Mean
October ’07 Forecast Distributions

Core PCE Inflation

% Change – Year to Year

Real GDP Growth

% Change – Year to Year
Reference Charts
# PCE Deflator
*(percent change at an annual rate)*

<table>
<thead>
<tr>
<th>Category</th>
<th>24 Month</th>
<th>12 Month</th>
<th>6 Month</th>
<th>3 Month</th>
<th>1 Month</th>
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<tbody>
<tr>
<td>PCE Deflator</td>
<td>2.5</td>
<td>1.8</td>
<td>2.8</td>
<td>0.6</td>
<td>-0.9</td>
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<tr>
<td>Market-Based</td>
<td>2.4</td>
<td>1.7</td>
<td>3.1</td>
<td>0.8</td>
<td>0.0</td>
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<td>Durable Goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Motor Vehicles and Parts</td>
<td>-1.4</td>
<td>-2.2</td>
<td>-1.9</td>
<td>-1.8</td>
<td>-4.5</td>
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<tr>
<td>Nondurable Goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Clothing and Shoes</td>
<td>-1.0</td>
<td>-1.8</td>
<td>-4.7</td>
<td>-3.3</td>
<td>-5.5</td>
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<tr>
<td>Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>3.7</td>
<td>3.4</td>
<td>2.7</td>
<td>2.9</td>
<td>2.3</td>
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<td>Transportation</td>
<td>3.0</td>
<td>2.4</td>
<td>4.3</td>
<td>7.1</td>
<td>5.6</td>
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<td>Medical Care</td>
<td>3.1</td>
<td>3.1</td>
<td>2.0</td>
<td>2.2</td>
<td>1.6</td>
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<td>Recreation Services</td>
<td>2.1</td>
<td>0.8</td>
<td>2.4</td>
<td>-0.1</td>
<td>0.1</td>
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<td>Other Services</td>
<td>2.9</td>
<td>2.9</td>
<td>2.4</td>
<td>2.1</td>
<td>4.0</td>
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<td>PCE Deflator Excluding Food and Energy</td>
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<td>1.8</td>
<td>1.3</td>
<td>1.5</td>
<td>1.1</td>
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<tr>
<td>Market-Based</td>
<td></td>
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<td></td>
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<tr>
<td>Personal Business Services-MB</td>
<td>3.7</td>
<td>5.8</td>
<td>5.6</td>
<td>2.8</td>
<td>7.6</td>
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<td>Personal Business Services-NMB</td>
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<td>2.9</td>
<td>2.1</td>
<td>1.6</td>
<td>3.8</td>
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</table>

Source: Bureau of Economic Analysis

Note: Data through August 2007.
## Consumer Price Data

(percent change at an annual rate)

<table>
<thead>
<tr>
<th></th>
<th>Weights (December 2005)</th>
<th>24 Month</th>
<th>12 Month</th>
<th>6 Month</th>
<th>3 Month</th>
<th>1 Month</th>
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<tbody>
<tr>
<td><strong>Consumer Price Index</strong></td>
<td>Total</td>
<td>Core</td>
<td></td>
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<tr>
<td></td>
<td>100.00</td>
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<td>2.9</td>
<td>1.9</td>
<td>3.8</td>
<td>0.7</td>
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<tr>
<td><strong>Energy</strong></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>8.69</td>
<td></td>
<td>5.9</td>
<td>-2.6</td>
<td>18.8</td>
<td>-17.5</td>
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<tr>
<td><strong>All Items Ex. Energy</strong></td>
<td></td>
<td></td>
<td>2.6</td>
<td>2.4</td>
<td>2.4</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Food</strong></td>
<td></td>
<td></td>
<td>3.4</td>
<td>4.3</td>
<td>4.5</td>
<td>4.7</td>
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<tr>
<td><strong>Food Away From Home (NSA)</strong></td>
<td></td>
<td></td>
<td>3.4</td>
<td>3.8</td>
<td>3.8</td>
<td>5.0</td>
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<tr>
<td><strong>All Items Ex. Food and Energy</strong></td>
<td>77.37</td>
<td>100.00</td>
<td>2.5</td>
<td>2.1</td>
<td>2.0</td>
<td>2.5</td>
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<td><strong>Core Chain-Weight CPI (NSA)</strong></td>
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<td></td>
<td>2.2</td>
<td>1.7</td>
<td>1.5</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Core Goods</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22.32</td>
<td>28.85</td>
<td>-0.1</td>
<td>-0.7</td>
<td>-0.5</td>
<td>0.2</td>
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<td><strong>Apparel</strong></td>
<td></td>
<td></td>
<td>-0.7</td>
<td>-1.5</td>
<td>-4.7</td>
<td>-2.8</td>
</tr>
<tr>
<td><strong>Medical Care Commodities</strong></td>
<td></td>
<td></td>
<td>2.6</td>
<td>1.3</td>
<td>2.2</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Durable Goods</strong></td>
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<td></td>
<td>-1.0</td>
<td>-2.0</td>
<td>-0.5</td>
<td>0.3</td>
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<td><strong>New Vehicles</strong></td>
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<td></td>
<td>0.1</td>
<td>-0.9</td>
<td>0.4</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Used Vehicles</strong></td>
<td></td>
<td></td>
<td>-1.7</td>
<td>-3.7</td>
<td>3.8</td>
<td>8.1</td>
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<tr>
<td><strong>Core Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Rent of Primary Residence</strong></td>
<td></td>
<td></td>
<td>5.83</td>
<td>7.54</td>
<td>3.9</td>
<td>4.0</td>
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<td><strong>Owners' Equivalent Rent</strong></td>
<td></td>
<td></td>
<td>23.44</td>
<td>30.30</td>
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<td>3.0</td>
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<td><strong>Lodging Away from Home</strong></td>
<td></td>
<td></td>
<td>2.61</td>
<td>3.37</td>
<td>5.8</td>
<td>6.5</td>
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<tr>
<td><strong>Medical Care Services</strong></td>
<td></td>
<td></td>
<td>4.76</td>
<td>6.16</td>
<td>4.9</td>
<td>5.5</td>
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<tr>
<td><strong>Transportation Services</strong></td>
<td></td>
<td></td>
<td>5.71</td>
<td>7.38</td>
<td>1.6</td>
<td>1.0</td>
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<td><strong>Other Services</strong></td>
<td></td>
<td></td>
<td>10.67</td>
<td>13.79</td>
<td>3.2</td>
<td>2.6</td>
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</tbody>
</table>

Source: Bureau of Labor Statistics

Note: Data through August 2007.
Total and Core CPI

% Change - Year to Year

Source: Bureau of Labor Statistics
Alternative Measures of CPI

% Change - Year to Year

- Smoothed Inflation (FRBNY)
- Underlying Inflation Gauge (FRBNY)
- Median CPI
- Trimmed Mean CPI
- Core CPI

Source: Bureau of Labor Statistics, Cleveland Fed, and FRBNY
Gasoline Futures

Source: Bloomberg, End-of-Day Quotes
Heating Oil Futures

$/gallon

$2.6

$2.5

$2.4

$2.3

$2.2

$2.1

$2.0

$1.9

$1.8

$1.7

$1.6

Nov-06  May-07  Nov-07  May-08

Months Forward

October 18, 2006

May 1, 2007

October 11, 2007

Source: Bloomberg, End-of-Day Quotes
Natural Gas Futures

$/MMBtu

Months Forward

Source: Bloomberg, End-of-Day Quotes
Crude Oil Futures

$/Barrel

Source: Bloomberg, End-of-Day Quotes
### Real Personal Consumption Expenditures (percent change at an annual rate)

<table>
<thead>
<tr>
<th>Personal Consumption Expenditures</th>
<th>2007Q2 Nominal Share</th>
<th>24 Months</th>
<th>12 Months</th>
<th>6 Months</th>
<th>3 Months</th>
<th>1 Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durable Goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Durable Goods</td>
<td>11.1</td>
<td>4.2</td>
<td>6.6</td>
<td>5.2</td>
<td>3.1</td>
<td>39.7</td>
</tr>
<tr>
<td>Motor vehicles and parts</td>
<td>4.6</td>
<td>-0.9</td>
<td>3.9</td>
<td>-1.8</td>
<td>-6.1</td>
<td>81.2</td>
</tr>
<tr>
<td>Furniture and household equipment</td>
<td>4.3</td>
<td>10.1</td>
<td>9.4</td>
<td>9.3</td>
<td>12.3</td>
<td>20.2</td>
</tr>
<tr>
<td>Other durable goods</td>
<td>2.3</td>
<td>4.3</td>
<td>6.8</td>
<td>12.8</td>
<td>5.6</td>
<td>12.2</td>
</tr>
<tr>
<td>Nondurable goods</td>
<td>29.2</td>
<td>2.9</td>
<td>2.3</td>
<td>1.0</td>
<td>1.7</td>
<td>-0.5</td>
</tr>
<tr>
<td>Food</td>
<td>13.7</td>
<td>2.7</td>
<td>1.6</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Clothing and shoes</td>
<td>3.8</td>
<td>5.6</td>
<td>7.0</td>
<td>8.5</td>
<td>7.5</td>
<td>12.7</td>
</tr>
<tr>
<td>Gasoline, fuel oil, and other energy goods</td>
<td>3.9</td>
<td>-1.6</td>
<td>-2.2</td>
<td>-8.7</td>
<td>-4.1</td>
<td>-20.7</td>
</tr>
<tr>
<td>Other nondurable goods</td>
<td>7.8</td>
<td>3.9</td>
<td>3.4</td>
<td>3.6</td>
<td>4.7</td>
<td>3.3</td>
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<td>Services</td>
<td>59.7</td>
<td>2.8</td>
<td>3.4</td>
<td>2.6</td>
<td>5.5</td>
<td>7.2</td>
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<td>Housing services</td>
<td>15.0</td>
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<td>2.2</td>
<td>2.3</td>
<td>1.7</td>
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<td>Household operation services</td>
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<td>0.7</td>
<td>3.7</td>
<td>-3.6</td>
<td>20.9</td>
<td>34.4</td>
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<td>Gas and electric</td>
<td>2.3</td>
<td>-0.1</td>
<td>5.7</td>
<td>-10.8</td>
<td>50.1</td>
<td>91.4</td>
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<td>Other</td>
<td>3.1</td>
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<td>2.3</td>
<td>2.6</td>
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<td>Transportation services</td>
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<td>2.4</td>
<td>3.7</td>
<td>4.1</td>
<td>3.3</td>
<td>6.1</td>
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<tr>
<td>Medical care services</td>
<td>17.3</td>
<td>3.0</td>
<td>3.0</td>
<td>2.7</td>
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<td>3.9</td>
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<td>Recreation services</td>
<td>4.1</td>
<td>4.0</td>
<td>5.1</td>
<td>4.2</td>
<td>4.3</td>
<td>1.3</td>
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<tr>
<td>Other</td>
<td>14.1</td>
<td>3.8</td>
<td>4.5</td>
<td>4.4</td>
<td>8.1</td>
<td>9.8</td>
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<tr>
<td>Energy goods and services</td>
<td>6.2</td>
<td>-1.0</td>
<td>0.7</td>
<td>-10.0</td>
<td>13.2</td>
<td>10.6</td>
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<td>PCE less food and energy</td>
<td>80.1</td>
<td>3.4</td>
<td>3.9</td>
<td>3.8</td>
<td>4.2</td>
<td>9.2</td>
</tr>
<tr>
<td>PCE less autos and household operation</td>
<td>90.0</td>
<td>3.4</td>
<td>3.4</td>
<td>3.0</td>
<td>3.9</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Source: Bureau of Economic Analysis

Note: Data through August 2007.
Financing Gap as a Percent of Value Added
Nonfarm Nonfinancial Corporate Sector

Financing gap is capital expenditures less the sum of U.S. internal funds and inventory valuation adjustment (IVA).

Source: Flow of Funds, Federal Reserve Board, and BEA
Consumer Installment Debt Delinquency Rates

Percent
Percent


Credit Cards
Total Loans
Other Loans

Source: Federal Reserve Board
Consumer Debt and Home Equity Extraction

% Change - Year to Year

Growth of Total Consumer Debt (Left Axis)
Home Equity Extraction as a Percent of DPI (Right Axis)

Source: Flow of Funds and Bureau of Economic Analysis
Consumer Debt Service over DPI

Source: Federal Reserve Board
Trade Balance in Goods and Services

Billions of Dollars

All Goods and Services

Total Less Petroleum Products

Source: Census Bureau
Real Trade Balance of Goods

Billions of Chained 2000 Dollars

Source: Census Bureau
Exports of Goods

% Change - Year to Year

Source: Census Bureau
Imports of Goods

% Change - Year to Year

Source: Census Bureau
Source: Bureau of Economic Analysis
## Labor Market: Nonfarm Payroll Employment

### Annualized Growth of Nonfarm Payroll Employment

(percentage change at an annual rate)

<table>
<thead>
<tr>
<th></th>
<th>24 Month</th>
<th>12 Month</th>
<th>6 Month</th>
<th>3 Month</th>
<th>1 Month</th>
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</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>1.5</td>
<td>1.2</td>
<td>1.0</td>
<td>0.8</td>
<td>1.0</td>
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<tr>
<td><strong>Private</strong></td>
<td>1.6</td>
<td>1.2</td>
<td>1.0</td>
<td>0.8</td>
<td>0.8</td>
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<tr>
<td>Goods-Producing</td>
<td>0.2</td>
<td>-1.3</td>
<td>-1.5</td>
<td>-2.0</td>
<td>-1.8</td>
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<tr>
<td>Construction</td>
<td>1.3</td>
<td>-1.4</td>
<td>-2.0</td>
<td>-2.7</td>
<td>-2.2</td>
</tr>
<tr>
<td><strong>Manufacturing</strong></td>
<td>-0.7</td>
<td>-1.6</td>
<td>-1.5</td>
<td>-1.9</td>
<td>-1.5</td>
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<tr>
<td>Durables</td>
<td>-0.4</td>
<td>-1.7</td>
<td>-1.5</td>
<td>-1.5</td>
<td>-1.3</td>
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<td>Nondurables</td>
<td>-1.2</td>
<td>-1.3</td>
<td>-1.6</td>
<td>-2.5</td>
<td>-1.9</td>
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<tr>
<td><strong>Private Service Providing</strong></td>
<td>1.9</td>
<td>1.9</td>
<td>1.6</td>
<td>1.4</td>
<td>1.4</td>
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<tr>
<td>Wholesale Trade</td>
<td>2.1</td>
<td>1.8</td>
<td>2.3</td>
<td>1.4</td>
<td>1.5</td>
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<tr>
<td><strong>Retail Trade</strong></td>
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<td>0.7</td>
<td>-0.1</td>
<td>0.3</td>
<td>-0.4</td>
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<tr>
<td>Transportation and Warehousing</td>
<td>1.9</td>
<td>1.3</td>
<td>1.0</td>
<td>2.0</td>
<td>2.8</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.2</td>
<td>1.4</td>
<td>1.9</td>
<td>0.7</td>
<td>0.0</td>
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<td>Information</td>
<td>0.6</td>
<td>1.5</td>
<td>0.8</td>
<td>0.8</td>
<td>4.4</td>
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<td>Financial Activities</td>
<td>1.6</td>
<td>0.5</td>
<td>0.1</td>
<td>-0.6</td>
<td>-2.0</td>
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<tr>
<td>Professional and Business Services</td>
<td>2.4</td>
<td>1.8</td>
<td>1.3</td>
<td>1.4</td>
<td>1.4</td>
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<tr>
<td>Temporary Help Services</td>
<td>-0.8</td>
<td>-2.8</td>
<td>-5.4</td>
<td>-5.9</td>
<td>-8.8</td>
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<td>Education and Health Services</td>
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<td>3.3</td>
<td>3.8</td>
<td>3.7</td>
<td>2.9</td>
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<tr>
<td>Leisure and Hospitality</td>
<td>2.8</td>
<td>3.1</td>
<td>2.4</td>
<td>1.7</td>
<td>3.1</td>
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<tr>
<td>Food and Drinking Places</td>
<td>3.5</td>
<td>3.8</td>
<td>3.5</td>
<td>2.6</td>
<td>3.2</td>
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<tr>
<td><strong>Other Services</strong></td>
<td>0.7</td>
<td>0.6</td>
<td>0.6</td>
<td>-0.3</td>
<td>-0.9</td>
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<tr>
<td>Government</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.3</td>
<td>2.0</td>
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<tr>
<td>Federal Government</td>
<td>-0.5</td>
<td>-0.8</td>
<td>-0.6</td>
<td>0.0</td>
<td>-2.6</td>
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<tr>
<td>State Government</td>
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<td>1.2</td>
<td>1.6</td>
<td>2.8</td>
<td>6.7</td>
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<tr>
<td>Local Government</td>
<td>1.2</td>
<td>1.3</td>
<td>1.0</td>
<td>0.9</td>
<td>1.3</td>
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</tbody>
</table>

Source: Bureau of Labor Statistics

Note: Data through September 2007.
Employment Cost Index: Private Industry

% Change - Year to Year

Source: Bureau of Labor Statistics
Real Average Hourly Earnings

Source: Bureau of Labor Statistics
Median Duration of Unemployment

Source: Bureau of Labor Statistics
Aggregate Weekly Hours Index: Total Private Industries

% Change - Year to Year

Source: Bureau of Labor Statistics
Implied Skewness and Volatility of Fed Funds Rate

Source: CME and FRBNY Calculations
Alternative Fed Funds Rates: October 2007 FOMC

Source: Cleveland Federal Reserve Bank
Alternative Fed Funds Rates: December 2007 FOMC

Source: Cleveland Federal Reserve Bank
Implied One-Year Forward Rates

Percent

Maturity (Years)

Percent

Source: 8:40AM quotes and FRBNY Calculations

*Estimated using off-the-run Treasury securities
Real Interest Rates
Treasury Yield minus Philadelphia Fed Survey Inflation Expectations

Source: Federal Reserve Board and Philadelphia Fed

*After 2003, calculated using inflation-indexed bonds
Michigan Survey Inflation Expectations: One Year Ahead

Percent

Source: University of Michigan
Credit Default Swap Spreads

Basis Points

Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct

Large Securities Firms

CDX NA IG

Large Domestic BHCs

Large FBOs

Source: Markit
Euro Area Real GDP Growth

% Change at an Annual Rate

Source: Eurostat
Japan Real GDP Growth

% Change at an Annual Rate

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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</thead>
<tbody>
<tr>
<td>%</td>
<td>-4</td>
<td>-2</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Source: BIS
Euro Area Inflation

% Change – Year to Year

Source: BIS and Federal Reserve Board
Japan Inflation

CPI % Change – Year to Year

CPI Ex. Food and Energy % Change – Year to Year

Source: BIS and Federal Reserve Board
Euro Area Short-Term and Long-Term Interest Rates

Source: BIS and Federal Reserve Board

Note: Data are monthly averages.
Japan Short-Term and Long-Term Interest Rates

Source: Bloomberg and Federal Reserve Board

Note: Data are monthly averages.
Euro-Dollar Exchange Rates

Dollar per Euro

Note: Data are monthly averages.

Source: BIS
Yen-Dollar Exchange Rate and Narrow Dollar Index

Yen per Dollar (Left Axis)

Source: BIS and Federal Reserve Board

Nominal Narrow Dollar Index (Right Axis)

Note: Data are monthly averages.
Euro and Yen One-Month Implied FX Option Volatility

Source: Reuters

Note: Data are monthly averages.

Width of a 90% Confidence Interval

October 10: 6.33
October 10: 7.38

Euro

Yen
Euro Area and Japan Equity Indices

Index 2000=100

October 10: 107.2

October 10: 101.4

Source: BIS and Bloomberg

Note: Data are monthly averages.
Three-Month Eurocurrency Futures Rates: Euro

Source: Datastream
Three-Month Eurocurrency Futures Rates: Yen

Source: Datastream
Quarterly Actual and Approximated Fed Funds Rate
Taylor’s Counterfactual FFR and its Approximation with CPI

Actual FFR
Taylor’s Counterfactual
Taylor Rule using Total CPI

Source: Bureau of Labor Statistics, Congressional Budget Office, Bureau of Economic Analysis, Federal Reserve Board
Note: Approximated using ex-post data.
Quarterly Actual and Approximated Fed Funds Rate

Taylor’s Counterfactual FFR and its Approximation with CPI

Actual FFR

Taylor’s Counterfactual

Taylor Rule using Total CPI

Quarterly Actual and Approximated Fed Funds Rate

Source: Bureau of Labor Statistics, Congressional Budget Office, Bureau of Economic Analysis, Federal Reserve Board

Note: Approximated using ex-post data.
Monthly Actual and Approximated Fed Funds Rate
Taylor Rule using Core PCE

- 1. FFR ↓ to 1.75%
- 2. FFR ↓ to 1.25%
- 3. Weak labor mkt
- 4. FFR ↓ to 1%
- 5. Beg. of patience
- 6. Beg. of measured pace
- 7. FFR starts ↑
- 8. FFR stops at 5.25%

Source: Federal Reserve Board
Note: Approximated using real-time data.
Monthly Actual and Approximated Fed Funds Rate

Taylor Rule with Varying Neutral Rates*

1. FFR ↓ to 1.75%
2. FFR ↓ to 1.25%
3. Weak labor mkt
4. FFR ↓ to 1%
5. Beg. of patience
6. Beg. of measured pace
7. FFR starts ↑
8. FFR stops at 5.25%

Note: Approximated using real-time data.
*Between 3 and 5.5.

Source: Federal Reserve Board
Monthly Actual and Approximated Fed Funds Rate

Outcome-based Rule

- Actual FFR
- Taylor’s Counterfactual

1. FFR ↓ to 1.75%
2. FFR ↓ to 1.25%
3. Weak labor mkt
4. FFR ↓ to 1%
5. Beg. of patience
6. Beg. of measured pace
7. FFR starts ↑
8. FFR stops at 5.25%

Source: Federal Reserve Board

Note: Approximated using real-time data.
Monthly Actual and Approximated Fed Funds Rate

Forecast-based Rule

- 1. FFR ↓ to 1.75%
- 2. FFR ↓ to 1.25%
- 3. Weak labor mkt
- 4. FFR ↓ to 1%
- 5. Beg. of patience
- 6. Beg. of measured pace
- 7. FFR starts ↑
- 8. FFR stops at 5.25%

Note: Approximated using real-time data. Source: Federal Reserve Board
Implied Skewness and Volatility

1. Considerable Period
2. Patience
3. Measured Pace
4. Pause
5. Adverse Effects

Note: Weekly averages based on 3-9 month implied volatilities from Eurodollar futures options

Source: CME and FRBNY calculations
Monthly Actual and Approximated Fed Funds Rate

Taylor Rule using Core PCE

Source: Federal Reserve Board

Note: Approximated using real-time data.
Monthly Actual and Approximated Fed Funds Rate

Taylor Rule with Varying Neutral Rates*

Source: Federal Reserve Board

Note: Approximated using real-time data.
*Between 3 and 5.5.
Monthly Actual and Approximated Fed Funds Rate

Outcome-based Rule

Actual FFR

Outcome-based Rule

Source: Federal Reserve Board

Note: Approximated using real-time data.
Monthly Actual and Approximated Fed Funds Rate

Forecast-based Rule

Note: Approximated using real-time data.

Source: Federal Reserve Board