Consensus Forecast 2006 and 2007

William Strauss
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and Economic Advisor
Federal Reserve Bank of Chicago
Winners from last year’s Automotive Outlook Symposium forecast

• Real GDP:
  - Ed Sullivan – Portland Cement Association
  - Kenny Vieth – A.C.T. Research Co., LLC

• Inflation:
  - Jack L. Bishop – Kingsbury International, Ltd.
Winners from last year’s Automotive Outlook Symposium forecast

- **Unemployment rate:**
  - William Hickey – DTE Energy
  - Roman Pobaruyev – Snap-on
  - Robert Schnorbus – J.D. Power and Associates
  - Keith Schwer – UNLV
  - Carl Tannenbaum – LaSalle Bank
  - Evert Van Der Heide – Calvin College
  - Kenny Vieth – A.C.T. Research Co., LLC

- **Car and light truck sales:**
  - William Hickey – DTE Energy
  - Robert Schnorbus – J.D. Power and Associates
  - Paul Taylor – National Automobile Dealers Association
Winners from last year’s Automotive Outlook Symposium forecast

• Best Overall Economic Forecast: Paul Taylor – National Automobile Dealers Association
Review of past performance
The median forecast for real GDP growth was quite accurate.
The unemployment rate showed continued improvement compared with the consensus view of stability.
Inflation was higher than expected...
In part due to much higher energy prices than forecasted.
While volatile, car and light truck sales were nailed.
Consumer spending growth was predicted accurately.

Personal consumption expenditures

percent change, annual rate

1994 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06
As was business spending growth

Business fixed investment

percent change, annual rate
Business inventories grew at a less rapid pace than expected.
Industrial production began last year at a slower rate of growth than forecast, but then increased at a faster pace than expected.
Government spending was accurately predicted

**Government consumption**

percent change, annual rate

![Government consumption graph](image)
The trade deficit was fairly accurately predicted.

Net exports of goods and services

<table>
<thead>
<tr>
<th>Billions of constant dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>-100</td>
</tr>
<tr>
<td>-200</td>
</tr>
<tr>
<td>-300</td>
</tr>
<tr>
<td>-400</td>
</tr>
<tr>
<td>-500</td>
</tr>
<tr>
<td>-600</td>
</tr>
<tr>
<td>-700</td>
</tr>
</tbody>
</table>

1994 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06
The dollar showed greater strength than forecast.
The housing market surprised participants by increasing at a higher level than anticipated.
The poor housing prediction led to a large miss on residential investment . . .
Perhaps in part due to lower long-term interest rates than predicted.
Short-term interest rates were a bit higher than forecast

Treasury one-year rate

percent

1994 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06
Forecast for 2006 and 2007
## Median forecast of GDP and related items (page 1 of book)

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP, current dollars*</td>
<td>6.4%</td>
<td>6.0%</td>
<td>5.2%</td>
</tr>
<tr>
<td>GDP price index, chain-type*</td>
<td>3.1%</td>
<td>2.4%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Real GDP, chained dollars*</td>
<td>3.5%</td>
<td>3.5%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Personal consumption expenditures*</td>
<td>3.5%</td>
<td>3.5%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Business fixed investment*</td>
<td>8.6%</td>
<td>8.9%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Residential investment*</td>
<td>7.1%</td>
<td>-1.7%</td>
<td>-0.9%</td>
</tr>
<tr>
<td>Change in private inventories (billions of constant dollars)**</td>
<td>$20.3</td>
<td>$31.0</td>
<td>$31.2</td>
</tr>
<tr>
<td>Net exports of goods and services (billions of constant dollars)**</td>
<td>-$633.1</td>
<td>-$682.3</td>
<td>-$681.7</td>
</tr>
<tr>
<td>Government consumption expenditures and gross investment*</td>
<td>1.8%</td>
<td>2.4%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

*Q4 over Q4

**Q4 value
### Median forecast of GDP and related items

(page 1 of book)

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industrial production</strong></td>
<td>3.2%</td>
<td>3.6%</td>
<td>3.3%</td>
</tr>
<tr>
<td><strong>Car &amp; light truck sales (millions - calendar year including imports)</strong></td>
<td>16.9</td>
<td>16.7</td>
<td>16.8</td>
</tr>
<tr>
<td><strong>Housing starts (millions)</strong></td>
<td>2.07</td>
<td>1.97</td>
<td>1.83</td>
</tr>
<tr>
<td><strong>Oil price (dollars per barrel of West Texas Intermediate)</strong></td>
<td>$56.47</td>
<td>$65.51</td>
<td>$66.00</td>
</tr>
<tr>
<td><strong>Unemployment rate</strong></td>
<td>5.1%</td>
<td>4.8%</td>
<td>4.9%</td>
</tr>
<tr>
<td><strong>Inflation rate (consumer price index)</strong></td>
<td>3.4%</td>
<td>2.6%</td>
<td>2.4%</td>
</tr>
<tr>
<td><strong>Treasury constant maturity 1-year rate</strong></td>
<td>3.62%</td>
<td>5.14%</td>
<td>5.05%</td>
</tr>
<tr>
<td><strong>Treasury constant maturity 10-year rate</strong></td>
<td>4.29%</td>
<td>5.29%</td>
<td>5.44%</td>
</tr>
<tr>
<td><strong>J.P. Morgan trade weighted OECD dollar</strong></td>
<td>-2.4%</td>
<td>-1.2%</td>
<td>-0.5%</td>
</tr>
</tbody>
</table>

*Q4 over Q4  
**Q4 value  
***Yearly average
Real GDP growth is expected to remain at 3.5% this year and then ease to 3.0% next year, moving from above potential growth to just below potential growth for the economy.
The unemployment rate should average 4.8% at the end of this year and then edge just a bit higher next year.
The inflation rate is expected to move lower over this year and next.
Short-term interest rates are forecast to rise by 152 basis points in 2006 and then edge lower by 9 basis points in 2007.

**Treasury one-year rate**

<table>
<thead>
<tr>
<th>percent</th>
<th>1994</th>
<th>'95</th>
<th>'96</th>
<th>'97</th>
<th>'98</th>
<th>'99</th>
<th>'00</th>
<th>'01</th>
<th>'02</th>
<th>'03</th>
<th>'04</th>
<th>'05</th>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Graph showing the treasury one-year rate from 1994 to 2007.
Light vehicle sales are forecast to move lower this year, averaging 16.7 million units and then rise to 16.8 million units in 2007.
Consumption growth is expected to remain steady at 3.5% in 2006 and then move lower to 2.9% in 2007.
Long-term interest rates are forecast to rise by 100 basis points in 2006 and then by 15 basis points in 2007.
Housing starts are expected to decline over the forecast horizon.

Housing starts
millions of units

1994 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07
Residential investment growth is forecast to turn negative.
Business spending growth is anticipated to rise to 8.9% this year and then fall to 5.9% in 2007.

**Business fixed investment**

- percent change, annual rate

- 25
- 20
- 15
- 10
- 5
- 0
- -5
- -10
- -15

- 1994
- '95
- '96
- '97
- '98
- '99
- '00
- '01
- '02
- '03
- '04
- '05
- '06
- '07
A relatively modest increase in inventories is expected to take place over the forecast horizon.
Industrial output growth is forecast to have solid years both this year and next.
Government purchases growth is forecast to increase by 2.4% this year and then ease to 1.7% next year.
Net exports are expected to remain relatively flat over the forecast horizon.

Net exports of goods and services

billions of constant dollars

1994  '95  '96  '97  '98  '99  '00  '01  '02  '03  '04  '05  '06  '07
The dollar is forecast to fall by 1.2% this year and by 0.5% in 2007.
Oil prices are expected to average $66 per barrel at the end of this year and then remain stable in 2007.
The economy is forecast to have a solid year with growth around potential in 2006 and 2007

Unemployment is expected to remain flat over the next two years

Inflation is expected to fall over the next two years

Light vehicle sales are forecast to average 16.7 million units this year and then edge up to 16.8 million in 2007

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