Consensus Outlook - 2020

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The views expressed herein are those of the author and do not necessarily represent the views of the Federal Reserve System or the Federal Reserve Bank of Chicago.
Review of Past Performance
The growth in real GDP was close to last year’s forecast.

Real GDP (percent change, annualized)

Actual Data

Forecasts: EOS 2018

Previous EOS Forecasts

The growth in real GDP was close to last year’s forecast.
While quite a bit volatile, consumer spending was also close to what was forecast.

**Personal Consumption Expenditures**
(percent change, annualized)
Investment was initially close to forecast but was much weaker over the last two quarters.
Residential investment was weaker than what was predicted last year.
Inventories were added at a pace above what was anticipated.
The deterioration of the trade balance was close to what was predicted

Net Exports of Goods and Services
(billions of constant dollars)
Industrial production growth was much weaker than forecast.
Yet, light vehicle sales came in a bit above what was predicted
Housing starts were initially weaker than expected, but were close to what was predicted in the last two quarters.
Oil prices were much lower than forecast

Oil Prices - West Texas Intermediate
(dollars per barrel)
The unemployment rate was close to what was predicted.
Inflation came-in just a bit lower than anticipated
The increase in longer-term rates that was predicted did not materialize.
The forecast increase in short term interest rates also did not take place.
While quite volatile, the trade weighted value of the dollar was close to the forecast.
Forecast for 2020
Real GDP growth is expected to remain steady throughout 2020 with an increase of 1.7% for the year.
Personal consumption spending moderates to 2.0% in 2020

Personal Consumption Expenditures
(percent change, annualized)

[Graph showing Personal Consumption Expenditures with annual data from 2000 to 2020, indicating a moderate decrease in 2020.]
Business fixed investment is predicted to increase at a slow pace of 1.8% over the coming year.
Residential investment growth is forecast to tick up in 2020, gaining 1.0%
Business inventories are anticipated to grow at a slightly slower pace in 2020.

Change in Business Inventories
(billions of constant dollars)
The trade balance is expected to deteriorate further in 2020

Net Exports of Goods and Services
(billions of constant dollars)
Industrial output is forecast to increase at a slow 0.9% pace next year.
Light vehicles sales are forecast to continue moving lower, falling to 16.6 million units in 2020.
Housing starts are forecast to edge higher to 1.28 million next year.
Oil prices are predicted to remain flat

Oil Prices - West Texas Intermediate
(dollars per barrel)
The unemployment rate is projected to edge higher to 3.7% in the final quarter of next year.
Inflation is forecast to remain flat at 2.0% in 2020

CPI Inflation Rate
(percent change, annualized)
Short-term interest rates are predicted to edge up by 6 basis points in 2020

Treasury One-year Rate (percent)
Ten-year interest rates are expected to increase by 17 basis points next year to 1.95%.
The dollar is forecast to rise 2.7% next year

J.P. Morgan Trade Weighted Dollar
(percent change, annualized)
# Median Forecasts: Consensus Book Page 1

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP, current dollars*</td>
<td>4.9%</td>
<td>3.9%</td>
<td>3.5%</td>
</tr>
<tr>
<td>GDP Price Index, chain-type*</td>
<td>2.3%</td>
<td>1.7%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Real GDP, chained dollars*</td>
<td>2.5%</td>
<td>2.2%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Real Personal Consumption Expenditures*</td>
<td>2.6%</td>
<td>2.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Real Business Fixed Investment*</td>
<td>5.9%</td>
<td>0.5%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Real Residential Investment*</td>
<td>-4.4%</td>
<td>0.7%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Change in Private Inventories **</td>
<td>$93.0</td>
<td>$53.0</td>
<td>$48.1</td>
</tr>
<tr>
<td>Net Exports of Goods and Services (billions of constant dollars)**</td>
<td>-$983.0</td>
<td>-$990.0</td>
<td>-1,002.6</td>
</tr>
<tr>
<td>Real Government Consumption Expenditures and Gross Investment*</td>
<td>1.5%</td>
<td>2.8%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

* Q4 over Q4
** Q4 value
# Median Forecasts: Consensus Book Page 1

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<th>2020</th>
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<tr>
<td><strong>Industrial Production</strong>*</td>
<td>4.0%</td>
<td>-0.7%</td>
<td>0.9%</td>
</tr>
<tr>
<td><strong>Car &amp; Light Truck Sales</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(millions - calendar year including imports)</td>
<td>17.2</td>
<td>16.9</td>
<td>16.6</td>
</tr>
<tr>
<td><strong>Housing Starts (millions of units)</strong></td>
<td>1.25</td>
<td>1.26</td>
<td>1.28</td>
</tr>
<tr>
<td><strong>Oil Price (dollars per barrel of West Texas Intermediate)</strong></td>
<td>$58.97</td>
<td>$55.90</td>
<td>$56.52</td>
</tr>
<tr>
<td><strong>Unemployment Rate</strong></td>
<td>3.8%</td>
<td>3.6%</td>
<td>3.7%</td>
</tr>
<tr>
<td><strong>Consumer Price Index</strong>*</td>
<td>2.2%</td>
<td>1.9%</td>
<td>2.0%</td>
</tr>
<tr>
<td><strong>Treasury Constant Maturity One-year Rate</strong></td>
<td>2.67%</td>
<td>1.63%</td>
<td>1.69%</td>
</tr>
<tr>
<td><strong>Treasury Constant Maturity Ten-year Rate</strong></td>
<td>3.03%</td>
<td>1.78%</td>
<td>1.95%</td>
</tr>
<tr>
<td><strong>J.P. Morgan Trade Weighted OECD Dollar</strong>*</td>
<td>4.3%</td>
<td>1.5%</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

* Q4 over Q4

** Q4 value
Summary

- The economy is forecast to rise at a pace near trend in 2020
- The unemployment rate is forecast to edge up to a still very low rate by the end of next year
- Inflation is anticipated to remain unchanged in 2020
- Manufacturing growth is expected to increase at a pace that is below its historical average
- Light vehicles sales are forecast to ease to 16.6 million units in 2020
- Housing starts are predicted to tick up to 1.28 million units next year
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