Consensus Outlook – 2018 and 2019

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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
While volatile, real GDP growth was close to forecast.

Real GDP
(percent change, annualized)

Actual Data
Previous AOS Forecasts

Forecasts: AOS 2016
Oil prices rose at a bit faster pace than predicted

Oil Prices - West Texas Intermediate
(dollars per barrel)
This in part explains why inflation rose at a faster pace than forecast.
Business fixed investment lagged what was expected until the most recent quarter.
Inventories contribution to growth was less than predicted.
The trade weighted value of the dollar rose more than anticipated.
The trade deficit was initially less than forecast but increased sharply at the end of last year.
Industrial production improved at a pace close to what was expected.
The unemployment rate moved slightly below the rate forecast.
Consumer spending was slightly stronger than predicted

Personal Consumption Expenditures
(percent change, annualized)
This helped push light vehicle sales slightly above what was anticipated.
Housing starts were accurately forecast

Housing Starts
(millions of units)
Residential investment was initially weaker than expected, but strengthened over the past couple quarters.
Longer-term rates ended up rising close to what was predicted.

**Treasury Ten-year Rate**
(Percent)

![Graph showing the Treasury Ten-year Rate from 2000 to 2017. The rate generally declined from approximately 7% in 2000 to around 2% in 2017.]
Short term interest rates rose at a somewhat slower pace than forecast

Treasury One-year Rate
(percentage)
Forecast for 2017 and 2018
Real GDP growth is expected to edge higher in both 2017 and 2018.

Real GDP
(percent change, annualized)

Actual Data

Median Forecast: AOS 2017

High and Low Forecast: AOS 2017*

*Excludes the two highest and two lowest forecasts
Oil prices are anticipated to increase modestly beginning next year.

Oil Prices - West Texas Intermediate
(dollars per barrel)
Inflation is expected to remain relatively stable through the end of 2018.
Business fixed investment is anticipated to rise at a solid pace.
The change in business inventories are forecast to rise at a pace likely to keep the inventory to GDP ratio constant.

Change in Business Inventories
(billions of constant dollars)
The trade weighted dollar is predicted to continue rising through next year.
This may in part explain why the trade deficit is expected to increase.
Industrial output is forecast to rise at pace below its long-run trend
The unemployment rate is predicted to remain stable at a low rate.
Consumer spending is anticipated to increase at a solid pace.
Even with light vehicles sales moving lower
Housing starts are expected to continue its modest gains.
Residential investment is predicted to grow moderately

Residential Investment
(percent change, annualized)
Ten-year interest rates are forecast to rise to just over 3% by the end of next year.
Short-term interest rates are expected to rise to just under 2% by the end of 2018

Treasury One-year Rate
(percent)
<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP, current dollars*</td>
<td>3.5%</td>
<td>3.9%</td>
<td>4.3%</td>
</tr>
<tr>
<td>GDP Price Index, chain-type*</td>
<td>1.6%</td>
<td>2.0%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Real GDP, chained dollars*</td>
<td>2.0%</td>
<td>2.1%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Real Personal Consumption Expenditures*</td>
<td>3.1%</td>
<td>2.1%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Real Business Fixed Investment*</td>
<td>-0.1%</td>
<td>5.2%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Real Residential Investment*</td>
<td>1.1%</td>
<td>6.3%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Change in Private Inventories**</td>
<td>$49.6</td>
<td>$42.5</td>
<td>$40.0</td>
</tr>
<tr>
<td>Net Exports of Goods and Services (billions of constant dollars)**</td>
<td>-$605.0</td>
<td>-$635.0</td>
<td>-$682.7</td>
</tr>
<tr>
<td>Real Government Consumption Expenditures and Gross Investment*</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

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

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<tr>
<td><strong>Industrial Production</strong>*</td>
<td>-0.1%</td>
<td>1.6%</td>
<td>1.7%</td>
</tr>
<tr>
<td><strong>Car and Light Truck Sales</strong></td>
<td>17.5</td>
<td>17.1</td>
<td>16.9</td>
</tr>
<tr>
<td>(millions – calendar year including imports)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Housing Starts (millions of units)</strong></td>
<td>1.18</td>
<td>1.26</td>
<td>1.32</td>
</tr>
<tr>
<td><strong>Oil Price (dollars per barrel of West Texas Intermediate)</strong></td>
<td>$49.20</td>
<td>$51.59</td>
<td>$54.00</td>
</tr>
<tr>
<td><strong>Unemployment Rate</strong>**</td>
<td>4.7%</td>
<td>4.4%</td>
<td>4.4%</td>
</tr>
<tr>
<td><strong>Consumer Price Index</strong>*</td>
<td>1.8%</td>
<td>2.3%</td>
<td>2.3%</td>
</tr>
<tr>
<td><strong>Treasury Constant Maturity One-year Rate</strong>**</td>
<td>0.76%</td>
<td>1.42%</td>
<td>1.89%</td>
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<tr>
<td><strong>Treasury Constant Maturity Ten-year Rate</strong>**</td>
<td>2.13%</td>
<td>2.70%</td>
<td>3.11%</td>
</tr>
<tr>
<td><strong>J.P. Morgan Trade Weighted OECD Dollar</strong>*</td>
<td>3.7%</td>
<td>3.3%</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

* Q4 over Q4
** Q4 value
Summary

- The economy is forecast to rise at a pace just slightly above trend in 2017 and 2018.
- The unemployment rate is expected to edge lower this year and remain unchanged in 2018.
- CPI inflation is anticipated to rise to 2.3% percent this year and remain unchanged next year.
- Manufacturing growth is expected to improve to a pace that is still below its trend.
- Light vehicles sales are forecast to decline to 17.1 million units in 2017 and 16.9 million units in 2018.
- Housing starts are predicted to increase to 1.34 million units next year.
- www.chicagofed.org