Indiana Economic Forecast Update

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US policy assumptions in the March forecast

- A reduction in the statutory corporate income tax rate from 35% to 20%, partially offset by fewer tax credits, starting in 2018
  - No border adjustments
  - No expensing of capital expenditures
- Personal income tax reforms that lower the average effective federal tax rate from 20.7% to 19.7% in January 2018
- An increase in public infrastructure investments totaling USD250 billion over 10 years
- Federal Reserve policy rate increases of 75 basis points in 2017, 2018, and 2019, bringing the rate to a long-term equilibrium of 3%
- * - No noteworthy changes in April forecast
Changes to forecast since December update

• Higher manufacturing employment, production
  • State-level employment data revised higher for Indiana
• National outlook has improved
  • Demand for durables is improving, especially from fixed business investment
  • Inventory over-hang has been mostly worked off, so more product needed to meet current demand
• U.S. corporate profits around 5% higher
  • Revenues about the same
  • Interest, wage expenses lower
With labor productivity rising, real GDP growth will outpace employment growth

Real GDP and payroll employment

Source: IHS Markit

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Indiana’s real GSP growth also outpaces economic growth, indicating higher productivity and wages.

Source: IHS Markit

© 2017 IHS Markit
### Key economic indicators for Indiana

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll employment</td>
<td>1.9</td>
<td>1.6</td>
<td>1.1</td>
<td>1.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>4.8</td>
<td>4.4</td>
<td>4.1</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Wage income</td>
<td>4.8</td>
<td>4.2</td>
<td>4.6</td>
<td>5.0</td>
<td>4.9</td>
</tr>
<tr>
<td>Personal income</td>
<td>4.0</td>
<td>3.9</td>
<td>4.0</td>
<td>4.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Real gross state product</td>
<td>1.4</td>
<td>1.9</td>
<td>1.8</td>
<td>2.3</td>
<td>2.0</td>
</tr>
<tr>
<td>Personal consumption exp.</td>
<td>2.4</td>
<td>3.6</td>
<td>4.8</td>
<td>4.3</td>
<td>4.4</td>
</tr>
<tr>
<td>Housing starts (thousands)</td>
<td>16.5</td>
<td>19.2</td>
<td>21.4</td>
<td>21.9</td>
<td>22.6</td>
</tr>
<tr>
<td>Share of multi-family (%)</td>
<td>22.9</td>
<td>20.9</td>
<td>17.7</td>
<td>18.0</td>
<td>17.2</td>
</tr>
</tbody>
</table>

*Units: Percent change*

Source: IHS Markit
Indiana’s job market remains solid; service sector growing more slowly than national average

Source: IHS Markit

© 2017 IHS Markit
Higher productivity, fewer available workers will translate into higher wages

Indiana wage growth vs. United States

Source: IHS Markit

© 2017 IHS Markit
Revised historic data, improved outlook make manufacturing the leading job provider

Change in Indiana payroll employment, Feb 2016 - Feb 2017

- Manufacturing
- Health & social services
- Prof. & business services
- State & local govt.
- Other services
- Construction
- Retail trade
- Education
- Financial services
- Federal government
- Utilities & mining
- Wholesale trade
- Leisure & hospitality
- Information
- Transport & warehousing

Job change = 39,500

Source: IHS Markit

© 2017 IHS Markit
Peak in vehicle sales will limit further gains in auto manufacturing sector, a major Indiana employer

US light-vehicle sales have peaked

Source: IHS Markit

© 2017 IHS Markit
Professional/business services, construction will supplement further gains in health care sector

Change in Indiana payroll employment, 2016q4-2019q2

Prof. & business services
  Manufacturing
Health & social services
  Construction
State & local govt.
Leisure & hospitality
Wholesale trade
  Information
Retail trade
Utilities & mining
Financial services
Other services
Transport & warehousing
  Education
Federal government

Thousands

Total change = 75,700

Source: IHS Markit

© 2017 IHS Markit
Home-building increasing steadily in Indiana, but certainly not booming

Indiana housing starts continue to rebound

Source: IHS Markit
Rocky Mountain, Pac Northwest leading the way in job growth


Source: IHS Markit

© 2017 IHS Markit
Indiana population growth relatively slow, but outpacing most neighboring states

Population growth through 2022

Percent
-0.1 to 0.2
0.3 to 0.6
0.7 to 1.2
1.3 to 1.9

Source: IHS Markit

© 2017 IHS Markit
Bottom line for Indiana

- Wage and salary income growth gets a boost from higher average wages, even as job growth slows, as productivity increases.
- Manufacturing still has some room to grow, even as auto sales level off.
  - Out-migration of jobs is an ongoing risks factor, while automation looms.
- Continued increase in labor force is key to attracting and retaining employers and sustaining state economic growth.
  - This is difficult for states with slow population growth.
  - Achieved through in-migration and increased participation.
- Service sector can be supported by strong education system, attractive business environment.
  - High-tech sectors showing growth and innovation.
  - Some sectors are dependent on local population growth as demand base.
- As with all of our state forecasts, keeping an eye on policy developments at the national level.

Source: IHS Markit
## Bottom line for Indiana

<table>
<thead>
<tr>
<th>Forecast date</th>
<th>U.S. GDP</th>
<th>Indiana Employment</th>
<th>Indiana Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 2015</td>
<td>2.7</td>
<td>3.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Apr 2016</td>
<td>2.1</td>
<td>2.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Dec 2016</td>
<td>1.6</td>
<td>2.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Mar 2017</td>
<td>1.6</td>
<td>2.3</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Source: IHS Markit
US Economy Appendix
US economic growth will strengthen by spring

• Consumer spending will increase at a moderate pace, sustained by robust gains in employment, real incomes, and household net worth.

• Business fixed investment will benefit from an improving tax and regulatory environment, along with a recovery in energy prices.

• With demand outpacing supply, homebuilding continues its slow recovery, even as interest rates rise.

• The revival in industrial production will gain momentum as the inventory correction nears completion in mid-2017.

• Fiscal stimulus, accelerating wages, and strengthening loan demand will lead to higher interest rates.

• In response to the dollar’s appreciation, real import growth will outpace real export growth.
US economic growth rebounds in 2017 and 2018, as investment leads the way

<table>
<thead>
<tr>
<th>Real GDP and its components</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real GDP</td>
<td>1.6</td>
<td>2.3</td>
<td>2.6</td>
<td>2.3</td>
</tr>
<tr>
<td>Consumption</td>
<td>2.7</td>
<td>2.8</td>
<td>3.3</td>
<td>2.9</td>
</tr>
<tr>
<td>Residential investment</td>
<td>4.9</td>
<td>4.2</td>
<td>3.5</td>
<td>2.2</td>
</tr>
<tr>
<td>Business fixed investment</td>
<td>-0.5</td>
<td>4.7</td>
<td>4.8</td>
<td>3.4</td>
</tr>
<tr>
<td>Federal government</td>
<td>0.6</td>
<td>-0.2</td>
<td>-0.9</td>
<td>-1.0</td>
</tr>
<tr>
<td>State &amp; local government</td>
<td>1.0</td>
<td>0.2</td>
<td>2.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Exports</td>
<td>0.4</td>
<td>2.6</td>
<td>2.0</td>
<td>2.6</td>
</tr>
<tr>
<td>Imports</td>
<td>1.1</td>
<td>5.3</td>
<td>6.2</td>
<td>4.7</td>
</tr>
</tbody>
</table>

Source: IHS Markit
### Job growth slows as US approaches full employment, while inflation remains steady

<table>
<thead>
<tr>
<th>Key indicators</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial production</td>
<td>-0.9</td>
<td>1.9</td>
<td>2.9</td>
<td>2.2</td>
</tr>
<tr>
<td>Payroll employment</td>
<td>1.8</td>
<td>1.6</td>
<td>1.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Light-vehicle sales (Million units)</td>
<td>17.5</td>
<td>17.4</td>
<td>17.6</td>
<td>17.6</td>
</tr>
<tr>
<td>Housing starts (Millions)</td>
<td>1.18</td>
<td>1.26</td>
<td>1.32</td>
<td>1.38</td>
</tr>
<tr>
<td>Consumer Price Index</td>
<td>1.3</td>
<td>2.5</td>
<td>1.9</td>
<td>2.4</td>
</tr>
<tr>
<td>Core CPI</td>
<td>2.2</td>
<td>2.4</td>
<td>2.0</td>
<td>2.1</td>
</tr>
<tr>
<td>Brent crude oil price (USD/barrel)</td>
<td>44</td>
<td>58</td>
<td>57</td>
<td>64</td>
</tr>
<tr>
<td>Federal funds rate (%)</td>
<td>0.4</td>
<td>1.0</td>
<td>1.7</td>
<td>2.6</td>
</tr>
<tr>
<td>10-year Treasury yield (%)</td>
<td>1.8</td>
<td>2.7</td>
<td>3.2</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Source: IHS Markit

© 2017 IHS Markit
Industrial production will rebound as domestic demand strengthens and the inventory correction ends

Industrial production and real GDP

Source: IHS Markit

© 2017 IHS Markit
The US surplus in services trade partially offsets the deficit in merchandise trade

US net exports, NIPA

Source: IHS Markit
Interest rates will continue to rise as the Federal Reserve normalizes monetary policy

Key interest rates

Federal funds | 10-year Treasury | 30-year mortgage | BAA corporate

Source: IHS Markit
Prices in the oil complex continue to rebound

Crude oil and gasoline prices to rise from recent lows

Source: IHS Markit
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