Indiana Economic Outlook

Presented to: Indiana State Budget Committee

December 15, 2016

Tom Jackson, Principal Economist, US Regional
President-elect Trump’s domestic policy platform

- Reform personal income taxation, reducing the number of brackets from seven to three (12%, 25%, and 33%)
- Reduce the corporate income tax rate from 35% to 15% and apply the 15% rate to pass-through businesses
- Repeal and replace the Affordable Care Act
- Increase spending on infrastructure and defense
- Freeze hiring of federal employees to reduce workforce by attrition
- Cancel executive actions taken by President Obama
- Ease restrictions on energy production, allow pipeline projects to move forward, and open federal lands for energy exploration
- Change Dodd-Frank financial regulations

Source: IHS Markit
Policy changes in the December forecast

- Personal income tax reforms that lower the average effective tax rate from 21.0% to 19.5%
- A reduction in the statutory corporate income tax rate from 35% to 20%, the rate proposed by House Republicans
- A $250-billion increase in public infrastructure investments over 10 years, financed by tax receipts from repatriated corporate profits
- Federal Reserve policy rate increases of 75 basis points in each of the next three years, bringing it to a long-term equilibrium of 3.00% (an upward revision of 25 basis points)

Source: IHS Markit
With productivity rising, real US GDP growth will outpace employment growth

US real GDP and payroll employment

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

Source: IHS Markit
## Key economic indicators for Indiana

### Percent change

<table>
<thead>
<tr>
<th>Indicator</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>1.2</td>
<td>0.8</td>
<td>0.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>4.8</td>
<td>4.7</td>
<td>4.3</td>
<td>4.1</td>
<td>4.0</td>
</tr>
<tr>
<td>Wage income</td>
<td>4.8</td>
<td>3.4</td>
<td>4.4</td>
<td>5.1</td>
<td>5.2</td>
</tr>
<tr>
<td>Personal income</td>
<td>4.0</td>
<td>3.4</td>
<td>4.2</td>
<td>4.8</td>
<td>4.9</td>
</tr>
<tr>
<td>Real gross state product</td>
<td>1.4</td>
<td>1.7</td>
<td>1.9</td>
<td>2.3</td>
<td>2.1</td>
</tr>
<tr>
<td>Personal consumption exp.</td>
<td>2.4</td>
<td>3.6</td>
<td>4.7</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Housing starts (thousands)</td>
<td>16.0</td>
<td>19.0</td>
<td>20.6</td>
<td>21.9</td>
<td>22.7</td>
</tr>
<tr>
<td>Share of multi-family (%)</td>
<td>22.6</td>
<td>21.1</td>
<td>20.5</td>
<td>18.4</td>
<td>17.2</td>
</tr>
</tbody>
</table>

Source: IHS Markit
Indiana’s job growth lags as some manufacturing gains reversed
Higher productivity, fewer available workers will translate into higher wages

Indiana wage growth vs. United States

Source: IHS Markit
Health care a steady job provider, while manufacturing fell back

Change in Indiana payroll employment, Oct 2015-Oct 2016

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

Job change = 30,200

Thousands
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
Professional/business services, construction will supplement further gains in health care sector

Change in Indiana payroll employment, 2016q2-2019q2

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

Total change = 87,850

Source: IHS Markit
Job growth concentrated in Southeast and West, following migration patterns


Indiana 0.8%
US avg. 1.3%

Source: IHS Markit
Continued economic growth will require more workers – many states need increased participation

**Labor force participation rate beginning to increase**

- **% of population age 16 & over**
  - United States
  - Indiana

Source: IHS Markit
Indiana population growth relatively slow, but outpacing most neighboring states

Population growth through 2021

Source: IHS Markit
Home-building increasing steadily in Indiana, but certainly not booming

Indiana housing starts continue their gradual rebound

Source: IHS Markit
Consumer spending moving away from items subject to sales and use taxes

Personal consumption expenditures continue trend toward services

Source: IHS Markit

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Bottom line for Indiana

- Wage and salary income growth gets a boost from higher average wages, even as job growth slows, as productivity increases
- 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
- Manufacturing still a key component of state’s economy, but gains in output won’t translate into much job growth
  > Out-migration of jobs is one factor, but automation still looms
  > Strong dollar will weaken competitiveness in global markets
- Service sector can be supported by strong education system, attractive business environment
  > High-tech sectors showing growth and innovation

Source: IHS Markit
## Forecast track record

**Percent change**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Dec 2014</td>
<td>2.7</td>
<td>2.5</td>
<td>1.7</td>
<td>1.3</td>
<td>4.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Dec 2015</td>
<td>2.5</td>
<td>2.7</td>
<td>2.2</td>
<td>1.5</td>
<td>3.8</td>
<td>4.1</td>
</tr>
<tr>
<td>Apr 2016</td>
<td>2.4</td>
<td>2.1</td>
<td>1.9</td>
<td>1.7</td>
<td>4.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Dec 2016</td>
<td>2.6</td>
<td>1.6</td>
<td>1.9</td>
<td>1.2</td>
<td>4.0</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Source: IHS Markit
US economy “appendix”
US economic growth will strengthen

- A more-balanced US expansion is emerging in late 2016, with personal consumption, fixed investment, and government spending all rising.

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

- Business fixed investment has made uneven progress but could benefit from an improving tax and regulatory environment.

- With demand outpacing supply, housing markets continue to recover.

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

- With commodity prices recovering and labor costs accelerating, inflation and interest rates will rise.

Source: IHS Markit
US economic growth rebounds in 2017 and 2018, as consumer spending and business investment lead

<table>
<thead>
<tr>
<th>Real GDP and its components</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real GDP</td>
<td>2.6</td>
<td>1.6</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Consumption</td>
<td>3.2</td>
<td>2.7</td>
<td>2.8</td>
<td>3.1</td>
</tr>
<tr>
<td>Residential investment</td>
<td>11.7</td>
<td>4.7</td>
<td>2.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Business fixed investment</td>
<td>2.1</td>
<td>-0.4</td>
<td>4.3</td>
<td>4.4</td>
</tr>
<tr>
<td>Federal government</td>
<td>0.0</td>
<td>0.7</td>
<td>0.2</td>
<td>-0.8</td>
</tr>
<tr>
<td>State &amp; local government</td>
<td>2.9</td>
<td>0.9</td>
<td>0.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Exports</td>
<td>0.1</td>
<td>0.4</td>
<td>2.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Imports</td>
<td>4.6</td>
<td>0.8</td>
<td>4.1</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Source: IHS Markit
Job growth slows as US approaches full employment, while inflation picks up

<table>
<thead>
<tr>
<th>Key indicators</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial production</td>
<td>0.3</td>
<td>-1.1</td>
<td>1.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Payroll employment</td>
<td>2.1</td>
<td>1.7</td>
<td>1.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Light-vehicle sales (Millions)</td>
<td>17.4</td>
<td>17.4</td>
<td>17.5</td>
<td>17.6</td>
</tr>
<tr>
<td>Housing starts (Millions)</td>
<td>1.11</td>
<td>1.17</td>
<td>1.23</td>
<td>1.32</td>
</tr>
<tr>
<td>Consumer Price Index</td>
<td>0.1</td>
<td>1.3</td>
<td>2.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Core CPI</td>
<td>1.8</td>
<td>2.2</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Brent crude oil price (USD/barrel)</td>
<td>53</td>
<td>44</td>
<td>54</td>
<td>57</td>
</tr>
<tr>
<td>Federal funds rate (%)</td>
<td>0.1</td>
<td>0.4</td>
<td>0.9</td>
<td>1.7</td>
</tr>
<tr>
<td>10-year Treasury yield (%)</td>
<td>2.1</td>
<td>1.8</td>
<td>2.5</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Source: IHS Markit
Retail gasoline prices are beginning to recover

Retail gasoline price and annualized spending on motor fuels

Source: IHS Markit
Renewed strength in dollar will make U.S. exports less competitive in world markets

Real trade-weighted dollar index peaks at end of 2017

Source: IHS Markit
Surpluses in services trade partially offset US deficits in merchandise trade
Interest rates will rise as the Federal Reserve normalizes monetary policy

Key interest rates

Source: IHS Markit