US economic growth will gradually downshift

• After 2.9% growth in 2018, real GDP will expand 2.4% in 2019, supported by fiscal stimulus and sustained job growth.

• Financial conditions have improved in early 2019: equity values have rebounded from late-December lows, long-term Treasury yields remain near 12-month lows, and risk spreads have eased.

• Consumer spending continues to be supported by solid growth in employment and real disposable incomes.

• Business fixed investment has benefited from tax and regulatory changes, but growth will slow in step with the global economy.

• The Federal Reserve is expected to raise the federal funds rate once in both 2019 and 2020, while continuing its balance sheet run-off.

• Real GDP growth will slow to 2.1% in 2020 and 1.8% in 2021 owing to supply constraints, tightening fiscal policies, and rising interest rates.
The US economic expansion will continue, with growth moving back to trend rate around 2%
Changes to April forecast from December

• Total US nonfarm payroll employment slightly higher for 2019, but growth a bit slower into 2020 and beyond
  > US manufacturing job growth rate moderately lower in the forecast, as production is reduced due to swelling inventories in late 2018/early 2019
  > Firms may have front-loaded activity to get ahead of threatened higher tariffs; pushed supply ahead of demand; strong dollar also reduces exports

• In Indiana, wage disbursements were revised downward by $2.3 billion in 2018Q2, which lowered estimates for subsequent quarters. (These were revisions by the Bureau of Economic Analysis.)
  > Overall employment is higher in 2019, due partly to BLS data revisions.
  > Manufacturing employment growth is lower, following national path

• Expectations for housing starts have been lowered, for the U.S. and Indiana
  > Rising home prices, low inventories, and solid income growth simply have not led to the expected increase in homebuilding activity
  > Possible causes include lack of skilled labor in construction, higher mortgage interest rates, lack of land zoned for residential building, high student loan debt
Employment growth will slow in the state and nationwide as we basically achieve full employment.
Higher productivity and employer competition for workers will bolster wage rates

Indiana wage growth vs. United States

Source: IHS Markit
## Key economic indicators for Indiana

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Units: Percent change</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payroll employment</td>
<td>1.0</td>
<td>1.4</td>
<td>0.4</td>
<td>0.0</td>
<td>0.1</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>3.4</td>
<td>3.3</td>
<td>3.2</td>
<td>3.4</td>
<td>3.6</td>
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<tr>
<td>Wage income</td>
<td>3.5</td>
<td>4.3</td>
<td>3.6</td>
<td>3.5</td>
<td>3.9</td>
</tr>
<tr>
<td>Personal income</td>
<td>3.7</td>
<td>4.2</td>
<td>4.1</td>
<td>4.0</td>
<td>3.9</td>
</tr>
<tr>
<td>Real gross state product</td>
<td>2.7</td>
<td>2.1</td>
<td>1.5</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Personal consumption exp.</td>
<td>4.6</td>
<td>3.8</td>
<td>4.2</td>
<td>4.3</td>
<td>4.3</td>
</tr>
<tr>
<td>Housing starts (thousands)</td>
<td>20.5</td>
<td>20.0</td>
<td>21.0</td>
<td>21.5</td>
<td>21.9</td>
</tr>
<tr>
<td>Share of multi-family (%)</td>
<td>17.8</td>
<td>15.1</td>
<td>15.7</td>
<td>16.2</td>
<td>16.3</td>
</tr>
</tbody>
</table>
Health care, manufacturing have added the most net new jobs over the past two years

Change in Indiana payroll employment, 2017q2-2019q2

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

Job growth = 75,070

Source: IHS Markit

© 2019 IHS Markit
US light-vehicle sales have peaked; light trucks will continue to outsell cars

Source: IHS Markit
Home building activity moving gradually higher, but short of earlier expectations
# Evolution of short-term Indiana forecast

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Dec 2017</td>
<td>2.6</td>
<td>2.3</td>
<td>1.2</td>
<td>1.0</td>
<td>4.2</td>
<td>4.8</td>
</tr>
<tr>
<td>Apr 2018</td>
<td>2.7</td>
<td>2.9</td>
<td>1.3</td>
<td>1.6</td>
<td>4.2</td>
<td>5.2</td>
</tr>
<tr>
<td>Dec 2018</td>
<td>2.9</td>
<td>2.6</td>
<td>0.9</td>
<td>1.2</td>
<td>4.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Apr 2019</td>
<td>2.9</td>
<td>2.4</td>
<td>1.0</td>
<td>1.4</td>
<td><strong>3.7</strong></td>
<td>4.2</td>
</tr>
</tbody>
</table>

*Units: Percent change*
Bottom line for Indiana

- Economic growth remains steady in Indiana, with many sectors chipping in
  - High-tech businesses thriving in many areas, while transportation and warehousing benefitting from solid activity in manufacturing and consumer spending
  - Many brick-and-mortar retailers are struggling due to shift toward online shopping
  - Other businesses, such as publishing and “wired” telecommunications, also shedding jobs

- Manufacturing has been one of the leading sources of new jobs in the state since the recession; largely due to the rebound in the automotive sector
  - RV manufacturing in northern Indiana has also provided a big boost
  - Indiana has the highest share of manufacturing employment relative to total employment – twice the national average (17.2% vs. 8.5%)

- Growth in manufacturing employment will turn modestly negative over the next few years
  - Output growth slowing, while automation displaces scarce workers
  - Indiana’s reliance on manufacturing would be detrimental in the event of a nationwide recession, as demand for automobiles and other items would plummet in the short run

- Continued growth in the labor force, both in terms of quantity and quality, remains key to maintaining economic growth
  - Retention of “locals”, graduates of in-state universities, and immigration all have a role to play
US macro outlook – additional information
## US economic growth by sector

<table>
<thead>
<tr>
<th>Real GDP and its components</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real GDP</td>
<td>2.9</td>
<td>2.3</td>
<td>2.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Consumption</td>
<td>2.6</td>
<td>2.2</td>
<td>2.6</td>
<td>2.6</td>
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<tr>
<td>Residential investment</td>
<td>-0.3</td>
<td>-1.8</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Business fixed investment</td>
<td>6.9</td>
<td>3.9</td>
<td>3.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Federal government</td>
<td>2.6</td>
<td>3.7</td>
<td>0.9</td>
<td>-0.9</td>
</tr>
<tr>
<td>State &amp; local government</td>
<td>0.8</td>
<td>0.9</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Exports</td>
<td>4.0</td>
<td>2.8</td>
<td>5.4</td>
<td>4.2</td>
</tr>
<tr>
<td>Imports</td>
<td>4.5</td>
<td>3.8</td>
<td>5.7</td>
<td>5.9</td>
</tr>
</tbody>
</table>

Source: IHS Markit

© 2019 IHS Markit
## Other key US indicators

<table>
<thead>
<tr>
<th>Key indicators</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
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<tbody>
<tr>
<td>Industrial production</td>
<td>3.9</td>
<td>2.1</td>
<td>1.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Payroll employment</td>
<td>1.7</td>
<td>1.6</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Light-vehicle sales (Million units)</td>
<td>17.2</td>
<td>16.8</td>
<td>16.6</td>
<td>16.5</td>
</tr>
<tr>
<td>Housing starts (Million units)</td>
<td>1.25</td>
<td>1.23</td>
<td>1.28</td>
<td>1.33</td>
</tr>
<tr>
<td>Consumer Price Index</td>
<td>2.4</td>
<td>2.1</td>
<td>2.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Core CPI</td>
<td>2.1</td>
<td>2.2</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Brent crude oil price (USD/barrel)</td>
<td>71</td>
<td>71</td>
<td>66</td>
<td>67</td>
</tr>
<tr>
<td>Federal funds rate (%)</td>
<td>1.8</td>
<td>2.4</td>
<td>2.6</td>
<td>2.6</td>
</tr>
<tr>
<td>10-year Treasury yield (%)</td>
<td>2.9</td>
<td>2.7</td>
<td>3.0</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Source: IHS Markit  © 2019 IHS Markit
With baby boomers retiring, labor-force participation and employment rates will trend downward after 2020

Labor-force participation and employment rates

Source: IHS Markit © 2019 IHS Markit
US industrial production is decelerating

Industrial production and real GDP

Source: IHS Markit
Gasoline prices moving gradually higher – domestic production reduces risk of oil price surge

Crude oil and gasoline prices

- Crude oil, WTI (left scale)
- Average retail price of gasoline (right scale)

Source: IHS Markit
Risks to national forecast mostly on the downside

- Forecast risks are weighted more to the downside (30% vs. 10%)
  - This is already the longest “recovery” on record
  - Global economic growth slowing, especially in developed countries
  - Policy uncertain abounds, related to current and threatened tariffs, border closures, immigration policy, health care policy, Brexit impacts, etc.
  - With Federal Reserve policy still accommodative and Federal budget deficit widening, not much room to respond to a downturn with added stimulus
  - Low unemployment rates have not led to wage-led inflation, but still could
  - Our current pessimistic scenario features a mild recession (that is NOT the baseline!)

- On the upside, possible surprises include:
  - Higher productivity growth, perhaps spurred by investments in business equipment, would allow wages to rise without triggering consumer inflation
  - Homebuilding could (finally) move higher in response to demand, aided by recent decline in mortgage interest rates and demand from millennials
  - Global economic growth could be higher than expected, spurring export demand
Real GDP growth in alternative scenarios – downside scenario features mild recession in 2020

Source: IHS Markit © 2019 IHS Markit
Light-vehicle sales in alternative scenarios

Light-vehicle sales

Mill. of units, annual rate


8 10 12 14 16 18

Baseline (60%) Pessimistic (30%) Optimistic (10%)

Source: IHS Markit

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