Welcome
Outlook for Economic Conditions in West Michigan

A Presentation to
First National Bank of Michigan

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W.E. Upjohn Institute for Employment Research

The Institute is an activity of the W.E. Upjohn Unemployment Trustee Corporation, which was established in 1932 to administer a fund set aside by Dr. W.E. Upjohn, founder of the Upjohn Company.

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The W.E. Upjohn Institute for Employment Research is a private, nonprofit, nonpartisan, independent research organization devoted to investigating the causes and effects of unemployment, to identifying feasible methods of insuring against unemployment, and to devising ways and means of alleviating the distress and hardship caused by unemployment.
We are currently in the longest expansion since WWII

Employment Index during Economic Expansion

Month of Business Cycle Peak = 100

We’re in the longest business cycle (contraction and expansion) and the longest expansion, while experiencing the longest recession since measurement began.

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</thead>
<tbody>
<tr>
<td>Contraction</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>10</td>
<td>11</td>
<td>16</td>
<td>6</td>
<td>16</td>
<td>8</td>
<td>8</td>
<td>18</td>
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<tr>
<td>Expansion</td>
<td>37</td>
<td>45</td>
<td>39</td>
<td>24</td>
<td>106</td>
<td>36</td>
<td>58</td>
<td>12</td>
<td>92</td>
<td>120</td>
<td>73</td>
<td>123</td>
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<td>Business Cycle</td>
<td>45</td>
<td>56</td>
<td>49</td>
<td>32</td>
<td>116</td>
<td>47</td>
<td>92</td>
<td>18</td>
<td>108</td>
<td>128</td>
<td>81</td>
<td>142</td>
</tr>
</tbody>
</table>

Source: National Bureau of Economic Research
GDP growth is projected to remain solid, although employment growth is slowing
### University of Michigan RSQE national forecast

<table>
<thead>
<tr>
<th></th>
<th>2019 (Forecast)</th>
<th>2020 (Forecast)</th>
<th>2021 (Forecast)</th>
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</thead>
<tbody>
<tr>
<td>GDP</td>
<td>2.3%</td>
<td>1.7%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Employment</td>
<td>1.5%</td>
<td>1.1%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Light Vehicle Sales</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Millions)</td>
<td>17</td>
<td>16.9</td>
<td>16.6</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>3.7%</td>
<td>3.6%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Housing Starts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Millions)</td>
<td>1.23</td>
<td>1.24</td>
<td>1.24</td>
</tr>
<tr>
<td>CPI/Inflation</td>
<td>1.7%</td>
<td>1.9%</td>
<td>1.9%</td>
</tr>
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</table>
The stock market has reacted to various events this year, and the ride is getting bumpier.
Inflation and interest rates have increased in the past 2 years.

Source: Bureau of Labor Statistics and New York Federal Reserve
High consumer confidence (↓ @125.1) and slower debt growth
Moody’s predictions of a recession are relatively low and volatile: August 13%
Moody’s recession risk probability appears strongly correlated with real GDP change during the next 6 months.

Source: Upjohn Institute calculation of Moody’s Analytics data.
PMI stood at 47.8 in September, indicating the manufacturing sector may be contracting.

Source: Institute for Supply Management
Despite waning confidence, the manufacturing sector grew last year.

Real GDP and Real Value Added by Sector
Percentage Change, Q1 2018 to Q1 2019

Source: Bureau of Economic Analysis
The Next Recession:
What We’re Watching
What keeps economists up at night worrying about a recession?

- Trade wars (tariffs and taxes are the same—a cost to consumers)
- Volatility of stock market
- Corporate repo market volatility
- Growing income inequality
- Low interest rates
- Federal debt and deficits
- Tax cuts

“Expansions don’t get tired; rather, they end due to policy mistakes.”
In CBO’s projections, federal debt held by the public totals 144 percent of gross domestic product (GDP) in 2049, an unprecedented level.
Deficits grow from 4.2 percent of GDP in 2019 to 8.7 percent in 2049, driving up debt. Net spending for interest on debt accounts for most of the growth in total deficits.
After Growing Smartly, Trade Falters With Tariffs

World trade in goods, index 2010=100, three-month average.

Tariffs in effect begin with the February 2018 imposition on washing machines and solar panels.

THE TRADE IMBALANCE

The U.S. has a net deficit in goods but a surplus in export of services.

Income on our investments abroad is a positive ...

... but overall, these add up to a substantial "current account" deficit, a negative of nearly half a trillion dollars.

CAPITAL FLOWS IN

Partly because of the current account deficit, more investment is coming into the U.S. than going out.

These capital flows, and a small "other" flow of income, add up to a positive near-half trillion. That exactly offsets the current account deficit because the "balance" in the balance of payments always equals zero.

Source: New York Times analysis of Bureau of Economic Analysis data
Tariffs Are Already Costing Consumers
Core goods Consumer Price Index, February 2018=100.

Core goods excludes food and energy; tariff-related goods prices includes laundry equipment and other appliances, furniture and bedding, housekeeping supplies, window and floor coverings, auto parts and bicycles.

America Has Become a Big Net Debtor

American ownership of assets abroad minus the value of U.S. assets owned by foreigners has widened to a record gap of $9.6 trillion.

Source: New York Times analysis of Bureau of Economic Analysis Data
### University of Michigan RSQE statewide forecast

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019 (Forecast)</th>
<th>2020 (Forecast)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>50,000 (+1.1%)</td>
<td>22,500 (+.05%)</td>
<td>20,400 (+.05%)</td>
</tr>
<tr>
<td>Manufacturing Employment (Workers)</td>
<td>13,400</td>
<td>2,800</td>
<td>-100</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>4.4%</td>
<td>4.4%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Labor Force Participation Rate</td>
<td>61.4%</td>
<td>61.9%</td>
<td>61.5%</td>
</tr>
</tbody>
</table>
Light vehicle sales have been steady

Annualized Rate of U.S. Light Vehicle Sales (in millions)

16.8 (2000 to 2007 Average)

16.9 (2013 to 2019 Average)

Source: Bureau of Economic Analysis
Regional Conditions:
West Michigan
Employment growth has slowed in 2019

Source: BLS Current Employment Survey
Manufacturing employment growth has been trending positively...

Manufacturing Employment Index

Source: BLS Current Employment Survey
...unlike service employment growth

Services Employment Index

Index (Jan 2006 = 100)


- West Michigan
- Michigan
- United States

Source: BLS Current Employment Survey
Wages have been growing at a pace similar to the nation, though at a lower overall amount.
Unemployment rates are between 3% and 5% for most counties in West Michigan.

Michigan’s rate was 4.3%
Labor force participation rates are more varied

Michigan’s rate was 61.9%

Source: Bureau of Labor Statistics, U.S. Census Bureau
Housing values continue to rise, but the pace continues to decelerate nationally
Local housing prices have been rising for the last few years

Source: Federal Housing Finance Administration
Many homeowners pay too much for housing

Percent of Owners Paying 35% or More

<table>
<thead>
<tr>
<th>County</th>
<th>Percent of Homeowners (%)</th>
</tr>
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<tbody>
<tr>
<td>Ottawa</td>
<td>10</td>
</tr>
<tr>
<td>Kent</td>
<td>11</td>
</tr>
<tr>
<td>Kalamazoo</td>
<td>13</td>
</tr>
<tr>
<td>Allegan</td>
<td>15</td>
</tr>
<tr>
<td>Barry</td>
<td>17</td>
</tr>
<tr>
<td>Muskegon</td>
<td>19</td>
</tr>
<tr>
<td>Calhoun</td>
<td>21</td>
</tr>
<tr>
<td>Van Buren</td>
<td>23</td>
</tr>
</tbody>
</table>
Renters are in worse shape

Percent of Renters Paying 35% or More

Percent of Renters (%)

Allegan  Barry  Van Buren  Ottawa  Kalamazoo  Kent  Calhoun  Muskegon
Risk Factors to West Michigan

• Global trends
• Light vehicle trends
• Contracts with the OEMs
• Available buildings and sites
• Available workforce
  • Barriers to entry
  • Skill sets
• Affordable housing
Questions?

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