Fed@YourDesk Webinar: An Outlook on the U.S. and Michigan Economies

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Overview

- U.S. Real GDP growth for Q2 2019 was 2.0% on a Q/Q SAAR basis according to the latest B.E.A. estimate with positive contributions from personal consumption and government spending outweighing negative contributions from private domestic investment and net exports.

- Consumer sentiment has declined in recent months on concerns that higher tariffs will ultimately lead to higher inflation in the year ahead.

- Business fixed investment declined slightly in Q2 2019 and the September ISM Manufacturing Index points to slightly slower manufacturing activity.

- Declining expectations for global growth are expected to impact the U.S. economy in 2019 leading to below potential growth by the end of the year.

- Recent data indicate that Headline PCE inflation remains below the Fed target of 2.0%.
U.S. Real GDP

Contribution to Percent Change - Q/Q at SAAR, $2012

Contributions Q1 2019

3.03%  -1.16%  -0.68%  0.82%  2.0%

Note: Contributions by sector may not sum to total due to rounding errors.

Source: U.S. Bureau of Economic Analysis.
# Real Personal Consumption Expenditures

## Contribution to Percent Change to Q1 ‘19 GDP - Q/Q at SAAR, $2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Goods</th>
<th>Services</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2.3</td>
<td>1.3</td>
<td>3.6</td>
</tr>
<tr>
<td>2016</td>
<td>2.2</td>
<td>1.3</td>
<td>3.5</td>
</tr>
<tr>
<td>2017</td>
<td>2.1</td>
<td>1.7</td>
<td>3.8</td>
</tr>
<tr>
<td>2018</td>
<td>2.0</td>
<td>1.6</td>
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<td>1.7</td>
<td>1.6</td>
<td>3.3</td>
</tr>
</tbody>
</table>

**Contributions Q1 2019**

- **Goods**: 1.74%
- **Services**: 1.29%
- **Total**: 3.0%

Source: U.S. Bureau of Economic Analysis
Real Disposable Personal Income

2019 Revisions in Billions of Chained 2012 Dollars - Percent Change Yr./Yr.

Note: Revision in 2018 reflects an upward revision to compensation ($87.1) and income receipts on assets ($161.9).

Source: Bureau of Economic Analysis.
Interest Rates and Consumer Credit

In Percent of Total Credit and Disposable Personal Income

Note: Effective rate equals personal interest payments / total credit outstanding.

Source: Author’s calculations using U.S. Bureau of Economic Analysis and Board of Governors data.
Interest Payments

Percent of Disposable Income

Source: Author’s calculations using U.S. Bureau of Economic Analysis and Board of Governors data.
Stock Market

NYSE Stock Price Index, Weekly Average - January 2018 = 100

Source: Haver Analytics data taken from the Wall Street Journal and CoinDesk.
Source: Thomson Reuters / University of Michigan
Real Retail & Food Service Sales

Billions of Current Dollars, Percent Change Yr./Yr. - SA

Source: Author’s calculations using Federal Reserve Bank of St. Louis data.
Real Gross Private Domestic Investment

Contribution to Percent Change to Q1 ‘19 GDP - Q/Q at SAAR, $2012

Contributions Q2 2019

-0.09%  -0.11%  -0.91%  -1.11%

Source: U.S. Bureau of Economic Analysis
Purchasing Managers Index

ISM Manufacturing and Composite Indexes

Note:
ISM Manufacturing and Composite Index value greater than 50 means expansion.

U.S. Housing Starts and Permits
In Thousands of Units (SAAR)

Source: U.S. Census Bureau
Real Government Consumption & Investment

Contribution to Percent Change to Q1 ‘19 GDP - Q/Q at SAAR, $2012

Contributions Q1 2019

- Federal Defense: 0.12%
- Federal Nondefense: 0.40%
- State & Local: 0.25%
- Total: 0.77%

Source: U.S. Bureau of Economic Analysis
Deficit Projections

Percent of GDP

Over the 2020–2029 period, deficits are projected to average 4.7 percent of GDP, totaling $12.2 trillion. Such deficits would be significantly larger than the 2.9 percent of GDP that deficits averaged over the past 50 years.

Debt to GDP

As a percentage of gross domestic product, federal debt held by the public would increase from 79 percent in 2019 to 95 percent in 2029. At that point, such debt would be the largest since 1946 and more than twice the 50-year average.

Customs and Duties

Billions of Current Dollars – Fiscal Year Ending

Source: U.S. Department of Treasury – Bureau of Fiscal Services
Impact of Tariffs

CPI for Six Impacted Categories and Core CPI - Index 2017 = 100, SA

Note: Impacted categories include household furniture, floor coverings, bedding, major appliances, other appliances, and auto parts weighted by relative importance. These six categories contribute 1.5% of total CPI.

Source: Author’s calculations using Bureau of Labor Statistics data.
Total Real Trade - Imports and Exports

Percent Change Q/Q – SAAR

Source: U.S. Bureau of Economic Analysis
Global Outlook for 2018 & 2019

Percent Change Yr./Yr.

Source: IMF World Economic Outlook – September 2019 Outlook and Haver Analytics.
U.S. Real GDP – Blue Chip Forecast

Percent Change – Billions of Chained $2012

Source: BEA and October 10, 2019 Blue Chip Economic Indicators
Monetary Policy
U.S. Labor Conditions

Unemployment & Participation Rates

Unemployment Rate

 Participation Rate

Sources: U.S. Department of Labor and Chicago Fed Staff calculations.

* Predicted using unemployment rate.
PCE & CPI Inflation

All Items & Core, 12-Month Percent Change

U.S. Nonfarm Payrolls

Monthly and Annual Average Job Change – In Thousands

Thousands

2014: 250.5
2015: 227.4
2016: 193.2
2017: 179.4
2018: 223.3

Sep Avg.
YTD: 160.8

Sep ’19: 136.0

Employment Change August ‘19 to September ‘19, In Thousands

Source: U.S. Department of Labor
Unemployed Persons to Job Openings

In Number of Unemployed

Thousands

Average Hourly Earnings – Private Employees

Percent Change Year / Year

Inflation Expectations

1-5 Year and 5-10 Year Inflation Expectations

Source: Survey of Consumers – University of Michigan and Federal Reserve Board
Yield Curve

10 Year Minus 1 Yr. and 3 Mo. Treasuries in Basis Points

Daily Market Bid Yield at Constant Maturity January 2, 2019 to Present

Source: Board of Governors – Federal Reserve System
Probability of Recession

10 Year – 3Month Treasury Model

Source: Authors calculations using Federal Reserve Bank of New York Model with 10 year minus 1 year Treasury spread.
Prior Monetary Policy Responses

Federal Funds Rate Moves in Basis Points

Note: Change calculated as (maximum – minimum) daily effective federal Funds Rate 12 months prior to the start of economic contraction to 12 month following the end of the NBER defined recessions.

Source: Author’s calculations using BoG - Federal Reserve System data.
Target Fed Funds Rate
In Percent – End of Year & Long-run FOMC Projection, Jan ‘12 to Sep ‘19

Source: Quarterly Economic Projections of Federal Reserve Board members and the Federal Reserve Board of Governors.
Michigan & Detroit
Michigan Gross State Product

Billions Chained $2012, % Change Q/Q at SAAR

Note: The top five sectors in 2018 include Manufacturing (19.3%), Financial Services (16.2%), Professional Services (14.0%), Government (10.1%), and Education, Health Care / Social Assistance (9.4%).

Source: BEA and Haver Analytics.
Michigan Nonfarm Payrolls

Monthly and Annual Average Job Change – In Thousands

Thousands

<table>
<thead>
<tr>
<th>Year</th>
<th>Monthly Actual</th>
<th>Monthly Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>6.9</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>4.7</td>
<td></td>
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Aug Avg. YTD 1.9

### Michigan Nonfarm Payrolls

**Select Sectors 2019 YTD Job Change**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Job Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>-200</td>
</tr>
<tr>
<td>Finanace</td>
<td>400</td>
</tr>
<tr>
<td>Professional</td>
<td>800</td>
</tr>
<tr>
<td>Government</td>
<td>1,500</td>
</tr>
<tr>
<td>Education &amp; Health Care</td>
<td>-900</td>
</tr>
</tbody>
</table>

Thousands

U.S. Light Vehicle Sales

S.A.A.R – Millions of Units

Source: WardsAuto Intelligence, BEA, and Blue Chip Consensus Forecast
Light Vehicle Incentives

In Percent of Transaction Price - SA

Source: U.S. Census Bureau
General Motors / UAW Strike

• The strike is now in its 5th week with the major issues centered around temporary workers, better pay and profit sharing, and improved health care.

• Cost estimates for General Motors range from $50 to $100 million per day in lost revenue.

• The WSJ reported that based on a Credit Suisse analysis G.M stands to lose about $1.5 billion, even if the company can recover some of the lost production after the strike ends.

• Michigan auto workers, including supplies and other associated workers, are losing about $42 million weekly in lost wages and salaries.

• While the economic impact for the U.S. has been minimal so far, the University of Michigan (RSQE) estimates that Michigan has already lost about 0.2% off of Michigan’s current 1.4% GSP growth rate.
Michigan Housing Starts & Permits

In Thousands of Units – SAAR, 12MMA

Source: U.S. Census Bureau

October 16, 2019
Detroit Economic Activity Index

Standard Deviation from Trend – Index, 0 = Long Term Trend

Note: The DEAI is a mixed-frequency dynamic factor model of 23 Detroit-specific data series capturing income, employment, residential and commercial real estate activity, electric customer counts, tax revenues, and port activity.

Source: Federal Reserve Bank of Chicago
Unemployment Rate

Percent of Labor Force

Sources: U.S. Department of Labor.
Detroit Real Per Capita Income

In 2009 Dollars


Source: U.S. Census and Federal Reserve Bank of Chicago
Detroit Residential and Condominium Prices

Index, 2003 = 100 – 12MMA

Source: Author’s calculations based on data from RealComp II Ltd.
National Summary

- Survey data indicate that as uncertainty about trade policy and the economy remains, consumers are becoming less optimistic and businesses attitudes have fallen below year-ago levels.

- U.S. economic growth is expected to slow falling below potential by the end of 2019.

- Market based inflation compensation remains below the Fed’s 2.0% target, but UM’s survey-based measure of consumer inflation expectations has increased on fears that tariffs will likely push consumer prices higher.

- The yield curve has inverted in the one month to 10 year range of the curve increasing speculation about a recession in 2020.

- The FOMC indicated following its September meeting that in determining the timing and size of future adjustments to the target range for the federal funds rate, it will continue to assess realized and expected economic conditions relative to its maximum employment objective and its symmetric 2 percent inflation objective.
Michigan / Detroit Summary

• Michigan’s economy grew 2.6% on a SAAR basis in Q1 2019 but annual growth will be negatively impacted in the Q3 & Q4 because the G.M. strike.

• The Detroit Economic Activity Index shows that Detroit’s economy has been improving since the city exited bankruptcy.

• Detroit has experienced an improved labor market, growing per capita income, rising home prices, and expanding economic output.

• However, not all of Detroit’s residents are experiencing the same benefits of the city’s economic rebound (i.e. incomes, home prices, and educational attainment to name a few).

• This points to other challenges not easily captured in the data such as improving schools, increased access to affordable housing, better public services, improved neighborhood safety, and a better regional transportation system.
Thank You!