# Main Economic Indicators

## Year-over-year Comparison

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP – Annual Growth Rate</td>
<td>2.0%</td>
<td>1.8%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>5.3%</td>
<td>4.9%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Participation Rate</td>
<td>62.7%</td>
<td>62.8%</td>
<td>62.8%</td>
</tr>
<tr>
<td>Nonfarm Job Growth</td>
<td>226.1</td>
<td>186.7</td>
<td>171.3</td>
</tr>
<tr>
<td>PCE Core Inflation Yr. / Yr.</td>
<td>1.3%</td>
<td>1.8%</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

2. Annual Average
3. Average Monthly Job Growth in Thousands- SA
4. Percent Change Year-over-year PCE Core – Annual Average & November 2017 YTD

Source: U.S. Bureau of Economic Analysis, Census Bureau and Bureau of Labor Statistics
U.S. Real GDP

GDP and Contribution to Percent Change, Q/Q at SAAR

Source: U.S. Bureau of Economic Analysis, and FRB of St Louis FRED database.
Real Personal Consumption Expenditures

Index, Q4 2007 = 100

Source: Author’s calculations using data from the BEA

January 18, 2018
Real Gross Private Domestic Investment

Billions Chained $2009, % Change Q/Q at SAAR

Source: U.S. Bureau of Economic Analysis
Real Private Fixed Investment

Billions Chained $2009, Index – 2005 = 100

Source: U.S. Bureau of Economic Analysis
Industrial Production & New Orders

Index, 2012 = 100

Source: Board of Governors, Federal Reserve and U.S. Census Bureau
ISM Purchasing Managers Index

Manufacturing & Composite, SA - Greater than 50 = Expansion

Source: Institute for Supply Management, Haver Analytics and FRED
Real Government Consumption & Investment

Billions Chained $2009, % Change Q/Q at SAAR

Source: U.S. Bureau of Economic Analysis
The U.S. Dollar and Trade Deficit

Index 2012 = 100

Index

U.S. Dollar & Import Price Index

140.0
130.0
120.0
110.0
100.0
90.0
80.0
70.0

'12 '13 '14 '15 '16 '17

Dec '17 120.7
Dec '17 88.8

TWD Import Prices

Index

Trade Deficit - Next Exports

160.0
140.0
120.0
100.0
80.0
60.0

'12 '13 '14 '15 '16 '17

Q3 '17 133.7

-$597.5B

Source: Board of Governors, Federal Reserve and Bureau of Labor Statistics.
U.S. Real GDP Blue Chip Forecast

Percent Change – Billions of Chained $2009

Source: BEA and January 2018 Blue Chip Economic Indicators
Employment, Productivity, and Output

Nonfarm and Manufacturing – Percent Change Yr./Yr.

Source: Author’s calculations using U.S. Bureau of Labor Statistics data.
Employment, Productivity, and GDP Growth

Percent Change Yr./Yr.

Employment – Percent Change Yr./Yr.

Productivity – Percent Change Yr./Yr.

GDP – Percent Change Yr./Yr.

CBO Potential – Percent Change Yr./Yr.

Source: Author’s Calculations using BEA, BLS, and Fed data.

January 18, 2018 Federal Reserve Bank of Chicago
U.S. Real GDP – Actual and Potential

Billions Chained $2009 and Percent H/L than Potential

Source: Bureau of Economic Analysis and the U.S. Congressional Budget Office
U.S. Consumer
Income and Savings Rate

Percent Change and Percent of DPI

Real DPI - % Chg. Yr./Yr., $2009

-6.0 -4.0 -2.0 0.0 2.0 4.0 6.0 8.0 10.0

'00 '02 '04 '06 '08 '10 '12 '14 '16

Percent

Pre-recession 3.1%
Post Recession 1.8%
Nov ’17 1.9%

Personal Saving Rate - % of DPI

-6.0 -4.0 -2.0 0.0 2.0 4.0 6.0 8.0 10.0 12.0

'00 '02 '04 '06 '08 '10 '12 '14 '16

Percent

Post recession Average 5.6%
Pre-recession average 4.0%
Nov ’17 2.9%

Source: U.S. Bureau of Economic Analysis

January 18, 2018

Federal Reserve Bank of Chicago
Total Consumer Debt by Composition

Trillions of Dollars

Source: Federal Reserve Bank of New York and Equifax
Interest Payments

As a Percent of Disposable Personal Income

Source: Federal Reserve Bank - Board of Governors
Household Net Worth

Trillions of Current Dollars, Q1 ‘00 to Q1 ‘17

Source: Federal Reserve Z.1 Statistical Release, Table B100, Households and Nonprofit Organizations
Stock Market and Home Prices

S&P 500 and S&P Case Shiller Composite, Index 2006 = 100

Source: Author’s calculations using Financial Times and S&P Case Shiller data.
Consumer Sentiment

University of Michigan

Index

Source: Thomson Reuters / University of Michigan
Monetary Policy
Unemployment Rate & Prices

Percent Unemployed, PCE / CPI % Change Yr./Yr.

Unemployment

- Actual
- Target

Dec '17 4.1%

PCE / CPI Inflation – All Items

- Target 2.0%
- PCE
- CPI

Dec '17 2.1%
Nov '17 1.8%

Civilian Labor Force Growth

Annual Average Percent and Annual Average Change by Year

Note: Current noninstitutionalized civilian population is 255.4 million people.

U.S. Nonfarm Payrolls

Monthly and Annual Average Job Change – In Thousands

Labor Conditions

Job Openings and Quit & Layoff Rates

Sources: U.S. Department of Labor – Job Openings and Labor Turnover Survey (JOLTS & Conference Board – Help Wanted Online Data (HWOL)
Average Hourly Earnings – Private Employees

Percent Change Year / Year

3.5% = 1.5 Productivity Growth + 2% Inflation

Dec '17
2.5%
2.3%

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 – 1 Year Treasuries in Basis Points

Source: Board of Governors – Federal Reserve System
Appropriate pace of policy firming

Fed Funds Rate – Year End Projections

Source: Federal Reserve - F.O.M.C. participants, September 20, 2017
Target Federal Funds Rate

Long Run Projections

Source: Federal Reserve - F.O.M.C. participants projections.
U.S. Auto Industry
U.S. Light Vehicle Sales

S.A.A.R – Millions of Units


Source: Ward’s Automotive and BEA
U.S. Light Vehicle Inventory & Production

Index – 2015 = 100 - SA
Vehicle Incentives

As Percent of Transaction Price - SA

Source: Author’s calculations using FOMC Board of Governors and J.D. Power data.
Buying Conditions for Vehicles

University of Michigan

Source: Thomson Reuters / University of Michigan
Reasons for Buying Conditions for Vehicles

University of Michigan

**Good / Bad Reason: Why do you say so?**

- Low Prices: 28
- Prices Will Increase: 6
- Low Interest Rates: 20
- Rising Interest Rates: 4
- Time's good: 16
- Fuel Efficiency: 2
- Prices High: 12
- High Interest Rates: 5
- Can't Afford: 3
- Uncertain Future: 4
- Gas Prices: 1
- Poor Selection: 2

Note: May add to more than a 100 due to multiple mentions.

Source: University of Michigan Survey of Consumers – December 2017 survey
Average Finance Term & Transaction Price

Months to Term and Annual Average Transaction Price

Note: 2017 data is September year-to-date.

Source: J.D. Power data.
Sales Weighted Vehicle Age

10 Year Moving Average

Source: Author's calculations using WardsAuto data.
Thank You!