



Fed at Your Desk

FEDERAL RESERVE BANK
OF CHICAGO

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

Paul Traub
Senior Business Economist
Federal Reserve Bank of Chicago/Detroit Branch
October 16, 2019

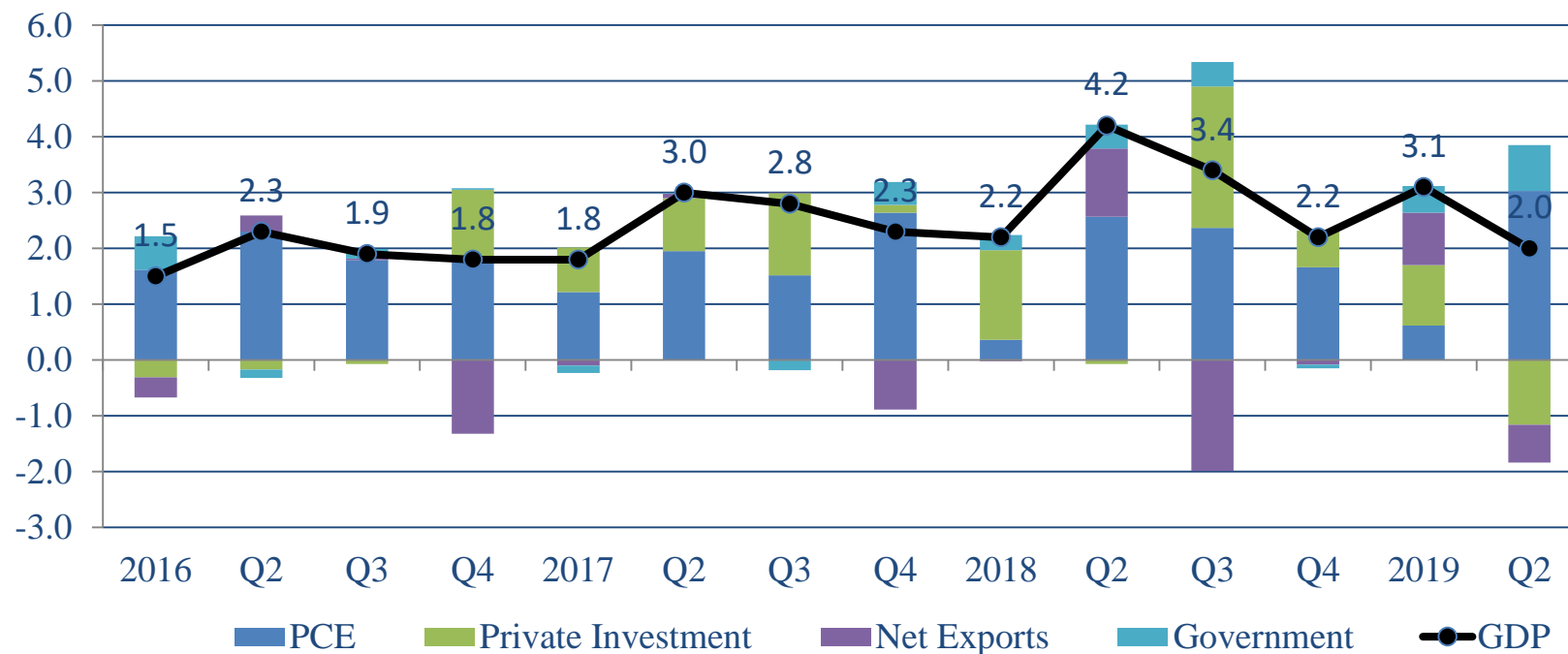
Overview

- **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

Percent



Contributions Q1 2019

3.03%

-1.16%

-0.68%

0.82%

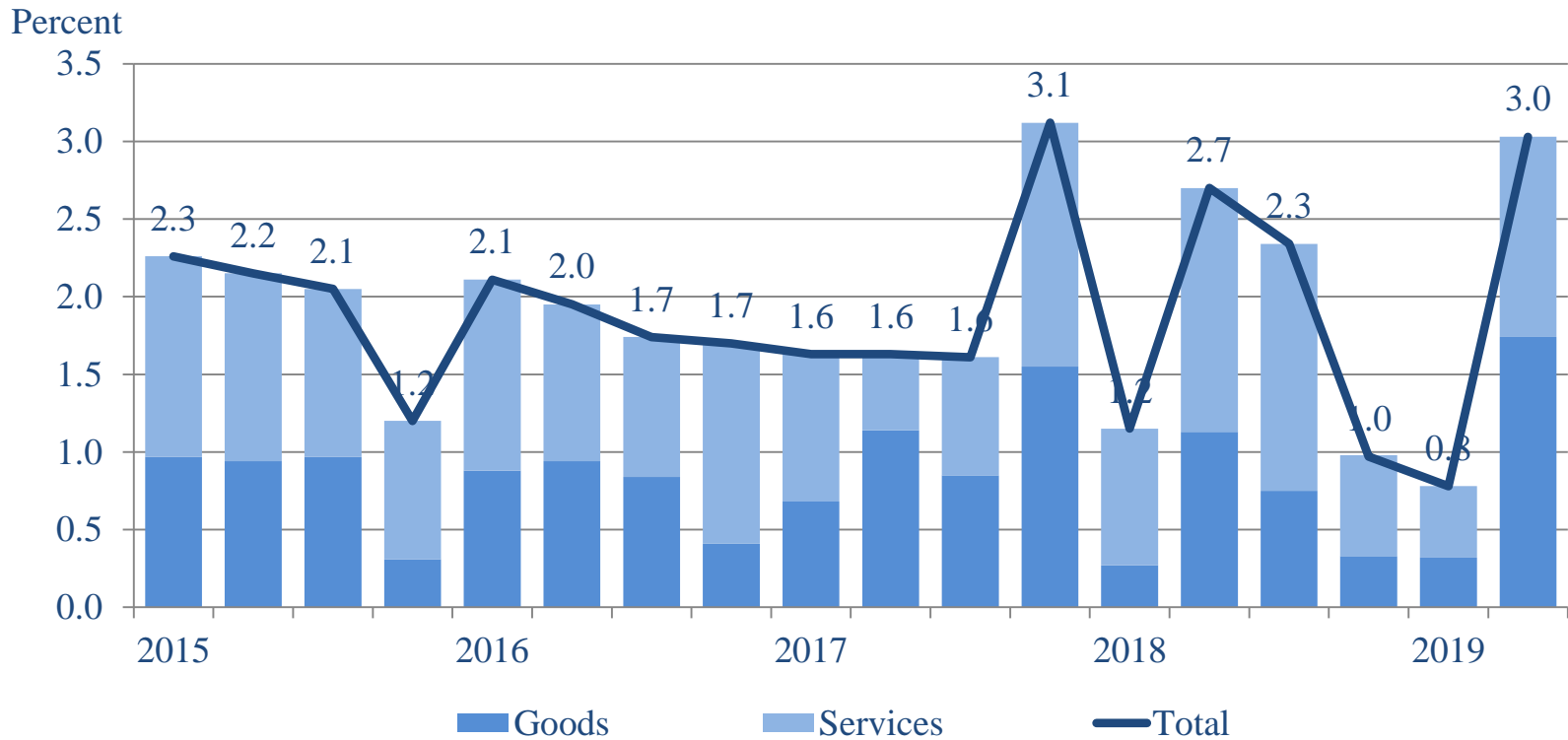
2.0%

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



Contributions Q1 2019

1.74%

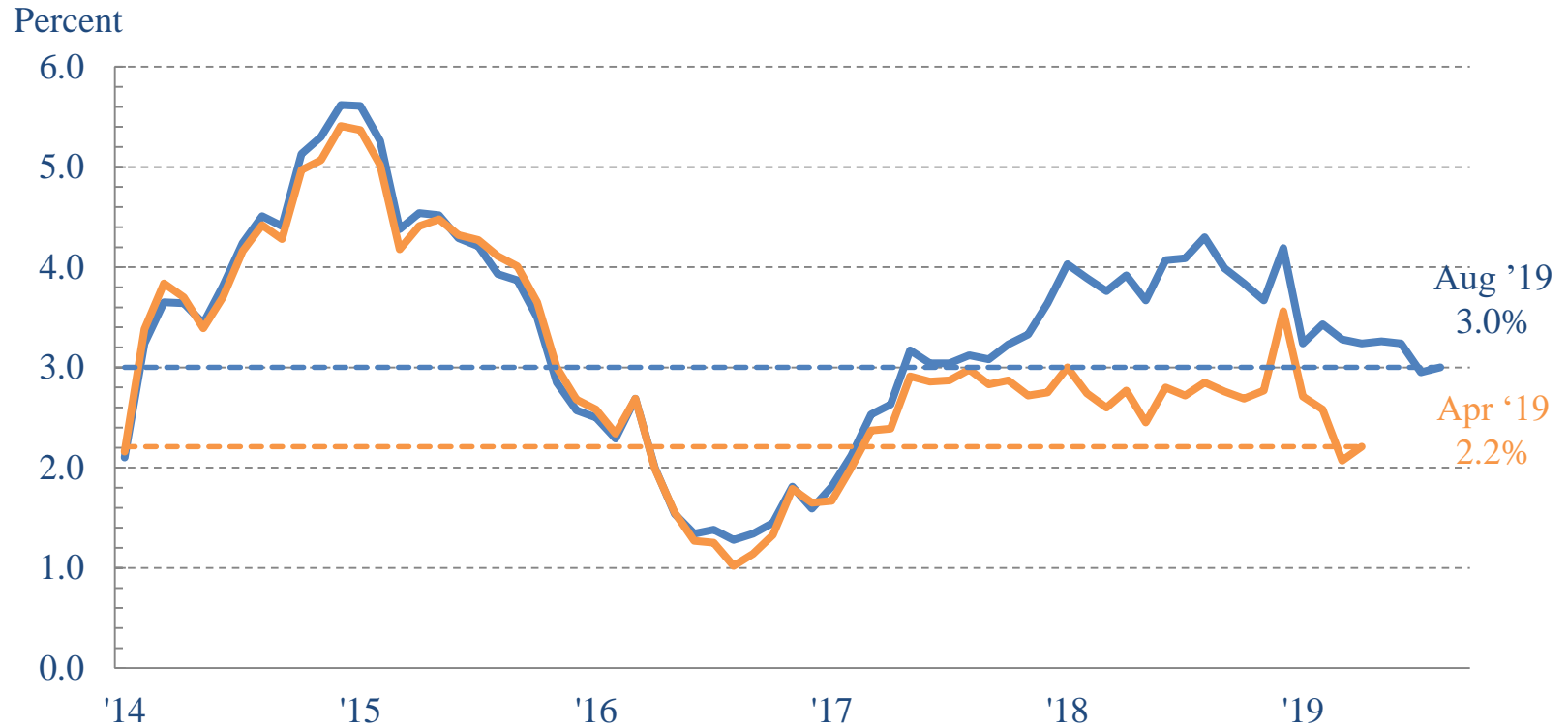
1.29%

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.

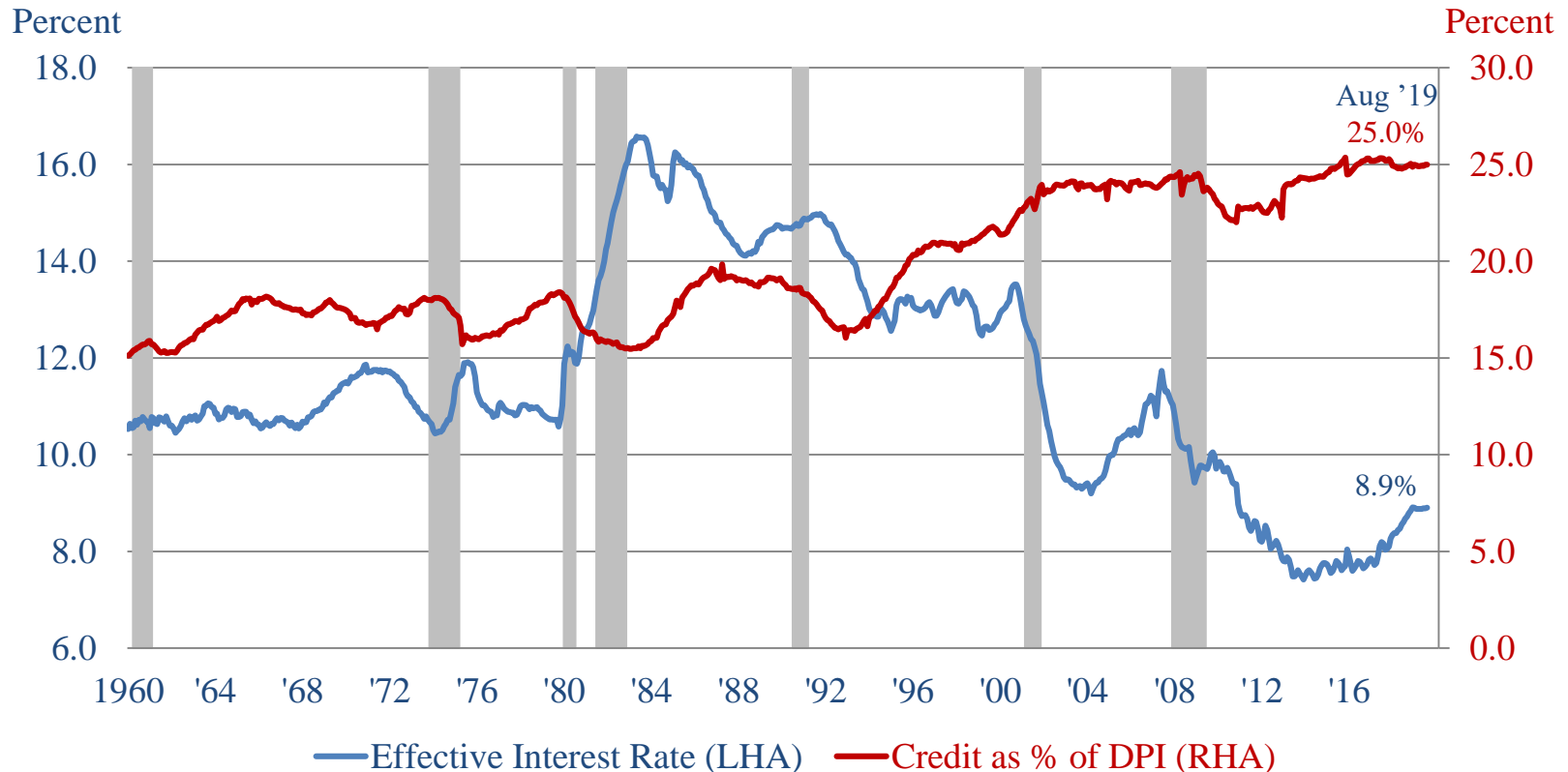


Note: Revision in 2018 reflects an upward revision to compensation (\$87.1) and income receipts on assets (\$161.9).

Source: Bureau of Economic Analysis.

Interest Rates and Consumer Credit

In Percent of Total Credit and Disposable Personal Income

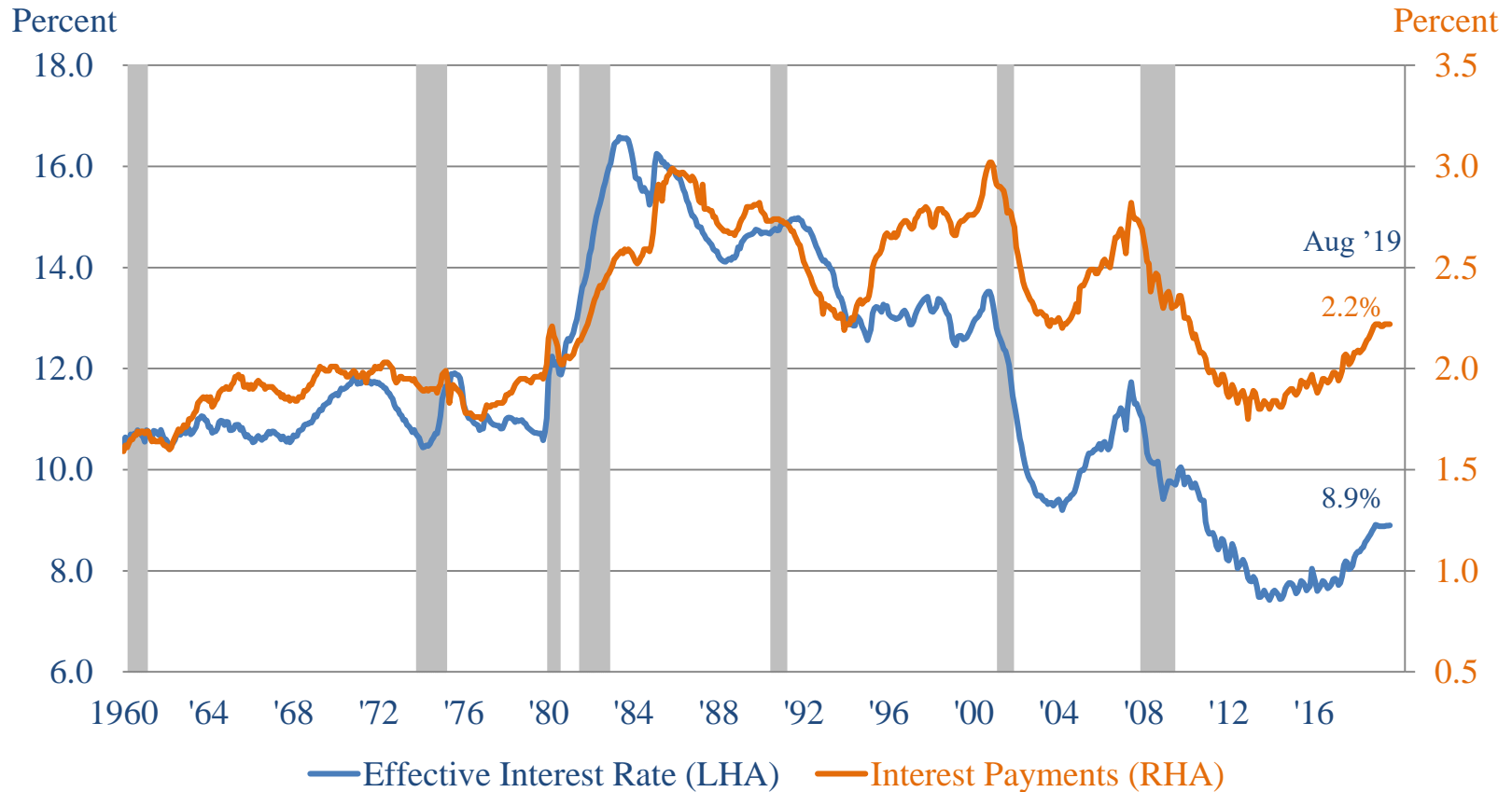


Note: Effective rate equals personal interest payments / total credit outstanding.

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

Interest Payments

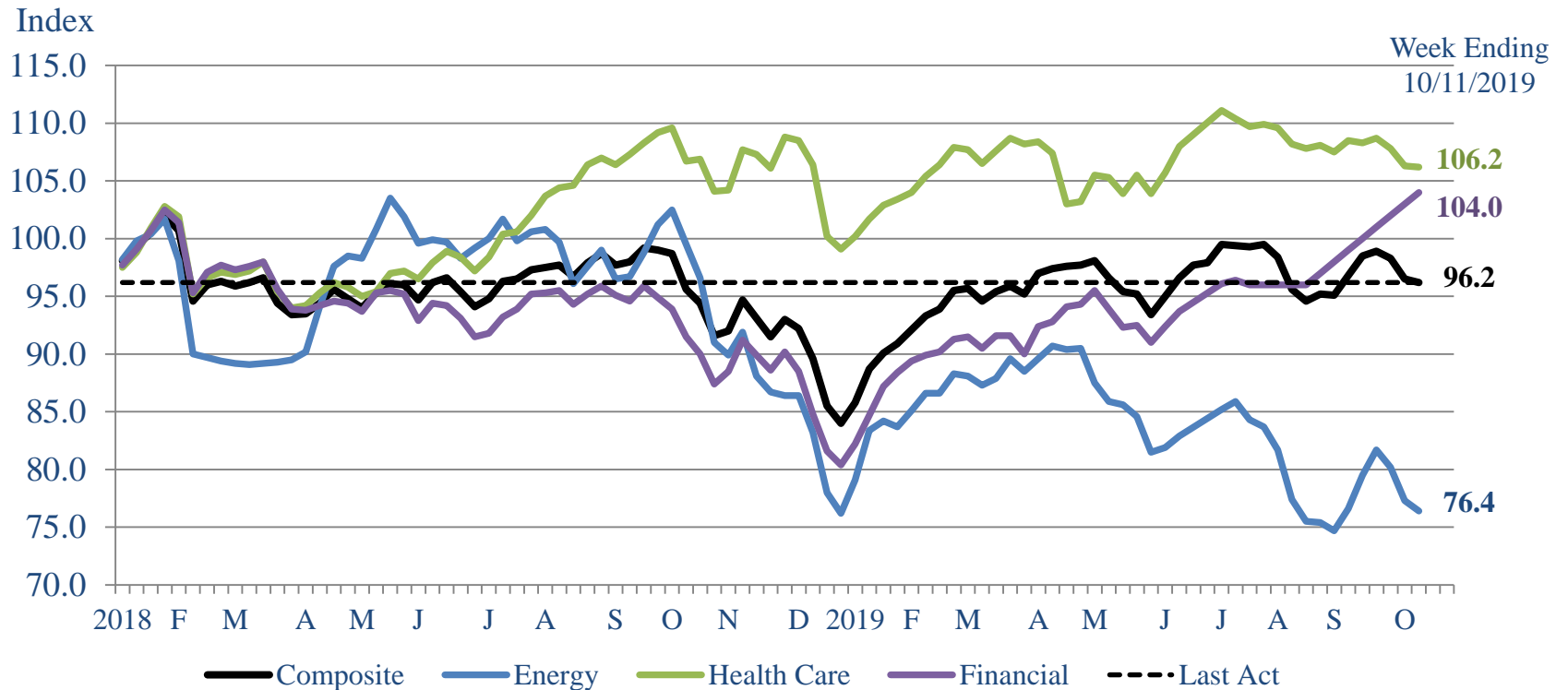
Percent of Disposable Income



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

Stock Market

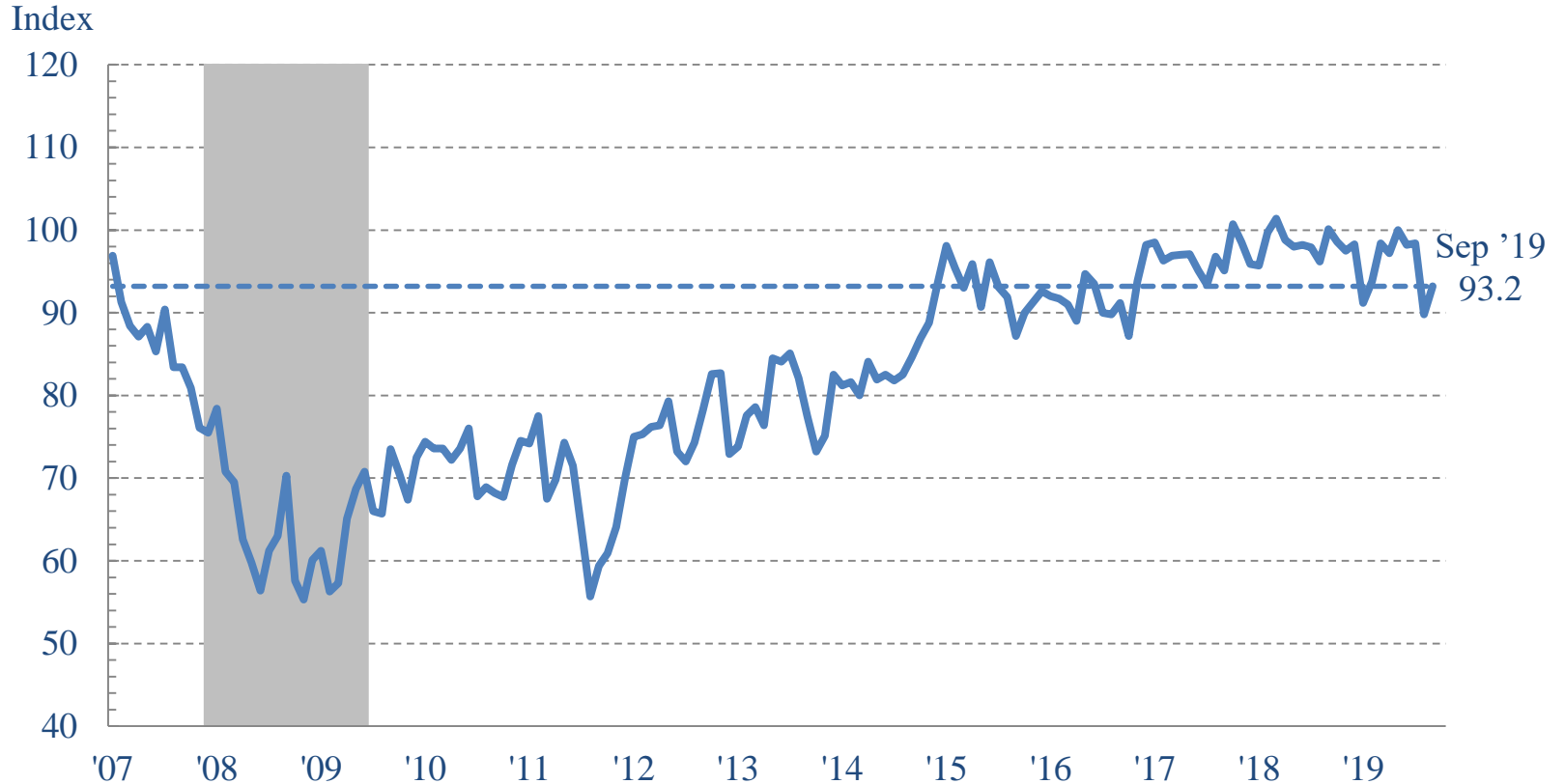
NYSE Stock Price Index, Weekly Average - January 2018 = 100



Source: Haver Analytics data taken from the Wall Street Journal and Coindesk.

Consumer Sentiment

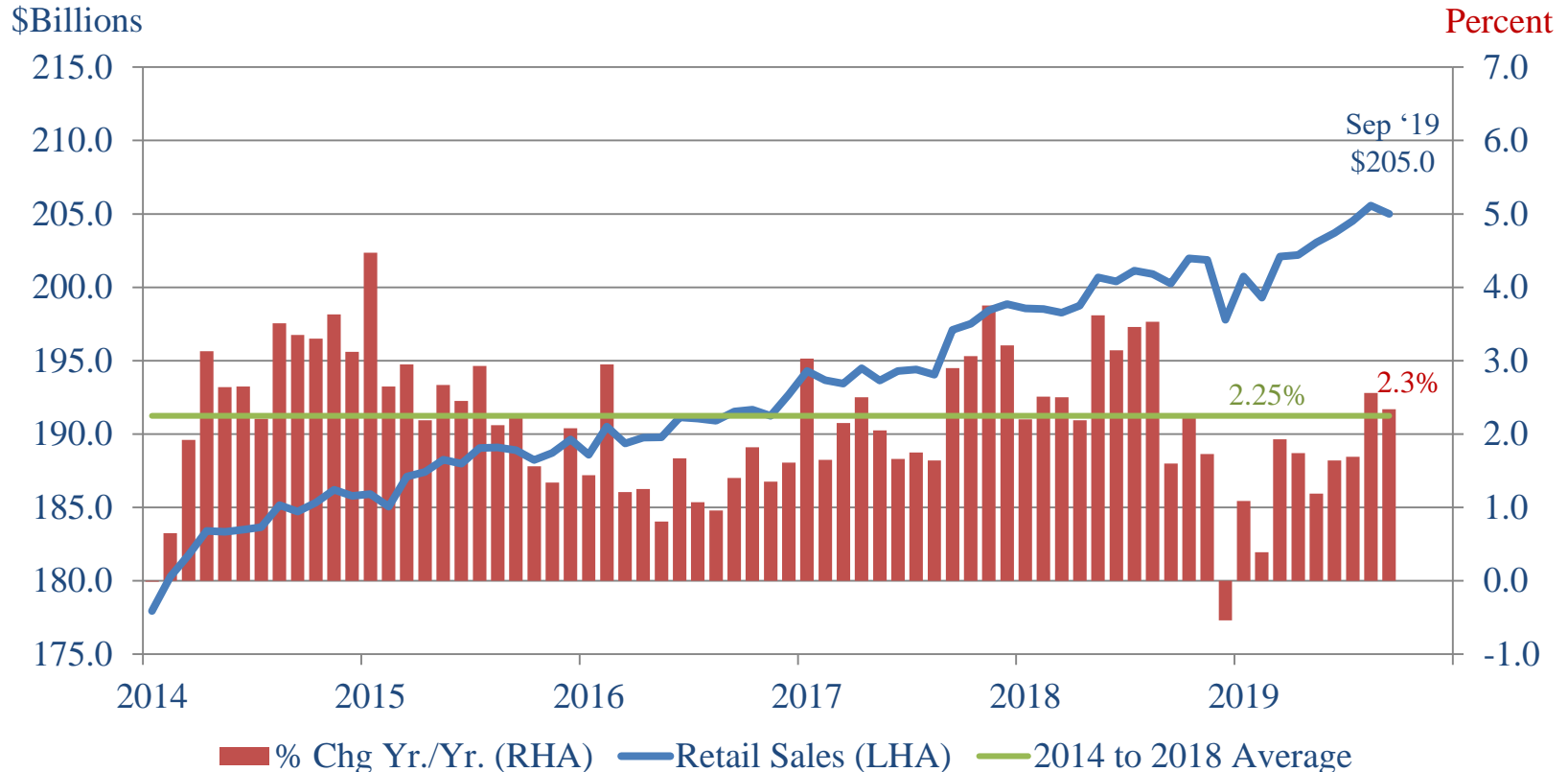
University of Michigan



Source: Thomson Reuters / University of Michigan

Real Retail & Food Service Sales

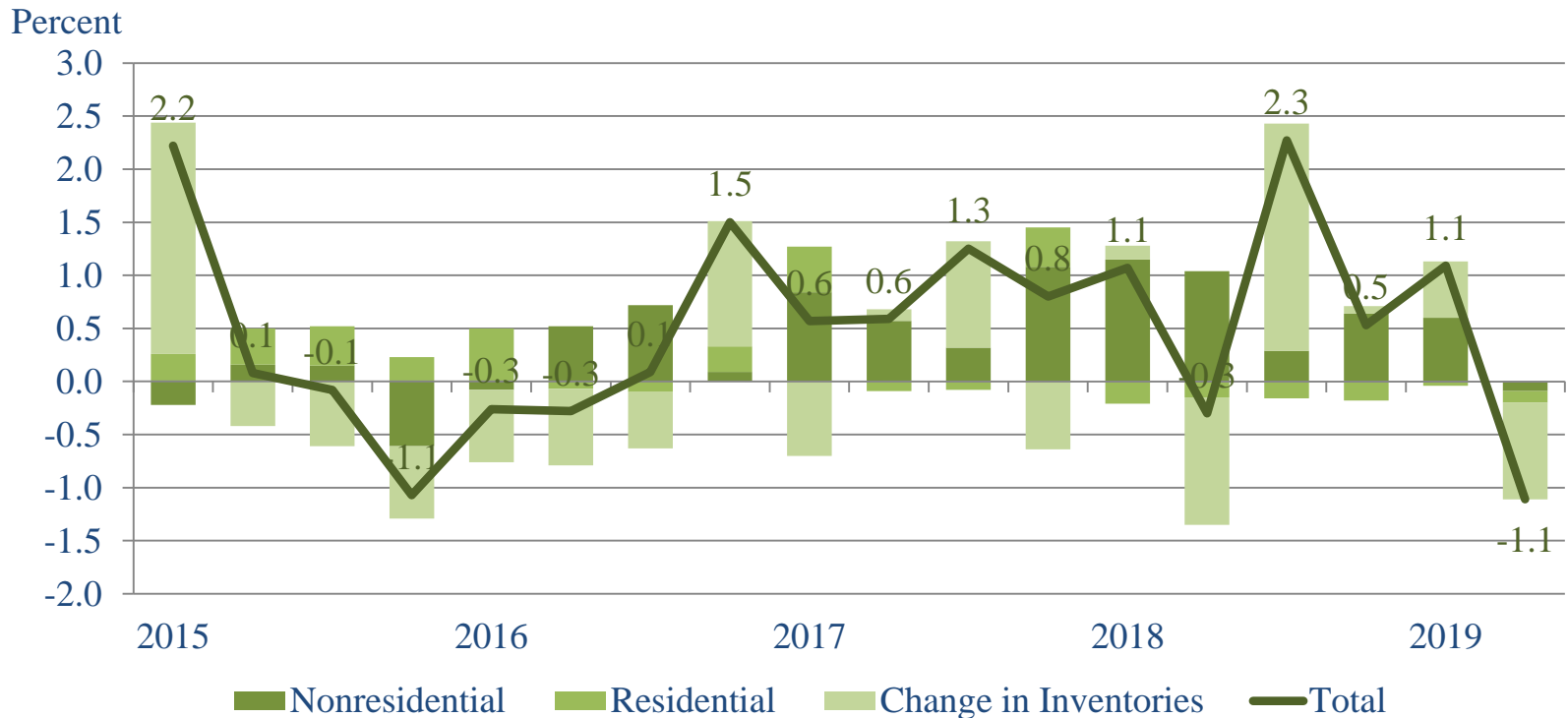
Billions of Current Dollars, Percent Change Yr./Yr. - SA



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%

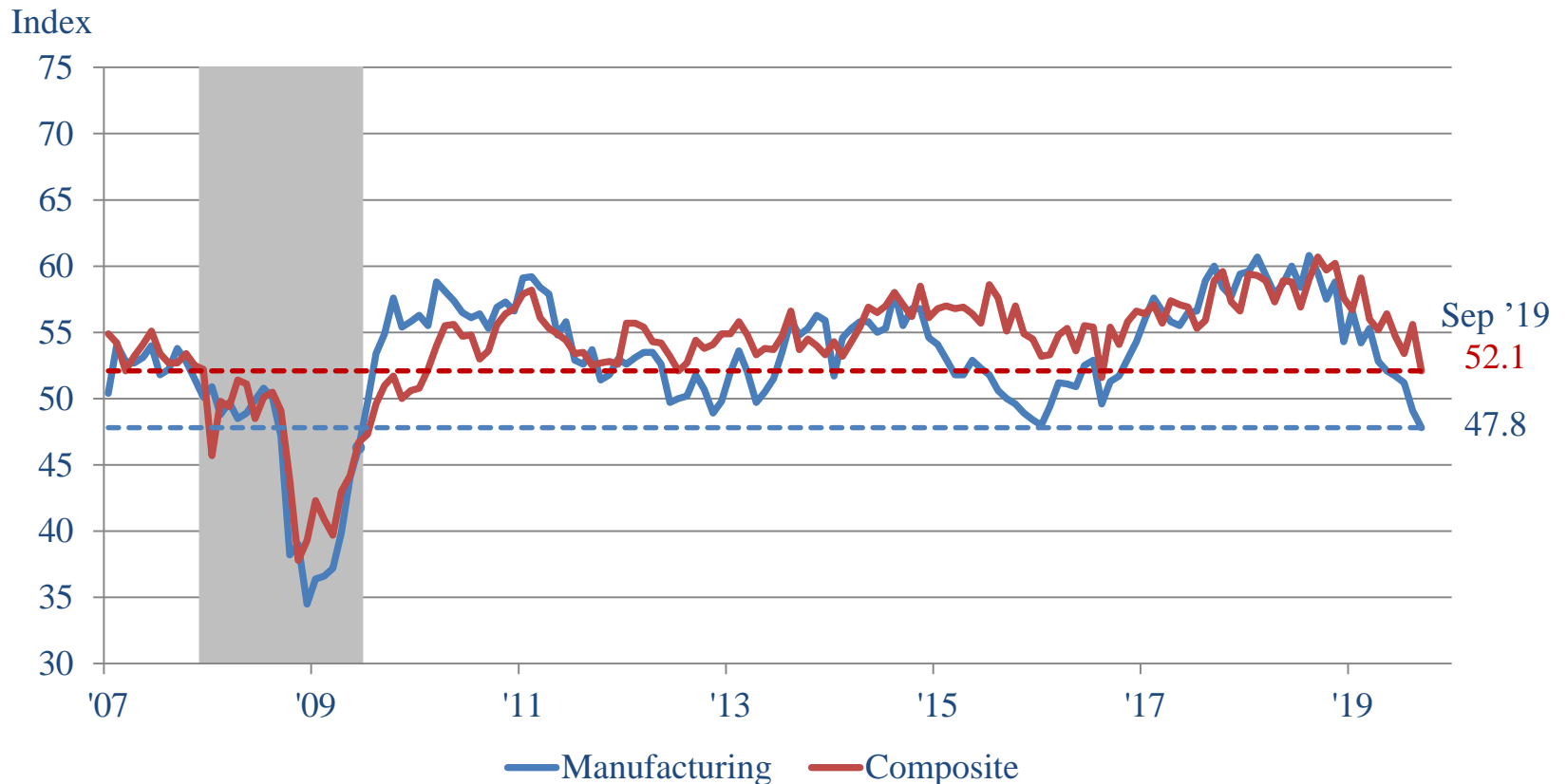
-0.91%

-1.11%

Source: U.S. Bureau of Economic Analysis

Purchasing Managers Index

ISM Manufacturing and Composite Indexes



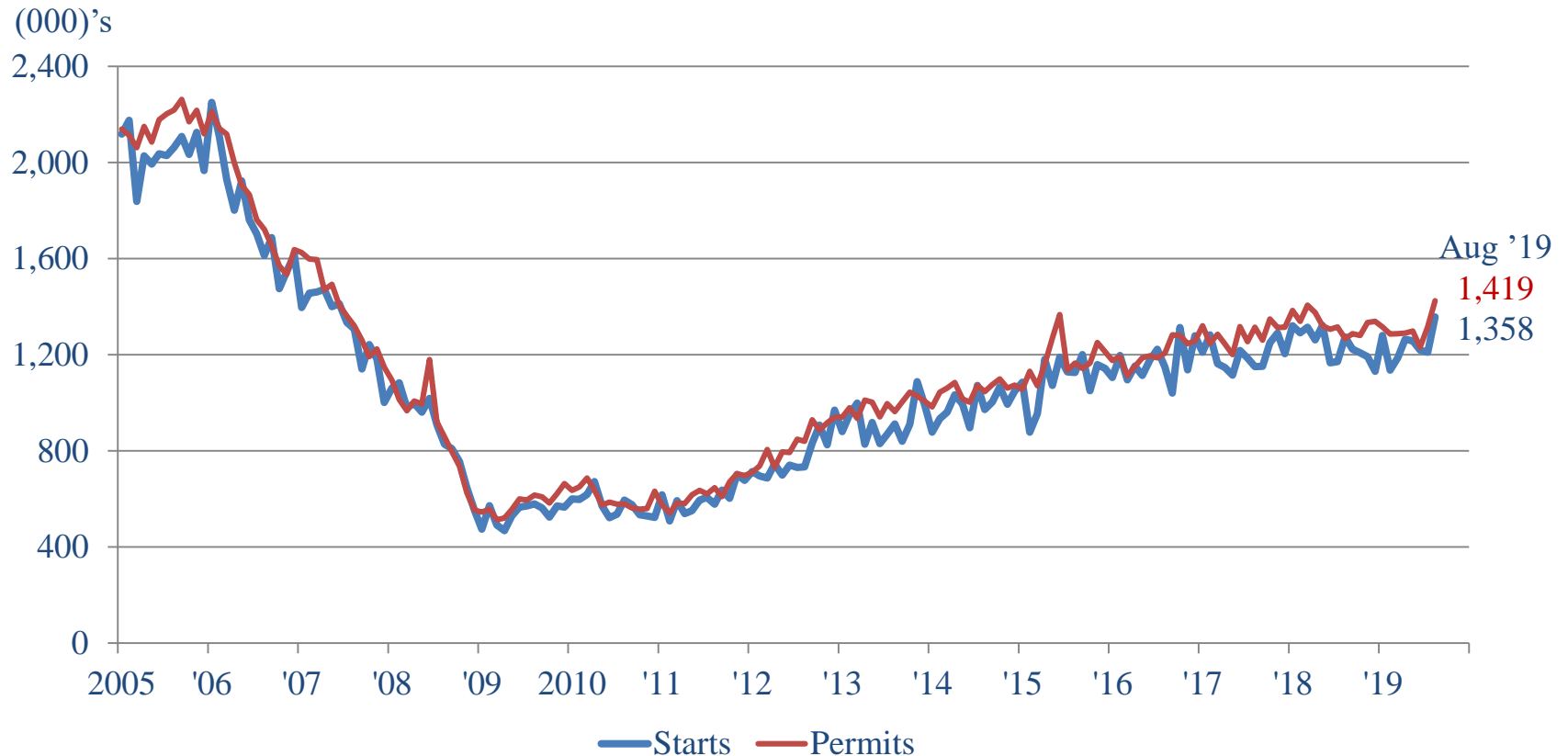
Note:

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

Source: Institute for Supply Management, Richmond Federal Reserve, and Haver Analytics.

U.S. Housing Starts and Permits

In Thousands of Units (SAAR)



Source: U.S. Census Bureau

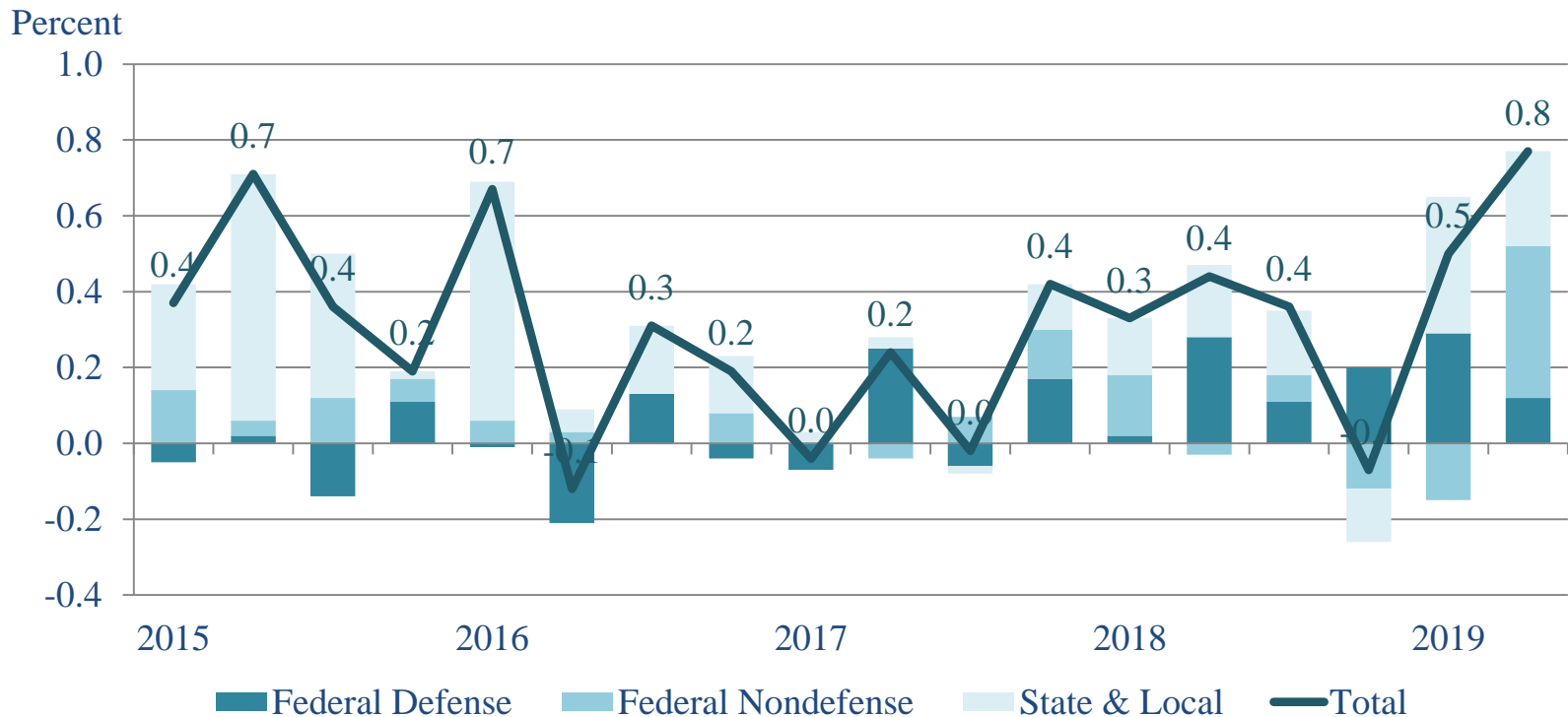
October 16, 2019

12

Federal Reserve Bank of
Chicago

Real Government Consumption & Investment

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



Contributions Q1 2019

0.12%

0.40%

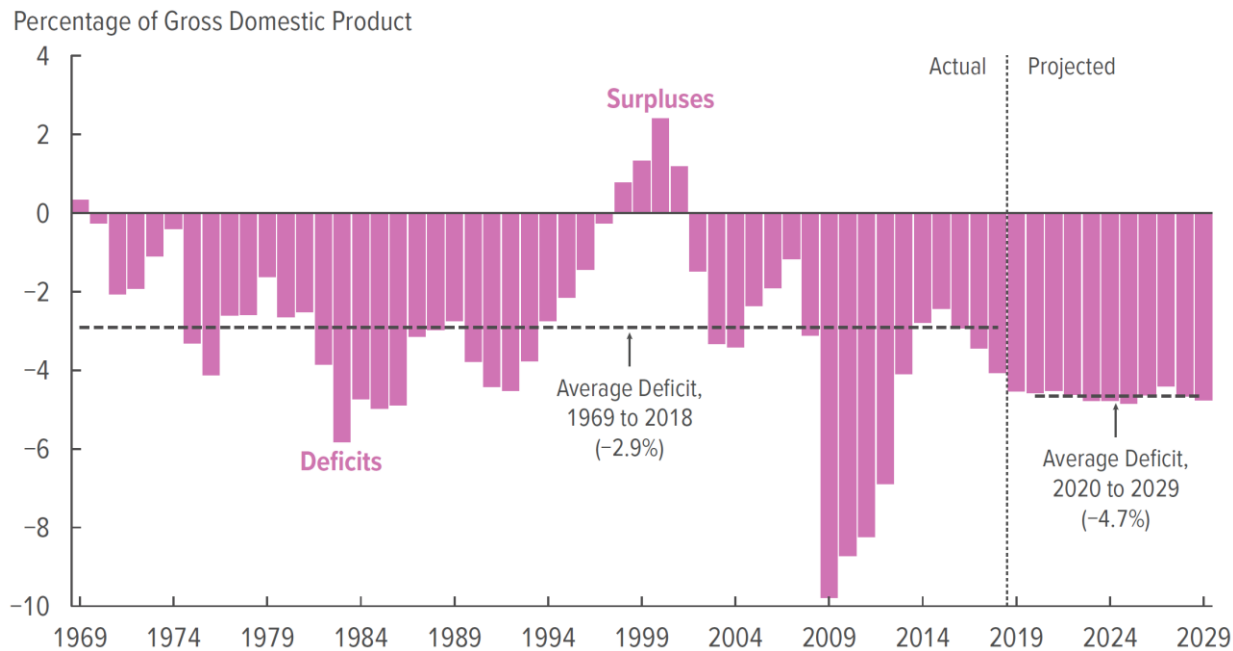
0.25%

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.

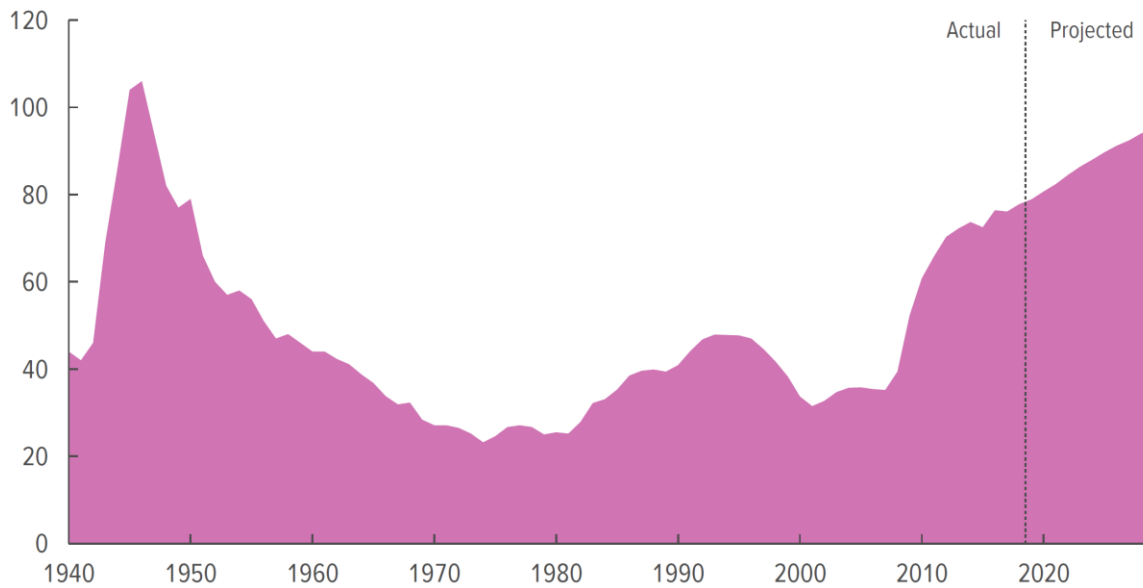
Source: CBO, An Update to the Budget and Economic Outlook: 2019 to 2029, August 21, 2019.

Debt to GDP

Percent of GDP

Federal Debt Held by the Public

Percentage of Gross Domestic Product

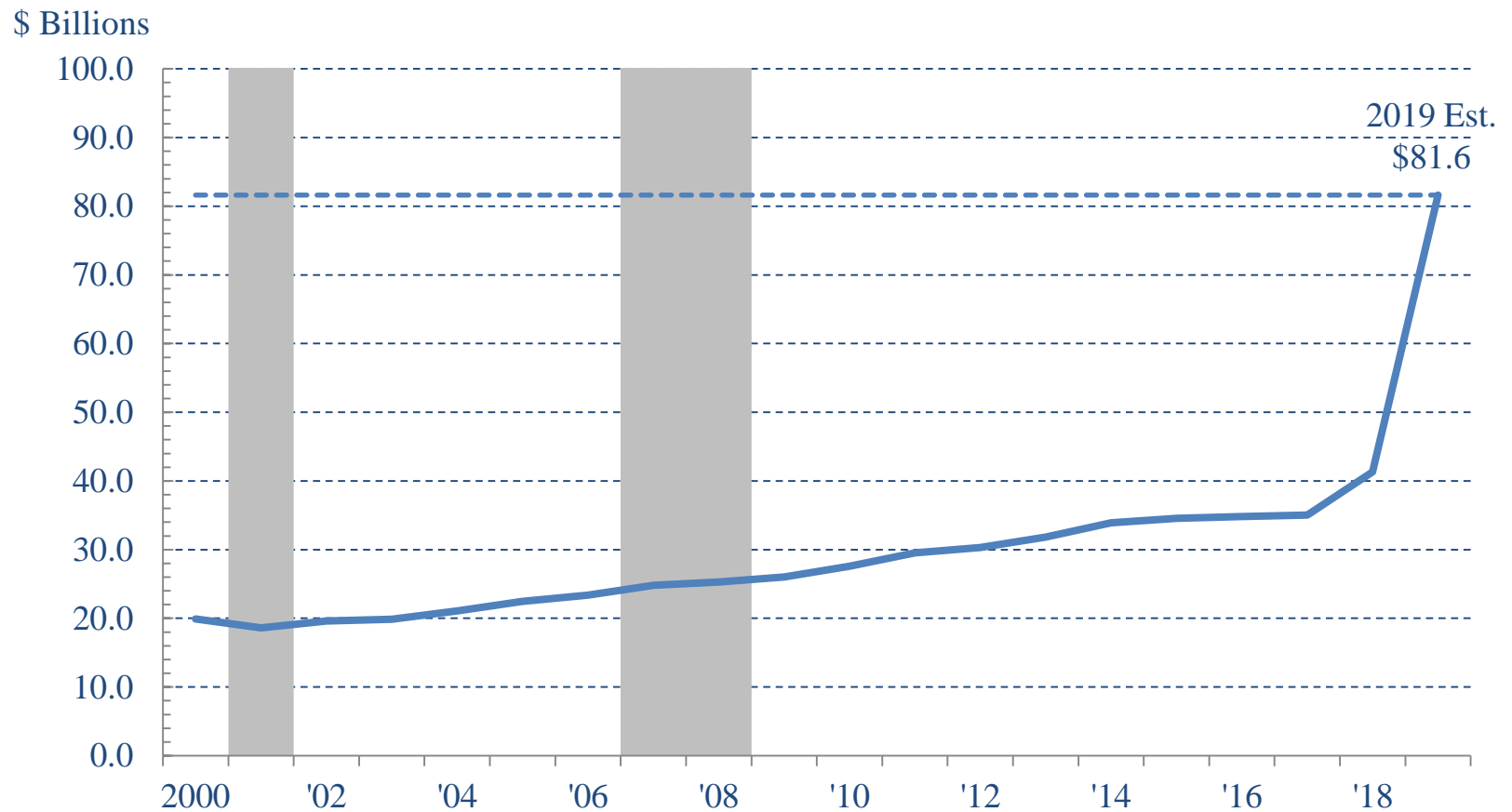


As a percentage of gross domestic product, federal debt held by the public would increase from 79 percent in 2019 to 95 percent in 2029. At that point, such debt would be the largest since 1946 and more than twice the 50-year average.

Source: CBO, An Update to the Budget and Economic Outlook: 2019 to 2029, August 21, 2019.

Customs and Duties

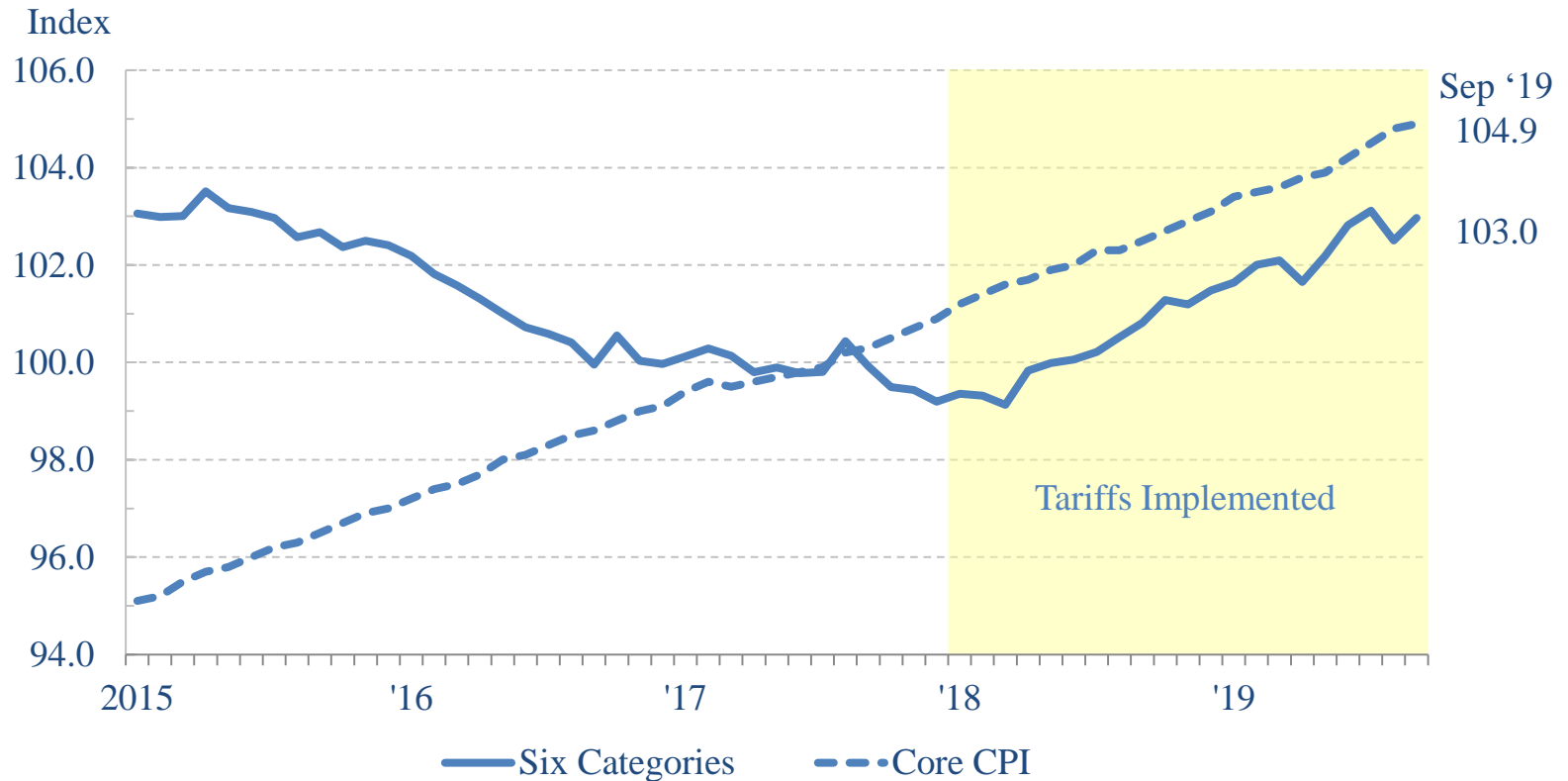
Billions of Current Dollars – Fiscal Year Ending



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

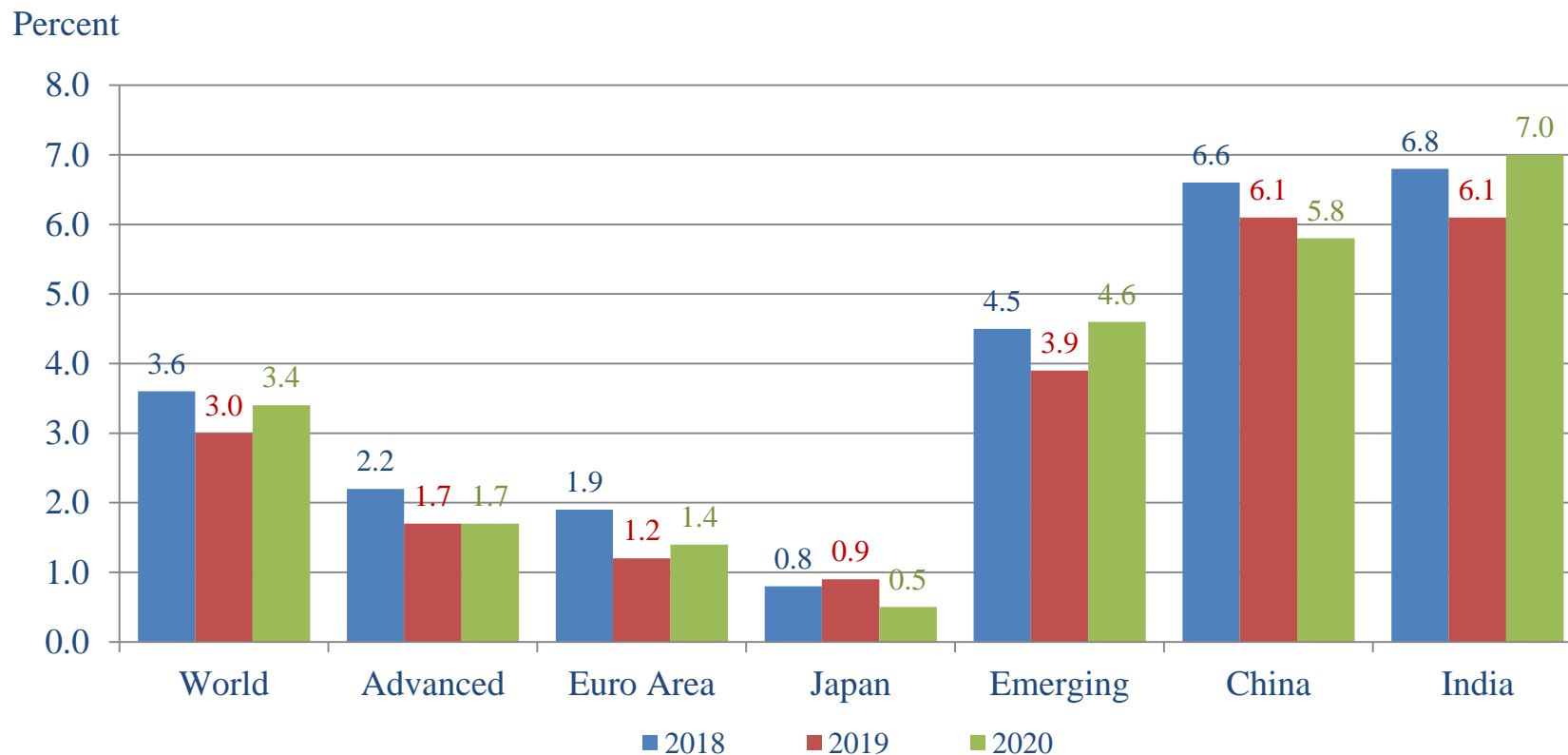
Percent Change Q/Q – SAAR



Source: U.S. Bureau of Economic Analysis

Global Outlook for 2018 & 2019

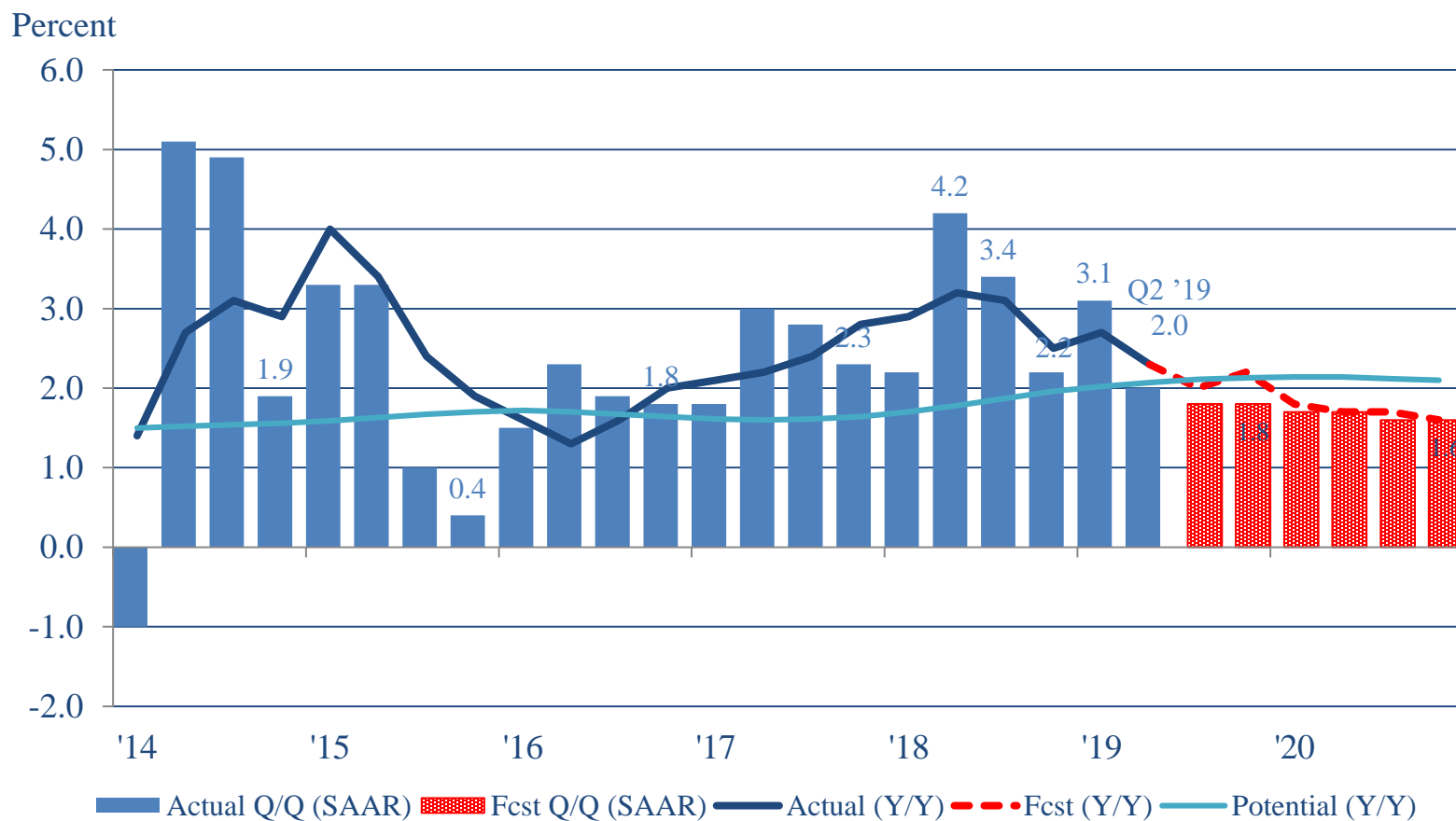
Percent Change Yr./Yr.



Source: IMF World Economic Outlook – September 2019 Outlook and Haver Analytics.

U.S. Real GDP – Blue Chip Forecast

Percent Change – Billions of Chained \$2012

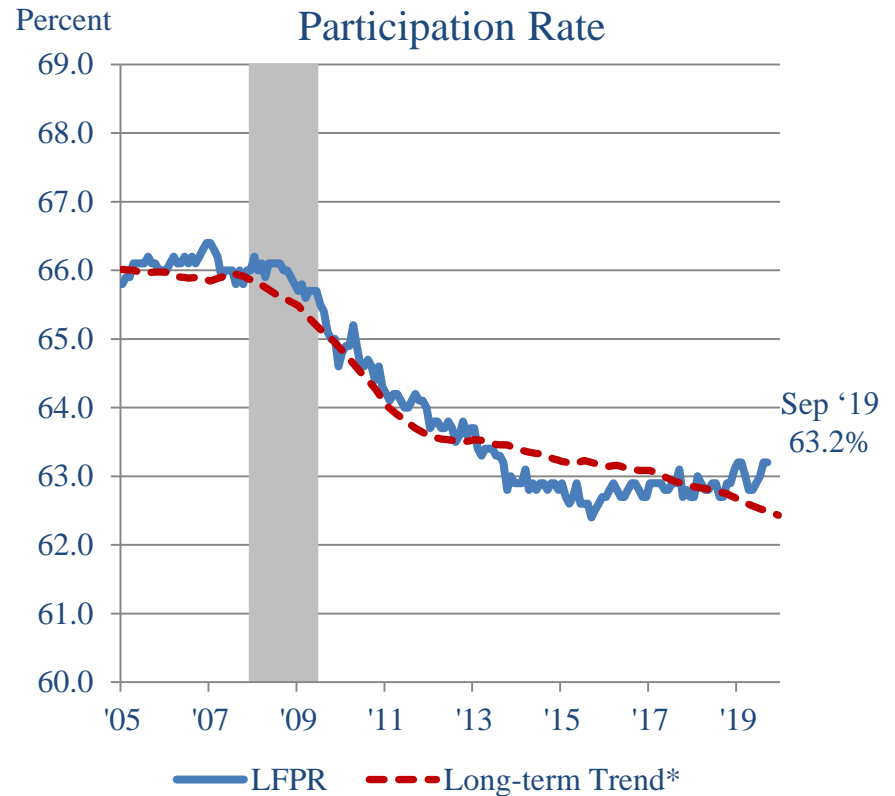
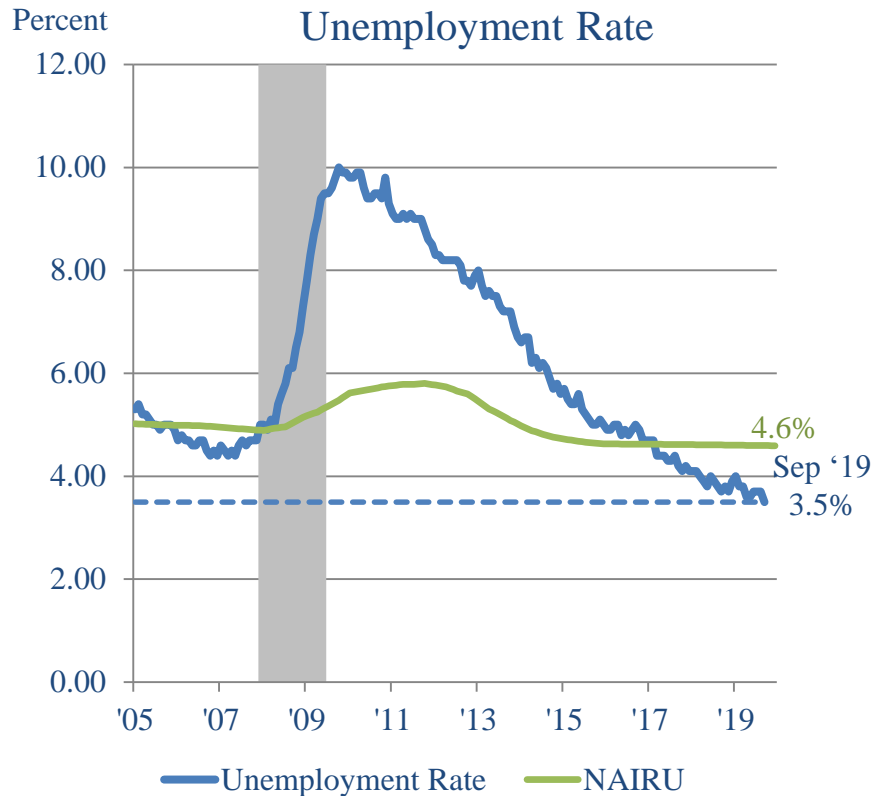


Source: BEA and October 10, 2019 Blue Chip Economic Indicators

Monetary Policy

U.S. Labor Conditions

Unemployment & Participation Rates

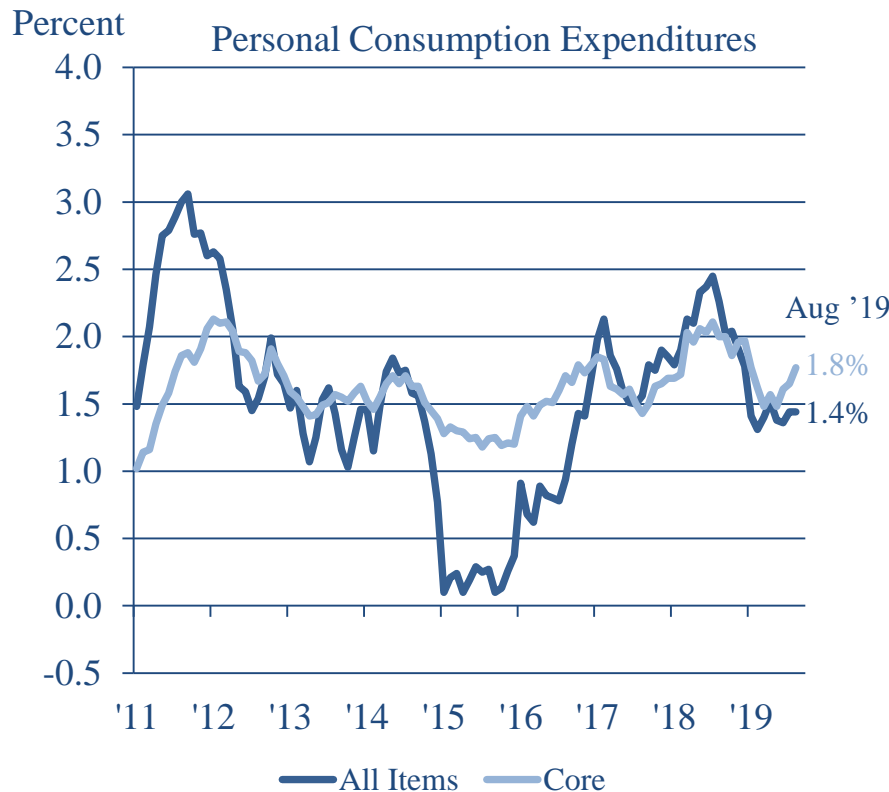


* Predicted using unemployment rate.

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

PCE & CPI Inflation

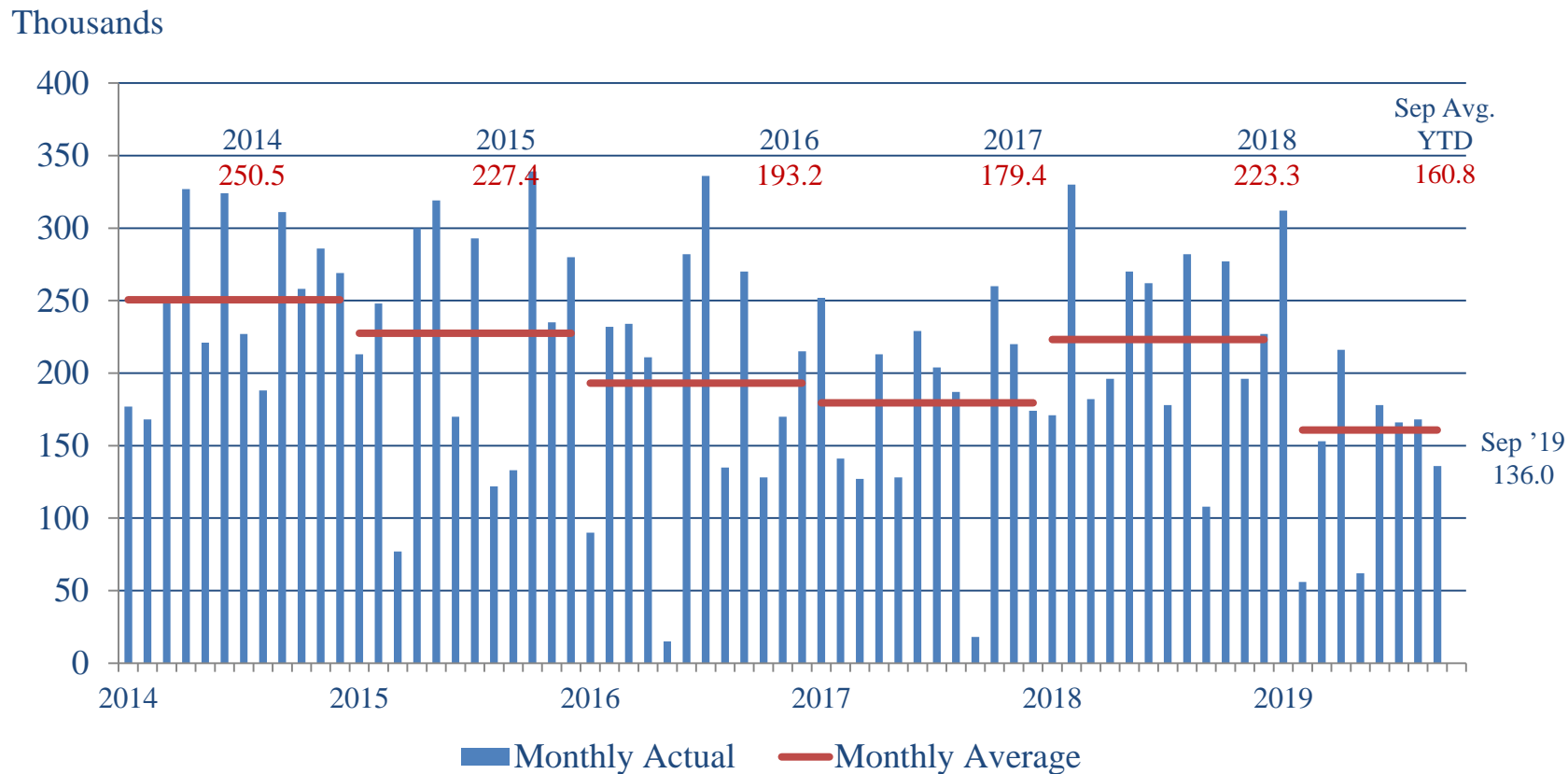
All Items & Core, 12-Month Percent Change



Source: U.S. Department of Labor: Bureau of Labor Statistics, Bureau of Economic Analysis and the Federal Reserve

U.S. Nonfarm Payrolls

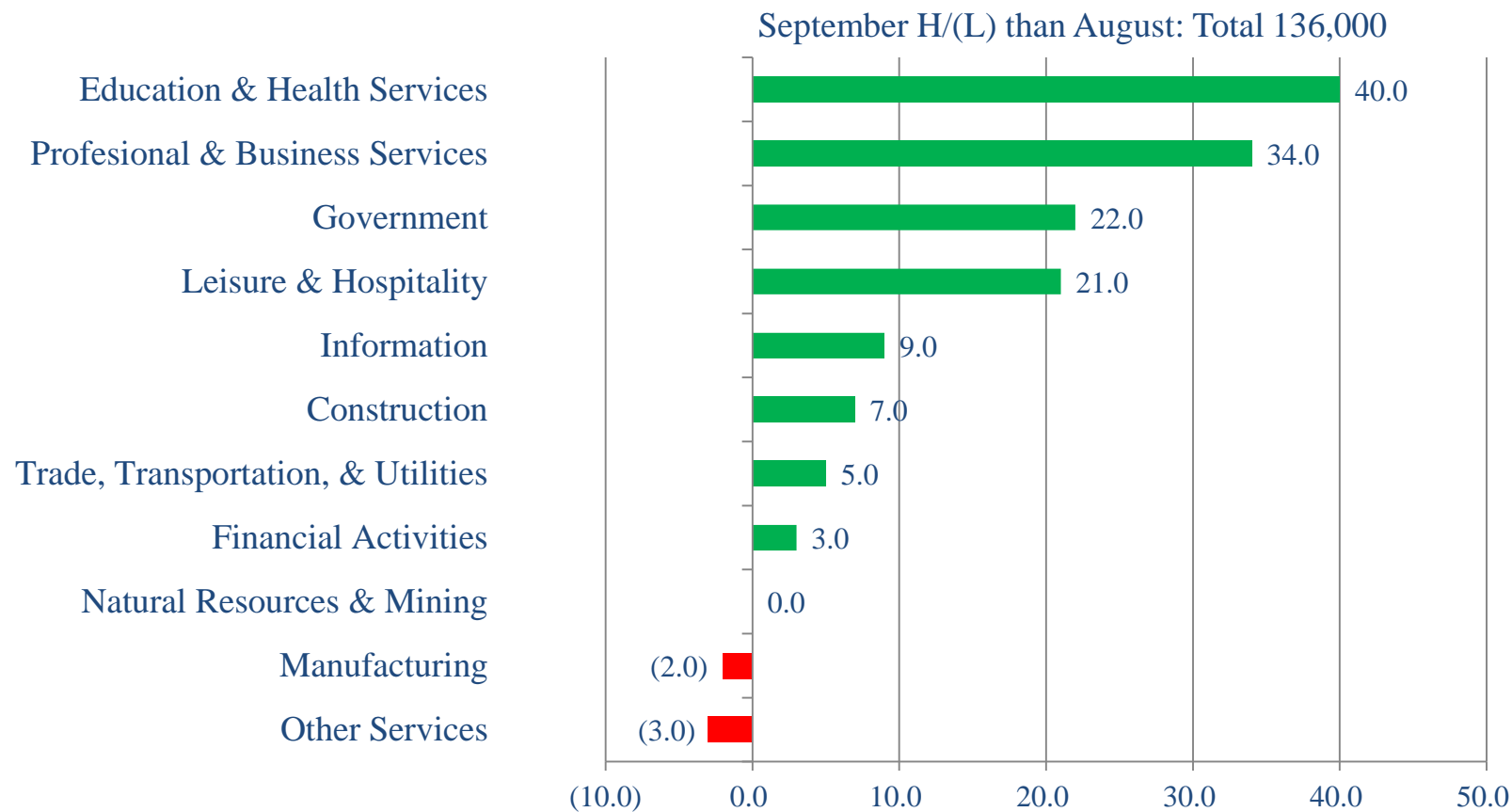
Monthly and Annual Average Job Change – In Thousands



Source: U.S. Department of Labor: Bureau of Labor Statistics

U.S. Nonfarm Payroll Employment by Sector

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

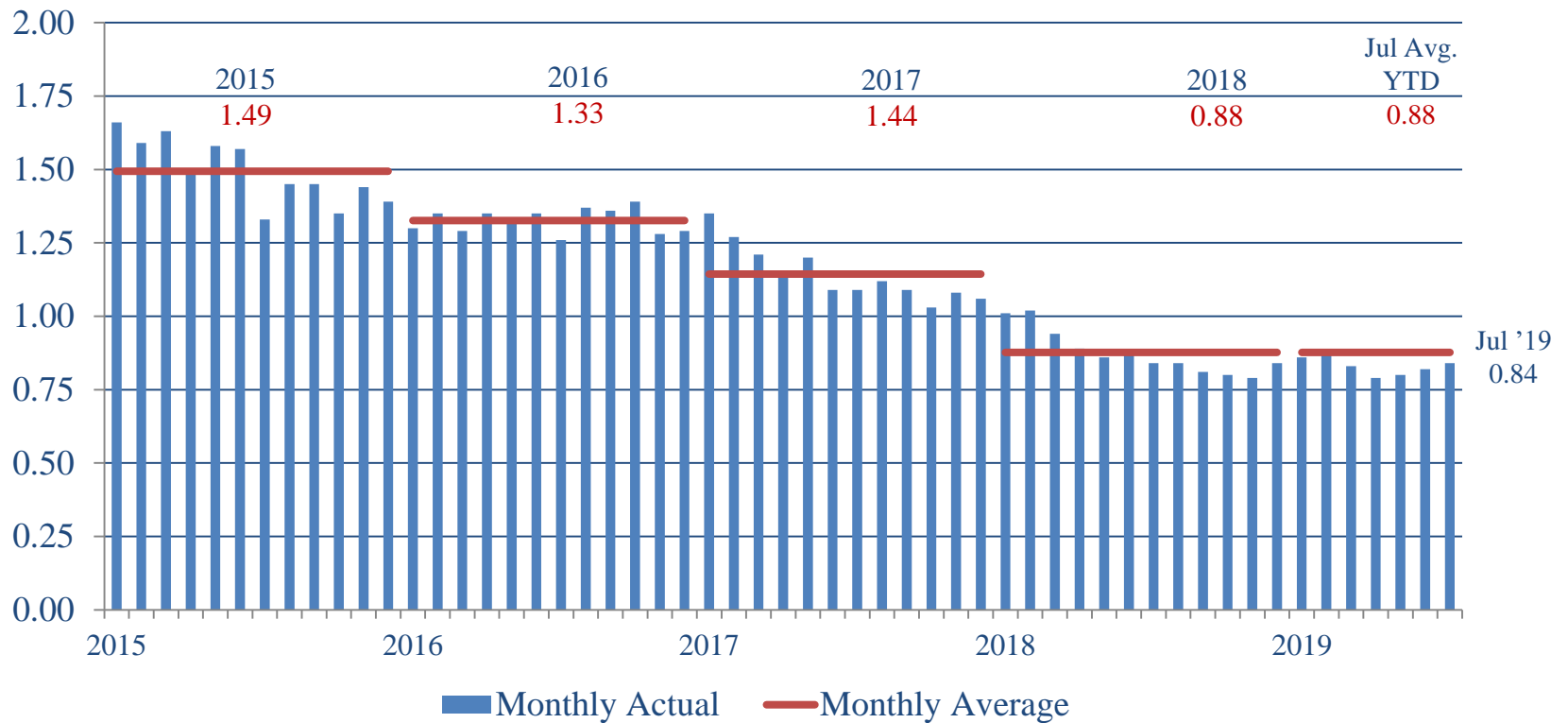


Source: U.S. Department of Labor

Unemployed Persons to Job Openings

In Number of Unemployed

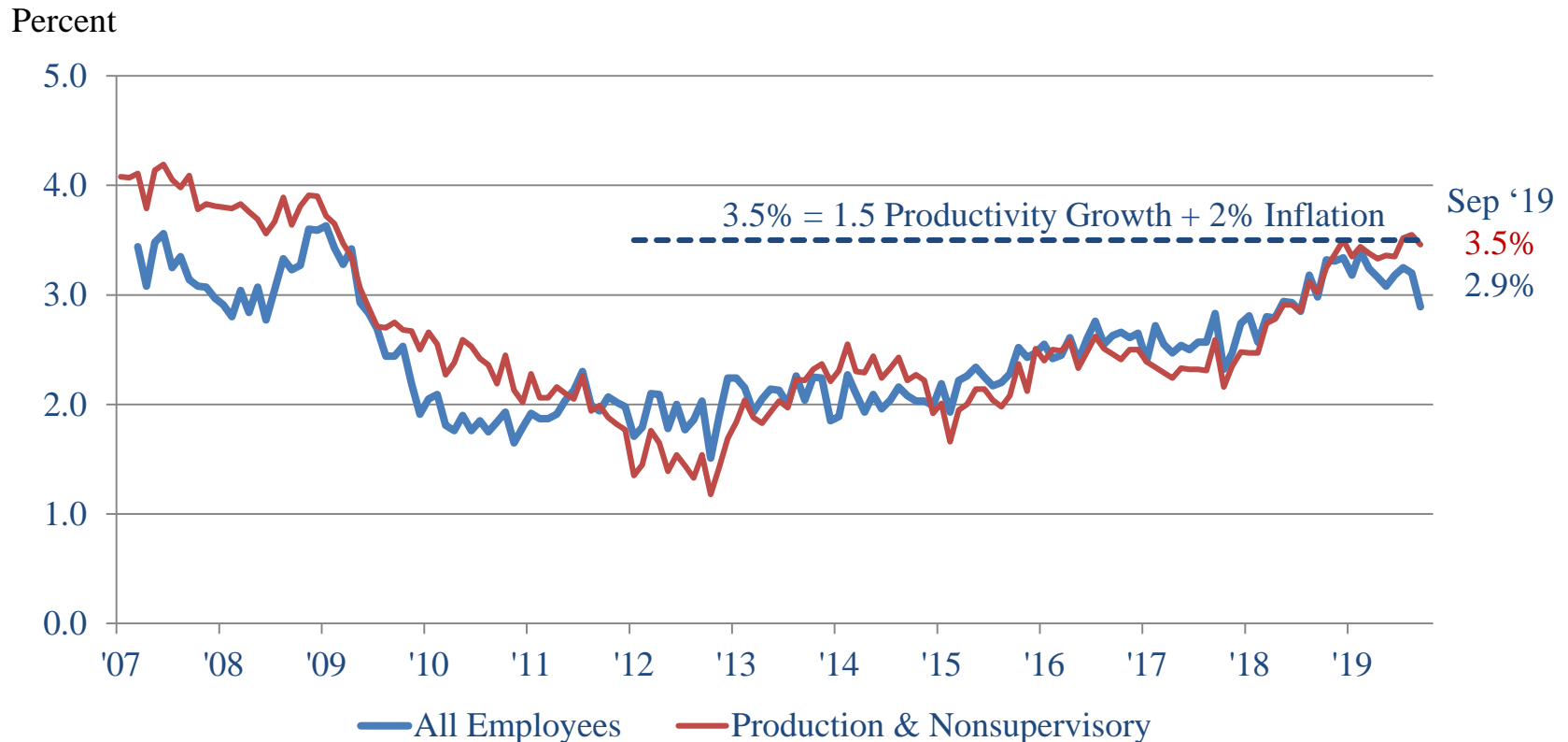
Thousands



Source: U.S. Department of Labor: Bureau of Labor Statistics

Average Hourly Earnings – Private Employees

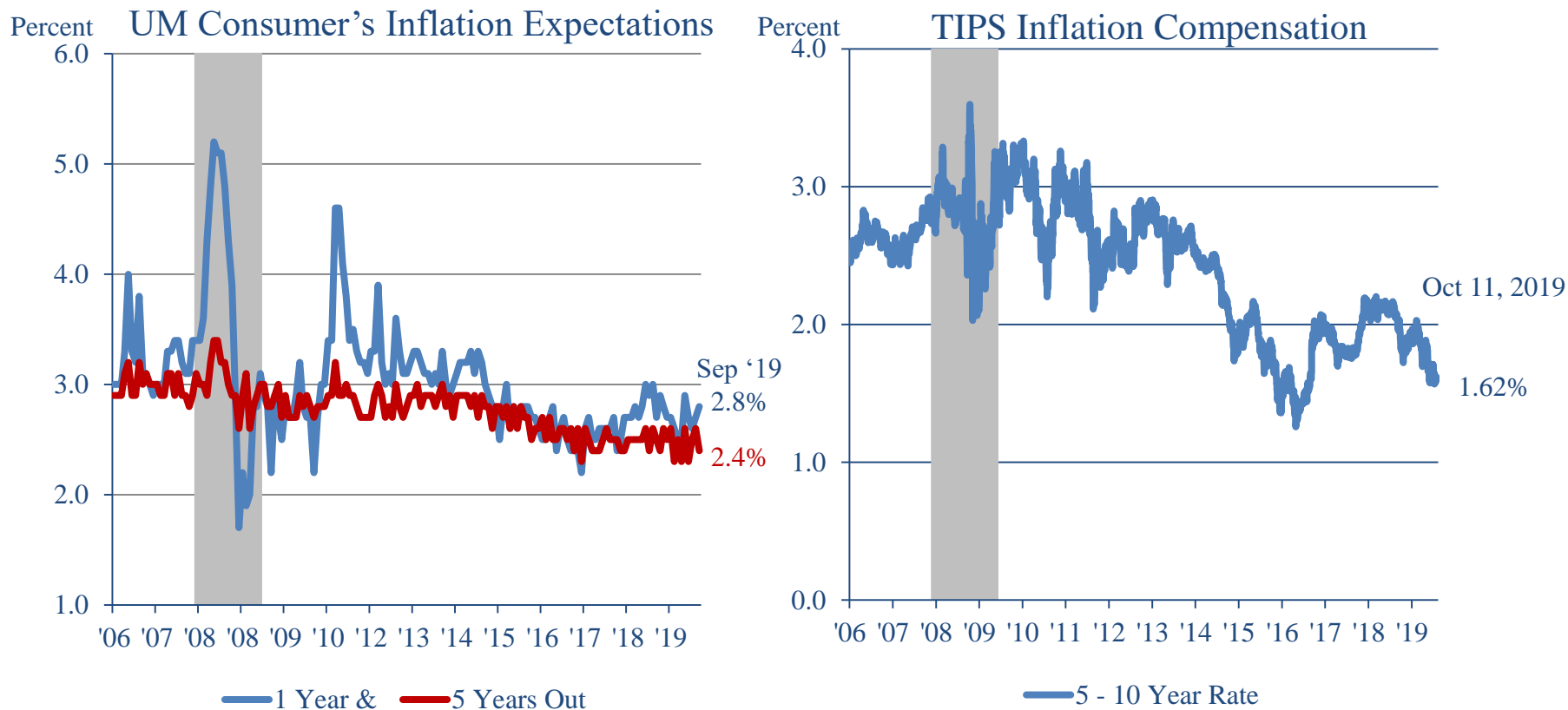
Percent Change Year / Year



Source: U.S. Department of Labor: Bureau of Labor Statistics

Inflation Expectations

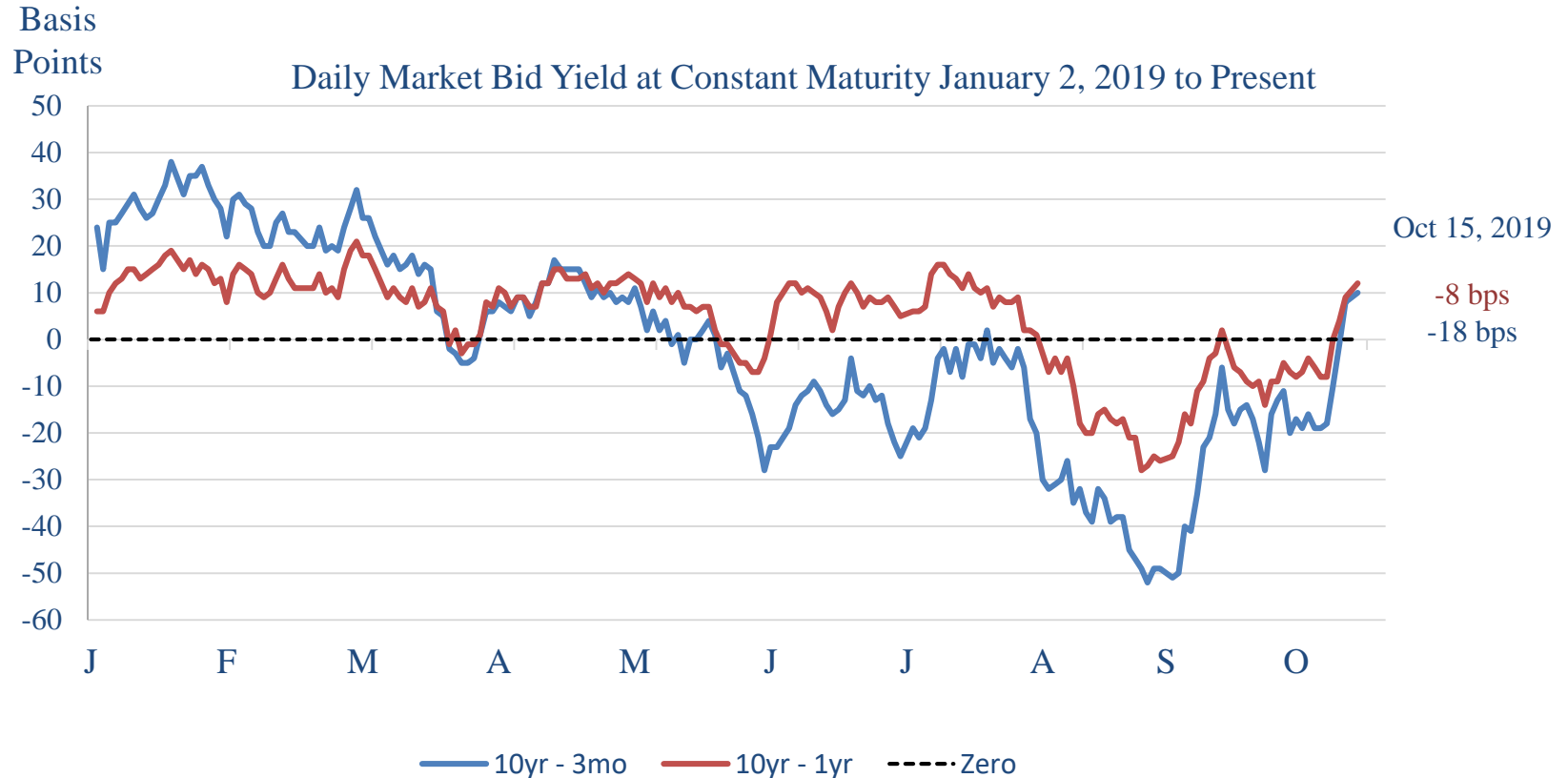
1-5 Year and 5-10 Year Inflation Expectations



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

Yield Curve

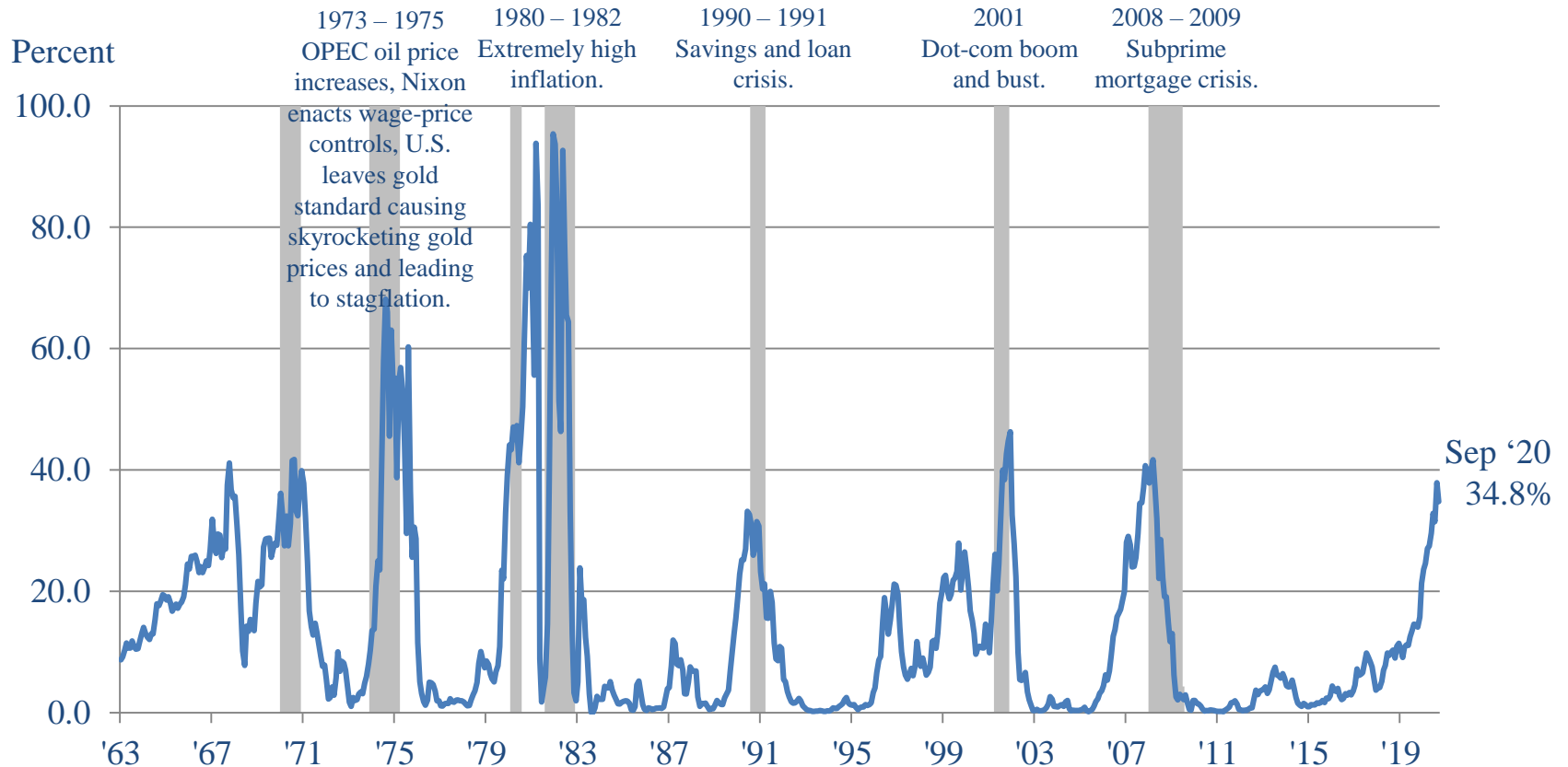
10 Year Minus 1 Yr. and 3 Mo. Treasuries in Basis Points



Source: Board of Governors – Federal Reserve System

Probability of Recession

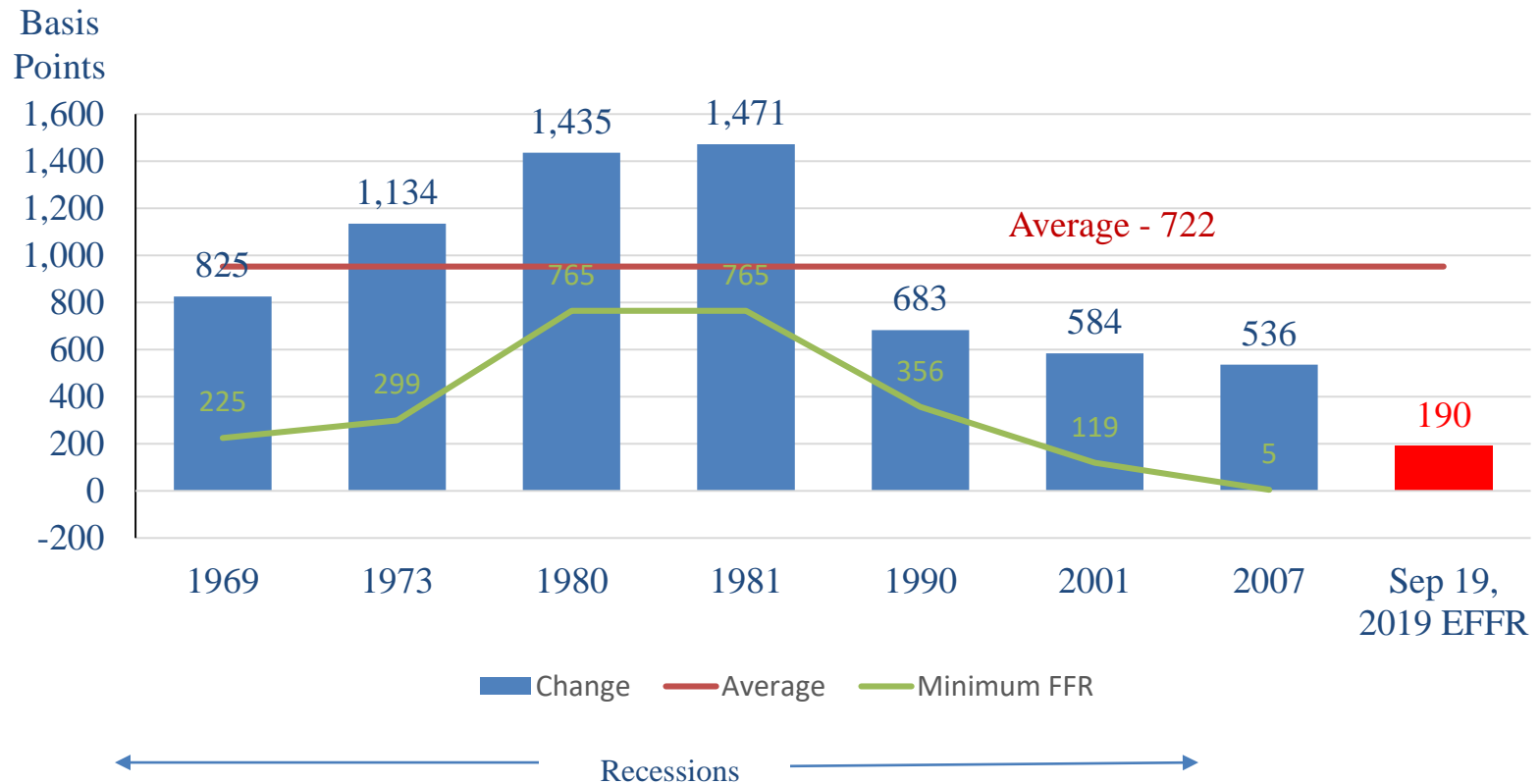
10 Year – 3Month Treasury Model



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

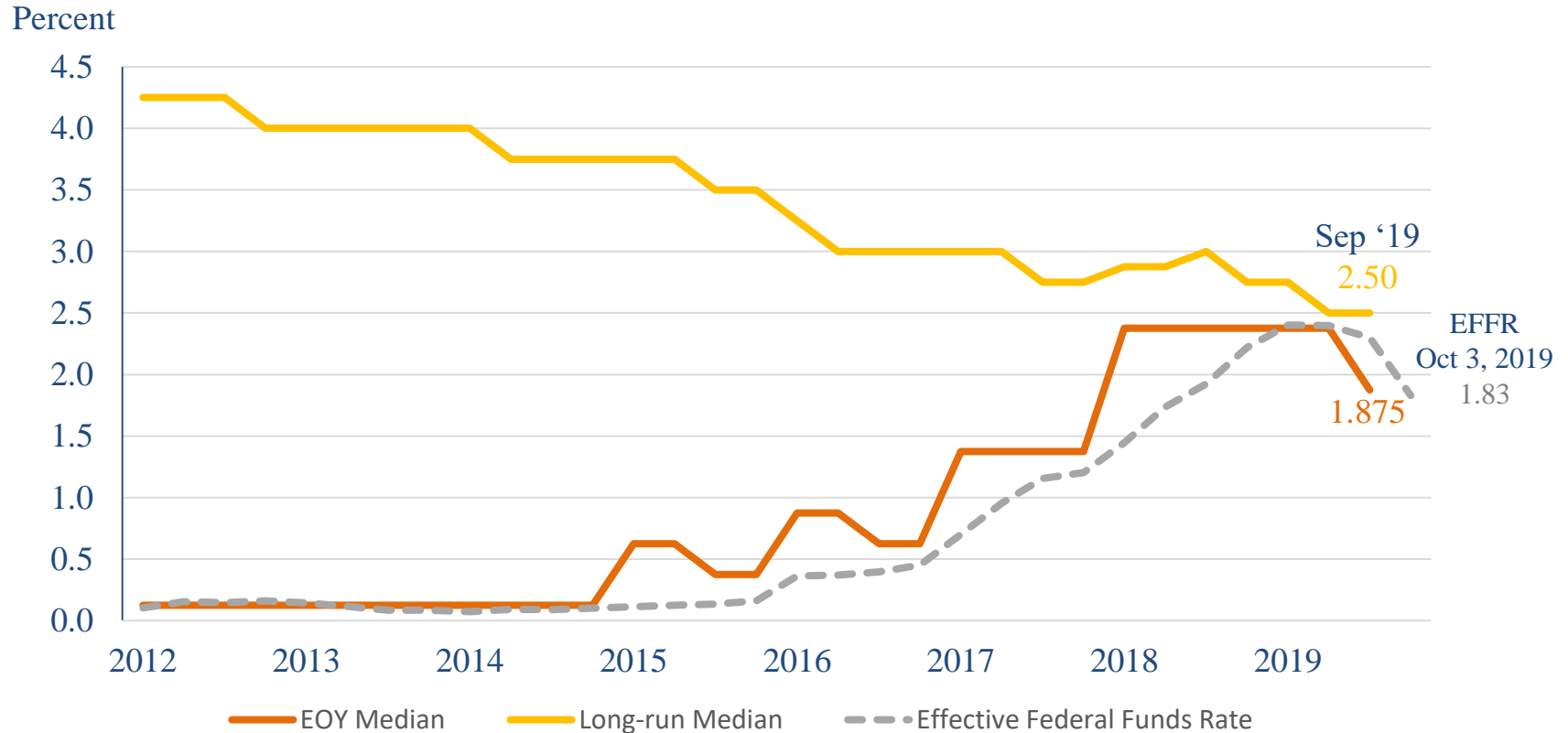


Note: Change calculated as (maximum – minimum) daily effective federal Funds Rate 12 months prior to the start of economic contraction to 12 month following the end of the NBER defined recessions.

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

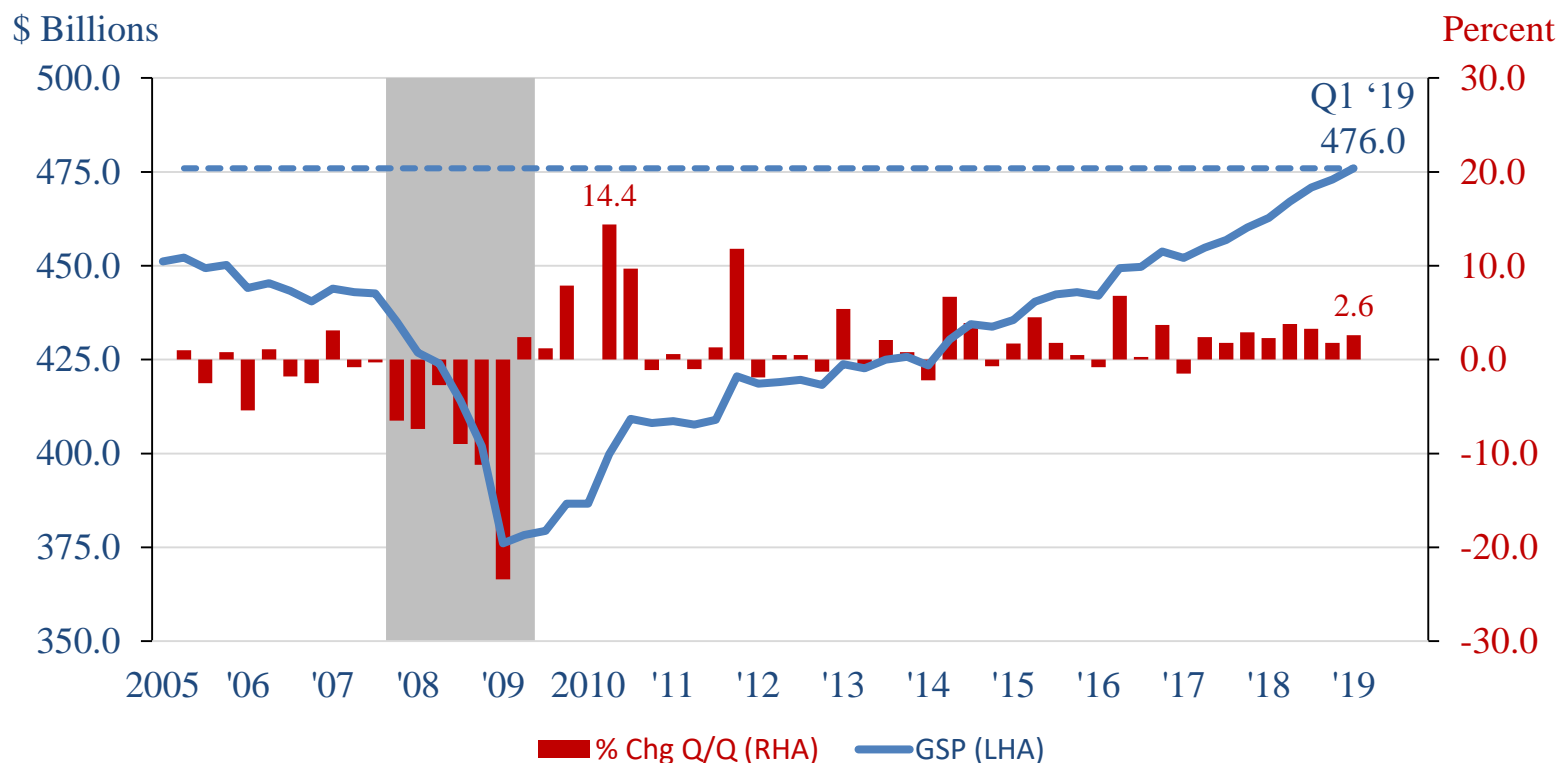


Source: Quarterly Economic Projections of Federal Reserve Board members and the Federal Reserve Board of Governors.

Michigan & Detroit

Michigan Gross State Product

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

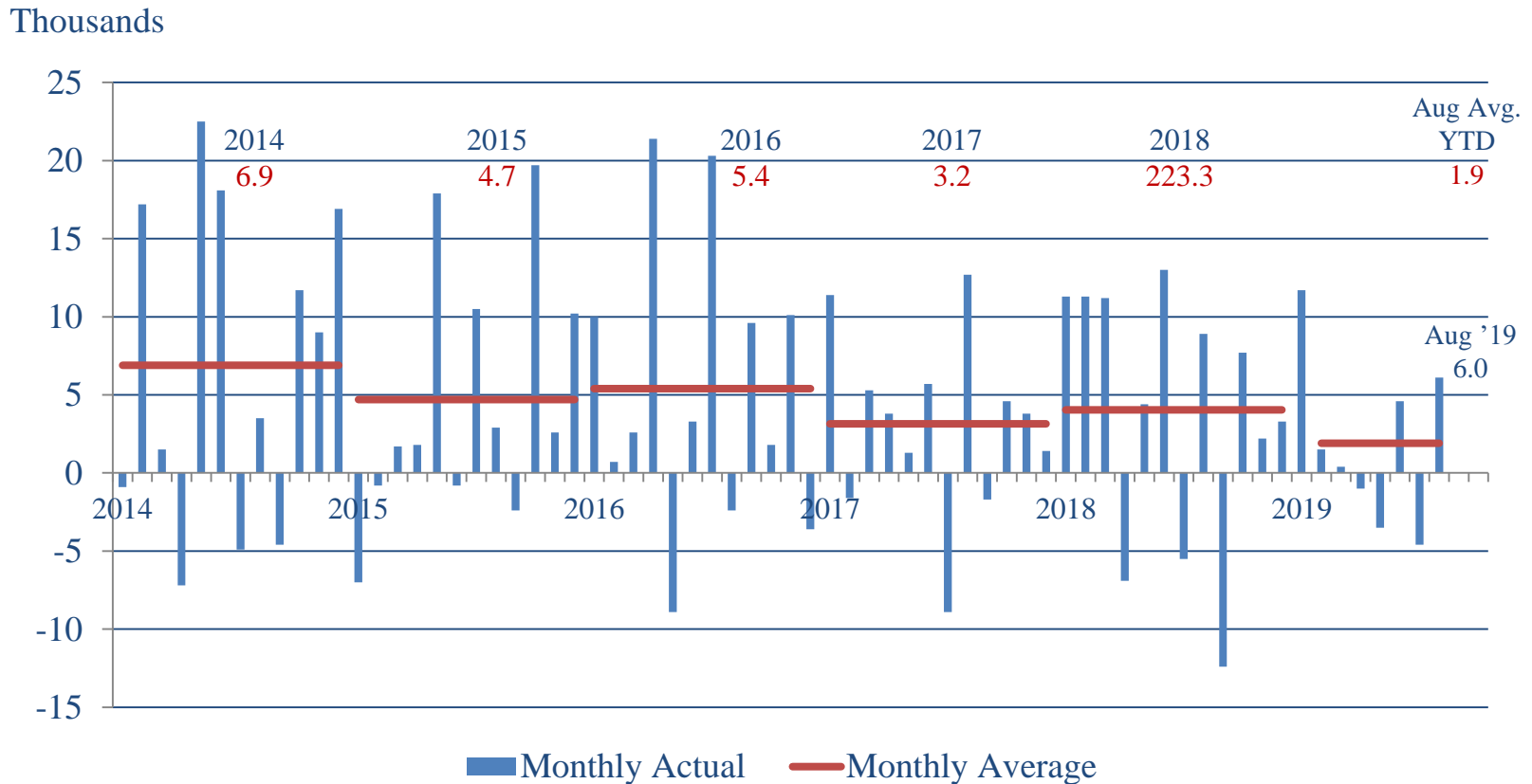


Note: The top five sectors in 2018 include Manufacturing (19.3%), Financial Services (16.2%), Professional Services (14.0%), Government (10.1%), and Education, Health Care / Social Assistance (9.4%).

Source: BEA and Haver Analytics.

Michigan Nonfarm Payrolls

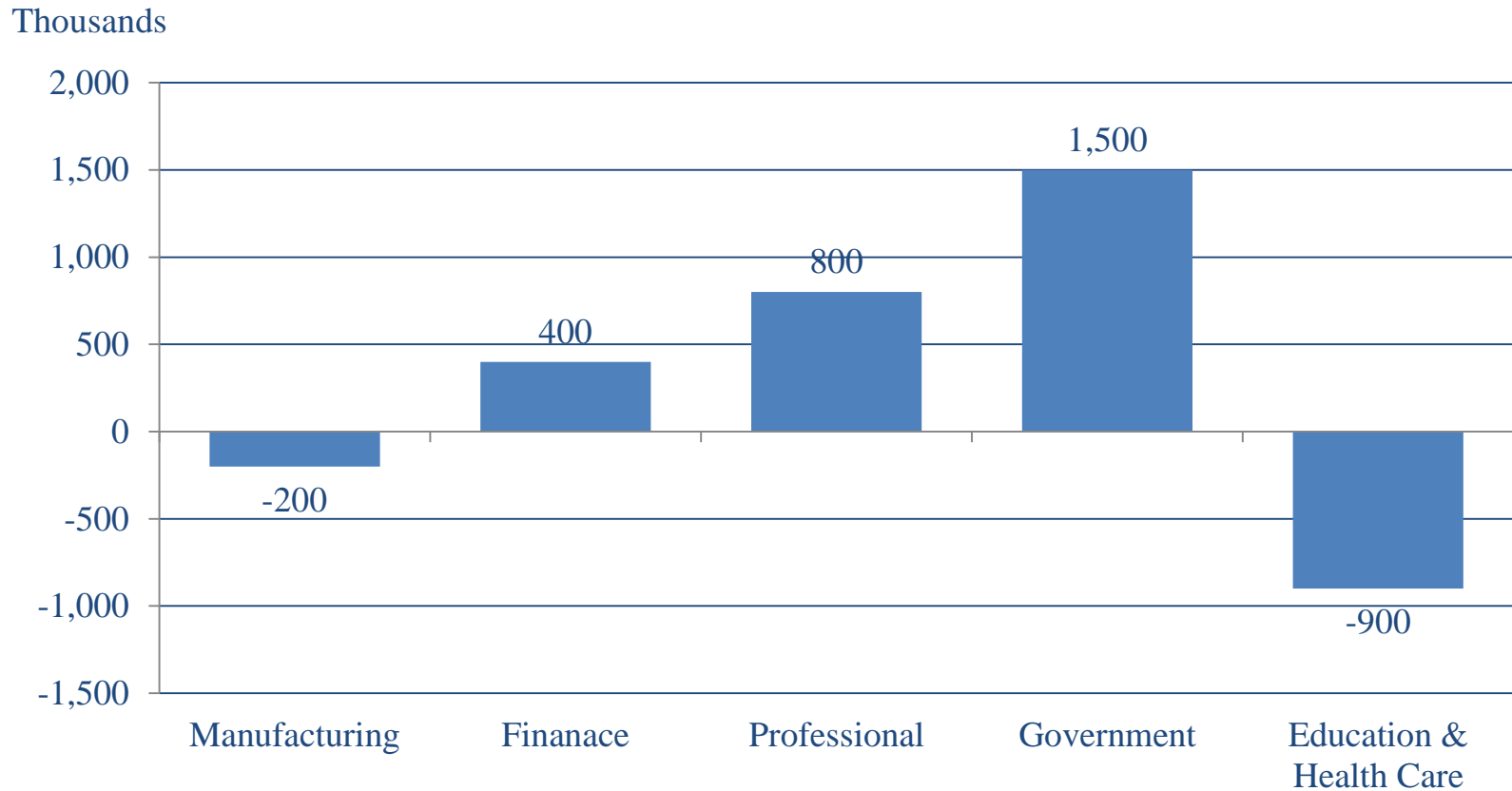
Monthly and Annual Average Job Change – In Thousands



Source: U.S. Department of Labor: Bureau of Labor Statistics

Michigan Nonfarm Payrolls

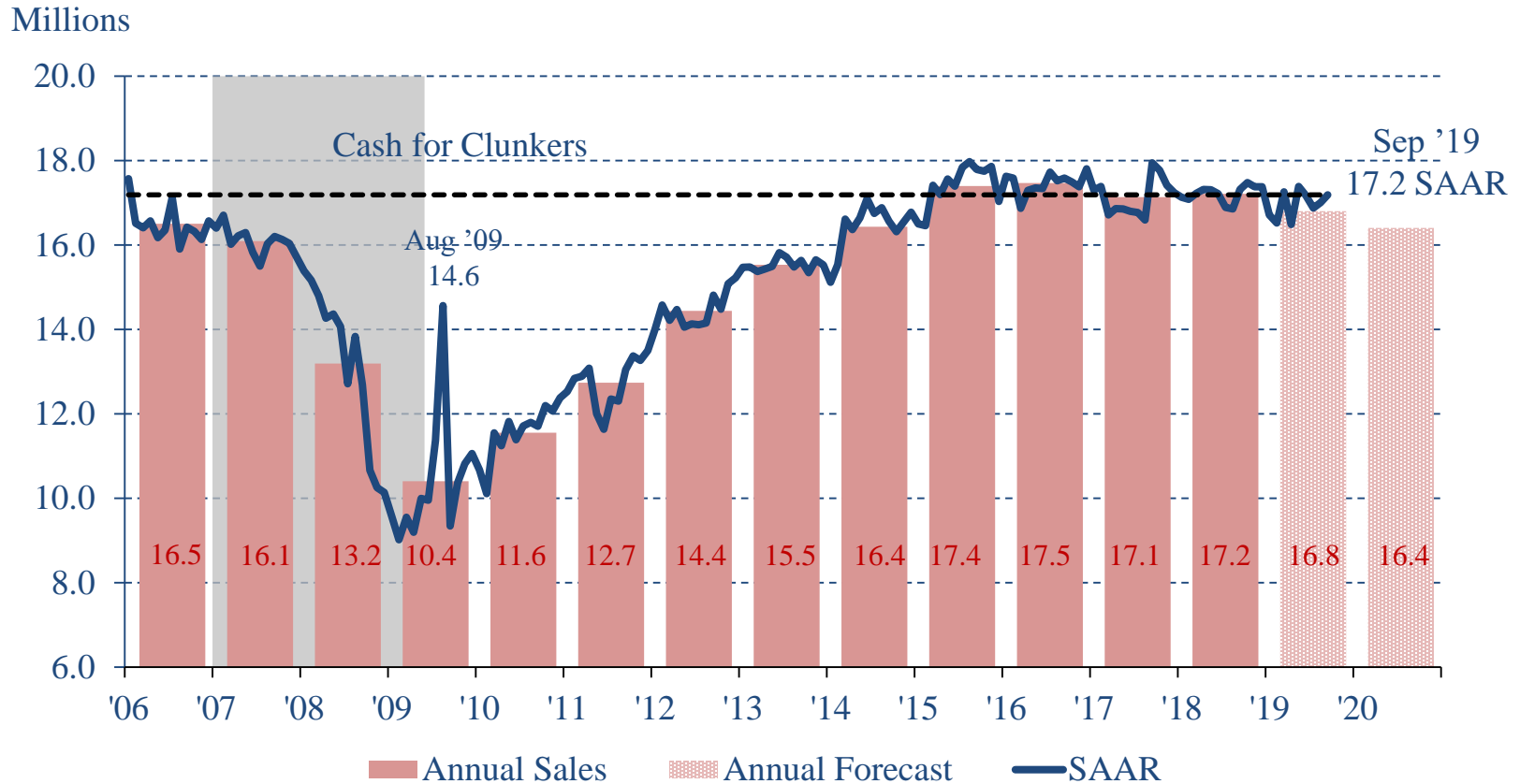
Select Sectors 2019 YTD Job Change



Source: U.S. Department of Labor: Bureau of Labor Statistics

U.S. Light Vehicle Sales

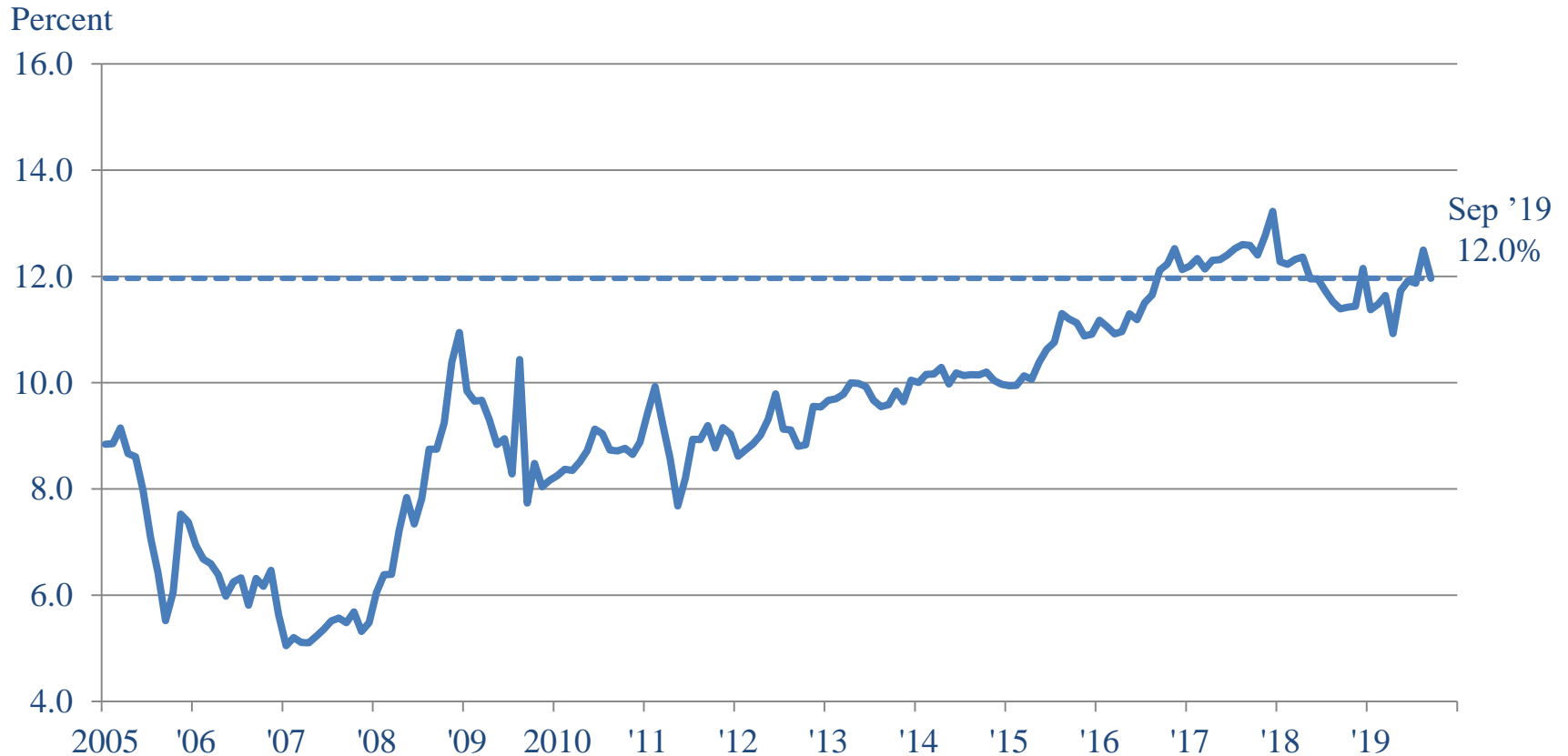
S.A.A.R – Millions of Units



Source: WardsAuto Intelligence, BEA, and Blue Chip Consensus Forecast

Light Vehicle Incentives

In Percent of Transaction Price - SA



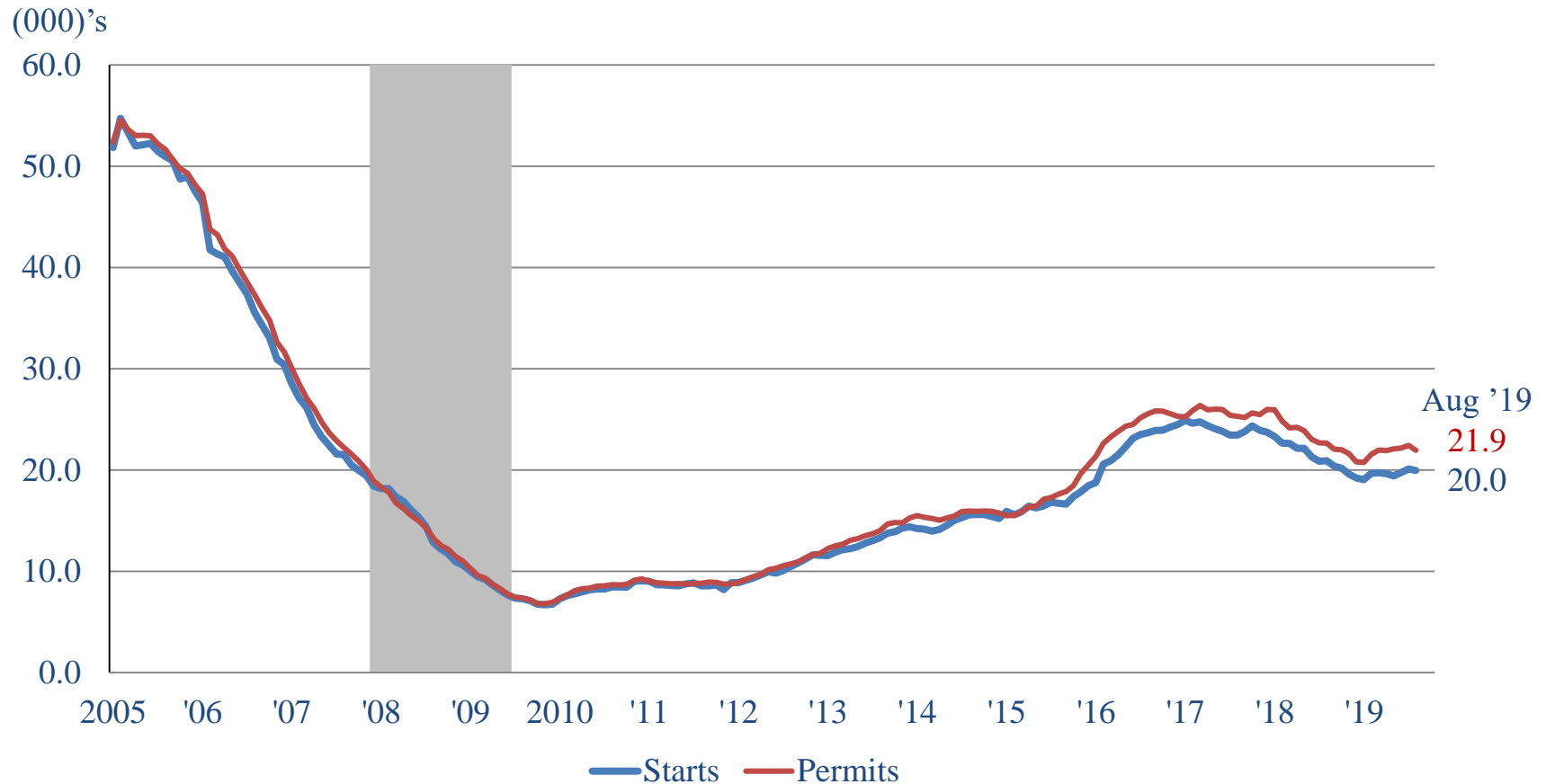
Source: U.S. Census Bureau

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

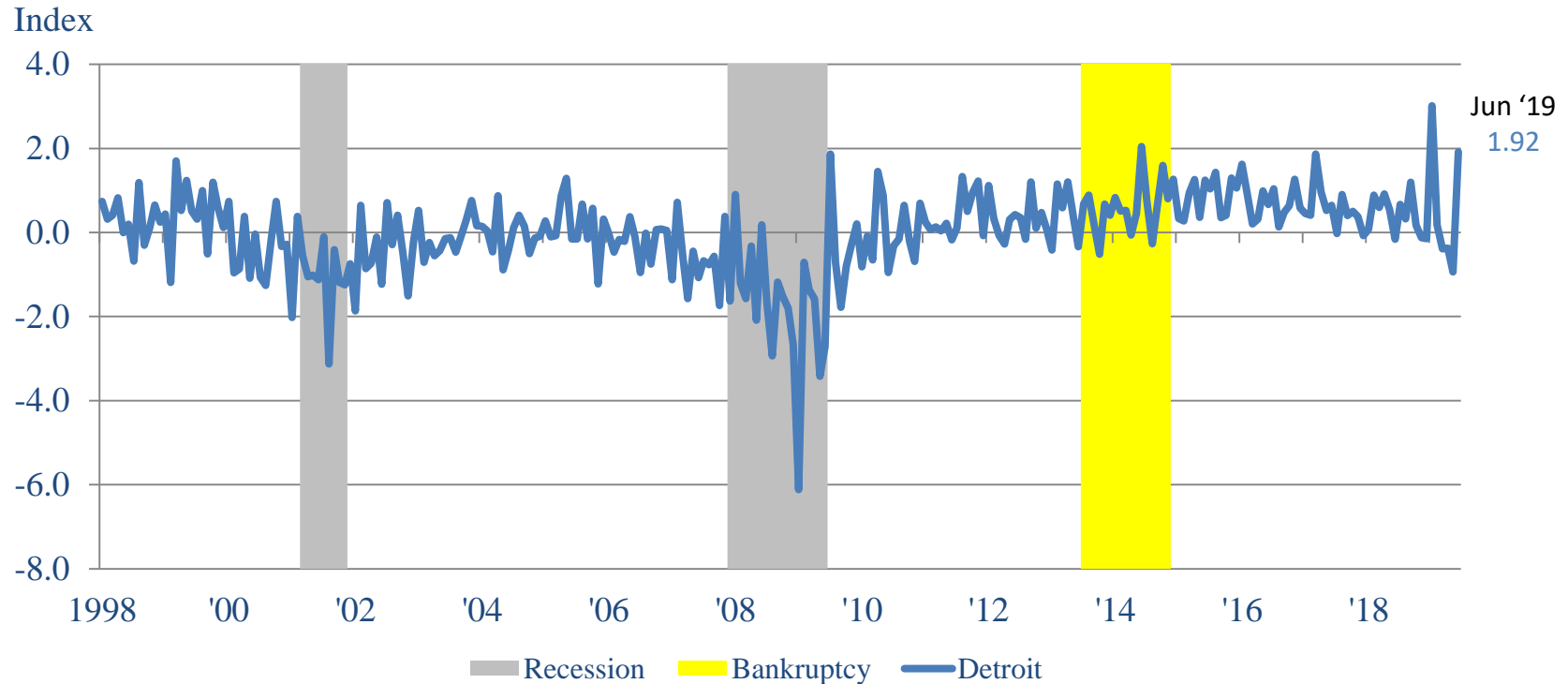
October 16, 2019

40

Federal Reserve Bank of
Chicago

Detroit Economic Activity Index

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

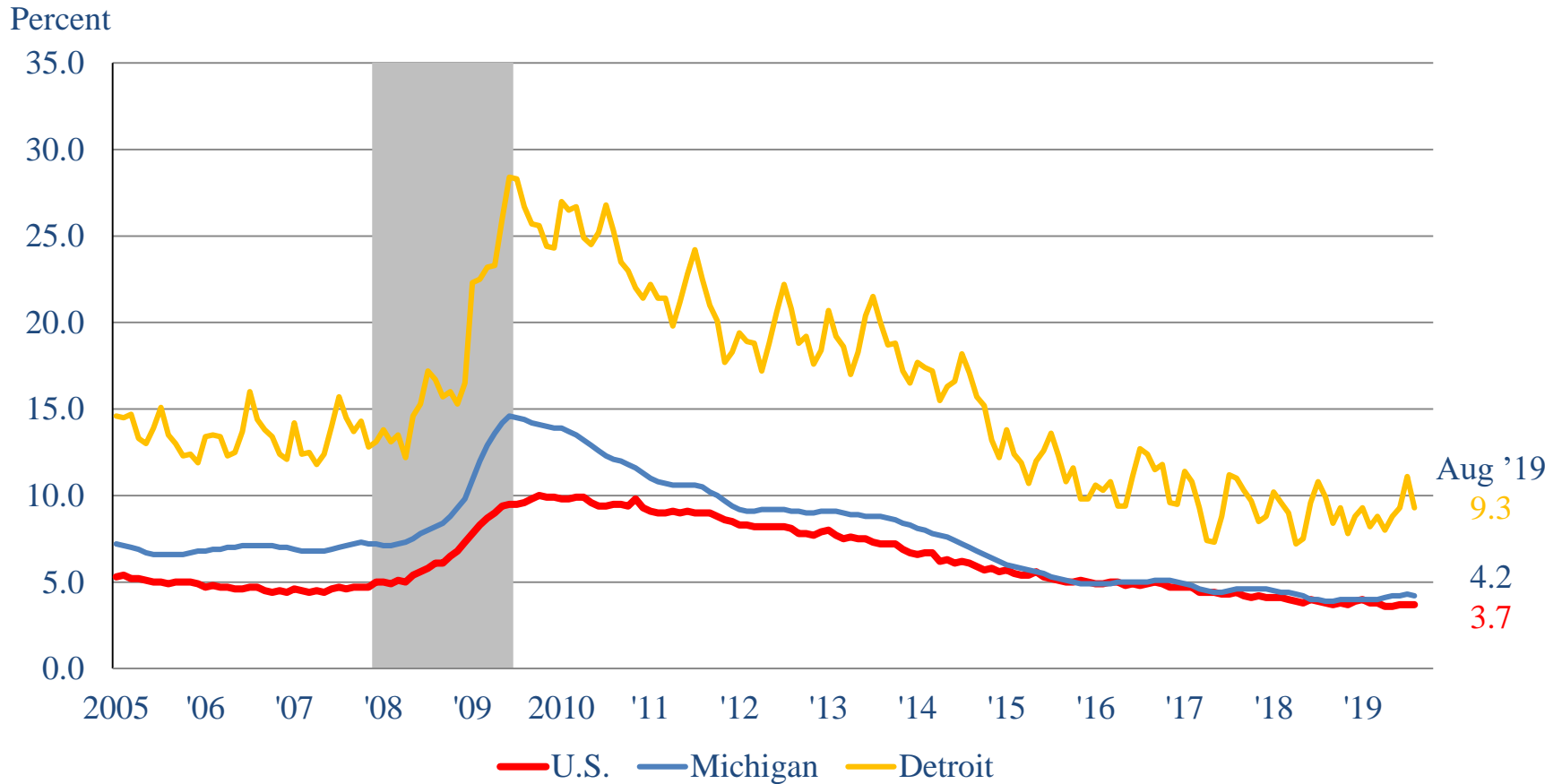


Note: The DEAI is a mixed-frequency dynamic factor model of 23 Detroit-specific data series capturing income, employment, residential and commercial real estate activity, electric customer counts, tax revenues, and port activity.

Source: Federal Reserve Bank of Chicago

Unemployment Rate

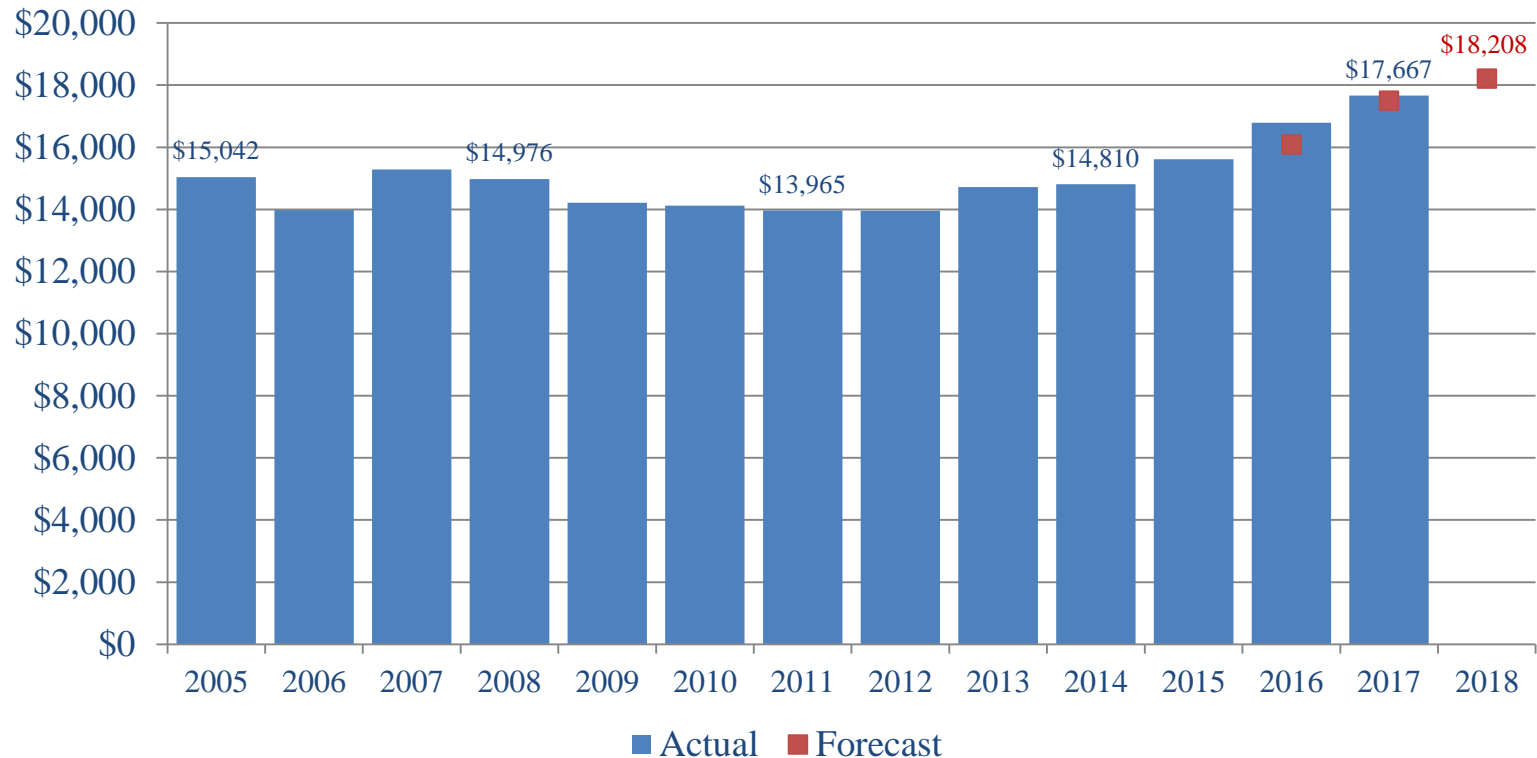
Percent of Labor Force



Sources: U.S. Department of Labor.

Detroit Real Per Capita Income

In 2009 Dollars

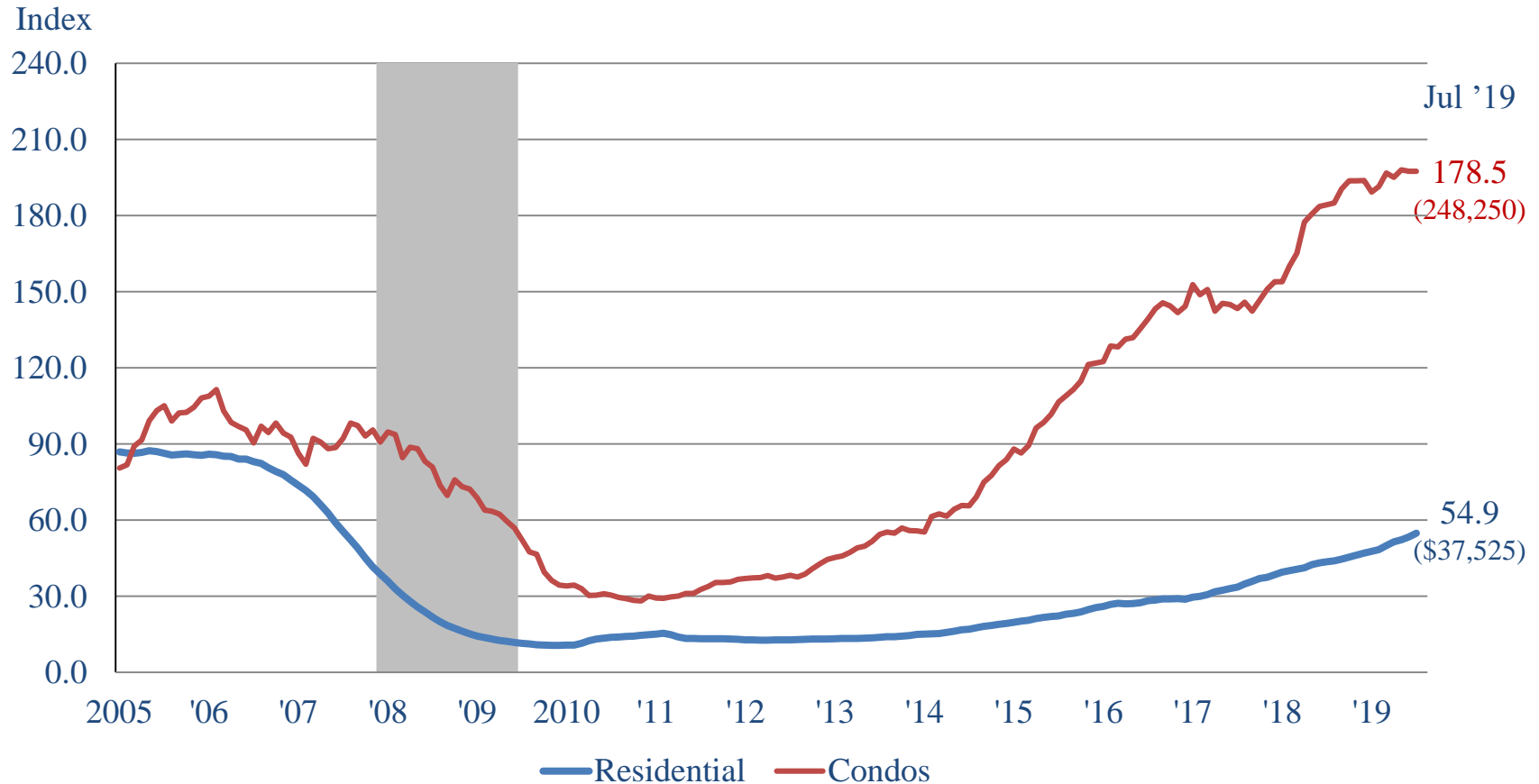


Note: Real Per Capita Income for 2015: U.S. - \$49,628 and Michigan – \$43,9646.

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!