

# U.S. Economic Update

## Construction Financial Management Association

**Federal Reserve Bank of Chicago**  
May 25, 2017

**Paul Traub**  
Senior Business Economist



# Main Economic Indicators

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## Year-over-year Comparison

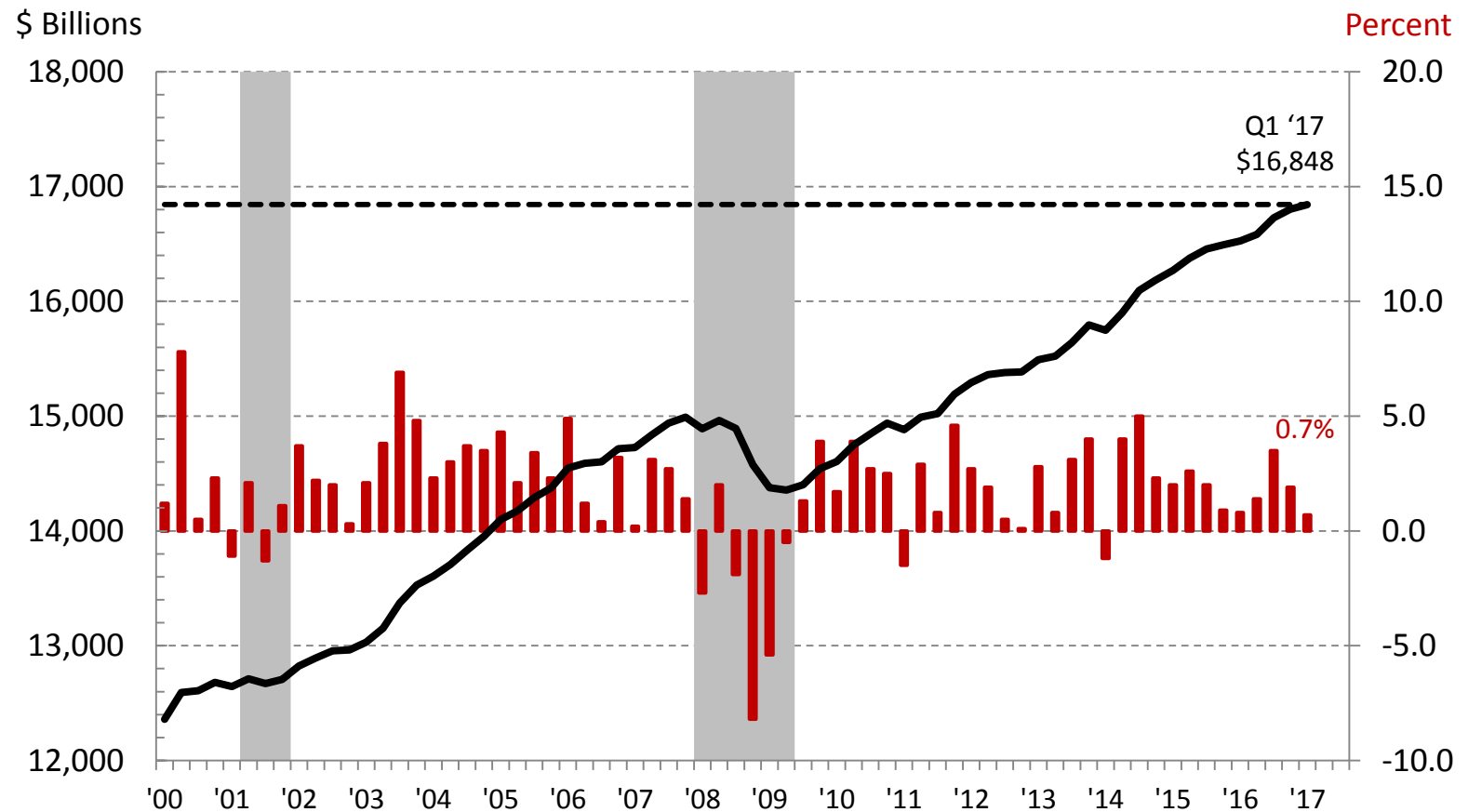
	<u>2015</u>	<u>2016</u>	<u>2017</u>
GDP – Annual Growth Rate <sup>1</sup>	1.9%	2.0%	1.9
Unemployment Rate <sup>2</sup>	5.3%	4.9%	4.7%
Participation Rate <sup>2</sup>	62.7%	62.8%	63.0%
Nonfarm Job Growth <sup>3</sup>	226.1	186.7	175.7
PCE Core Inflation Yr. / Yr. <sup>4</sup>	1.4%	1.7%	1.7%

1. 2015 & 2016 - Q4/Q4, 2017 – Q1 '16 / Q1 '17
2. Annual Average & March 2017 YTD
3. Average Monthly Job Growth in Thousands- SA, March 2017 YTD
4. Annual Average Percent Change Year-over-year Core PCE & March 2017 YTD

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

# U.S. Real GDP

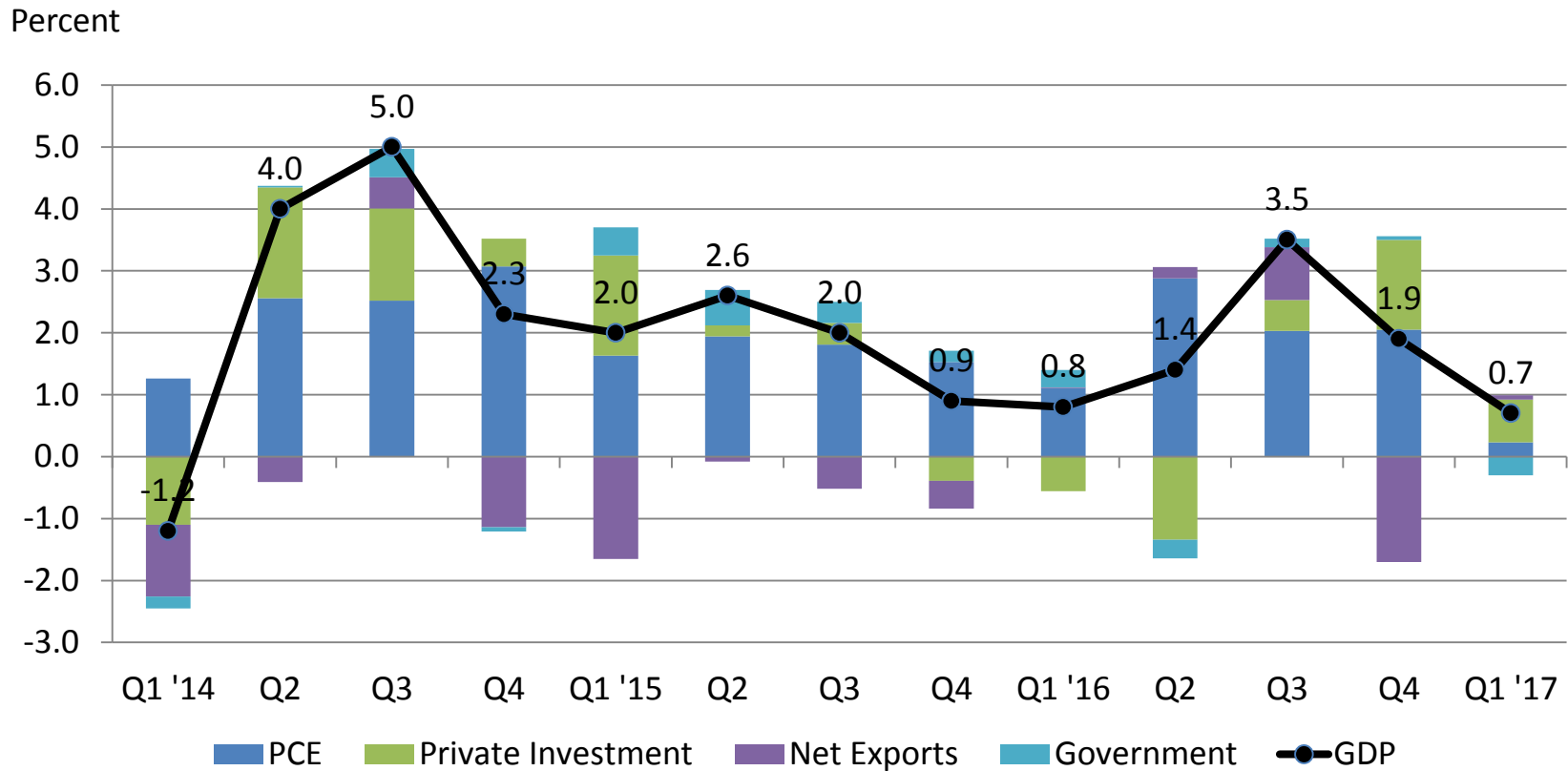
Billions Chained \$2009, % Change Q/Q at SAAR



Source: U.S. Bureau of Economic Analysis

# U.S. Real GDP

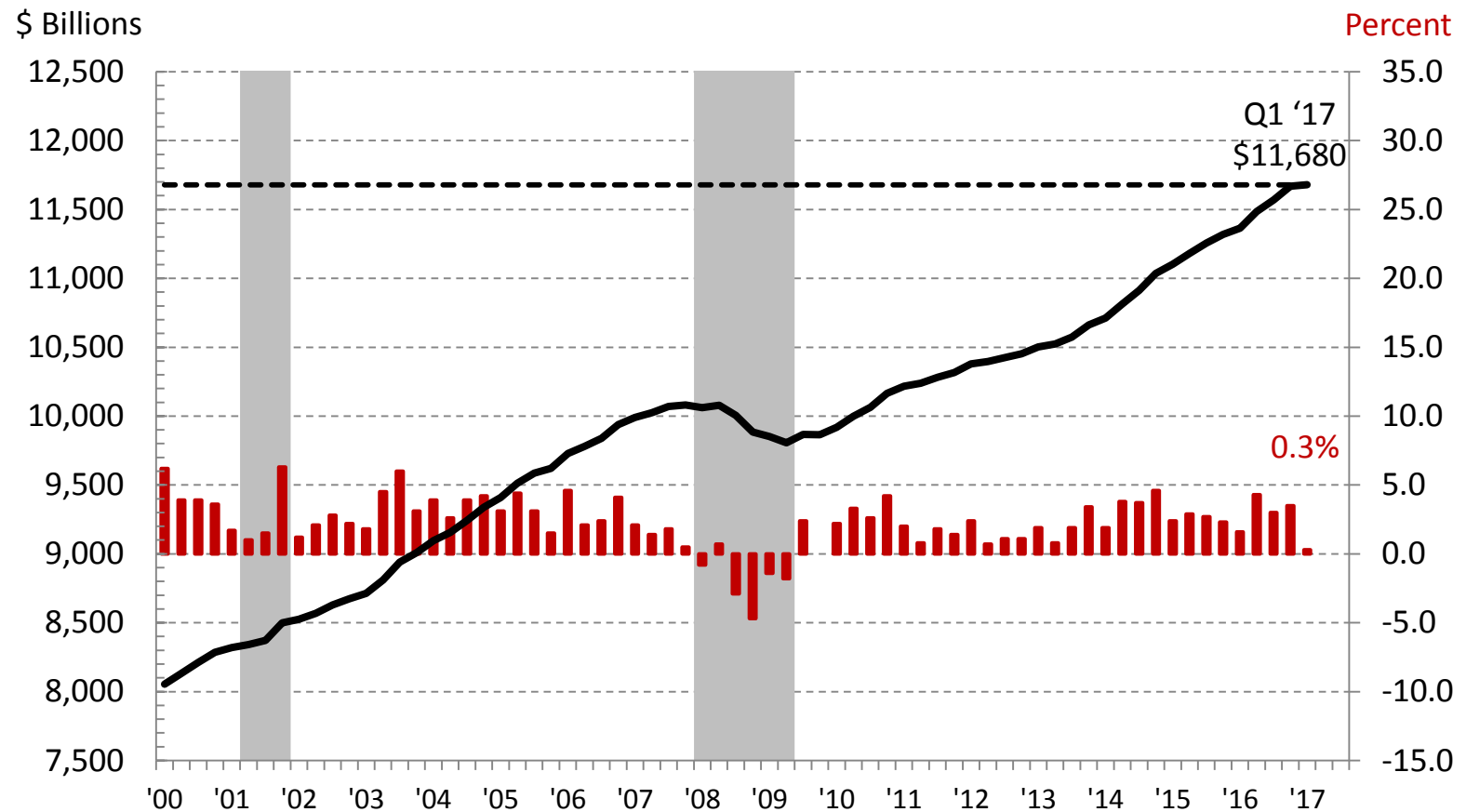
## GDP and Contribution to Percent Change, Q/Q at SAAR



Source: U.S. Bureau of Economic Analysis, September 2016 Blue Chip Economic Indicators.

# Real Personal Consumption Expenditures

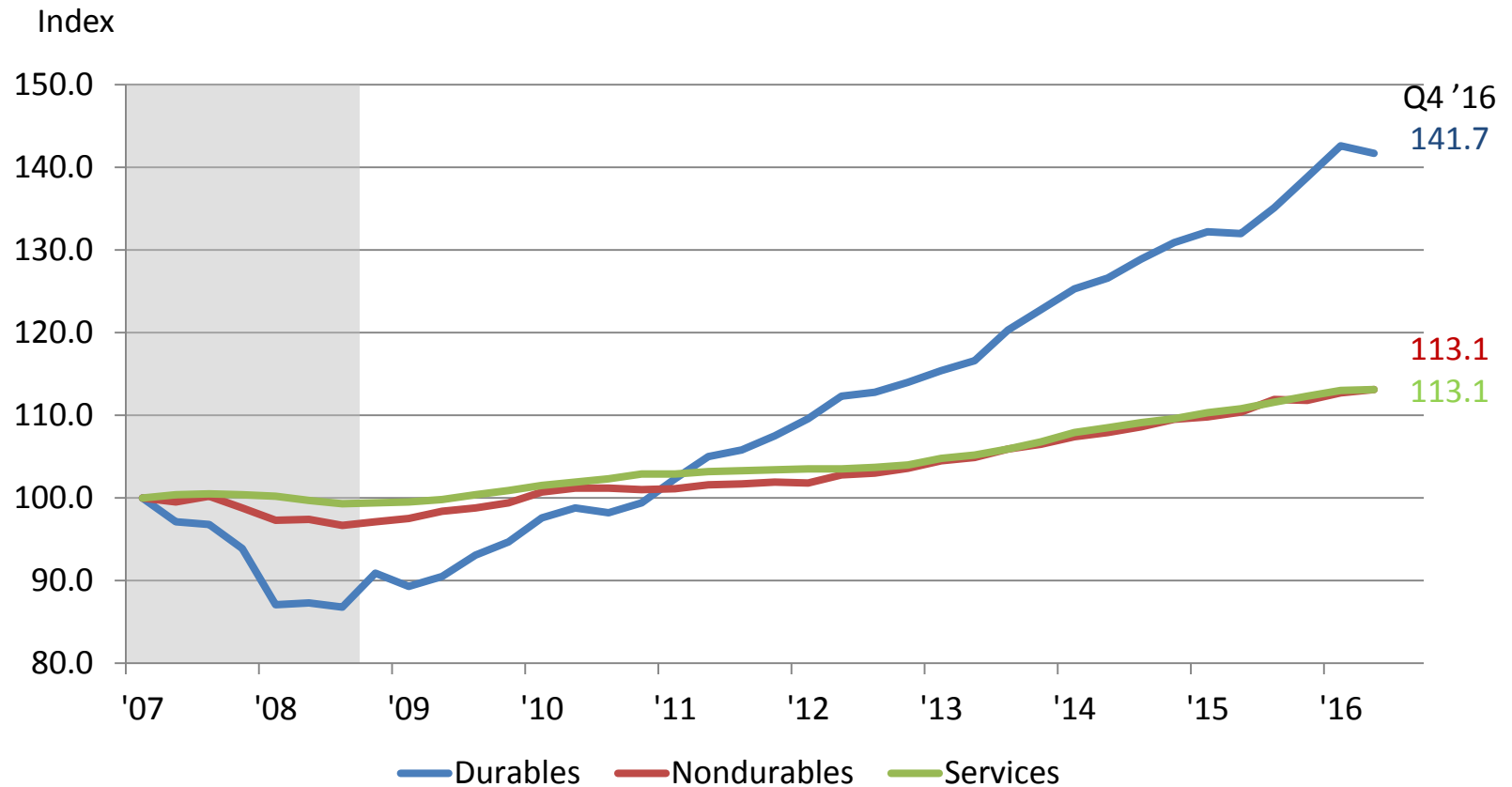
Billions Chained \$2009, % Change Q/Q at SAAR



Source: U.S. Bureau of Economic Analysis

# Real Personal Consumption Expenditures

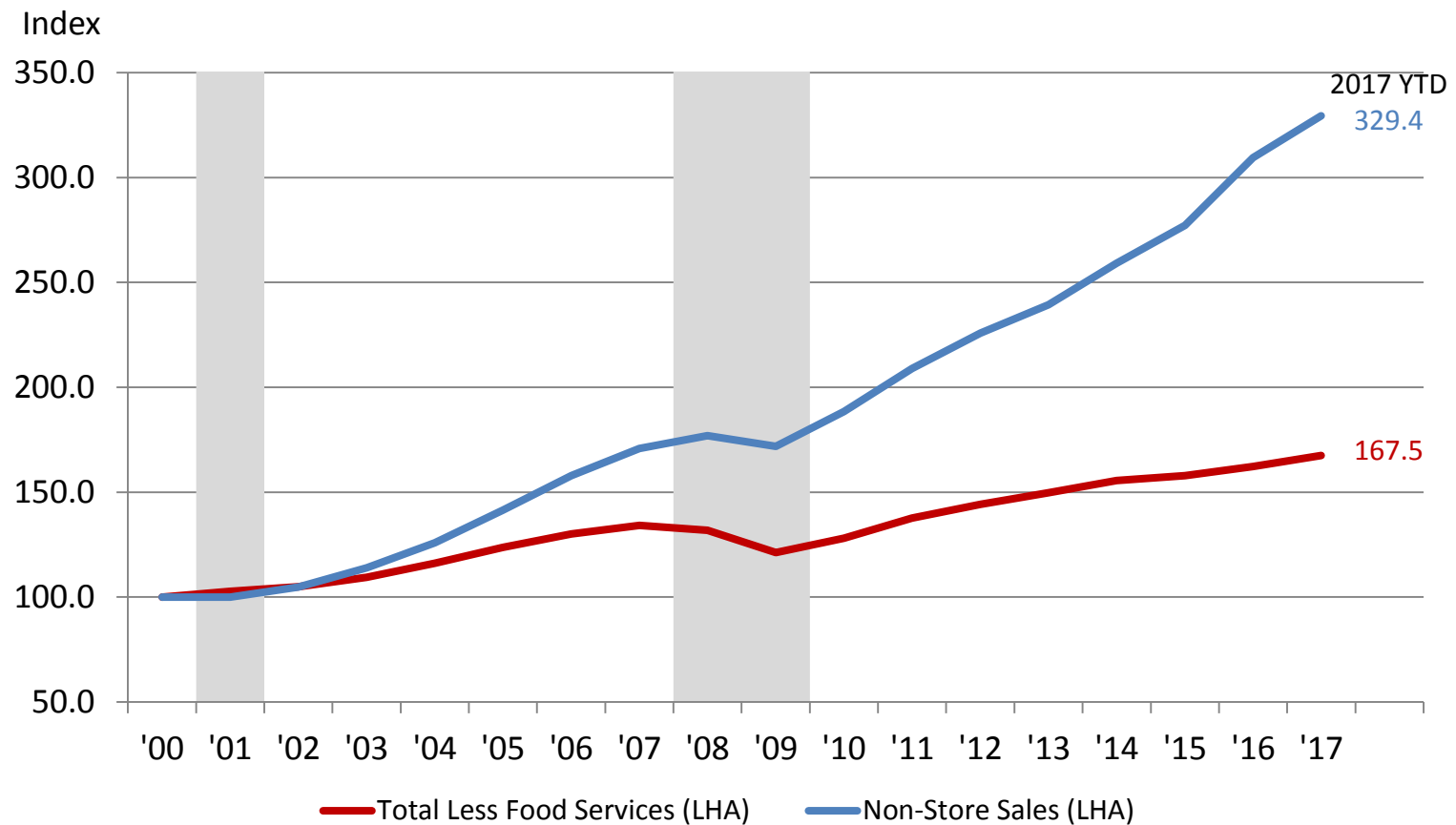
Index, Q4 2007 = 100



Source: Author's calculations using data from the BEA

# Retail Sales – Non-store Sales

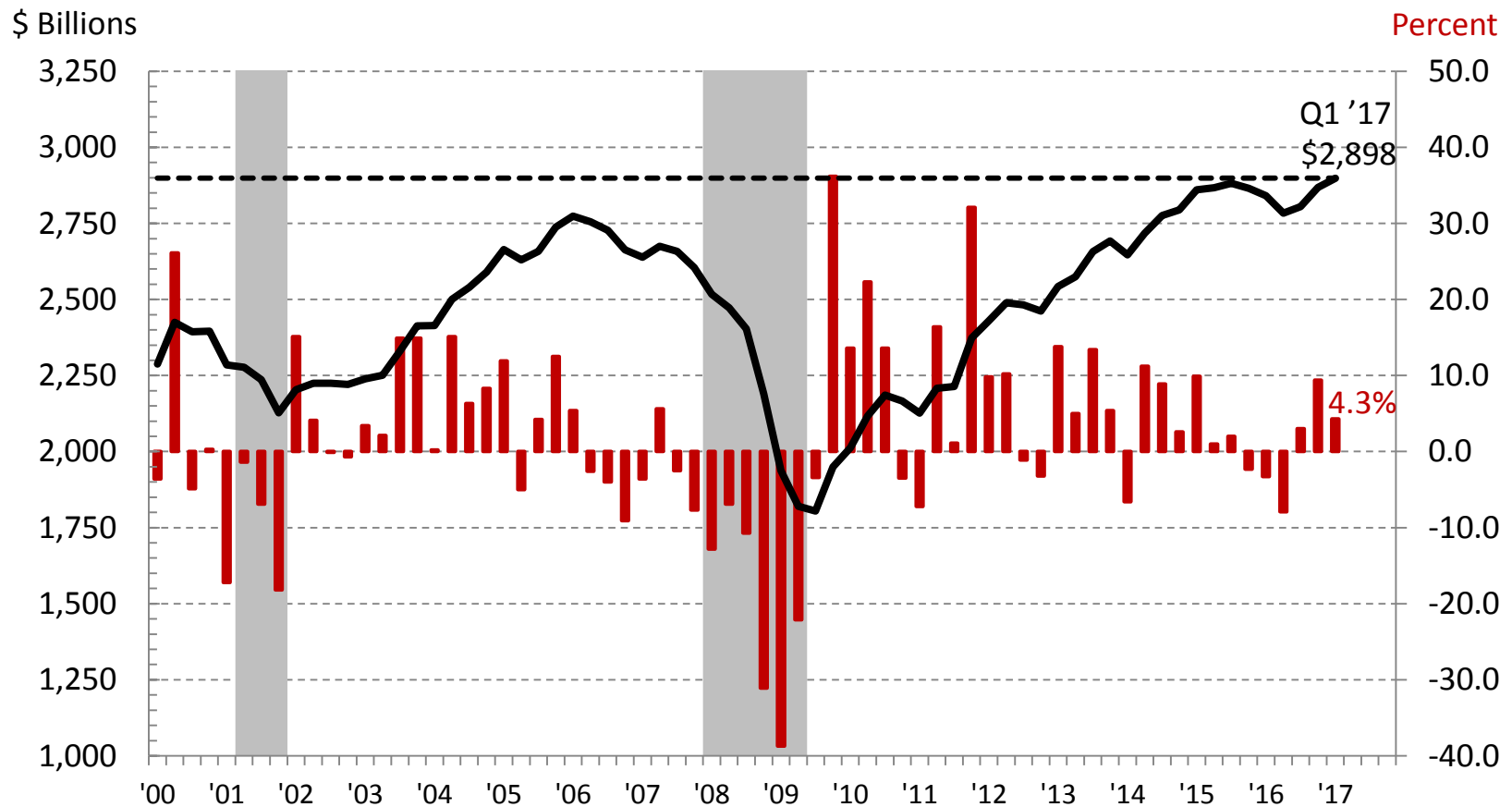
Index 2000 = 100 and Share of Growth



Source: Bureau of the Census

# Real Gross Private Domestic Investment

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

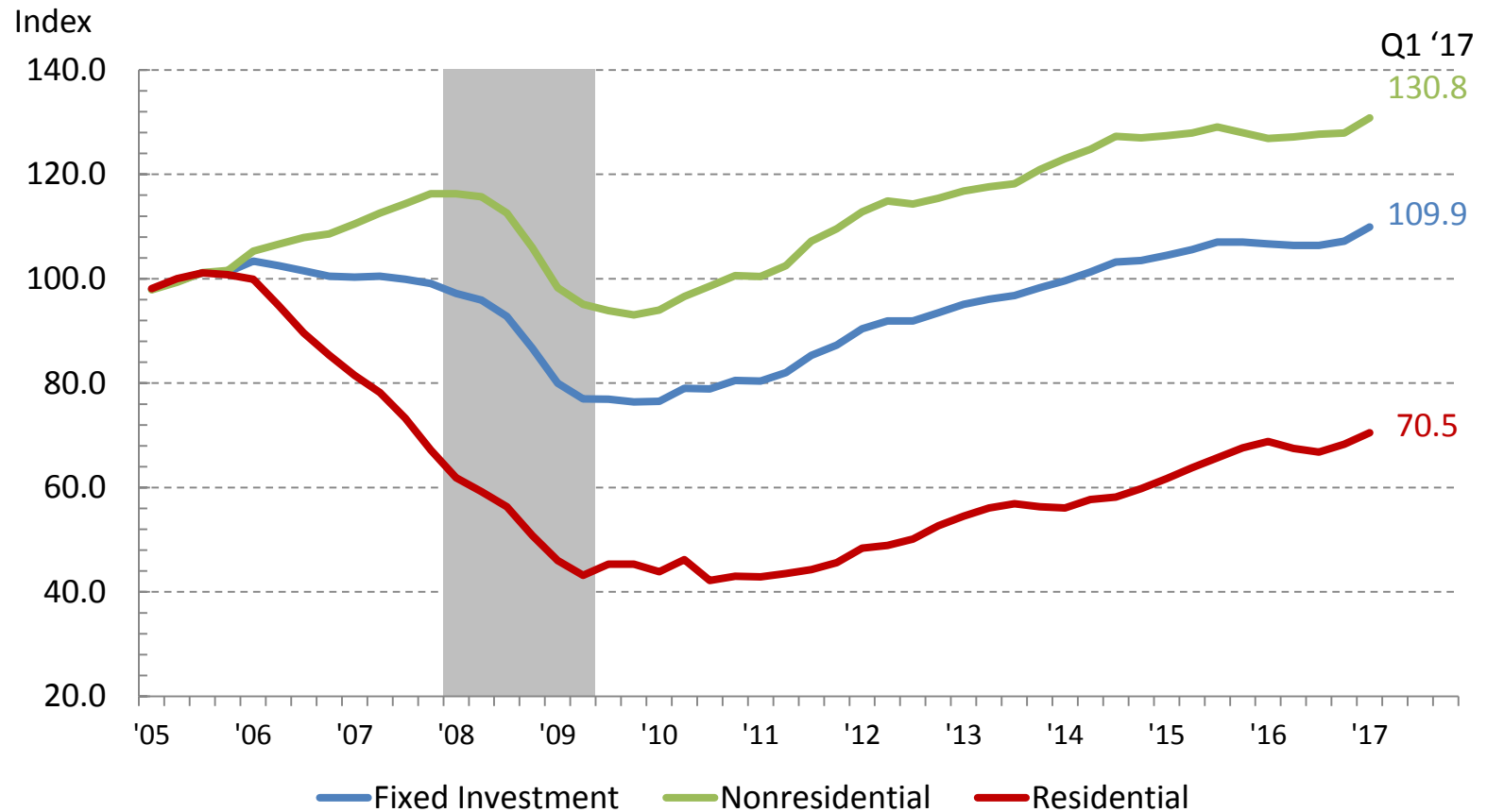


Source: U.S. Bureau of Economic Analysis



# Real Domestic Fixed Investment

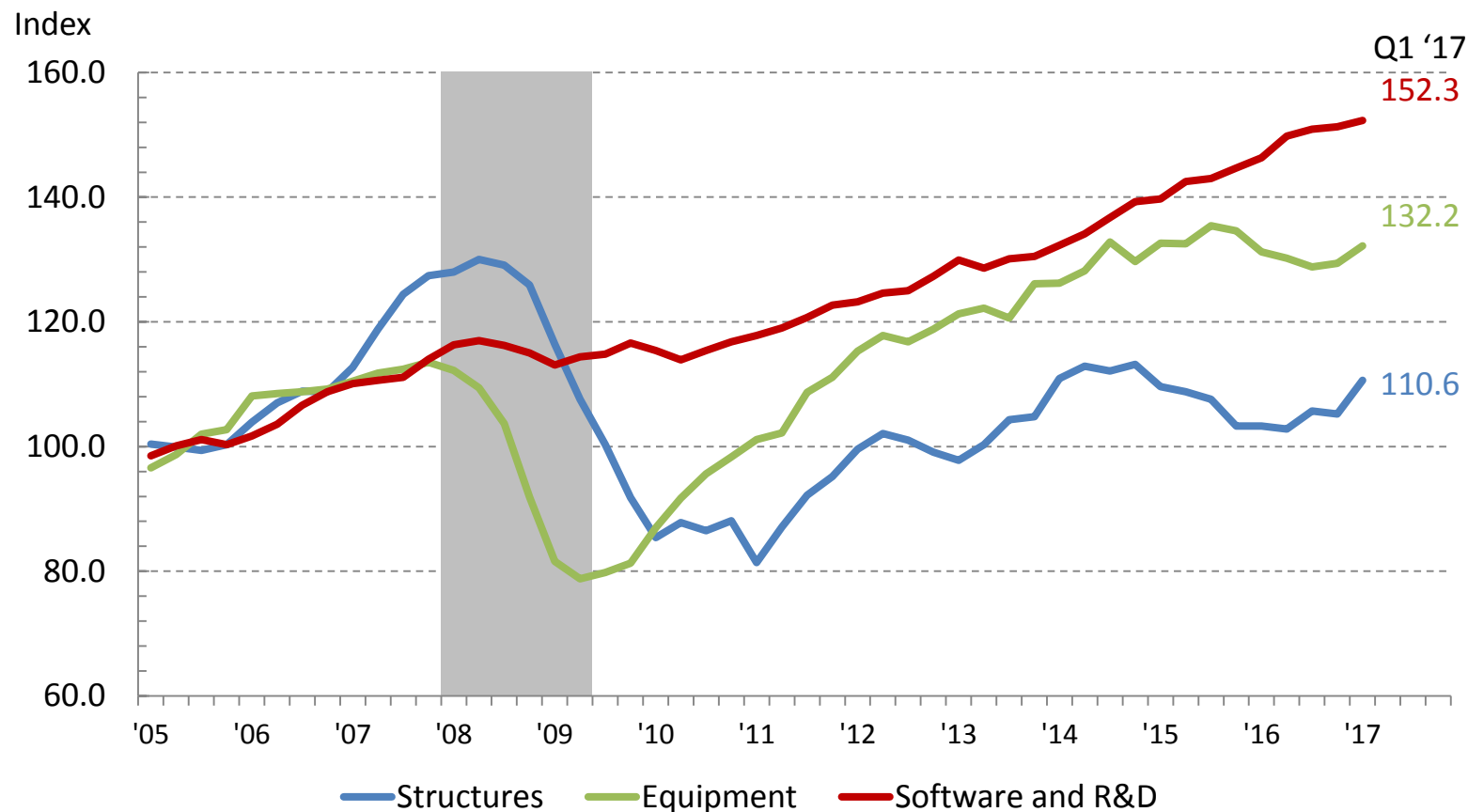
Billions Chained \$2009, Index – 2005 = 100



Source: U.S. Bureau of Economic Analysis

# Real Domestic Nonresidential Fixed Investment

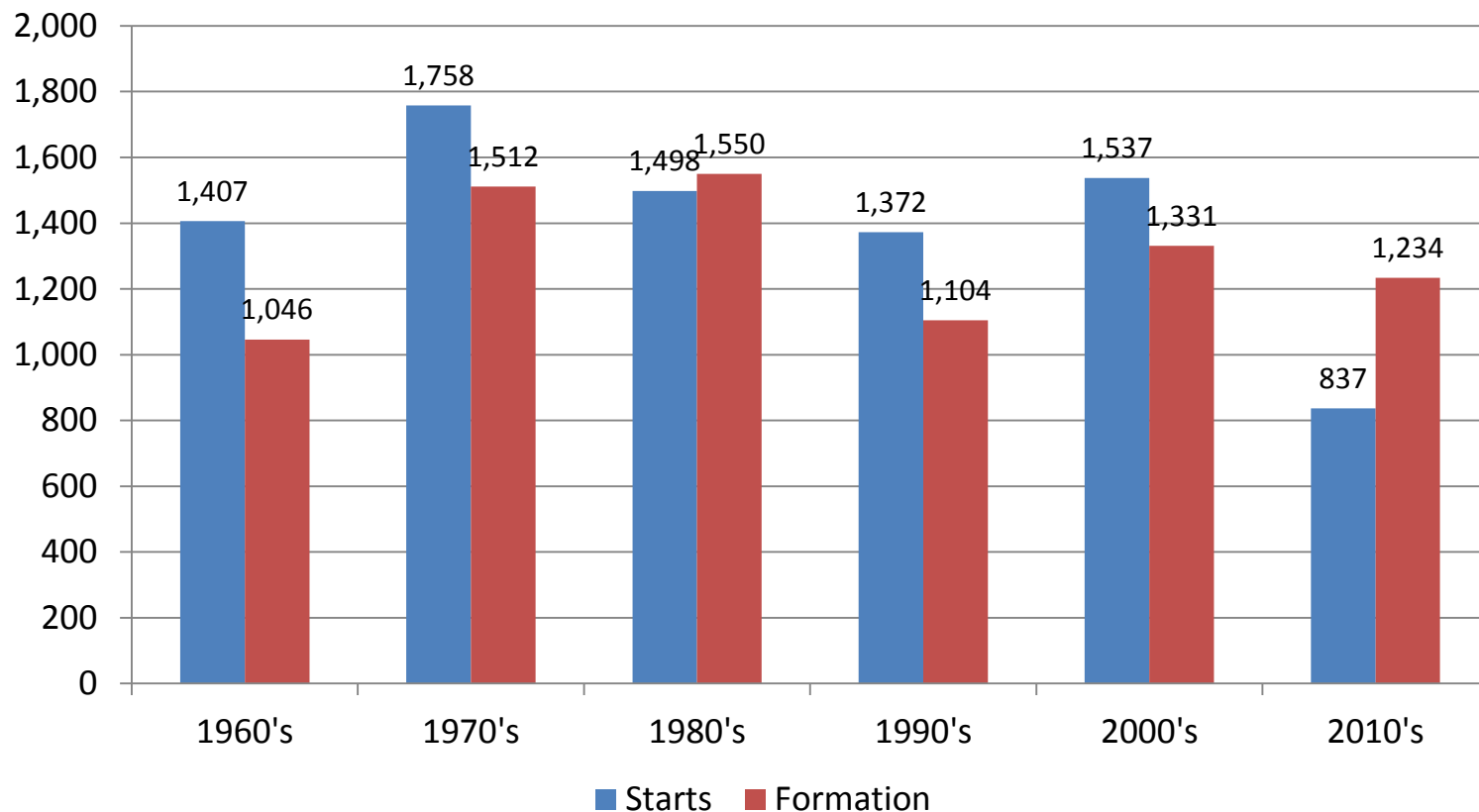
Billions Chained \$2009, Index – 2005 = 100



Source: U.S. Bureau of Economic Analysis

# U.S. Housing Starts & Household Formation

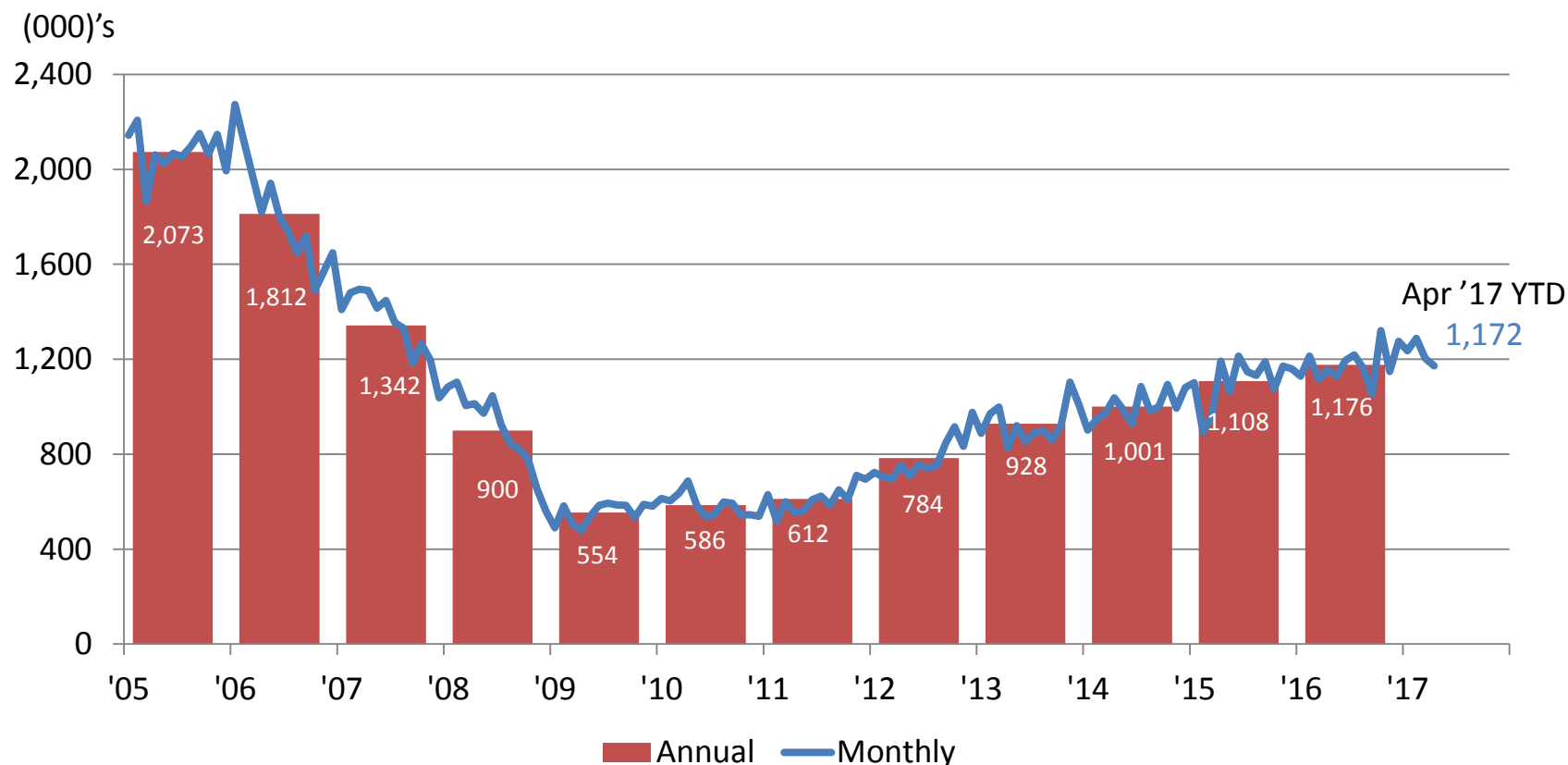
In Thousands of Units – Averages by Decade



Source: U.S. Census Bureau – Single Family Starts and Households by Age

# U.S. Housing Starts

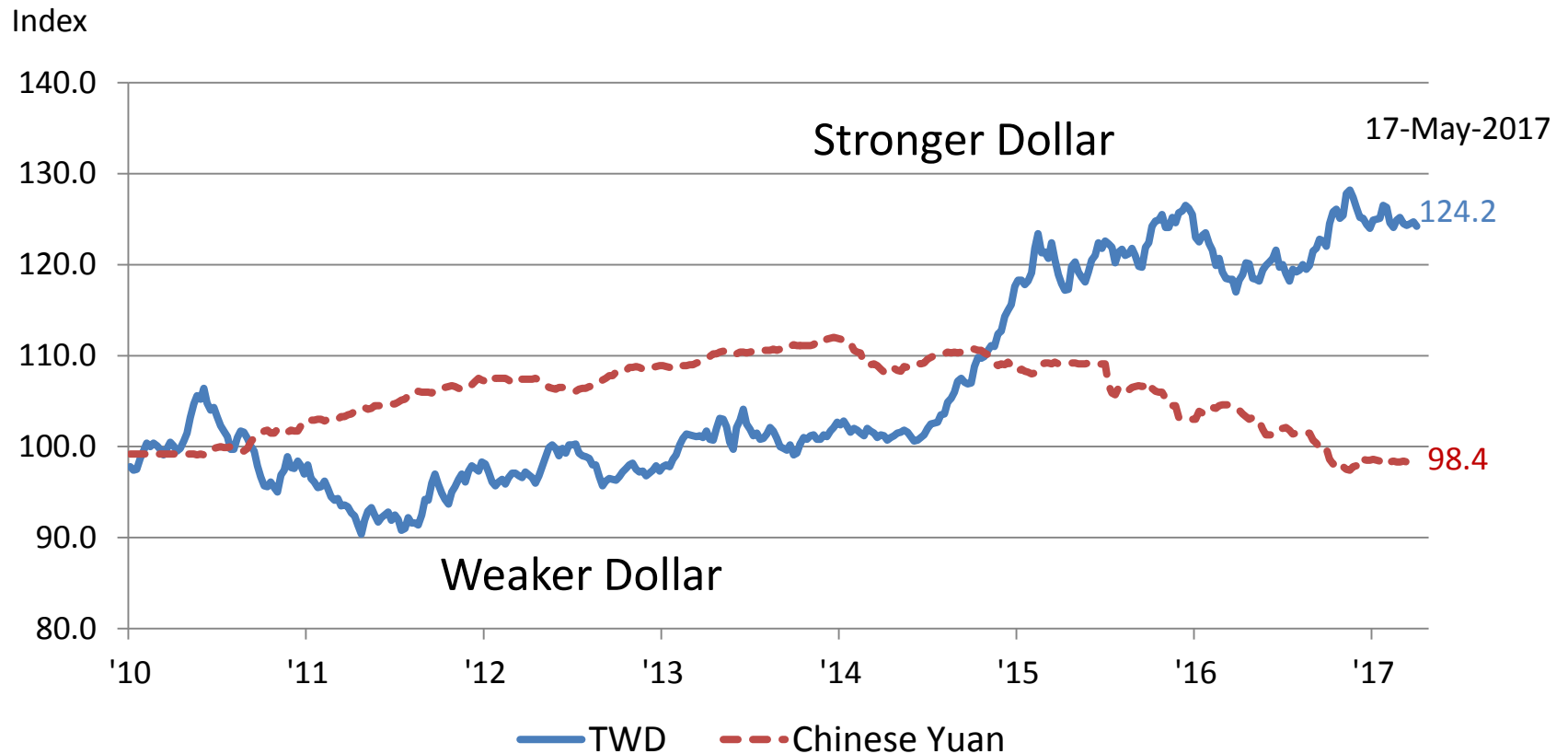
In Thousands of Units (SAAR) – Annual Average & Monthly Data



Source: U.S. Census Bureau

# The U.S. Dollar

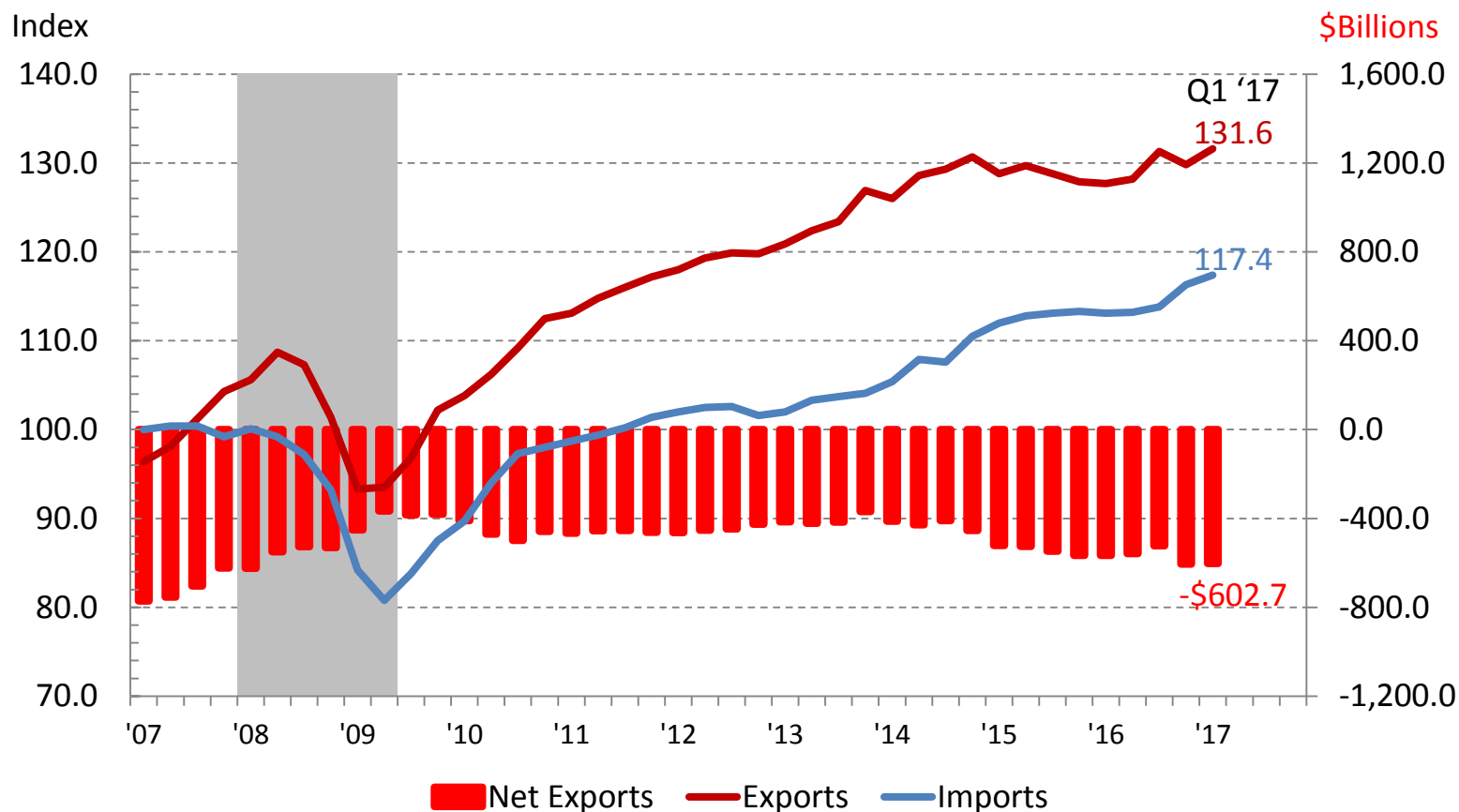
Trade Weighted Dollar and \$US to Chinese Yuan – Index 2010 = 100



Source: Federal Reserve Board and Haver Analytics

# Real Net Exports of Goods & Services

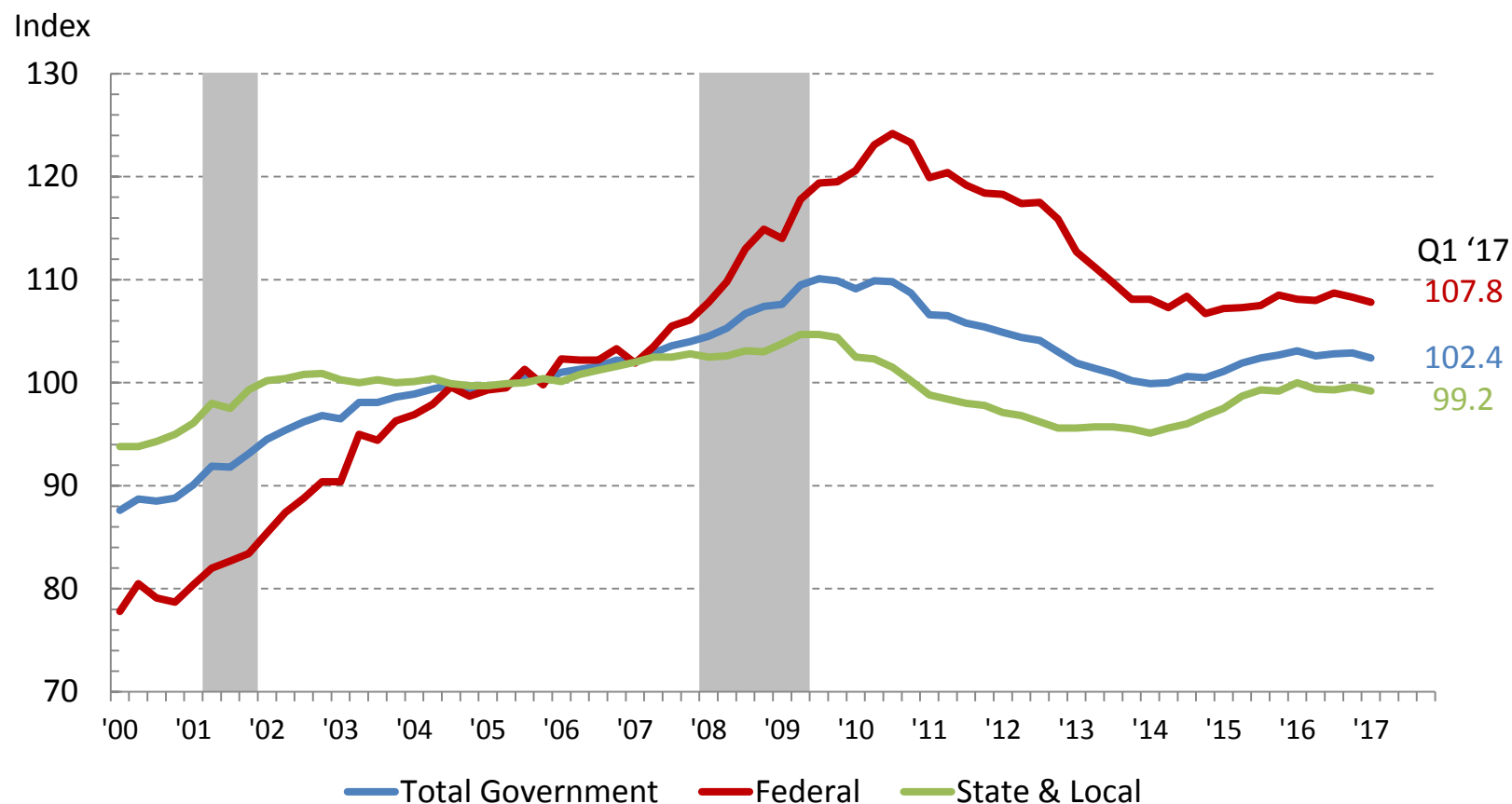
Billions Chained \$2009, Index – 2007 = 100



Source: U.S. Bureau of Economic Analysis

# Real Government Consumption & Investment

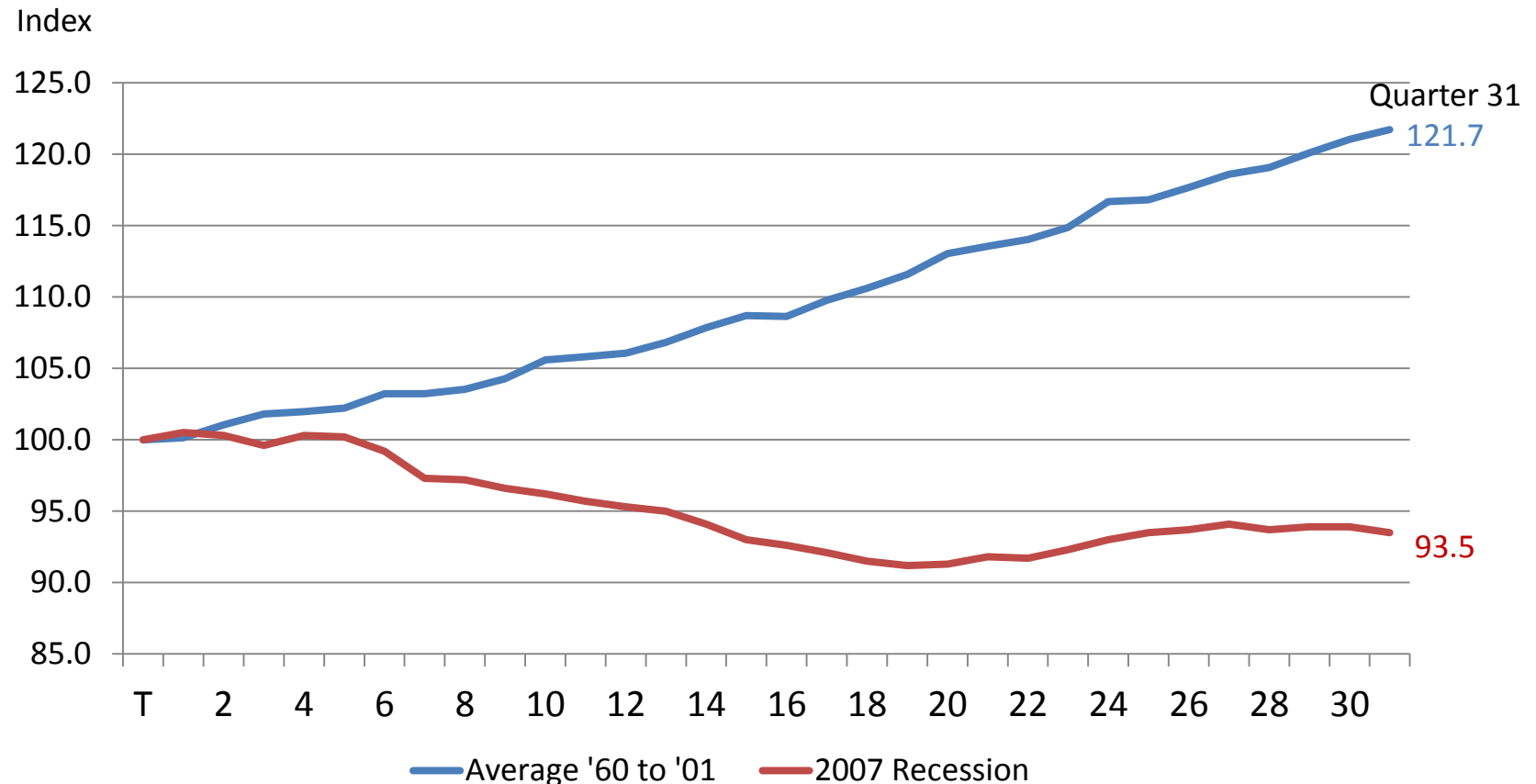
Billions Chained \$2009, Index – 2005 = 100



Source: U.S. Bureau of Economic Analysis

# Real Total Government Consumption & Investment

Average Post-Recession Recovery, Index – Recession Trough = 100

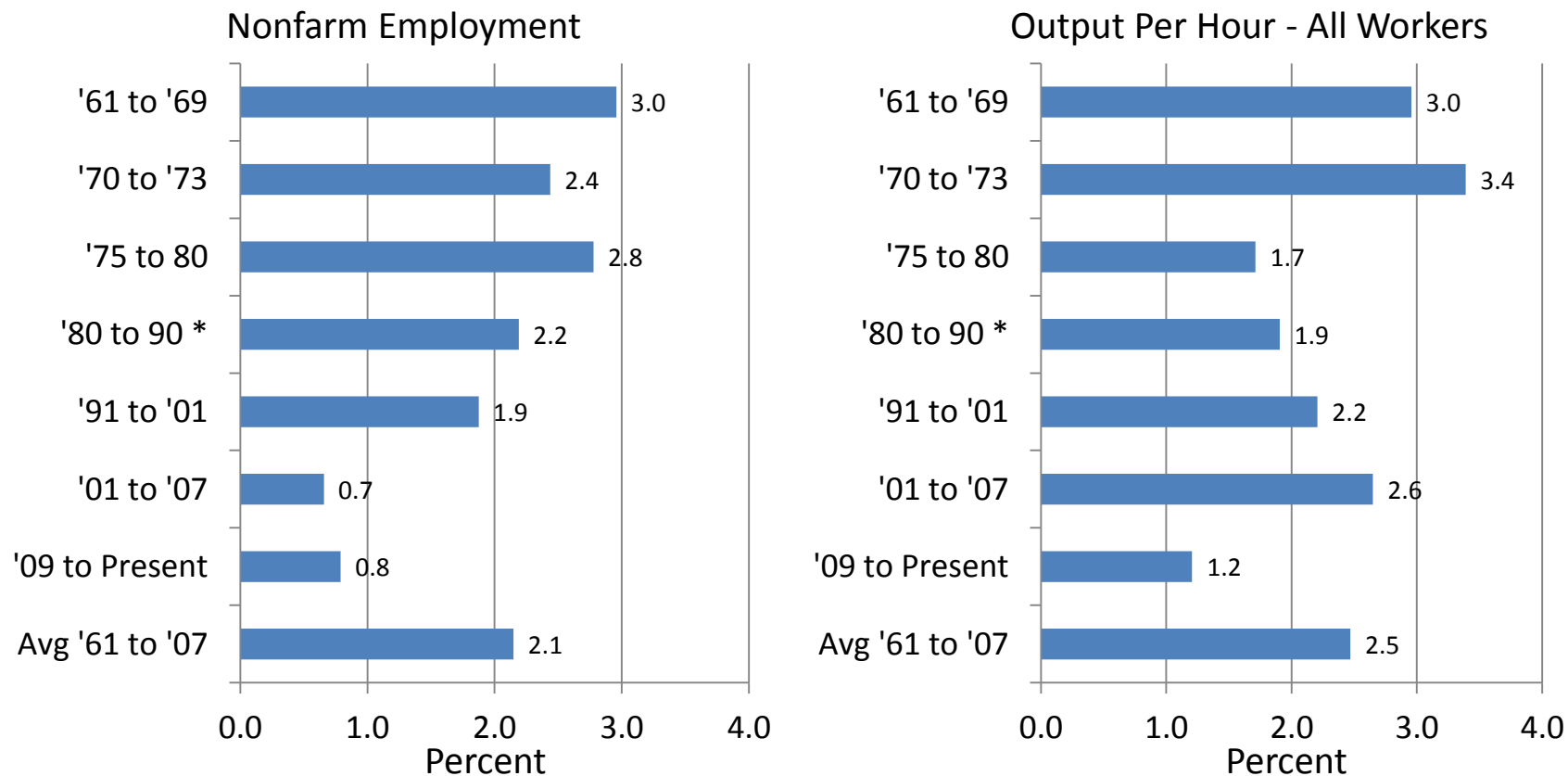


Source: Author's calculations using U.S. Bureau of Economic Analysis data.



# U.S. Employment and Output Per Worker

## Average Percent Growth by Expansion Period, 1961 to Present

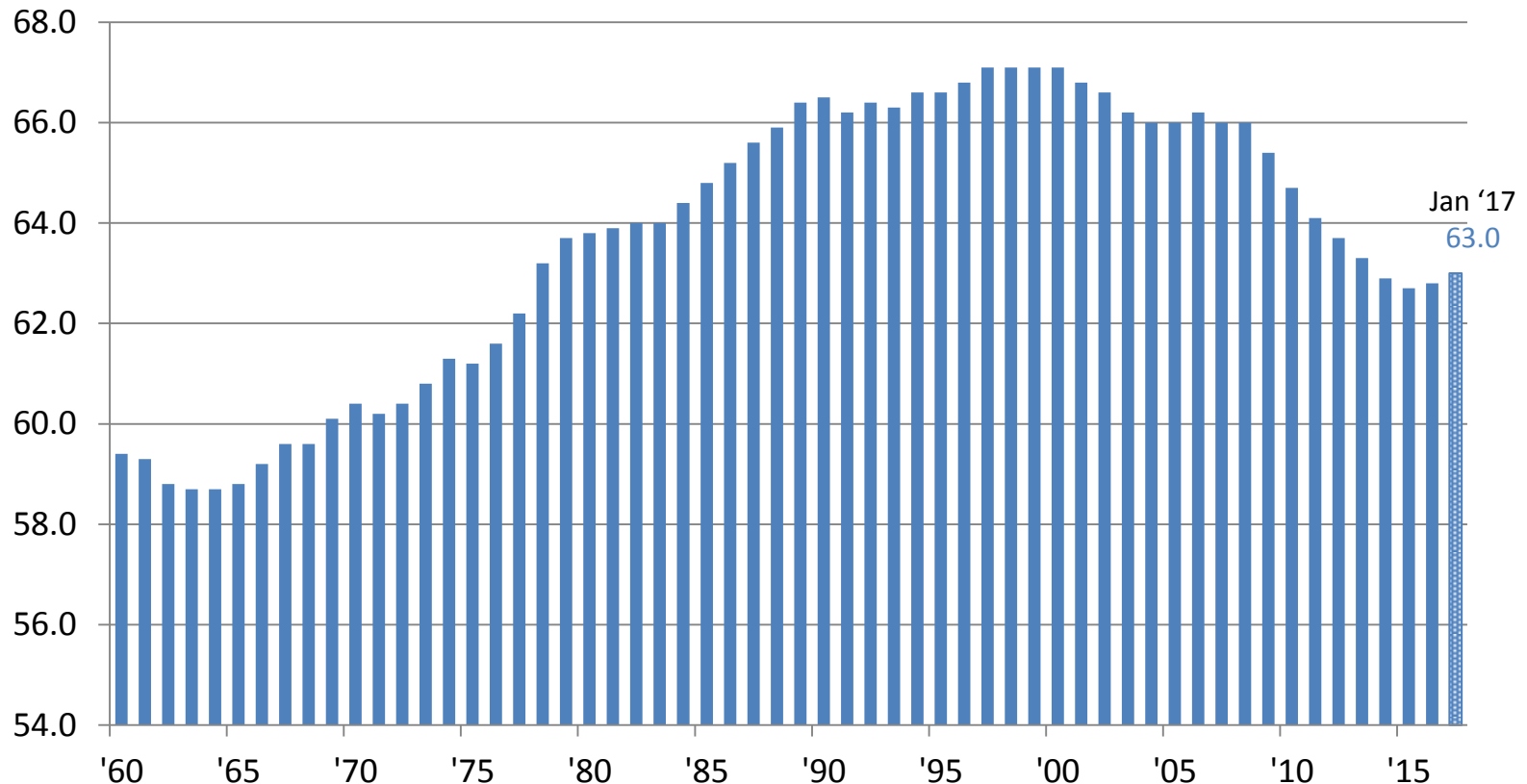


\* Combined 1980 to 1981 and 1981 to 1990 expansions.

Source: U.S. Bureau of Labor Statistics

# Labor Force Participation Rate

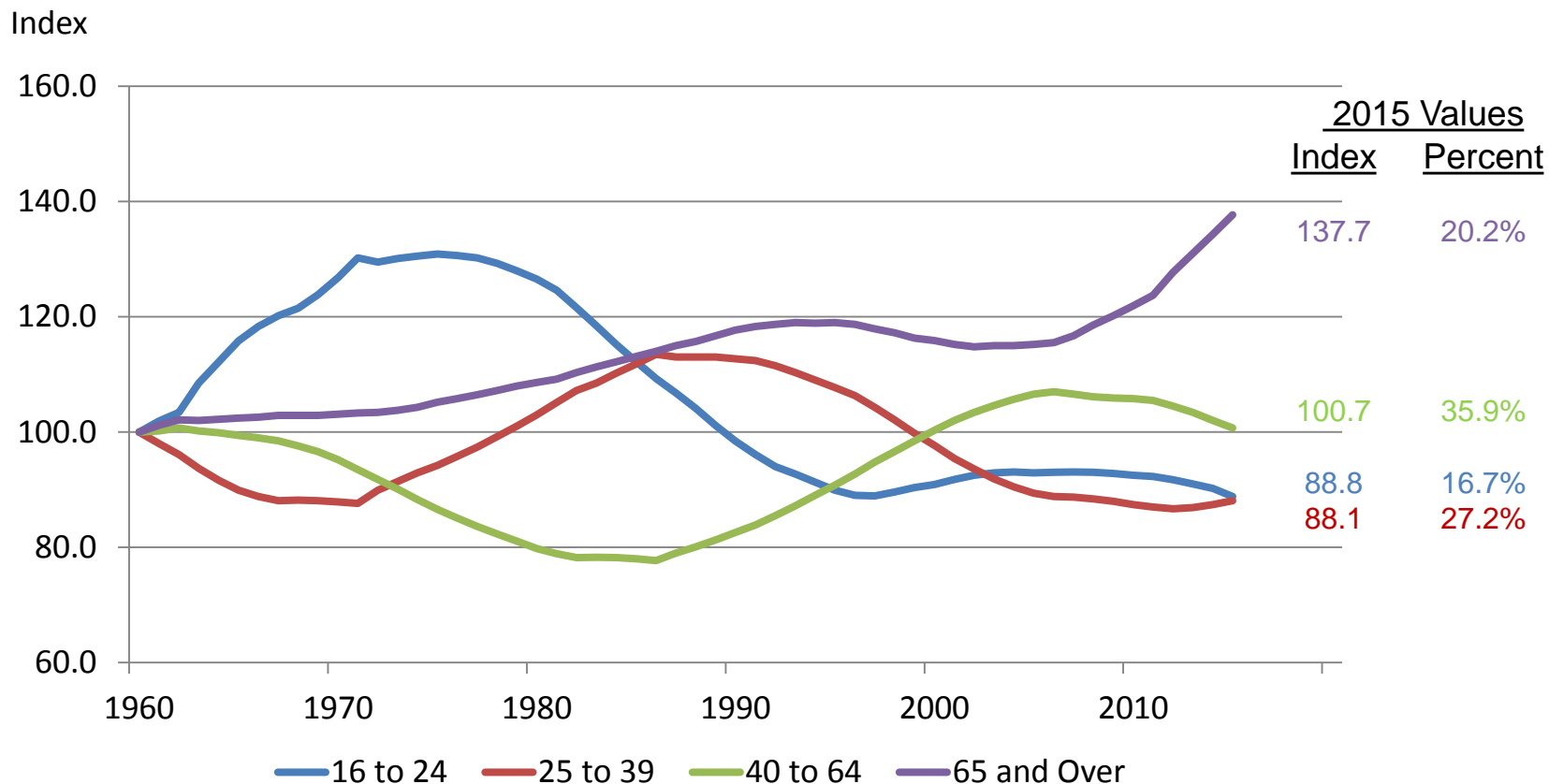
Percent of Noninstitutionalized Civilian Population – Annual Average



Source: U.S. Bureau of Labor Statistics

# Working Age Population by Age

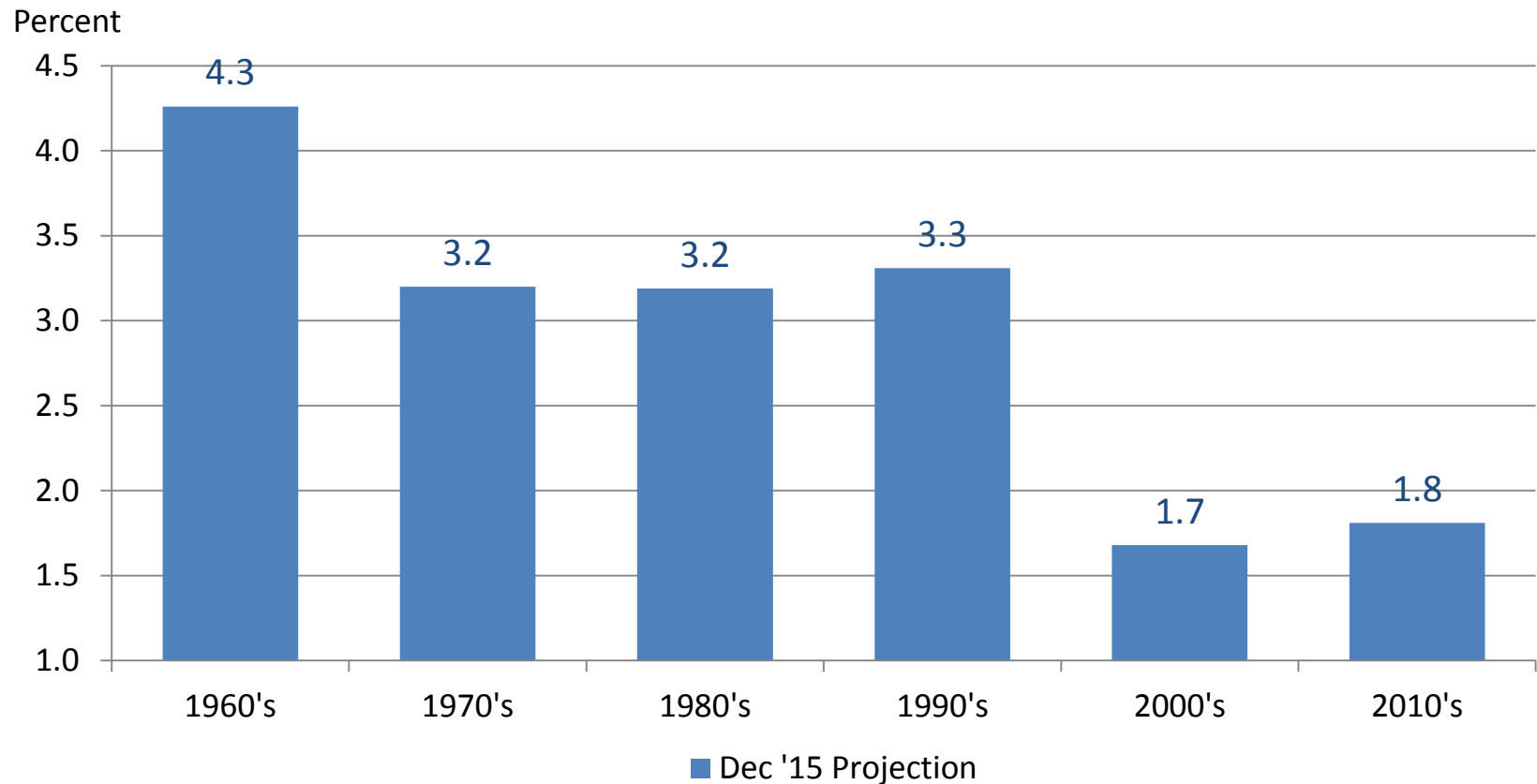
Select Age Categories, Percent of Total, Index – 1960 = 100



Source: U.S. Census Bureau – Table HH-3, Households by Age

# Economic Potential by Decade

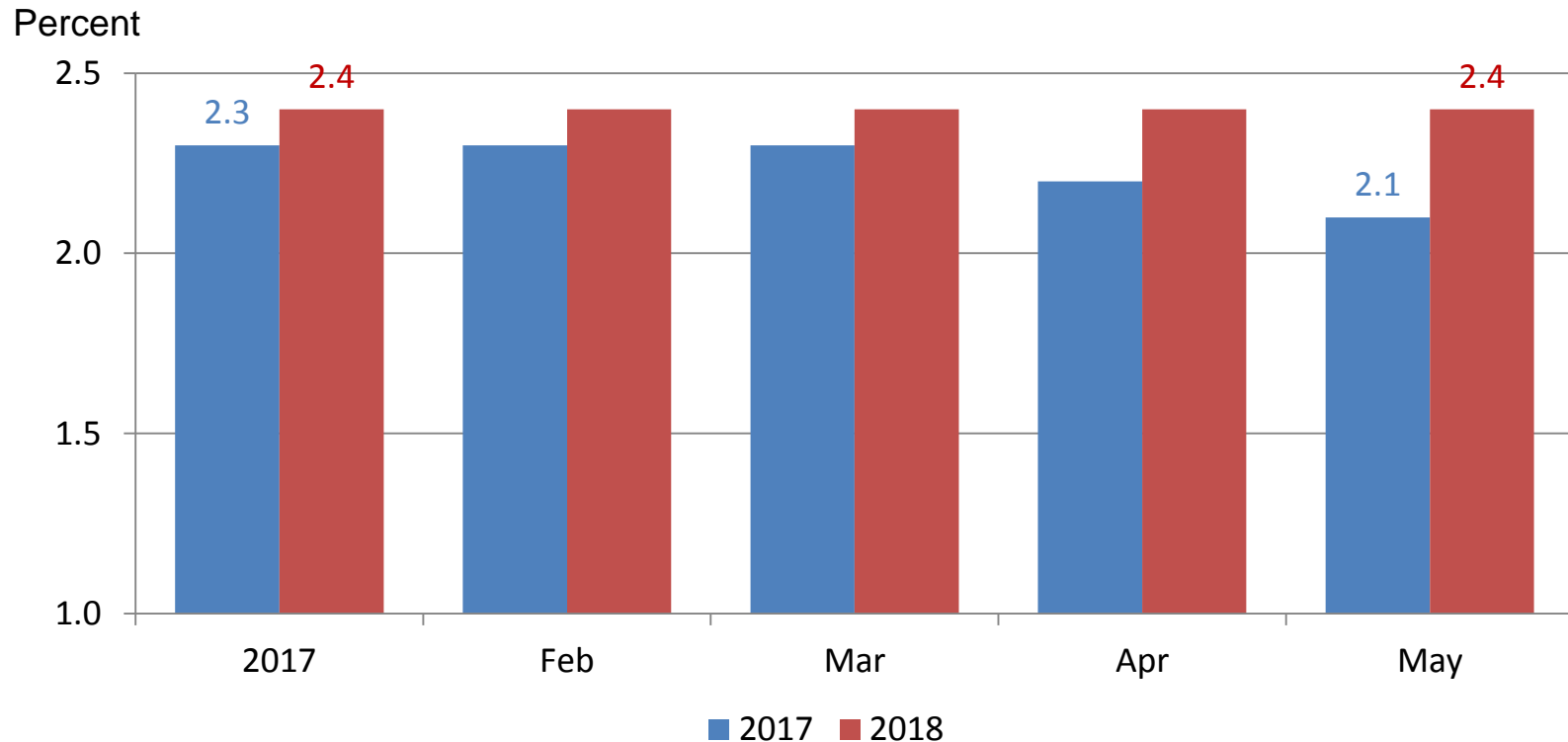
## Real GDP Percent Change – Annual Average



Source: U.S. Congressional Budget Office

# U.S. Real GDP Blue Chip Forecast

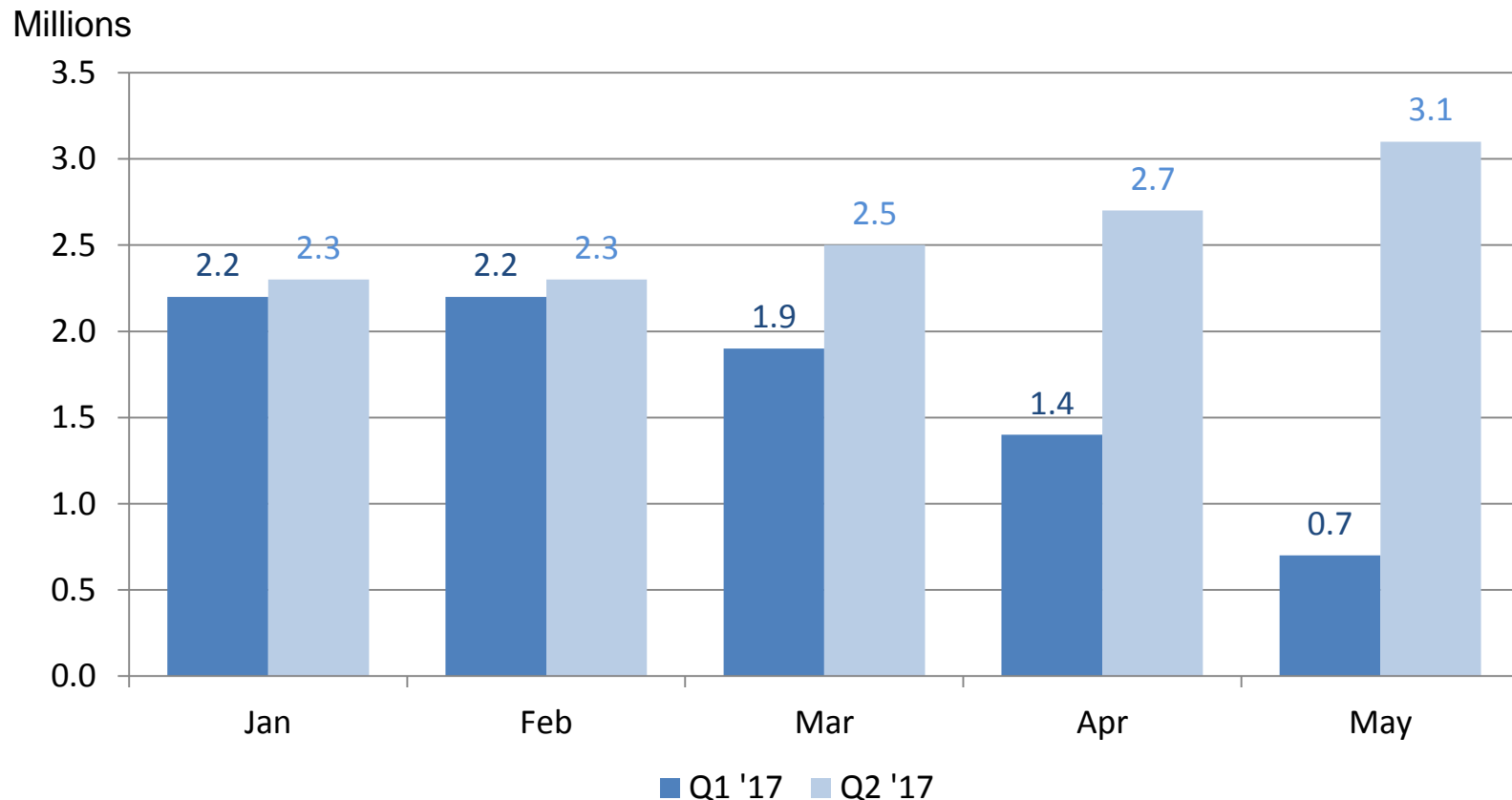
Annual Percent Change – Billions of Chained \$2009



Source: Blue Chip Indicators – May, 2017 Consensus.

# U.S. Real GDP Blue Chip Forecast by Month

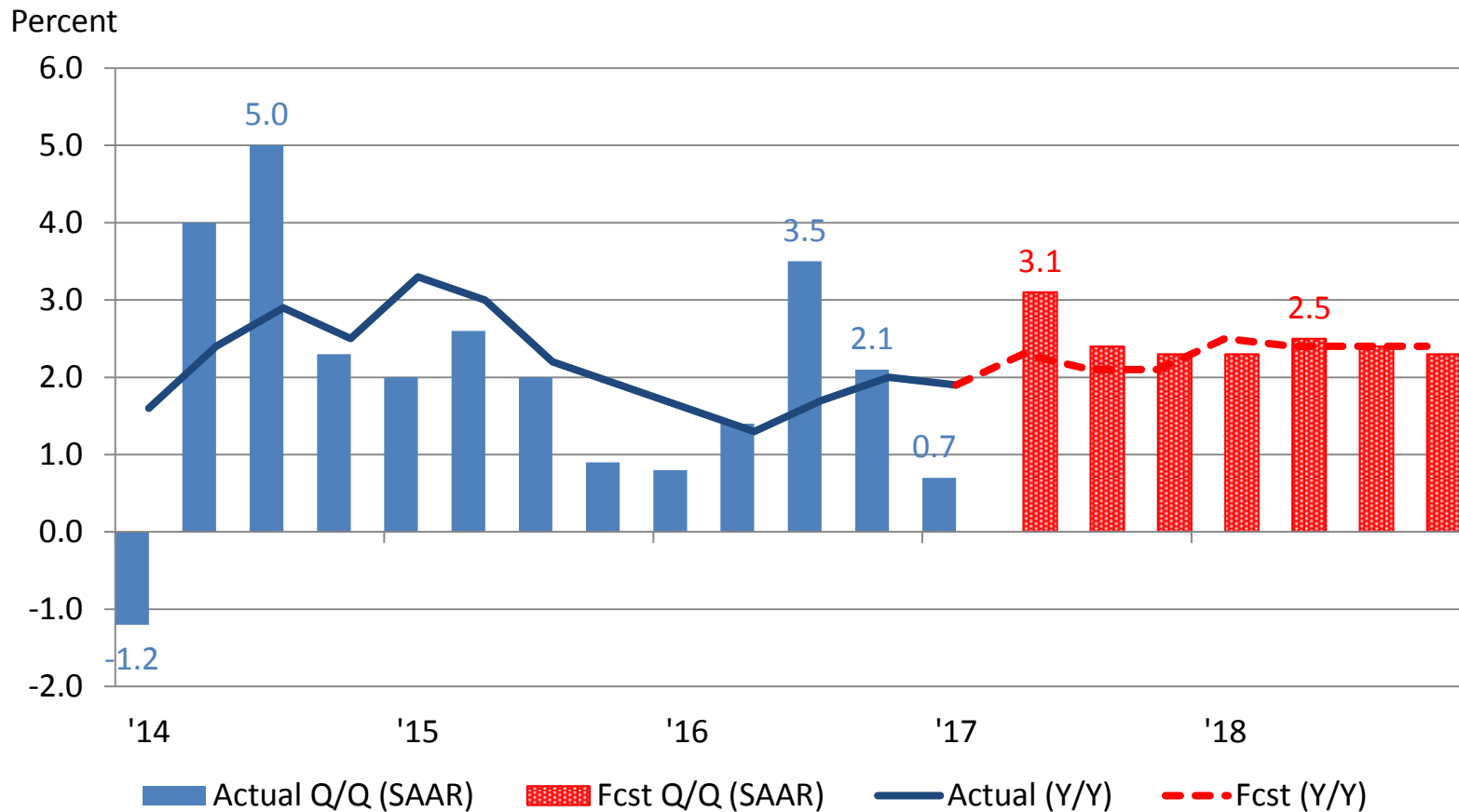
2017 - Q1 & Q2 - Percent Change, Q/Q (SAAR) – Billions of Chained \$2009



Source: Blue Chip Indicators – May, 2017 Consensus.

# U.S. Real GDP Blue Chip Forecast

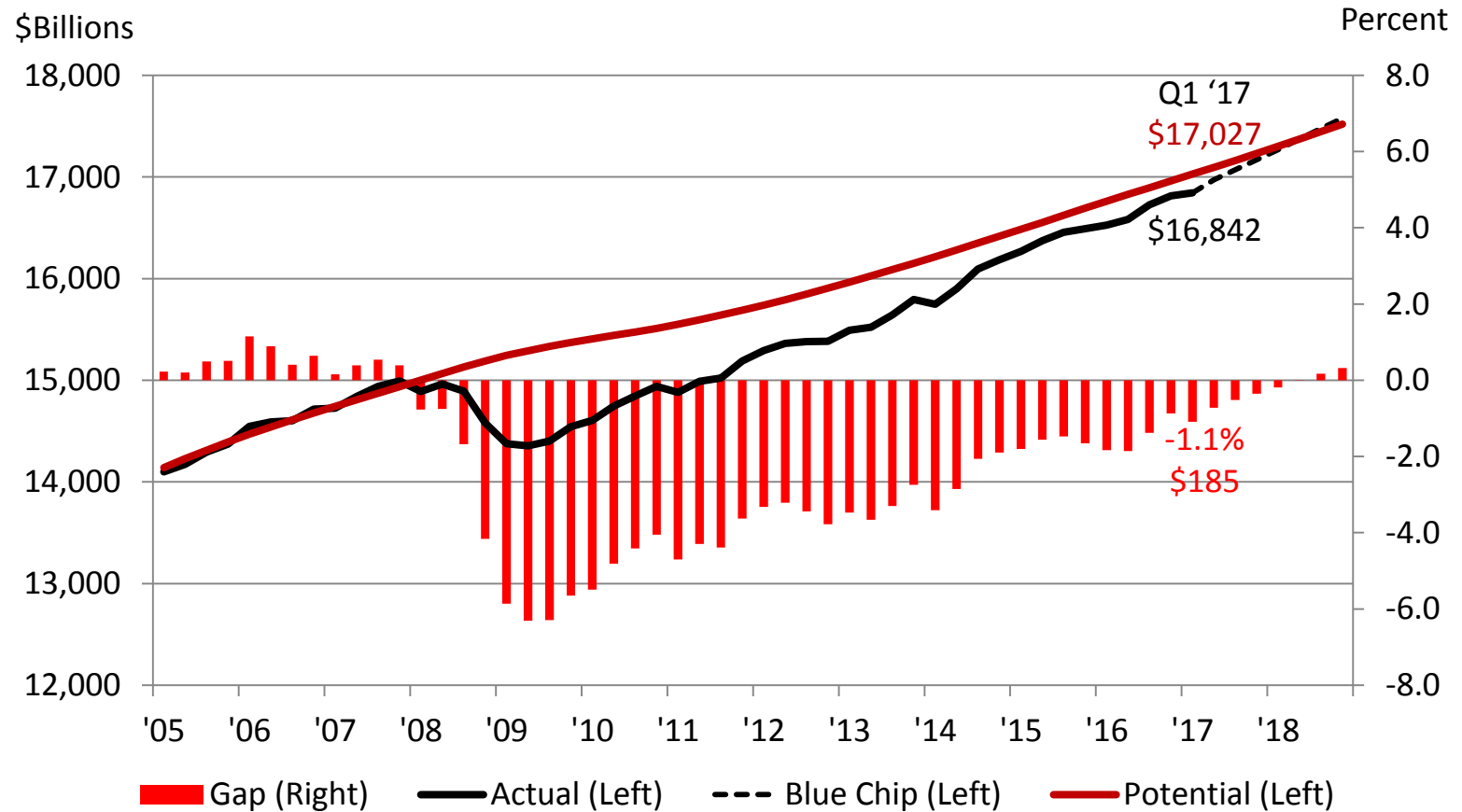
Percent Change – Billions of Chained \$2009



Source: BEA and May Blue Chip Economic Indicators

# U.S. Real GDP – Actual and Potential

Billions Chained \$2009 and Percent of Actual



Source: Bureau of Economic Analysis and the U.S. Congressional Budget Office

May 25, 2017

Federal Reserve Bank of Chicago

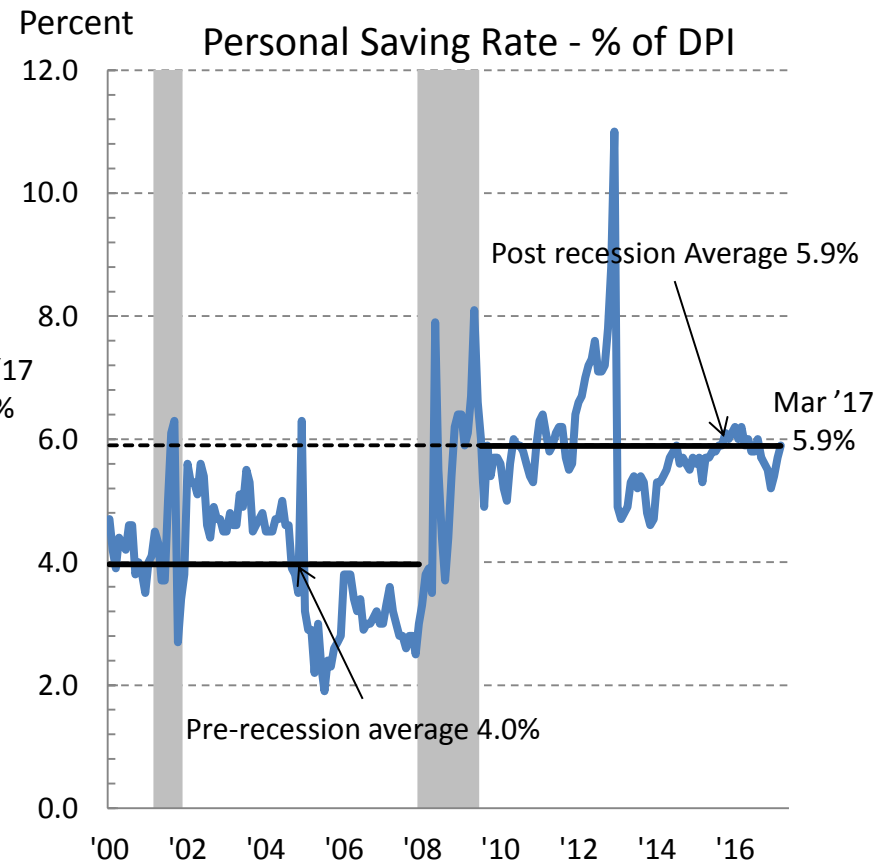
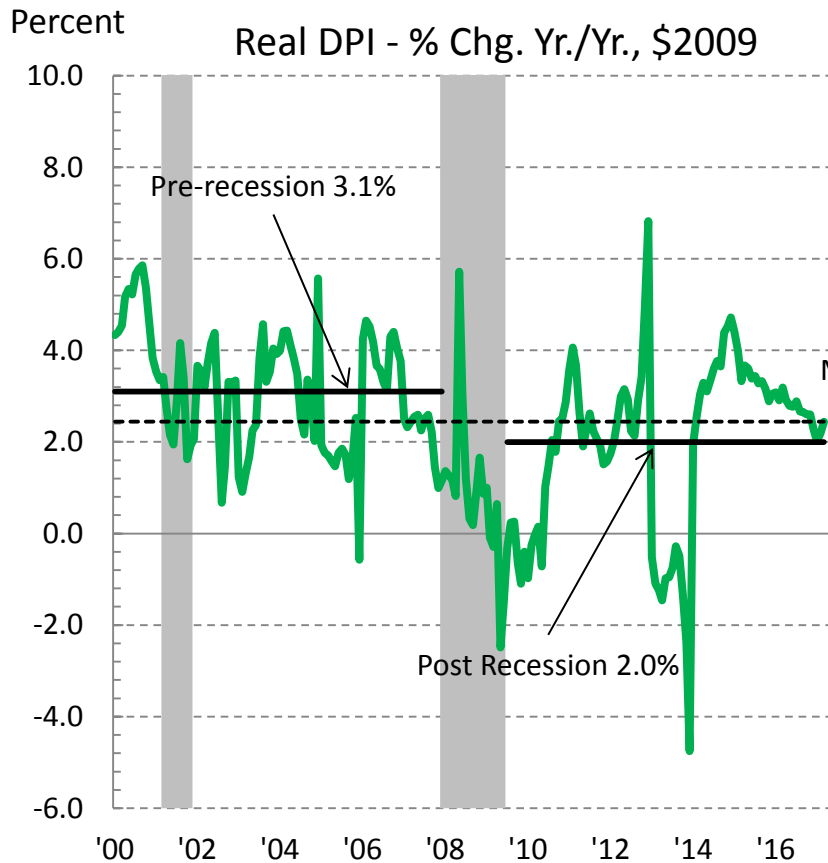
23



# U.S. Consumer

# Income and Savings Rate

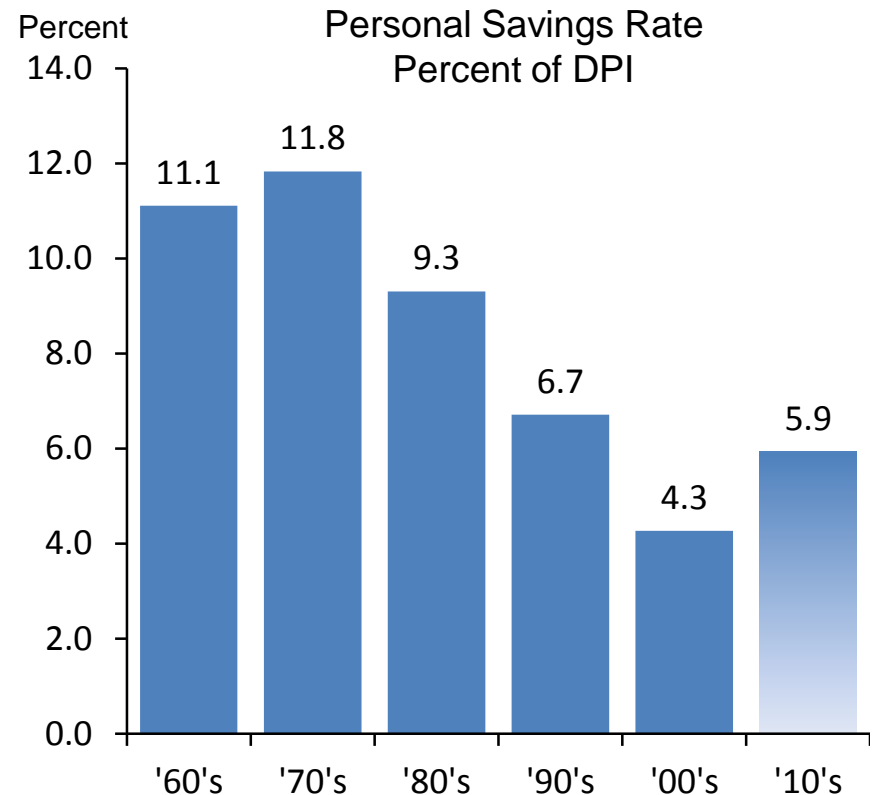
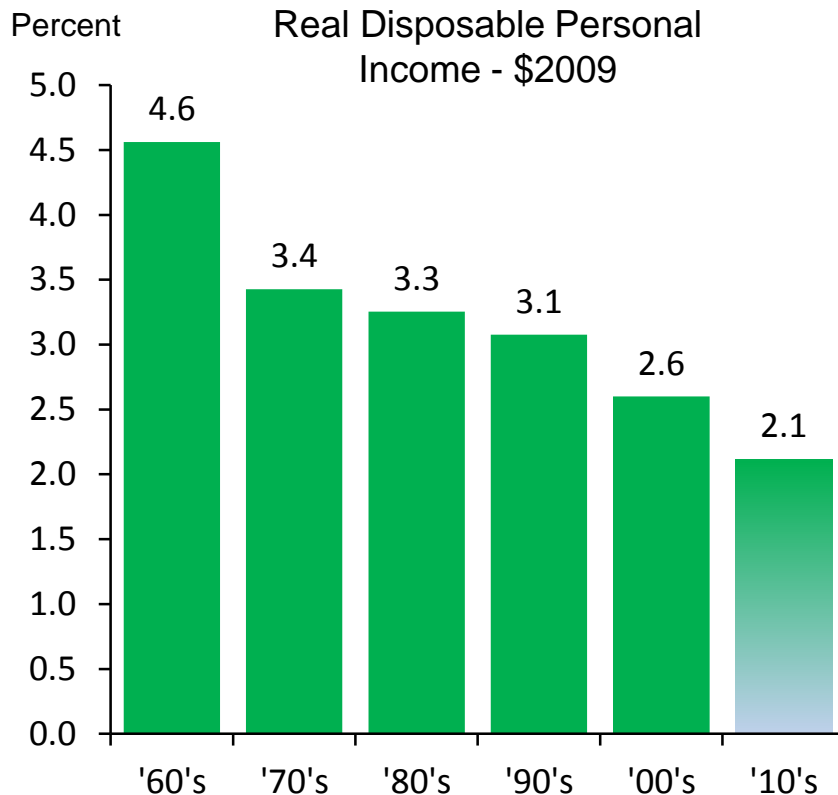
## Percent Change and Percent of DPI



Source: U.S. Bureau of Economic Analysis

# Real DPI & Personal Savings Rate

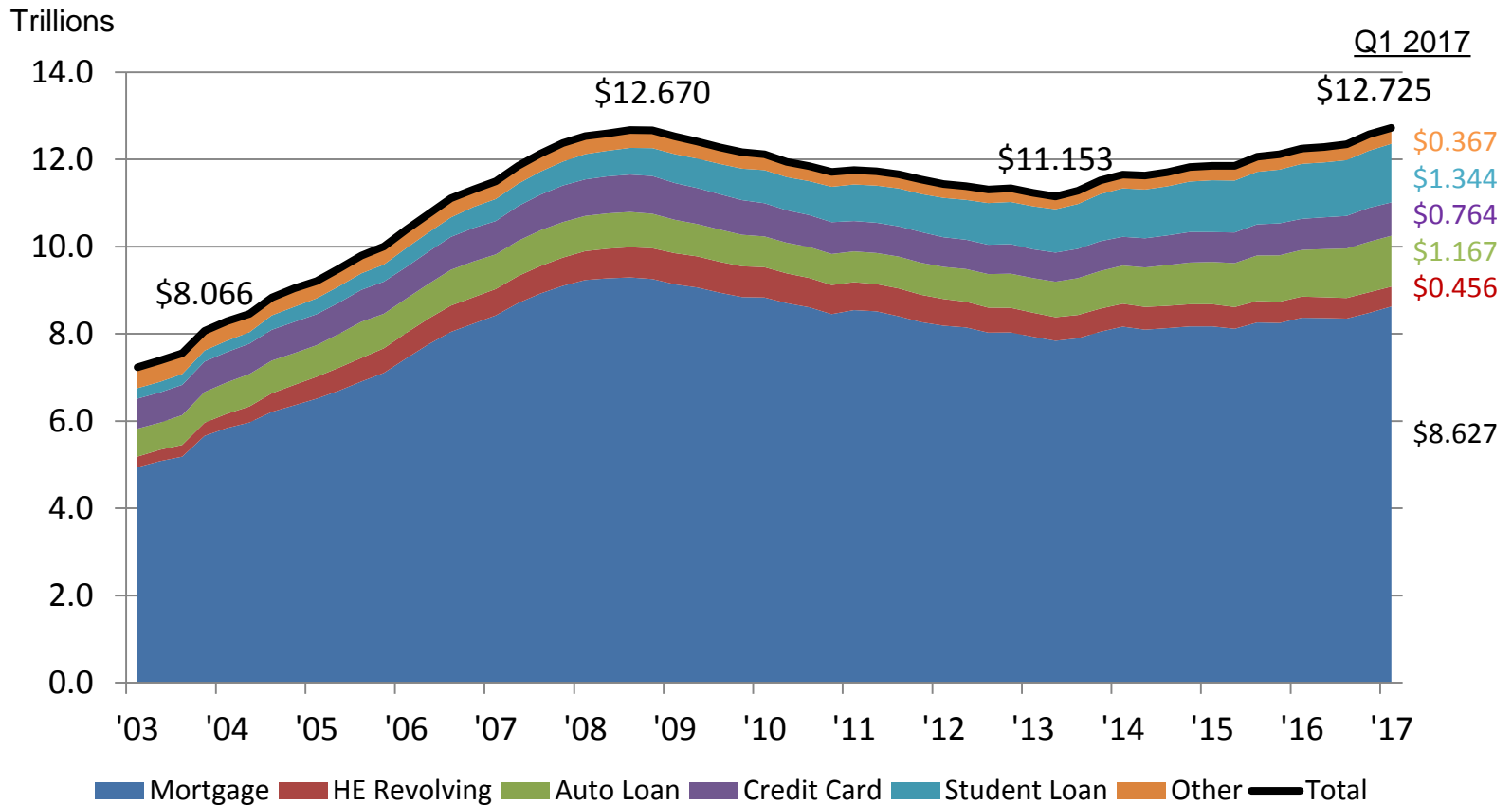
As Percent of Personal Income



Source: U.S. Bureau of Economic Analysis

# Total Consumer Debt by Composition

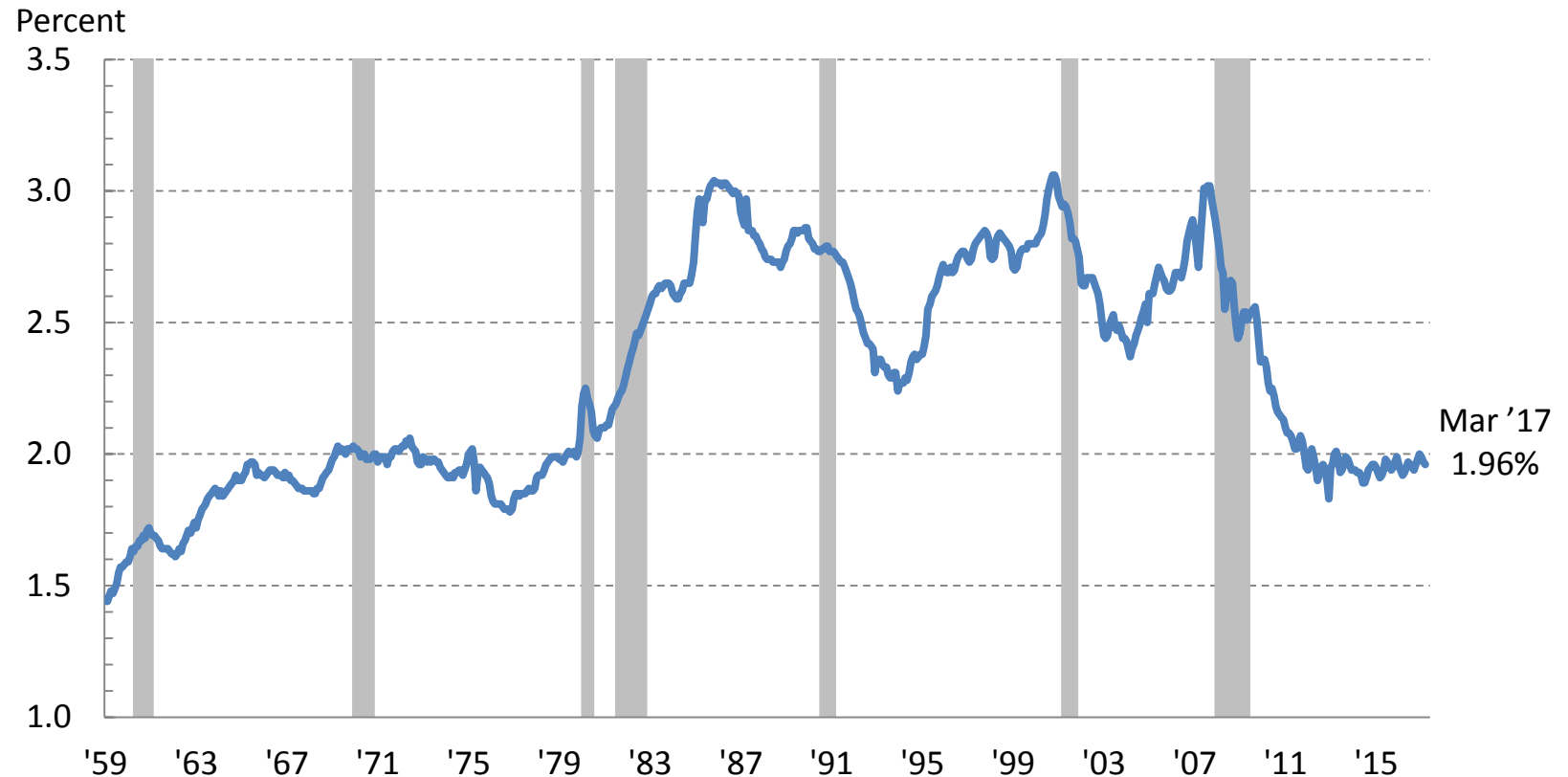
Trillions of Dollars



Source: Federal Reserve Bank of New York and Equifax

# Interest Payments

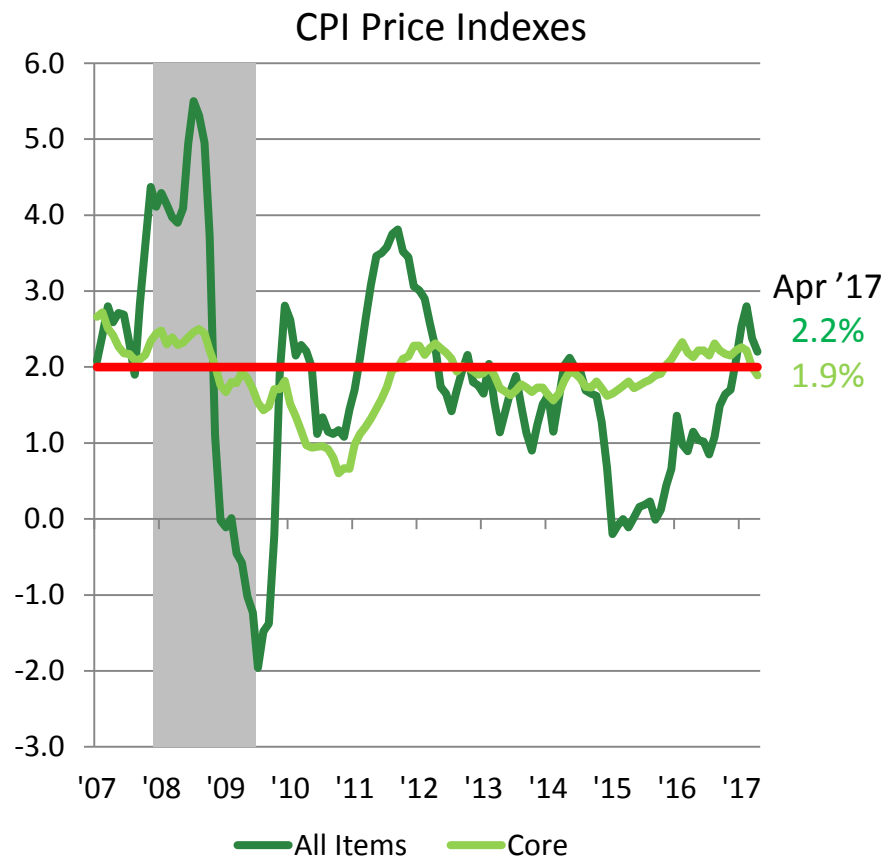
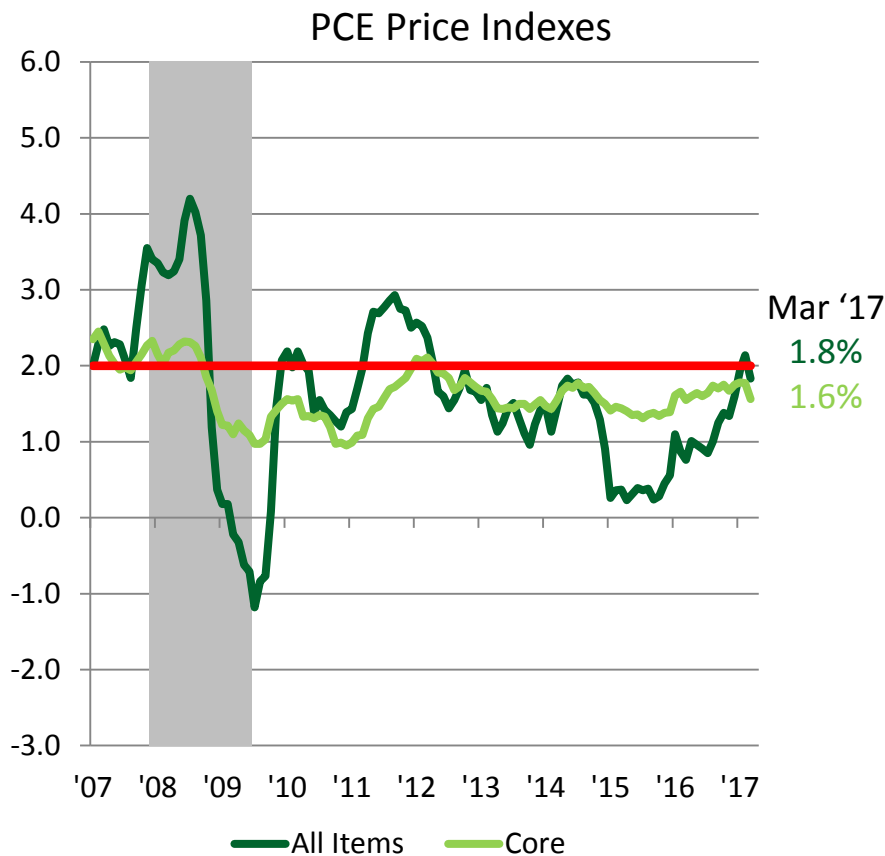
## As a Percent of Disposable Personal Income



Source: Federal Reserve Bank - Board of Governors

# Inflation – PCE & CPI Price Index

Percent Change Yr / Yr



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

# Initial Unemployment Claims

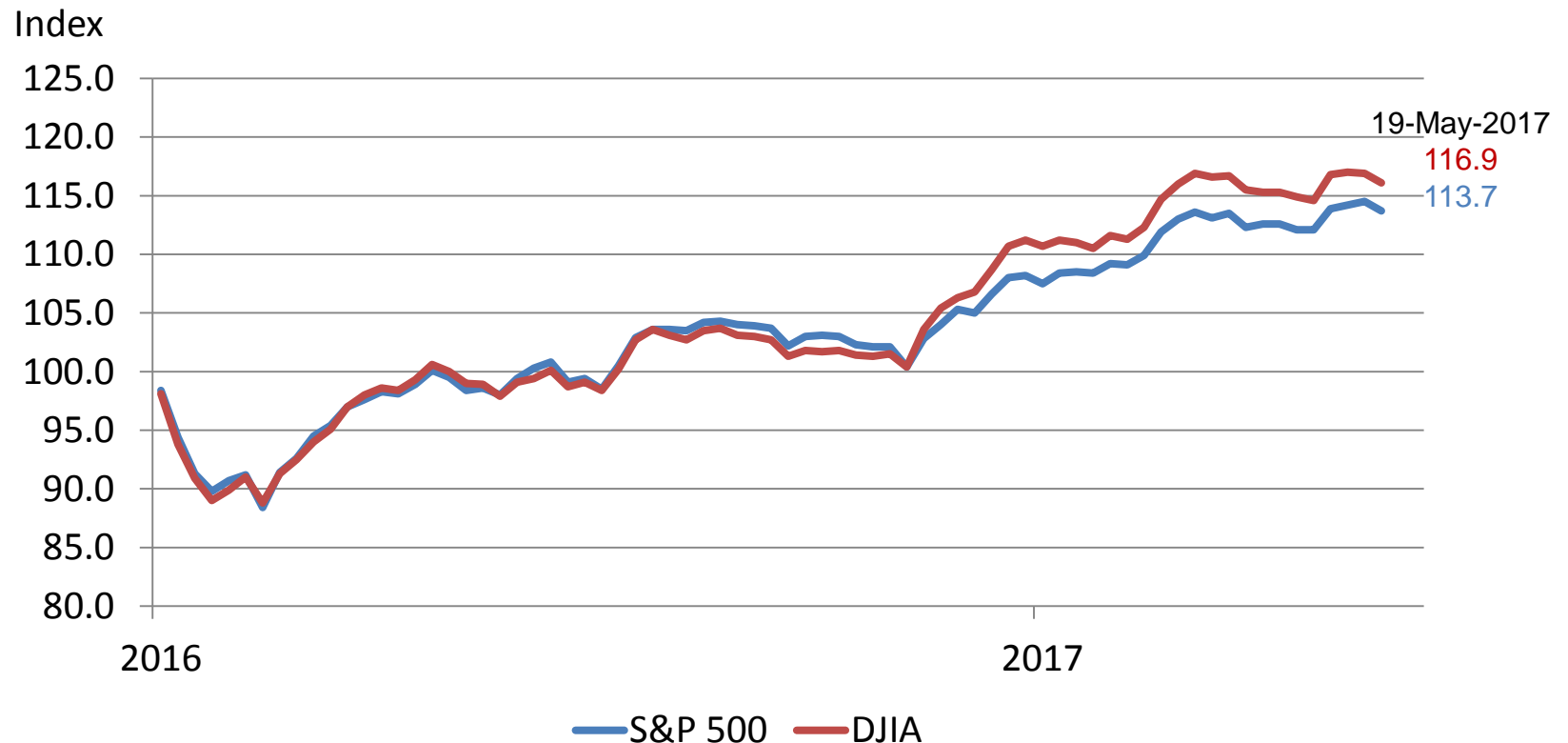
Monthly Average as Percent of Nonfarm Employment



Source: U.S. Bureau of Labor Statistics

# Stock Markets

S&P 500 and Dow Jones Industrial Average – Index 2016 = 100

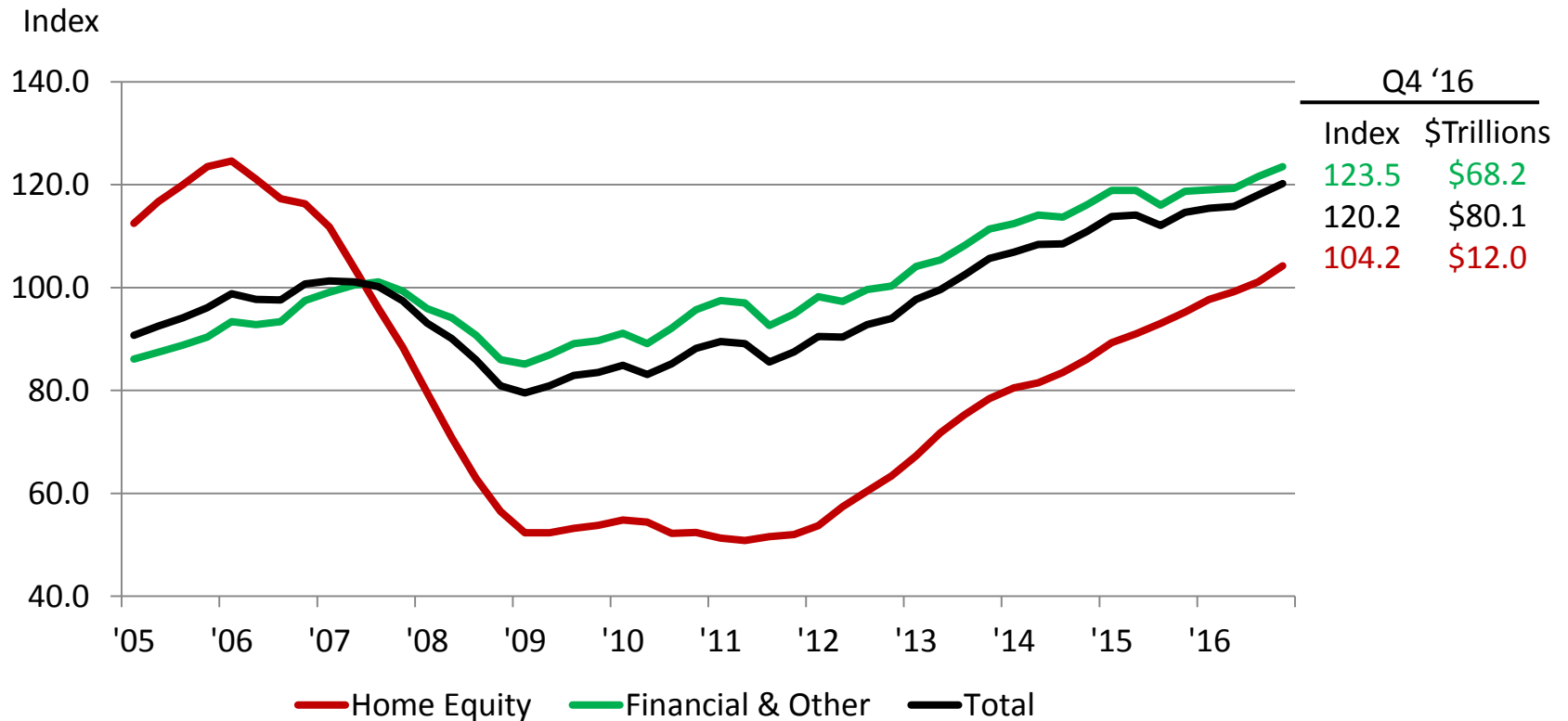


Source: U.S. Bureau of Economic Analysis



# Real Household Net Worth

Home Equity and Financial & Other - Index 2007 = 100, \$2009

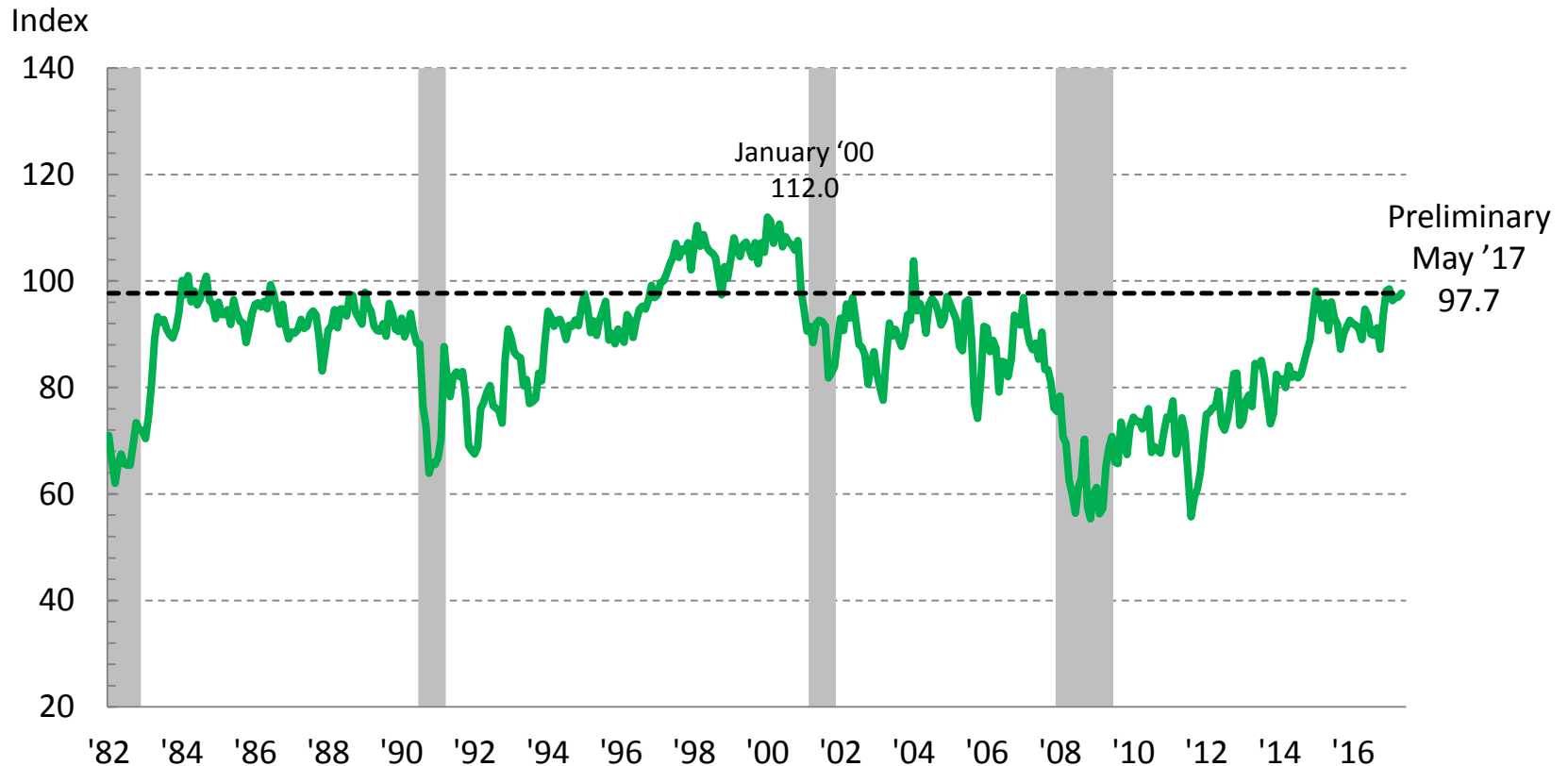


Note: Total Household Net Worth in Current Dollars is \$89.3 Trillion.

Source: Author's calculations using Federal Reserve data.

# Consumer Sentiment

University of Michigan



Source: Thomson Reuters / University of Michigan

# Monetary Policy Employment & Inflation

# F.O.M.C Statement

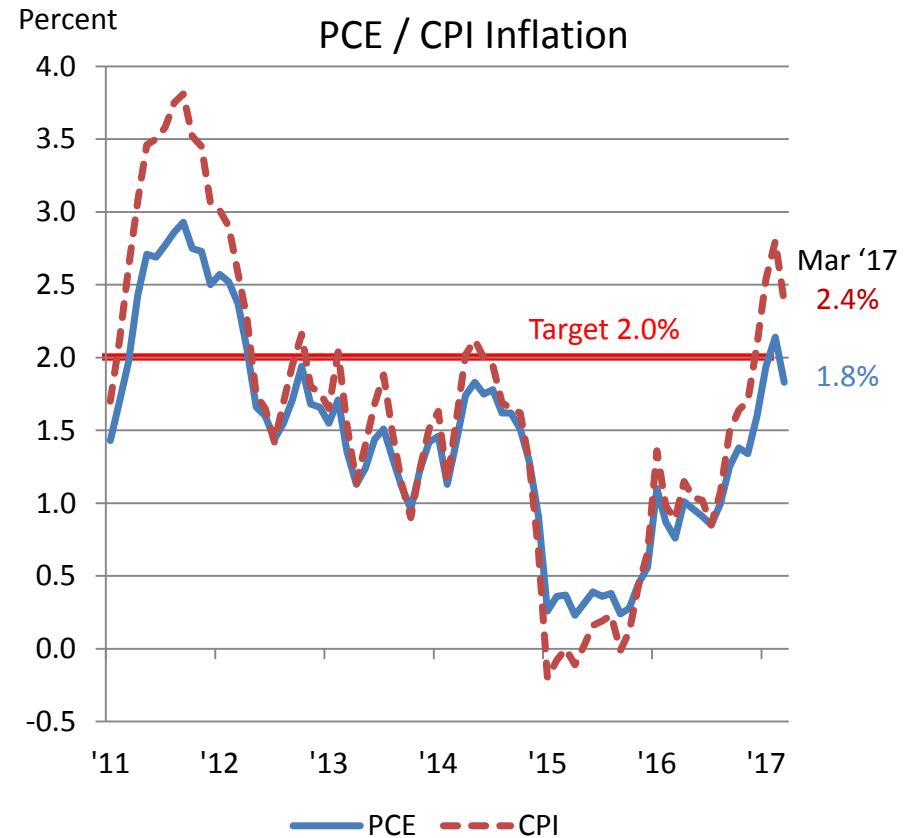
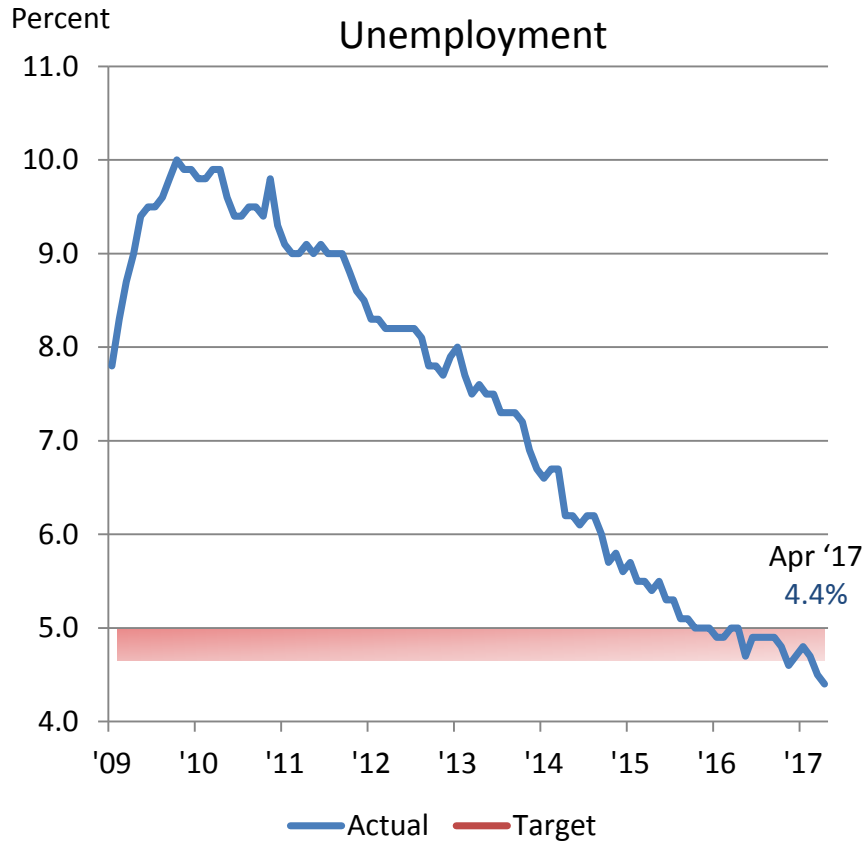
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May 3, 2017

1. Information since the F.O.M.C. met in March indicates that the labor market has continued to strengthen even as growth in economic activity has slowed.
2. Job gains were solid, on average, in recent months, and the unemployment rate has declined.
3. Household spending rose only modestly, but fundamentals underpinning the continued growth of consumption remained solid. Business fixed investment firmed. Inflation measured on a 12-month basis recently has been running close to the Committee's 2 percent longer-run objective.
4. Excluding energy and food, consumer prices declined in March and inflation continued to run somewhat below 2 percent.
5. Market based measures of inflation compensation remained low; survey based measures of longer-term inflation expectations are little changed, on balance.

# Unemployment Rate & Prices

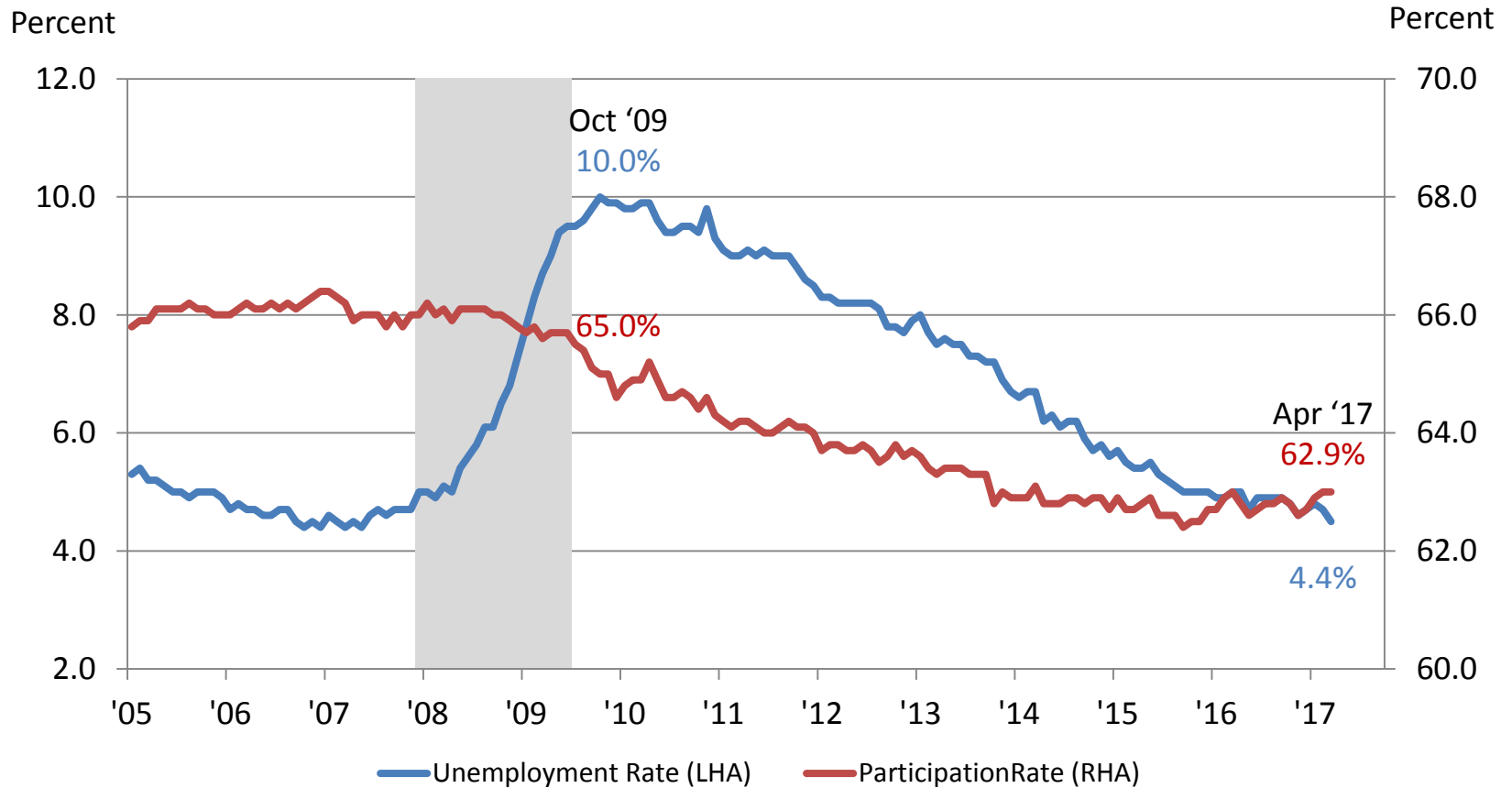
Percent Unemployed, PCE / CPI % Change Yr./Yr.



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

# Unemployment & Participation Rate

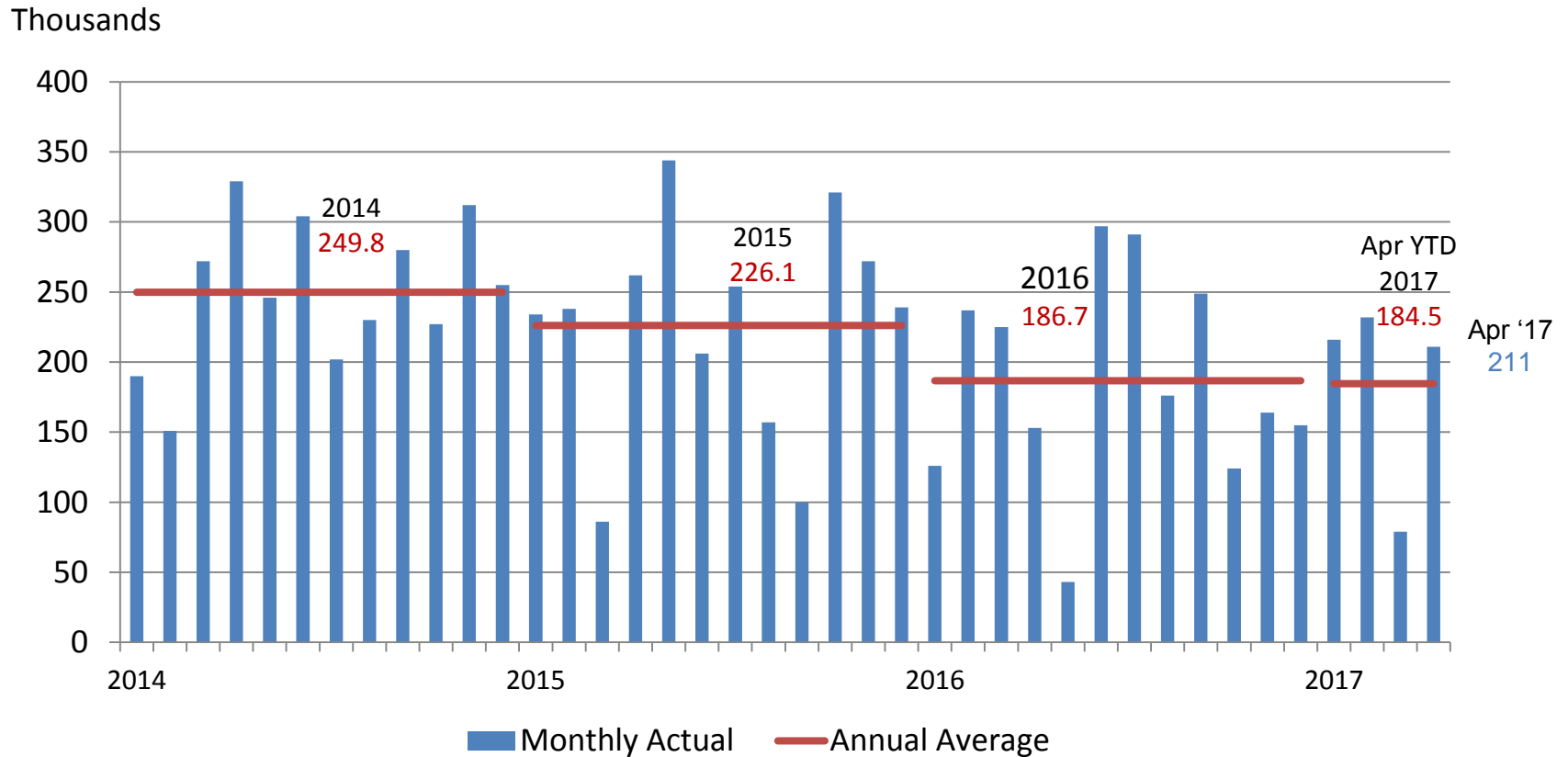
## Percent Unemployed & Percent of Labor Force



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

# U.S. Nonfarm Payrolls

## Monthly and Annual Average Job Change – In Thousands



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

# Initial Unemployment Claims

Monthly Average as Percent of Nonfarm Employment

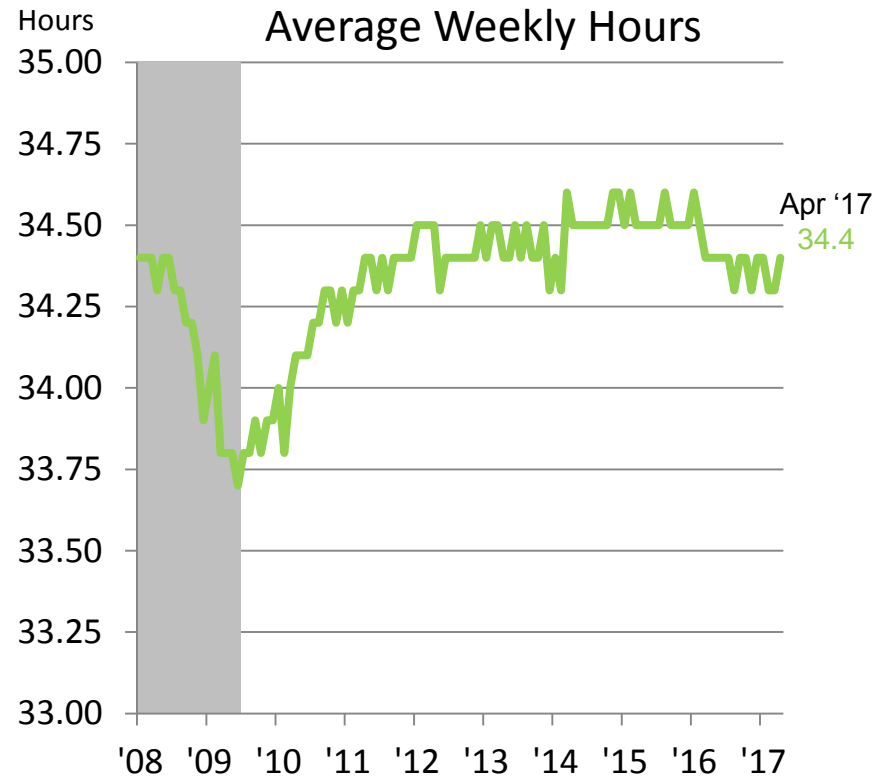
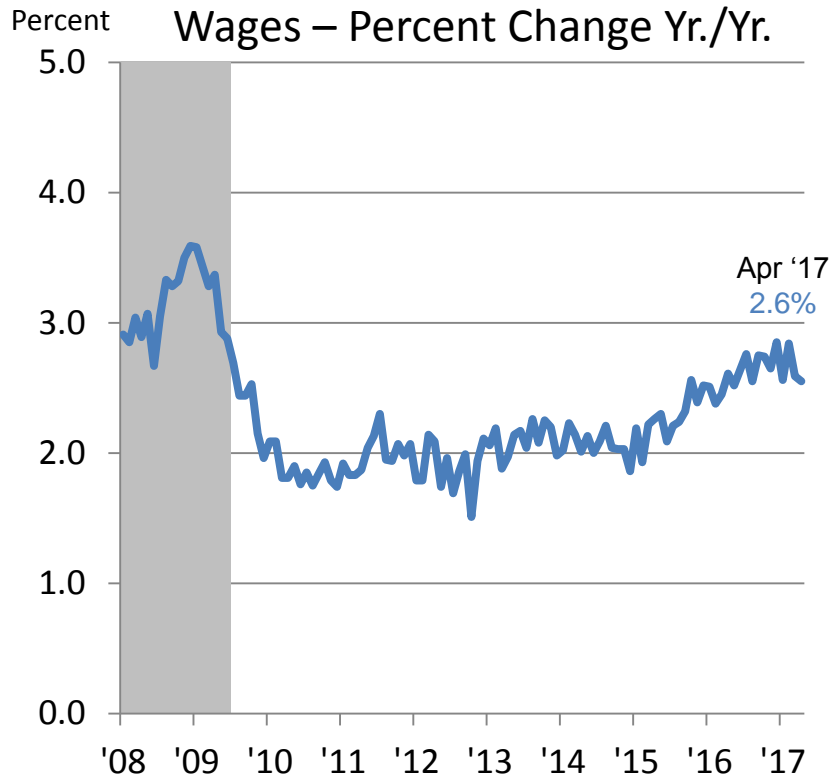


Source: U.S. Bureau of Labor Statistics



# Wages and Hours

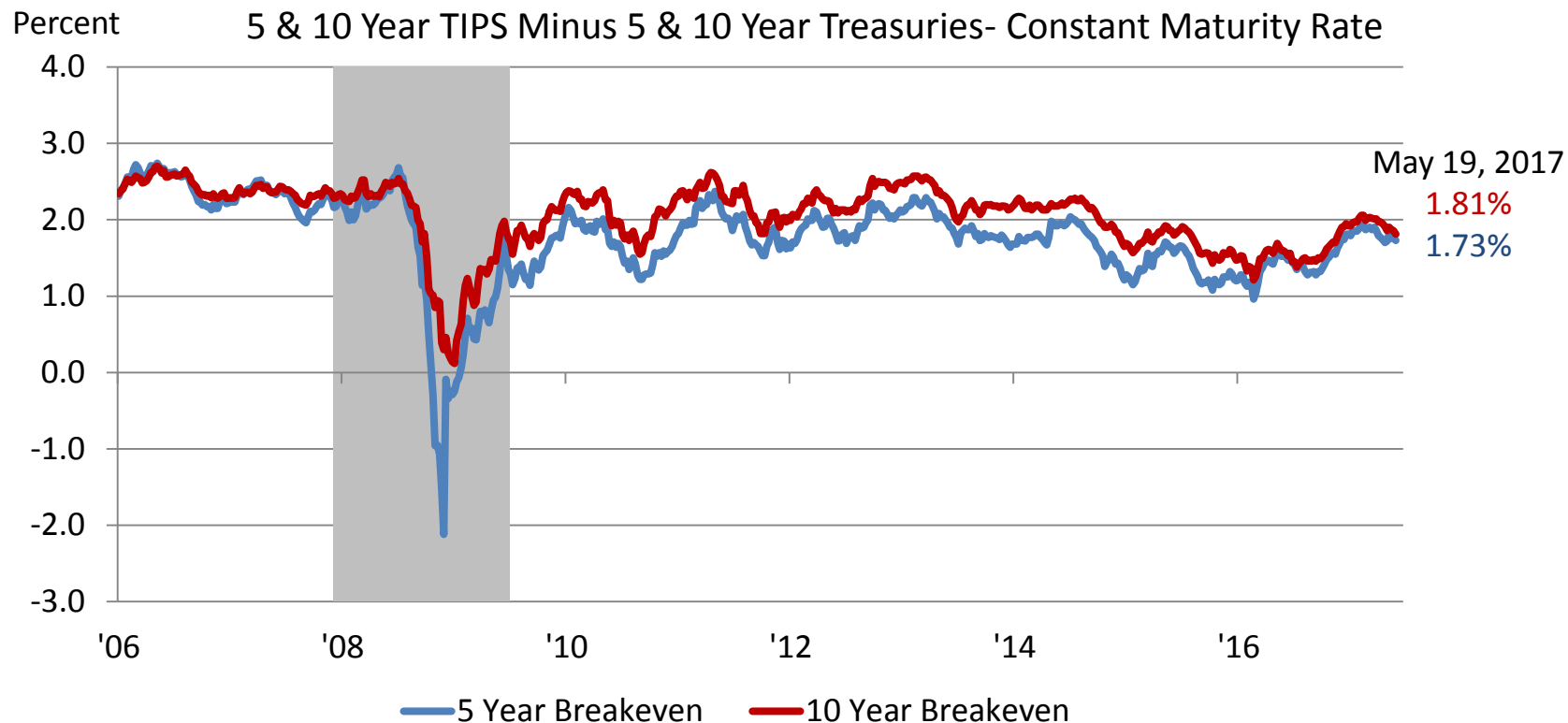
## Total Private – All Employees



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

# Inflation Compensation

## 5 Year and 10 Year Inflation Expectations

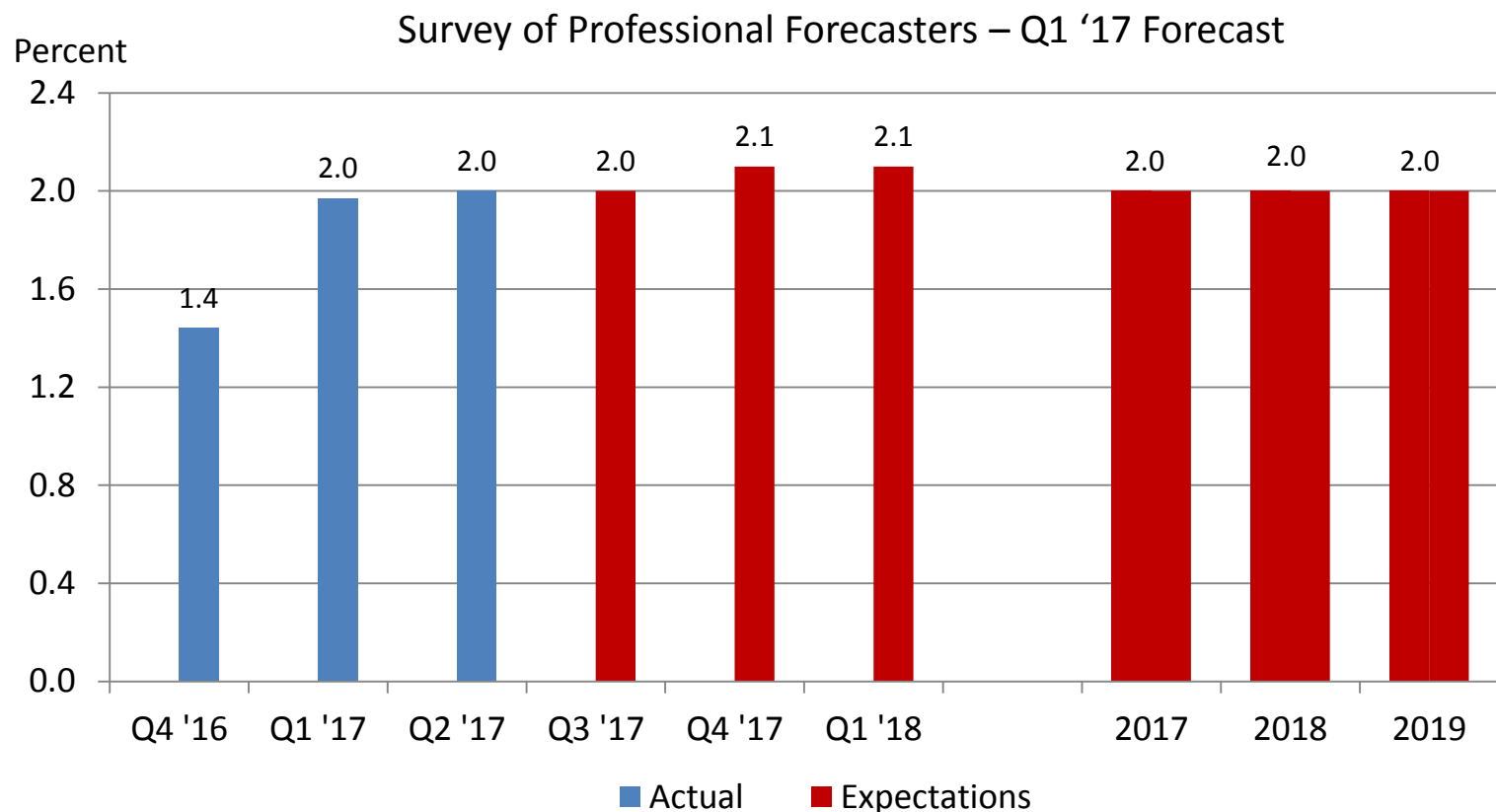


Source: Author's calculation using Federal Reserve System data.

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

# Inflation Expectations

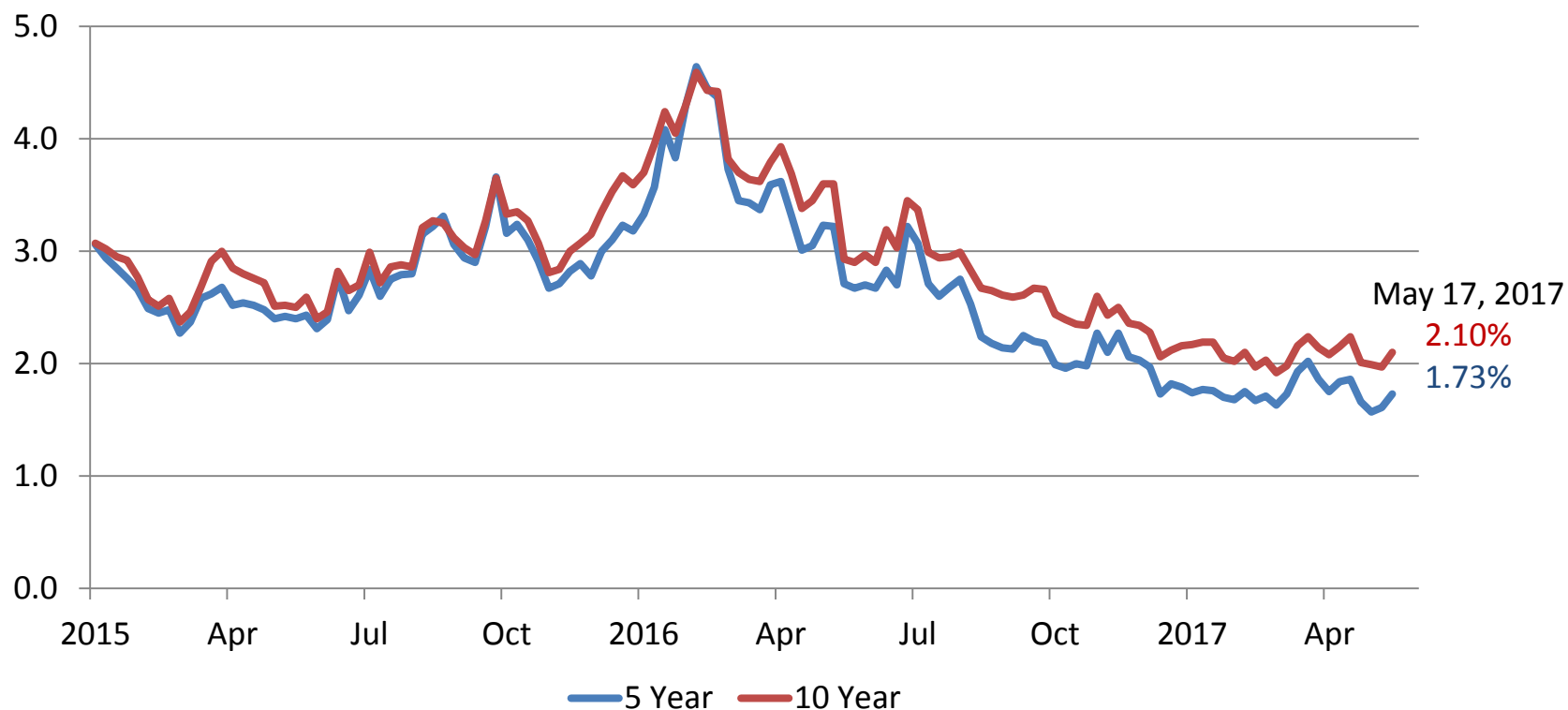
## Headline PCE Inflation – Yr./Yr. & Q4/Q4



Source: Bureau of Economic Analysis and FRB Philadelphia Q4 '16 Survey

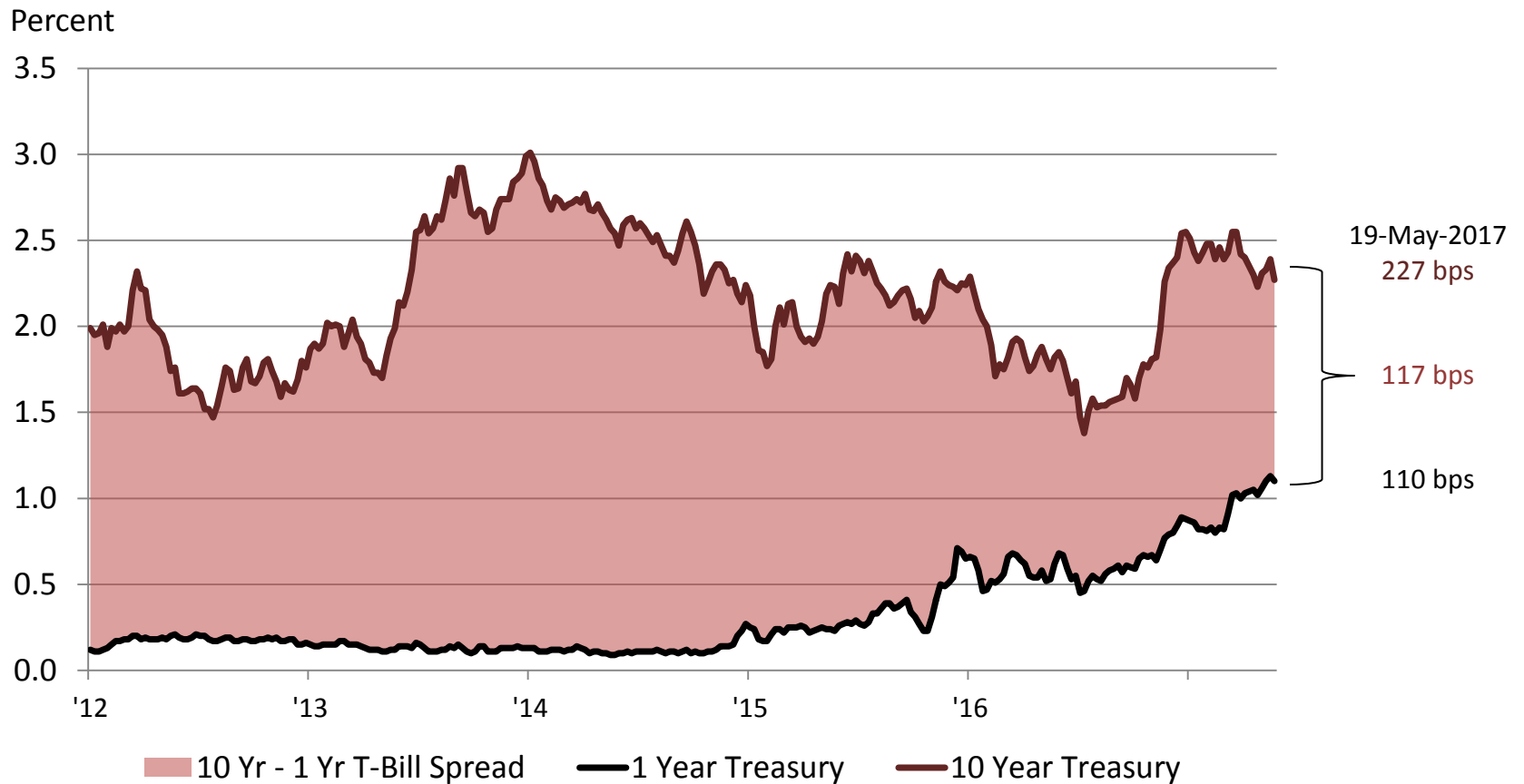
# Corporate Bond Spreads

## AAA and BB+ Junk Bonds – 5 & 10 Year Durations



# Yield Curve

## 10 Year – 1 Year Treasuries in Basis Points



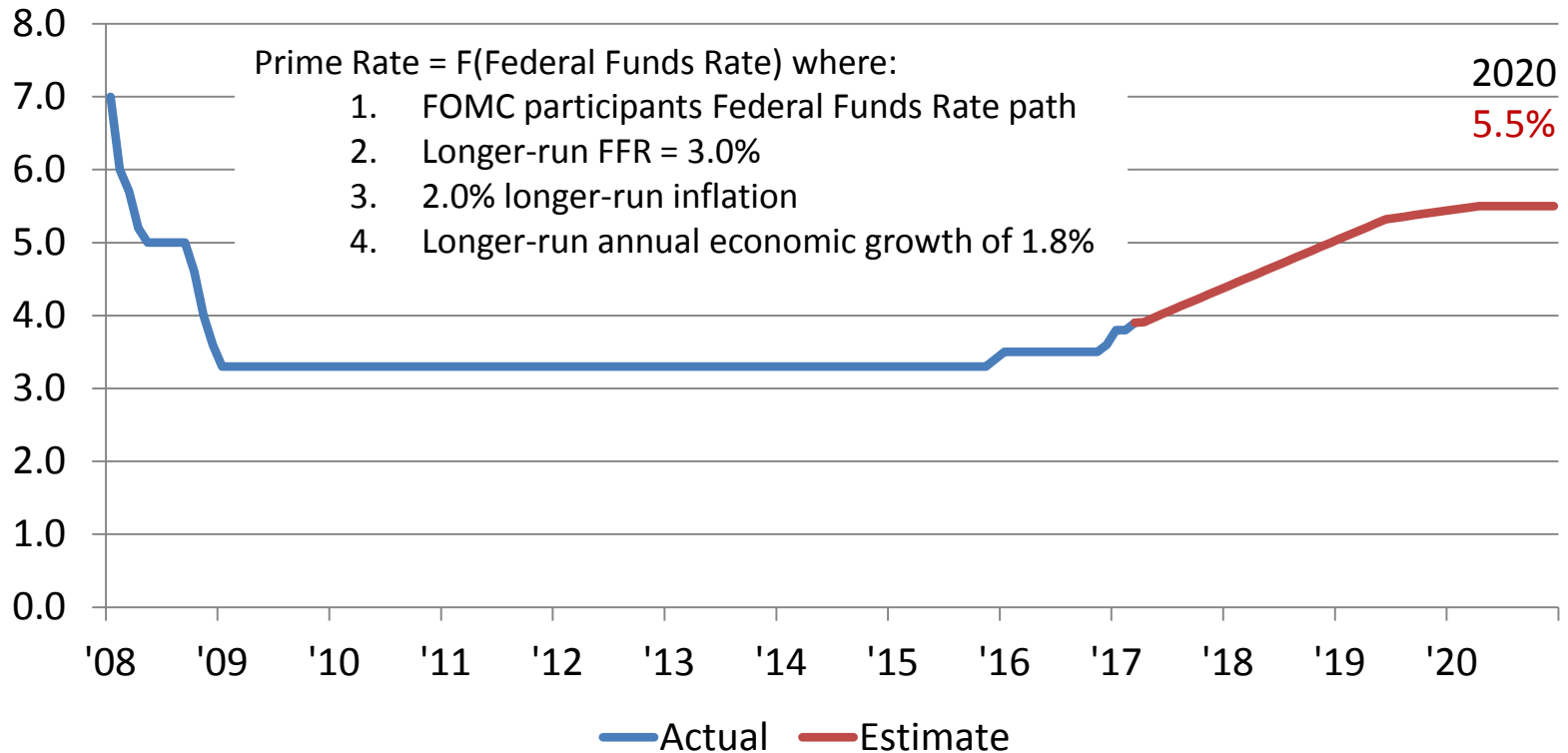
Source: Board of Governors – Federal Reserve System



# Prime Rate

## Bank Prime Loan Rate – In Percent

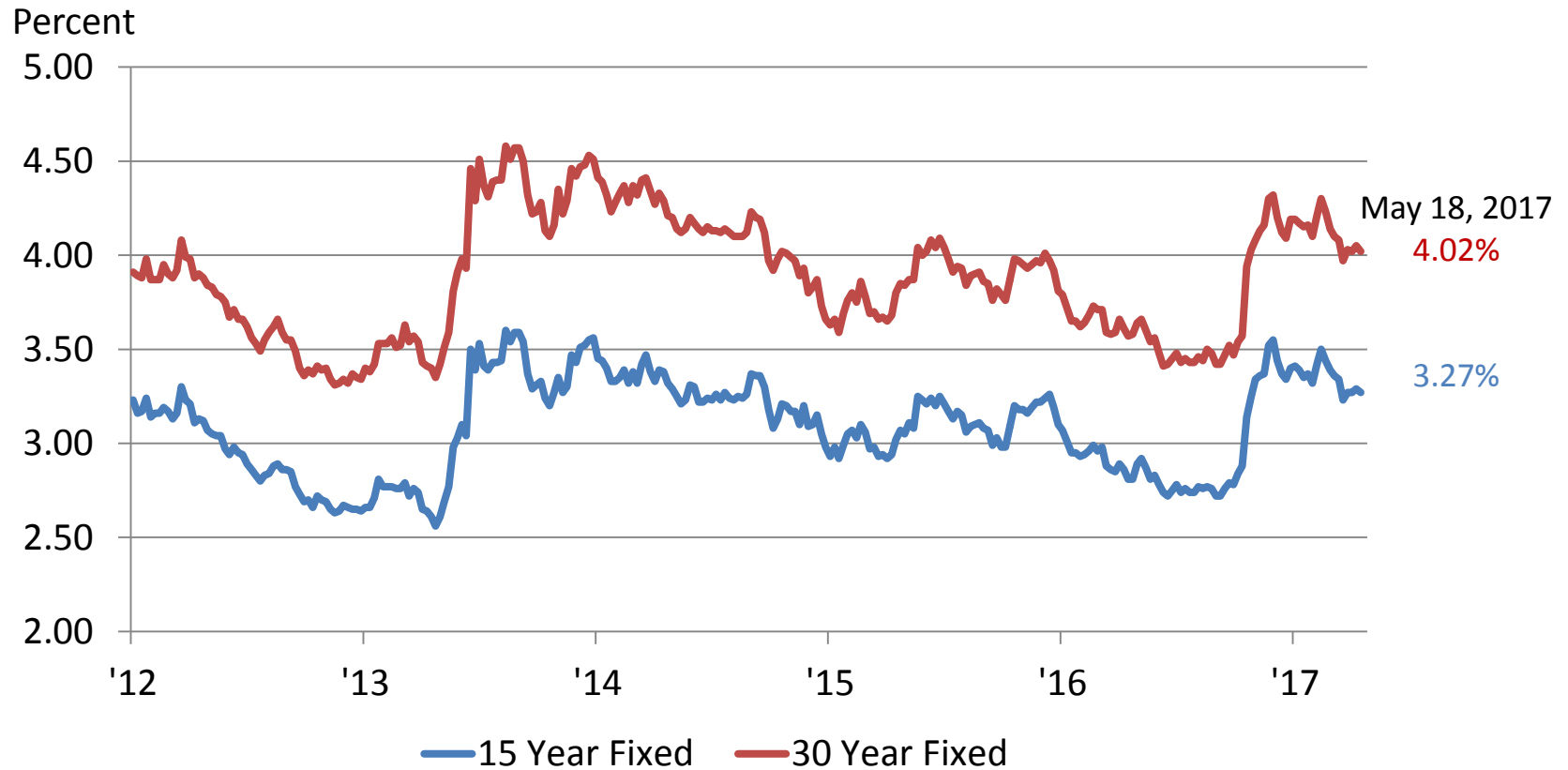
Percent



Source: Author's calculation using Board of Governors – Federal reserve Bank data.

# Mortgage Rates

## 15 & 30 Year Fixed Rate – U.S. Average



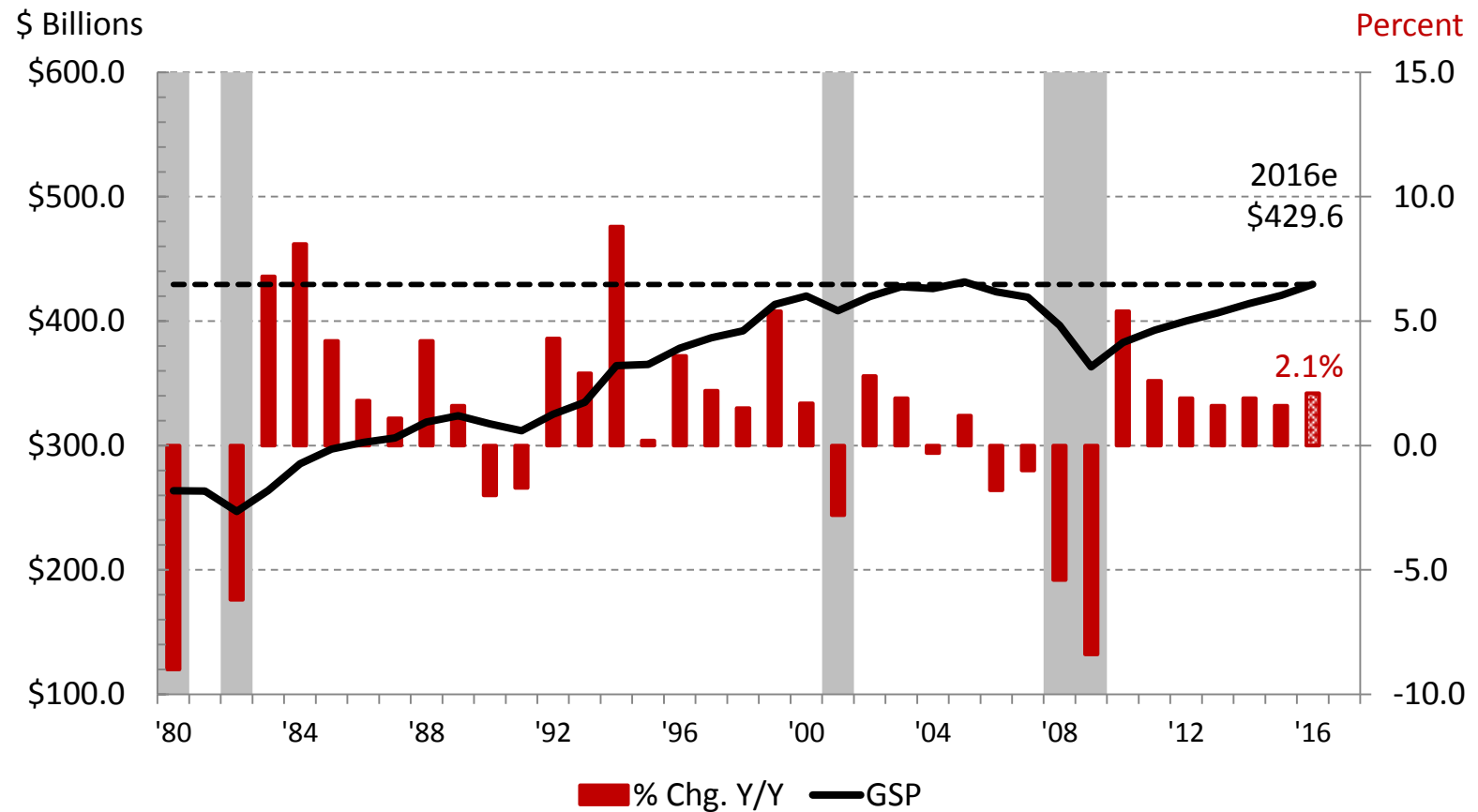
Source: Freddie Mac



# Michigan Economy

# Michigan Real GSP

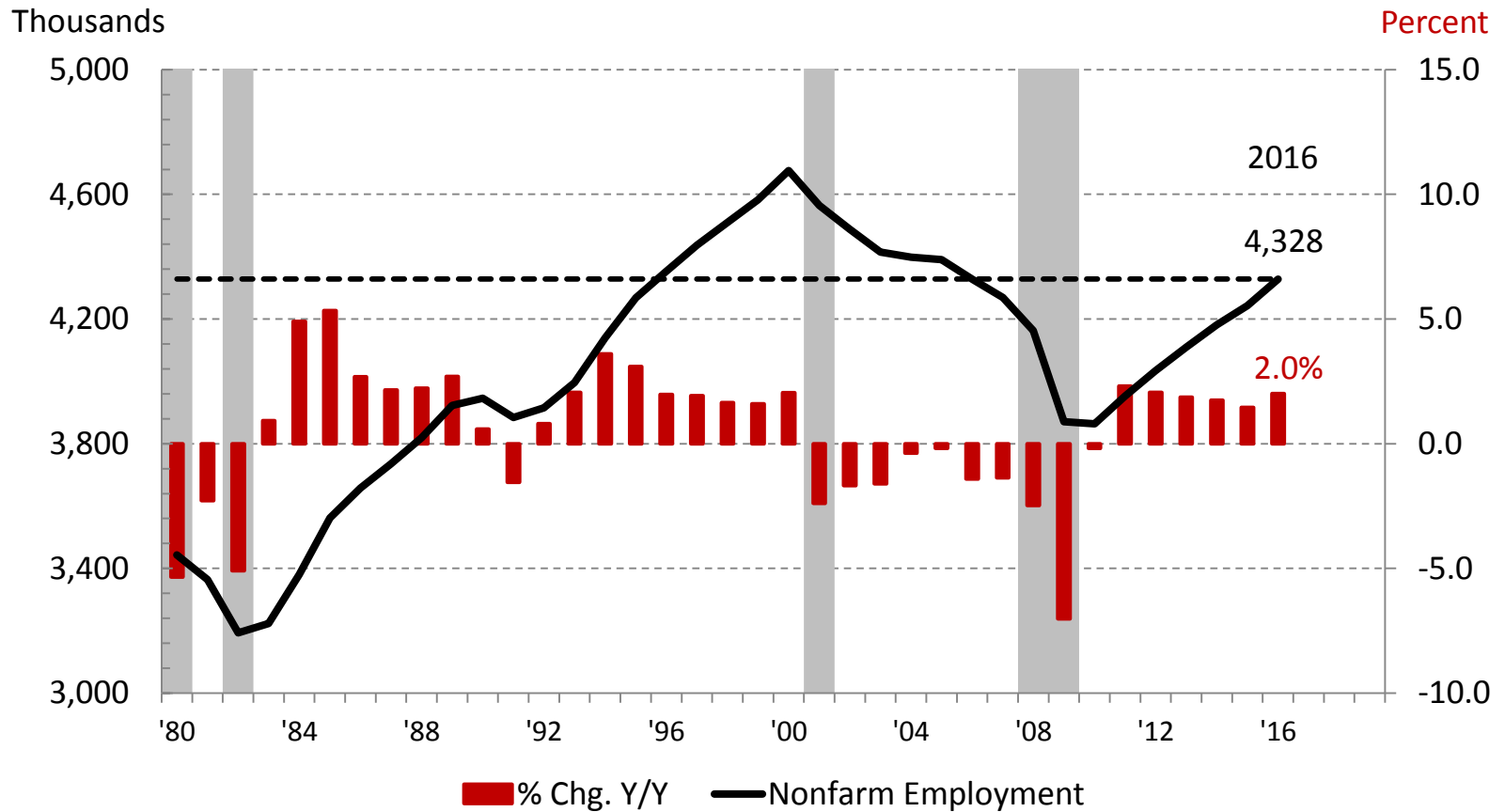
Billions Chained \$2009, % Change Q/Q at SAAR



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

# Michigan Nonfarm Employment

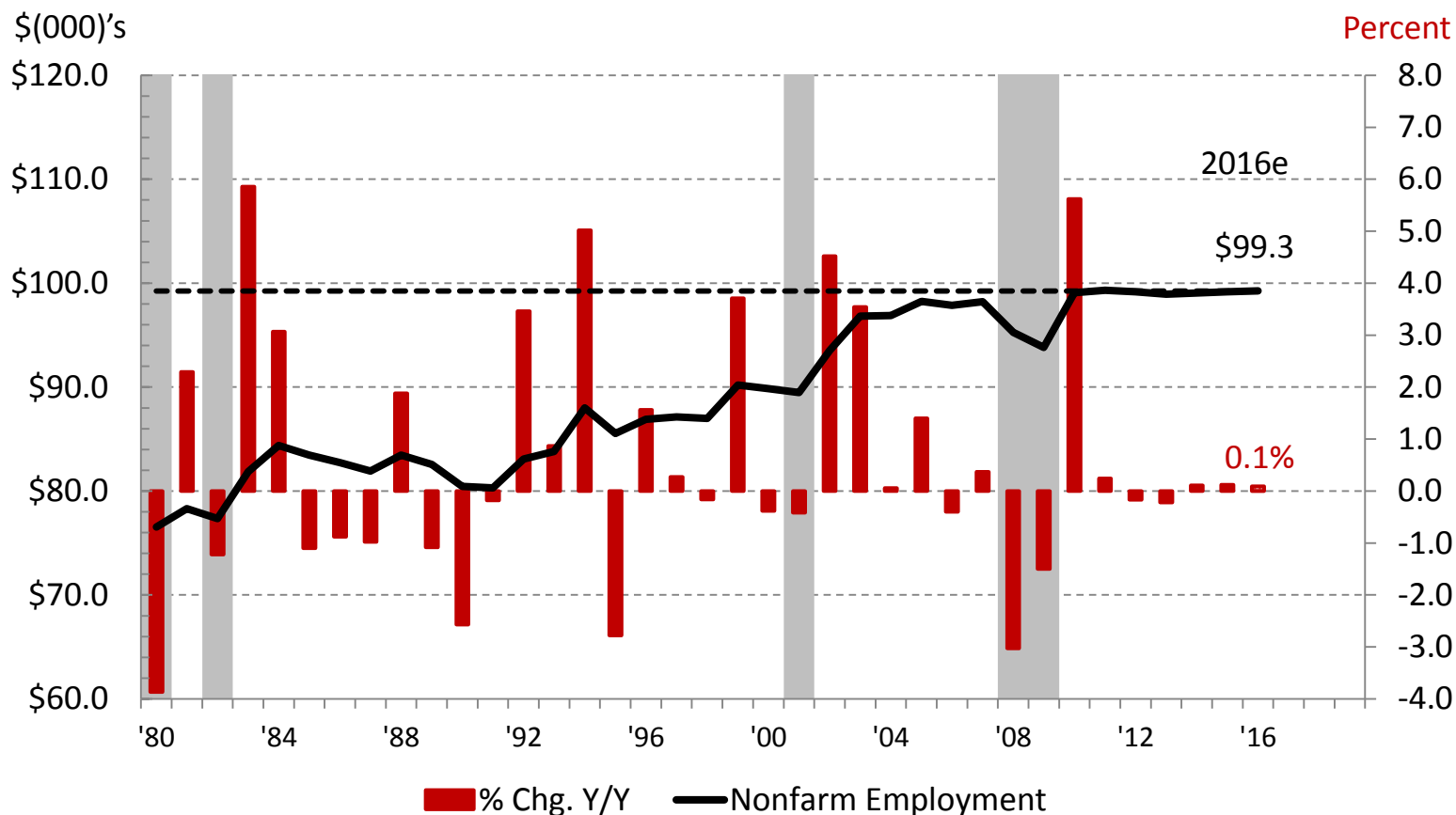
Billions Chained \$2009, % Change Q/Q at SAAR



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

# Michigan GSP Per Nonfarm Employment

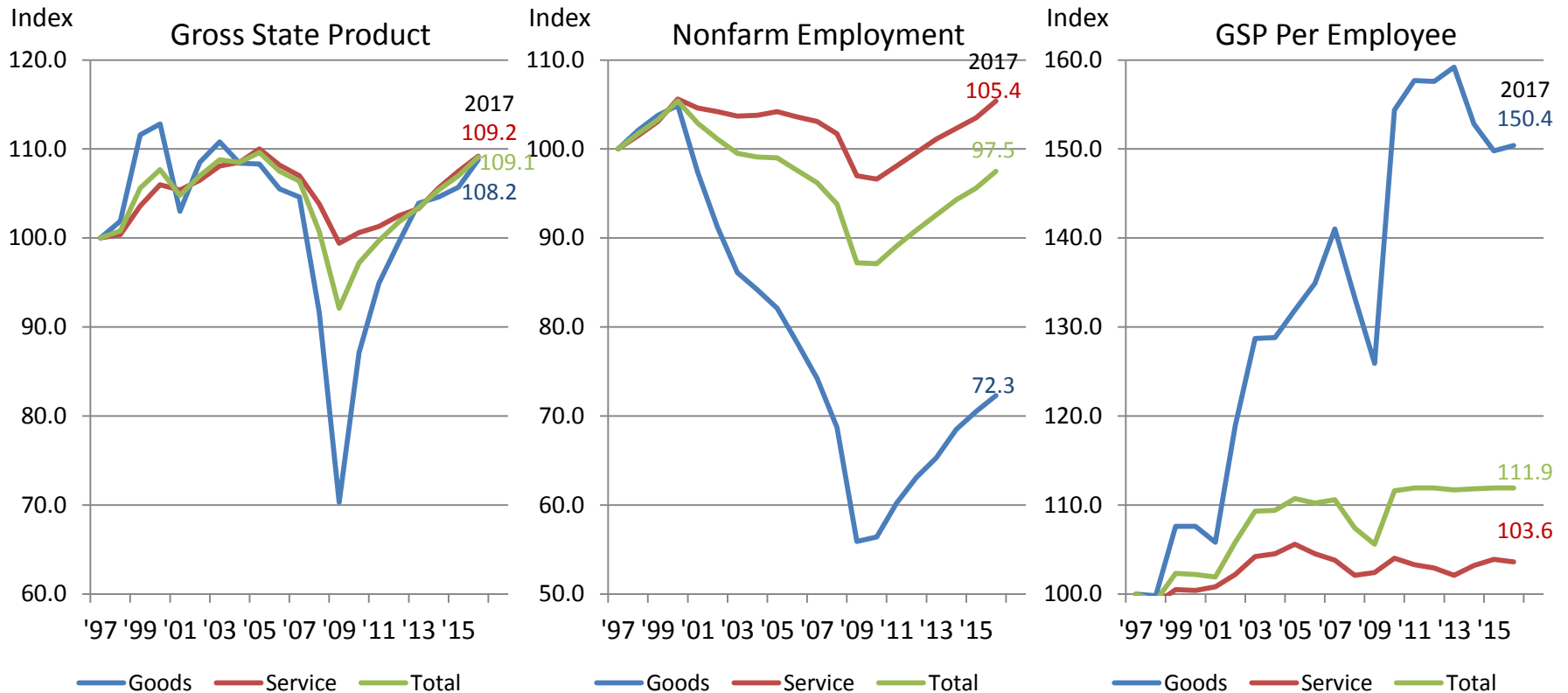
Thousands of Chained \$2009, % Change Y/Y



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

# Michigan Real GSP and Nonfarm Employment

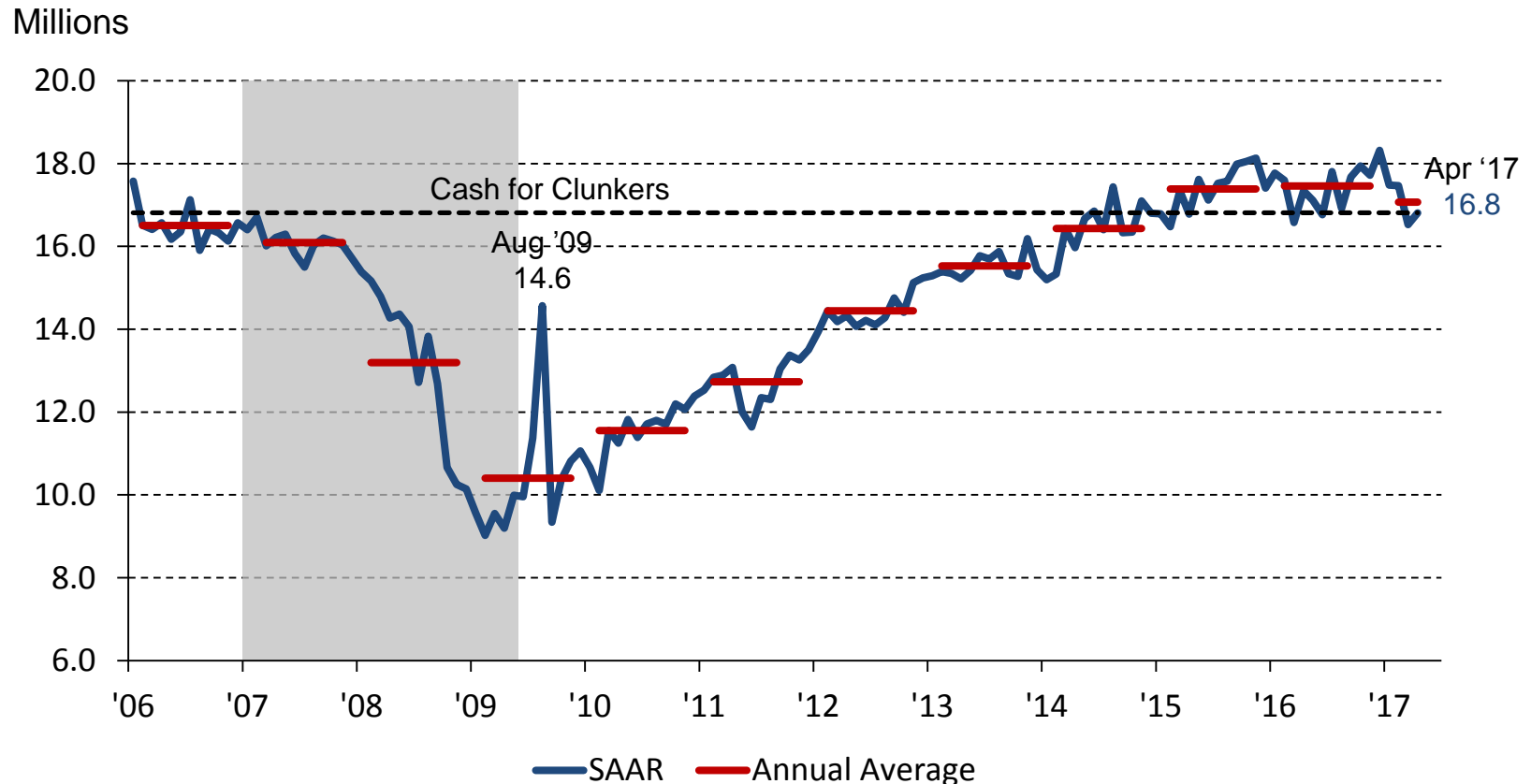
By Goods and Service Producing Sectors – Index, 1997 = 100



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

# U.S. Light Vehicle Sales

S.A.A.R – Millions of Units



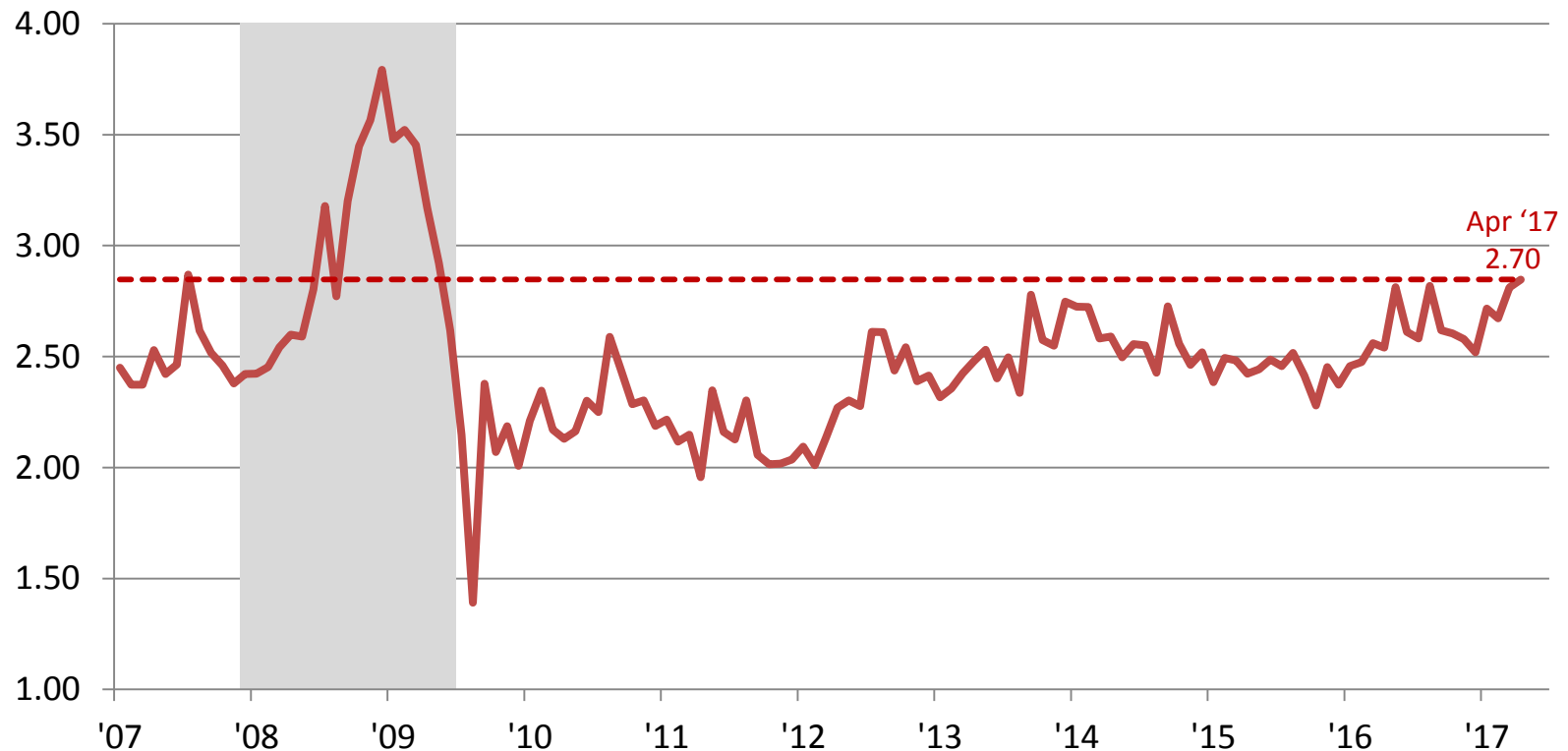
Note: Total 2016 Light Vehicle Sales: 17,465,020 / Including M/H: 17,866,260.

Source: Ward's Automotive and BEA

# Inventory to Sales Ratio

## Total Light Vehicles - SA

Percent



Source: U.S. Census Bureau and WardsAuto.

# U.S. Light Vehicle Incentives

As Percent of Transaction Price - SA

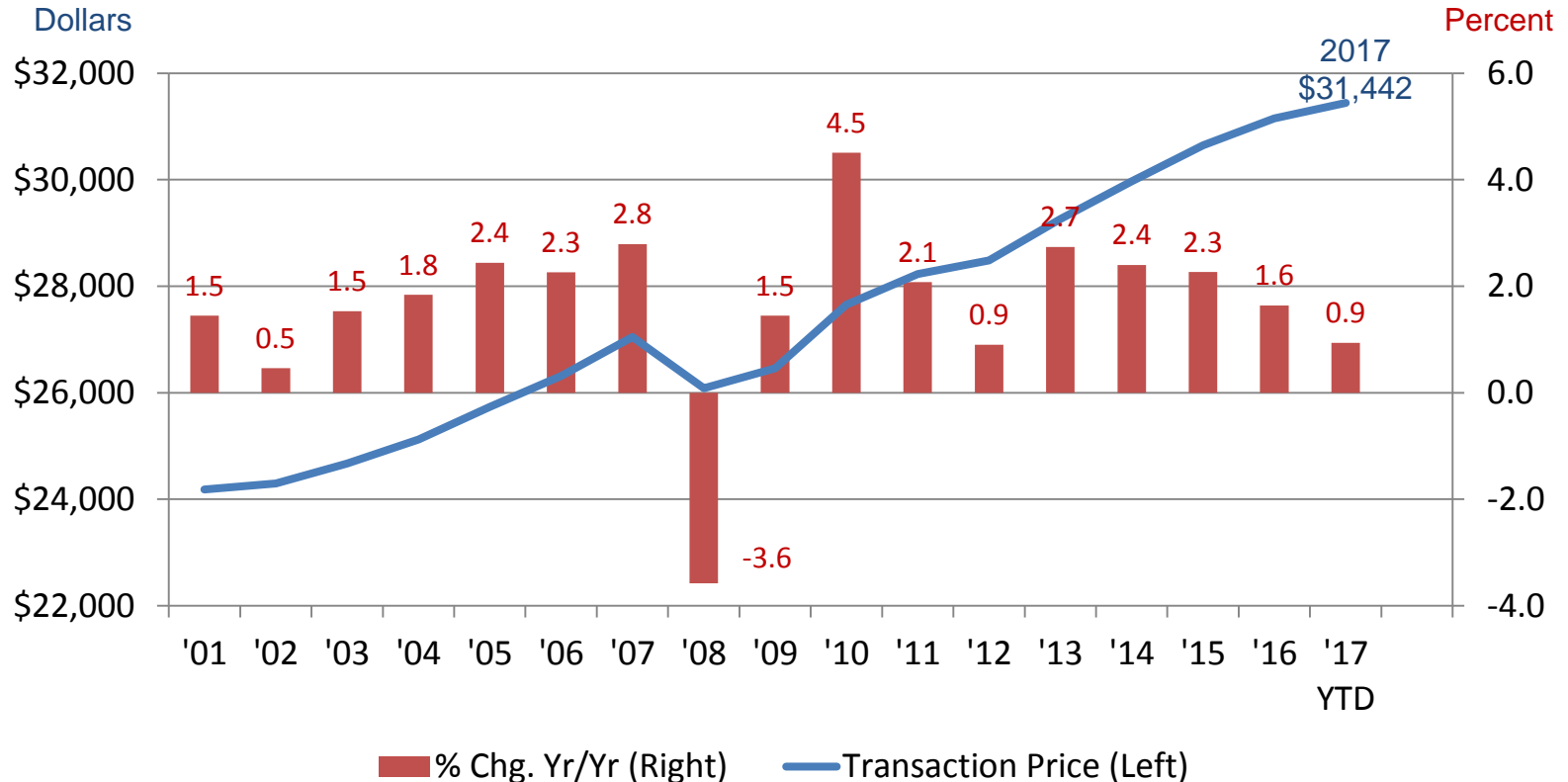


Source: Author's calculation using Ward's Automotive and J.D Power data.



# Light Vehicle Transaction Price

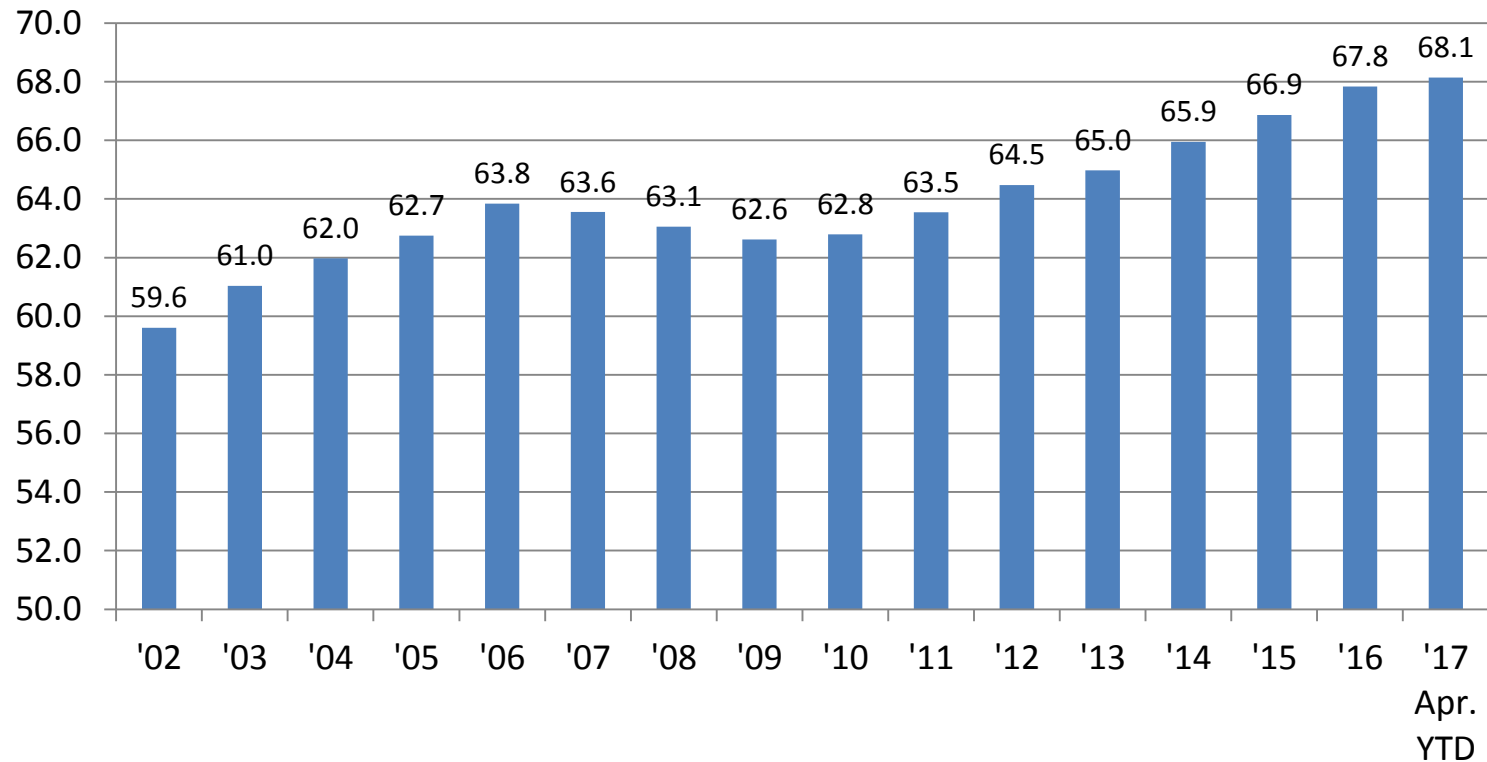
Annual Average & Percent Change Yr./Yr.



Source: Author's calculation using J.D Power data.

# Finance Term

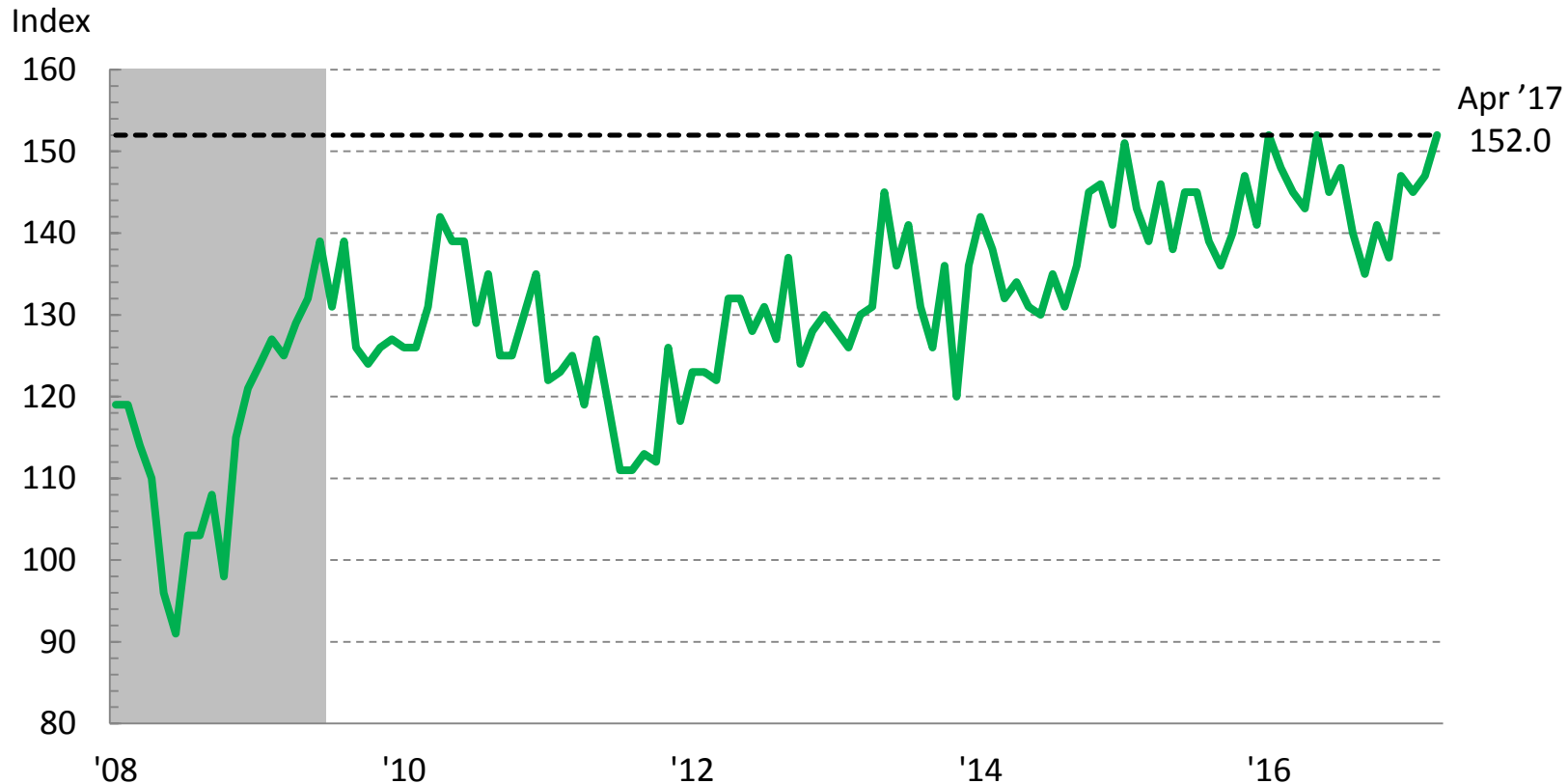
## Length of Loan in Months



Source: J.D Power data.

# Buying Conditions for Vehicles

University of Michigan

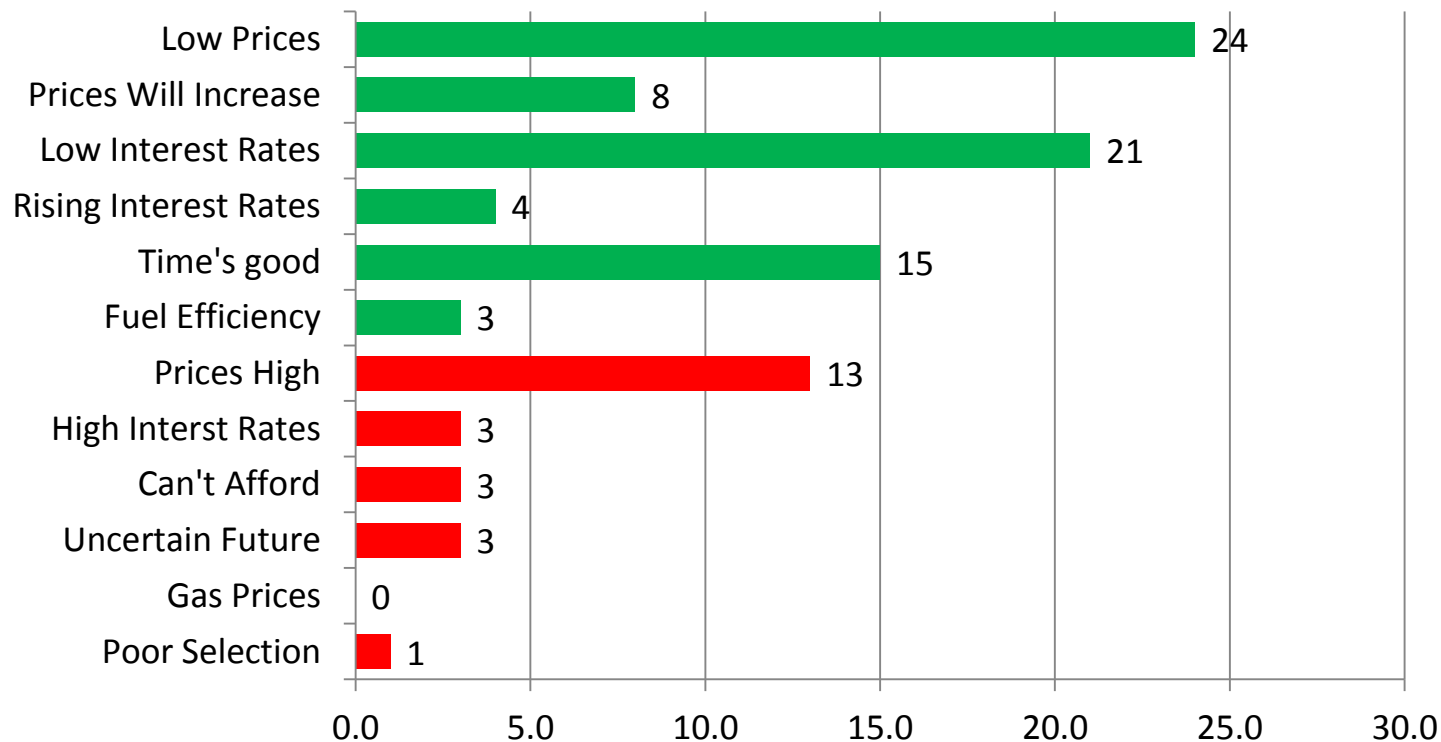


Source: Thomson Reuters / University of Michigan

# Reasons for Buying Conditions for Vehicles

University of Michigan – Survey of Consumers, April 2017

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

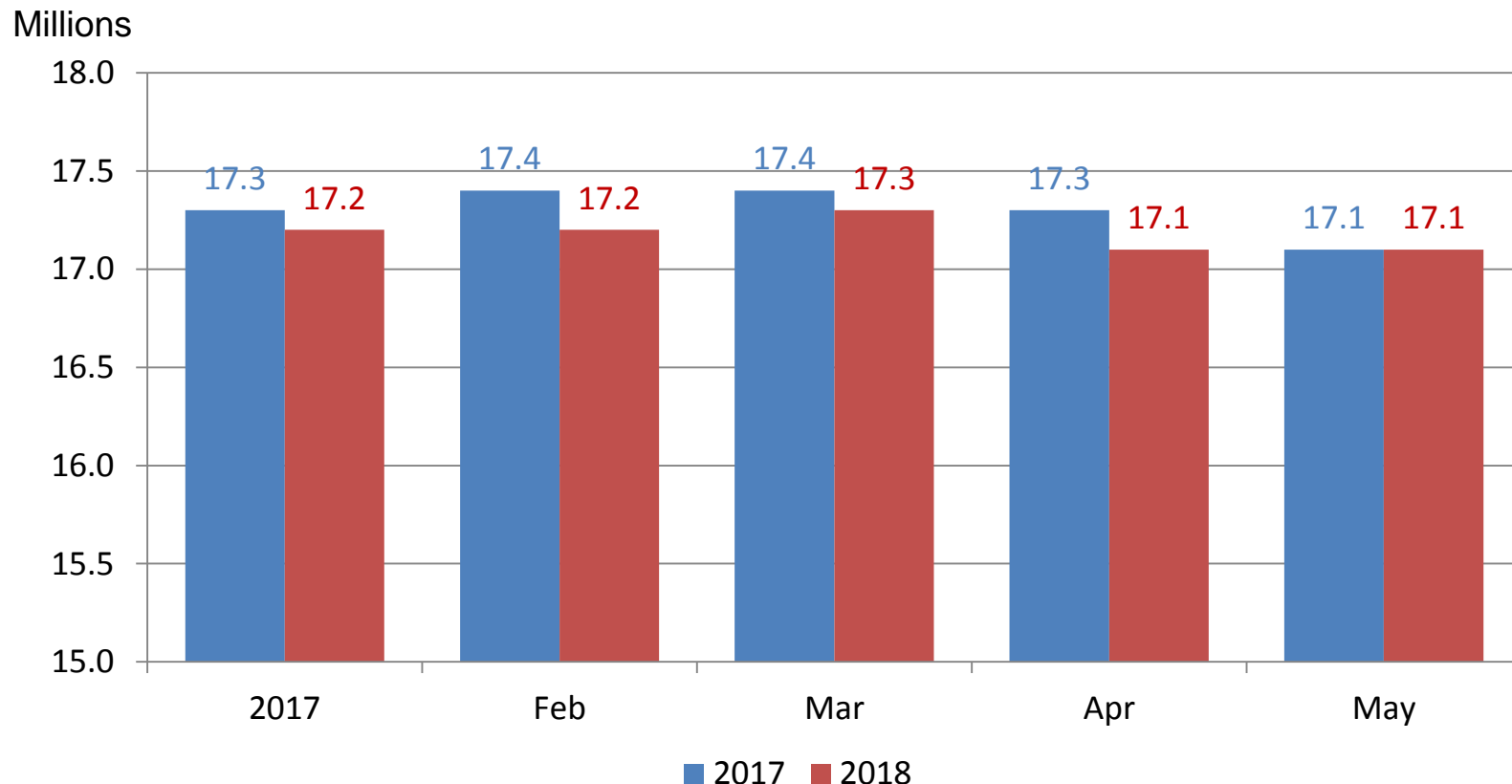


Note: May add to more than a 100 due to multiple mentions.

Source: University of Michigan Survey of Consumers

# U.S. Light Vehicle Sales

## 2017 & 2018 Forecast - Millions of Units

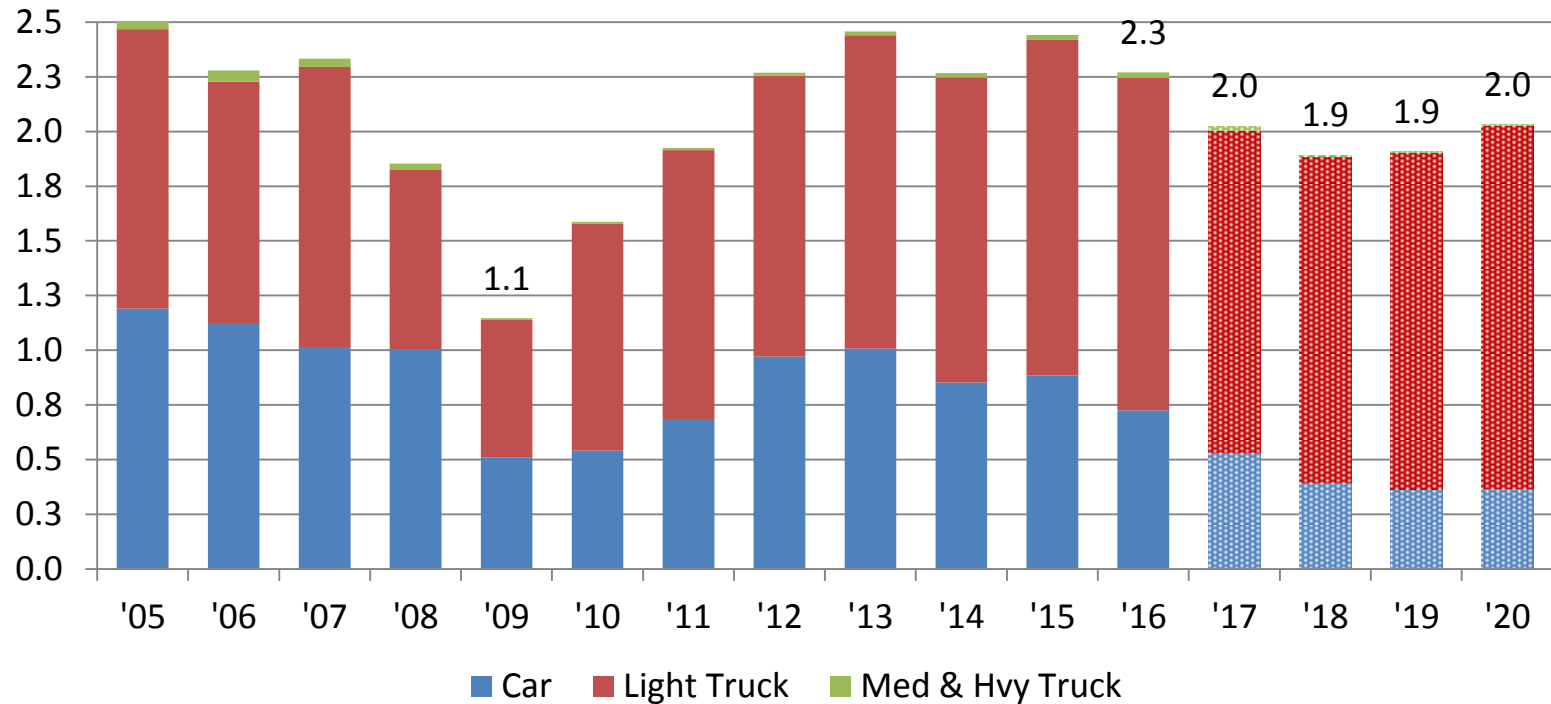


Source: Blue Chip Indicators – May, 2017 Consensus.

# Michigan Vehicle Production

Millions of Units

Millions



Note: 2016 Total Vehicle Production Including M/H: 18,148,667.

Source: Ward's Automotive

# Detroit-Warren-Dearborn MSA

Real GMP, Nonfarm Employment, and GMP Per Employee— Index, 1997 = 100

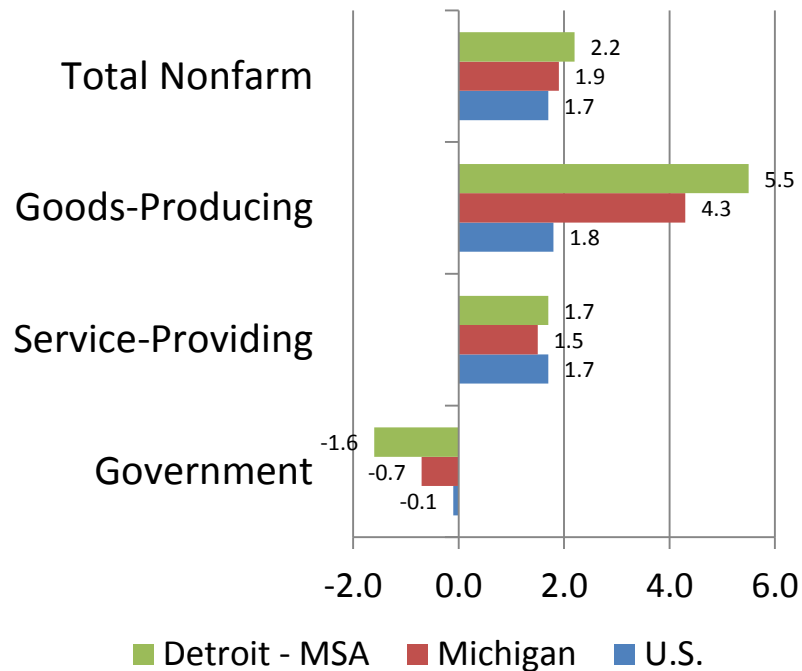


Source: Author's calculations using U.S. Bureau of Economic Analysis data.

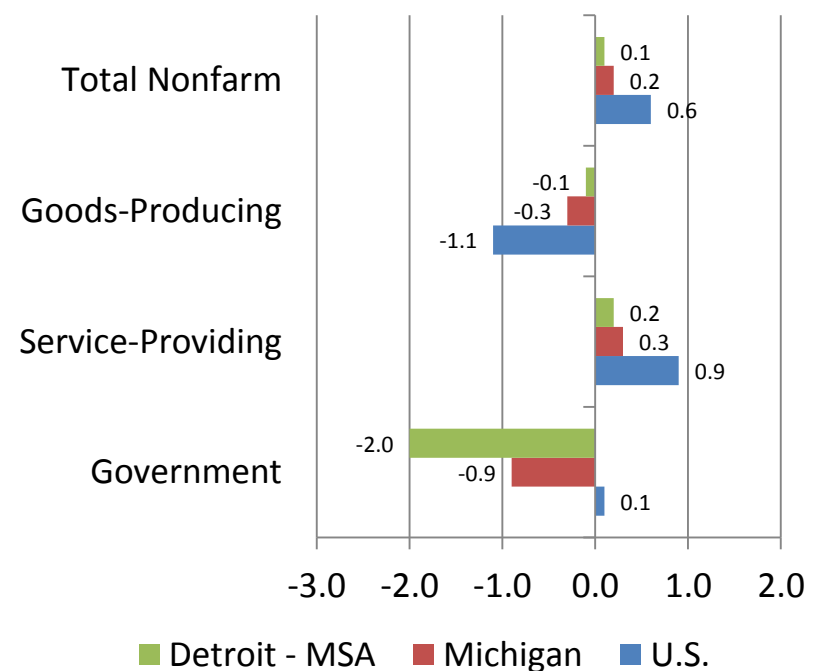
# U.S. Michigan, and Detroit MSA<sup>1</sup> Employment

## Compound Annual Growth Rate

CAGR - March 2010 to March 2017



CAGR - March 2007 to March 2017



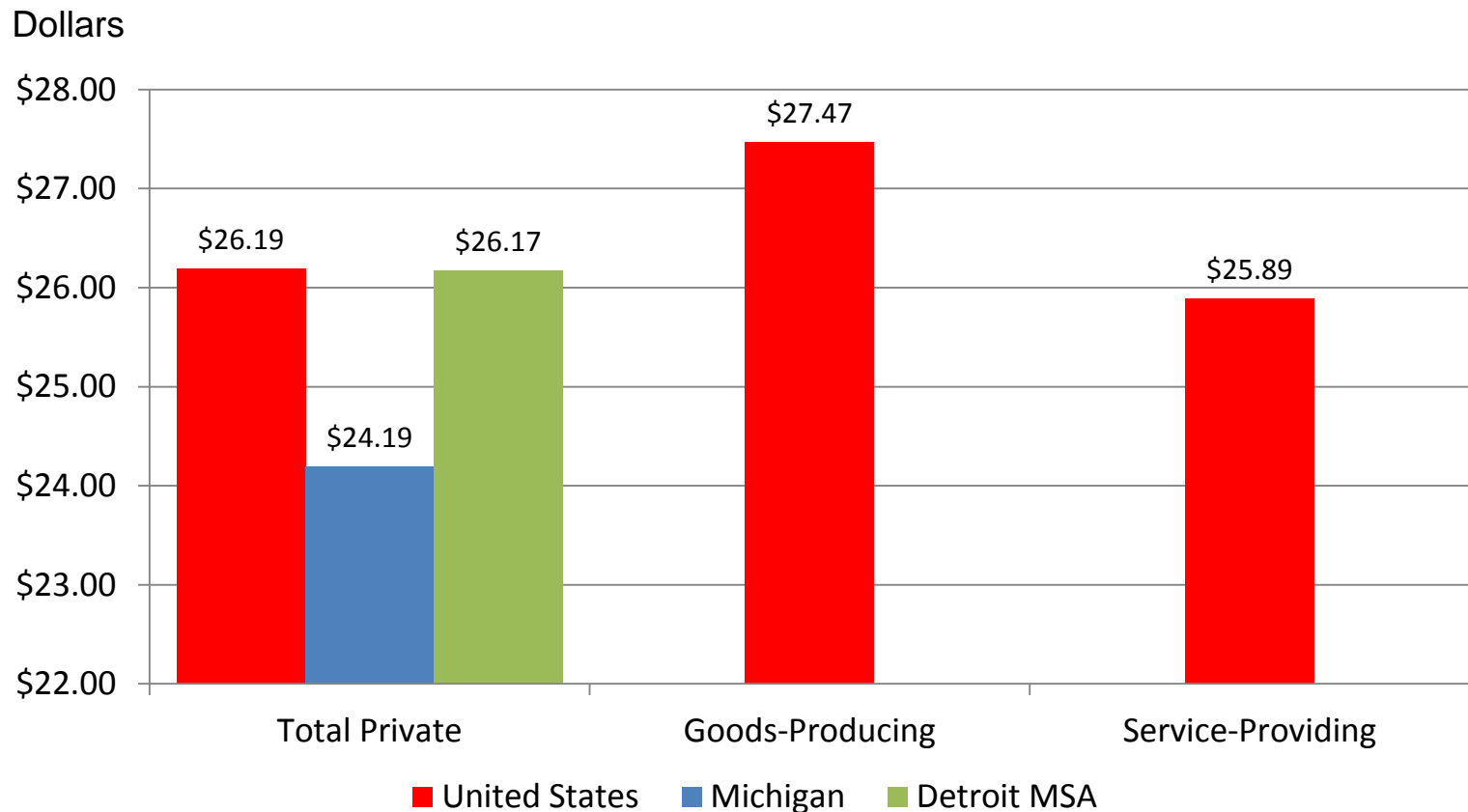
### 1. Detroit-Warren-Dearborn MSA

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



# Hourly Earnings

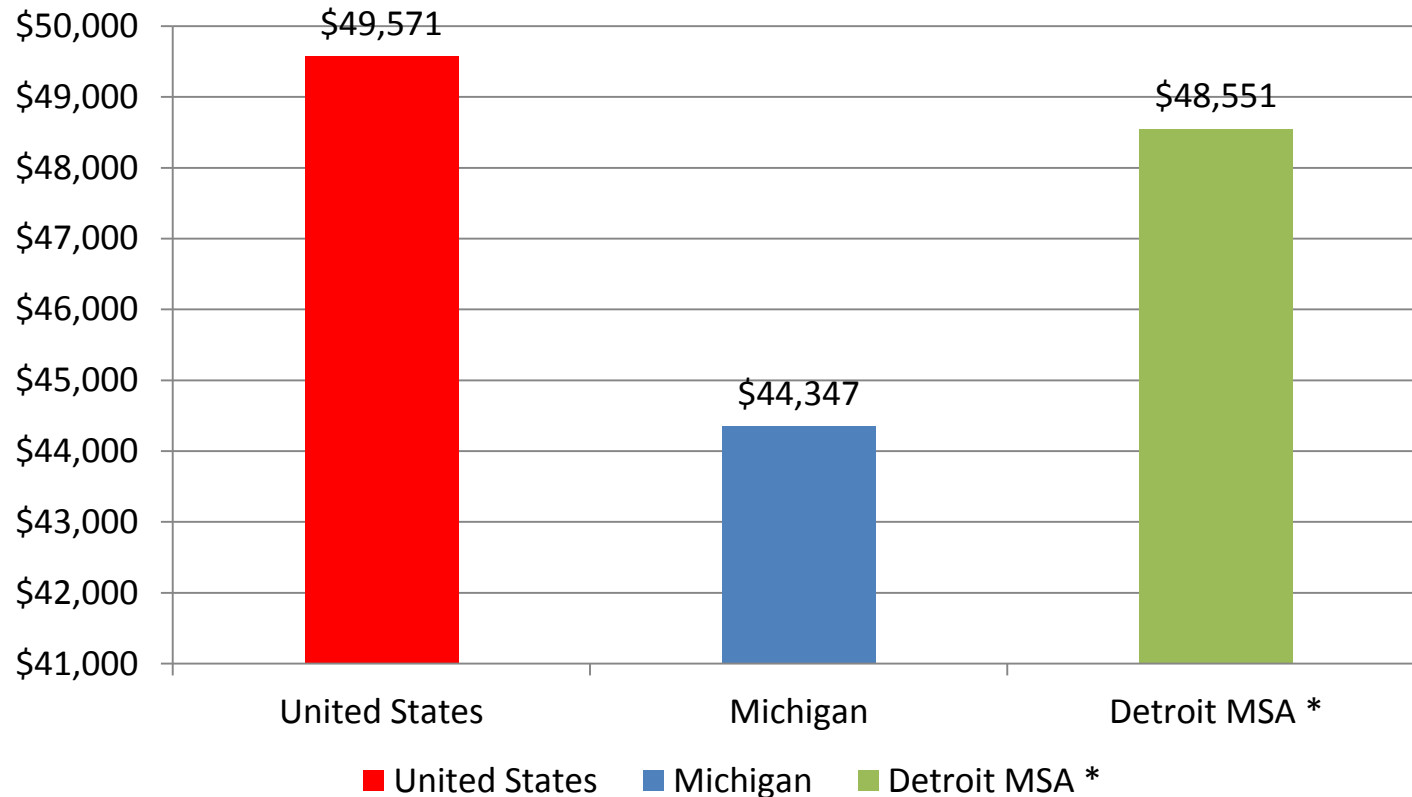
Total Private Average Hourly Earnings by Sector Total – In Current Dollars, March 2017



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

# Per Capita Income

United States, Michigan, and Detroit MSA, In Current 2016 Dollars



\* Detroit-Warren-Dearborn MSA – 2016 Per Capita Income Estimate

Source: U.S. Bureau of Economic Analysis data.

*Thank You!*

